



***CONSTRUCTION ENGINEERING AND
INSPECTION (CEI) SERVICES FOR ITS
INFRASTRUCTURE FOR EAST SELMON AND
WEST SELMON AND REL GROUNDING
PHASED DESIGN-BUILD PROJECTS***

THEA PROJECT No. O-1325

RESPONSIBLE DEPARTMENT

Judith Villegas, E.I.
ITS Manager

PROCUREMENT DEPARTMENT

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Notice: This document is constructed in four (4) sections. Section A contains the general information and general conditions the respondents needs to prepare an Expanded Letters of Response (ELOR) package. Section B contains service-specific information and specific response requirements. Section C contains forms required to be submitted as part of the ELOR package. Section D contains attachments incorporated into the ELOR package for general information and reference.

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
PROJECT NO. O-0824
Consultant Engineering and Inspection (CEI) Services for
ITS Infrastructure Project for East Selmon and West Selmon and REL Grounding
Phased Design Build Projects

The Tampa-Hillsborough County Expressway Authority (THEA) is soliciting responses from respondents that are Florida Department of Transportation (FDOT) pre-qualified to provide professional services for the Consultant Engineering and Inspection (CEI) Services for the Intelligent Transportation System (ITS) Infrastructure for East Selmon and West Selmon and REL Grounding Phased Build Projects (the "Services"). The ITS projects will install various ITS technology throughout THEA's Selmon Expressway such as Closed-Circuit Television (CCTV), Microwave Vehicle Detection (MVD), Roadside Units (RSUs) and Dynamic Message Signs (DMS) in Hillsborough County and provide grounding mitigation for pier uplighting units on the Reversible Elevated Lanes (REL). Only respondents with FDOT pre-qualifications for CEI Services listed below at the time of the submittal are eligible for selection:

Major Work:

FDOT Work Group 10.0

10.1 Roadway CEI

10.3 Construction Materials Inspection

10.4 Minor Bridge and Miscellaneous Structures CEI

6.3.2 Intelligent Transportation Systems Implementation

Selection will be made from the Expanded Letters of Response (ELOR) package and Oral Interviews. THEA will evaluate the ELOR packages and will shortlist a minimum of three (3) and a maximum of five (5) respondents that will proceed to Oral Interviews. In its sole and absolute discretion, THEA intends to award a contract to the respondent who is determined to be the most responsive and responsible in accordance with the evaluation process described herein.

Interested respondents will obtain a copy of the ELOR Instructions and Submittal Documents and submit a completed ELOR package to THEA as referenced in Paragraph 1.4, Schedule of Events.

ELOR packages shall include completion of the documents and required forms attached within this advertisement in Section C, Required Forms. Respondents failing to submit the Required Forms may be deemed non-responsive. The Schedule of Events containing additional important deadlines is located in the Instructions and Submittal Documents at Section A, Paragraph 1.4.

The Instructions and Submittal Documents are available on THEA's website and through the DemandStar System (www.demandstar.com).

Questions concerning this advertisement **must** be directed by email to THEA's Procurement Office at procurement@tampa-xway.com.

SECTION A

GENERAL INFORMATION AND GENERAL CONDITIONS

1. GENERAL INFORMATION:

1.1 INSTRUCTIONS TO RESPONDENTS:

To be considered, responses must be made in accordance with the instructions and requirements as contained within this advertisement's corresponding sections.

1.2 ATTACHMENTS:

The attachments listed in Section D of this advertisement are by this reference hereby incorporated into and made a part of this advertisement as though fully set forth herein.

1.3 PROCUREMENT PROCESS:

The procurement process that will be utilized for this selection will be Expanded Letters of Response (ELOR) packages and oral interviews. It is THEA's intention to solicit responses from potentially qualified respondents and to enter into a contract for services upon successful negotiation of a satisfactory contract with the respondent whose response is judged, through the evaluation and negotiation process, to be in the best interest of THEA in its sole and absolute discretion.

Respondents must demonstrate to THEA that they are fully capable, staffed, and qualified to provide the services required by this advertisement. Fully qualified respondents (and/or their team assigned to provide these Services) will have the qualifications (knowledge, education, training, expertise, and skills), and experience (documentation, successful, and relevant) necessary to meet the requirements of this advertisement. Determination of the respondent best qualified and experienced to perform the services required through this advertisement will be determined by THEA in its sole opinion and absolute discretion.

Respondents must submit an "Expanded Letters of Response (ELOR) Package" conforming to and containing all documents, forms, and information as required by the Expanded Letters of Response (ELOR) Instructions and Submittal Documents and as specifically identified in Section B, Service Information and Expanded Letters of Response (ELOR) Requirements at Section 2.1, Expanded Letters of Response (ELOR) Package.

THEA will evaluate the ELOR packages and will shortlist a minimum of three (3) but not more than five (5) respondents that will proceed to Oral Interviews.

THEA will evaluate and rank all responses received by the submittal date as set forth in this advertisement, or as amended by addendum, on the basis of the criteria stated herein. THEA reserves the right to request additional information and to seek clarification of any information submitted, including any omission from the original response. Additionally, THEA reserves the right to waive as informalities any irregularities in any response and to reject any and/or all responses, in its sole and absolute discretion. The highest-ranked respondents will proceed to Oral Interviews. THEA contemplates engaging one respondent and will commence contract negotiations with the top ranked respondent. If a satisfactory agreement cannot be negotiated with the top ranked respondent, then negotiations would begin with the next highest ranked respondent if so recommended by the Evaluation Committee and approved by the Board of Directors.

1.4 SCHEDULE OF EVENTS:

The selection process will adhere to the following schedule. All times given are Eastern Standard Time. THEA reserves the right to make changes or alterations to the schedule as THEA determines in its best interest. Unless otherwise notified in writing by THEA, the dates, times, and locations indicated below for submission of items or for other actions on the part of a respondent shall constitute absolute deadlines for those activities, and failure to fully comply by the time stated shall be cause for the respondent's Expanded Letters of Response (ELOR) package to be rejected and disqualified from further consideration.

**SCHEDULE OF
EVENTS**

DATE	DESCRIPTION	LOCATION
November 19, 2024, by 5:00 PM	Advertisement Published	THEA Website & Demandstar
December 9, 2024 @ 1:15 PM	Mandatory Scope of Services Meeting	THEA Office 1101 E. Twiggs Street, Suite 300 Tampa, FL 33602
December 13, 2024, by 9:00 AM	Deadline for Respondent's submission of questions to THEA	Email to Procurement@tampaxway.com
December 20, 2024, by 5:00 PM	Deadline for THEA to respond to Respondent's questions	THEA Website & Demandstar
January 8, 2025, by 9:00 AM	Deadline for Submitting Expanded Letters of Response (ELOR)	Email to Procurement@tampaxway.com
January 17, 2025, by 12:00 PM	Evaluation Committee submits scoring of ELORs to THEA Procurement Office	Email to Procurement@tampaxway.com
January 21, 2025, @ 1:15 PM	Evaluation Committee confirms ranking and discussion of ELOR packages of shortlisted respondents	THEA Office 1101 E. Twiggs Street, Suite 300 Tampa, FL 33602
January 22, 2025, by 5:00 PM	Posting of Notice Intended Shortlist	THEA Website & Demandstar
January 27, 2025, @ 1:30 PM	Board Approval of Shortlist Ranking	THEA Offices 1101 E. Twiggs Street Tampa, FL 33602
February 6, 2025	Oral Interviews with Shortlisted respondents- In Person	THEA Office 1101 E. Twiggs Street Tampa, FL 33602
February 6, 2025	Evaluation Committee Meeting directly following last interview	THEA Office 1101 E. Twiggs Street Tampa, FL 33602
February 14, 2025, by 9:00 AM	Evaluation Committee submits final scores to THEA Procurement Office	Email to Procurement@tampaxway.com
February 18, 2025, @ 1:15 PM	Evaluation committee meets to confirm final scores and final ranking of respondents	THEA Office 1101 E. Twiggs Street, Suite Tampa, FL 33602
February 19, 2025, by 5:00 PM	Posting of Notice of Intended Final Ranking	THEA Website & Demandstar

February 24, 2025, @ 1:30 PM	Board Approval of Final Ranking and Award of Contract	THEA Board Room 1101 E. Twiggs Street Tampa, FL 33602
February 25, 2025, by 5:00 PM	Posting of Final Ranking	THEA Website & Demandstar
March 3, 2025, @ 9:00 AM	Scope Clarification Meeting & Negotiations	THEA Offices 1101 E. Twiggs Street Tampa, FL 33602

1.5 CHANGES TO SCHEDULE OR MEETING PLACE/TIME:

Any changes to paragraph 1.4 Schedule of Events or meeting place/time will be posted as an Addendum and published through the DemandStar System (www.demandstar.com) and is also available through a link on the THEA website (www.tampa-xway.com) under the Procurement Notice section.

1.6 SPECIAL ACCOMMODATIONS:

Any person requiring special accommodations to attend or participate in a THEA meeting regarding this advertisement, pursuant to the Americans with Disabilities Act, should contact the THEA Procurement Manager in person at 1104 East Twiggs Street, Suite 300, Tampa, Florida 33605 or by telephone at 813-272-6740, or by email at Procurement@tampa-xway.com at least five (5) business days prior to the scheduled meeting.

1.7 ELECTRONIC DISTRIBUTION SYSTEM:

THEA advertisements for solicitations are issued electronically via the THEA Website (<https://www.tampa-xway.com/procurement/#>) and Demand Star's eProcurement distribution system. (DemandStar Contact Information: Telephone: 800-711-1712 /www.demandstar.com)

Obtaining solicitations documents through DemandStar ensures respondents have the following capabilities:

- a) Receipt of Expanded Letters of Response (ELOR) Instructions and Submittal Documents electronically;
- b) Tracking status of the procurement process;
- c) Receiving Letters of Clarification and addendum;
- d) Receiving the results of rankings and contract awards;
- e) Viewing drawings, plans and blueprints online.

RESPONDENTS WHO OBTAIN SOLICITATION DOCUMENTS REGARDING THIS SOLICITATION FROM SOURCES OTHER THAN DEMANDSTAR OR THE THEA WEBSITE ARE CAUTIONED THE SOLICITATION PROCUREMENT DOCUMENTS MAY BE INCOMPLETE.

ATTACHMENTS, EXHIBITS, AND/OR REFERENCES NOT ATTACHED HERETO WILL BE SUPPLIED UPON REQUEST AND SHARED VIA A ONEDRIVE FILE SHARE OR IN-PERSON PICKUP OF A FLASH DRIVE AT THE THEA HEADQUARTERS OFFICE. PLEASE CONTACT THE PROCUREMENT OFFICE AT PROCUREMENT@TAMPA-XWAY.COM TO REQUEST YOUR LINK.

1.8 QUESTIONS ABOUT THIS ADVERTISEMENT OR THE SERVICES:

All requests for interpretation, clarification or questions about the procurement process or the

services **must be in writing**, addressed to THEA, Procurement Office at Procurement@tampa-xway.com.

To be considered, such requests must be received no later than the date and time stated for the **Deadline for Respondent's Submission of Questions to THEA** referenced in Paragraph 1.4, Schedule of Events.

THEA will **not** make any oral response to requests for interpretation, clarification or questions about the procurement process or the Services.

Any such responses or supplemental instructions by THEA to the respondents will be in the form of a Letter of Clarification or written addendum which if issued, will be posted on the DemandStar System (www.demandstar.com) and the THEA website no later than the date and time stated for the **Deadline for THEA to respond to respondent's questions** referenced in Paragraph 1.4, Schedule of Events.

Failure of any respondent to receive any such Letter of Clarification or Addendum shall not relieve said respondent from any obligations contained within this solicitation.

Respondents are required to acknowledge receipt of any such addendum issued for this solicitation. A copy of the required **ACKNOWLEDGMENT OF RECEIPT OF ADDENDUM** is contained in Section C as **Form 8**.

All Letters of Clarification and Addendum so issued shall become part of the Contract documents.

1.9 COMMUNICATIONS/CONE OF SILENCE:

Respondents to this solicitation or persons acting on their behalf **may not** contact members of the Evaluation Committee, other THEA staff, THEA officers or THEA Board Members, or the consultants or contractors representing THEA with this solicitation once the advertisement of the solicitation has been published and until the THEA Board of Directors has made a final decision regarding the award of the contract.

Any communications regarding this advertisement must be in writing to THEA, Attention Procurement Office at procurement@tampa-xway.com.

Violation of this provision shall be cause for the respondent's ELOR package to be rejected and disqualified from further consideration.

1.10 MODIFICATION AND WITHDRAWAL:

ELOR packages may be withdrawn by written request dispatched by the respondent and received by THEA at any time prior to the deadline stated for the **Deadline for submitting Expanded Letters of Response (ELOR) Package** referenced in Paragraph 1.4, Schedule of Events.

Negligence on the part of the respondent in preparing its ELOR package confers no right of withdrawal or modification after the ELOR package has been opened at the appointed time and place by THEA.

ELOR packages shall remain valid and in force for a period of one-hundred twenty (120) days after the opening date.

1.11 DISQUALIFICATION AND CANCELLATION OF THIS SOLICITATION:

THEA reserves the right to disqualify ELOR packages before or after opening, upon evidence of collusion with the intent to defraud or other illegal practices upon the part of the respondent.

THEA may consider any ELOR package unresponsive that is not prepared and submitted in accordance with the instructions as contained within this solicitation and may waive as informalities any irregularities, or reject any and all responses, at its sole and absolute discretion.

THEA reserves the right to reject, at its sole and absolute discretion, an ELOR Package if the evidence submitted by the respondent or an investigation of the qualifications and/or experience of the respondent fails to satisfy THEA's Evaluation Committee that such respondent is sufficiently qualified or experienced to carry out the obligations as required in the solicitation. THEA also reserves the right to reject all ELOR package to the solicitation, in its sole and absolute discretion.

THEA reserves the right to reject any or all ELOR Packages as not responsible or non-responsive; to re-advertise for the services; to postpone or cancel this process; to waive irregularities in the procurement process or in the ELOR Package thereto; and to change or modify the procurement schedule at any time.

1.11.1 Examples of **not responsible** may include, without limitation, termination of a previous contract with THEA, financial weakness, or multiple legal actions taken against the respondent.

1.11.2 Examples of **non-responsive** may include, without limitation, failure to include all required information in response package, documents not properly signed, goods or services not in compliance with specifications, substitution of terms and conditions, limitation of liability, failure to comply with delivery schedule or qualification of response package contingent on another contract award.

1.12 WAIVER OF IRREGULARITIES:

THEA reserves the right to waive as informalities any irregularities contained in any ELOR package received where such is merely a matter of form and not substance, and the correction or waiver of which is not prejudicial to other respondents. Minor irregularities are defined as those that will not have an adverse effect on THEA's interest and will not give a respondent an advantage or benefit not enjoyed by other respondents.

1.13 BINDING OFFER:

Respondent's submission of an ELOR package will be considered a binding offer to perform the required services, assuming all terms are negotiated satisfactorily. The submission of an ELOR package shall be taken as prima facie evidence that the respondent has familiarized itself with the contents and requirements of this Advertisement.

1.14 MANDATORY SCOPE OF SERVICES MEETING:

Attendance at the Scope of Services Meeting is mandatory. Any respondent failing to attend may be deemed non-responsive and eliminated from further consideration at the discretion of THEA. The purpose of the Scope of Services Meeting is to provide a forum for all concerned parties to discuss the proposed project, answer questions on the scope of services, method of compensation, instructions for submitting proposals, and other relevant issues. The meeting may be attended by representatives of the respondent, as appropriate, the project manager, and other functional area representatives (as necessary), and facilitated by the Procurement Office. THEA's project manager will explain and answer questions to clarify project objectives. Procurement will establish a Q&A cutoff date at the meeting. No questions will be answered relating to the project objectives after the Q&A cutoff date. The respondents will be instructed as to where to direct all questions after the Scope of Services meeting.

1.15 COST OF PREPARATION:

The cost of preparing an ELOR package to this solicitation shall be borne entirely by the respondent.

1.16 DELIVERY OF ELOR PACKAGE:

The deadline for delivery of respondent's ELOR is no later than the date and time stated for the **Deadline for Submitting Expanded Letters of Response (ELOR) Package** referenced in Paragraph 1.4, Schedule of Events.

The delivery of respondent's ELOR Package to THEA prior to the deadline is solely and strictly the responsibility of the respondent.

All ELOR packages shall be delivered using the method stated in the **Deadline for Submitting Expanded Letters of Response (ELOR) Package** referenced in Paragraph 1.4, Schedule of Events.

All ELOR packages must be submitted in accordance with the instructions set forth within the Advertisement Instructions and Submittal Documents and specifically in accordance with the requirements of Section B.

Any ELOR package received after the date and time stated for the **Deadline for Submitting Expanded Letters of Response (ELOR) Package** referenced in Paragraph 1.4, Schedule of Events, will not be considered.

1.17 OPENING OF ELOR PACKAGES:

ELOR packages will be received and opened on the date and time and at the location specified for the **Deadline for Submitting Expanded Letters of Response (ELOR) Package** referenced in Paragraph 1.4, Schedule of Events. The Procurement Office will conduct examinations of ELOR Packages for responsiveness to requirements of the RFP. Those determined to be non-responsive and not responsible will be automatically rejected. Responsive packages will be delivered to the Evaluation Committee to be evaluated.

1.18 ELOR EVALUATIONS:

Respondents will be evaluated preliminarily on whether the respondent is responsible and responsive to this solicitation and then evaluated based on criteria that will be used by THEA for final ranking of the respondents.

An Evaluation Committee consisting of representatives of THEA will be established to review and evaluate all ELOR Packages submitted in response to this solicitation. THEA reserves the right to request additional information and clarification of any information submitted, including any omission from the original response.

The Evaluation Committee will meet to confirm their scores of the ELOR Packages and Shortlist a minimum of three (3) and a maximum of five (5) respondents on the date, time and at the location stated for the **Evaluation Committee meets to confirm ELOR Package scores** referenced in Section A, Paragraph 1.4, Schedule of Events. In the event THEA receives fewer than three proposals, all respondents will be shortlisted. Respondents are not required to attend; however, the meeting is open to the public.

Criteria for evaluating the ELOR Packages to shortlist respondents are as follows:

	SHORTLIST EVALUATION CRITERIA	Maximum Points
1.	<p><u>Understanding the Scope</u> The respondent shall demonstrate their understanding of the scope of services including any unique issues involved in the construction project and their ability to meet the challenges. Assumptions (if any) should be clearly stated.</p>	25
2.	<p><u>Qualifications and Experience of Key Personnel</u> The respondent shall discuss the availability of qualified staff.</p> <ul style="list-style-type: none"> • Provide the name of the proposed CEI Senior Project Engineer, CEI Project Administrator/Project Engineer and names and roles of key personnel • Provide the credentials/expertise/experience of the Senior Project Engineer, Project Administrator/Project Engineer and other key individuals who are specifically licensed and/or CTQP certified to perform and/or oversee the work detailed in the scope of services • Explain the organization of its team and functional responsibilities of each subconsultant <p>Discuss the staffing quality and availability, individuals experience on similar projects</p>	30
3.	<p><u>Quality Assurance</u> The respondent shall demonstrate their implementation and commitment to a Quality Assurance Program that is specific to this project and meets the requirements of the scope of services.</p> <ul style="list-style-type: none"> • Discuss key aspects of the respondent's QA program that are most important to its success on this project. • Present their project review and QA/QC approach. Include discussion on types of documents to be reviewed, frequency of reviews, official and unofficial reviews • Discuss project QA/QC responsibilities 	20
4.	<p><u>Communication</u> The respondent will discuss THEA's ability to communicate with the respondent's CEI Project Administrator/Project Engineer and Senior Project Engineer and their commitment in responding to THEA.</p> <ul style="list-style-type: none"> ▪ Discuss their innovative approach to timely review and submittal of contractor invoices, THEA personnel action requests, and committing requested personnel in a timely manner. The respondent shall discuss their communication with their subconsultants. The respondent will discuss their approach to communicating with THEA and with the public. ▪ Discuss their approach to communications with the Design-Build Firm and how the communication will be handled between the design phase and the construction phase of the project, including issue escalation. 	20
5.	<p><u>Workload:</u> The respondent shall discuss its recent, current and projected workload, as well as, workforce availability to undertake THEA work.</p> <ul style="list-style-type: none"> • Identify other current and projected work that the respondent has or is pursuing and their impact on the staffing for this project 	5
	TOTAL:	100

The 100 total points are for scoring of the shortlist firms only and will not carry over to the Evaluation Criteria in Section 1.19.

After ranking of the respondents by the Evaluation Committee, the results will be posted no later than the date, time and at the locations stated for the **Posting of Notice of Intended Shortlist** referenced in Section A, Paragraph 1.4, Schedule of Events.

The ranking of respondents based on the Evaluation Committee's evaluation will be presented to THEA's Board of Directors for consideration and approval, with a recommendation, that the top ranked respondents (minimum of three (3)) be shortlisted to advance to the Oral Interviews

in Paragraph 1.18.

1.18 INTERVIEWS:

Interviews will be used to select the successful respondent from an initial shortlist. During the Oral Interview, the Evaluation Committee will ask questions that will assist in evaluating the capability of the respondent and key staff to provide the desired Services. Attendance at the Oral Interview is limited to six (6) attendees. Only the respondent's project manager and other key staff providing the Services should be present.

The order of the interviews will be established by random drawing by the Procurement Office. A representative of the Procurement Office shall facilitate the interviews, be the timekeeper during the meeting, and ensure the respondents adhere to the time constraints set forth in this section.

Each shortlisted respondent will be allotted 5 minutes for opening statements, followed by a 45-minute Oral Interview. A Question-and-Answer session or clarifying questions by the Evaluation Committee will be held until the end of the interview if time permits.

No handouts or visual aids other than business cards are permitted before, during, or after the interview. Consultants are not permitted the use of smartphones, laptops, and tablets during the Interview.

1.19 EVALUATION CRITERIA:

The Evaluation Committee will meet to confirm their scores of the Oral Interviews and final ranking of the respondents on the date, time and at the location stated for **Evaluation Committee Meets to Confirm Scores and Final Ranking of Respondents** referenced in Section A, Paragraph 1.4, Schedule of Events. Respondents are not required to attend; however, the meeting is open to the public.

The Oral Interviews will be scored by the Evaluation Committee per the criteria provided below. The maximum points to be earned in the evaluation are one hundred (100) points per evaluator. The evaluation committee reserves the right to request additional information and clarification of any information submitted, including any omission from the original response.

The following evaluation criteria will be used to determine the best qualified respondents:

	INTERVIEW EVALUATION CRITERIA	Maximum Points
1.	<p><u>Understanding the Scope</u> The respondent shall demonstrate their understanding of the scope of services including any unique issues involved in the construction project and their ability to meet the challenges. Assumptions (if any) should be clearly stated.</p>	20
2.	<p><u>Qualifications and Experience of Key Personnel</u> The respondent shall discuss the availability of qualified staff.</p> <ul style="list-style-type: none"> • Provide the name of the proposed CEI Senior Project Engineer, CEI Project Administrator/Project Engineer and names and roles of key personnel • Discuss relevant experience with both ITS and Phased Design Build projects. Explain the organization of its team and functional responsibilities of each subconsultant <p>Discuss the staffing quality and availability, individuals experience on similar projects</p>	30
3.	<p><u>Innovative Approach & Communications</u> The respondent will discuss their team's unique approach to the following:</p> <ul style="list-style-type: none"> • Coordinating activities such as network integration and testing. • Managing and communicating issues such as long lead times. • Understanding of ITSFM and ArcGIS for final as-built verification. 	40
4.	<p><u>Workload:</u> The respondent shall discuss its recent, current and projected workload, as well as, workforce availability to undertake THEA work.</p> <ul style="list-style-type: none"> • Identify other current and projected work that the respondent has or is pursuing and their impact on the staffing for this project 	10
TOTAL:		100

After ranking of the respondents Oral Interviews by the Evaluation Committee, the results will be posted no later than the date, time and at the locations stated for the Posting of Notice of Intended Final Ranking referenced in Section A, Paragraph 1.4, Schedule of Events.

1.20 FINAL SELECTION:

The ranking of respondents based on the Evaluation Committee's evaluation will be presented to the THEA's Board of Directors for consideration and approval with a recommendation that the highest-ranked respondent be selected on the date, time and at the location stated for the **Board Approval of Final Ranking and Award of Contract** referenced in Section A, Paragraph 1.4, Schedule of Events. Respondents are not required to attend; however, the meeting is open to the public.

THEA's Board of Directors has the right to correct any errors in the evaluation and selection process that may have been made. THEA is not obligated to award the contract and THEA's Board of Directors may decide to reject all proposals.

After approval of the final ranking of the respondents and award of the contract by THEA's Board of Directors, the results will be posted no later than the date, time and at the locations stated for the **Posting of Notice of Board Approval of Final Ranking and Award of Contract** referenced in Section A, Paragraph 1.4, Schedule of Events.

1.21 AWARD OF CONTRACT:

The award of the contract by THEA's Board of Directors, if made, will be within one hundred and twenty (120) days after the opening of the ELOR Packages.

Upon approval of the final ranking by the THEA Board of Directors, THEA will begin negotiations with the top ranked respondent. Should THEA be unable to negotiate a contract with the top ranked respondent that is satisfactory to THEA, in its sole and absolute discretion, negotiations shall be terminated, and THEA shall then undertake negotiations

with the next top ranked respondent until a satisfactory contract is achieved if approved by THEA's Board of Directors. Negotiations will include scope clarification, discussion of miscellaneous fees and other charges, insurance requirements and any other negotiable terms and conditions of the contract. Once THEA and the selected respondent have negotiated a satisfactory agreement THEA may then enter into a contract with the selected respondent.

1.22 SOLICITATION RESULTS:

Preliminary results will be available on the date, time and at the location specified for the **Posting of Notice of Intended Final Ranking** referenced in Paragraph 1.4, Schedule of Events.

Final results will be available on the date, time and at the location specified for the **Posting of Notice of Board Approval of Final Ranking and Award of Contract** referenced in Paragraph 1.4, Schedule of Events.

2. GENERAL CONDITIONS:

2.1 QUALIFICATIONS OF RESPONDENT:

Each respondent shall be an FDOT Pre-Qualified Consultant for Construction Engineering Inspection Work Types 10.1, 10.3, 10.4 and Intelligent Transportation Systems Implementation Work Type 6.3.2.

The respondent must include with its ELOR Package a completed **FORM 4 – QUESTIONNAIRE** as contained in Section C, which will provide information on respondent's experience, and staffing for performing the work, as well as, references and past history of contract defaults, termination for cause, claims, and litigation and other information to be used to evaluate the responsibility of the respondent for performing the Services.

Failure to submit a completed **FORM 4 – QUESTIONNAIRE** shall be cause for determining the respondent non-responsible and/or its ELOR Package non-responsive to the solicitation resulting in rejection and disqualification at the sole and absolute discretion of THEA.

2.2 PERSONNEL:

ELOR Packages submitted for this solicitation will be evaluated, in part, based upon the qualifications of the respondent's team and upon the qualifications of key personnel presented in the ELOR Package.

By submitting an ELOR Package, the respondent agrees and acknowledges that it will provide the full complement of staff required to perform the Services, including the specific individuals named in the respondent's proposal.

The specific key personnel named in the respondent's ELOR Package shall remain assigned for the duration of the Services, unless otherwise agreed to in writing by THEA.

After the award of the resulting contract from this solicitation, in the event that the selected respondent proposes to substitute any of the key personnel, the individual(s) proposed as substitute(s) must demonstrate equal or superior qualifications and experience as required to successfully perform such duties. THEA shall have the sole right to determine whether key personnel proposed as substitutes are accepted and qualified to work on the Services.

2.3 AVAILABILITY OF PERSONNEL:

Personnel described in the respondent's ELOR Package shall be available to perform the Services as described. All personnel shall be considered to be, at all times, the employees,

or agents of the respondent and not employees or agents of THEA.

2.4 PROJECT MANAGER:

The respondent shall designate from its staff a qualified "Project Manager" having experience in performing and/or administering similar types of work as this engagement.

The "Project Manager" shall be the single point of contact as liaison with THEA during the procurement process and during performance of the awarded contract. THEA desires that the Project Manager be located in the Tampa Bay area to be able to respond to requests and/or meetings in a timely manner.

The "Project Manager" shall be the responsible person in charge of coordinating day to day work activities on task assignments, preparing the itemized task order estimates, schedules, payment applications, directing consultant's work forces, reports, day to day administrative matters, coordinating the SBE policy to achieve the established goals and other related items necessary to fulfill the requirements of the contract.

2.5 CONTRACT:

The selected respondent shall enter a contract with THEA for these Services with the terms and conditions as specified within this Advertisement's Instructions and Submittal Document.

2.6 CONTRACT DURATION:

The contract duration will be for three years with two (2) one-year THEA options to extend.

2.7 CONTRACT ASSIGNMENT:

The selected respondent may not make any assignments of their obligations resulting from this solicitation without the prior written authorization of THEA.

2.8 NON-EXCLUSIVITY OF CONTRACT:

The selected respondent understands and agrees that any resulting contractual relationship is non-exclusive and THEA reserves the right to seek similar or identical services elsewhere if deemed in the best interest of THEA and to cancel any contract with a 30-day written notice from THEA.

2.9 COMPLIANCE:

THEA has the right to reject the ELOR Package or annul the award in the event respondent's ELOR Package does not comply with any of the requirements outlined herein.

2.10 OWNERSHIP OF DOCUMENTS:

All documents resulting from this procurement process and subsequent contract will become the sole property of THEA.

2.11 PUBLIC RECORDS LAW:

In accordance with *Florida Statutes* Chapter 119, and, except as may be provided by other applicable State and Federal Laws, all respondents should be aware that this solicitation and all the responses thereto are in the public domain and are available for public inspection.

The respondents are requested, however, to identify specifically any information contained in their ELOR Package which they consider confidential and/or proprietary and which they believe to be exempt from disclosure, citing specifically the applicable exemption law.

All ELOR Packages received in response to this advertisement will become the property of THEA and will not be returned.

2.12 INDEMNIFICATION (GENERAL LIABILITY):

The contract will contain an indemnification clause wherein the selected respondent agrees to indemnify and hold harmless the THEA Board of Directors, THEA, its members and its officers, representatives and employees from any claim, loss, suit, action, demand, liability, damage, cost, charge, and expense, including but not limited to attorney and paralegal fees (at trial and on appeal), to the extent caused by any negligent act, error, omission, recklessness, or intentional misconduct by the respondent, its agents, employees, or subcontractors arising out of the execution, performance nonperformance of the duties of the respondent under this solicitation, the enforcement of this solicitation, or resulting from the activities of the respondent in any way connected to this solicitation.

2.13 INDEMNIFICATION (PATENT OR COPYRIGHT):

The selected respondent shall indemnify and hold harmless, and defend the THEA Board of Directors, THEA, its members and its officers, representatives, employees and anyone directly or indirectly employed by either of them, from and against all liabilities, damages, claims, loss, suit, cost, charge, expense demands or actions at law or in equity, including court costs and attorneys' and paralegal fees that may hereafter at any time be made or be brought by anyone arising out of any infringement of patent rights or copyrights held by others or for the disclosure or improper utilization of any trade secrets by the respondent(s) during or after completion of the Services. These obligations shall survive acceptance of any goods, services, and/or performance and payment therefore by THEA.

2.14 PUBLIC ENTITY CRIMES STATEMENT:

A person, affiliate, or corporation who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, consultant, subcontractor, or contractor under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for a period of 36 months from the date of being placed on the convicted vendor list.

Any such person, affiliate, or corporation wishing to propose on this advertisement must include a current sworn statement pursuant to Section 287.133 (1) Florida Statutes, on public entity crimes. A copy of the required **Form 2 - PUBLIC ENTITY CRIMES** is contained in Section C.

THEA may make inquiries regarding alleged convictions or public entity crimes. The failure of the respondent to promptly supply information in connection with an inquiry or the failure to comply with the requirement contained within this section will cause the rejection of any submitted bid, offer, response, or proposal, at the sole discretion of the THEA.

2.15 INSURANCE REQUIREMENTS:

For the term of these Services and agreement, during contract award the respondent shall procure and maintain insurances of the types and limits specified in **ATTACHMENT 4, INSURANCE REQUIREMENTS, COVERAGES AND LIMITS**.

2.16 BID SECURITY:

A Bid Security is not required for this solicitation.

2.17 PAYMENT AND PERFORMANCE BOND:

A Payment and Performance Bond is not required for this solicitation.

2.18 CONFLICTS OF INTEREST:

The respondent shall state if it represents clients that may present conflicts or potential conflicts with representation of THEA. Respondent shall provide a list of any potential conflicts by description. Respondent need not identify a particular client. If conflicts are listed, the respondent shall address how these conflicts will be resolved. A copy of the required **CONFLICTS OF INTEREST STATEMENT** is contained in Section C as **Form 5**.

2.19 SCRUTINIZED COMPANIES:

Section 287.135 of the *Florida Statutes* prohibits governmental entities from contracting for goods and services of \$1 million or more with companies with Activities in Sudan List, (b) it is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, (c) it is not on the Scrutinized Companies with Activities in Iran Terrorism Sectors List, (d) that it does not have Business operations or is engaged in business in Cuba or Syria, and (e) that it is not engaged or engaging in a Boycott of Israel, and that all such certifications were true at the time it submitted its ELOR Package.

A company that, at the time of bidding or submitting a proposal for a new contract is on the Scrutinized Companies with Activities in Sudan List, (b) it is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, (c) it is not on the Scrutinized Companies with Activities in Iran Terrorism Sectors List, (d) that it does not have Business operations or is engaged in business in Cuba or Syria, and (e) that it is not engaged or engaging in a Boycott of Israel, is ineligible for, and may not bid on, submit a proposal for, or enter into or renew a contract with an agency or local government entity for goods or services of \$1 million or more.

Respondents must certify that it is not listed on the Scrutinized Companies with Activities in Sudan List, (b) it is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, (c) it is not on the Scrutinized Companies with Activities in Iran Terrorism Sectors List, (d) that it does not have Business operations or is engaged in business in Cuba or Syria, and (e) that it is not engaged or engaging in a Boycott of Israel.

The resulting contract from this solicitation shall contain a provision that allows for immediate termination of the contract by THEA if the respondent is found to have submitted a false statement or if the respondent during the term of the resulting contract is placed on the Scrutinized Companies with Activities in Sudan List, (b) it is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, (c) it is not on the Scrutinized Companies with Activities in Iran Terrorism Sectors List, (d) that it does not have Business operations or is engaged in business in Cuba or Syria, and (e) that it is not engaged or engaging in a Boycott of Israel.

Respondents are required to complete and submit the Certification Regarding Scrutinized Companies Lists with its ELOR Package. A copy of the required **Form 5 - CERTIFICATION REGARDING SECURITIZED COMPANIES LIST** is contained in Section C.

2.20 E-VERIFY SYSTEM:

The respondent shall comply with all applicable provisions of sections 448.09 and 448.095, Florida Statutes, as may be amended. The definitions in section 448.095(1), Florida Statutes, as may be amended, apply to this solicitations. The respondent shall register with and use the U.S. Department of Homeland Security's E-Verify system to verify the work authorization status of all employees of respondent. The respondent may not enter into a contract with a subcontractor to perform work under the awarded respondents agreement unless and until the subcontractor registers with and uses the E-Verify system. If the respondent enters into a contract with a subcontractor to perform work, the respondent must obtain a properly executed affidavit from the subcontractor stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. The respondent must maintain copies of all such affidavits for the duration of these Services. THEA may terminate the executed agreement for cause if THEA determines that respondent or respondent's subcontractor has not complied with any applicable provision of sections 448.09 or 448.095, Florida Statutes, as may be amended. THEA will terminate the agreement for cause if THEA has a good faith belief that respondent has knowingly violated subsection 448.09(1), Florida Statutes, as may be amended. If the THEA has a good faith belief that a subcontractor knowingly violated section 448.09(1), Florida Statutes, as may be amended, but THEA determines that respondent otherwise complied with section 448.09(1), Florida Statutes, as may be amended, THEA will notify the respondent as such, and the respondent must immediately terminate the respondent's contract with said subcontractor. If the executed agreement is terminated under section 448.095(c), F.S.: (a) such termination is not a breach and may not be considered as such; (b) respondent may not be awarded a public contract for at least 1 year after the date on which the agreement is terminated; and (c) respondent is liable for any additional costs incurred by THEA as a result of the termination of the agreement.

The selected respondent and all its subconsultants shall provide proof of registration and required certificate (as of January 1, 2021) in the E-Verify system to THEA upon execution of a contract.

2.21 NOTICE OF PROTEST:

2.21.1 Protests Prior to Notice of Award:

Any person wishing to protest THEA's procurement process or its advertisement documents for the procurement of services must file a Notice of Intent to Protest accompanied by a Protest Bond in the amount of 1% of the lowest bid or \$5,000 whichever is greater, or for such amount as set forth in this advertisement documents within 72 hours of THEA's publication of the procurement documents, (excluding Saturdays, Sundays, and legal holidays). Within five (5) calendar days of the filing of the Notice of Intent to Protest and posting of bond, the protesting party must file a written protest stating with particularity the facts and law upon which the protest is based. The protest should: (1) state the specific provision(s) of the bid or proposal package or process applicable to the protest; (2) state the specific manner or method in which the protesting party alleges that THEA erred in its interpretation or implementation of its procurement process, procedures or statutory provisions; (3) state the basis upon which the protest is premised; and (4) state the protesting party's position and arguments of law, including any evidence supporting the position.

2.21.2 Protests After Notice of Award:

Any person wishing to protest THEA's actions leading up to a notice of recommendation to either reject any or all bids, or to make a selection or award ("Notice of Decision"), must file a Notice of Intent to Protest, accompanied by a Protest

Bond in the amount of 1% of the lowest bid or \$5,000 whichever is greater, or for such amount as shall be set forth in this procurement documents with THEA within 72 hours of THEA's publication of its Notice of Decision, (excluding Saturdays, Sundays, and legal holidays). The protest bond required herein shall be in addition to the Protest Bond referenced in Paragraph 2.27.1 above. Within five (5) calendar days of the filing of the Notice of Intent to Protest and posting of bond, the protesting party must file a written protest stating with particularity the facts and law upon which the protest is based. The protest should: (1) state the specific provision(s) of the bid package or process applicable to the protest; (2) state the specific manner or method in which the protesting party alleges that THEA erred in its interpretation or implementation of its procurement process, procedures or statutory provisions; (3) state the basis upon which the protest is premised; and (4) state the protesting party's position and arguments of law, including any evidence supporting the position.

2.22 EXPANDED LETTERS OF RESPONSE (ELOR) PACKAGE REVIEW:

To assist respondents in preparing and submitting a complete ELOR Package, a checklist is included for respondent's use.

The **RESPONDENT'S Expanded Letters of Response (ELOR) PACKAGE REVIEW CHECKLIST** is contained in Section C as **Form 7**.

2.23 RESTRICTION ON RESPONDENTS ELIGIBILITY TO COMPETE FOR THIS PROJECT

A respondent, its affiliate, or sub-consultant that is under contract with THEA for the development of this solicitation cannot be part of a respondent's team proposing to this solicitation.

[END OF SECTION A – GENERAL INFORMATION AND GENERAL CONDITIONS]

SECTION B

1. **DESCRIPTION OF PROJECT AND SCOPE OF SERVICES:**

1.1 **DESCRIPTION OF PROJECT:**

The Scope of Services describes and defines the Construction Engineering and Inspection (CEI) services which are required for contract administration, inspection, and materials sampling and testing for the construction project listed below.

1.2 **SCOPE OF SERVICES:**

A Scope of Services is attached hereto as **Attachment 1 - Scope of Services**.

2. **RESPONSE REQUIREMENTS:**

Respondents are advised to carefully follow the instructions as contained within this section in order to be considered fully responsive to the solicitation. Respondents are further advised that lengthy or wordy submissions are not necessary. Responses should be prepared simply and economically, providing a straight-forward, concise description of the respondent's ability to fulfill the requirements of these Services.

2.1 **EXPANDED LETTERS OF RESPONSE (ELOR) PACKAGE:**

ELOR Packages must be submitted using the method stated in the **Deadline for Submitting Expanded Letters of Response (ELOR) Package** referenced in Section A, Paragraph 1.4, Schedule of Events.

Submittal Deadline - The deadline for delivery of respondent's ELOR Package is no later than the date and time stated for the **Deadline for Submitting Expanded Letters of Response (ELOR) Package** referenced in Section A, Paragraph 1.4, Schedule of Events.

Submittal Quantities - One (1) electronic copy of the ELOR Package in Adobe PDF, no larger than 8 MB, shall be delivered to THEA by the date, time, and at the location stated for the **Deadline for Submitting Expanded Letters of Response (ELOR) Package** referenced in Section A, Paragraph 1.4, Schedule of Events.

Format - The ELOR Package should be submitted on 8 ½-inch by 11-inch pages unless otherwise authorized. Each page should be typewritten and single-spaced with a font size of 10. Text should be presented single-sided on each separate page. Graphics and photographs shall be held to a minimum.

ELOR Packages must be submitted as a single document attached to an E-Mail, submitted electronically to the indicated address as referenced in Section A, Paragraph 1.4, Schedule of Events. The ELOR Packages must not exceed 8 MG in size in Adobe PDF format and unzipped. Failure to comply with the submittal requirements may cause the ELOR Packages to be considered non-responsive.

Signature - All ELOR Packages must be either manually or digitally signed by an authorized officer, principal or partner (as applicable).

Content - In order to ensure a uniform review process and to obtain the maximum degree of understanding of the respondent's abilities, experience and qualifications, it

is **required** that respondent's ELOR Packages Package be organized, tabbed and submitted as follows:

1. **Table of Contents**

2. **Expanded Letters of Response (ELOR)**

A maximum of **five (5) pages** will be allowed for the "Expanded Letter of Response" element. The five-page limit does not include Organizational Chart, Resumes, Forms, or Staff hour Estimate. The ELOR shall contain the following:

a) Minimum Requirements:

- State the THEA Project Name and Number;
- Name of respondent;
- Respondent Address;
- Respondent Telephone Number;
- Respondents Project Manager's Name (Project Manager will be considered the primary contact for the respondent during the Procurement process **and** during performance of the project);
- Project Manager's Address;
- Project Manager's Telephone Number;
- Project Manager's Email Address;
- Statement indicating Project Manager's number of years' experience in support of this solicitation or similar services;
- A brief statement of interest;
- A brief statement of qualifications of respondent's team;
- Statement confirming respondent's ability to meet the requirements of this solicitation.
- Statement confirming respondent and its Project Manager providing the services meets the minimum qualifications and minimum requirements of this solicitation.

b) Past Performance:

Respondents past performance and references on construction engineering & inspection contracts of similar size and scope, and roles of personnel proposed for this contract.

Respondent must provide the owner's name, title, phone number and email address for references listed for past performance.

c) Respondent's Understanding of the Scope

Respondents detailed approach to provide services and willingness and ability to meet and adhere to schedules and budgets

3. **Organizational Chart**

Attach an organizational chart that includes the following:

- Identify key members of respondent's team including the proposed Project Manager and names and roles of other key personnel;
- State respondent name for key members of respondent's team (if from a Subcontractor);
- State office location (city and state) for key members of respondent's team.

Only those members of the team who will **actively** participate under the potential

work assignments should be included. Individuals who would be available on an "as-needed" basis should be omitted.

A maximum of 1 page will be allowed for the "Organization Chart" element. The Organizational Chart may be submitted on paper sized larger than 8½" x 11" if folded neatly to 8½" x 11".

4. Resumes

Include one-page resumes for the Project Manager and the key active participants of respondent's team.

5. Forms

The following forms are required to be completed, signed, notarized when indicated and included in respondents' ELOR Package.

- **Form 1 - Declaration of Respondent**
- **Form 2 - Public Entity Crimes Form**
- **Form 3 - Conflicts of Interest Statement**
- **Form 4 – Questionnaire**
- **Form 5 - Certification Regarding Scrutinized Companies List**
- **Form 6 – Acknowledgement of Receipt of Addendum**
- **Form 7 - Respondent's Response Package Review Checklist**

6. Staff hour Estimate

Provide a one-page summary sheet indicating estimated staff hours for the respondent and all subconsultants per ITS project. Do not include additional narrative content. Examples of acceptable and unacceptable content are provided at the following link.

<https://www.fdot.gov/procurement/SubmittalExamples.shtm>

[END OF SECTION B – PROJECT INFORMATION AND RESPONSE REQUIREMENTS]

SECTION C

REQUIRED FORMS

Required forms to be completed, signed, notarized when indicated and included in Respondent's ELOR Package:

- FORM 1: Declaration of Respondent
- FORM 2: Public Entity Crimes Form
- FORM 3: Conflicts of Interest Statement
- FORM 4: Questionnaire
- FORM 5: Certification Regarding Scrutinized Companies Lists
- FORM 6: Acknowledgement of Receipt of Addendum
- FORM 7: Respondent's Response Package Review Checklist

Note: Failure to submit the required forms may result in respondent's ELOR Package being determined non-responsive and rejected.

DECLARATION OF RESPONDENT

1. Name of Respondent: _____
(RESPONDENT, CORPORATION, BUSINESS OR INDIVIDUAL)
2. Name of Contact Person: _____
3. Our local (to Tampa, Florida) business and mailing address is: _____

4. Professional License Number is: _____
5. The Project Manager assigned to this contract has a current Professional License Number of _____ issued by the State of _____.
6. Federal I.D. Number: _____
7. Our primary business address is: _____
8. Our present business phone number is: _____
9. Our present fax number is: _____
10. Our present e-mail address is: _____
11. Our business has been operating under its present name since: _____

The below named Respondent affirms and declares:

- (1) That the Respondent has contractual capacity and that no other person, Respondent, or corporation has any interest in this response.
- (2) That this response is made without any understanding, agreement, or connection with any other person, Respondent or corporation making a response for the same purpose, and is in all respects fair and without collusion or fraud.
- (3) That the Respondent is not in arrears to the Tampa-Hillsborough County Expressway Authority (THEA) upon debt or contract and is not a defaulter, as surety or otherwise, upon any obligation to THEA.
- (4) That the Respondent is not in litigation or been disbarred from doing business with THEA.
- (5) That no officer or employee or person whose salary is payable in whole or in part from THEA Treasury is, shall be, or become interested, directly or indirectly, as surety or otherwise in this response; in the performance of the contract; for the supplies, materials, equipment, and work or labor to which they relate; or in any portion of the profits thereof.
- (6) That by submitting a proposal, the Respondent agrees and acknowledges that it will provide the full complement of staff required to perform the scope of work,

including the specific individuals named in the its proposal and the specific key personnel named in its proposal shall remain assigned for the duration of the project, unless otherwise agreed to in writing by the THEA.

- (7) By submitting this response, Respondent accepts and acknowledges that Respondent can comply with all terms and conditions set forth in the solicitation including, without limitation, the insurance and performance/payment bond requirements and the indemnification provisions.
- (8) The person signing hereby warrants that they are duly authorized to sign and bind on behalf of the Respondent.

IN WITNESS WHEREOF, this response is hereby signed and sealed as of the date indicated below.

ATTEST:

RESPONDENT:

(Witness Signature)

Respondent Name

(Printed Name of Witness)

By: _____
(AUTHORIZED SIGNATURE)

(Witness Signature)

(Printed Name of Signer)

(Printed Name of Witness)

(Title of Signer)

(Date Signed)

NOTE: The person signing for the Respondent shall in his/her own handwriting, sign the Company's name, his/her own name and his/her title. Where the person signing for a corporation is other than the President or Vice-President, he/she must by affidavit, show his/her authority to bind the Company. Said affidavit shall be attached to this Declaration of Respondent.

STATE OF _____

COUNTY OF _____

Sworn to (or affirmed) and subscribed before me this _____ day of _____, 20____, by
_____. (Name
of Individual Signing)

Signature of Notary Public

My Commission Expires: _____

[Apply Notary Seal Here]

[END OF FORM 1 - DECLARATION OF RESPONDENT]

**SWORN STATEMENT UNDER SECTION 287.133(3)(a), FLORIDA STATUTES,
ON PUBLIC ENTITY CRIMES**

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC
OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to Tampa-Hillsborough County Expressway Authority

by _____

[print individual's name and title]

for _____

[print name of entity submitting sworn statement]

whose business address is _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____

(If the entity has no FEIN, include the Social Security Number of the individual signing this
sworn statement: _____.)

2. I understand that a "public entity crime" as defined in a Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjunction of guilt in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that an "affiliate" as defined in Paragraph 287.133 (1)(a), Florida Statutes, means:

i. A predecessor or successor of a person convicted of a public entity crime; or

ii. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of the affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any

natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on the information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. **[indicate which statement applies.]**

_____ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent of July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent of July 1, 1989. However, there has been a _____ subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. **[attach a copy of the final order]**

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

[signature]

Sworn to and subscribed before me this _____ day of _____, 20_____.
Personally known _____ OR Produced identification _____
Notary Public – State of _____
My commission expires _____
(Type of Identification)

(Printed, typed or stamped Commissioned Name of Notary Public)
(END OF FORM 2- PUBLIC ENTITIES CRIME STATEMENT)

CONFLICTS OF INTEREST STATEMENT

Check one of the boxes below:

- To the best of our knowledge, the undersigned respondent has no potential conflict of interest due to any other clients, contracts, or property interest for this solicitation and project.

OR

- The undersigned respondent, by attachment to this form, submits information which **may** be a potential conflict of interest due to other clients, contracts or property interest for this solicitation and project.

RESPONDENT:

By: _____
(AUTHORIZED SIGNATURE)

(Printed Name of Signer)

Title of Signer)

(Date Signed)

[END OF FORM 3 – CONFLICTS OF INTEREST STATEMENT]

QUESTIONNAIRE

Respondent shall complete this questionnaire, sign, date and submit with its bid.

1. **BUSINESS INFORMATION:**

1.1 Name of Primary Contractor (Respondent): _____

1.2 Location of primary office which will handle this project:

1.3 Business Organization:

a) Number of years your firm (under any name) has been in Business: _____

b) With same person in top management position: _____

c) Under present name: _____

d) Number of years in Florida: _____

e) Total number of full-time staff: _____

f) Additional part-time staff: _____

g) States in which you have performed activities: _____

2. **MINIMUM QUALIFICATIONS:**

2.1 **Minimum Requirements:**

This Project requires that **Prime Contractor:**

a. Have previous experience with similar projects and previous experience in providing services related to this advertisement.

b. Procures and maintains insurance of the types and limits as specified in Section C, Attachment 3 – Insurance Requirements, Coverages and Limits.

3. **EXPERIENCE AND REFERENCES:**

3.1 Experience:

3.1.1. State the total contract volume and value that your organization has been responsible for in the past five years in:

a. Total Dollar value _____

b. Number of Contracts _____

3.1.2. List the dollar volume and number of governmental projects your organization has completed in the past 5 years:

a. Dollar Value _____

b. Number of government projects _____

3.2 Provide information on at least three projects that Contractor has performed within the past five (5) years that were similar to this project. List chronologically, starting with the last project:

3.2.1 **Project # 1:**

a. Date Project Completed: _____

b. Project Name: _____

c. Owner Name: _____

d. Owner Address: _____

e. Owner Telephone: _____

f. Name of Reference for this Project: _____

g. Relationship of Reference to Owner: _____

h. Title and Position Reference Held for this Project: _____

i. Firm name where Reference was employed for this project: _____

j. Reference's Telephone: _____

k. Dollar Amount: _____

l. List any other special criteria i.e. specialized repair or equipment, etc. worked: _____

m. Describe Your Specific Scope of Work: _____

n. General Contract Amount: _____

o. Your Participation Was: _____

p. Completion Date: _____

q. Was the Project completed on time? _____

r. Was the Project completed within budget? _____

s. If not, explain: _____

t. Penalties imposed? (Yes or No; if Yes explain) _____

u. Any liens, claims, or lawsuits? (Yes of No, if Yes explain) _____

- v. If a D/W/MBE or Small Business Enterprise (SBE) percentage goal was required, indicate what the goal was and what success did your firm have in achieving the goal. _____

- w. Provide names and phone numbers of the D/W/MBE or SBE firms used on the project:

- x. Any other pertinent information? _____

[Use additional sheets as necessary.]

3.2.2 Project # 2:

- a. Date Project Completed: _____
- b. Project Name: _____
- c. Owner Name: _____
- d. Owner Address: _____
- e. Owner Telephone: _____
- f. Name of Reference for this Project: _____
- g. Relationship of Reference to Owner: _____
- h. Title and Position Reference Held for this Project: _____
- i. Firm name where Reference was employed for this project: _____
- j. Reference's Telephone: _____
- k. Dollar Amount: _____
- l. List any other special criteria i.e. specialized repair or equipment, etc. worked: _____

- m. Describe Your Specific Scope of Work: _____

- n. General Contract Amount: _____
- o. Your Participation Was: _____
- p. Completion Date: _____
- q. Was the Project completed on time? _____
- r. Was the Project completed within budget? _____
- s. If not, explain: _____
- t. Penalties imposed? (Yes or No; if Yes explain) _____
- u. Any liens, claims, or lawsuits? (Yes of No, if Yes explain) _____

- v. If a D/W/MBE or Small Business Enterprise (SBE) percentage goal was required, indicate what the goal was and what success did your firm have in achieving the goal. _____

- w. Provide names and phone numbers of the D/W/MBE or SBE firms used on the project:

- x. Any other pertinent information? _____

[Use additional sheets as necessary.]

3.2.3 Project # 3:

- a. Date Project Completed: _____
- b. Project Name: _____
- c. Owner Name: _____
- d. Owner Address: _____
- e. Owner Telephone: _____
- f. Name of Reference for this Project: _____
- g. Relationship of Reference to Owner: _____
- h. Title and Position Reference Held for this Project: _____
- i. Firm name where Reference was employed for this project: _____
- j. Reference's Telephone: _____
- k. Dollar Amount: _____
- l. List any other special criteria i.e. specialized repair or equipment, etc. worked: _____

- m. Describe Your Specific Scope of Work: _____

- n. General Contract Amount: _____
- o. Your Participation Was: _____
- p. Completion Date: _____
- q. Was the Project completed on time? _____
- r. Was the Project completed within budget? _____
- s. If not, explain: _____
- t. Penalties imposed? (Yes or No; if Yes explain) _____
- u. Any liens, claims, or lawsuits? (Yes of No, if Yes explain) _____

- v. If a D/W/MBE or Small Business Enterprise (SBE) percentage goal was required, indicate what the goal was and what success did your firm have in achieving the goal. _____
- w. Provide names and phone numbers of the D/W/MBE or SBE firms used on the project: _____
- x. Any other pertinent information? _____

[Use additional sheets as necessary.]

4. STAFF:

4.1 Provide information on Respondent's staff that will be assigned to this Project including name, years' experience, credentials and applicable professional licenses.

POSITION	EMPLOYEE NAME	CREDENTIALS & PROFESSIONAL LICENSE	YEARS EXPERIENCE
Project Manager			
Other			

4.2. Provide a profile of your staff listing classification of personnel, number of personnel and combined years of experience.

Classification	Number of Personnel	Combined Years of Experience	No. of 4-year Degrees
Project Manager	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
Other	_____	_____	_____

[END OF FORM 4 - QUESTIONNAIRE]

CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS

This certification is required pursuant to Florida Statute, Section 287.135.

By executing this form and each and every renewal hereof (if renewal is separately provided for herein), pursuant to section 287.135, Florida Statutes, Consultant certifies, represents, and warrants that: (a) it is not on the Scrutinized Companies with Activities in Sudan List, (b) it is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, (c) it is not on the Scrutinized Companies with Activities in Iran Terrorism Sectors List, (d) that it does not have Business operations or is engaged in business in Cuba or Syria, and (e) that it is not engaged or engaging in a Boycott of Israel, and that all such certifications were true at the time it submitted its bid or proposal for this Agreement, as of the Effective Date of this Agreement, and as of the effective date of any renewal of this Agreement. Notwithstanding anything contained in this Agreement to the contrary, THEA may terminate this Agreement immediately for cause if: (1) Consultant is found to have submitted a false certification regarding (a) – (e) above in accordance with section 287.135(5), Florida Statutes, (2) Consultant is found to have been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or is or has been engaged in Business operations in Cuba or Syria or a Boycott of Israel, or (3) Consultant is found to have been placed on a list created pursuant to section 215.473, Florida Statutes, relating to scrutinized active business operations in Iran. Such termination shall be in addition to any and all remedies available to THEA at law or in equity. The terms “Boycott of Israel” and “Business operations” used in this section are defined as in Section 287.135, Florida Statutes. The Lists referred to in this section are those Lists in and maintained pursuant to section 287.135, Florida Statutes.

Firm: _____ Firm FID or EIN: _____

Address: _____

City: _____ State: _____ Zip: _____

I hereby warrant that I am duly authorized to sign and bind on behalf of the company listed above as the “Firm”.

I hereby certify and affirm that the company listed above as the “Firm” certifies, represents, and warrants that:

(a) it is not on the Scrutinized Companies with Activities in Sudan List, (b) it is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, (c) it is not on the Scrutinized Companies with Activities in Iran Terrorism Sectors List, (d) that it does not have Business operations or is engaged in business in Cuba or Syria, and (e) that it is not engaged or engaging in a Boycott of Israel, and that all such certifications were true at the time it submitted its bid or proposal for this Agreement, as of the Effective Date of this Agreement, and as of the effective date of any renewal of this Agreement. I understand pursuant to Florida Statute, Section 287.135, the submission of a false certification may subject the Respondent/Bidder to civil penalties, attorney’s fees and/or costs.

Firm:

By: _____ (Authorized
Signature)

(Printed Name of Signer)

(Title of Signer)

(Date Signed)

[END OF FORM 5 – CERTIFICATION REGARDING SCRUTINIZED COMPANIES LIST]

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM

Were Addendum issued on this Solicitation?

Yes

No

I (We) hereby acknowledge receipt of the following Addendum/Addenda issued in reference to this solicitation by listing the Addendum by number, date and signing the form:

Addendum _____	Date: _____
Addendum _____	Date: _____
Addendum _____	Date: _____
Addendum _____	Date: _____
Addendum _____	Date: _____
Addendum _____	Date: _____

RESPOND
ENT:

By: _____
(AUTHORIZED SIGNATURE)

(Printed Name of Signer)

(Title of
Signer)

(Date
Signed)

**[END OF FORM 6 – ACKNOWLEDGMENT OF RECEIPT OF
ADDENDUM]**

RESPONDENT'S EXPANDED LETTERS OF RESPONSE (ELOR) PACKAGE REVIEW CHECKLIST

Respondent's ELOR Package **must be** organized and labeled following the instructions as contained in **Section B**, Paragraph 2.1, ELOR Package.

Proposal Format	Section Title
	1. Table of Contents
	2. ELOR
	3. Organizational Chart
	4. Resumes
	5. Completed Forms Form 1 - Declaration of Respondent Form 2 - Public Entity Crimes Statement Form 3 - Conflicts of Interest Statement Form 4 - Questionnaire Form 5 - Certification Regarding Scrutinized Companies List Form 6 – Acknowledgement of Receipt of Addendum Form 7 - Respondent's Response Package Review Checklist Addendum (if applicable).
	6. Staff Hour Estimate

By submitting this response, we accept and acknowledge that we can comply with all terms and conditions set forth in the ELOR including, without limitation, the insurance and performance/payment bond requirements and the indemnification provision.

 Name of Person Responsible

 Date

 Title of Person Responsible

 Company Name

[END OF FORM 7 - RESPONDENT'S EXPANDED LETTERS OF RESPONSE (ELOR) PACKAGE REVIEW CHECKLIST]

SECTION D

EXHIBITS

1. Scope of Services
2. Insurance Requirements, Coverages and Limits

ATTACHMENTS

1. THEA HI-0149 ITS PLANS – Control System & DMS Fiber Upgrades 1.12.2024
2. CAN Typical Wiring Diagram
3. ITS Plans – THEA WWDS
4. Specification Package – THEA WWDS
5. ACCLAIM THEA REPORT

SCOPE OF SERVICES
CONSTRUCTION ENGINEERING AND INSPECTION

1. INTRODUCTION

The Tampa-Hillsborough County Expressway Authority (THEA) requires Construction Engineering and Inspection (CEI) Services from a qualified respondent with experience in Intelligent Transportation Systems (ITS) Review and Coordination, including Structural, Electrical and Roadway to represent THEA's interests on the following Phased Design Build projects

- a. ITS INFRASTRUCTURE FOR EAST SELMON AND WEST SELMON PHASED DESIGN BUILD PROJECT
- b. GROUNDING REVERSIBLE EXPRESS LANES (REL) UPLIGHTING

The CEI firm will provide separate CEI services for each project as described in the following sections.

2. PROJECTS DESCRIPTIONS

- a. ITS Infrastructure for East Selmon and West Selmon. Project includes:
 - i. Design, construction and integration of a complete Cameras and ITS system as depicted in the concept plans.
 - ii. Warranty and maintenance for and of the system, as further detailed in the scope of work.
 - iii. Documentation of the system and provision of user and training manuals.

3. REQUESTED SERVICES

- a. Exercise independent professional judgment in providing structural, electrical, mechanical, roadway and Intelligent Transportation Systems (ITS) review and coordination services, in performing Construction Engineering and Inspection services responsibilities as defined in this Scope of Services for the Phased Design-Build projects. Specific CEI Services Tasks provided by the respondent, in addition to others that may be recommended include the following:
- b. Pre-Construction Phase
 - i. Attendance at the design progress meetings that will include THEA and the Design Build Firm, and assistance with THEA's design approval process.
 - ii. Review of Design Build Firm's layout and integration plans for the Phased Design-Build project.
 - iii. Participation with the Design Build Firm in developing strategies for phasing of the construction and maintaining an operable facility during construction.

- iv. Assistance to THEA with any required value engineering or scope change exercises.
- v. Review of the permit application process to ensure that the Design Build Firm is obtaining permits in a timely manner, any signatures and payments required by THEA.
- vi. Review of design documents and specifications.
- vii. Perform constructability and phasing review of design documents.
- viii. Review and compare Design Build Firm's Project schedules and coordinate with the Design Build Firm to resolve potential conflicts.
- ix. Administration of all communication between the Design Build Firm for the project, and THEA.

c. Construction Phase

- i. Administration of all communication between the Design Build Firm for the project, and THEA.
- ii. Schedule and conduct project kickoff meeting once Design Build Firm has Notice to Proceed (NTP).
- iii. Respondent shall inspect and witness all installations, integration, burn-ins, final acceptance testing, factory acceptance testing, and system acceptance testing, including but not limited to, system devices, software, support equipment, interconnection wiring, grounding, and surge protection systems, as identified in the Design Build Firm's scope of work.
- iv. Provide coordination between the City of Tampa Traffic Management Center employees and the Design Build Firm.
- v. Provide coordination, constructability reviews, and document management of shop drawing submittals, material submittals, testing results, as applicable.
- vi. Provide review and oversight of the Contract's schedule and general observation of the work on a regular basis as required to keep THEA informed on the progress of the work.
- vii. Conduct weekly THEA and vendor progress meetings and provide written minutes and reports of all items requiring THEA's attention and serve as an extension of THEA staff.
- viii. Review of the Vendor and all THEA Design Build Firm's requests for payment.
- ix. Oversight for coordinating owner supplied materials to the Design Build Firm and to ensure that the Design Build Firm is appropriately administering the THEA's Tax-Exempt Direct Material Purchase Program if applicable.
- x. Oversight of the Design Build Firm's efforts to confirm its scope of services are being provided in accordance with the Contract Documents.
- xi. Verify that Design Build Firm has all necessary permits/approvals prior to starting respective phases of work.
- xii. General oversight to ensure that the Design Build Firm is maintaining a neat and orderly job site, and to report to the Design Build Firm any complaints from THEA regarding construction activities that may be a disruption to the operation of the facility.
- xiii. Advise and report to THEA any major conflicts, issues or unforeseen conditions that may arise during the construction that require the THEA's

- involvement.
- xiv. Advise and involve THEA in any additional design decisions that may be required during the progress of the work.
- xv. Provide independent, impartial recommendations to THEA regarding potential conflicts or omissions in the Contract Documents that may result in added time or cost to the job.
- xvi. Review and make recommendations to THEA on the Design Build Firm's cost proposals or claims for delay.
- xvii. Coordination of THEA's Subcontractors and Vendors with the Design Build Firm.
- xviii. General oversight of the Design Build Firm and THEA's Substantial and Final Inspections and their acceptance of the work.
- xix. Oversight of and review and acceptance of the warranty and close-out documents, including As-Built Plans and documents.
- xx. Oversight of the Design Build Firm's operation and maintenance instruction process.

4. ITEMS TO BE FURNISHED BY THEA TO THE RESPONDENT

- a. THEA, on an as needed basis, will furnish the following Construction Contract documents for the project. These documents may be provided in either paper or electronic format.
 - i. Copy of the Executed Construction Contract with the Design Build Firm.
 - ii. Layout and Integration Plans as they are developed by the Design Build Firm.
 - iii. Specifications as provided by the Design Build Firm.
 - iv. Public Information Services if Necessary
 - v. Provide a field office with sufficient room and furnishings to effectively carry out their responsibilities under this Scope of Services. Field office shall be approved by THEA Field Office expenses will be compensated in accordance with Exhibit B, Method of Compensation.

5. ITEMS FURNISHED BY THE RESPONDENT

- a. Office Automation
 - i. Provide all software and hardware necessary to efficiently and effectively carry out the responsibilities under this Agreement.
 - ii. All computer software and/or associated data for performing these CEI services shall be input by respondent's, personnel or subconsultants using equipment furnished by the respondent.
 - iii. Ownership and possession of computer equipment and related software, which is provided by the respondent, shall remain at all times with the respondent. The respondent shall retain responsibility for risk of loss or damage to said equipment during performance of this Agreement. Field office equipment should be maintained and operational at all times.
- b. Vehicles
 - i. Vehicles will be equipped with appropriate safety equipment and must be able to effectively carry out requirements of this Agreement. Vehicles that shall have the name of the consulting firm visibly displayed.
- c. Field Equipment
 - i. The respondent shall supply survey, inspection and testing equipment, essential in order to carry out the work under this Scope of Services. Such equipment includes those non- consumable and non-expendable items, which are normally

needed for this type of CEI project and are essential in order to carry out the work in this Scope of Services.

- ii. Hard hats shall have the name of the consulting firm visibly displayed.
 - iii. Equipment described herein and expendable materials under this Scope of Services will remain the property of the respondent and shall be removed at completion of the work.
 - iv. The respondent shall retain responsibility for risk of loss or damage to said equipment during performance of this Scope of Services. Field office equipment shall be maintained and in operational condition at all times.
- d. Licensing for Equipment Operations
- i. The respondent shall be responsible for obtaining proper licenses for equipment and personnel operating equipment when licenses are required. The license and supporting documents shall be available for verification by THEA, upon request.

6. LIASON RESPONSIBILITY OF THE RESPONDENT

- a. The respondent shall keep the THEA's Project Manager informed of all significant activities, decisions, correspondence, reports, and other communication related to its responsibilities under this Scope of Services and shall seek input from the THEA's Project Manager in order for the THEA's Project Manager to oversee the respondent's performance.
- b. The respondent shall facilitate communications between all parties (i.e. Design Build Firm, electrical, mechanical, materials, local agencies, etc.) ensuring responses and resolutions are provided in a timely manner. Maintain accurate records to document the communication process.
- c. Administrative duties performed under this Agreement relating to Invoice Approval Requests, Personnel Approval Requests, User ID Requests, Time Extension Requests, and Supplemental Amendment Requests shall be reviewed and approved by the THEA's Project Manager.

7. PERFORMANCE OF THE RESPONDENT

- a. During the term of this Agreement and all Supplemental Amendments thereof, THEA will review various phases of respondent operations, such as construction inspection, materials sampling and testing, and administrative activities, to determine compliance with this Agreement. respondent shall cooperate and assist THEA representatives in conducting the reviews. If deficiencies are indicated, remedial action shall be implemented immediately. THEA recommendations and respondent responses/actions are to be properly documented by the respondent. No additional compensation shall be allowed for remedial action taken by the respondent to correct deficiencies. Remedial actions and required response times may include but are not necessarily limited to the following:
 - i. Further subdivide assigned inspection responsibilities, reassign inspection personnel, or assign additional inspection personnel, within one week of notification.
 - ii. Immediately replace personnel whose performance has been determined by the respondent and/or THEA to be inadequate.
 - iii. Immediately increase the frequency of monitoring and inspection activities in phases of work that are the respondent's responsibility.
 - iv. Increase the scope and frequency of training of the respondent personnel.

8. REQUIREMENTS OF THE RESPONDENT

a. General

- i. It shall be the responsibility of the respondent to administer, monitor, and inspect the Construction Contract such that the Project is constructed in reasonable conformity with the plans, specifications, and special provisions for the Contract.
- ii. The respondent shall observe the Design Build Firm's work to determine the progress and quality of work, identify discrepancies, report significant discrepancies to THEA, and direct Design Build Firm to correct such observed discrepancies.
- iii. The respondent shall consult with THEA's Project Manager as it deems necessary and shall direct all issues, which exceed its delegated authority to THEA's Project Manager for THEA action or direction.
- iv. The respondent shall advise THEA's Project Manager of any significant omissions, substitutions, defects, and deficiencies noted in the work of the Design Build Firm and the corrective action that has been directed to be performed by the Design Build Firm. Work provided by the respondent shall not relieve the Design Build Firm of responsibility for the satisfactory performance of the Contract.

b. Survey Control:

- i. The Design Build Firm shall develop and provide all survey control required for this Contract, if required.

c. Design Coordination: See 3.b. Pre-Construction Phase.

d. Project Resident Inspection:

- i. The respondent shall exercise their independent professional judgment in providing services to monitor and inspect the Design Build Firms on-site construction operations and to inspect all materials entering into the work as required to determine that the quality of workmanship and materials is such that the Project will be completed in a manner which reasonably conforms with the plans, specifications and other contract provisions. The respondent will monitor off-site activities and fabrication if requested by the Construction Project Manager. The respondent shall keep detailed accurate records of the Design Build Firm's daily operations and significant events that affect the work.

e. Sampling and Testing:

- i. Respondent shall inspect and witness all installations, integration, burn-ins, final acceptance testing, factory acceptance testing, and system acceptance testing, including but not limited to, system devices, software, support equipment, interconnection wiring, grounding, and surge protection systems, as identified in the Design Build Firm's scope of work. Respondent shall perform Verification Testing of Materials and field inspection of existing and new fabricated materials as called for in the contract documents.
- ii. The respondent will perform inspection and sampling of materials and

components at locations remote from the project site. In addition, the respondent will perform testing of materials normally done in a laboratory remote from the project site.

f. Engineering Services:

- i. The respondent shall coordinate the Contract administration activities of all parties other than the Design Build Firm involved in completing the construction project. Notwithstanding the above, the respondent is not liable to THEA for failure of such parties to follow written direction issued by the respondent.
- ii. Services include maintaining the required level of surveillance of the Design Build Firm activities, interpreting plans, specifications, and special provisions for the Contract, maintaining complete, accurate records of all activities and events relating to the Project, and properly documenting all significant project changes. The respondent shall perform the following services:
 1. Schedule and attend, within ten (10) days after the Notice to Proceed, a pre- service conference for the Project. The respondent shall provide appropriate staff to attend and participate in the pre-service meeting.
 2. Review all Design Build Firm-Initiated submittals which are subject to a 10 business day review time by THEA. i. ITS and tolling elements are subject to a 15 business day review time by THEA. ii. Review times will commence after THEA performs a completeness review, and in its sole and absolute direction, determines the submittal is sufficiently complete to be reviewed.
 3. Coordinate and manage the Release for Construction (RFC) plan process.
 4. Analyze problems that arise on project and proposals submitted by the Design Build Firm, endeavor to resolve such issues, and process the necessary paperwork.
 5. Monitor, inspect and document Design-Build Firm's utility coordination efforts for compliance with Design-Build contract. Facilitate coordination and communication between Utility Agency's representatives, THEA's staff and Design Build Firms executing the work. Identify potential utility conflicts and assist in the resolution of utility issues including THEA and Local Government owned facilities. Identify, review, and track progress of Joint Project Agreements, and/or other THEA and utility agreements. Address work progress, track reimbursement activities, and address betterment and salvage determination. Prepare all necessary documentation to support reimbursement activities and betterment and salvage determination.
 6. Produce reports, verify quantity calculations, field measure for payment purposes as needed to prevent delays in Design Build Firm operations and ensure prompt processing of such information in order for THEA to make timely payment to the Design Build Firm.

7. Prepare and submit to the Construction Project Manager monthly, a Construction Status Report, in a format to be provided by THEA.
8. Digitally video the pre-construction conditions throughout the Project limits. Provide a digital photo log or video of project activities, with heavy emphasis on potential claim items/issues and on areas of real/potential public controversy.
9. The respondent shall have a digital camera for photographic documentation of noteworthy incidents or events to cover the following areas:
 - a. Pre-construction photographs
 - b. Normal and exceptional progress of work
 - c. Critical path activities
 - d. Accidents showing damage.
 - e. Unsafe working conditions
 - f. Unusual construction techniques
 - g. Damaged equipment or materials
 - h. Any activity, which may result in claims.

These photographs will be filed and maintained on the respondent's computer. Copies of photographs will be electronically transferred to THEA at an interval determined by the Senior Project Engineer and the Construction Project Manager.

The taking of the photographs shall begin the day prior to the start of construction and continue regularly throughout the Project. Photographs shall be taken the days of Conditional, Partial and/or Final Acceptance.

10. The respondent shall validate the accuracy of the Design Build Firm's As-Built data, ensure that all photos of the devices and infrastructure have been obtained, including the fiber splices, and update THEA's ArcGIS database with the As-Built data and photos.

9. PERSONNEL/STAFFING:

- a. Respondent shall provide qualified personnel necessary to efficiently and effectively carry out its responsibilities identified in this Scope of Services.
- b. Respondent shall provide competent personnel qualified by experience and education as submitted to and approved by the THEA Director of Expressway Operations & Engineering.
- c. Once authorized, the respondent shall establish and maintain appropriate staffing throughout the duration of construction and completion of the final estimate. Responsible personnel, thoroughly familiar with all aspects of structural, electrical, mechanical and Intelligent Transportation Systems construction and final measurements of the various pay items, shall be available to resolve disputed final pay quantities until THEA has received a regular acceptance letter.
- d. Construction engineering and inspection forces will be required of the respondent while

the Design Build Firm is working. If Design Build Firm operations are substantially reduced or suspended, the respondent will reduce its staff appropriately.

- e. In the event that the suspension of Design Build Firm operations requires the removal of respondent forces from the project, the respondent will be allowed ten (10) days maximum to demobilize, relocate, or terminate such forces.

10. OTHER SERVICES:

- a. Upon written authorization by the THEA Director of Expressway Operations & Engineering or designee, the respondent will perform additional services in connection with the project not otherwise identified in this Scope of Services. The following items are not included as part of this Scope of Services but may be required by THEA to supplement the respondent services under this Scope of Services.
 - i. Assist in preparing for arbitration hearings or litigation that occurs during the project time in connection with the construction project covered by this Scope of Services.
 - ii. Provide qualified architectural, structural, mechanical, electrical engineering witnesses and exhibits for arbitration hearings or litigation in connection with the Scope of Services.
 - iii. Provide inspection services in addition to those provided for in this Scope of Services.
 - iv. Provide services determined necessary for the successful completion and closure of the Contract.

11. PROJECT NO. 2 DESCRIPTION

- a. Grounding Reversible Express Lanes (REL) Uplighting Phased Design-Build Project –. Project includes:

- i. Design, construction and integration of a grounding system as depicted in the concept plans.
- ii. Warranty and maintenance for and of the system, as further detailed in the scope of work.
- iii. Documentation of the system and provision of user and training manuals.

12. REQUESTED SERVICES

- a. Exercise independent professional judgment in providing structural, electrical, mechanical, roadway and Intelligent Transportation Systems review and coordination services, in performing Construction Engineering and Inspection services responsibilities as defined in this Scope of Services for the Phased Design-Build projects. Specific CEI Services Tasks provided by the respondent , in addition to others that may be recommended include the following:
- b. Pre-Construction Phase
 - i. Attendance at the design progress meetings that will include THEA and the Contractor, and assistance with THEA's design approval process.
 - ii. Review of Contractor's layout and integration plans for the Phased Design-Build projects.

- iii. Participation with the Contractor in developing strategies for phasing of the construction and maintaining an operable facility during construction.
- iv. Assistance to THEA with any required value engineering or scope change exercises.
- v. Review of the permit application process to ensure that the Contractor is obtaining permits in a timely manner, any signatures and payments required by THEA.
- vi. Review of design documents and specifications.
- vii. Perform constructability and phasing review of design documents.
- viii. Review and compare Contractor's Project schedules and coordinate with the Contractor to resolve potential conflicts.
- ix. Administration of all communication between the Contractor for the project, and THEA.

c. Construction Phase

- i. Administration of all communication between the Contractor for the project, and THEA.
- ii. Schedule and Conduct Project Kickoff Meeting once Contractor has Notice to Proceed (NTP).
- iii. Consultant shall inspect and witness all installations, integration, burn-ins, final acceptance testing, factory acceptance testing, and system acceptance testing, including but not limited to, system devices, software, support equipment, interconnection wiring, grounding, and surge protection systems, as identified in the Contractor's scope of work.
- iv. Provide coordination between the City of Tampa Traffic Management Center employees and the Contractor.
- v. Provide coordination, constructability reviews, and document management of shop drawing submittals, material submittals, testing results, as applicable.
- vi. Provide Review and Oversight of the Contract's schedule and general observation of the work on a regular basis as required to keep THEA informed on the progress of the work.
- vii. Conduct weekly THEA and Vendor Progress Meetings and provide written minutes and reports of all items requiring THEA's attention and serve as an extension of THEA staff.
- viii. Review of the Vendor and all THEA Contractor's requests for payment.
- ix. Oversight for coordinating owner supplied materials to the Contractor and to ensure that the Contractor is appropriately administering the THEA's Tax-Exempt Direct Material Purchase Program if applicable.
- x. Oversight of the Contractor's efforts to confirm its scope of services are being provided in accordance with the Contract Documents.
- xi. Verify that Contractor has all necessary permits/approvals prior to starting respective phases of work.
- xii. General oversight to ensure that the Contractor is maintaining a neat and orderly job site, and to report to the Contractor any complaints from THEA regarding construction activities that may be a disruption to the operation of the facility.
- xiii. Advise and report to THEA any major conflicts, issues or unforeseen conditions that may arise during the construction that require the THEA's involvement.
- xiv. Advise and involve THEA in any additional design decisions that may be required during the progress of the work.

- xv. Provide independent, impartial recommendations to THEA regarding potential conflicts or omissions in the Contract Documents that may result in added time or cost to the job.
- xvi. Review and make recommendations to THEA on the Contractor's cost proposals or claims for delay.
- xvii. Coordination of THEA's Subcontractors and Vendors with the Contractor.
- xviii. General oversight of the Contractor and THEA's Substantial and Final Inspections and their acceptance of the work.
- xix. Oversight of and review and acceptance of the warranty and close-out documents, including As-Built Plans and documents.
- xx. Oversight of the Contractor's operation and maintenance instruction process.

13. ITEMS TO BE FURNISHED BY THEA TO THE RESPONDENT

- a. THEA, on an as needed basis, will furnish the following Construction Contract documents for the project. These documents may be provided in either paper or electronic format.
 - i. Copy of the Executed Construction Contract with the Contractor.
 - ii. Layout and Integration Plans as they are developed by the Contractor.
 - iii. Specifications as provided by the Contractor.
 - iv. Public Information Services if Necessary
 - v. Provide a field office with sufficient room and furnishings to effectively carry out their responsibilities under this Scope of Services. Field office shall be approved by the Authority. Field Office expenses will be compensated in accordance with Exhibit B, Method of Compensation.

14. ITEMS FURNISHED BY THE RESPONDENT

- a. Office Automation
 - i. Provide all software and hardware necessary to efficiently and effectively carry out the responsibilities under this Agreement.
 - ii. All computer software and/or associated data for performing these CEI services shall be input by respondent's, personnel or subconsultants using equipment furnished by the respondent.
 - iii. Ownership and possession of computer equipment and related software, which is provided by the respondent, shall remain at all times with the respondent. The respondent shall retain responsibility for risk of loss or damage to said equipment during performance of this Agreement. Field office equipment should be maintained and operational at all times.
- b. Vehicles
 - i. Vehicles will be equipped with appropriate safety equipment and must be able to effectively carry out requirements of this Agreement. Vehicles that shall have the name of the consulting firm visibly displayed.
- c. Field Equipment
 - i. The respondent shall supply survey, inspection and testing equipment, essential in order to carry out the work under this Scope of Services. Such equipment includes those non- consumable and non-expendable items, which are normally needed for this type of CEI project and are essential in order to carry out the work in this Scope of Services.

- ii. Hard hats shall have the name of the consulting firm visibly displayed.
 - iii. Equipment described herein and expendable materials under this Scope of Services will remain the property of the respondent and shall be removed at completion of the work.
 - iv. The respondent shall retain responsibility for risk of loss or damage to said equipment during performance of this Scope of Services. Field office equipment shall be maintained and in operational condition at all times.
- d. Licensing for Equipment Operations
- i. The respondent shall be responsible for obtaining proper licenses for equipment and personnel operating equipment when licenses are required. The license and supporting documents shall be available for verification by THEA, upon request.

15. LIASON RESPONSIBILITY OF THE RESPONDENT

- a. The respondent shall keep the Authority's Project Manager informed of all significant activities, decisions, correspondence, reports, and other communication related to its responsibilities under this Scope of Services and shall seek input from the Authority's Project Manager in order for the Authority's Project Manager to oversee the respondent's performance.
- b. The respondent shall facilitate communications between all parties (i.e. Contractor, electrical, mechanical, materials, local agencies, etc.) ensuring responses and resolutions are provided in a timely manner. Maintain accurate records to document the communication process.
- c. Administrative duties performed under this Agreement relating to Invoice Approval Requests, Personnel Approval Requests, User ID Requests, Time Extension Requests, and Supplemental Amendment Requests shall be reviewed and approved by the Authority's Project Manager.

16. PERFORMANCE OF THE RESPONDENT

- a. During the term of this Agreement and all Supplemental Amendments thereof, THEA will review various phases of respondent operations, such as construction inspection, materials sampling and testing, and administrative activities, to determine compliance with this Agreement. Respondent shall cooperate and assist THEA representatives in conducting the reviews. If deficiencies are indicated, remedial action shall be implemented immediately. THEA recommendations and respondent responses/actions are to be properly documented by the respondent. No additional compensation shall be allowed for remedial action taken by the Respondent to correct deficiencies. Remedial actions and required response times may include but are not necessarily limited to the following:
 - i. Further subdivide assigned inspection responsibilities, reassign inspection personnel, or assign additional inspection personnel, within one week of notification.
 - ii. Immediately replace personnel whose performance has been determined by the respondent and/or THEA to be inadequate.
 - iii. Immediately increase the frequency of monitoring and inspection activities in phases of work that are the respondent's responsibility.
 - iv. Increase the scope and frequency of training of the respondent personnel.

17. REQUIREMENTS OF THE RESPONDENT

a. General

- i. It shall be the responsibility of the Respondent to administer, monitor, and inspect the Construction Contract such that the Project is constructed in reasonable conformity with the plans, specifications, and special provisions for the Contract.
- ii. The Respondent shall observe the Contractor's work to determine the progress and quality of work, identify discrepancies, report significant discrepancies to THEA, and direct Contractor to correct such observed discrepancies.
- iii. The Respondent shall consult with the Authority's Project Manager as it deems necessary and shall direct all issues, which exceed its delegated authority to the Authority's Project Manager for THEA action or direction.
- iv. The Respondent shall advise the Authority's Project Manager of any significant omissions, substitutions, defects, and deficiencies noted in the work of the Contractor and the corrective action that has been directed to be performed by the Contractor. Work provided by the Respondent shall not relieve the Contractor of responsibility for the satisfactory performance of the Contract.

b. Survey Control:

- i. The Contractor shall develop and provide all survey control required for this Contract, if required.

c. Design Coordination: See 3.b. Pre-Construction Phase.

d. Project Resident Inspection:

- i. The Respondent shall exercise their independent professional judgment in providing services to monitor and inspect the Contractors on-site construction operations and to inspect all materials entering into the work as required to determine that the quality of workmanship and materials is such that the Project will be completed in a manner which reasonably conforms with the plans, specifications and other contract provisions. The Respondent will monitor off-site activities and fabrication if requested by the Construction Project Manager. The Respondent shall keep detailed accurate records of the Contractor's daily operations and significant events that affect the work.

e. Sampling and Testing:

- i. Respondent shall inspect and witness all installations, integration, burn-ins, final acceptance testing, factory acceptance testing, and system acceptance testing, including but not limited to, system devices, software, support equipment, interconnection wiring, grounding, and surge protection systems, as identified in the Contractor's scope of work. Respondent shall perform Verification Testing of Materials and field inspection of existing and new fabricated materials as

called for in the contract documents.

- ii. The Respondent will perform inspection and sampling of materials and components at locations remote from the project site. In addition, the Respondent will perform testing of materials normally done in a laboratory remote from the project site.

f. Engineering Services:

- i. The Respondent shall coordinate the Contract administration activities of all parties other than the Contractor involved in completing the construction project. Notwithstanding the above, the Respondent is not liable to THEA for failure of such parties to follow written direction issued by the Respondent.
- ii. Services include maintaining the required level of surveillance of the Contractor activities, interpreting plans, specifications, and special provisions for the Contract, maintaining complete, accurate records of all activities and events relating to the Project, and properly documenting all significant project changes. The Respondent shall perform the following services:
 - 1. Schedule and attend, within ten (10) days after the Notice to Proceed, a pre- service conference for the Project. The Respondent shall provide appropriate staff to attend and participate in the pre-service meeting.
 - 2. Review all Contractor-Initiated submittals are subject to a 10 business day review time by the Authority. i. ITS and tolling elements are subject to a 15 business day review time by the Authority. ii. Review times will commence after the Authority performs a completeness review, and in its sole and absolute direction, determines the submittal is sufficiently complete to be reviewed.
 - 3. Coordinate and manage the Release for Construction (RFC) plan process.
 - 4. Analyze problems that arise on project and proposals submitted by the Contractor, endeavor to resolve such issues, and process the necessary paperwork.
 - 5. Monitor, inspect and document Design-Build Firm's utility coordination efforts for compliance with Design-Build contract. Facilitate coordination and communication between Utility Agency's representatives, Authority's staff and Contractors executing the work. Identify potential utility conflicts and assist in the resolution of utility issues including Authority and Local Government owned facilities. Identify, review, and track progress of Joint Project Agreements, and/or other Authority and utility agreements. Address work progress, track reimbursement activities, and address betterment and salvage determination. Prepare all necessary documentation to support reimbursement activities and betterment and salvage determination.

6. Produce reports, verify quantity calculations, field measure for payment purposes as needed to prevent delays in Contractor operations and ensure prompt processing of such information in order for THEA to make timely payment to the Contractor.
7. Prepare and submit to the Construction Project Manager monthly, a Construction Status Report, in a format to be provided by THEA.
8. Digitally video the pre-construction conditions throughout the Project limits. Provide a digital photo log or video of project activities, with heavy emphasis on potential claim items/issues and on areas of real/potential public controversy.
9. The Respondent shall have a digital camera for photographic documentation of noteworthy incidents or events to cover the following areas:
 - a. Pre-construction photographs
 - b. Normal and exceptional progress of work
 - c. Critical path activities
 - d. Accidents showing damage.
 - e. Unsafe working conditions
 - f. Unusual construction techniques
 - g. Damaged equipment or materials
 - h. Any activity, which may result in claims.

These photographs will be filed and maintained on the Respondent's computer. Copies of photographs will be electronically transferred to the CPM at an interval determined by the Senior Project Engineer and the Construction Project Manager.

The taking of the photographs shall begin the day prior to the start of construction and continue regularly throughout this Project. Photographs shall be taken the days of Conditional, Partial and/or Final Acceptance.

10. The Respondent shall validate the accuracy of the Contractor's As-Built data, ensure that all photos of the devices and infrastructure have been obtained, including the fiber splices, and update THEA's ArcGIS database with the As-Built data and photos.

18. PERSONNEL/STAFFING:

- a. Respondent shall provide qualified personnel necessary to efficiently and effectively carry out its responsibilities identified in this Scope of Services.
- b. Respondent shall provide competent personnel qualified by experience and education as submitted to and approved by the THEA Director of Expressway Operations & Engineering.
- c. Once authorized, the Respondent shall establish and maintain appropriate staffing throughout the duration of construction and completion of the final estimate. Responsible personnel, thoroughly familiar with all aspects of structural, electrical, mechanical and

Intelligent Transportation Systems construction and final measurements of the various pay items, shall be available to resolve disputed final pay quantities until THEA has received a regular acceptance letter.

- d. Construction engineering and inspection forces will be required of the Respondent while the Contractor is working. If Contractor operations are substantially reduced or suspended, the Respondent will reduce its staff appropriately.
- e. In the event that the suspension of Contractor operations requires the removal of Respondent forces from the project, the Respondent will be allowed ten (10) days maximum to demobilize, relocate, or terminate such forces.

19. OTHER SERVICES:

- a. Upon written authorization by the THEA Director of Expressway Operations & Engineering or designee, the Respondent will perform additional services in connection with the project not otherwise identified in this Scope of Services. The following items are not included as part of this Scope of Services but may be required by THEA to supplement the Respondent services under this Scope of Services.
 - i. Assist in preparing for arbitration hearings or litigation that occurs during the project time in connection with the construction project covered by this Scope of Services.
 - ii. Provide qualified architectural, structural, mechanical, electrical engineering witnesses and exhibits for arbitration hearings or litigation in connection with the Scope of Services.
 - iii. Provide inspection services in addition to those provided for in this Scope of Services.

Provide services determined necessary for the successful completion and closure of the Contract.

20. LENGTH OF SERVICES

- a. The respondent services for the Contract shall begin upon written notification to proceed by the THEA.
- b. The respondent's Senior Project Engineer will track the execution of the Construction Contract such that the respondent is given timely authorization to begin work. While no personnel shall be assigned until written notification by the THEA has been issued, the respondent shall be ready to assign personnel within two weeks of notification. For the duration of the Project, the respondent shall coordinate closely with the THEA and the Design Build Firm to minimize rescheduling of respondent activities due to construction delays or changes in scheduling of the Vendor's activities.
- c. For estimating purposes, the respondent will be allowed an accumulation of fourteen (14) working days to perform preliminary administrative services prior to the issuance of the Design Build Firm's notice to proceed on and fourteen (14) calendar days to demobilize after final acceptance of the project.

INSURANCE REQUIREMENTS, COVERAGES and LIMITS
for
Tampa-Hillsborough County Expressway Authority

Contractors, Contractors and Vendors, hereinafter referred to collectively and individually as "Insured" conducting business with the Tampa-Hillsborough County Expressway, "THEA" are required to maintain adequate insurance coverages and provide insurance certification to THEA.

A. INSURANCE REQUIREMENTS:

- 1) All insurance shall be from responsible insurance companies eligible to do business in the State of Florida and having an AM Best rating of A- or better and a financial size category of VII or better. Utilization of non-rated companies or companies with AM Best ratings lower than A- or a financial size category lower than VII may be approved on a case by case basis. If the insurer does not meet these requirements, the THEA retains the right to approve or disapprove the use of the insurer.
- 2) INSURED'S liability policies, other than the Workers' Compensation and Professional Liability, shall provide that the THEA, its officials, officers and employees are additional named insured as to the operations of the INSURED under this agreement.
- 3) INSURED'S liability policies, other than the Workers' Compensation and Professional Liability, shall provide the "Severability of Interest" provision (a/k/a "Separation of Insured" provision).
- 4) The INSURED'S Certificate of Insurance(s) shall provide THEA as an additional certificate holder for all policies issued.
- 5) The INSURED'S Certificate of Insurance(s) shall state the description of the operations, i.e., "Name of Agreement" between THEA and "Name of Insured" and shall state the Contract Number assigned for the agreement between THEA and the INSURED.
- 6) The INSURED shall deliver to THEA, within ten (10) days from the receipt of a Notice of Award of this agreement, properly executed Certificate(s) of Insurance on insurance industry standard certificate of insurance form(s) (example: ACORD form) setting forth the insurance coverages and limits required herein. All of the required insurance coverages shall be issued as required by law and shall be endorsed, where necessary, to comply with the minimum requirements contained herein.
- 7) Except as otherwise specified in the agreement, the insurance will commence on or prior to the effective date of the agreement and will be maintained in force throughout the duration of the agreement. Three years completed operations coverages may be required to be maintained on specific commercial general liability policies and/or professional liability policies effective on the date of substantial completion or the termination of the agreement, whichever is earlier.
- 8) Aggregate Policy Limits on policies required of INSURED shall apply exclusively for this agreement.

- 9) INSURED authorizes THEA to verify its insurance information with its insurance agents, brokers, surety, and insurance carriers. At THEA's request, INSURED shall provide copies of the policies at no cost to THEA, subject to redaction by the INSURED of any proprietary information.
- 10) All insurance coverages of the INSURED shall be primary to any insurance or self-insurance programs carried by THEA; and any THEA insurance or coverages shall not be contributory to INSURED'S insurance requirements in this agreement.
- 11) The insurance coverages and limits required of the INSURED under this agreement are designed to meet the minimum requirements of THEA. They are not designed as a recommended insurance program for the INSURED. The INSURED alone shall be responsible for the sufficiency of its own insurance program.
- 12) All policies of insurance required herein will be specifically endorsed to require the insurer provide THEA with thirty (30) day notice prior to any cancellation, intent not to renew any policy and/or any change that will reduce the insurance coverages required in this agreement, except for the application of the Aggregate Limits Provisions.

The endorsement will specify that such notice will be sent to:

Tampa-Hillsborough Expressway Authority,
(THEA) Contracts & Procurement Manager
1104 East Twiggs St, Suite 300
Tampa, FL 33602

- 13) THEA accepts no responsibility for determining whether the INSURED'S insurance is in full compliance with the insurance required by the agreement. Neither the approval by THEA nor the failure to disapprove the insurance furnished by the INSURED will relieve the INSURED of their full responsibility to provide the insurance required by this agreement.
- 14) If the INSURED fails to provide or maintain the insurance coverages required in this AGREEMENT, the THEA may terminate or suspend this agreement, or, at THEA's sole discretion, may obtain such coverages and invoice the INSURED and include a 15% administrative cost. If not paid within 45 days, the amount will be deducted from INSURED'S invoice. The decision of THEA to purchase such insurance coverages shall in no way be construed as a waiver of its rights under this agreement.
- 15) INSURED shall fully comply with the insurance requirements of this agreement unless excused in writing by THEA. Any deductible applicable to any claim shall be the responsibility of the INSURED.
- 16) Any liability insurance aggregate limits are to be confirmed in writing by the respective insurance company that to their knowledge, as of the date of the agreement, there are no pending claims or legal actions against the INSURED, which if resolved in favor of the claimant would impair the insurance company's ability to cover the minimum insurance limits stated herein.
- 17) Current Insurance Service Office (ISO) policies, forms, and endorsements or broader shall be used where applicable. Notwithstanding the foregoing, the wording of all policies, forms, and endorsements must be acceptable to THEA without restrictive endorsement.
- 18) The INSURED will not commence work, use or occupy THEA premises in

connection with the agreement until the required insurance is in force, preliminary evidence of insurance acceptable to THEA has been provided to THEA and the THEA has granted permission to the INSURED to commence work or use or occupy the premises in connection with the agreement.

- 19) Upon request, the INSURED shall promptly make available a certified, true and exact copy of the insurance policy and endorsements issued to the policy and any renewal thereof for THEA's review and inspection. In the event of cancellation or non-renewal of this insurance, the INSURED agrees to purchase the maximum "extended claims reporting period" permitted under the policy within the time allowed, unless replacement coverages is obtained with retroactive coverages applicable as of the date the INSURED services started under this agreement.
- 20) All insurance minimum coverages limits extend to any Subcontractor and the Prime INSURED is responsible for all Subcontractors.

B. INSURANCE COVERAGES and LIMITS:

For the term of this agreement the INSURED shall procure and maintain insurances of the types and limits specified herein.

- 1) **Workers' Compensation and Employers' Liability Insurance** - The minimum limits of Worker's Compensation/Employer's Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) are:

Workers' Compensation Requirements	Florida Statutory
Employers' Liability	
Each Accident	\$500,000
Disease – Policy Limit	\$500,000
Disease - Each Employee	\$500,000

- 2) **Commercial General Liability Insurance** - The minimum limits of Commercial General Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) are:

General Aggregate	\$1,000,000
Per Person	\$1,000,000
Each Occurrence	\$2,000,000
Personal Injury	\$1,000,000
Property Damage	\$1,000,000
Products & Completed Operations	\$1,000,000

The General Aggregate Limit must be specifically applicable to the agreement between THEA and the INSURED.

The Certificate must reflect whether the policy is "claims made" or "occurrence".

Products & Completed Operations coverages to be maintained for three (3) years after final completion of the work under this agreement.

- 3) **Business Automobile Liability Insurance** - The minimum limits of Business

Automobile Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) covering ownership, maintenance, use, loading and unloading of all its owned, non-owned, leased or hired vehicles are:

Bodily Injury	
Each Person	\$1,000,000
Each Accident	\$1,000,000
Property Damage	\$1,000,000
Bodily Injury & Property Damage Combined	\$1,000,000

- 4) **Umbrella Liability Insurance or Excess Liability Insurance** – Umbrella Liability Insurance or Excess Liability Insurance must provide the same coverages as required for the underlying Commercial General, Business Automobile and Employers' Liability Coverages with no gaps in continuity of coverages or limits.

Bodily Injury & Property Damage Combined	
Each Occurrence	\$2,000,000
Aggregate (specific to this agreement)	\$2,000,000
Aggregate (not specific to this agreement)	\$1,000,000

- 5) **Professional Liability Insurance, also known as “Errors and Omissions”.**

The minimum limits of Professional Liability Insurance covering all work of the INSURED without any exclusions unless approved in writing by THEA are:

Each Claim	\$1,000,000
Aggregate	\$1,000,000

Any deductible applicable to any claim shall be the responsibility of the INSURED and shall not be greater than \$100,000 unless approved by the THEA in writing. This coverages shall be maintained by the INSURED for a period of not less than three (3) years from the date the INSURED has completed and the THEA has accepted the services under this agreement.

- 6) **Fiduciary Liability Insurance** - The minimum limits of Fiduciary Liability Insurance covering all work of the INSURED without any exclusions unless approved in writing by THEA are:

Each Claim	\$5,000,000
Aggregate	\$5,000,000

Any deductible applicable to any claim shall be the responsibility of the INSURED and shall not be greater than \$100,000 unless approved by the THEA in writing. This coverages shall be maintained by the INSURED for a period of not less than three (3) years from the date the INSURED has completed and the THEA has accepted the services under this agreement.

- 7) **Environmental Impairment (Pollution) Liability, (if required)** – Environmental Impairment (Pollution) Liability insurance is required **only** if specifically stated in the LOR Instructions and Submittal Documents package at Section A, Paragraph 2.17.

If required, the minimum limits of Environmental Impairment (Pollution) Liability insurance coverages (inclusive of any amount provided by an umbrella or excess policy) for liability resulting from pollution or other environmental impairment in connection with operations performed by or on behalf of INSURED under this

agreement or the use or occupancy of THEA premises by or on behalf of the
INSURED are:

Each Occurrence	\$1,000,000
Annual Aggregate	\$1,000,000

**TAMPA-HILLSBOROUGH
EXPRESSWAY AUTHORITY**

CONTRACT PLANS

PROJECT NO. HI-0149

HILLSBOROUGH COUNTY

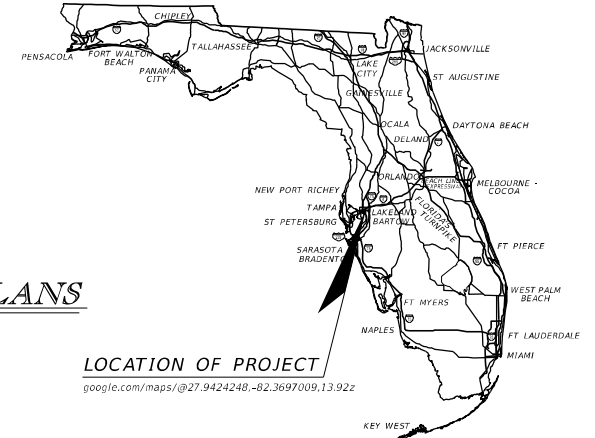
LEE ROY SELMON CROSSTOWN EXPRESSWAY
STATE ROAD NO. 618

INTELLIGENT TRANSPORTATION SYSTEM PLANS

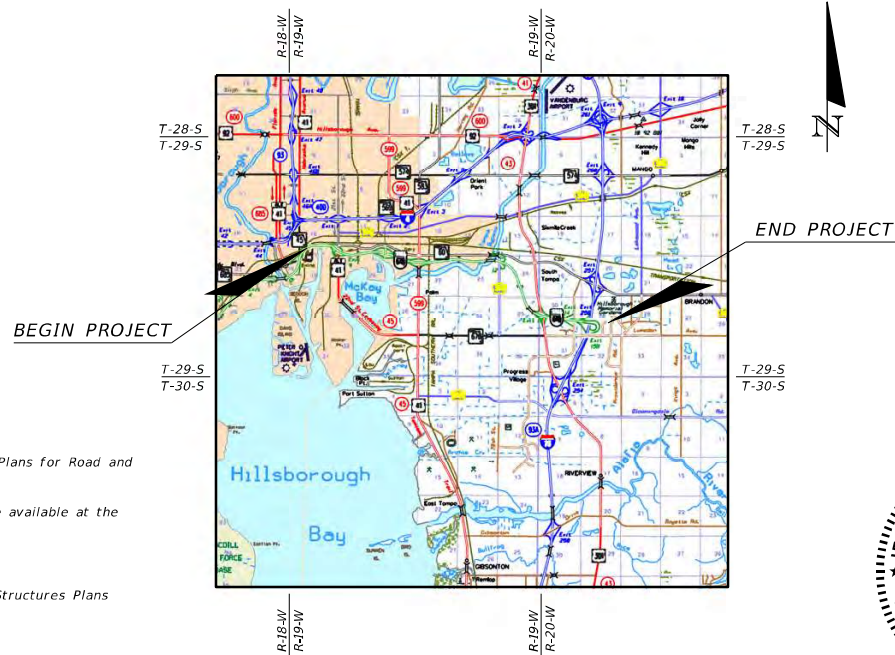
**CONTROL SYSTEM AND DMS FIBER
COMMUNICATIONS UPGRADES**

INDEX OF INTELLIGENT TRANSPORTATION SYSTEM (ITS) PLANS

SHEET NO.	SHEET DESCRIPTION
IT-1	KEY SHEET
IT-2 THRU IT-12	TABULATION OF QUANTITIES SHEETS
IT-13 THRU IT-14A	LEGEND/GENERAL NOTES
IT-15 THRU IT-111	INTELLIGENT TRANSPORTATION SYSTEM PLAN SHEETS
D1 THRU D-6	COMMUNICATIONS AND SYSTEM DETAILS
D-7 THRU D-14	FIBER SPLICE DETAILS
D-15	FIBER OPTIC PULL BOX DETAILS



FINAL PLANS - SUBMITTAL
JANUARY 12, 2024



ENGINEER OF RECORD:

JEFFREY LAWRENCE, P.E., PTOE
P.E. NO.: 42883
KCI TECHNOLOGIES, INC.
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

THEA PROJECT MANAGER:

JUDITH VILLEGAS, E.I.

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY 2023-24 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

APPLICABLE IRs: NONE

Standard Plans for Bridge Construction are included in the Structures Plans Component

GOVERNING STANDARD SPECIFICATIONS:

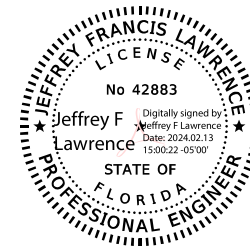
Florida Department of Transportation, FY 2023-24 Standard Specifications for Road and Bridge Construction at the following website: <http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY

Jeffrey F. Lawrence 02/13/2024

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED SIGNED AND SEALED
AND THE SIGNATURE MUST BE VERIFIED
ON ANY ELECTRONIC COPIES.



CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
TBD	24	IT-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																		TOTAL THIS SHEET		GRAND TOTAL		
			IT-24		IT-25		IT-26		IT-27		IT-28		IT-29		IT-30		IT-31		IT-32		PLAN	FINAL	PLAN	FINAL	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL					
101-1	MOBILIZATION	LS																							
102-1	MAINTENANCE OF TRAFFIC	LS																							
611-1-1	ITSFM SUB-SURFACE DOCUMENTATION - PROJECT LENGTH	MI																							
611-2-2	ITSFM LOCATION DOCUMENTATION - ITS SITE	EA														1		1		1					3
630-2-90	CONDUIT PROOFING (PER PLANS)	LF															135		791						926
633-1-111	FIBER OPTIC DROP CABLE, ABOVE GROUND, 12 FIBERS, F&I	LF														15		15							30
633-1-113	FIBER OPTIC DISTRIBUTION CABLE, ABOVE GROUND, 72 FIBERS, F&I	LF	741		748		730		843		753		751		743		601								5910
633-1-121	FIBER OPTIC DROP CABLE, UNDERGROUND, 12 FIBERS, F&I	LF													100		189		114						403
633-1-122	FIBER OPTIC DROP CABLE, UNDERGROUND, 24 FIBERS, F&I	LF																							
633-1-123	FIBER OPTIC DISTRIBUTION CABLE, UNDERGROUND, 72 FIBERS, F&I	LF															135		777						912
633-2-31	FIBER OPTIC SPLICE, INSTALL	EA													4		4		4						12
633-2-32	FIBER OPTIC TERMINATION, INSTALL	EA													16		16		16						48
633-3-11	FIBER OPTIC SPLICE ENCLOSURE, F&I	EA													1		1		1						3
633-3-12	FIBER OPTIC SPLICE TRAY, F&I	EA													1		1		1						3
633-3-16	FIBER PATCH PANEL-FIELD TERMINATED, F&I	EA													1		1		1						3
633-3-51	FIBER OPTIC HARDWARE - ADJUST/MODIFY SPLICE ENCLOSURE (REMOVE)	EA													1		1		1						3
633-8-6	REMOVAL OF MULTI-CONDUCTOR COMMUNICATION CABLE (PER PLANS)	LF														898		2456		1748					5102
635-2-12	FIBER PULL & SPLICE BOX, 24" X 36" X 30", F&I	EA																							
635-2-40	PULL & SPLICE BOX, RELOCATE (REMOVE)	EA																							
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL ONLY	EA														1		1		1					3
684-1-6	REMOVAL OF MANAGED FIELD ETHERNET SWITCH	EA																							
684-7	ACN MANAGED HUB ETHERNET LAYER 3 SWITCH, F&I	EA																							
684-8-1	WEB RELAY I/O CONTROLLER, F&I	EA																							
684-8-2	WEB RELAY PROGRAMMABLE CONTROLLER, F&I	EA														1		1		1					3
684-8-3	RELAY WEB EXPANSION MODULE, F&I	EA																							
684-8-4	DIGITAL INPUT WEB EXPANSION MODULE, F&I	EA																							
684-9-1	CELLULAR ROUTER, F&I	EA																							
690-100	REMOVAL OF MISCELLANEOUS EQUIPMENT (PER PLANS) - PER SITE	PI																							

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TABULATION OF QUANTITIES	SHEET NO. IT-3
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH			

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																		TOTAL THIS SHEET		GRAND TOTAL	
			IT-33		IT-34		IT-35		IT-36		IT-37		IT-38		IT-39		IT-40		IT-41		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
101-1	MOBILIZATION	LS																						
102-1	MAINTENANCE OF TRAFFIC	LS																						
611-1-1	ITSFM SUB-SURFACE DOCUMENTATION - PROJECT LENGTH	MI																						
611-2-2	ITSFM LOCATION DOCUMENTATION - ITS SITE	EA				1		1														2		
630-2-90	CONDUIT PROOFING (PER PLANS)	LF	699		1174		1019		574													3,466		
633-1-111	FIBER OPTIC DROP CABLE, ABOVE GROUND, 12 FIBERS, F&I	LF																						
633-1-113	FIBER OPTIC DISTRIBUTION CABLE, ABOVE GROUND, 72 FIBERS, F&I	LF						152		728		731		731		746		745				3833		
633-1-121	FIBER OPTIC DROP CABLE, UNDERGROUND, 12 FIBERS, F&I	LF			573		343															916		
633-1-122	FIBER OPTIC DROP CABLE, UNDERGROUND, 24 FIBERS, F&I	LF					142															142		
633-1-123	FIBER OPTIC DISTRIBUTION CABLE, UNDERGROUND, 72 FIBERS, F&I	LF	724		751		756		599													2830		
633-2-31	FIBER OPTIC SPLICE, INSTALL	EA					20															20		
633-2-32	FIBER OPTIC TERMINATION, INSTALL	EA			16		32															48		
633-3-11	FIBER OPTIC SPLICE ENCLOSURE, F&I	EA					2															2		
633-3-12	FIBER OPTIC SPLICE TRAY, F&I	EA					5															5		
633-3-16	FIBER PATCH PANEL-FIELD TERMINATED, F&I	EA			1		1															2		
633-3-51	FIBER OPTIC HARDWARE - ADJUST/MODIFY SPLICE ENCLOSURE (REMOVE)	EA					1															1		
633-8-6	REMOVAL OF MULTI-CONDUCTOR COMMUNICATION CABLE (PER PLANS)	LF	2097		3049		1389															6535		
635-2-12	FIBER PULL & SPLICE BOX, 24" X 36" X 30", F&I	EA		1																		1		
635-2-40	PULL & SPLICE BOX, RELOCATE (REMOVE)	EA		1																		1		
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL ONLY	EA			1																	1		
684-1-6	REMOVAL OF MANAGED FIELD ETHERNET SWITCH	EA					1															1		
684-7	ACN MANAGED HUB ETHERNET LAYER 3 SWITCH, F&I	EA					1															1		
684-8-1	WEB RELAY I/O CONTROLLER, F&I	EA					1															1		
684-8-2	WEB RELAY PROGRAMMABLE CONTROLLER, F&I	EA			1																	1		
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690-100	REMOVAL OF MISCELLANEOUS EQUIPMENT (PER PLANS) - PER SITE	PI					1															1		

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TABULATION OF QUANTITIES		SHEET NO.	
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID			IT-4	
							S.R. 618	HILLSBOROUGH					

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																		TOTAL THIS SHEET		GRAND TOTAL	
			IT-42		IT-43		IT-44		IT-45		IT-46		IT-47		IT-48		IT-49		IT-50		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
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630-2-90	CONDUIT PROOFING (PER PLANS)	LF																						
633-1-111	FIBER OPTIC DROP CABLE, ABOVE GROUND, 12 FIBERS, F&I	LF																						
633-1-113	FIBER OPTIC DISTRIBUTION CABLE, ABOVE GROUND, 72 FIBERS, F&I	LF	731		748		746		730		747		731		746		750		738		6667			
633-1-121	FIBER OPTIC DROP CABLE, UNDERGROUND, 12 FIBERS, F&I	LF																						
633-1-122	FIBER OPTIC DROP CABLE, UNDERGROUND, 24 FIBERS, F&I	LF																						
633-1-123	FIBER OPTIC DISTRIBUTION CABLE, UNDERGROUND, 72 FIBERS, F&I	LF																						
633-2-31	FIBER OPTIC SPLICE, INSTALL	EA																						
633-2-32	FIBER OPTIC TERMINATION, INSTALL	EA																						
633-3-11	FIBER OPTIC SPLICE ENCLOSURE, F&I	EA																						
633-3-12	FIBER OPTIC SPLICE TRAY, F&I	EA																						
633-3-16	FIBER PATCH PANEL-FIELD TERMINATED, F&I	EA																						
633-3-51	FIBER OPTIC HARDWARE - ADJUST/MODIFY SPLICE ENCLOSURE (REMOVE)	EA																						
633-8-6	REMOVAL OF MULTI-CONDUCTOR COMMUNICATION CABLE (PER PLANS)	LF																						
635-2-12	FIBER PULL & SPLICE BOX, 24" X 36" X 30", F&I	EA																						
635-2-40	PULL & SPLICE BOX, RELOCATE (REMOVE)	EA																						
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL ONLY	EA																						
684-1-6	REMOVAL OF MANAGED FIELD ETHERNET SWITCH	EA																						
684-7	ACN MANAGED HUB ETHERNET LAYER 3 SWITCH, F&I	EA																						
684-8-1	WEB RELAY I/O CONTROLLER, F&I	EA																						
684-8-2	WEB RELAY PROGRAMMABLE CONTROLLER, F&I	EA																						
684-8-3	RELAY WEB EXPANSION MODULE, F&I	EA																						
684-8-4	DIGITAL INPUT WEB EXPANSION MODULE, F&I	EA																						
684-9-1	CELLULAR ROUTER, F&I	EA																						
690-100	REMOVAL OF MISCELLANEOUS EQUIPMENT (PER PLANS) - PER SITE	PI																						

REVISIONS				ENGINEER OF RECORD				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TABULATION OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578				ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-5
								S.R. 618	HILLSBOROUGH			

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																		TOTAL THIS SHEET		GRAND TOTAL	
			IT-51		IT-52		IT-53		IT-54		IT-55		IT-56		IT-57		IT-58		IT-59		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
101-1	MOBILIZATION	LS																						
102-1	MAINTENANCE OF TRAFFIC	LS																						
611-1-1	ITSFM SUB-SURFACE DOCUMENTATION - PROJECT LENGTH	MI																						
611-2-2	ITSFM LOCATION DOCUMENTATION - ITS SITE	EA																						
630-2-90	CONDUIT PROOFING (PER PLANS)	LF																						
633-1-111	FIBER OPTIC DROP CABLE, ABOVE GROUND, 12 FIBERS, F&I	LF																						
633-1-113	FIBER OPTIC DISTRIBUTION CABLE, ABOVE GROUND, 72 FIBERS, F&I	LF	753		731		746		731		749		733		749		747		747		6686			
633-1-121	FIBER OPTIC DROP CABLE, UNDERGROUND, 12 FIBERS, F&I	LF																						
633-1-122	FIBER OPTIC DROP CABLE, UNDERGROUND, 24 FIBERS, F&I	LF																						
633-1-123	FIBER OPTIC DISTRIBUTION CABLE, UNDERGROUND, 72 FIBERS, F&I	LF																						
633-2-31	FIBER OPTIC SPLICE, INSTALL	EA																						
633-2-32	FIBER OPTIC TERMINATION, INSTALL	EA																						
633-3-11	FIBER OPTIC SPLICE ENCLOSURE, F&I	EA																						
633-3-12	FIBER OPTIC SPLICE TRAY, F&I	EA																						
633-3-16	FIBER PATCH PANEL-FIELD TERMINATED, F&I	EA																						
633-3-51	FIBER OPTIC HARDWARE - ADJUST/MODIFY SPLICE ENCLOSURE (REMOVE)	EA																						
633-8-6	REMOVAL OF MULTI-CONDUCTOR COMMUNICATION CABLE (PER PLANS)	LF																						
635-2-12	FIBER PULL & SPLICE BOX, 24" X 36" X 30", F&I	EA																						
635-2-40	PULL & SPLICE BOX, RELOCATE (REMOVE)	EA																						
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL ONLY	EA																						
684-1-6	REMOVAL OF MANAGED FIELD ETHERNET SWITCH	EA																						
684-7	ACN MANAGED HUB ETHERNET LAYER 3 SWITCH, F&I	EA																						
684-8-1	WEB RELAY I/O CONTROLLER, F&I	EA																						
684-8-2	WEB RELAY PROGRAMMABLE CONTROLLER, F&I	EA																						
684-8-3	RELAY WEB EXPANSION MODULE, F&I	EA																						
684-8-4	DIGITAL INPUT WEB EXPANSION MODULE, F&I	EA																						
684-9-1	CELLULAR ROUTER, F&I	EA																						
690-100	REMOVAL OF MISCELLANEOUS EQUIPMENT (PER PLANS) - PER SITE	PI																						

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TABULATION OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-6
							S.R. 618	HILLSBOROUGH			

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																		TOTAL THIS SHEET		GRAND TOTAL	
			IT-60		IT-61		IT-62		IT-63		IT-64		IT-65		IT-66		IT-67		IT-68		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
101-1	MOBILIZATION	LS																						
102-1	MAINTENANCE OF TRAFFIC	LS																						
611-1-1	ITSFM SUB-SURFACE DOCUMENTATION - PROJECT LENGTH	MI																						
611-2-2	ITSFM LOCATION DOCUMENTATION - ITS SITE	EA							1		1								1				3	
630-2-90	CONDUIT PROOFING (PER PLANS)	LF	179		589		708		1523		1396		801		710		910		1080				7,896	
633-1-111	FIBER OPTIC DROP CABLE, ABOVE GROUND, 12 FIBERS, F&I	LF																						
633-1-113	FIBER OPTIC DISTRIBUTION CABLE, ABOVE GROUND, 72 FIBERS, F&I	LF	638																				638	
633-1-121	FIBER OPTIC DROP CABLE, UNDERGROUND, 12 FIBERS, F&I	LF							705		842								339				1886	
633-1-122	FIBER OPTIC DROP CABLE, UNDERGROUND, 24 FIBERS, F&I	LF							199														199	
633-1-123	FIBER OPTIC DISTRIBUTION CABLE, UNDERGROUND, 72 FIBERS, F&I	LF	229		639		758		829		819		901		760		985		811				6731	
633-2-31	FIBER OPTIC SPLICE, INSTALL	EA							24		4								4				32	
633-2-32	FIBER OPTIC TERMINATION, INSTALL	EA							48		32								32				112	
633-3-11	FIBER OPTIC SPLICE ENCLOSURE, F&I	EA							3		1								1				5	
633-3-12	FIBER OPTIC SPLICE TRAY, F&I	EA							4		1								1				6	
633-3-16	FIBER PATCH PANEL-FIELD TERMINATED, F&I	EA							2		2								2				6	
633-3-51	FIBER OPTIC HARDWARE - ADJUST/MODIFY SPLICE ENCLOSURE (REMOVE)	EA							1														1	
633-8-6	REMOVAL OF MULTI-CONDUCTOR COMMUNICATION CABLE (PER PLANS)	LF							3328		2792		736		2840		3640		2908				16244	
635-2-12	FIBER PULL & SPLICE BOX, 24" X 36" X 30", F&I	EA			1				2		1		1				1		1				7	
635-2-40	PULL & SPLICE BOX, RELOCATE (REMOVE)	EA			1				2		1		1				1		1				7	
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL ONLY	EA							1		2								2				5	
684-1-6	REMOVAL OF MANAGED FIELD ETHERNET SWITCH	EA							1														1	
684-7	ACN MANAGED HUB ETHERNET LAYER 3 SWITCH, F&I	EA							1														1	
684-8-1	WEB RELAY I/O CONTROLLER, F&I	EA							1														1	
684-8-2	WEB RELAY PROGRAMMABLE CONTROLLER, F&I	EA							1		2								2				5	
684-8-3	RELAY WEB EXPANSION MODULE, F&I	EA							2														2	
684-8-4	DIGITAL INPUT WEB EXPANSION MODULE, F&I	EA							2														2	
684-9-1	CELLULAR ROUTER, F&I	EA																						
690-100	REMOVAL OF MISCELLANEOUS EQUIPMENT (PER PLANS) - PER SITE	PI							1														1	

REVISIONS				ENGINEER OF RECORD				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TABULATION OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578				ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-7
								S.R. 618	HILLSBOROUGH			

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																		TOTAL THIS SHEET		GRAND TOTAL	
			IT-69		IT-70		IT-71		IT-72		IT-73		IT-74		IT-75		IT-76		IT-77		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
101-1	MOBILIZATION	LS																						
102-1	MAINTENANCE OF TRAFFIC	LS																						
611-1-1	ITSFM SUB-SURFACE DOCUMENTATION - PROJECT LENGTH	MI																						
611-2-2	ITSFM LOCATION DOCUMENTATION - ITS SITE	EA	1																		1			
630-2-90	CONDUIT PROOFING (PER PLANS)	LF	1524		694		721		686		727		741		702		700		734		7,229			
633-1-111	FIBER OPTIC DROP CABLE, ABOVE GROUND, 12 FIBERS, F&I	LF																						
633-1-113	FIBER OPTIC DISTRIBUTION CABLE, ABOVE GROUND, 72 FIBERS, F&I	LF																						
633-1-121	FIBER OPTIC DROP CABLE, UNDERGROUND, 12 FIBERS, F&I	LF	807																		807			
633-1-122	FIBER OPTIC DROP CABLE, UNDERGROUND, 24 FIBERS, F&I	LF	210																		210			
633-1-123	FIBER OPTIC DISTRIBUTION CABLE, UNDERGROUND, 72 FIBERS, F&I	LF	707		744		796		711		802		791		752		725		809		6837			
633-2-31	FIBER OPTIC SPLICE, INSTALL	EA	24																		24			
633-2-32	FIBER OPTIC TERMINATION, INSTALL	EA	48																		48			
633-3-11	FIBER OPTIC SPLICE ENCLOSURE, F&I	EA	2																		2			
633-3-12	FIBER OPTIC SPLICE TRAY, F&I	EA	6																		6			
633-3-16	FIBER PATCH PANEL-FIELD TERMINATED, F&I	EA	2																		2			
633-3-51	FIBER OPTIC HARDWARE - ADJUST/MODIFY SPLICE ENCLOSURE (REMOVE)	EA	1																		1			
633-8-6	REMOVAL OF MULTI-CONDUCTOR COMMUNICATION CABLE (PER PLANS)	LF	2274																		2274			
635-2-12	FIBER PULL & SPLICE BOX, 24" X 36" X 30", F&I	EA	2																1		3			
635-2-40	PULL & SPLICE BOX, RELOCATE (REMOVE)	EA	2																1		3			
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL ONLY	EA	1																		1			
684-1-6	REMOVAL OF MANAGED FIELD ETHERNET SWITCH	EA	1																		1			
684-7	ACN MANAGED HUB ETHERNET LAYER 3 SWITCH, F&I	EA	1																		1			
684-8-1	WEB RELAY I/O CONTROLLER, F&I	EA	1																		1			
684-8-2	WEB RELAY PROGRAMMABLE CONTROLLER, F&I	EA	1																		1			
684-8-3	RELAY WEB EXPANSION MODULE, F&I	EA	2																		2			
684-8-4	DIGITAL INPUT WEB EXPANSION MODULE, F&I	EA	2																		2			
684-9-1	CELLULAR ROUTER, F&I	EA																						
690-100	REMOVAL OF MISCELLANEOUS EQUIPMENT (PER PLANS) - PER SITE	PI	1																		1			

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TABULATION OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						S.R. 618	HILLSBOROUGH			IT-8

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																		TOTAL THIS SHEET		GRAND TOTAL	
			IT-96		IT-97		IT-98		IT-99		IT-100		IT-101		IT-102		IT-103		IT-104		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
101-1	MOBILIZATION	LS																						
102-1	MAINTENANCE OF TRAFFIC	LS																						
611-1-1	ITSFM SUB-SURFACE DOCUMENTATION - PROJECT LENGTH	MI																						
611-2-2	ITSFM LOCATION DOCUMENTATION - ITS SITE	EA							1		1											2		
630-2-90	CONDUIT PROOFING (PER PLANS)	LF	703		701		975		716		741		701		693		726		702		6,658			
633-1-111	FIBER OPTIC DROP CABLE, ABOVE GROUND, 12 FIBERS, F&I	LF																						
633-1-113	FIBER OPTIC DISTRIBUTION CABLE, ABOVE GROUND, 72 FIBERS, F&I	LF																						
633-1-121	FIBER OPTIC DROP CABLE, UNDERGROUND, 12 FIBERS, F&I	LF							35		35											70		
633-1-122	FIBER OPTIC DROP CABLE, UNDERGROUND, 24 FIBERS, F&I	LF																						
633-1-123	FIBER OPTIC DISTRIBUTION CABLE, UNDERGROUND, 72 FIBERS, F&I	LF	753		726		1075		746		771		751		718		776		752		7068			
633-2-31	FIBER OPTIC SPLICE, INSTALL	EA							4		4											8		
633-2-32	FIBER OPTIC TERMINATION, INSTALL	EA							16		16											32		
633-3-11	FIBER OPTIC SPLICE ENCLOSURE, F&I	EA							1		1											2		
633-3-12	FIBER OPTIC SPLICE TRAY, F&I	EA							1		1											2		
633-3-16	FIBER PATCH PANEL-FIELD TERMINATED, F&I	EA							1		1											2		
633-3-51	FIBER OPTIC HARDWARE - ADJUST/MODIFY SPLICE ENCLOSURE (REMOVE)	EA																						
633-8-6	REMOVAL OF MULTI-CONDUCTOR COMMUNICATION CABLE (PER PLANS)	LF	434		1402		1950		1432		1649		1402		1386		1452		1404		12511			
635-2-12	FIBER PULL & SPLICE BOX, 24" X 36" X 30", F&I	EA	1				1				1		1									4		
635-2-40	PULL & SPLICE BOX, RELOCATE (REMOVE)	EA	1				1				1		1									4		
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL ONLY	EA							1		1											2		
684-1-6	REMOVAL OF MANAGED FIELD ETHERNET SWITCH	EA																						
684-7	ACN MANAGED HUB ETHERNET LAYER 3 SWITCH, F&I	EA																						
684-8-1	WEB RELAY I/O CONTROLLER, F&I	EA																						
684-8-2	WEB RELAY PROGRAMMABLE CONTROLLER, F&I	EA							1		1											2		
684-8-3	RELAY WEB EXPANSION MODULE, F&I	EA																						
684-8-4	DIGITAL INPUT WEB EXPANSION MODULE, F&I	EA																						
684-9-1	CELLULAR ROUTER, F&I	EA																						
690-100	REMOVAL OF MISCELLANEOUS EQUIPMENT (PER PLANS) - PER SITE	PI																						

<p align="center">REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION					<p align="center">ENGINEER OF RECORD</p> JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			<p align="center">STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION</p> <table border="1"> <thead> <tr> <th>ROAD NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> </thead> <tbody> <tr> <td>S.R. 618</td> <td>HILLSBOROUGH</td> <td> </td> </tr> </tbody> </table>			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	S.R. 618	HILLSBOROUGH		<p align="center">TABULATION OF QUANTITIES</p>				<p align="center">SHEET NO. IT-11</p>
DATE	DESCRIPTION	DATE	DESCRIPTION																									
ROAD NO.	COUNTY	FINANCIAL PROJECT ID																										
S.R. 618	HILLSBOROUGH																											

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																		TOTAL THIS SHEET		GRAND TOTAL	
			IT-105		IT-106		IT-107		IT-108		IT-109		IT-110		IT-111									
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
101-1	MOBILIZATION	LS																						1
102-1	MAINTENANCE OF TRAFFIC	LS																						1
611-1-1	ITSFM SUB-SURFACE DOCUMENTATION - PROJECT LENGTH	MI																						13
611-2-2	ITSFM LOCATION DOCUMENTATION - ITS SITE	EA			1		1		1		1				1							5		29
630-2-90	CONDUIT PROOFING (PER PLANS)	LF	648		626		738		1049		277		707		504							4,549		47,296
633-1-111	FIBER OPTIC DROP CABLE, ABOVE GROUND, 12 FIBERS, F&I	LF																						185
633-1-113	FIBER OPTIC DISTRIBUTION CABLE, ABOVE GROUND, 72 FIBERS, F&I	LF																						28,579
633-1-121	FIBER OPTIC DROP CABLE, UNDERGROUND, 12 FIBERS, F&I	LF			35		35		20		35		15		35							175		6,132
633-1-122	FIBER OPTIC DROP CABLE, UNDERGROUND, 24 FIBERS, F&I	LF																						832
633-1-123	FIBER OPTIC DISTRIBUTION CABLE, UNDERGROUND, 72 FIBERS, F&I	LF	673		611		748		1059		267		782		394							4,534		46,376
633-2-31	FIBER OPTIC SPLICE, INSTALL	EA			4		4				4		4		4							20		200
633-2-32	FIBER OPTIC TERMINATION, INSTALL	EA			16		16		16		16		16		16							80		656
633-3-11	FIBER OPTIC SPLICE ENCLOSURE, F&I	EA			1		1		1		1		1		1							5		35
633-3-12	FIBER OPTIC SPLICE TRAY, F&I	EA			1		1		1		1		1		1							5		45
633-3-16	FIBER PATCH PANEL-FIELD TERMINATED, F&I	EA			1		1		1		1		1		1							5		36
633-3-51	FIBER OPTIC HARDWARE - ADJUST/MODIFY SPLICE ENCLOSURE (REMOVE)	EA																						8
633-8-6	REMOVAL OF MULTI-CONDUCTOR COMMUNICATION CABLE (PER PLANS)	LF	1296		1172		2998		2470		484		1447		738							10,605		92,045
635-2-12	FIBER PULL & SPLICE BOX, 24" X 36" X 30", F&I	EA			1		1		1		1		1		1							5		39
635-2-40	PULL & SPLICE BOX, RELOCATE (REMOVE)	EA			1		1		1		1		1		1							5		39
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL ONLY	EA			1		1		1		1		1		1							5		31
684-1-6	REMOVAL OF MANAGED FIELD ETHERNET SWITCH	EA																						5
684-7	ACN MANAGED HUB ETHERNET LAYER 3 SWITCH, F&I	EA																						5
684-8-1	WEB RELAY I/O CONTROLLER, F&I	EA																						5
684-8-2	WEB RELAY PROGRAMMABLE CONTROLLER, F&I	EA			1		1		1		1		1		1							5		29
684-8-3	RELAY WEB EXPANSION MODULE, F&I	EA																						21
684-8-4	DIGITAL INPUT WEB EXPANSION MODULE, F&I	EA																						21
684-9-1	CELLULAR ROUTER, F&I	EA																						14
690-100	REMOVAL OF MISCELLANEOUS EQUIPMENT (PER PLANS) - PER SITE	PI																						6

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DATE	DESCRIPTION	DATE	DESCRIPTION																								
ROAD NO.	COUNTY	FINANCIAL PROJECT ID																									
S.R. 618	HILLSBOROUGH																										

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.

GENERAL ABBREVIATIONS

ACN	ACCESS CONTROL NODE
AG	ABOVE GROUND
BM	BRIDGE MOUNT
CAP	CONDUIT ACCESS POINT
CC	COPPER CABLE
CMS	CHANGEABLE MESSAGE SIGN
CT	COUNT
CW	COPPER WIRE
CW's	COPPER WIRES
DC	DIRECT CURRENT
DIN	DEUTSCHES INSTITUT FUR NORMUNG
DCIO	DIRECT CURRENT I/O
DMS	DYNAMIC MESSAGE SIGN
F&I	FURNISH AND INSTALL
FO	FIBER OPTIC
FOC	FIBER OPTIC CABLE
FPP	FIBER PATCH PANEL
HDPE	HIGH-DENSITY POLYETHYLENE
I/O	INPUT/OUTPUT
LOI	LOCAL OPERATOR INTERFACE
MFES	MANAGED FIELD ETHERNET SWITCH
MM	MULTIMODE (FIBER OPTIC CABLE)
NFV	NOT FIELD REVIEWED
PB	PULL BOX
PLC	PROGRAMMABLE LOGIC CONTROLLER
PV	PAVEMENT
PVC	POLYVINYL CHLORIDE
REL	REVERSIBLE EXPRESS LANES
SM	SINGLE MODE (FIBER OPTIC CABLE)
STR	STRAND
SW	SIDEWALK
THEA	TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY
UG	UNDERGROUND
UND	UNDERNEATH
UNK	UNKNOWN
UNOCC	UN-OCCUPIED
UPS	UNINTERRUPTIBLE POWER SUPPLY
VMS	VARIABLE MESSAGE SIGN

SYMBOL LEGEND

	PULL BOX (CONCRETE/COMPOSITE) (GROUND) OR FIBER ENCLOSURE (GALVANIZED STEEL) (BM)
	CMS/VMS CABINET
	ACCESS CONTROL NODE
	EXISTING THEA SPICE VAULT
	EXISTING GATE
	SIGN STRUCTURE
	FIBER IN CONDUIT (UG)
	FIBER IN CONDUIT (AG)
	CONDUIT (NOT IN THIS CONTRACT)

GENERAL NOTES

- THE PLANS ARE BASED ON THEA'S DIGITAL ARCGIS ITS INFRASTRUCTURE AS-BUILT DATABASE AND REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. ALL EXISTING CONDITIONS TO ENCOUNTER MUST BE VERIFIED AS TO THE CHARACTER, QUALITY, AND QUANTITY OF WORK TO BE PERFORMED AND MATERIALS TO BE FURNISHED IN THE PERFORMANCE OF THE CONSTRUCTION DRAWINGS. THE CONTRACTOR MUST BASE THEIR BID SOLELY ON THEIR OWN OPINION OF THE CONDITIONS LIKELY TO BE ENCOUNTERED AND PROMPTLY NOTIFY THEA OF ANY DEVIATIONS OR DISAGREEMENTS FOUND IN THE DRAWINGS, SPECIFICATIONS AND/OR GENERAL CONDITIONS OR EXISTING FIELD CONDITIONS PRIOR TO ANY FURTHER WORK ACTIVITY.
- AERIAL PHOTOGRAPHY IN THESE PLANS MAY NOT REPRESENT CURRENT SITE CONDITIONS. IT MUST BE THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE PROJECT SITE PRIOR TO BIDDING.
- THE PLAN NOTES ARE FOR QUICK REFERENCE AND DO NOT EXCLUDE ANY OTHER GENERAL TERM OR CONDITION OF THEA GENERAL TERMS AND CONDITIONS PROVIDED.
- THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON AVAILABLE EXISTING SURVEY FILES AND SHOULD BE CONSIDERED APPROXIMATE ONLY AND DO NOT NECESSARILY REPRESENT THE EXTENT OF UTILITIES ON THIS PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGNATE, LOCATE, AND PROTECT ALL EXISTING ABOVE GROUND AND UNDERGROUND STRUCTURES AND FACILITIES LOCATED WITHIN THE PROJECT LIMITS DURING FIBER AND EQUIPMENT INSTALLATIONS.
- ALL WORK COMPLETED FOR THE PROPOSED PLACEMENT OF PULL BOXES, CONDUITS AND FIBER-OPTIC CABLE MUST BE DONE IN ACCORDANCE WITH FDOT STANDARDS, PRACTICES, AND PROCEDURES. IN THE EVENT THERE IS AN ACTIVITY THAT DEVIATES FROM MEETING THESE OBJECTIVES, THE CONTRACTOR MUST COMMUNICATE THIS INFORMATION TO THE THEA PROJECT MANAGER AT THE TIME THE OBJECTIVE IS NOT ABLE TO BE MET.
 - FDOT SECTION 101 MOBILIZATION.
 - FDOT SECTION 102 MAINTENANCE OF TRAFFIC.
 - FDOT SECTION 611 FOR AS-BUILT FIELD DATA FOR THE UPDATE OF THE THEA ARCGIS AS-BUILT DATABASE.
 - FDOT SECTION 630 FOR ANY NEW CONDUIT, REQUIRED AS A RESULT, OF CONDUIT PROOFING.
 - FDOT SECTION 635 FOR REPLACEMENT OF FIBER PULL BOXES AS CALLED OUT IN THE PLANS.
 - FDOT SECTION 684 FOR NEW ETHERNET SWITCHES, WEB RELAYS AND CELLULAR ROUTERS.
 - FDOT SECTION 690 FOR REMOVAL OF EXISTING DMS COPPER CABLES, MFESS, AND FPPS.
- THE CONTRACTOR MUST PROVIDE AN INSTALLATION PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL FOUR (4) WEEKS PRIOR TO ANY CONSTRUCTION ACTIVITIES. THE PLAN MUST DESCRIBE THE CONTRACTOR'S APPROACH TO MEETING THE REQUIREMENTS OF THIS PROJECT INCLUDING CONDUIT PROOFING, REPLACEMENT OF PULL BOXES, REPLACEMENT OF SPICE ENCLOSURES, RE-SPICING AND TERMINATION WORK CALLED OUT, REMOVAL OF EXISTING COPPER CABLES AND OTHER COMPONENTS AS CALLED OUT IN THE PLANS AND ITB DOCUMENTATION, INSTALLATION OF FIBER OPTIC CABLES, AND TESTING.
- PRIOR TO THE PURCHASE OF ANY EQUIPMENT OR MATERIALS, THE CONTRACTOR MUST SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL, PROPOSED EQUIPMENT, AND MATERIAL CUT SHEETS AND SHOP DRAWINGS, INCLUDING CABINET LAYOUT / RISER DRAWINGS FOR DMS AND ACN CABINETS.
- THE CONTRACTOR MUST PROVIDE NAMES AND CONTACT OF KEY STAFF AND NOTIFY THE ENGINEER IMMEDIATELY IF STAFF CHANGES A) PROJECT MANAGER/SUPERINTENDENT, B) FOREMAN AND C) MOT SUPERVISOR (PROVIDE CERTIFICATION DOCUMENTATION).
- PAY ALL TOLLS INCURRED FROM USING THE SELMON EXPRESSWAY SYSTEM IN TRANSPORTING WORKERS, EQUIPMENT, OR MATERIALS TO AND FROM THE SITE OF WORK AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR MUST ACCESS THE PROJECT BY EXISTING RAMPS. NO ACCESS WILL BE ALLOWED THROUGH THE RIGHT-OF-WAY FENCE UNLESS APPROVED BY THE THE ENGINEER. IN ADDITION, NO U-TURNS WILL BE PERMITTED IN THE MEDIAN.
- COORDINATE CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS OPERATING WITHIN THE PROJECT AREA.
- ALL CONSTRUCTION WORK MUST BE COMMUNICATED TO THE THEA PROJECT MANAGER ON A WEEKLY BASIS, AND ANY CHANGES WILL BE COMMUNICATED IMMEDIATELY.
- CONTRACTOR TO PULL ALL NECESSARY PERMIT(S) (AS REQUIRED) FOR ANY REPLACEMENT AND PLACEMENT OF CONDUIT AND PULL BOXES. THEA WILL PROVIDE AGENCY CONTACT INFORMATION AS NEEDED.
- NOTIFY THEA OF ALL CONSTRUCTION AND SPlicing ACTIVITIES TO OCCUR WITHIN THE PROJECT LIMITS, AND DURATION OF THOSE ACTIVITIES WITHIN TWO (2) WEEKS PRIOR TO THE BEGINNING OF THOSE ACTIVITIES.
- EXISTING THEA INFRASTRUCTURE AND OPERATIONS MUST BE PROTECTED AND REMAIN ONLINE THROUGHOUT CONSTRUCTION. AT NO TIME WILL ANY PORTION OF THE EXISTING THEA TOLLS AND ITS BE OFFLINE. THE THEA NETWORK MUST BE MAINTAINED AND FUNCTIONAL FOR THE DURATION OF THE PROJECT. THEA PERMITS CONSTRUCTION ONLY DURING OFF-PEAK HOURS (BETWEEN 2 PM TO 4 AM). COORDINATION WITH THE ENGINEER IS REQUIRED TO ENSURE COMPLIANCE WITH ANY SPECIAL EVENT OR HOLIDAY SCHEDULES THAT MAY BE AFFECTED DURING THE PERIOD OF PERFORMANCE.
- THE WORK CORRIDOR MUST BE RESTORED TO PRE-WORK CONDITIONS. IN THE EVENT AN EXISTING THEA INFRASTRUCTURE IS DAMAGED BECAUSE OF THIS PROJECT, THE CONTRACTOR MUST REMOVE AND REINSTALL TO LIKE CONDITION AS REQUIRED. ANY LANDSCAPING IMPACTED OR DAMAGED BY CONSTRUCTION MUST BE RESTORED TO EXISTING CONDITIONS BY FINAL ACCEPTANCE. THE COST OF REQUIRED LANDSCAPING MUST BE INCIDENTAL TO THE PAY ITEMS.

GENERAL NOTES (CONT.)

- ALL WORK MUST BE MAINTAINED IN A CLEAN AND SAFE CONDITION. AT THE END OF THE WORKDAY, ALL SITES MUST BE VERIFIED TO BE FREE OF DEBRIS AND MATERIALS. ANY UNDERGROUND WORK WILL BE COVERED, IF POSSIBLE. IF THE UNDERGROUND WORK SITE MUST BE LEFT OPEN, THE CONTRACTOR MUST USE CAUTION TAPE, OR OTHER APPROVED METHOD TO PREVENT INJURY TO MOTORIST AND PEDESTRIANS. ANY OPEN GROUND OR EQUIPMENT IN A TRAVEL WAY OR CLEAR ZONE MUST BE PROTECTED BY APPROVED BARRIERS AND IN COMPLIANCE WITH FDOT TTC STANDARDS.
 - ALL REMOVED MATERIALS AND EQUIPMENT MUST BE DELIVERED TO THEA.
- CONDUIT PROOFING AND PREPARATION:**
- IT IS THE INTENT TO UTILIZE EXISTING CONDUIT TO THE EXTENT POSSIBLE FOR THE PLACEMENT OF PROPOSED FIBER OPTIC CABLING, UNLESS OTHERWISE SHOWN.
 - SOME EXISTING CONDUITS MAY BE LOCATED WITHIN THE INTERSTITIALS OF SEGMENTED BRIDGES ON THE RAISED REVERSIBLE EXPRESS LANES (REL). THEA REPRESENTATIVE WILL PROVIDE ACCESS POINTS, BUT THE CONTRACTOR MUST PROVIDE PERSONNEL THAT ARE CERTIFIED FOR CONFINED SPACE ENTRY FOR WORK IN THESE LOCATIONS.
 - ALL EXISTING CONDUITS TO BE UTILIZED ON THIS PROJECT, NOT LOCATED WITHIN THE ELEVATED BRIDGE, MUST BE PROOVED, AND CLEARED BY THE CONTRACTOR BEFORE FIBER OPTIC CABLE INSTALLATION AND ENDS CAPPED AND SEALED AFTER INSTALLATION.
 - WHEN UTILIZING EXISTING OCCUPIED CONDUIT, THESE OPTIONS SHOULD BE FOLLOWED TO MINIMIZE UNNECESSARY CONSTRUCTION COSTS AND CONSTRUCTION DELAYS.
 - OPTION 1: UTILIZE EXISTING PULL STRING FOR PLACEMENT OF PROPOSED FIBER-OPTIC CABLE WHEN POSSIBLE. WHEN UTILIZING AN EXISTING PULL STRING TO PLACE PROPOSE FIBER-OPTIC CABLE, PLACE AN ADDITIONAL PULL STRING WHEN PULLING PROPOSED FIBER-OPTIC CABLE FOR FUTURE USE.
 - OPTION 2: IF THERE IS NO EXISTING PULL STRING WITHIN THE CONDUIT, BUT THE EXISTING COPPER CABLE IS DESIGNATED TO BE REMOVED AND NO LONGER IN USE, UTILIZE THE COPPER CABLE TO PLACE A PULL STRING. THE NEW PULL STRING WILL THEN BE USED TO PULL THE PROPOSED FIBER-OPTIC CABLE AND AN ADDITIONAL PULL STRING FOR FUTURE USE. LIVE CUT OVER MUST BE "COORDINATED WITH THE ENGINEER".
 - OPTION 3: IN INSTANCES WHERE THE EXISTING CONDUIT DOES NOT HAVE AN EXISTING PULL STRING OR COPPER CABLE THAT IS DESIGNATED TO BE REMOVED, A NEW PULL STRING MUST BE PLACED BY AIR MACHINE, RODDING, OR ANOTHER METHOD WITHIN THE EXISTING OCCUPIED CONDUIT.
 - IF UTILIZING AN EXISTING COPPER CABLE DESIGNATED TO BE REMOVED FOR THE PLACEMENT OF A PULL STRING, THE CONTRACTOR MUST CLEAR THE END OF THE CABLE TO ENSURE NO BURRS ARE PRESENT AND TIE & TAPE THE PULL STRING TO THE COPPER CABLE IN A MANNER THAT MEETS THE INDUSTRY STANDARD OF CARE TO AVOID MARRING OR DAMAGE TO ANY EXISTING CABLES THAT ARE TO REMAIN WITHIN THE CONDUIT.
 - WHEN UTILIZING EXISTING UNOCCUPIED CONDUIT, THE FOLLOWING OPTIONS SHOULD BE FOLLOWED FOR THE PLACEMENT OF PULL STRING:
 - OPTION 1: UTILIZE AN EXISTING PULL STRING FOR PLACEMENT OF PROPOSED FIBER-OPTIC CABLE WHEN POSSIBLE. WHEN UTILIZING AN EXISTING PULL STRING TO PLACE PROPOSE FIBER-OPTIC CABLE, PLACE AN ADDITIONAL PULL STRING WHEN PULLING PROPOSED FIBER-OPTIC CABLE FOR FUTURE USE.
 - OPTION 2: WHEN THE EXISTING UNOCCUPIED CONDUIT DOES NOT HAVE AN EXISTING PULL STRING, A NEW PULL STRING MUST BE PLACED BY AIR MACHINE, RODDING, OR ANOTHER METHOD WITHIN THE EXISTING UNOCCUPIED CONDUIT.
 - REGARDLESS OF WHICH OPTION ABOVE IS USED, THE EXPECTATION IS TO PLACE AN ADDITIONAL PULL STRING FOR FUTURE USE AT THE SAME TIME IN WHICH THE PROPOSED FIBER-OPTIC CABLE IS BEING PULLED. THIS CONCEPT DOES NOT PROVIDE FUNDING TO THE CONTRACTOR FOR THE PLACEMENT OF A PULL STRING WHEN BEING COMPLETED SIMULTANEOUSLY AS THE PLACEMENT OF THE CABLE, THEREFORE THERE WILL BE NO ADDITIONAL COMPENSATION FOR THE PLACEMENT OF THE ADDITIONAL PULL STRING.

REPLACEMENT AND REPAIR OF CONDUIT:

- IN THE EVENT THE EXISTING CONDUIT IS NOT ABLE TO BE UTILIZED DUE TO DAMAGE OR BREAKDOWN, AN ONSITE DISCUSSION MUST BE COORDINATED WITH THEA'S PROJECT MANAGER AND/OR THEIR REPRESENTATIVE AND THE CONTRACTOR PROJECT MANAGER PRIOR TO ANY WORK COMMENCING. FOLLOWING THIS DISCUSSION WITH THEA, THE CONTRACTOR MUST SUBMIT A PLAN TO REPLACE / RECTIFY THE DAMAGED SEGMENT OR AREA ALONG WITH A WRITTEN QUOTE, WHICH MUST BE REVIEWED AND APPROVED BY THE ENGINEER IN WRITING PRIOR TO NEW CONDUIT PLACEMENT CONSTRUCTION COMMENCING.
- THE CONTRACTOR MUST USE THE SUNSHINE 811 SYSTEM AND COMPLY WITH THE TERMS OF USE. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL UTILITIES ARE EITHER COVERED UNDER SUNSHINE 811 OR HAVE BEEN RESPONDED TO BY THE LOCAL UTILITY CONTACT. UNDERGROUND FACILITIES WILL BE LOCATED BY SOFT DIG EXPOSURE PRIOR TO MECHANICAL EXCAVATION.
- THE CONTRACTOR MUST BE RESPONSIBLE FOR VERIFYING UNDERGROUND UTILITIES VERTICALLY AND HORIZONTALLY (VVH) FOR ALL CONDUIT INSTALLATIONS TO AVOID CONFLICTS WITH EXISTING UTILITIES. THE COST OF THE VVH'S MUST BE INCLUDED IN THE COST OF NEW CONDUIT AND PULL BOXES.

REVISIONS		DESCRIPTION		ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.	
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC. 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH		<p style="text-align: center;">LEGEND / GENERAL NOTES</p>	IT-13

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REPLACEMENT AND REPAIR OF CONDUIT:

4. IF DIRECTIONAL BORE IS UTILIZED, A MINIMUM 12-INCH SEPARATION MUST BE MAINTAINED FROM ALL EXISTING UTILITIES, AND STORM DRAIN SYSTEMS WHILE MAINTAINING THE MINIMUM REQUIRED DEPTH UNDER PAVEMENT OR NON-PAVED GROUND.
5. WHEN THE CONTRACTOR COMPLETES THE INSTALLATION OF NEW CONDUIT BETWEEN EXISTING PULL BOXES OR CABINETS, THE FOLLOWING REQUIREMENTS MUST BE COMPLETED:
 - a. ENSURE THAT NO DAMAGE OCCURS TO EXISTING CONDUITS, CABLES, AND SPLICE ENCLOSURES.
 - b. INSTALL 12" OF PEA GRAVEL IN BOTTOM OF PULL BOXES (FOR ONLY THOSE THAT ARE REPLACED) WHEN POSSIBLE, BUT DO NOT COVER EXISTING CONDUIT OPENINGS.
 - c. CUT OFF EXCESS CONDUIT INSTALLED BY THE CONTRACTOR THAT EXCEEDS 6" ABOVE EXISTING GRADE.
 - d. SEAL ALL PROPOSED CONDUITS AND EXISTING CONDUITS WHERE FIBER IS PLACED TO AVOID DIRT & WATER INTRUSION.

REPLACEMENT OF PULL BOXES:

1. IT IS THE INTENT TO UTILIZE EXISTING PULL BOXES TO THE EXTENT POSSIBLE FOR THE PLACEMENT OF PROPOSED FIBER OPTIC CABLING, UNLESS OTHERWISE SHOWN ON THE PLANS.
2. IN INSTANCES WHERE AN EXISTING PULL BOX IS DAMAGED OR TOO SMALL TO ACCOMMODATE THE PROPOSED FIBER, SLACK LOOPS, AND/OR SPLICE ENCLOSURE, THE REMOVAL AND REPLACEMENT OF THE EXISTING PULL BOX WILL BE REQUIRED. IN THESE INSTANCES, THE CONTRACTOR MUST PROVIDE AND INSTALL (OVER-SET) PROPOSED PULL BOXES THAT MEET THE FOLLOWING REQUIREMENTS:
 - a. TIER 22 OR GREATER
 - b. POLYMER CONCRETE (NON-METALLIC)
 - c. 24" WIDE X 36" LONG X 30" DEEP
3. REFER TO FDOT STANDARD SPECIFICATIONS SECTION 635 AND DETAIL SHEET D-15 FOR PULL BOX DETAILS AND REQUIREMENTS.
4. WHERE THE REMOVAL OF AN EXISTING PULL BOX AND INSTALLATION OF A PROPOSED PULL BOX IS REQUIRED, THE CONTRACTOR MUST PROVIDE THE NECESSARY TRAFFIC CONTROL FOR DIVERTING PEDESTRIAN AND VEHICULAR TRAFFIC.
5. IN MOST LOCATIONS WITHIN THIS PROJECT WHERE A PULL BOX REPLACEMENT WILL BE REQUIRED, THERE ARE EXISTING COPPER CABLES, FIBER CABLES, AND SPLICE ENCLOSURES PROVIDING SERVICE. THE CONTRACTOR MUST TAKE ANY & ALL PRECAUTIONS REQUIRED TO ELIMINATE THE RISK OF DAMAGE TO THESE EXISTING CABLES DURING ALL CONSTRUCTION ACTIVITIES.
6. WHEN EXISTING PULL BOXES ARE REMOVED AND REPLACED WITH NEW PULL BOXES, THE CONTRACTOR MAY NEED TO REPLACE SIDEWALK PANELS, PATCH ASPHALT, AND INSTALL SOD. IN THESE INSTANCES, THE CONTRACTOR MUST COMPLETE THESE ACTIVITIES TO TYPICAL INDUSTRY STANDARDS TO EQUAL OR BETTER THAN EXISTING CONDITION, AND MEET THE STANDARDS OF FDOT, CITY, AND COUNTY CODES AS APPLICABLE. THE DETAILS BELOW MUST ALSO APPLY:
 - a. ENTIRE SIDEWALK PANELS MUST BE REPLACED, NOT CUT & PATCHED.
 - b. IN AREAS WHERE GRASS HAS BEEN REMOVED, SOD MUST BE INSTALLED WITH SIMILAR TYPES AND MUST COVER ALL SQUARE FOOTAGE THAT WAS AFFECTED BY REMOVAL OF EXISTING.
7. IN LOCATIONS WHERE SIDEWALK REPLACEMENT, ASPHALT REPLACEMENT, OR SOD REPLACEMENT OCCURS, THE CONTRACTOR MUST ENSURE THAT WORK AREAS ARE SECURED DAILY TO ELIMINATE ANY CONCERNS TO PEDESTRIAN TRAFFIC. IN THE EVENT TRAFFIC CONTROL IS REQUIRED TO RE-ROUTE PEDESTRIAN TRAFFIC, THE CONTRACTOR MUST ENSURE THIS ACTIVITY IS COMPLETED PRIOR TO, DURING, AND UNTIL CONCRETE, ASPHALT, OR SOD REPLACEMENT HAS BEEN COMPLETED. THESE ACTIVITIES MUST BE COMPLETED WITHIN THIRTY (30) CALENDAR DAYS OF CONDUIT AND/OR PULL BOX PLACEMENT TO AVOID UNNECESSARY CHARGES TO THEA.

PLACEMENT OF PROPOSED FIBER OPTIC CABLE:

1. ALL FIBER OPTIC INSTALLATION PROCEDURES MUST BE IN ACCORDANCE WITH THE FDOT STANDARD SPECIFICATIONS SECTION 633 AND MANUFACTURER RECOMMENDATIONS AND INDUSTRY STANDARDS.
2. WHEN THE CONTRACTOR IS PLACING THE PROPOSED FIBER-OPTIC CABLE WITHIN ANY CONDUITS WITHIN THE PROJECT, ALL PRECAUTIONS MUST BE TAKEN TO ENSURE THAT NO SERVICE DISRUPTIONS OCCUR, AND THAT DAMAGE TO EXISTING CABLES (WHETHER IN SERVICE OR NOT) DOES NOT OCCUR.
3. WHEN THE CONTRACTOR IS INSTALLING THE PROPOSED FIBER-OPTIC CABLE, THE ENDS OF THE PROPOSED CABLE SHOULD BE CLEARED TO AVOID ANY DAMAGE TO THE EXISTING CABLES. THE CONTRACTOR MUST ATTACH THE PULL STRING TO THE CABLE PER MANUFACTURER RECOMMENDATIONS AND MUST NOT EXCEED THE ALLOWABLE TENSION TO THE CABLE WHEN PULLING THE CABLE. ALSO, THE CONTRACTOR MUST USE A BIODEGRADABLE LUBRICANT TO ASSIST IN MINIMIZING FRICTION AND POTENTIALLY DAMAGING THE EXISTING CABLES OR PROPOSED CABLE.
4. THIS PROJECT WILL INCLUDE THE REPLACEMENT OF ALL EXISTING SPLICE ENCLOSURES AFFECTED BY THE PROPOSED CUT-OVER OF THE PROPOSED FIBER-OPTIC CABLE. BECAUSE OF THIS, THE CONTRACTOR MUST TAKE ALL PRECAUTIONS NECESSARY TO HANDLE ENCLOSURES CAREFULLY WHEN REPLACING CONDUITS AND PULLING PROPOSED CABLES.
5. DURING THE CUT-OVER OF THE EXISTING FIBER-OPTIC CABLE, THE CONTRACTOR MUST TAKE ALL PRECAUTIONS NEEDED TO OPEN ENCLOSURES, TRAYS, AND MOVE EXISTING SPLICES IN A MANNER THAT IS CONSISTENT WITH TYPICAL INDUSTRY PRACTICES.

PLACEMENT OF PROPOSED FIBER OPTIC CABLE: (CONT.)

6. ONCE THE FIBER CUT-OVER HAS BEEN COMPLETED, THE CONTRACTOR MUST REMOVE ANY COPPER CABLES ASSOCIATED WITH DMSS THAT WERE REPLACED WITH FIBER. THIS INCLUDES ANY CABLE BETWEEN PULL BOXES AND CABINETS.
7. FIBER CABLING WILL NOT BE COILED INSIDE THE CABINET. FIBER CABLE SLACK MUST BE COILED IN THE FIBER PULL BOX AS SHOWN ON THE PLANS.
8. THE MANUFACTURER RECOMMENDED INSTALLATION AND MINIMUM BEND RADIUS MUST BE ADHERED TO FOR ALL INSTALLED CABLES.

MAINTENANCE OF TRAFFIC (MOT) NOTES:

1. ALL MAINTENANCE OF TRAFFIC WORK SHALL CONFORM TO THE LATEST REQUIREMENTS OF SECTION 102 OF THE STANDARD SPECIFICATIONS, INDEX 600 OF THE FDOT DESIGN STANDARDS AND THEA OPERATING PROCEDURES. THEA MAINTAINS A LIST OF PRE-APPROVED TEMPORARY TRAFFIC CONTROL CONTRACTORS. USE OF A CONTRACTOR IS NOT REQUIRED IF THE CONTRACTOR USES CERTIFIED EMPLOYEES AND MEETS THE SAME STANDARDS.
2. THE CONTRACTOR WILL MAINTAIN TRAFFIC ALONG THE ROADWAY CORRIDOR AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
3. THE EXISTING POSTED SPEED LIMITS IN THE WORK ZONE WILL REMAIN THROUGHOUT THE DURATION.
4. THEA PERMITS CONSTRUCTION ONLY DURING OFF-PEAK HOURS. COORDINATION WITH THE ENGINEER IS REQUIRED TO ENSURE COMPLIANCE WITH ANY SPECIAL EVENT OR HOLIDAY SCHEDULES THAT MAY BE IN EFFECT DURING THE PERIOD OF PERFORMANCE.
5. PRIOR TO WORK START-UP EACH DAY, A QUALIFIED MOT SUPERVISOR MUST ENSURE THAT ALL REQUIRED MOT IS PROPERLY IN PLACE PER THE APPROVED MOT INDEX SUBMITTED. ANY ACTIVE WORKSITE FOUND TO BE DEFICIENT IN MOT MAY RESULT IN AN IMMEDIATE WORK STOPPAGE UNTIL MOT IS BROUGHT INTO COMPLIANCE FOR WORKER, MOTORIST, AND PEDESTRIAN SAFETY.

PAY ITEM DESCRIPTION:

- 102-1: THIS PAY ITEM MUST INCLUDE ALL WORK AND MATERIALS NECESSARY TO IMPLEMENT THE MAINTENANCE OF TRAFFIC (MOT) PLANS. WORK ZONE SIGNS, ARROW BOARDS, ADVANCED WARNING PANELS, CHANNELIZING DEVICES, AND/OR TRAFFIC CONTROL OFFICER SHALL BE PROVIDED FOR ANY LANE CLOSURES REQUIRED PER FDOT REQUIREMENTS FOR THE PROPOSED WORK.
- 611-1-1 & 611-2-2: THESE PAY ITEMS SHALL BE USED TO FIELD DOCUMENT THE WORK COMPLETED ON THIS PROJECT USING FDOT ITSM FORMS TO ALLOW FOR THEA'S ARCGIS AS-BUILT DATABASE TO BE UPDATED (BY OTHERS) TO REFLECT SYSTEM AND INFRASTRUCTURE CHANGES AND REVISIONS.
- 630-2-90: THIS PAY ITEM SHALL BE PAID FOR LINEAR FEET OF CONDUIT PROOFED AND INCLUDES ALL WORK AND MATERIALS NECESSARY TO PROOF UNDERGROUND CONDUIT AS CALLED FOR IN THE PLANS. PAY ITEM TO INCLUDE PREPARATION AND SUBMITTAL OF THE PROPOSED PLAN FOR CONDUIT PROOFING TO THEA FOR REVIEW AND APPROVAL PRIOR TO PROOFING. ALSO INCLUDES THE PREPARATION AND SUBMITTAL OF A FIELD REPORT DOCUMENTING THE FINDINGS OF THE FIELD REVIEW/INVESTIGATION AND CONDUIT PROOFING TO THEA FOR REVIEW AND APPROVAL. ANY REQUIRED REPAIR WORK WILL BE PAID FOR AS SPECIFIED IN THE ITB. REFER TO THE SCHEDULE OF VALUES IN EXHIBIT B.
- 633-1-111 (12-STRAND DROP) AND 633-1-113 (72-STRAND TRUNK): THESE PAY ITEMS SHALL BE MEASURED BY LENGTH OF FIBER OPTIC CABLES FURNISHED AND INSTALLED WITHIN PVC CONDUIT AND STEEL ENCLOSURES WITHIN THE INTERSTITIALS OF THE ELEVATED REL BRIDGE. SLACK COILS IN FIBER PULL BOXES SHALL BE AS INDICATED ON THE PLANS. CABLES SHALL BE TERMINATED IN FIBER PATCH PANELS IN CABINETS AND IN SPLICE ENCLOSURES WITHIN FIBER SPLICE BOXES AS SHOWN ON THE PLANS. THESE PAY ITEMS INCLUDE ALL INCIDENTAL MATERIALS, TOOLS, EQUIPMENT, LABELING, AND INSTALLATION HARDWARE REQUIRED AND NECESSARY FOR A COMPLETE INSTALLATION. CABLES SHALL MEET REQUIREMENTS AS INDICATED ON THE PLANS AND SPECIFIED IN THE ITB DOCUMENT. WORK PERFORMED TO F&I FIBER OPTIC CABLES WILL BE PER THE MOST RECENT FDOT BASIS OF ESTIMATE (BOE). TESTING OF FIBER OPTIC CABLE INSTALLED MUST BE INCLUDED AND CONSIDERED INCIDENTAL TO THESE PAY ITEMS.
- 633-1-121 (12-STRAND DROP), 633-1-122 (24-STRAND DROP) AND 633-1-123 (72-STRAND TRUNK): THESE PAY ITEMS SHALL BE MEASURED BY THE LENGTH OF FIBER OPTIC CABLES FURNISHED AND INSTALLED WITHIN UNDERGROUND HDPE CONDUIT AND FIBER PULL BOXES. SLACK COILS IN FIBER PULL BOXES SHALL BE AS INDICATED ON THE PLANS. CABLES SHALL BE TERMINATED IN FIBER PATCH PANELS IN CABINETS AND IN SPLICE ENCLOSURES WITHIN FIBER SPLICE BOXES AS SHOWN ON THE PLANS. THESE PAY ITEMS INCLUDE ALL INCIDENTAL MATERIALS, TOOLS, EQUIPMENT, LABELING, AND INSTALLATION HARDWARE REQUIRED AND NECESSARY FOR A COMPLETE INSTALLATION. CABLES SHALL MEET REQUIREMENTS AS INDICATED ON THE PLANS AND SPECIFIED IN THE ITB DOCUMENT. WORK PERFORMED TO F&I FIBER OPTIC CABLES WILL BE PER THE MOST RECENT FDOT BASIS OF ESTIMATE (BOE). TESTING OF FIBER OPTIC CABLE INSTALLED MUST BE INCLUDED AND CONSIDERED INCIDENTAL TO THESE PAY ITEMS.
- 633-2-31 AND 633-2-32: THESE PAY ITEMS SHALL BE MEASURED BY EACH FIBER OPTIC CONNECTION (SPLICES AND TERMINATIONS) FURNISHED AND INSTALLED AS SHOWN ON THE PLANS. BUTT-END FIBER CABLE SPLICING LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR AND DENOTED IN THE INSTALLATION PLAN SUBMITTAL. ALL PROTECTIVE SLEEVES, MATERIALS, SPLICING EQUIPMENT, LABELING, AND TESTING SHALL BE INCLUDED AND CONSIDERED INCIDENTAL. TESTING OF FIBER SPLICES SHALL BE INCLUDED AND CONSIDERED INCIDENTAL TO THESE PAY ITEMS.

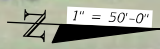
REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
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PAY ITEM DESCRIPTION: (CONT.)

- 633-3-11 AND 633-3-12: THESE PAY ITEMS SHALL BE MEASURED BY EACH SPLICE ENCLOSURE AND SPLICE TRAY FURNISHED AND INSTALLED AS SHOWN ON THE PLANS. THESE PAY ITEMS SHALL INCLUDE FIBER AND SPLICE ORGANIZERS, STRAIN RELIEF, LOCKING COVERS, AND ALL INCIDENTAL MATERIALS, TOOLS, LABELING, AND INSTALLATION HARDWARE REQUIRED AND NECESSARY FOR A COMPLETE INSTALLATION.
- 633-3-16: THIS PAY ITEM SHALL BE MEASURED BY EACH FIBER PATCH PANEL FURNISHED AND INSTALLED AS SHOWN ON THE PLANS. THIS PAY ITEM INCLUDES TERMINATION PANEL WITH CONNECTOR PANEL, FIBER CONNECTORS, PIGTAILS AND FAN-OUT KITS AS NEEDED, AND ALL INCIDENTAL MATERIALS, TOOLS, LABELING, AND INSTALLATION HARDWARE REQUIRED AND NECESSARY FOR A COMPLETE FIBER PATCH PANEL INSTALLATION.
- 633-3-51: THIS PAY ITEM SHALL BE MEASURED BY EACH SPLICE ENCLOSURE REMOVED AS SHOWN ON THE PLANS. ALL PRECAUTIONS MUST BE TAKEN WHEN REMOVING AND REPLACING SPLICE ENCLOSURES, TRAYS, AND MOVING EXISTING SPLICES IN A MANNER THAT IS CONSISTENT WITH TYPICAL INDUSTRY PRACTICES.
- 633-8-6: THIS PAY ITEM SHALL BE MEASURED BY LENGTH OF EXISTING DMS COPPER CABLES REMOVED AND DISPOSED OF AS SHOWN ON THE PLANS.
- 635-2-12 AND 635-2-40: THESE PAY ITEMS SHALL BE MEASURED BY EACH EXISTING PULL BOX REMOVED AND NEW FIBER PULL BOX FURNISHED AND INSTALLED AS SHOWN ON THE PLANS. PAY ITEMS TO INCLUDE INCIDENTAL CONCRETE REMOVAL AND REPLACEMENT, AS NECESSARY AND WHERE NOT SPECIFICALLY DENOTED IN THE PLANS. IN THE EVENT, THAT INSTALLATION OF NEW PULL BOX DAMAGES EXISTING SIDEWALK OR OTHER CONCRETE STRUCTURE, REMOVE DAMAGED SECTION TO THE NEAREST JOINT SUCH THAT NO REMAINING SECTION IS LESS THAN EXISTING WIDTH, AND REPLACE.
- 684-1-3: THIS PAY ITEM SHALL BE MEASURED BY EACH LAYER 2 SIEMENS RUGGEDCOM MANAGED FIELD ETHERNET SWITCH INSTALLED WITH AC POWER CORDS AND LX SMALL-FORM-FACTOR PLUGGABLE (SFP) OPTICAL TRANSCEIVERS, AS PROVIDED BY THEA. THIS PAY ITEM SHALL INCLUDE FIBER OPTIC JUMPER CABLES TO CONNECT THE MANAGED ETHERNET SWITCHES TO THE FIBER PATCH PANELS IN THE CABINETS AS SHOWN ON THE PLANS AND SPECIFIED IN THE ITB. THE PAY ITEM SHALL ALSO INCLUDE CAT-6 PATCH CORDS TO TERMINATE THE DMS SIGN CONTROLLER AND X-410 WEB RELAY DEVICE. THE PROGRAMMING OF THE SWITCHES AND EQUIPMENT WITH IP ADDRESSES AND NETWORK CONFIGURATION SETTINGS WILL BE PROVIDED BY OTHERS.
- 684-1-6: THIS PAY ITEM SHALL BE MEASURED BY EACH EXISTING MANAGED ETHERNET SWITCH REMOVED AND RETURNED TO THEA AS SHOWN ON THE PLANS.
- 684-7: THIS PAY ITEM SHALL BE MEASURED BY EACH LAYER 3 SIEMENS RUGGEDCOM MANAGED ETHERNET SWITCH FURNISHED AND INSTALLED AS SHOWN ON THE PLANS. THIS PAY ITEM SHALL INCLUDE FIBER OPTIC JUMPER CABLES TO CONNECT THE MANAGED ETHERNET SWITCHES TO THE FIBER PATCH PANELS IN THE CABINETS AS SHOWN ON THE PLANS AND SPECIFIED IN THE ITB. THE PAY ITEM SHALL ALSO INCLUDE CAT-6 PATCH CORDS TO TERMINATE THE PROGRAMMABLE LOGIC CONTROLLER (PLC) AND X-600M-I WEB RELAY DEVICE. ALL SMALL-FORM-FACTOR PLUGGABLE (SFP) OPTICAL TRANSCEIVERS AS REQUIRED SHALL BE INCLUDED IN THIS PAY ITEM. THE PROGRAMMING OF THE SWITCHES AND EQUIPMENT WITH IP ADDRESSES AND NETWORK CONFIGURATION SETTINGS WILL BE PROVIDED BY OTHERS.
- 684-8-1, 684-8-2, 684-8-3 AND 684-8-4: THESE PAY ITEMS SHALL BE MEASURED BY EACH WEB RELAY DEVICE FURNISHED AND INSTALLED AS SHOWN ON THE PLANS. PAY ITEM 684-8-1 SHALL INCLUDE CONTROLBYWEB X-600M-I WEB I/O CONTROLLER, MOUNTING HARDWARE, AND RIBBON CABLES. PAY ITEM 684-8-2 SHALL INCLUDE THE CONTROLBYWEB X-410 CONTROLLER. PAY ITEM 684-8-3 SHALL INCLUDE THE CONTROLBYWEB X-15S INPUT EXPANSION MODULE. PAY ITEM 684-8-4 SHALL INCLUDE THE CONTROLBYWEB X-15S INPUT EXPANSION MODULE. MOUNTING HARDWARE, 24VDC POWER SUPPLY, CIRCUIT BREAKERS (2A, 5A), TERMINAL BLOCKS AND CAT-6 PATCH CABLES AS SHOWN ON THE PLANS WILL BE CONSIDERED INCIDENTAL TO THESE PAY ITEMS. CONFIGURATION AND PROGRAMMING OF WEB RELAY DEVICES WILL BE PROVIDED BY OTHERS. COORDINATION WITH THE THEA'S PLC CONSULTANT AND NETWORK INTEGRATOR WILL BE CONSIDERED INCIDENTAL TO THESE PAY ITEMS.
- 684-9-1: THIS PAY ITEM SHALL BE MEASURED BY EACH PEPWAVE MAX BR1 MINI INDUSTRIAL-GRADE 4G-LTE CELLULAR ROUTER FURNISHED AND INSTALLED AS SHOWN ON THE PLANS. MOUNTING HARDWARE, POWER ADAPTORS, AND CAT-6 PATCH CABLES SHALL BE CONSIDERED INCIDENTAL TO THIS PAY ITEM. REFER TO THE PLANS AND ITB FOR DETAILS ON CONSTRUCTION SEQUENCING.
- 690-100: THIS PAY ITEM SHALL INCLUDE THE REMOVAL OF MISCELLANEOUS EQUIPMENT AND COMPONENTS AS SHOWN ON THE PLANS INCLUDING FIBER PATCH PANELS, FIBER DROP CABLES, AND TVSS FOR DMS COPPER CABLES REMOVED.

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	LEGEND / GENERAL NOTES
				S.R. 618	HILLSBOROUGH				IT-14A	

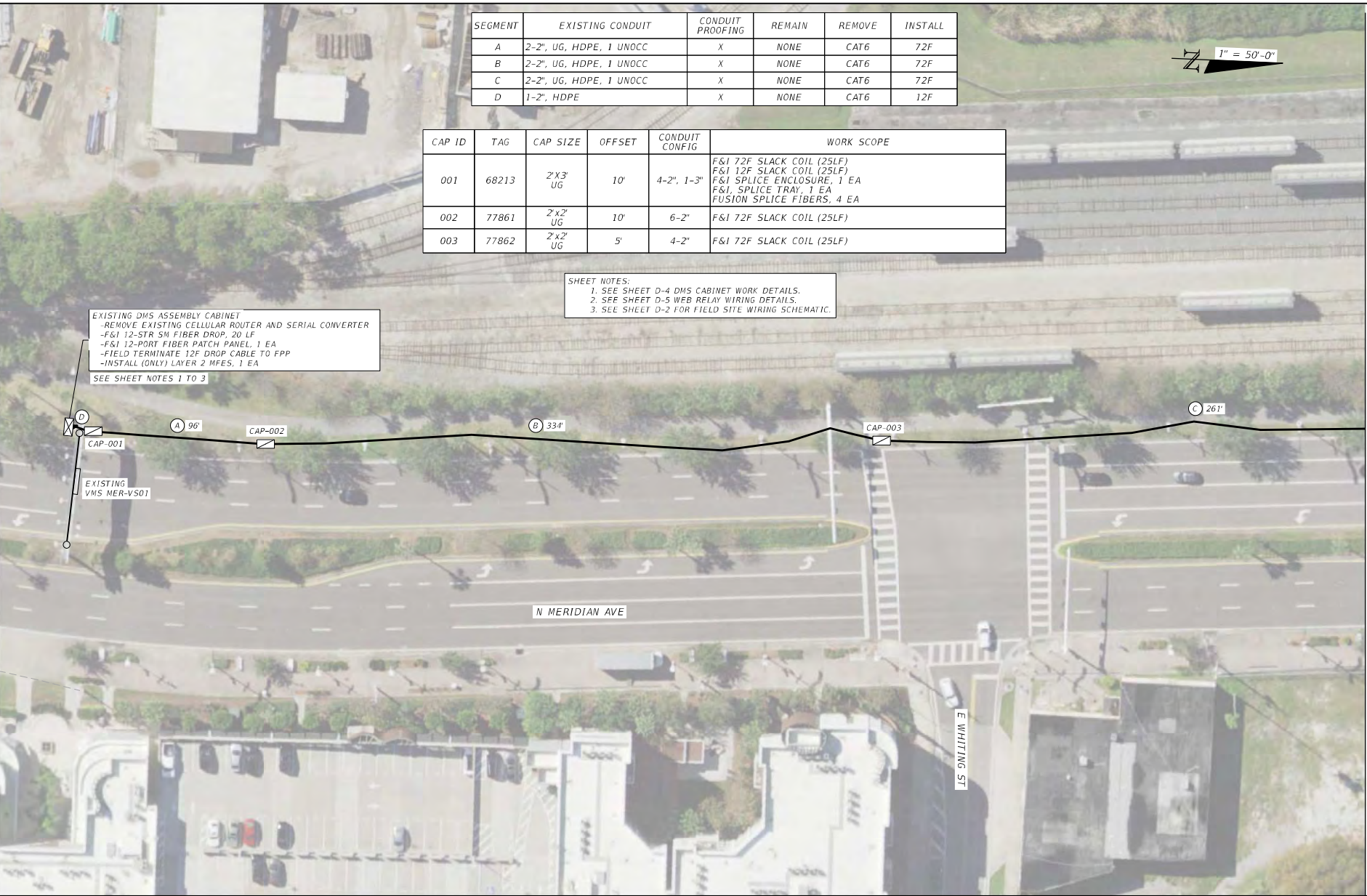
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	NONE	CAT6	72F
B	2-2", UG, HDPE, 1 UNOCC	X	NONE	CAT6	72F
C	2-2", UG, HDPE, 1 UNOCC	X	NONE	CAT6	72F
D	1-2", HDPE	X	NONE	CAT6	12F



CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
001	68213	2'X3' UG	10'	4-2", 1-3"	F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (25LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
002	77861	2'X2' UG	10'	6-2"	F&I 72F SLACK COIL (25LF)
003	77862	2'X2' UG	5'	4-2"	F&I 72F SLACK COIL (25LF)

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CELLULAR ROUTER AND SERIAL CONVERTER
 -F&I 12-STR 5M FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

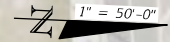


MATCHLINE - SEE SHEET IT-16

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-15
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH						

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	NONE	CAT6	72F
B	2-2", UG, HDPE, 1 UNOCC	X	NONE	CAT6	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
004	77863	2'x2' UG	4'	4-2"	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-15



MATCHLINE - SEE SHEET IT-17

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-16
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

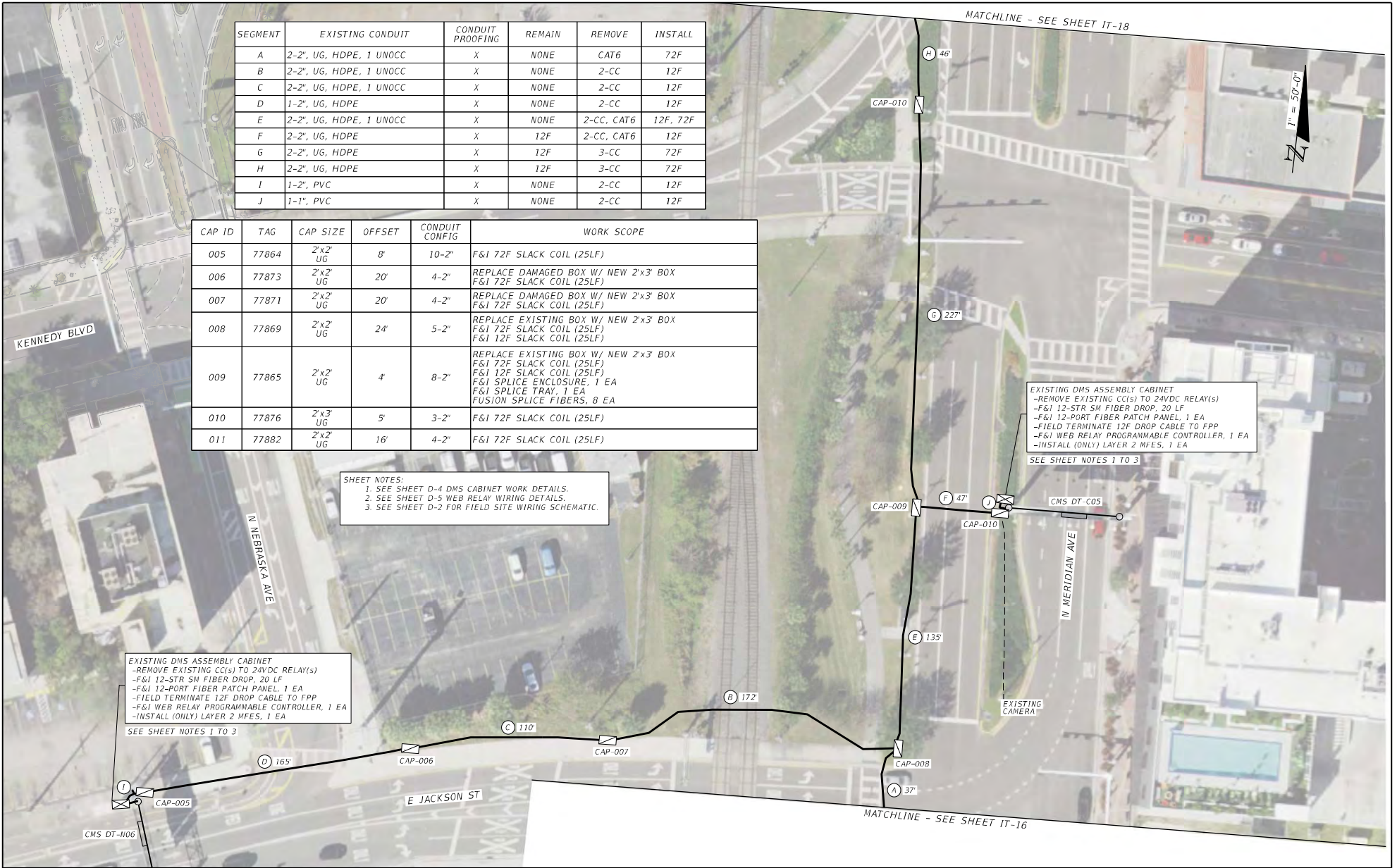
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	NONE	CAT6	72F
B	2-2", UG, HDPE, 1 UNOCC	X	NONE	2-CC	12F
C	2-2", UG, HDPE, 1 UNOCC	X	NONE	2-CC	12F
D	1-2", UG, HDPE	X	NONE	2-CC	12F
E	2-2", UG, HDPE, 1 UNOCC	X	NONE	2-CC, CAT6	12F, 72F
F	2-2", UG, HDPE	X	12F	2-CC, CAT6	12F
G	2-2", UG, HDPE	X	12F	3-CC	72F
H	2-2", UG, HDPE	X	12F	3-CC	72F
I	1-2", PVC	X	NONE	2-CC	12F
J	1-1", PVC	X	NONE	2-CC	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
005	77864	2"x2" UG	8'	10-2"	F&I 72F SLACK COIL (25LF)
006	77873	2"x2" UG	20'	4-2"	REPLACE DAMAGED BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF)
007	77871	2"x2" UG	20'	4-2"	REPLACE DAMAGED BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF)
008	77869	2"x2" UG	24'	5-2"	REPLACE EXISTING BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (25LF)
009	77865	2"x2" UG	4'	8-2"	REPLACE EXISTING BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (25LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 8 EA
010	77876	2"x3" UG	5'	3-2"	F&I 72F SLACK COIL (25LF)
011	77882	2"x2" UG	16'	4-2"	F&I 72F SLACK COIL (25LF)

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(s) TO 24VDC RELAY(S)
 -F&I 12-STR SM FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(s) TO 24VDC RELAY(S)
 -F&I 12-STR SM FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-17
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH			

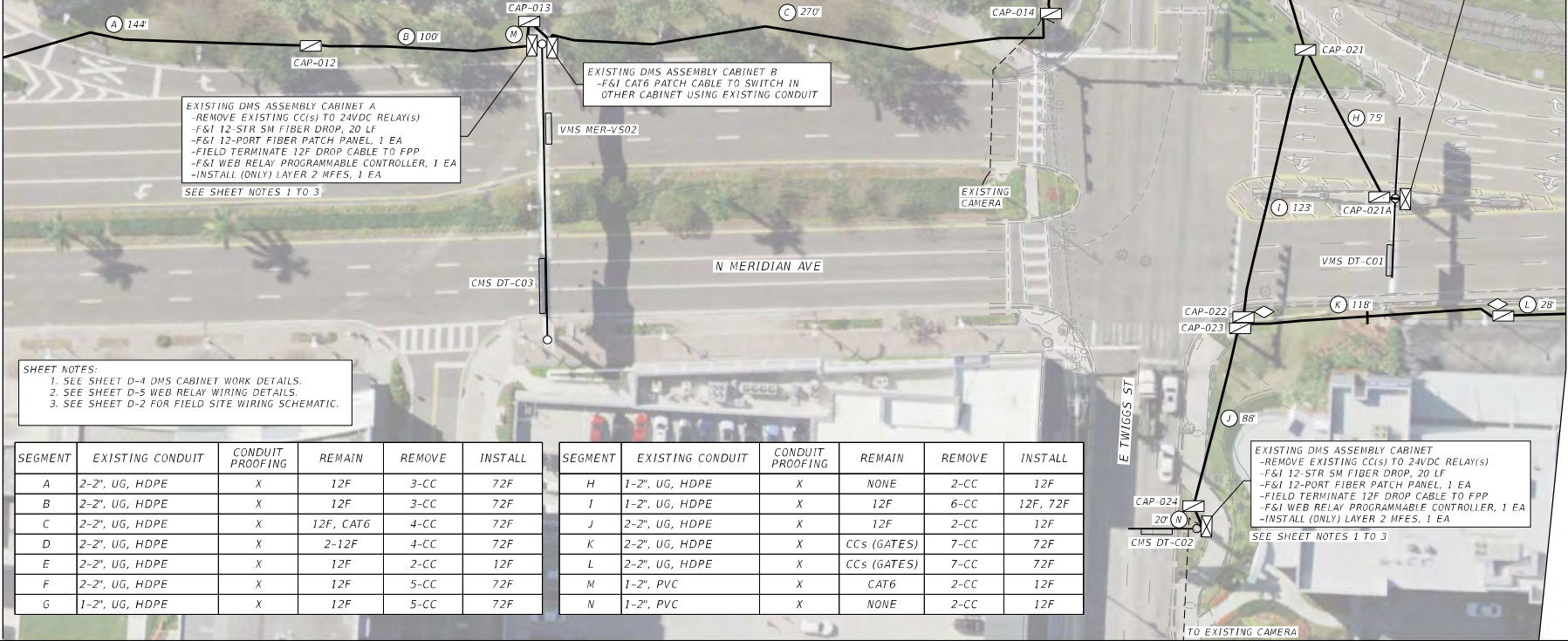
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1" = 50'-0"

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
012	77884	2"x2" UG	10'	8-2"	F&I 72F SLACK COIL (25LF)
013	77886	2"x2" UG	12'	6-2"	REPLACE EXISTING BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (25LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
014	77890	2"x2" UG	12'	5-2"	F&I 72F SLACK COIL (25LF)
015	67631	2"x2" UG	32'	5-2"	REPLACE DAMAGED BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (25LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
016	77898	2"x2" UG	30'	3-2"	PULL THROUGH ONLY
020	77751	2"x2" UG	3'	4-2"	F&I 72F SLACK COIL (25LF)
021	77756	17"x30" UG	8'	3-2"	F&I 12F SLACK COIL (25LF) F&I 72F SLACK COIL (23LF)
021A	75048	13"x24" UG	6'	2-2"	F&I 12F SLACK COIL (10LF)
022	77753	2"x3" UG	4'	3-2"	F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (2X25LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 8 EA
023	77754	2"x3" UG	8'	6-2"	F&I 72F SLACK COIL (25LF)
024	77767	2"x3" UG	8'	6-2"	F&I 72F SLACK COIL (25LF)
025	75053	2"x3" UG	10'	5-2"	F&I 72F SLACK COIL (25LF)

MATCHLINE - SEE SHEET IT-17

MATCHLINE - SEE SHEET IT-20



EXISTING DMS ASSEMBLY CABINET A
 -REMOVE EXISTING CC(s) TO 24VDC RELAY(s)
 -F&I 12-STR SM FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

EXISTING DMS ASSEMBLY CABINET B
 -F&I CAT6 PATCH CABLE TO SWITCH IN OTHER CABINET USING EXISTING CONDUIT

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(s) TO 24VDC RELAY(s)
 -F&I 12-STR SM FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(s) TO 24VDC RELAY(s)
 -F&I 12-STR SM FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE	X	12F	3-CC	72F
B	2-2", UG, HDPE	X	12F	3-CC	72F
C	2-2", UG, HDPE	X	12F, CAT6	4-CC	72F
D	2-2", UG, HDPE	X	2-12F	4-CC	72F
E	2-2", UG, HDPE	X	12F	2-CC	12F
F	2-2", UG, HDPE	X	12F	5-CC	72F
G	1-2", UG, HDPE	X	12F	5-CC	72F

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
H	1-2", UG, HDPE	X	NONE	2-CC	12F
I	1-2", UG, HDPE	X	12F	6-CC	12F, 72F
J	2-2", UG, HDPE	X	12F	2-CC	12F
K	2-2", UG, HDPE	X	CCs (GATES)	7-CC	72F
L	2-2", UG, HDPE	X	CCs (GATES)	7-CC	72F
M	1-2", PVC	X	CAT6	2-CC	12F
N	1-2", PVC	X	NONE	2-CC	12F

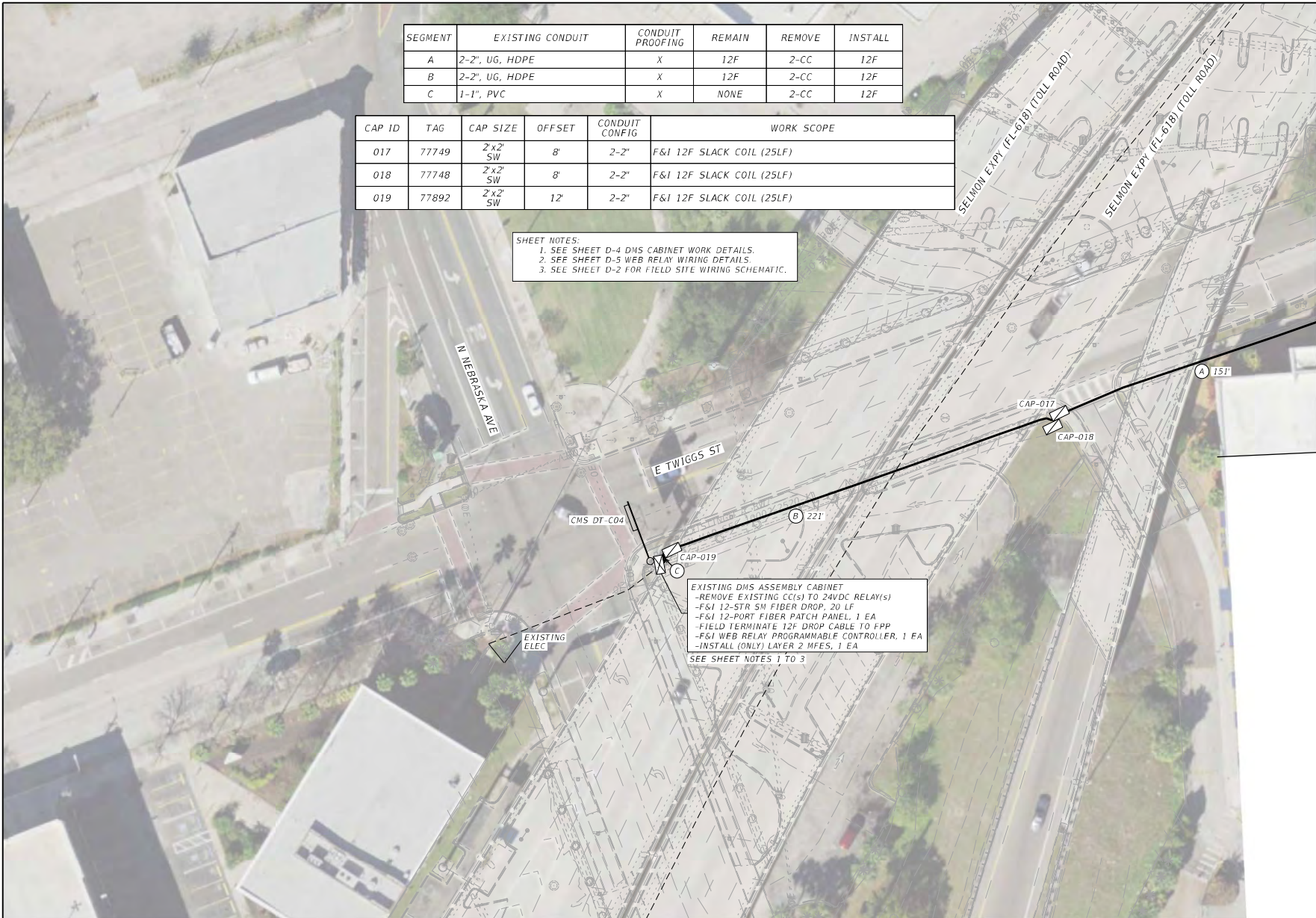
REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-18
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH			

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE	X	12F	2-CC	12F
B	2-2", UG, HDPE	X	12F	2-CC	12F
C	1-1", PVC	X	NONE	2-CC	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
017	77749	2"x2" SW	8'	2-2"	F&I 12F SLACK COIL (25LF)
018	77748	2"x2" SW	8'	2-2"	F&I 12F SLACK COIL (25LF)
019	77892	2"x2" SW	12'	2-2"	F&I 12F SLACK COIL (25LF)

SHEET NOTES:
 1. SEE SHEET D-4 DNS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.



EXISTING DNS ASSEMBLY CABINET
 -REMOVE EXISTING CC(S) TO 24VDC RELAY(S)
 -F&I 12-STR SW FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3



REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-19
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID				
				JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578	S.R. 618	HILLSBOROUGH				

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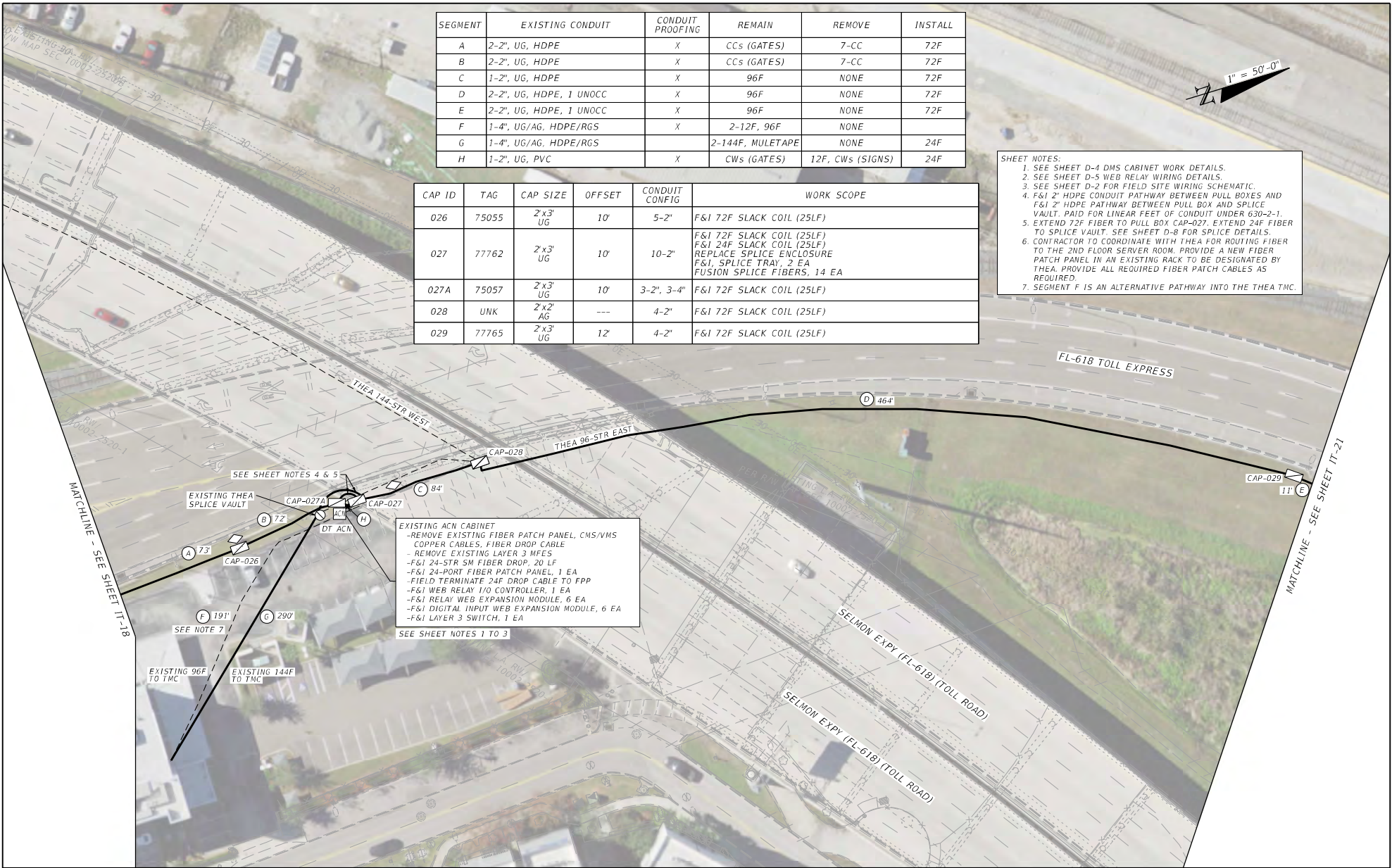
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE	X	CCs (GATES)	7-CC	72F
B	2-2", UG, HDPE	X	CCs (GATES)	7-CC	72F
C	1-2", UG, HDPE	X	96F	NONE	72F
D	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
E	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
F	1-4", UG/AG, HDPE/RGS	X	2-12F, 96F	NONE	
G	1-4", UG/AG, HDPE/RGS	X	2-144F, MULETAPE	NONE	24F
H	1-2", UG, PVC	X	CWs (GATES)	12F, Cws (SIGNS)	24F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
026	75055	2"x3" UG	10'	5-2"	F&I 72F SLACK COIL (25LF)
027	77762	2"x3" UG	10'	10-2"	F&I 72F SLACK COIL (25LF) F&I 24F SLACK COIL (25LF) REPLACE SPLICE ENCLOSURE F&I, SPLICE TRAY, 2 EA FUSION SPLICE FIBERS, 14 EA
027A	75057	2"x3" UG	10'	3-2", 3-4"	F&I 72F SLACK COIL (25LF)
028	UNK	2"x2" AG	---	4-2"	F&I 72F SLACK COIL (25LF)
029	77765	2"x3" UG	12'	4-2"	F&I 72F SLACK COIL (25LF)

SHEET NOTES:

- SEE SHEET D-4 DMS CABINET WORK DETAILS.
- SEE SHEET D-5 WEB RELAY WIRING DETAILS.
- SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.
- F&I 2" HDPE CONDUIT PATHWAY BETWEEN PULL BOXES AND F&I 2" HDPE PATHWAY BETWEEN PULL BOX AND SPLICE VAULT. PAID FOR LINEAR FEET OF CONDUIT UNDER 630-2-1.
- EXTEND 72F FIBER TO PULL BOX CAP-027; EXTEND 24F FIBER TO SPLICE VAULT. SEE SHEET D-8 FOR SPLICE DETAILS.
- CONTRACTOR TO COORDINATE WITH THEA FOR ROUTING FIBER TO THE 2ND FLOOR SERVER ROOM. PROVIDE A NEW FIBER PATCH PANEL IN AN EXISTING RACK TO BE DESIGNATED BY THEA. PROVIDE ALL REQUIRED FIBER PATCH CABLES AS REQUIRED.
- SEGMENT F IS AN ALTERNATIVE PATHWAY INTO THEA TMC.



EXISTING ACN CABINET

- REMOVE EXISTING FIBER PATCH PANEL, CMS/VMS COPPER CABLES, FIBER DROP CABLE
- REMOVE EXISTING LAYER 3 MFES
- F&I 24-STR 5M FIBER DROP, 20 LF
- F&I 24-PORT FIBER PATCH PANEL, 1 EA
- FIELD TERMINATE 24F DROP CABLE TO FPP
- F&I WEB RELAY I/O CONTROLLER, 1 EA
- F&I RELAY WEB EXPANSION MODULE, 6 EA
- F&I DIGITAL INPUT WEB EXPANSION MODULE, 6 EA
- F&I LAYER 3 SWITCH, 1 EA

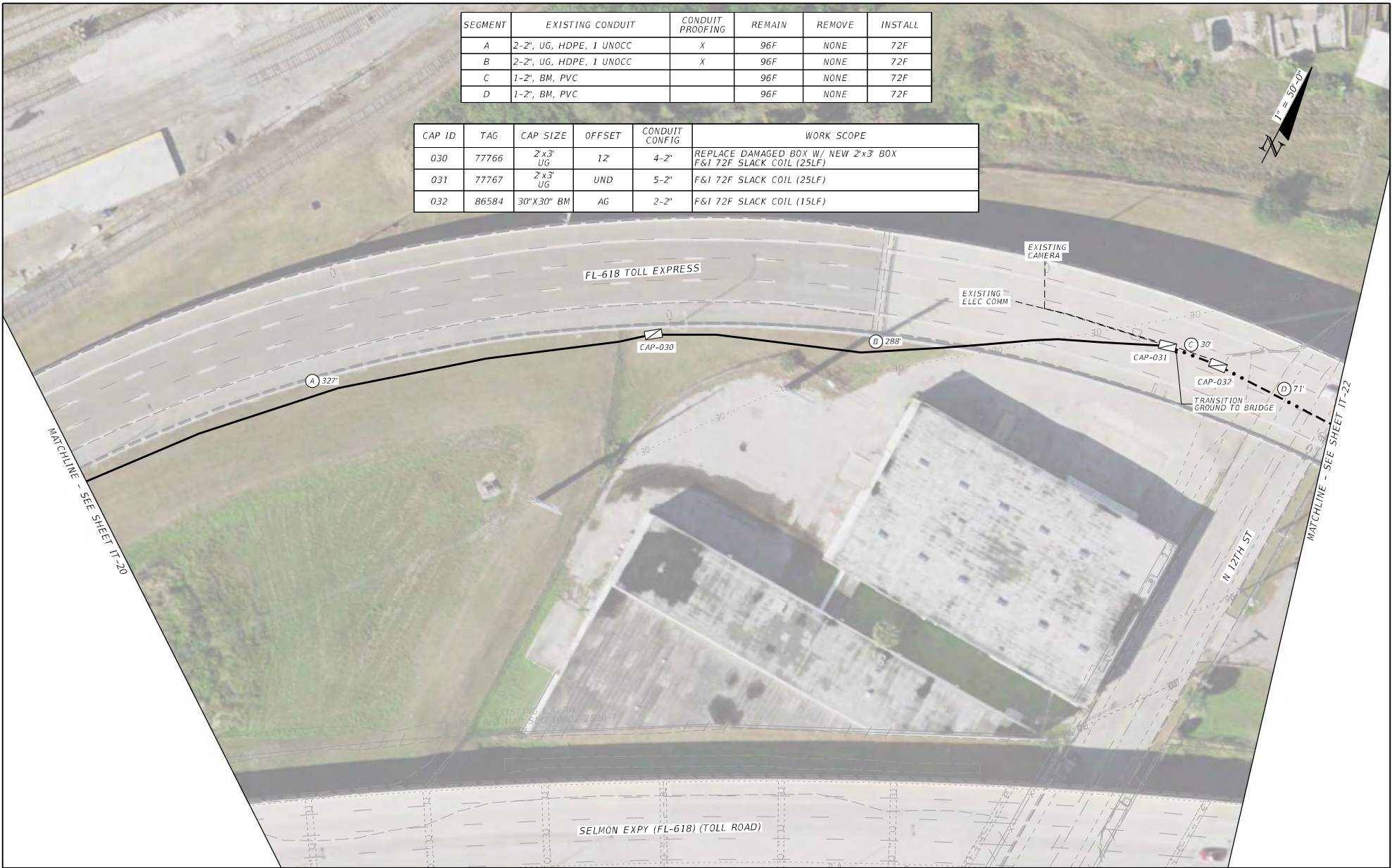
SEE SHEET NOTES 1 TO 3

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-20
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH						

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
030	77766	2'x3' UG	12'	4-2"	REPLACE DAMAGED BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF)
031	77767	2'x3' UG	UND	5-2"	F&I 72F SLACK COIL (25LF)
032	86584	30"X30" BM	AG	2-2"	F&I 72F SLACK COIL (15LF)



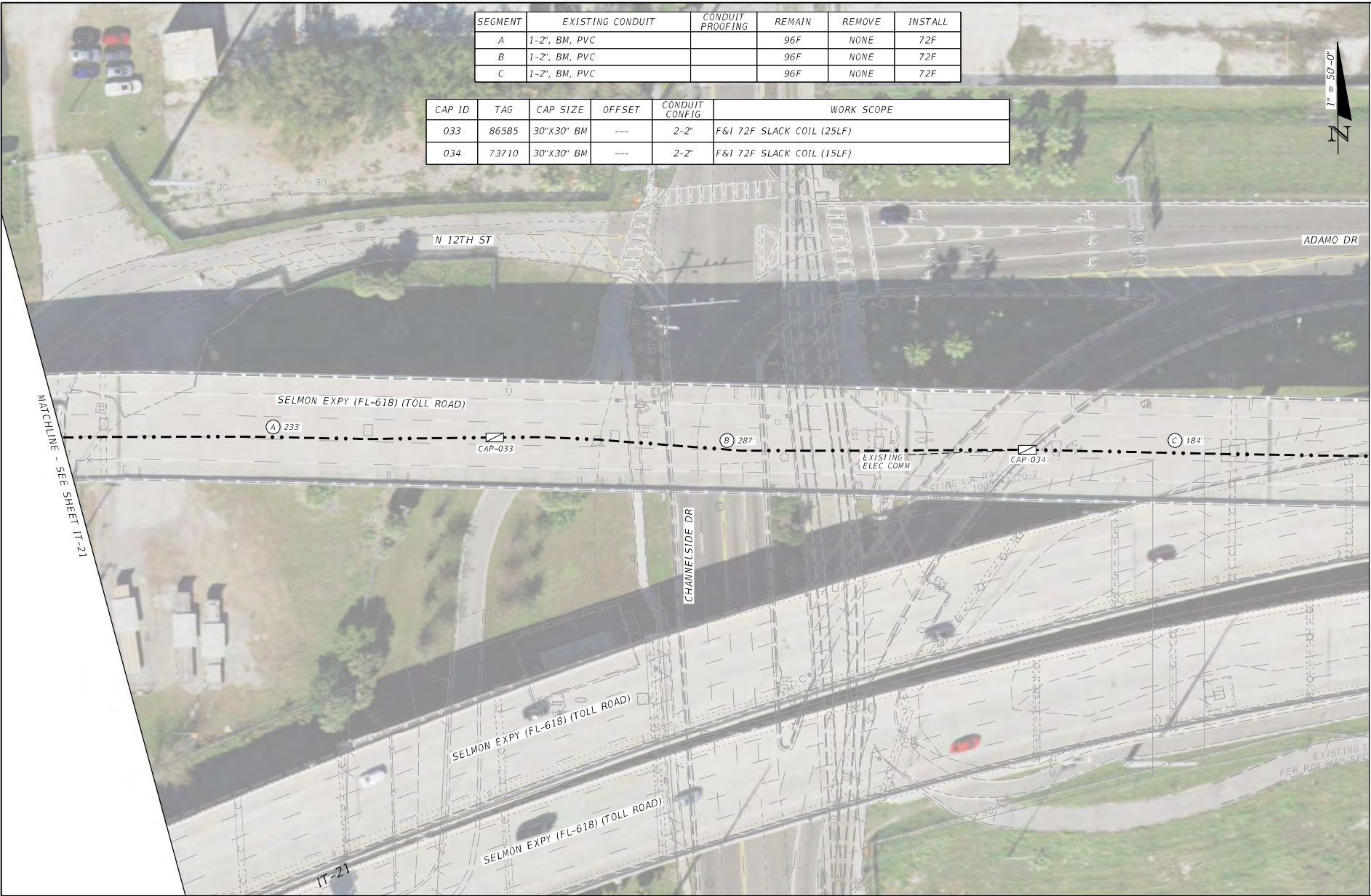
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-21
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
033	86585	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (25LF)
034	73710	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-22
DATE	DESCRIPTION	DATE	DESCRIPTION	DEPARTMENT OF TRANSPORTATION			
				ROAD NO.	COUNTY		
				JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578	S.R. 618	HILLSBOROUGH	

MATCHLINE - SEE SHEET IT-21

MATCHLINE - SEE SHEET IT-23

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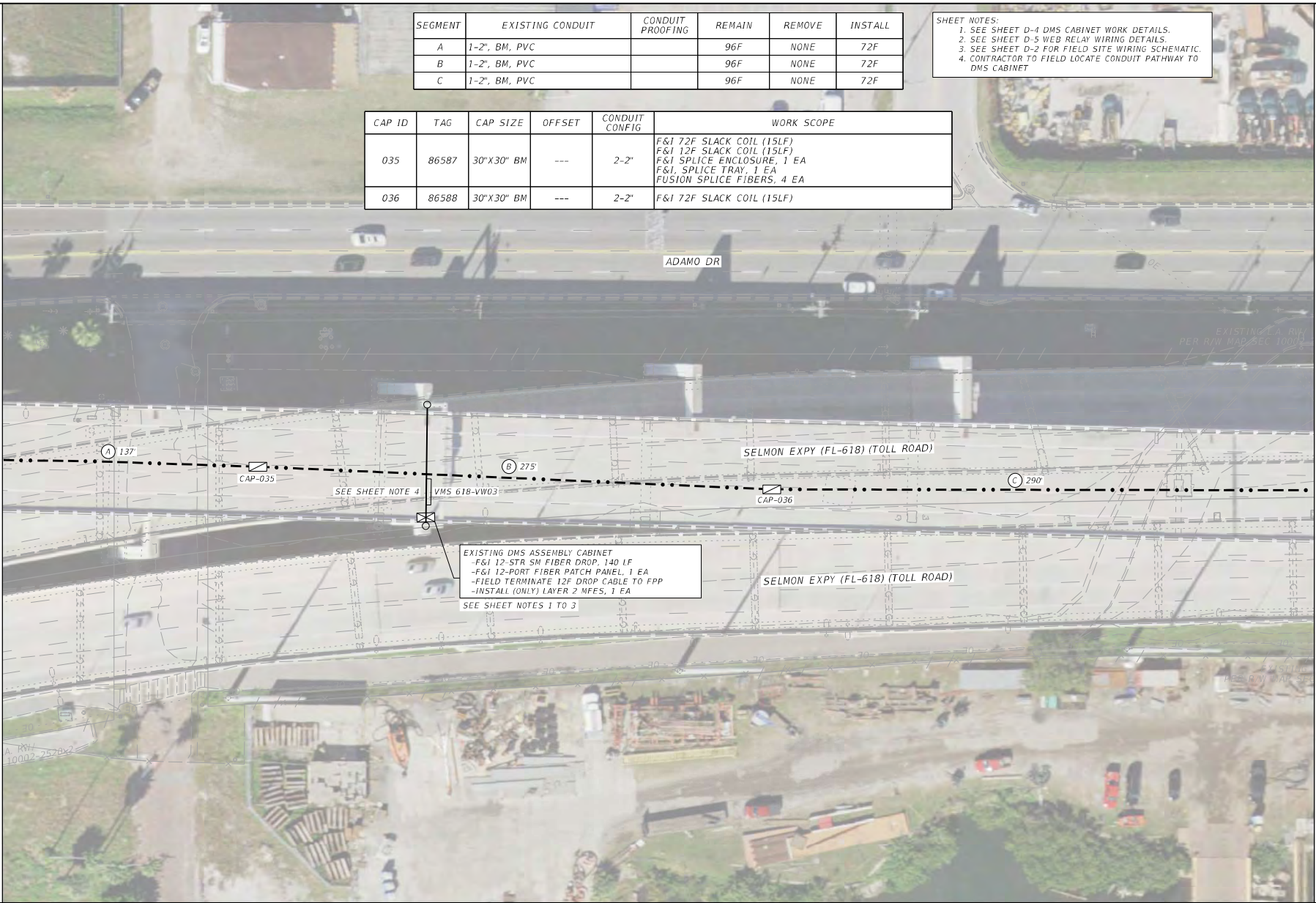
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.
 4. CONTRACTOR TO FIELD LOCATE CONDUIT PATHWAY TO DMS CABINET

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
035	86587	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
036	86588	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-23

MATCHLINE - SEE SHEET IT-24

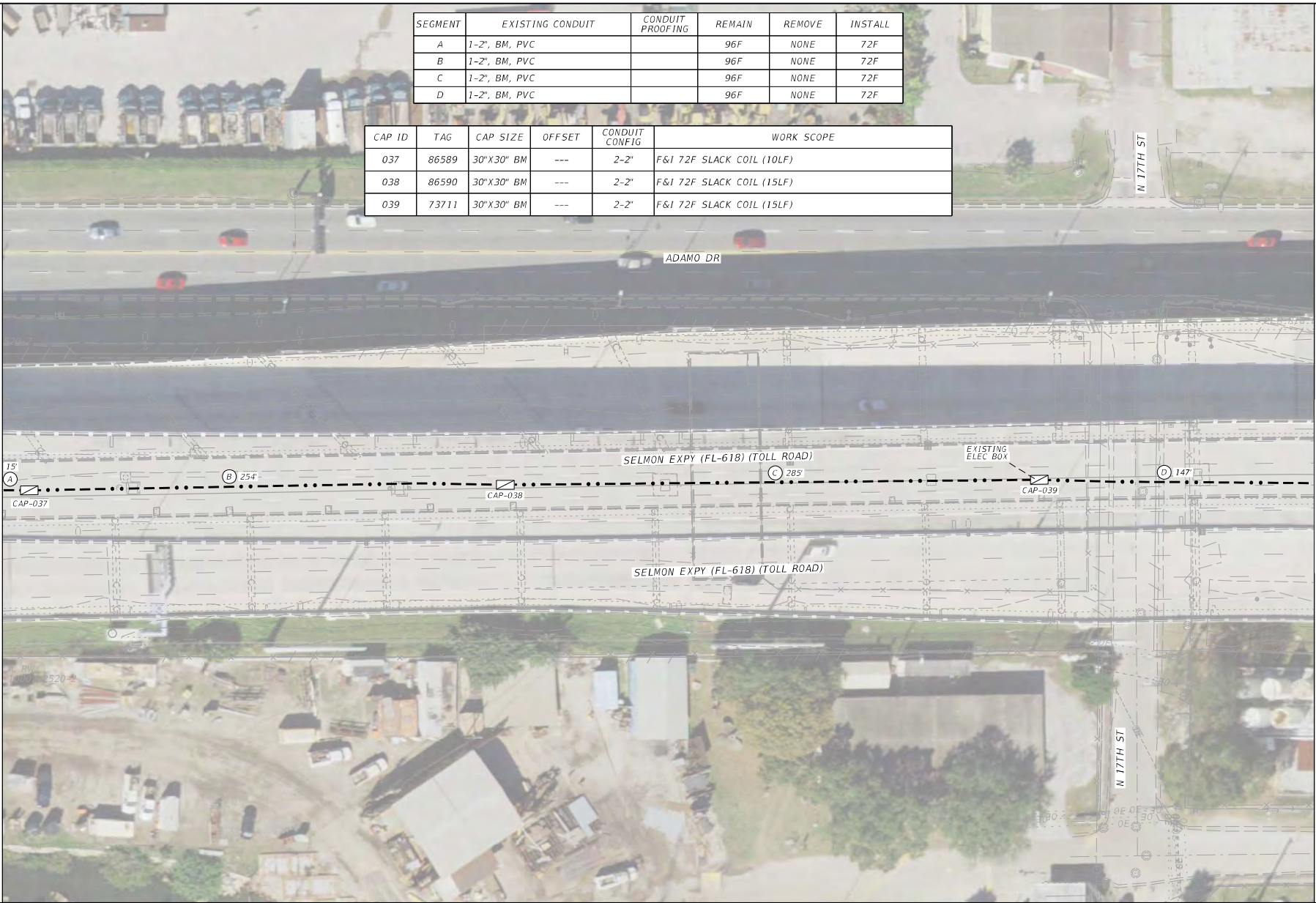


REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-23
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
 P.E. LICENSE NUMBER 42883
 KCI TECHNOLOGIES, INC
 4041 CRESCENT PARK DRIVE
 TAMPA, FL 33578

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
037	86589	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (10LF)
038	86590	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
039	73711	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-23

MATCHLINE - SEE SHEET IT-25

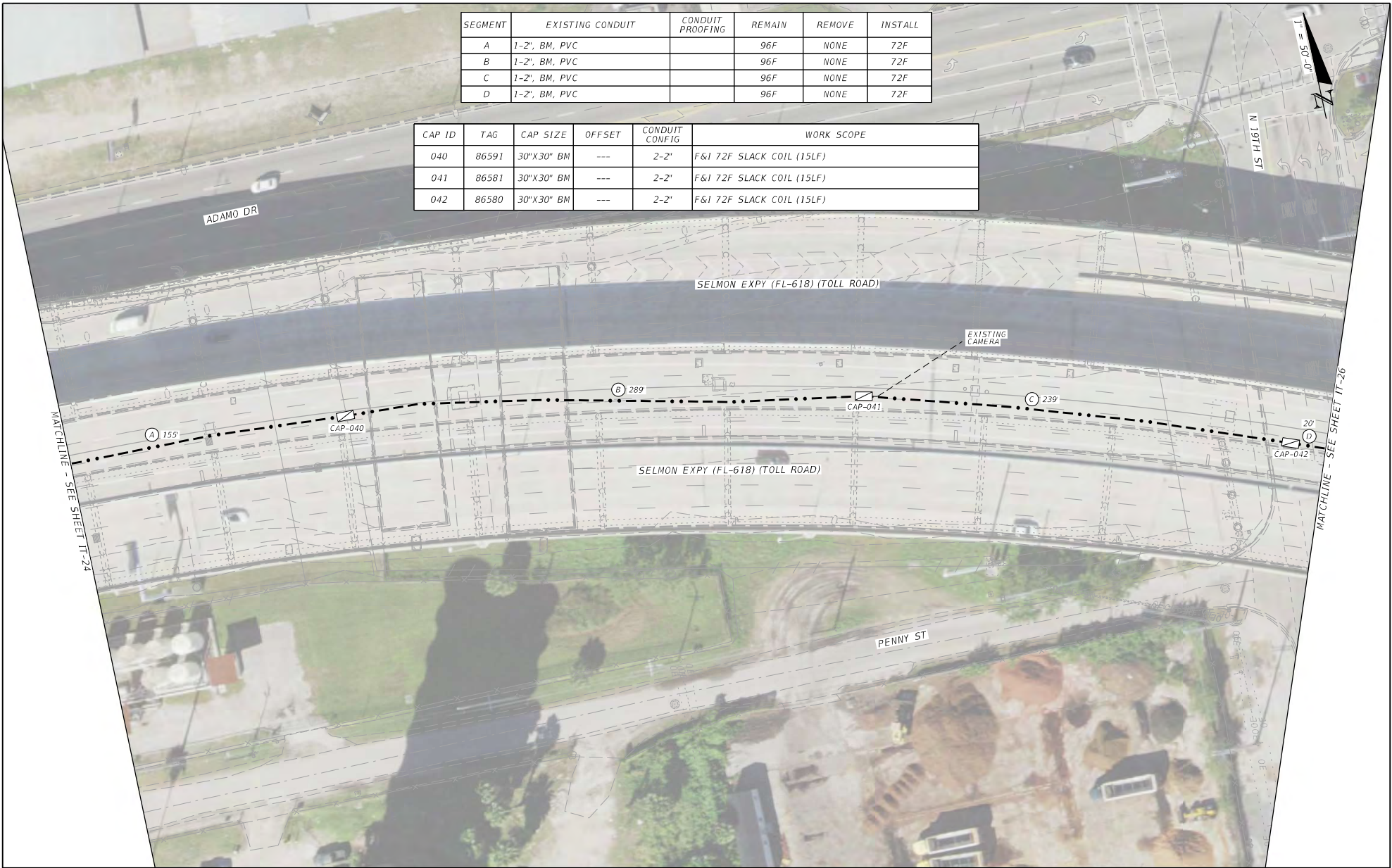
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-24
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
040	86591	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
041	86581	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
042	86580	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



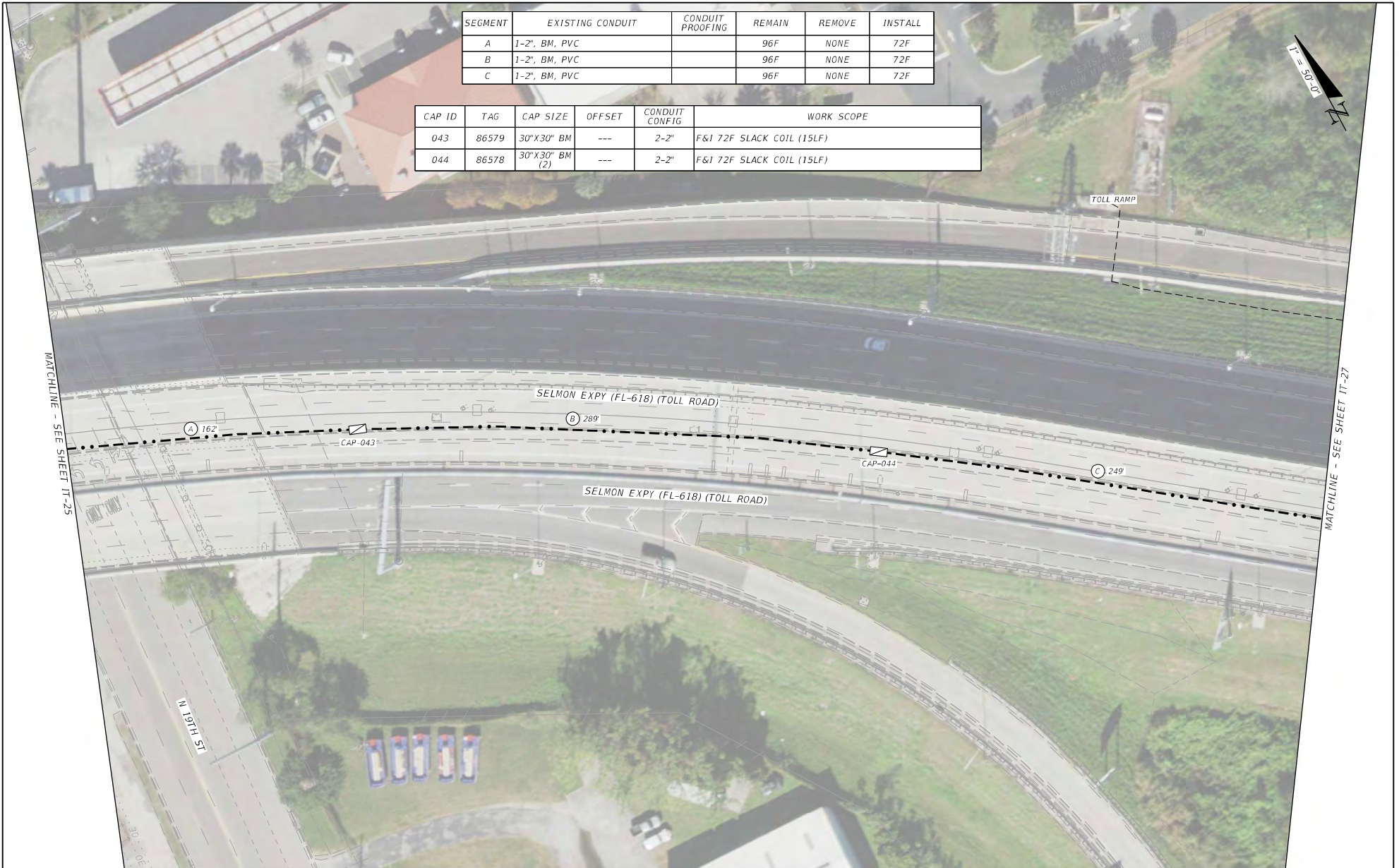
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-25
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
043	86579	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
044	86578	30"X30" BM (2)	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-25

MATCHLINE - SEE SHEET IT-27

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-26
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

emcconnell

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
045	73712	30"X30" BM (2)	---	2-2"	F&I 72F SLACK COIL (15LF)
046	86577	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
047	86576	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-27
DATE	DESCRIPTION	DATE	DESCRIPTION	DEPARTMENT OF TRANSPORTATION			
				ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

encconnell

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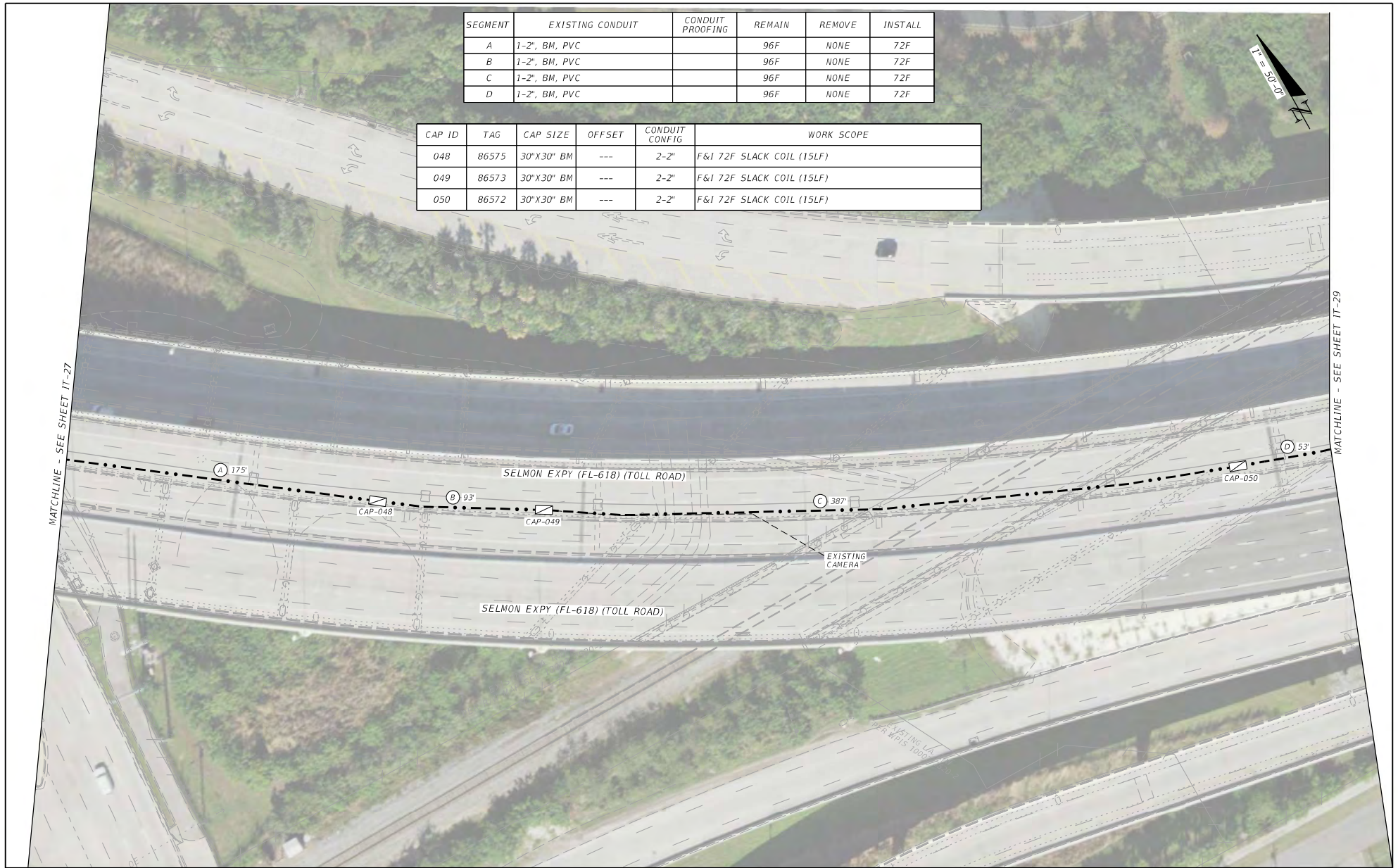
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
048	86575	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
049	86573	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
050	86572	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-27

MATCHLINE - SEE SHEET IT-29



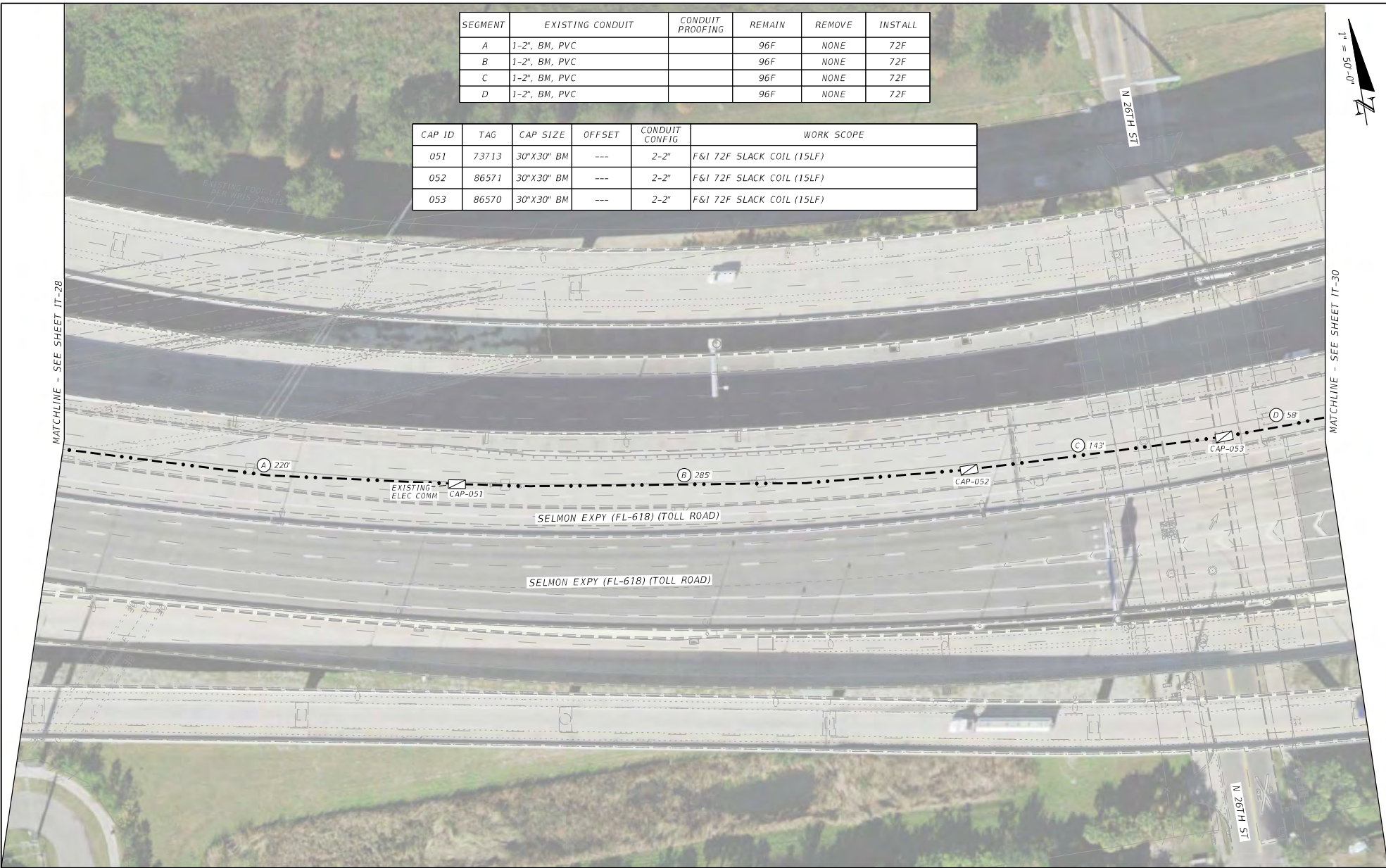
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-28
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
051	73713	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
052	86571	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
053	86570	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-28

MATCHLINE - SEE SHEET IT-30

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-29
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

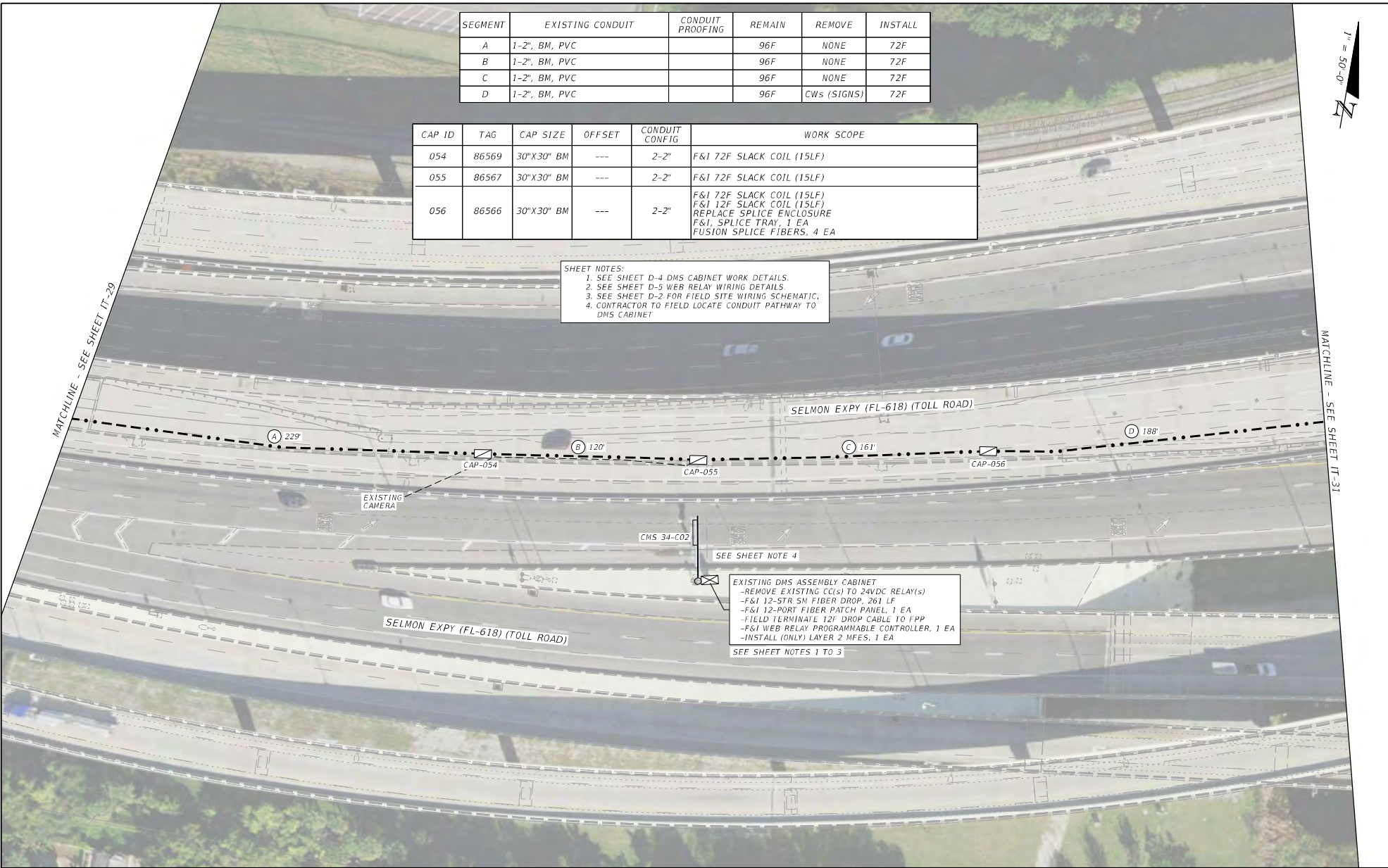
JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	CWS (SIGNS)	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
054	86569	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
055	86567	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
056	86566	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF) F&I 12F SLACK COIL (15LF) REPLACE SPLICE ENCLOSURE F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.
 4. CONTRACTOR TO FIELD LOCATE CONDUIT PATHWAY TO DMS CABINET



EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(s) TO 24VDC RELAY(S)
 -F&I 12-STR SM FIBER DROP, 261 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-30
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						S.R. 618	HILLSBOROUGH			

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	CWs (SIGNS)	72F
B	1-2", BM, PVC		96F	CWs (SIGNS)	72F
C	2-2", UG, HDPE	X	96F	CWs (SIGNS)	72F
D	1-2", UG, HDPE		NONE	2-CW	12F
E	4-2", MSE WALL MNT, PVC, 3 UNOCC		144F	NONE	NONE

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
057	86565	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF) F&I 12F SLACK COIL (15LF) REPLACE SPLICE ENCLOSURE F&I, SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
058	86564	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(S) TO 24VDC RELAY(S)
 -F&I 12-STR 5M FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

MATCHLINE - SEE SHEET IT-30

MATCHLINE - SEE SHEET IT-32



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-31
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
 P.E. LICENSE NUMBER 42883
 KCI TECHNOLOGIES, INC
 4041 CRESCENT PARK DRIVE
 TAMPA, FL 33578



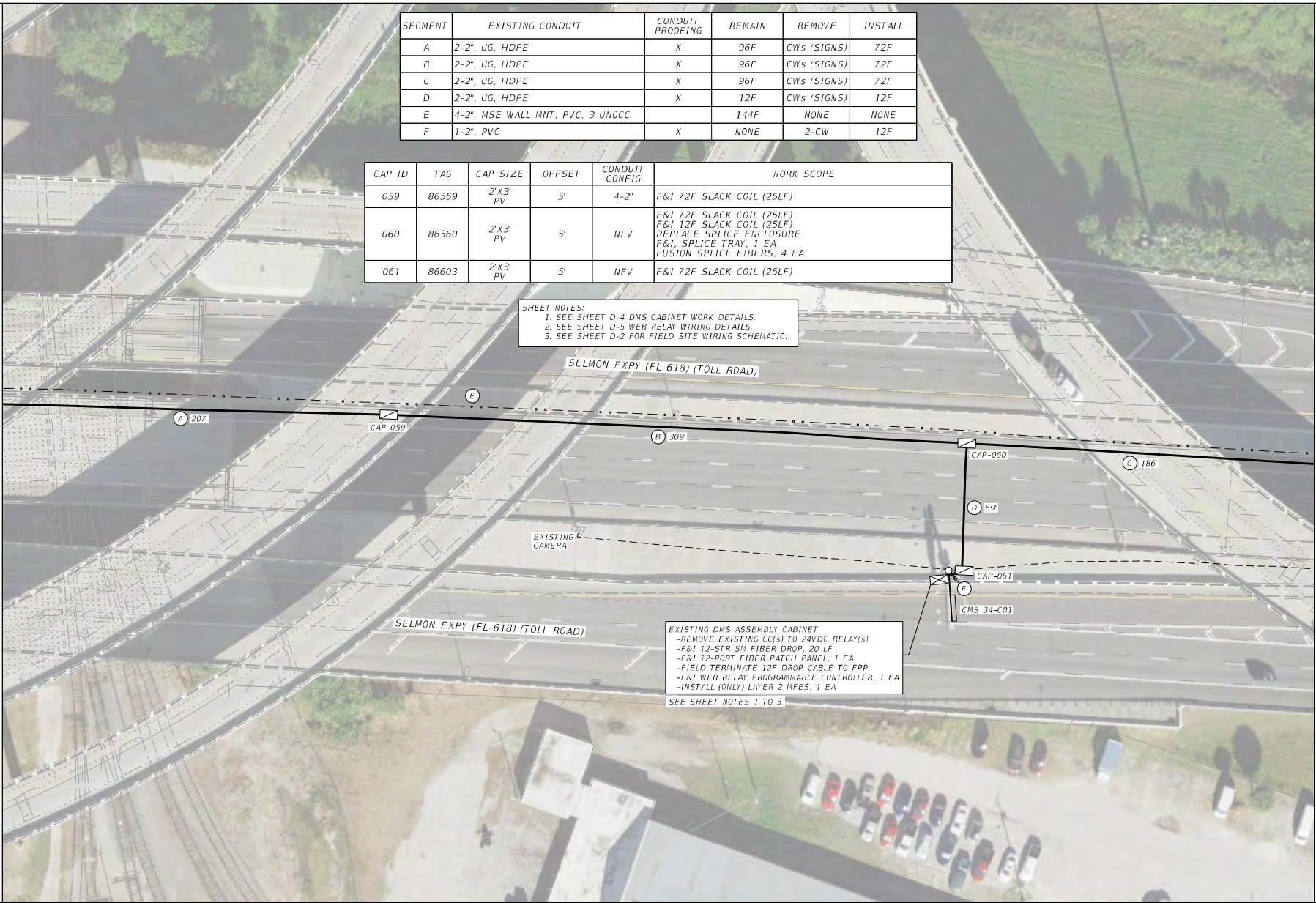
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE	X	96F	CW's (SIGNS)	72F
B	2-2", UG, HDPE	X	96F	CW's (SIGNS)	72F
C	2-2", UG, HDPE	X	96F	CW's (SIGNS)	72F
D	2-2", UG, HDPE	X	12F	CW's (SIGNS)	12F
E	4-2", MSE WALL MNT, PVC, 3 UNOCC		144F	NONE	NONE
F	1-2", PVC	X	NONE	2-CW	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
059	86559	2'X3' PV	5'	4-2"	F&I 72F SLACK COIL (25LF)
060	86560	2'X3' PV	5'	NFV	F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (25LF) REPLACE SPLICE ENCLOSURE F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
061	86603	2'X3' PV	5'	NFV	F&I 72F SLACK COIL (25LF)

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

MATCHLINE - SEE SHEET IT-31

MATCHLINE - SEE SHEET IT-33



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-32
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
 P.E. LICENSE NUMBER 42883
 KCI TECHNOLOGIES, INC
 4041 CRESCENT PARK DRIVE
 TAMPA, FL 33578

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE	X	96F	CWs (SIGNS)	72F
B	2-2", UG, HDPE	X	96F	CWs (SIGNS)	72F
C	4-2", MSE WALL MNT, PVC, 3 UNOCC		144F	NONE	NONE

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
062	86561	2'X3' PV	5'	NFV	REPLACE DAMAGED BOX W/ NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-32

MATCHLINE - SEE SHEET IT-34



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-33
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

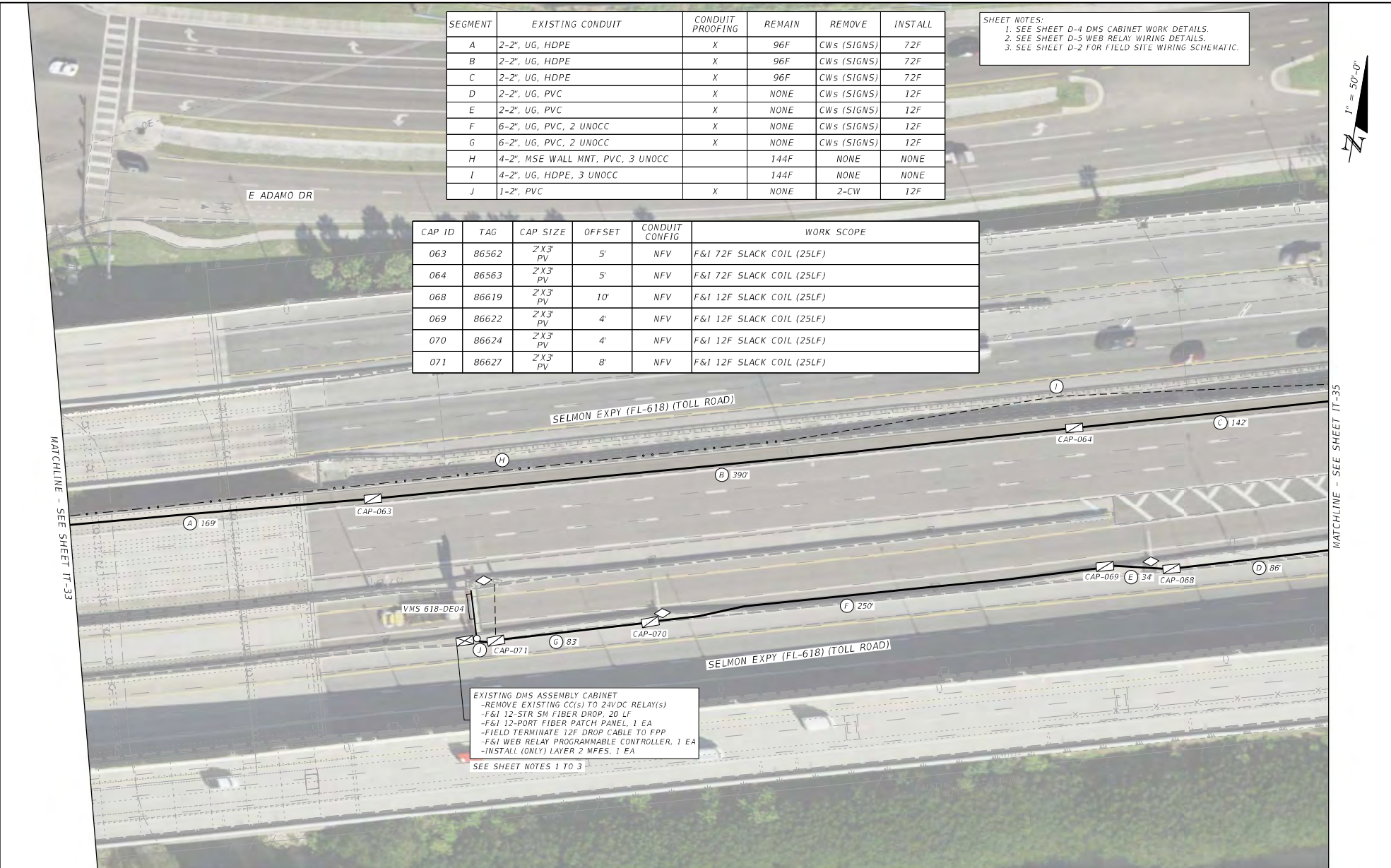
JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE	X	96F	CW's (SIGNS)	72F
B	2-2", UG, HDPE	X	96F	CW's (SIGNS)	72F
C	2-2", UG, HDPE	X	96F	CW's (SIGNS)	72F
D	2-2", UG, PVC	X	NONE	CW's (SIGNS)	12F
E	2-2", UG, PVC	X	NONE	CW's (SIGNS)	12F
F	6-2", UG, PVC, 2 UNOCC	X	NONE	CW's (SIGNS)	12F
G	6-2", UG, PVC, 2 UNOCC	X	NONE	CW's (SIGNS)	12F
H	4-2", MSE WALL MNT, PVC, 3 UNOCC		144F	NONE	NONE
I	4-2", UG, HDPE, 3 UNOCC		144F	NONE	NONE
J	1-2", PVC	X	NONE	2-CW	12F

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
063	86562	2'X3' PV	5'	NFV	F&I 72F SLACK COIL (25LF)
064	86563	2'X3' PV	5'	NFV	F&I 72F SLACK COIL (25LF)
068	86619	2'X3' PV	10'	NFV	F&I 12F SLACK COIL (25LF)
069	86622	2'X3' PV	4'	NFV	F&I 12F SLACK COIL (25LF)
070	86624	2'X3' PV	4'	NFV	F&I 12F SLACK COIL (25LF)
071	86627	2'X3' PV	8'	NFV	F&I 12F SLACK COIL (25LF)



EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(S) TO 24VDC RELAY(S)
 -F&I 12-51R SM FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-34
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH						

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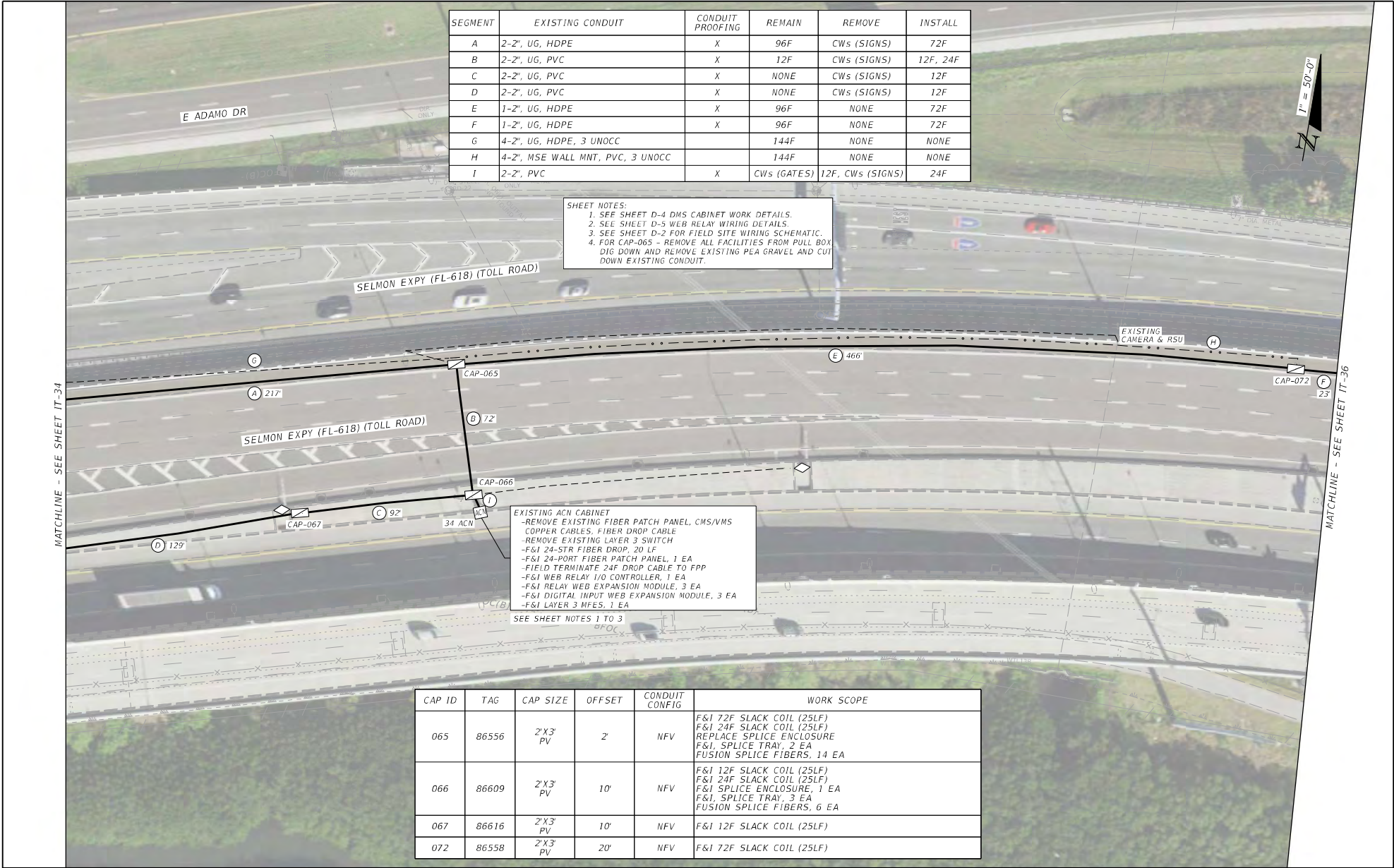
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE	X	96F	CWs (SIGNS)	72F
B	2-2", UG, PVC	X	12F	CWs (SIGNS)	12F, 24F
C	2-2", UG, PVC	X	NONE	CWs (SIGNS)	12F
D	2-2", UG, PVC	X	NONE	CWs (SIGNS)	12F
E	1-2", UG, HDPE	X	96F	NONE	72F
F	1-2", UG, HDPE	X	96F	NONE	72F
G	4-2", UG, HDPE, 3 UNOCC		144F	NONE	NONE
H	4-2", MSE WALL MNT, PVC, 3 UNOCC		144F	NONE	NONE
I	2-2", PVC	X	CWs (GATES)	12F, Cws (SIGNS)	24F

SHEET NOTES:
 1. SEE SHEET D-4 DWS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-7 FOR FIELD SITE WIRING SCHEMATIC.
 4. FOR CAP-065 - REMOVE ALL FACILITIES FROM PULL BOX DIG DOWN AND REMOVE EXISTING PEA GRAVEL AND CUT DOWN EXISTING CONDUIT.

EXISTING ACN CABINET
 -REMOVE EXISTING FIBER PATCH PANEL, CMS/VMS COPPER CABLES, FIBER DROP CABLE
 -REMOVE EXISTING LAYER 3 SWITCH
 -F&I 24-STR FIBER DROP, 20 LF
 -F&I 24-PORT FIBER PATCH PANEL, 1 EA
 -F&I TERMINATE 24F DROP CABLE TO FPP
 -F&I WEB RELAY I/O CONTROLLER, 1 EA
 -F&I RELAY WEB EXPANSION MODULE, 3 EA
 -F&I DIGITAL INPUT WEB EXPANSION MODULE, 3 EA
 -F&I LAYER 3 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
065	86556	2'X3' PV	2'	NFV	F&I 72F SLACK COIL (25LF) F&I 24F SLACK COIL (25LF) REPLACE SPLICE ENCLOSURE F&I, SPLICE TRAY, 2 EA FUSION SPLICE FIBERS, 14 EA
066	86609	2'X3' PV	10'	NFV	F&I 12F SLACK COIL (25LF) F&I 24F SLACK COIL (25LF) F&I SPLICE ENCLOSURE, 1 EA F&I, SPLICE TRAY, 3 EA FUSION SPLICE FIBERS, 6 EA
067	86616	2'X3' PV	10'	NFV	F&I 12F SLACK COIL (25LF)
072	86558	2'X3' PV	20'	NFV	F&I 72F SLACK COIL (25LF)

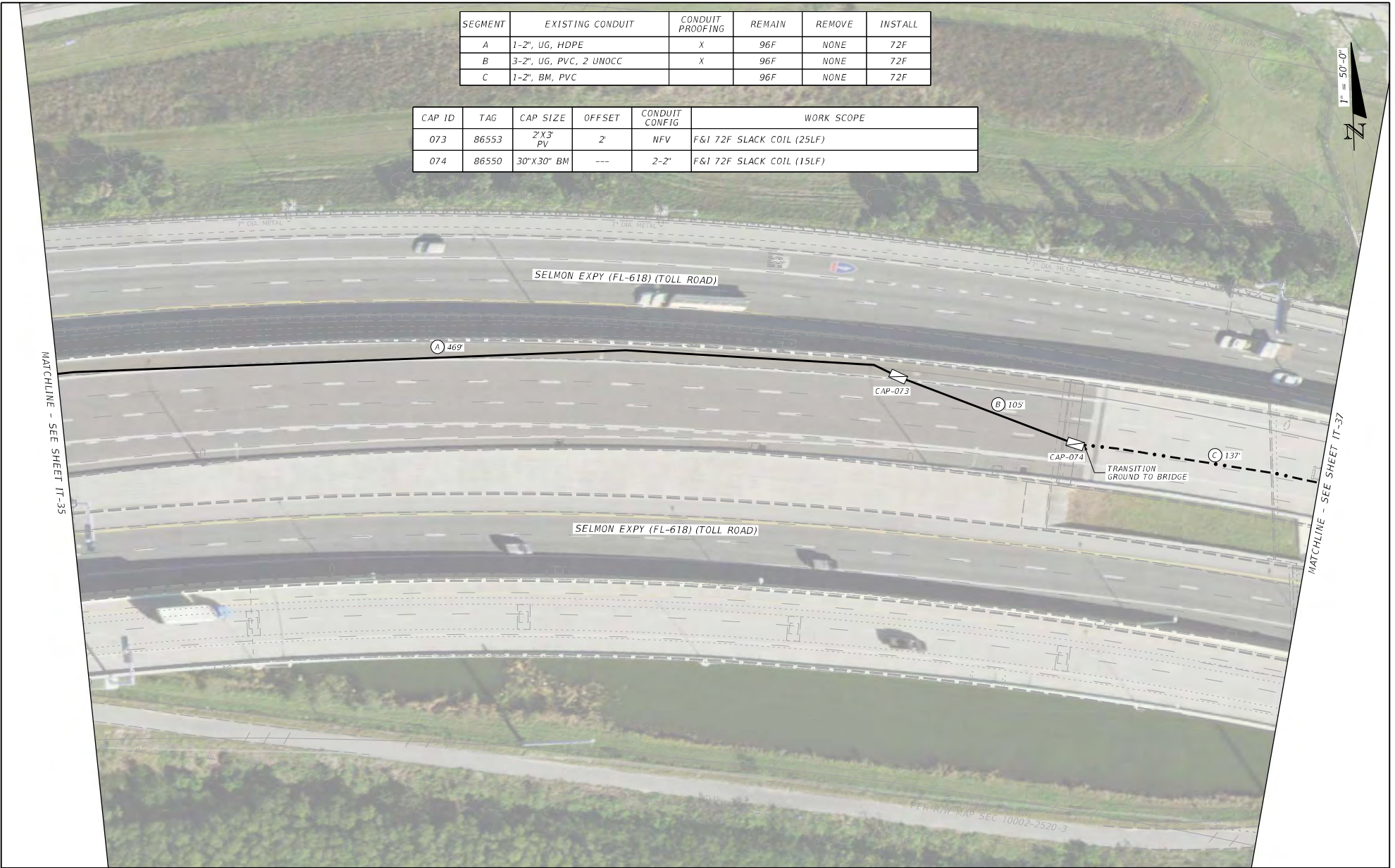


REVISIONS DATE DESCRIPTION DATE DESCRIPTION		ENGINEER OF RECORD JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-35
				ROAD NO. COUNTY FINANCIAL PROJECT ID			
				S.R. 618 HILLSBOROUGH			

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	96F	NONE	72F
B	3-2", UG, PVC, 2 UNOCC	X	96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
073	86553	2"X3" PV	2'	NFV	F&I 72F SLACK COIL (25LF)
074	86550	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-35

MATCHLINE - SEE SHEET IT-37



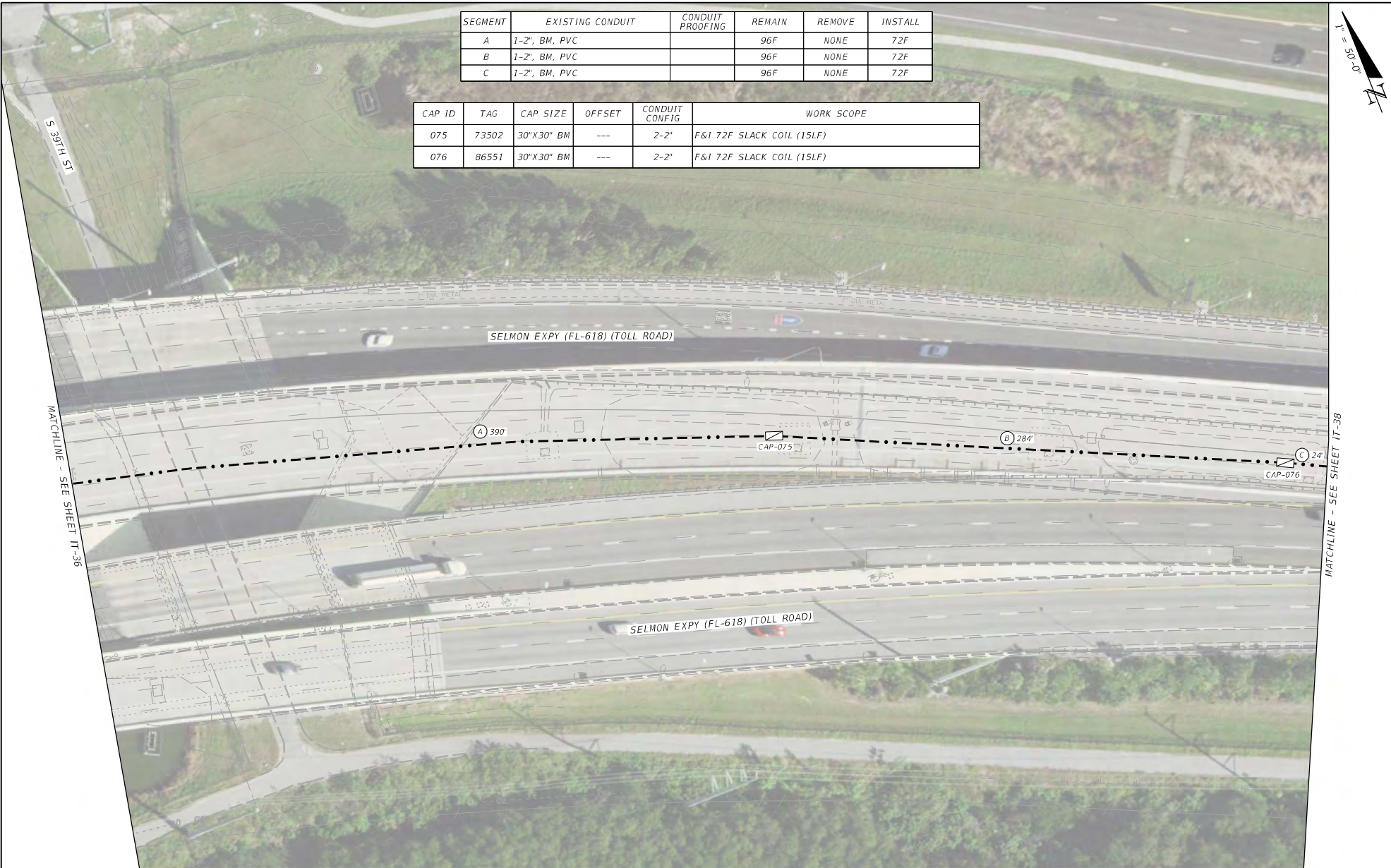
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-36
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
075	73502	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
076	86551	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-37
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
077	86552	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
078	86592	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-37

MATCHLINE - SEE SHEET IT-39



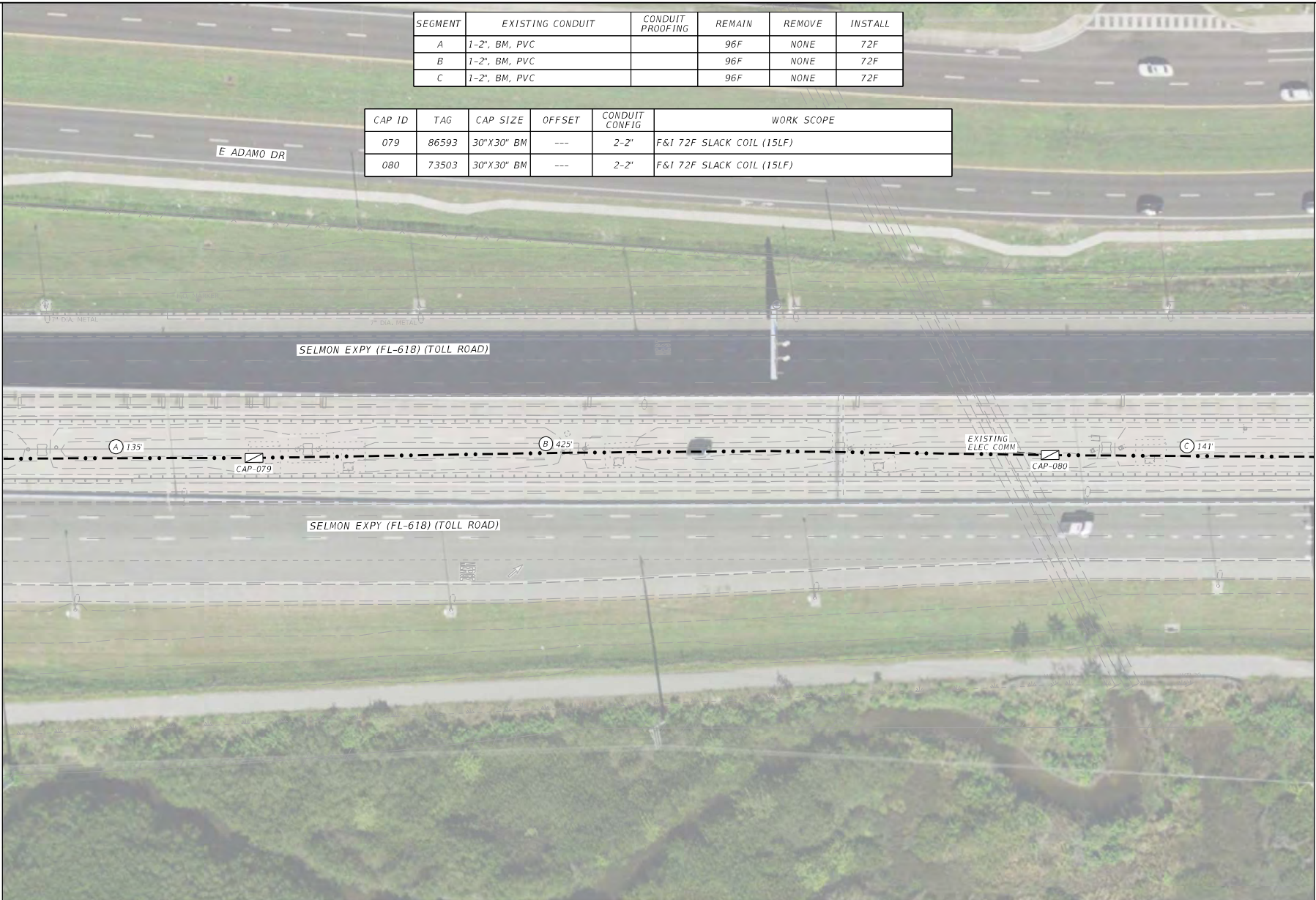
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS		REVISIONS		ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-38
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH			

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
079	86593	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
080	73503	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-38



MATCHLINE - SEE SHEET IT-40



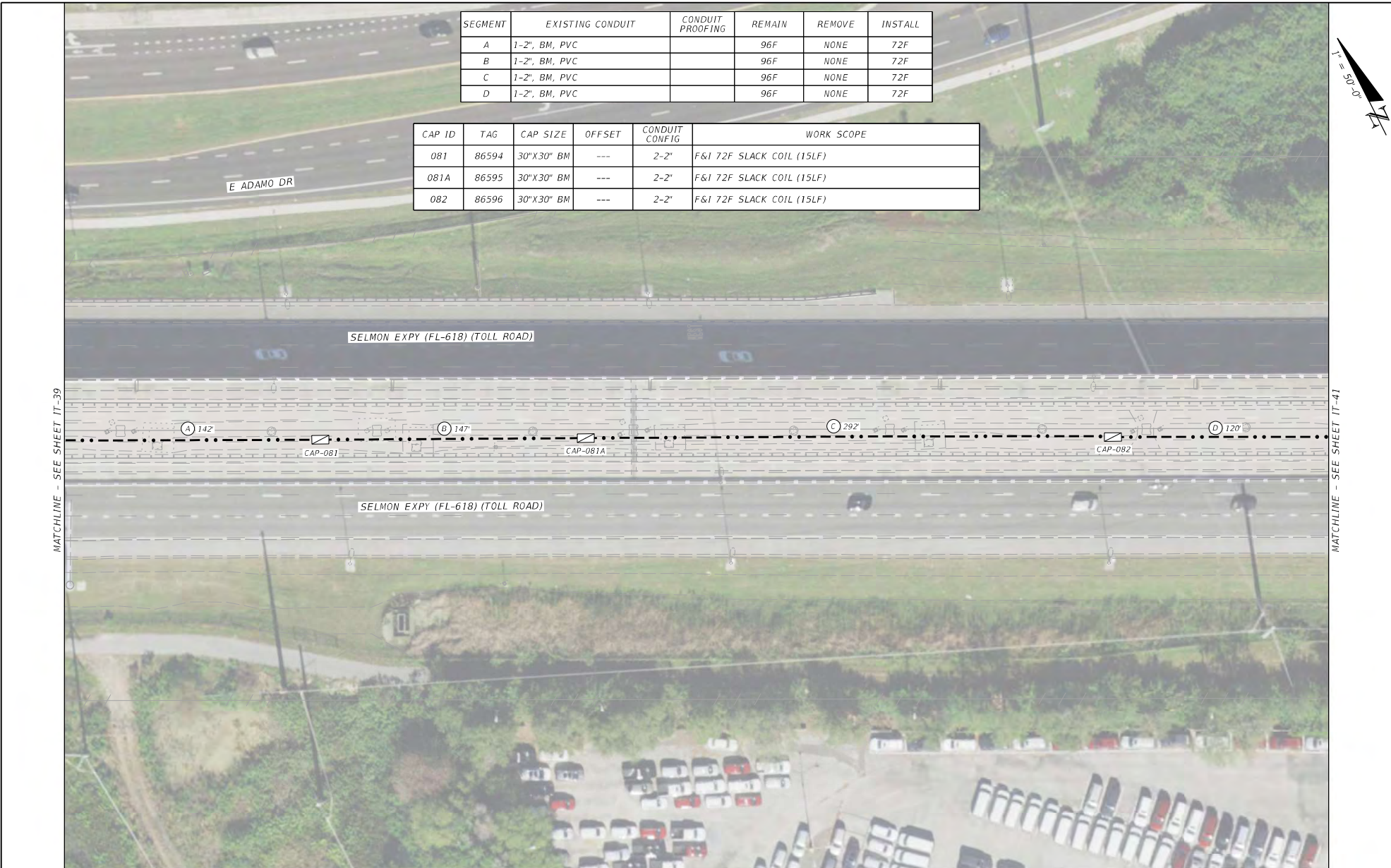
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REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-39
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
081	86594	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
081A	86595	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
082	86596	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-39

MATCHLINE - SEE SHEET IT-41

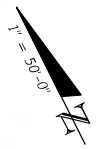


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REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-40
DATE	DESCRIPTION	DATE	DESCRIPTION	DEPARTMENT OF TRANSPORTATION			
				ROAD NO.	COUNTY		
				JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578	S.R. 618	HILLSBOROUGH	

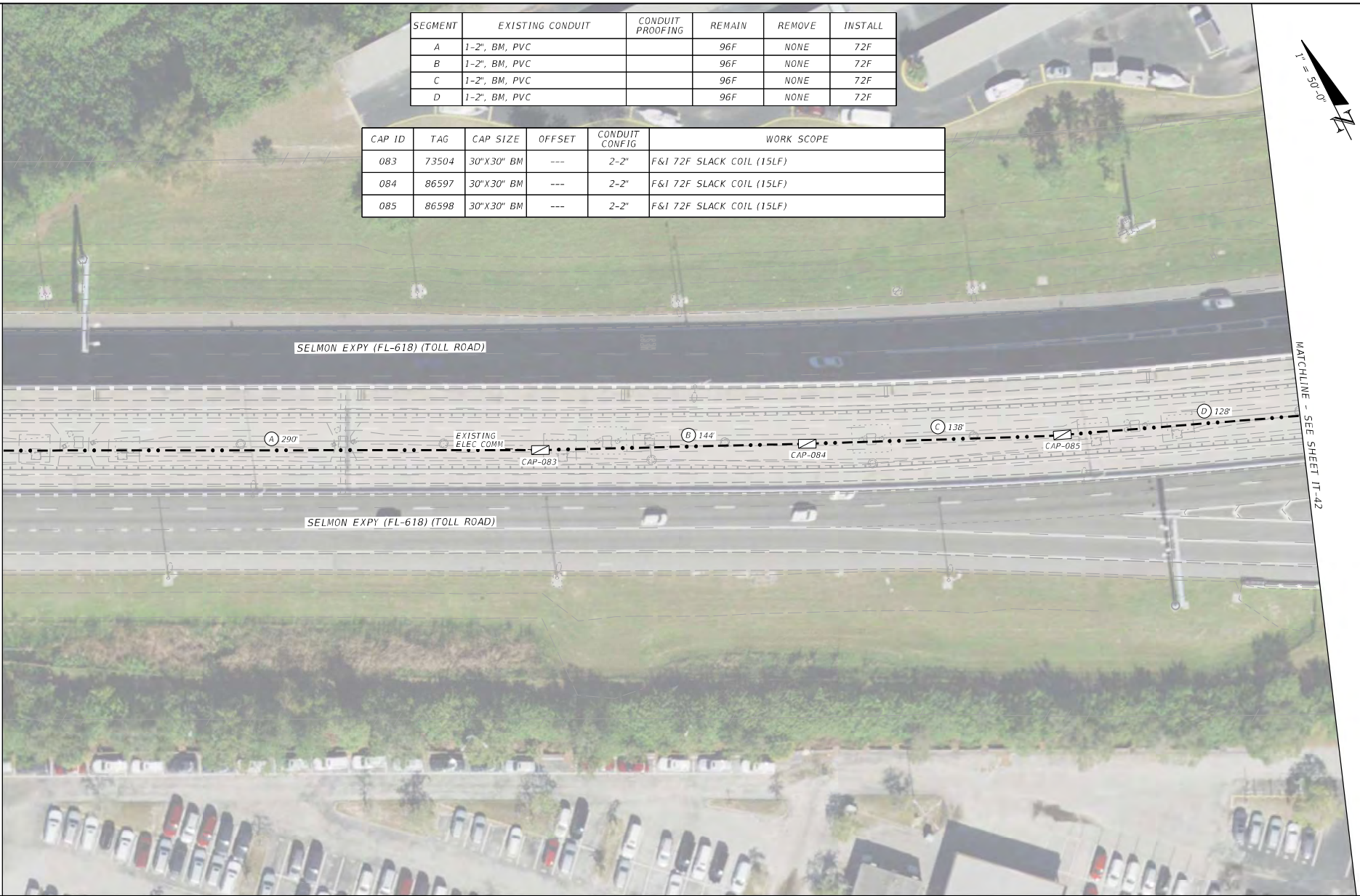
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
083	73504	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
084	86597	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
085	86598	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-40

MATCHLINE - SEE SHEET IT-42



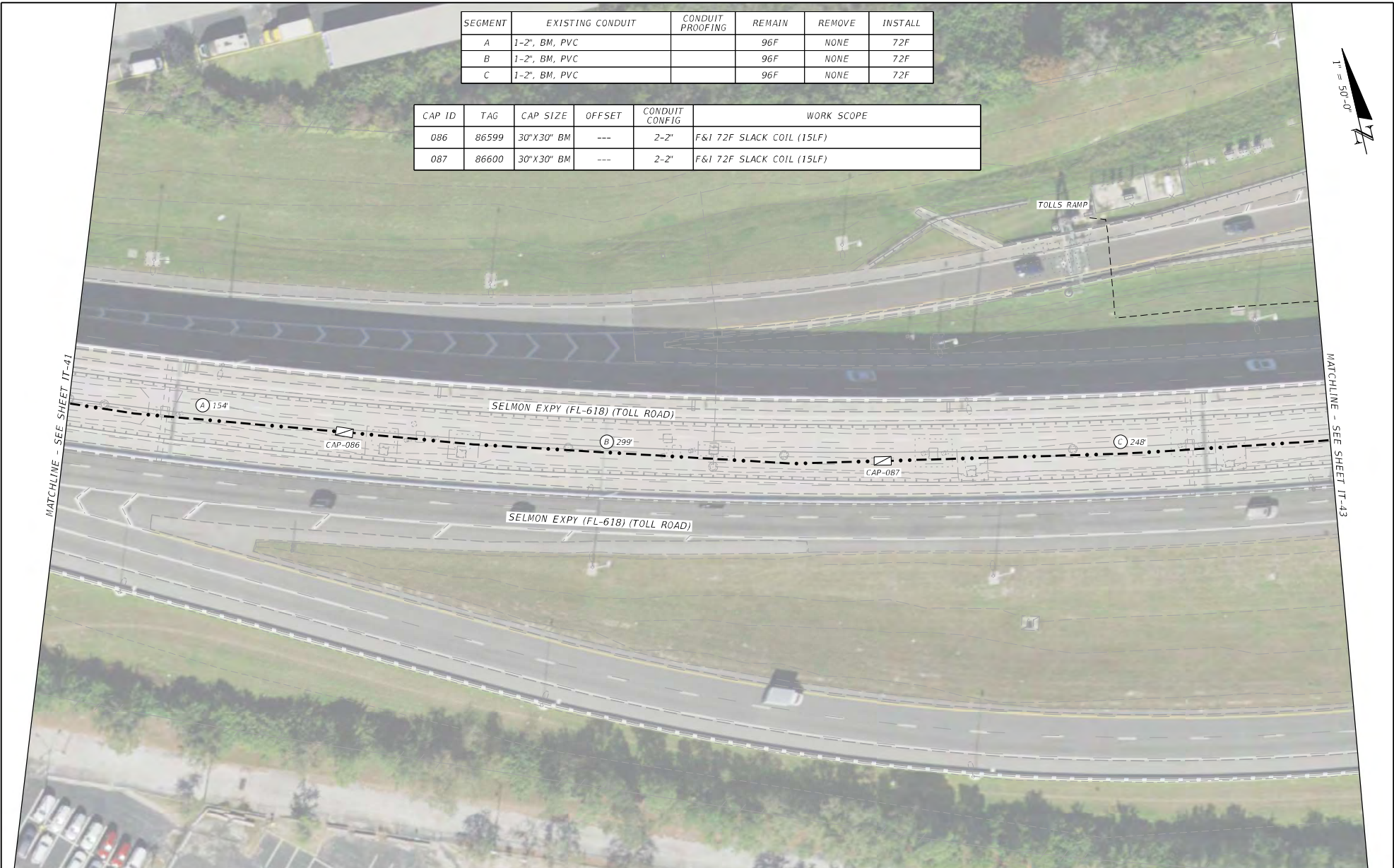
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-41
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
086	86599	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
087	86600	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		FINANCIAL PROJECT ID
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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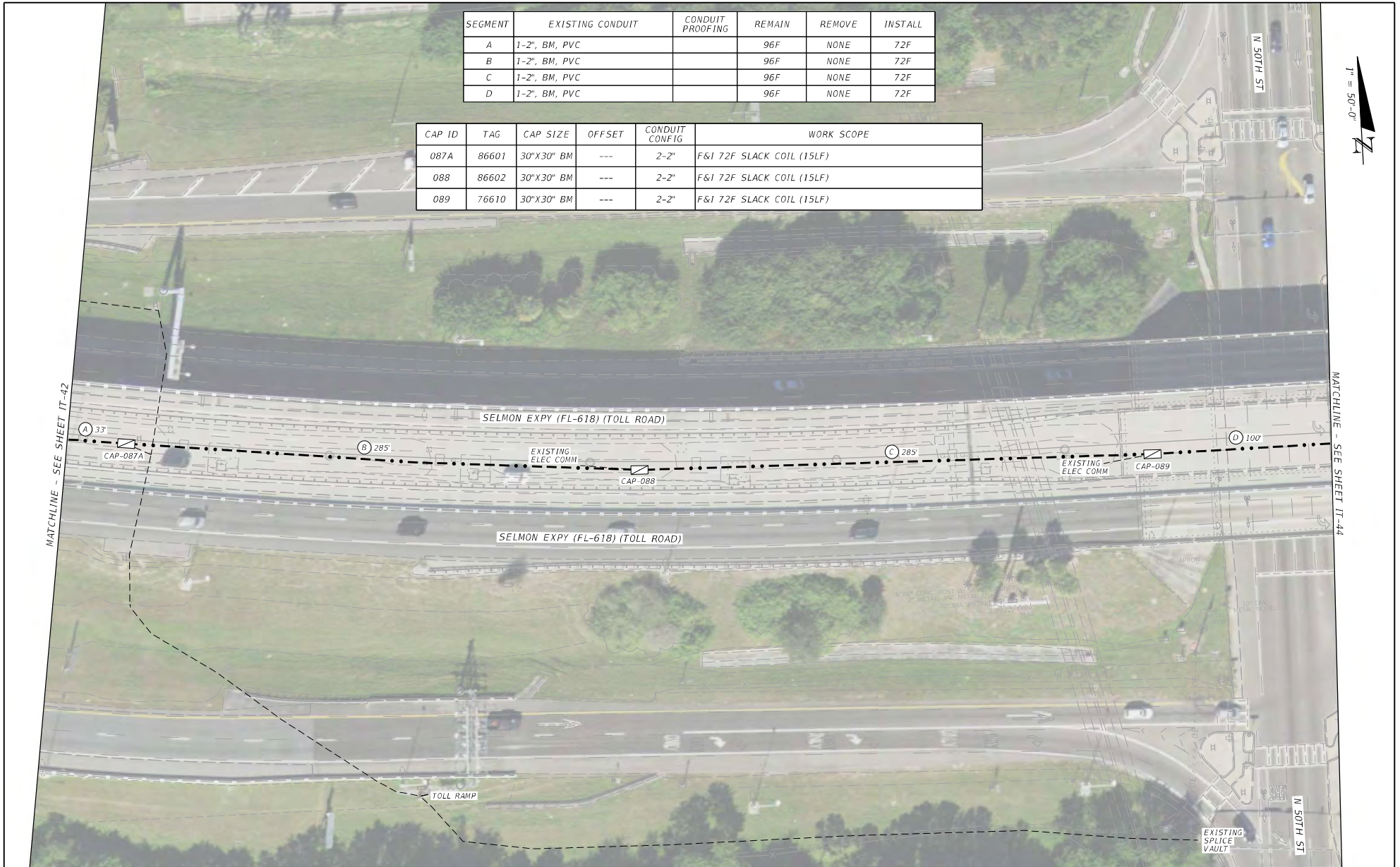
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
087A	86601	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
088	86602	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
089	76610	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.	
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY		FINANCIAL PROJECT ID	IT-43
				S.R. 618	HILLSBOROUGH					

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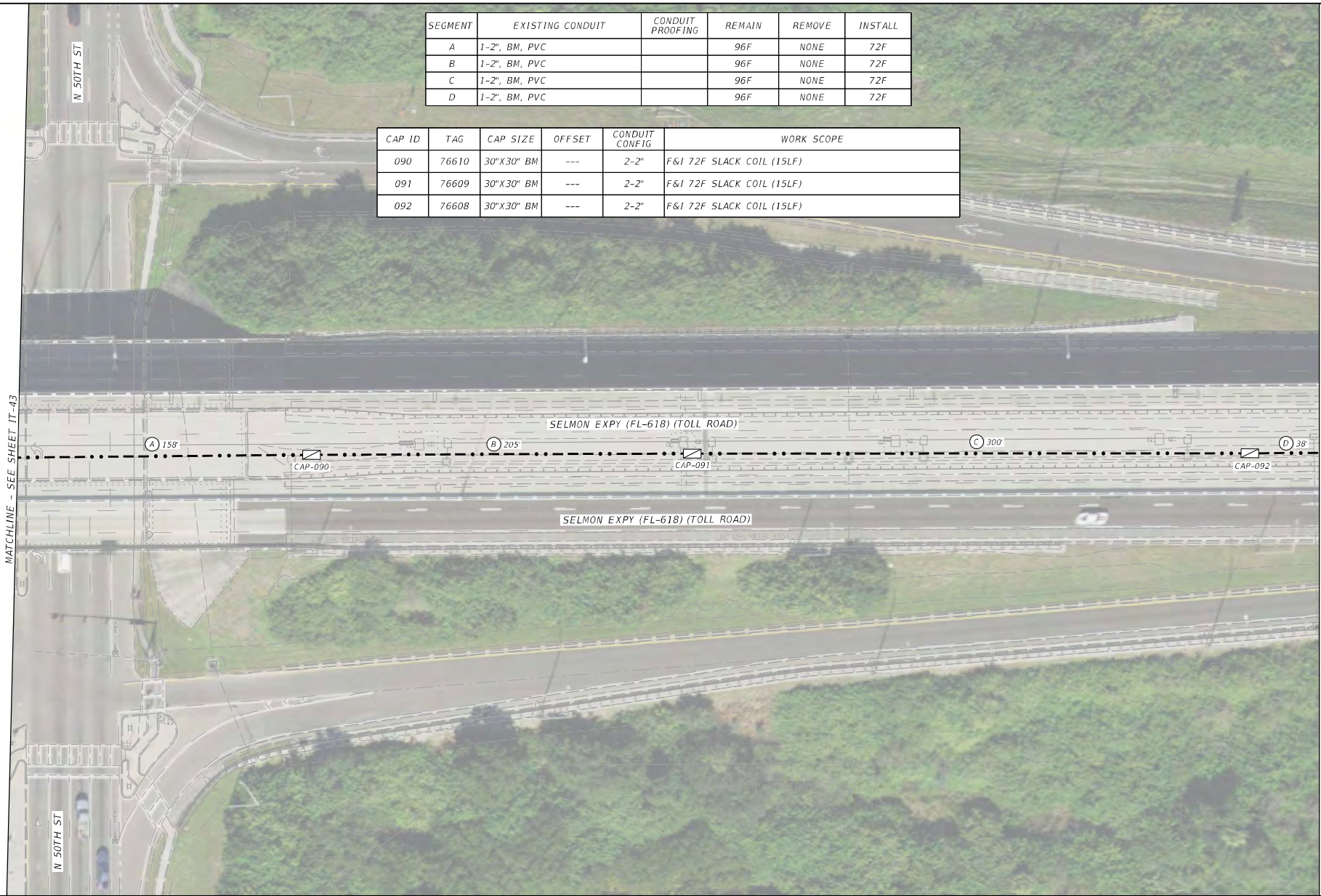
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
090	76610	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
091	76609	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
092	76608	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-43

MATCHLINE - SEE SHEET IT-45

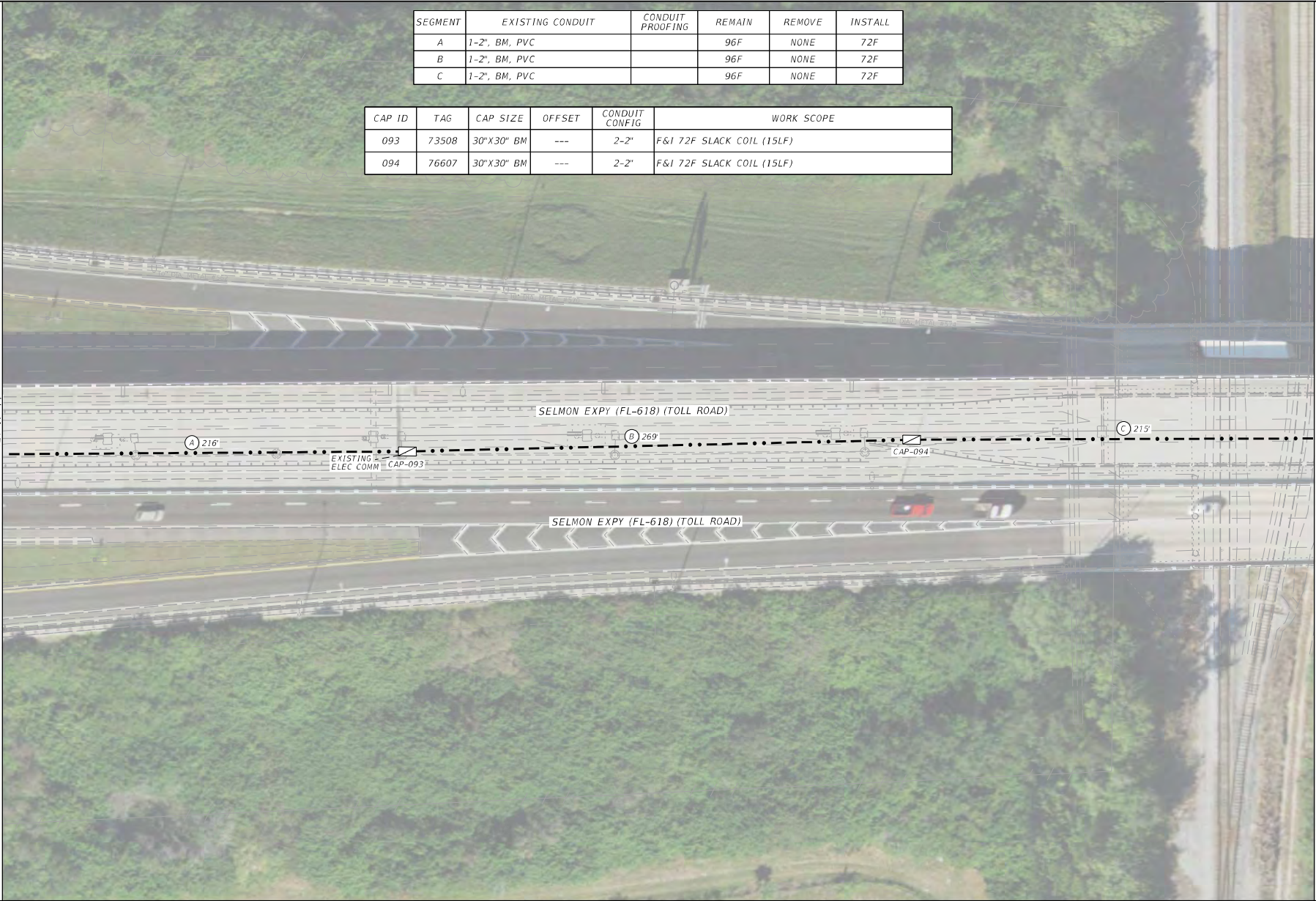
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			IT-44

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
093	73508	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
094	76607	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-44



MATCHLINE - SEE SHEET IT-46



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REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-45
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH	FINANCIAL PROJECT ID	

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

encconnell

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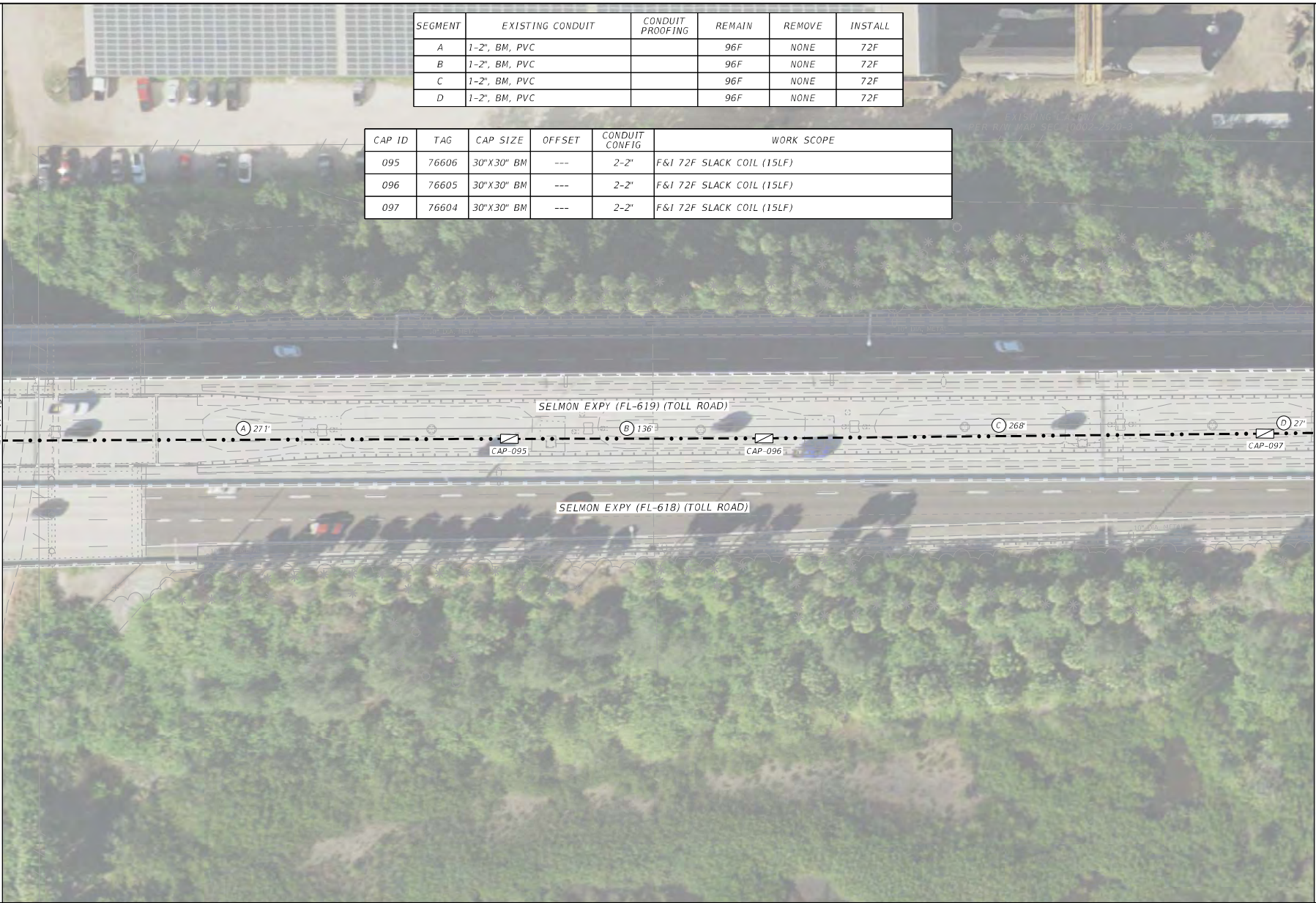
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
095	76606	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
096	76605	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
097	76604	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-45



MATCHLINE - SEE SHEET IT-47



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
098	76603	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
099	73509	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-46



MATCHLINE - SEE SHEET IT-48



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REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-47
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH	FINANCIAL PROJECT ID	

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

emcconnell

1/11/2024

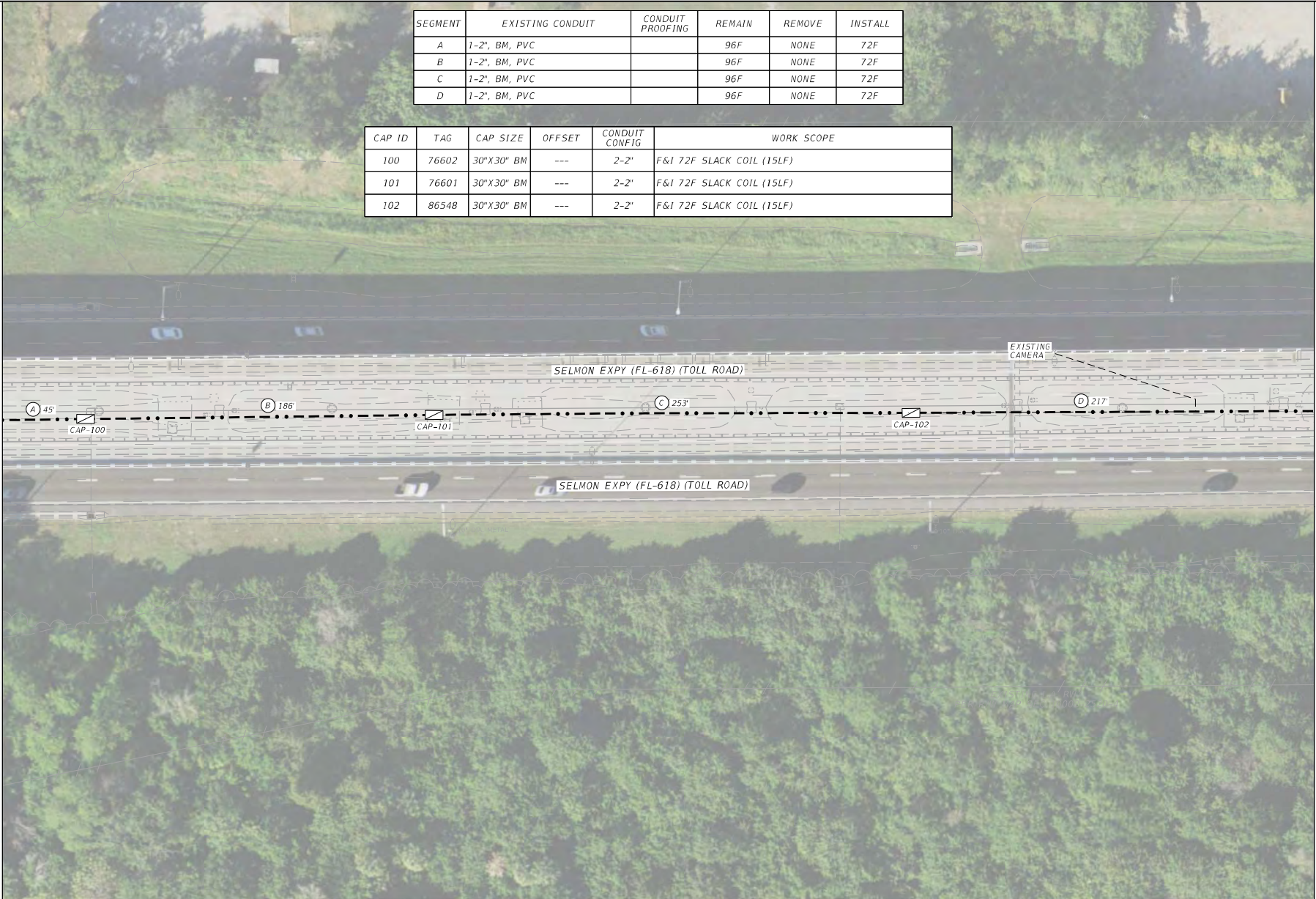
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
100	76602	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
101	76601	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
102	86548	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-47



MATCHLINE - SEE SHEET IT-49



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-48
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
103	86547	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
104	86546	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
105	73510	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-48



MATCHLINE - SEE SHEET IT-50



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REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		FINANCIAL PROJECT ID

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
106	86545	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
107	86544	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-49



MATCHLINE - SEE SHEET IT-51



DATE		DESCRIPTION		REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN		SHEET NO.
ROAD NO.		COUNTY		FINANCIAL PROJECT ID		JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		S.R. 618 HILLSBOROUGH				IT-50

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F
E	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
108	86543	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
109	86542	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
110	86541	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
111	73511	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-50



MATCHLINE - SEE SHEET IT-52



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			IT-51

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
112	86524	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
113	86523	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-51



MATCHLINE - SEE SHEET IT-53



REVISIONS		REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY		
						S.R. 618	HILLSBOROUGH		

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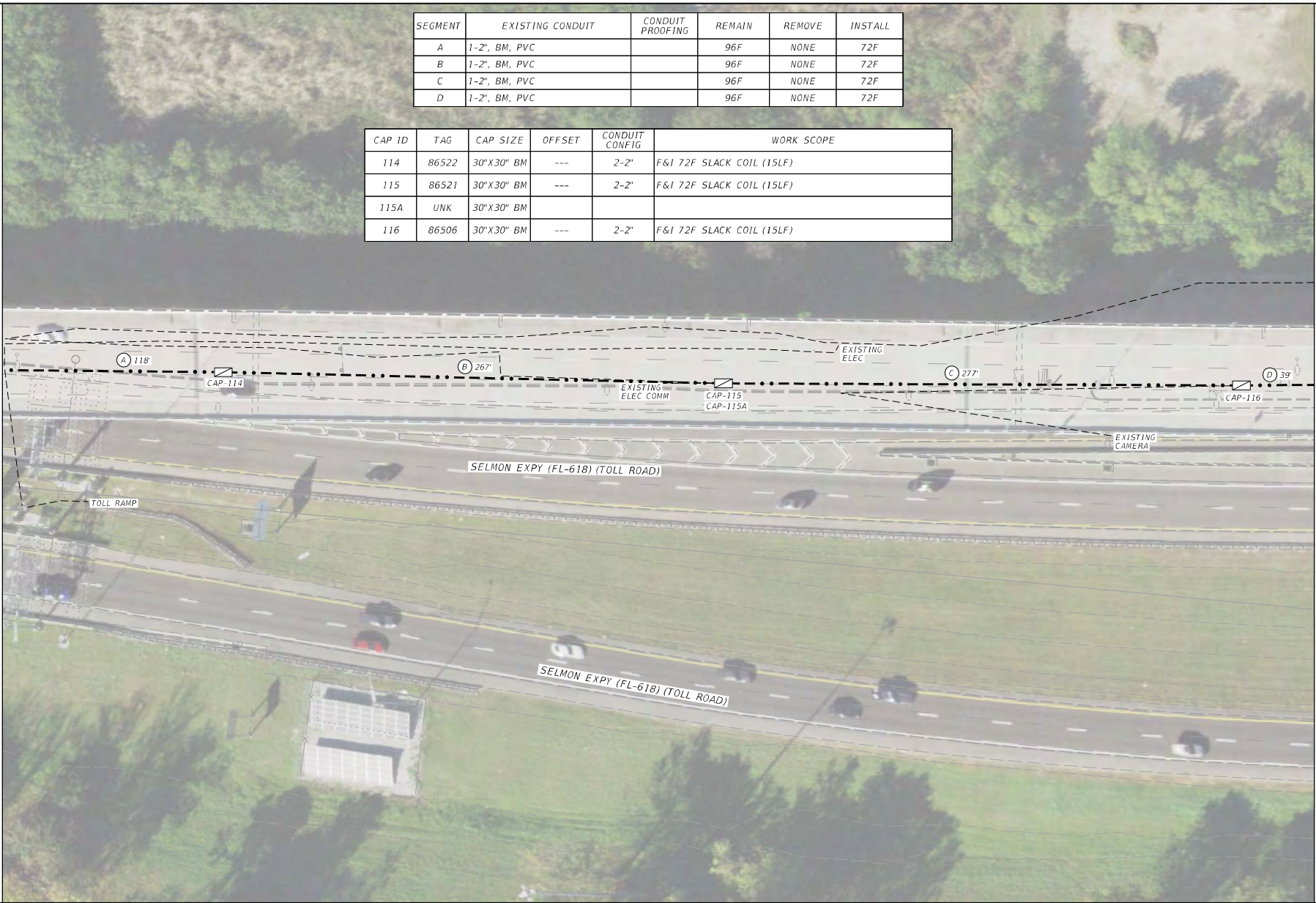
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
114	86522	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
115	86521	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
115A	UNK	30"X30" BM			
116	86506	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-52



MATCHLINE - SEE SHEET IT-54



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-53
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

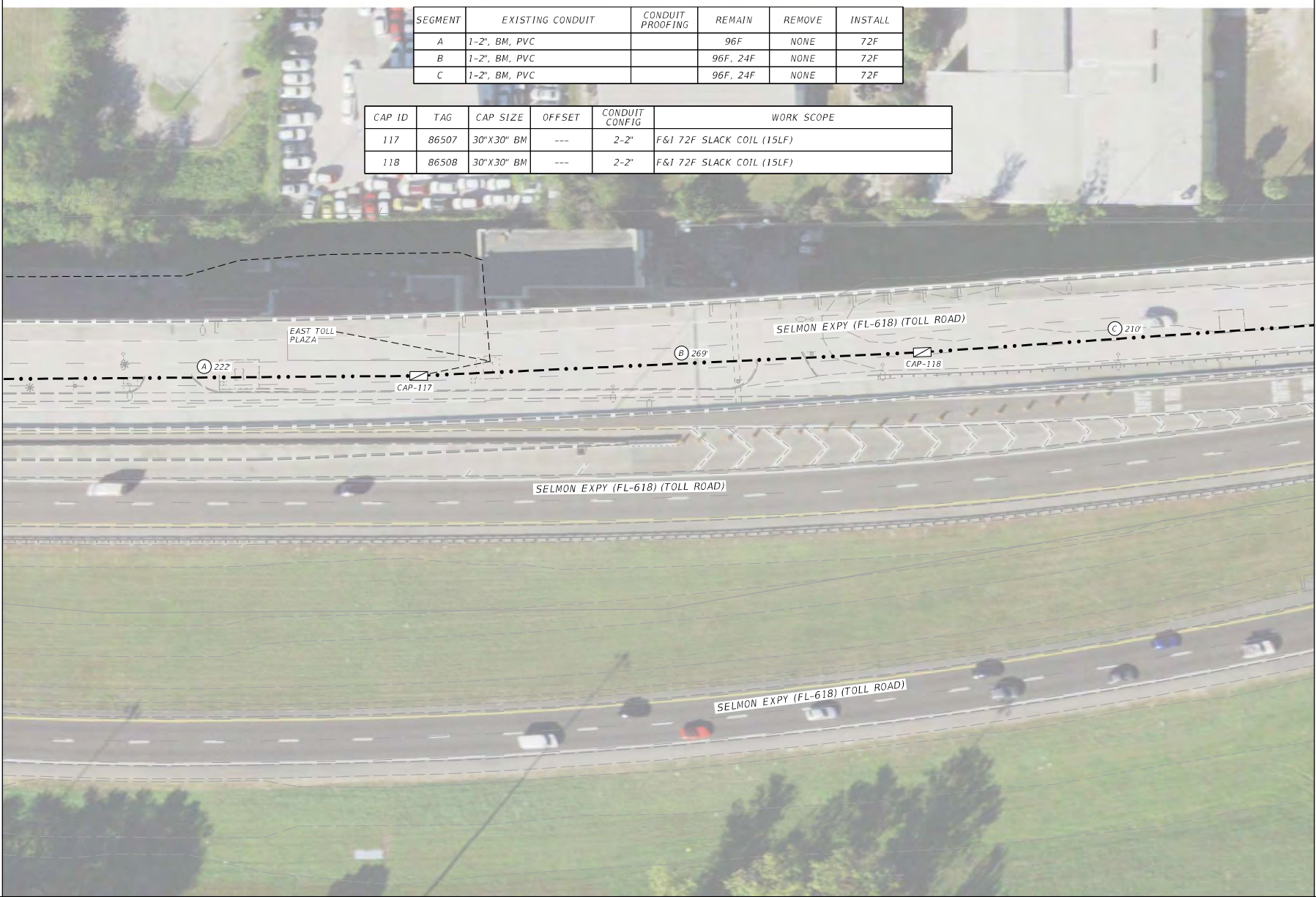
JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F, 24F	NONE	72F
C	1-2", BM, PVC		96F, 24F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
117	86507	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
118	86508	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-53



MATCHLINE - SEE SHEET IT-55



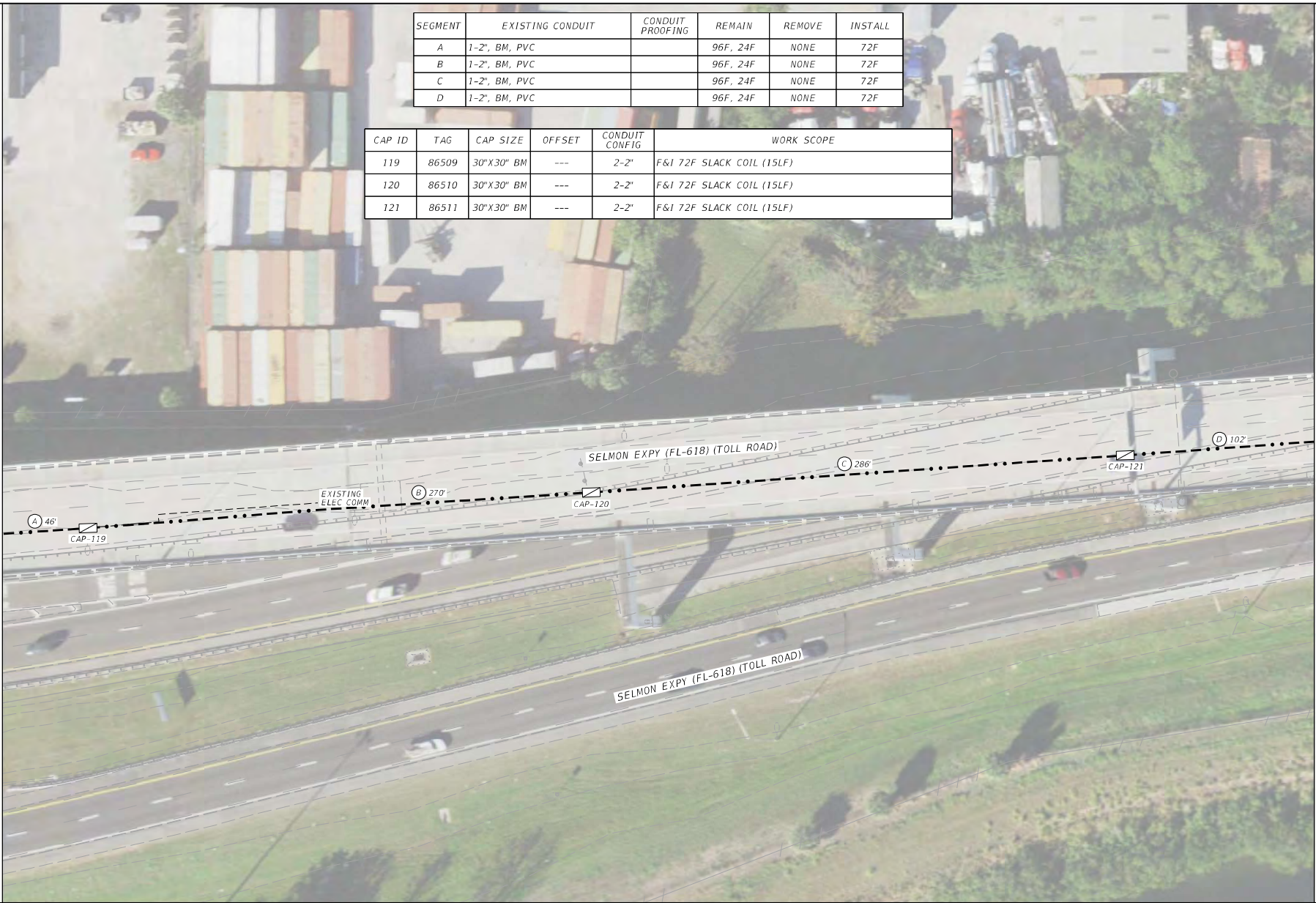
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REVISIONS		REVISIONS		ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-54
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH			

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F, 24F	NONE	72F
B	1-2", BM, PVC		96F, 24F	NONE	72F
C	1-2", BM, PVC		96F, 24F	NONE	72F
D	1-2", BM, PVC		96F, 24F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
119	86509	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
120	86510	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
121	86511	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-54



MATCHLINE - SEE SHEET IT-56



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			IT-55

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F, 24F	NONE	72F
B	1-2", BM, PVC		96F, 24F	NONE	72F
C	1-2", BM, PVC		96F, 24F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
122	86512	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
123	86513	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-55



MATCHLINE - SEE SHEET IT-57



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			IT-56

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F, 24F	NONE	72F
B	1-2", BM, PVC		96F, 24F	NONE	72F
C	1-2", BM, PVC		96F, 24F	NONE	72F
D	1-2", BM, PVC		96F, 24F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
124	86514	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
125	86515	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
126	86515	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-56

MATCHLINE - SEE SHEET IT-58



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		IT-57

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F, 24F	NONE	72F
B	1-2", BM, PVC		96F, 24F	NONE	72F
C	1-2", BM, PVC		96F, 24F	NONE	72F
D	1-2", BM, PVC		96F, 24F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
127	86519	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
128	86517	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
129	86516	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-58
DATE	DESCRIPTION	DATE	DESCRIPTION	DEPARTMENT OF TRANSPORTATION			
				ROAD NO.	COUNTY		
				JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578	S.R. 618	HILLSBOROUGH	

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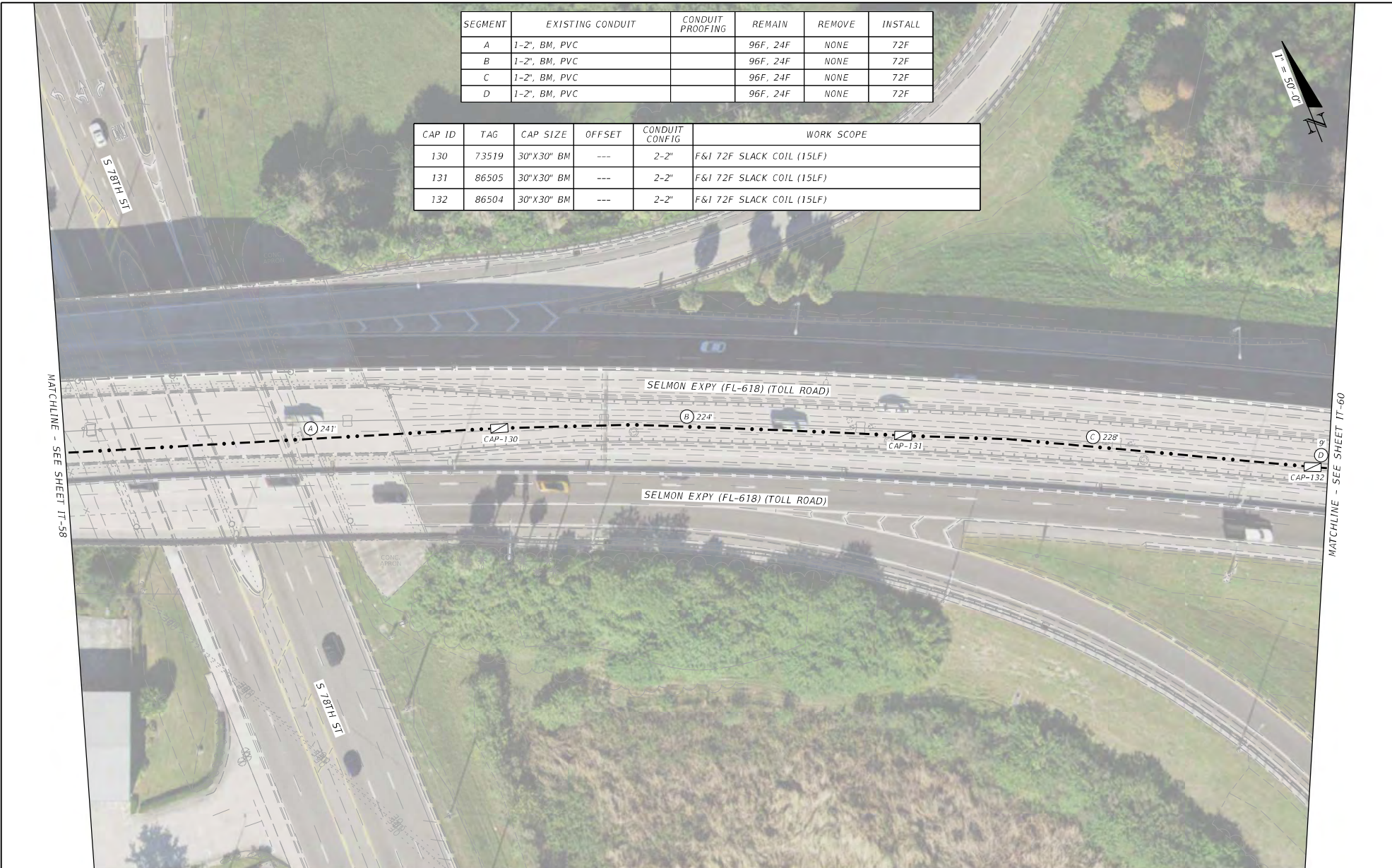
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F, 24F	NONE	72F
B	1-2", BM, PVC		96F, 24F	NONE	72F
C	1-2", BM, PVC		96F, 24F	NONE	72F
D	1-2", BM, PVC		96F, 24F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
130	73519	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
131	86505	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
132	86504	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-59
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F, 24F	NONE	72F
B	1-2", BM, PVC		96F, 24F	NONE	72F
C	1-2", BM, PVC		96F, 24F	NONE	72F
D	3-2", UG, HDPE	X	96F, 24F	NONE	72F
E	3-2", UG, HDPE	X	96F, 24F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
133	86503	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
134	73521	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
135	80388	2"X3" UG	25'	5-2"	F&I 72F SLACK COIL (25LF)
136	80387	2"X2" UG	25'	3-2"	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-59

MATCHLINE - SEE SHEET IT-61



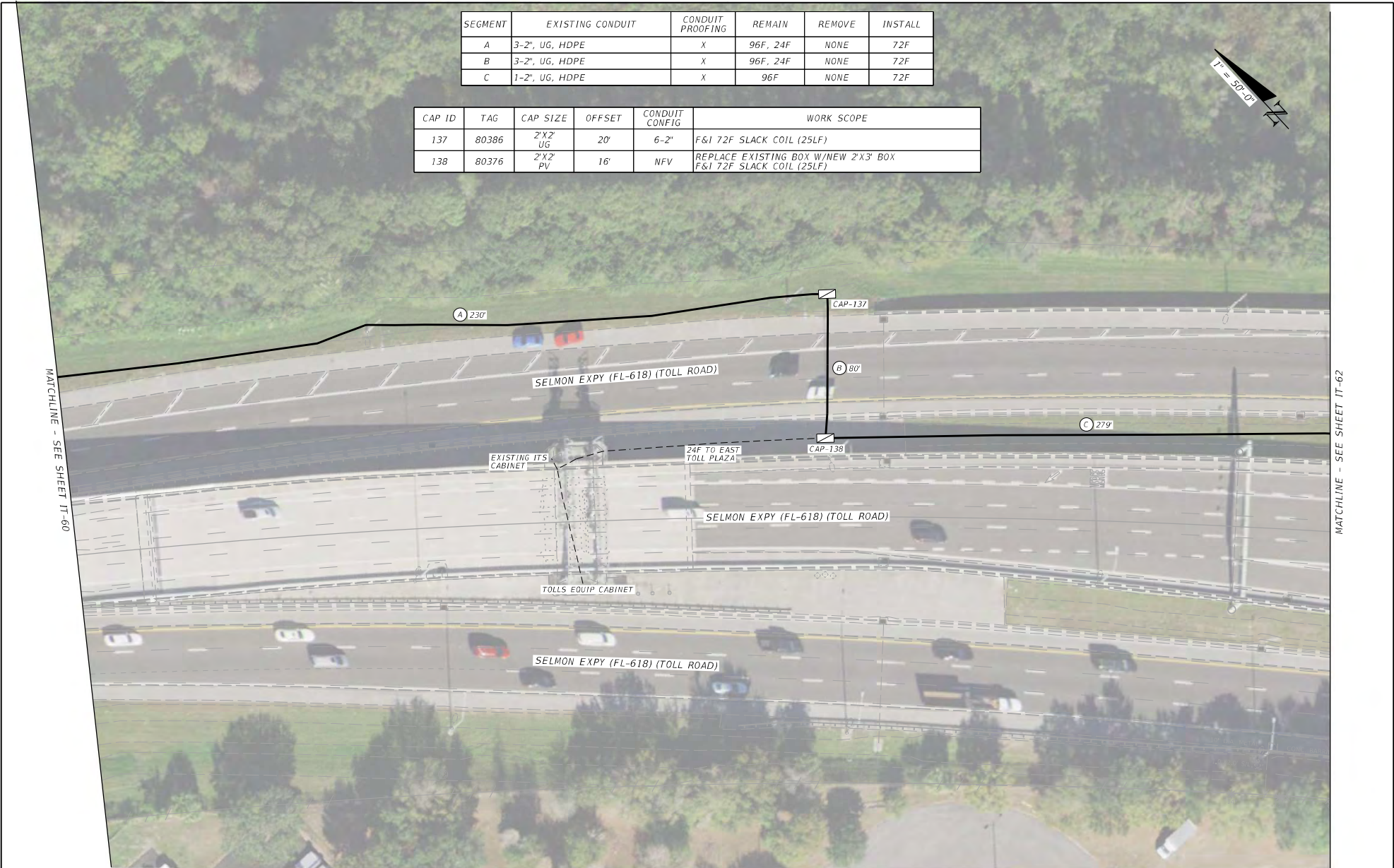
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-60
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	3-2", UG, HDPE	X	96F, 24F	NONE	72F
B	3-2", UG, HDPE	X	96F, 24F	NONE	72F
C	1-2", UG, HDPE	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
137	80386	2'X2' UG	20'	6-2"	F&I 72F SLACK COIL (25LF)
138	80376	2'X2' PV	16'	NFV	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-61
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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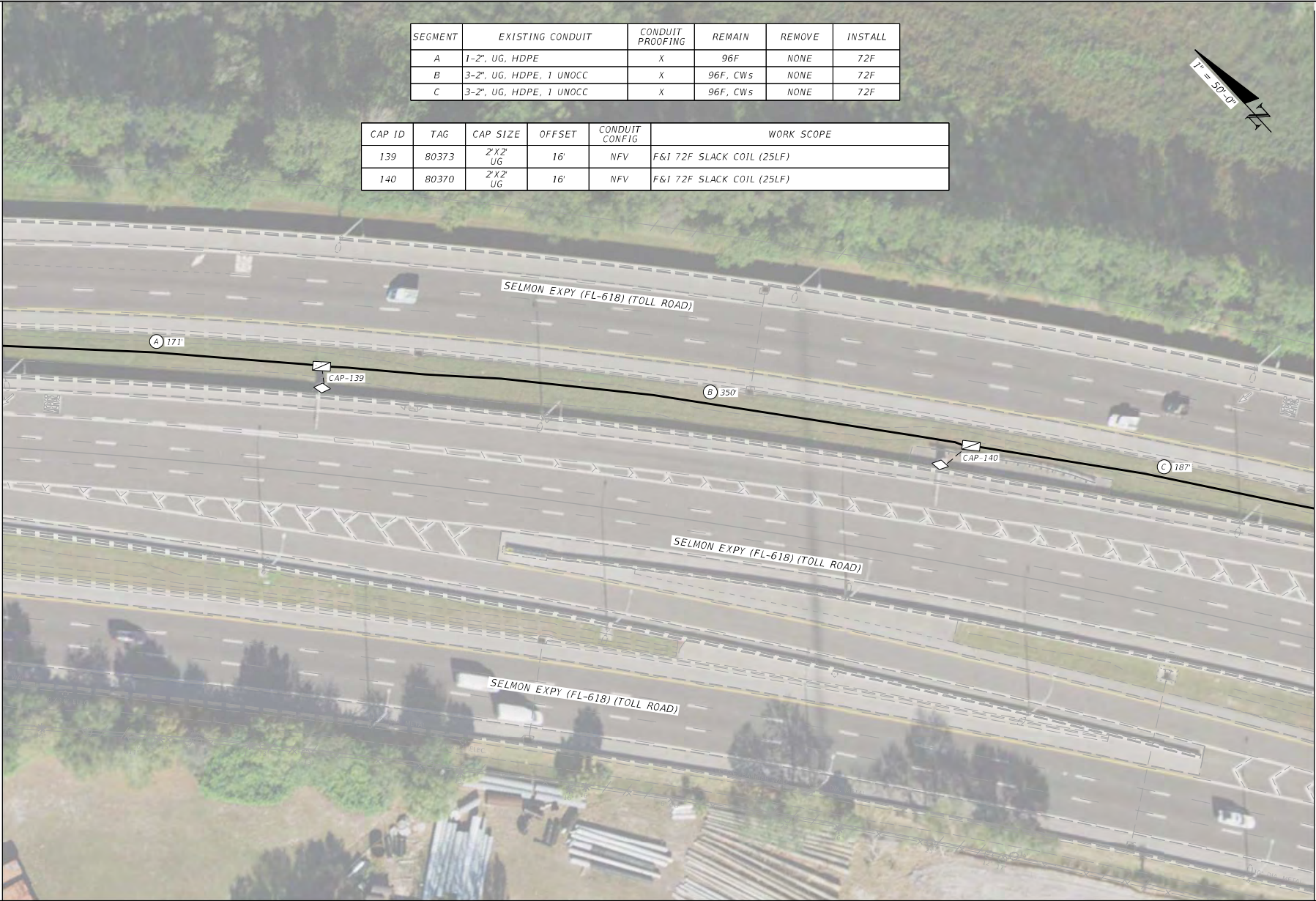
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	96F	NONE	72F
B	3-2", UG, HDPE, 1 UNOCC	X	96F, CWS	NONE	72F
C	3-2", UG, HDPE, 1 UNOCC	X	96F, CWS	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
139	80373	2'X2' UG	16'	NFV	F&I 72F SLACK COIL (25LF)
140	80370	2'X2' UG	16'	NFV	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-61

MATCHLINE - SEE SHEET IT-63

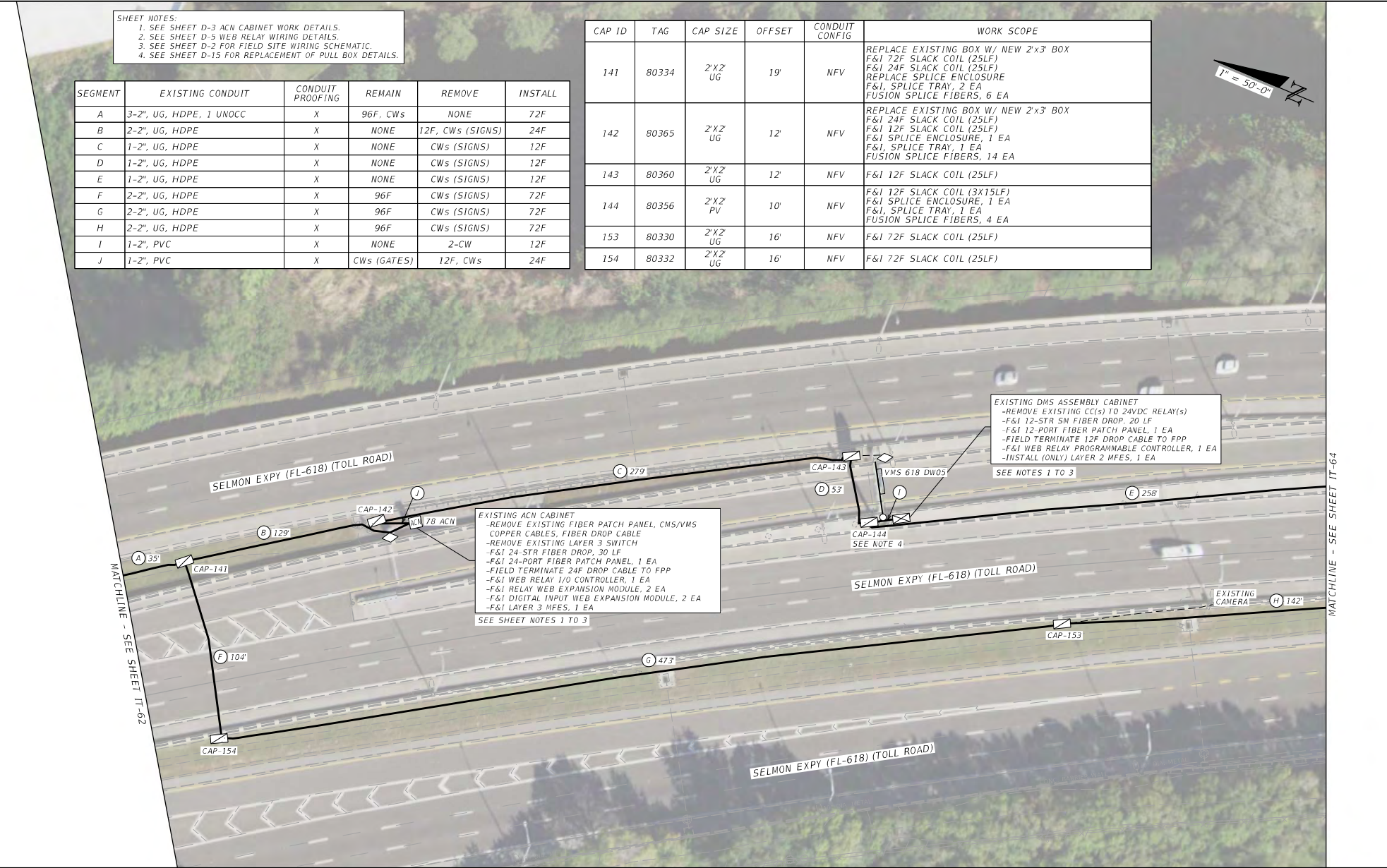
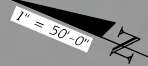


REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-62	
DATE	DESCRIPTION	DATE	DESCRIPTION	DEPARTMENT OF TRANSPORTATION				
				ROAD NO.	COUNTY			FINANCIAL PROJECT ID
				JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		S.R. 618	HILLSBOROUGH	

SHEET NOTES:
 1. SEE SHEET D-3 ACN CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.
 4. SEE SHEET D-15 FOR REPLACEMENT OF PULL BOX DETAILS.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	3-2", UG, HDPE, 1 UNOCC	X	96F, CWS	NONE	72F
B	2-2", UG, HDPE	X	NONE	12F, CWS (SIGNS)	24F
C	1-2", UG, HDPE	X	NONE	CWS (SIGNS)	12F
D	1-2", UG, HDPE	X	NONE	CWS (SIGNS)	12F
E	1-2", UG, HDPE	X	NONE	CWS (SIGNS)	12F
F	2-2", UG, HDPE	X	96F	CWS (SIGNS)	72F
G	2-2", UG, HDPE	X	96F	CWS (SIGNS)	72F
H	2-2", UG, HDPE	X	96F	CWS (SIGNS)	72F
I	1-2", PVC	X	NONE	2-CW	12F
J	1-2", PVC	X	CWS (GATES)	12F, CWS	24F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
141	80334	2'X2' UG	19'	NFV	REPLACE EXISTING BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF) F&I 24F SLACK COIL (25LF) REPLACE SPLICE ENCLOSURE F&I SPLICE TRAY, 2 EA FUSION SPLICE FIBERS, 6 EA
142	80365	2'X2' UG	12'	NFV	REPLACE EXISTING BOX W/ NEW 2'x3' BOX F&I 24F SLACK COIL (25LF) F&I 12F SLACK COIL (25LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 14 EA
143	80360	2'X2' UG	12'	NFV	F&I 12F SLACK COIL (25LF)
144	80356	2'X2' PV	10'	NFV	F&I 12F SLACK COIL (3X15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
153	80330	2'X2' UG	16'	NFV	F&I 72F SLACK COIL (25LF)
154	80332	2'X2' UG	16'	NFV	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-62

MATCHLINE - SEE SHEET IT-64

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-63
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						S.R. 618	HILLSBOROUGH			

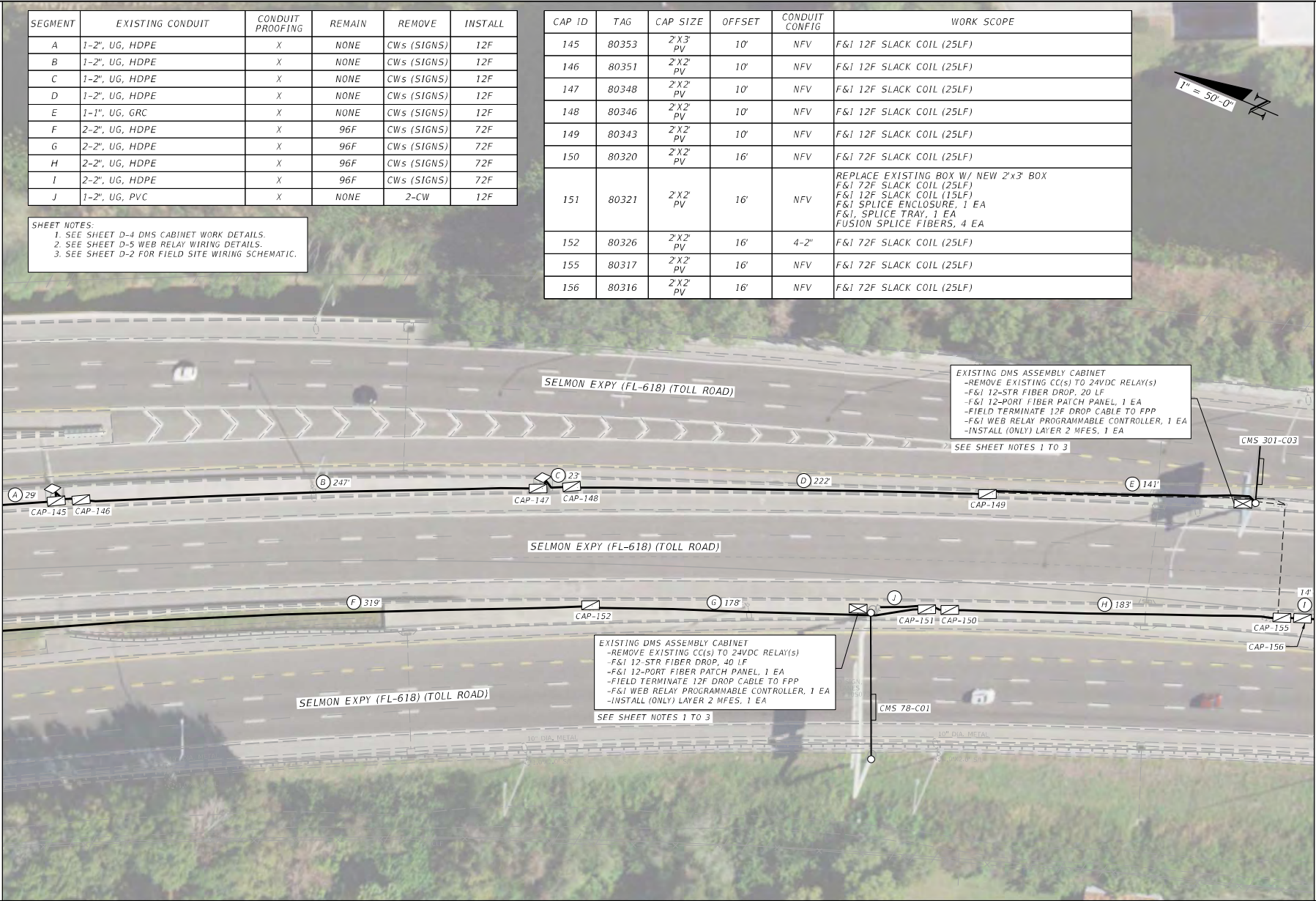
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	NONE	CWs (SIGNS)	12F
B	1-2", UG, HDPE	X	NONE	CWs (SIGNS)	12F
C	1-2", UG, HDPE	X	NONE	CWs (SIGNS)	12F
D	1-2", UG, HDPE	X	NONE	CWs (SIGNS)	12F
E	1-1", UG, GRC	X	NONE	CWs (SIGNS)	12F
F	2-2", UG, HDPE	X	96F	CWs (SIGNS)	72F
G	2-2", UG, HDPE	X	96F	CWs (SIGNS)	72F
H	2-2", UG, HDPE	X	96F	CWs (SIGNS)	72F
I	2-2", UG, HDPE	X	96F	CWs (SIGNS)	72F
J	1-2", UG, PVC	X	NONE	2-CW	12F

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
145	80353	2 X3 PV	10'	NFV	F&I 12F SLACK COIL (25LF)
146	80351	2 X2 PV	10'	NFV	F&I 12F SLACK COIL (25LF)
147	80348	2 X2 PV	10'	NFV	F&I 12F SLACK COIL (25LF)
148	80346	2 X2 PV	10'	NFV	F&I 12F SLACK COIL (25LF)
149	80343	2 X2 PV	10'	NFV	F&I 12F SLACK COIL (25LF)
150	80320	2 X2 PV	16'	NFV	F&I 72F SLACK COIL (25LF)
151	80321	2 X2 PV	16'	NFV	REPLACE EXISTING BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
152	80326	2 X2 PV	16'	4-2"	F&I 72F SLACK COIL (25LF)
155	80317	2 X2 PV	16'	NFV	F&I 72F SLACK COIL (25LF)
156	80316	2 X2 PV	16'	NFV	F&I 72F SLACK COIL (25LF)

MATCHLINE - SEE SHEET IT-63



MATCHLINE - SEE SHEET IT-65

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-64
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
	IT-63			JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578	S.R. 618	HILLSBOROUGH		

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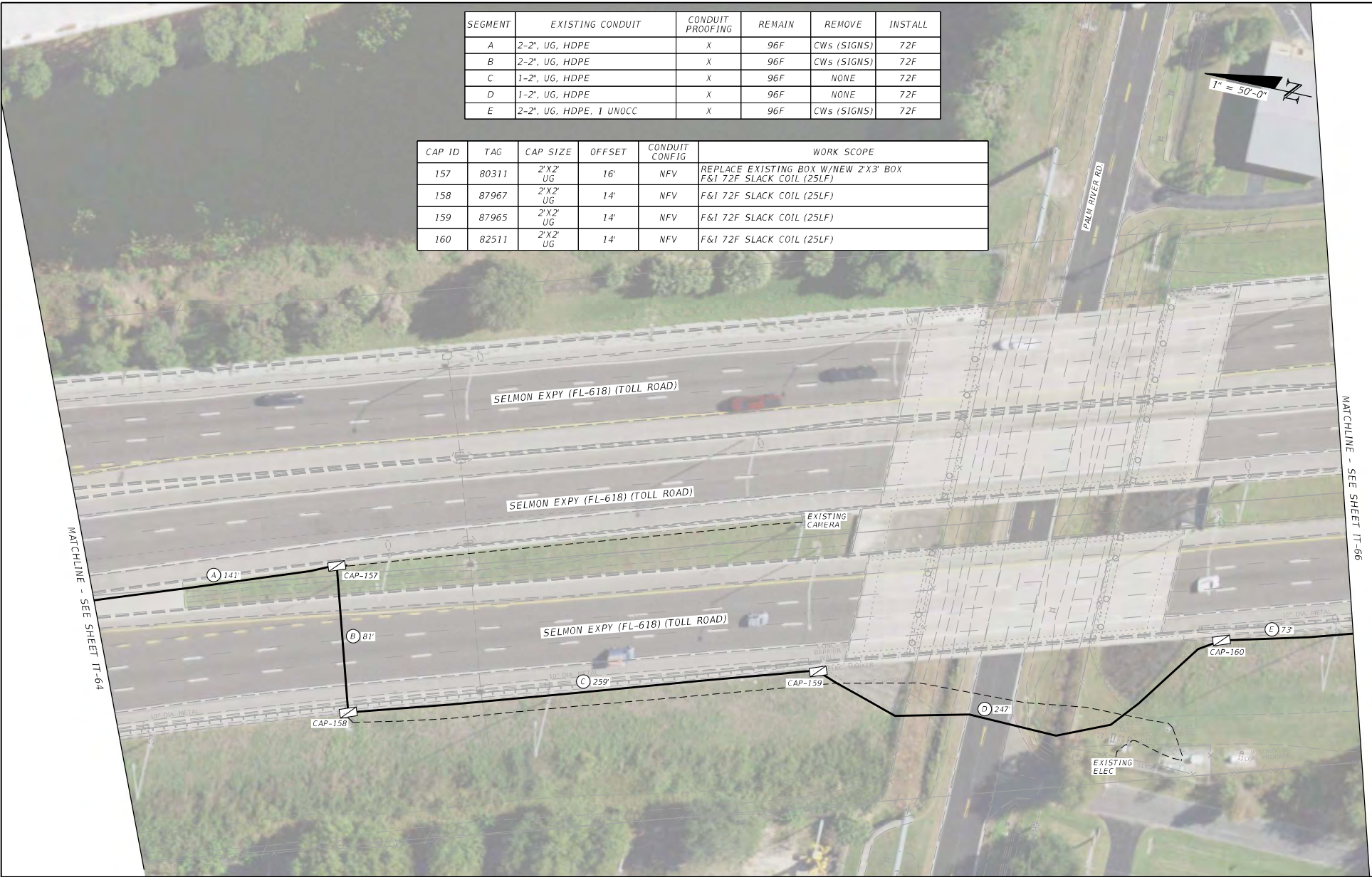
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE	X	96F	CWs (SIGNS)	72F
B	2-2", UG, HDPE	X	96F	CWs (SIGNS)	72F
C	1-2", UG, HDPE	X	96F	NONE	72F
D	1-2", UG, HDPE	X	96F	NONE	72F
E	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F

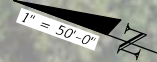
CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
157	80311	2'X2' UG	16'	NFV	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)
158	87967	2'X2' UG	14'	NFV	F&I 72F SLACK COIL (25LF)
159	87965	2'X2' UG	14'	NFV	F&I 72F SLACK COIL (25LF)
160	82511	2'X2' UG	14'	NFV	F&I 72F SLACK COIL (25LF)



REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN		SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	INTELLIGENT TRANSPORTATION SYSTEM PLAN		IT-65
							S.R. 618	HILLSBOROUGH				

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
161	82513	2'X2' UG	14'	NFV	F&I 72F SLACK COIL (25LF)
162	82514	2'X2' UG	18'	NFV	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-65

MATCHLINE - SEE SHEET IT-67



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-66
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

encconnell

1/10/2024

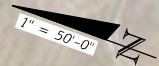
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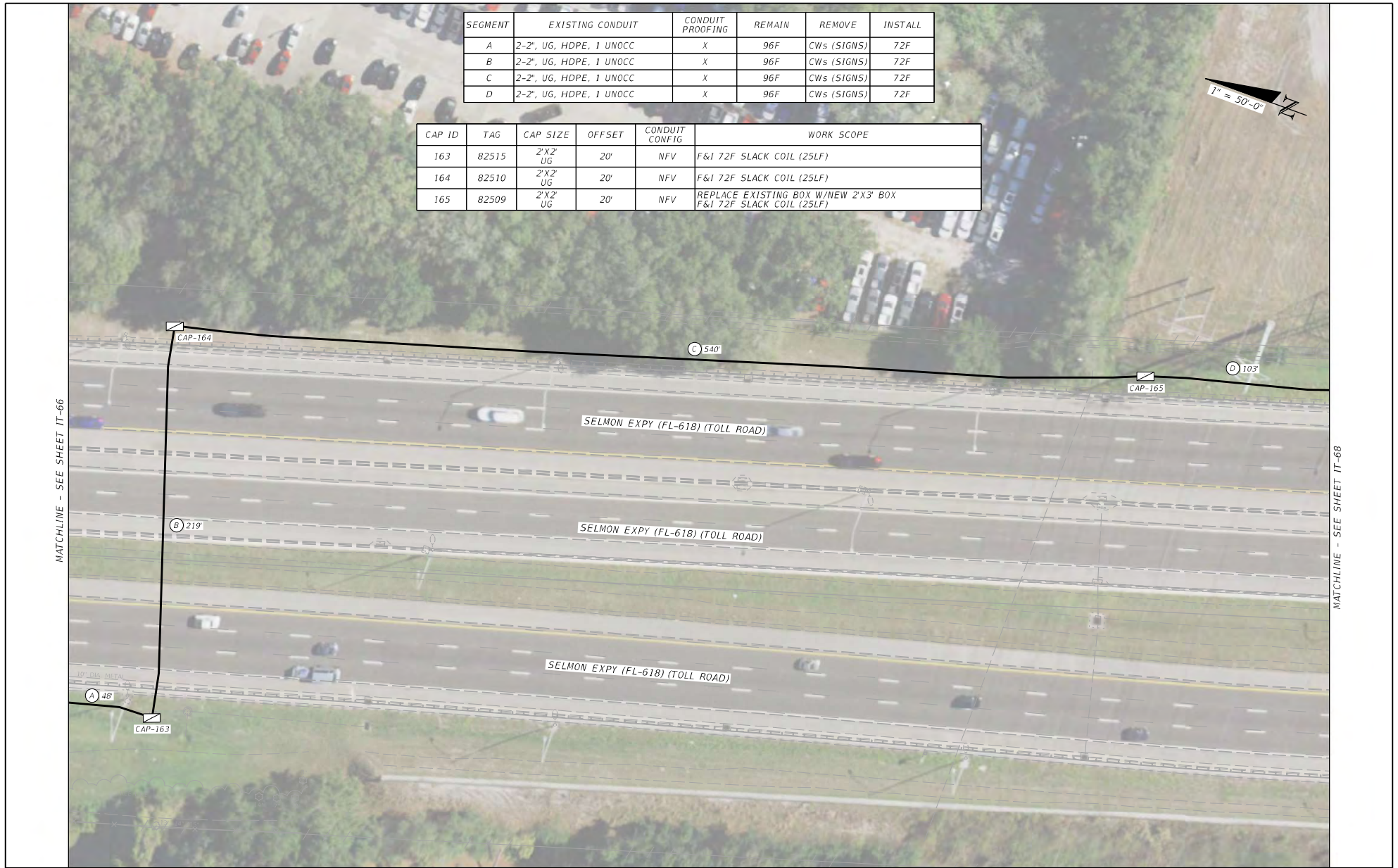
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F
D	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
163	82515	2'X2' UG	20'	NFV	F&I 72F SLACK COIL (25LF)
164	82510	2'X2' UG	20'	NFV	F&I 72F SLACK COIL (25LF)
165	82509	2'X2' UG	20'	NFV	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-66

MATCHLINE - SEE SHEET IT-68



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-67
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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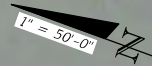
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	CWs (SIGNS)	72F
D	2-2", UG, HDPE, 1 UNOCC	X	12F	CWs (SIGNS)	12F
E	1-2", UG, PVC	X	NONE	CWs (SIGNS)	12F
F	1-2", UG, PVC	X	NONE	CWs (SIGNS)	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
166	82505	2'X2' UG	20'	NFV	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
167	82501	2'X2' UG	20'	NFV	F&I 72F SLACK COIL (25LF)
171	87975	17'X30' UG	22'	NFV	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)

SHEET NOTES:
 1. SEE SHEET D-4 DNS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

EXISTING DNS ASSEMBLY CABINET
 -REMOVE EXISTING CC(s) TO 24VDC RELAY(s)
 -F&I 12-STR FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

EXISTING DNS ASSEMBLY CABINET
 -REMOVE EXISTING CC(s) TO 24VDC RELAY(s)
 -F&I 12-STR FIBER DROP, 40 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3



MATCHLINE - SEE SHEET IT-67

MATCHLINE - SEE SHEET IT-69

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-68
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH			

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	CW's (SIGNS)	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
C	2-2", UG, HDPE	X	3-12F	CW's (SIGNS)	24F
D	2-2", UG, HDPE	X	12F	CW's (SIGNS)	12F
E	2-2", UG, HDPE	X	12F	CW's (SIGNS)	12F
F	2-2", UG, HDPE	X	NONE	CW's (SIGNS)	12F
G	1-2", UG, HDPE	X	NONE	CW's (SIGNS)	12F
H	2-2", UG, PVC	X	NONE	12F (DROP), CW's	24F
I	1-2", UG, PVC	X	NONE	CW's (SIGNS)	12F

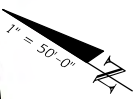
SHEET NOTES:
 1. SEE SHEET D-3 ACN CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.
 4. SEE SHEET D-4 DMS CABINET WORK DETAILS.

EXISTING ACN CABINET
 -REMOVE EXISTING FIBER PATCH PANEL, CMS/VMS
 COPPER CABLES, FIBER DROP CABLE
 -REMOVE EXISTING LAYER 3 SWITCH
 -F&I 24-STR FIBER DROP, 20 LF
 -F&I 24-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 24F DROP CABLE TO FPP
 -F&I WEB RELAY I/O CONTROLLER, 1 EA
 -F&I RELAY WEB EXPANSION MODULE, 2 EA
 -F&I DIGITAL INPUT WEB EXPANSION MODULE, 2 EA
 -F&I LAYER 3 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(S) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 2 TO 4

MATCHLINE - SEE SHEET IT-68

MATCHLINE - SEE SHEET IT-70



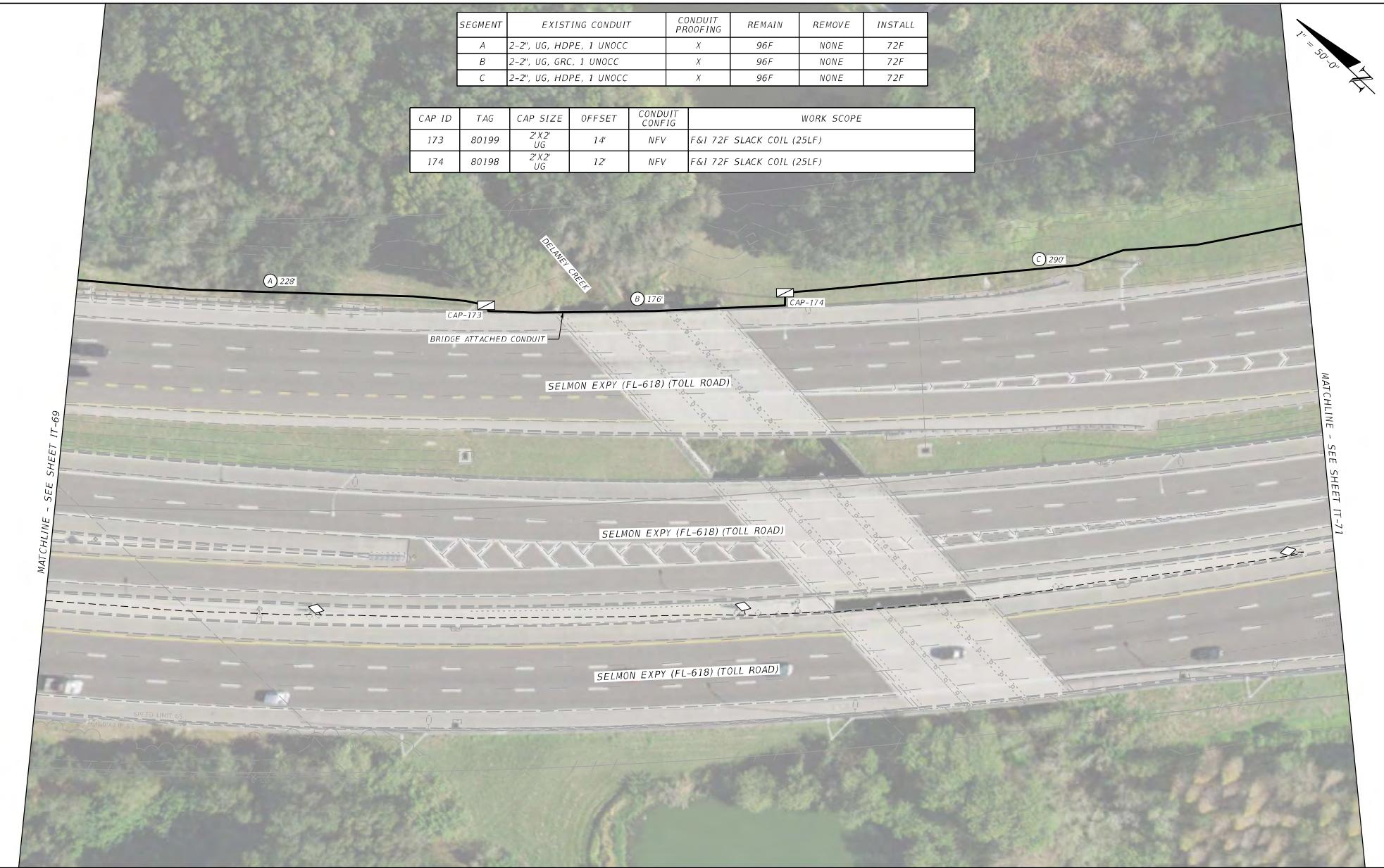
CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
168	82503	2'X2' UG	20'	NFV	REPLACE DAMAGED BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF) F&I 24F SLACK COIL (25LF) REPLACE SPLICE ENCLOSURE F&I SPLICE TRAY, 2 EA FUSION SPLICE FIBERS, 16 EA
169	87983	2'X2' UG	17'	NFV	REPLACE EXISTING BOX W/ NEW 2'x3' BOX F&I 24F SLACK COIL (25LF) F&I 12F SLACK COIL (2x25LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 4 EA FUSION SPLICE FIBERS, 8 EA
170	87980	2'X2' UG	17'	NFV	F&I 72F SLACK COIL (25LF)
172A	87991	2'X2' PV	12'	NFV	F&I 12F SLACK COIL (25LF)
172B	87993	2'X2' PV	12'	NFV	F&I 12F SLACK COIL (25LF)

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-69
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						S.R. 618	HILLSBOROUGH			

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, GRC, 1 UNOCC	X	96F	NONE	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
173	80199	2'X2' UG	14'	NFV	F&I 72F SLACK COIL (25LF)
174	80198	2'X2' UG	12'	NFV	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-69

MATCHLINE - SEE SHEET IT-71

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-70
						S.R. 618	HILLSBOROUGH			

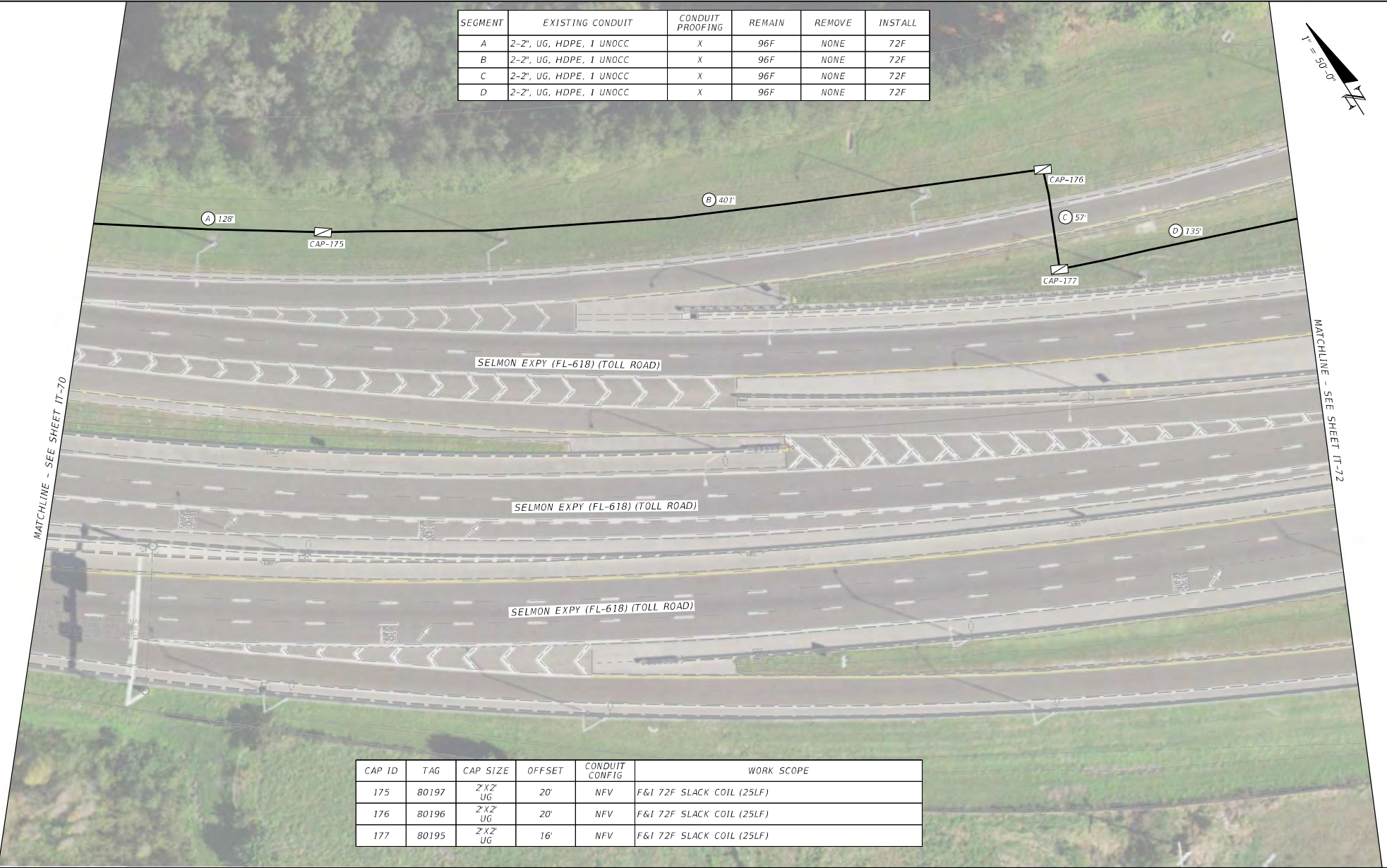
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
D	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F



MATCHLINE - SEE SHEET IT-70

MATCHLINE - SEE SHEET IT-72



CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
175	80197	2"X2" UG	20'	NFV	F&I 72F SLACK COIL (25LF)
176	80196	2"X2" UG	20'	NFV	F&I 72F SLACK COIL (25LF)
177	80195	2"X2" UG	16'	NFV	F&I 72F SLACK COIL (25LF)

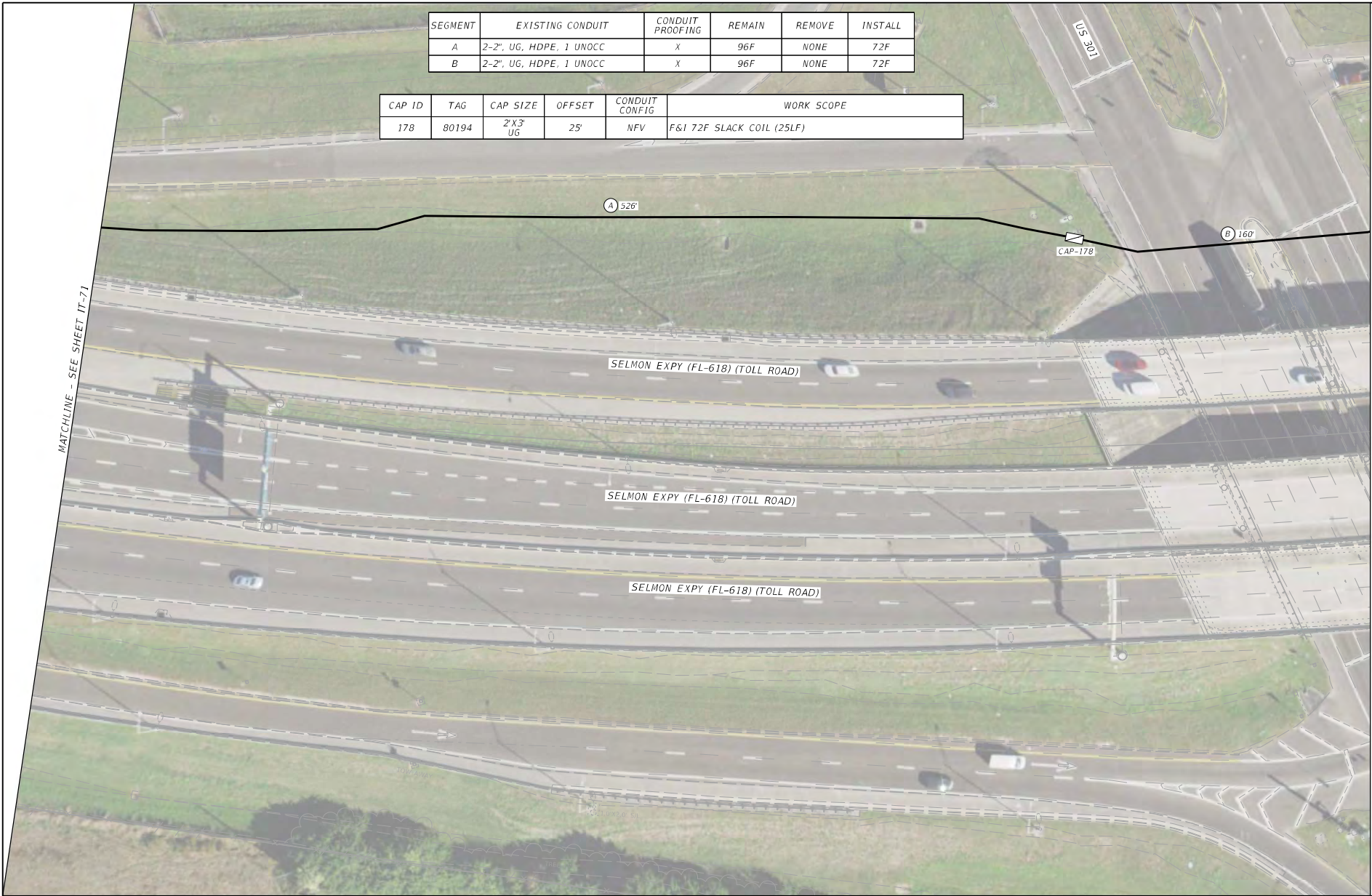
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-71
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
178	80194	2"X3" UG	25'	NFV	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-71

MATCHLINE - SEE SHEET IT-73

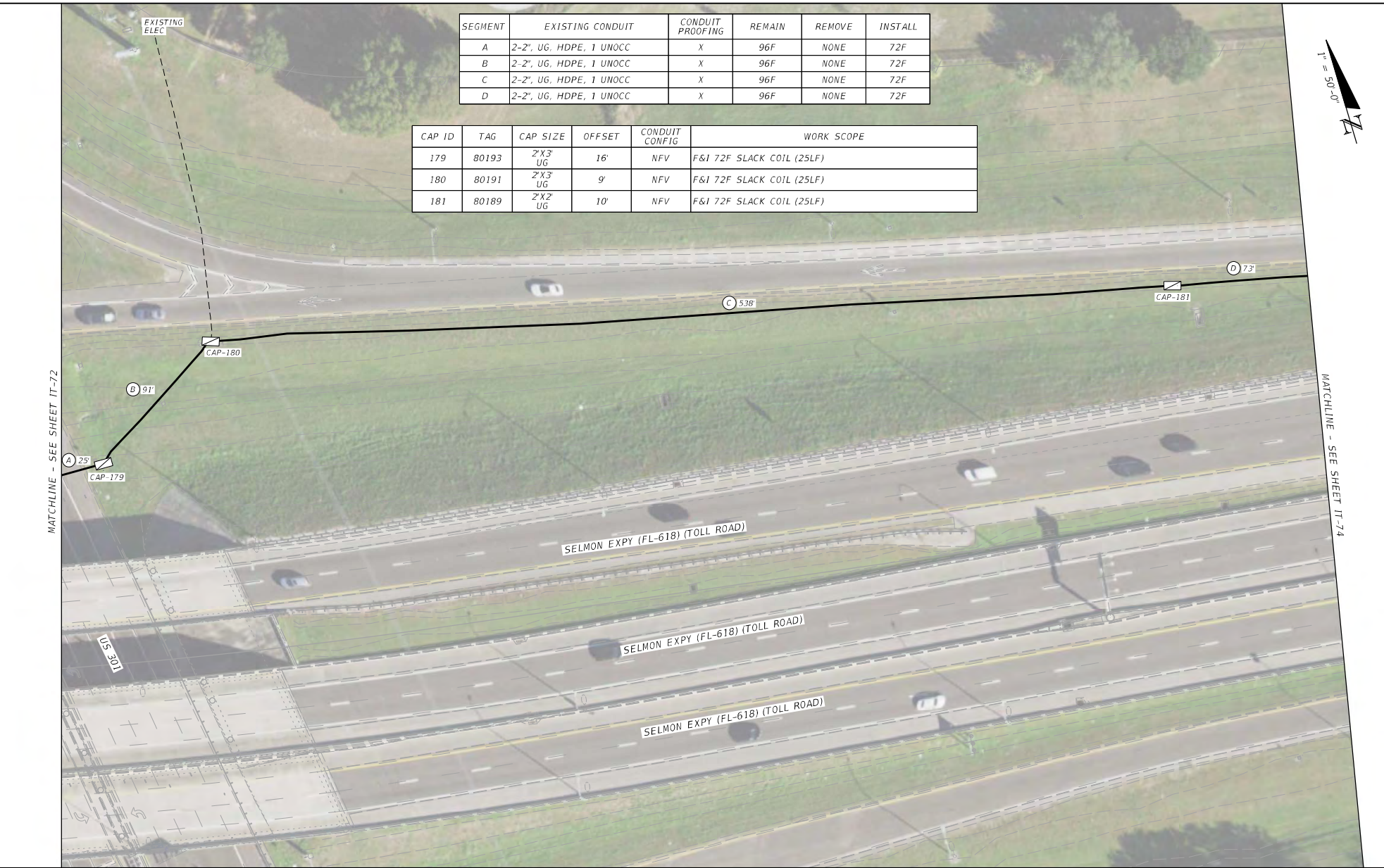


REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-72
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
D	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
179	80193	2"X3" UG	16'	NFV	F&I 72F SLACK COIL (25LF)
180	80191	2"X3" UG	9'	NFV	F&I 72F SLACK COIL (25LF)
181	80189	2"X2" UG	10'	NFV	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-72

MATCHLINE - SEE SHEET IT-74

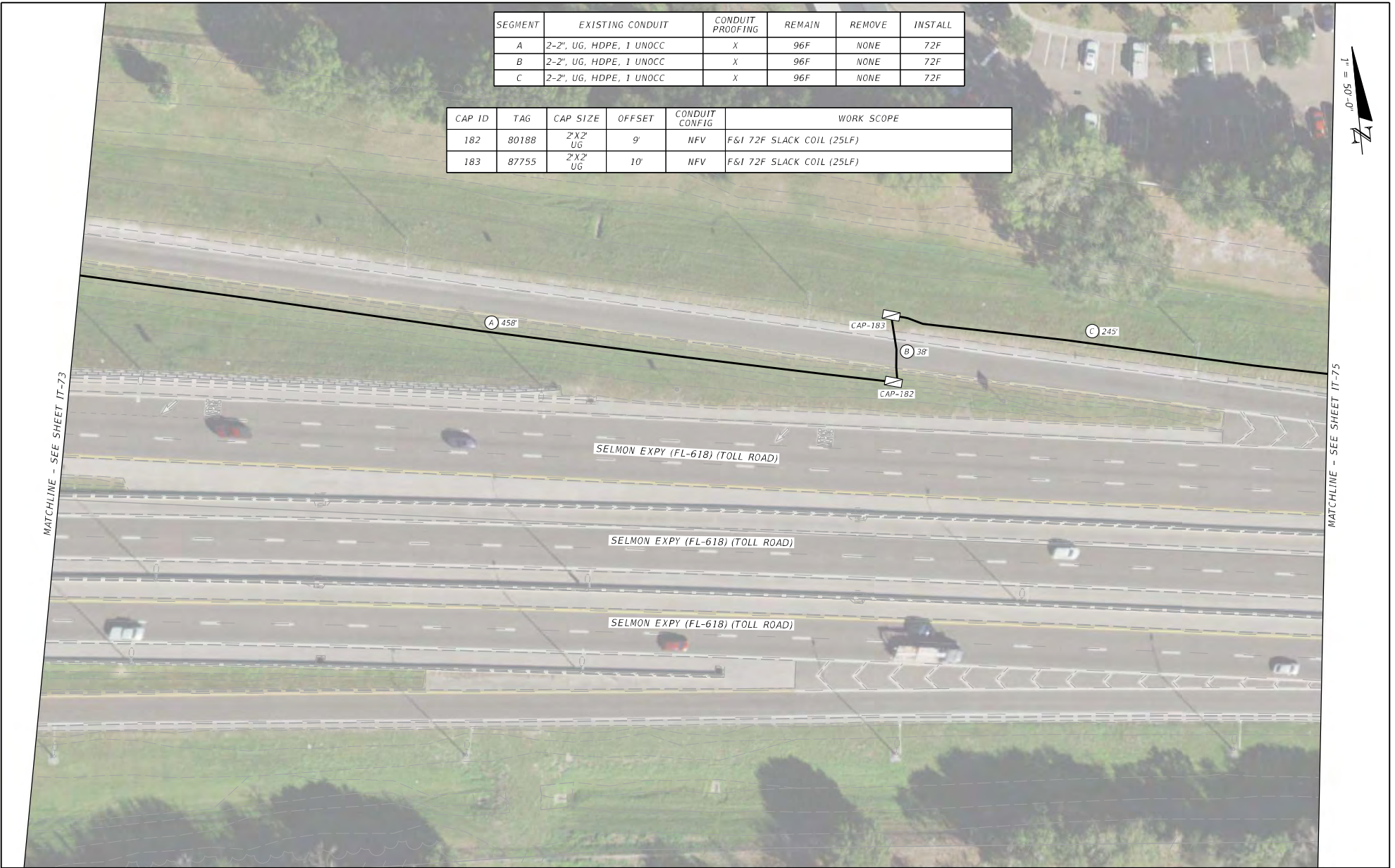


REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-73
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
182	80188	2'X2' UG	9'	NFV	F&I 72F SLACK COIL (25LF)
183	87755	2'X2' UG	10'	NFV	F&I 72F SLACK COIL (25LF)



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-74
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

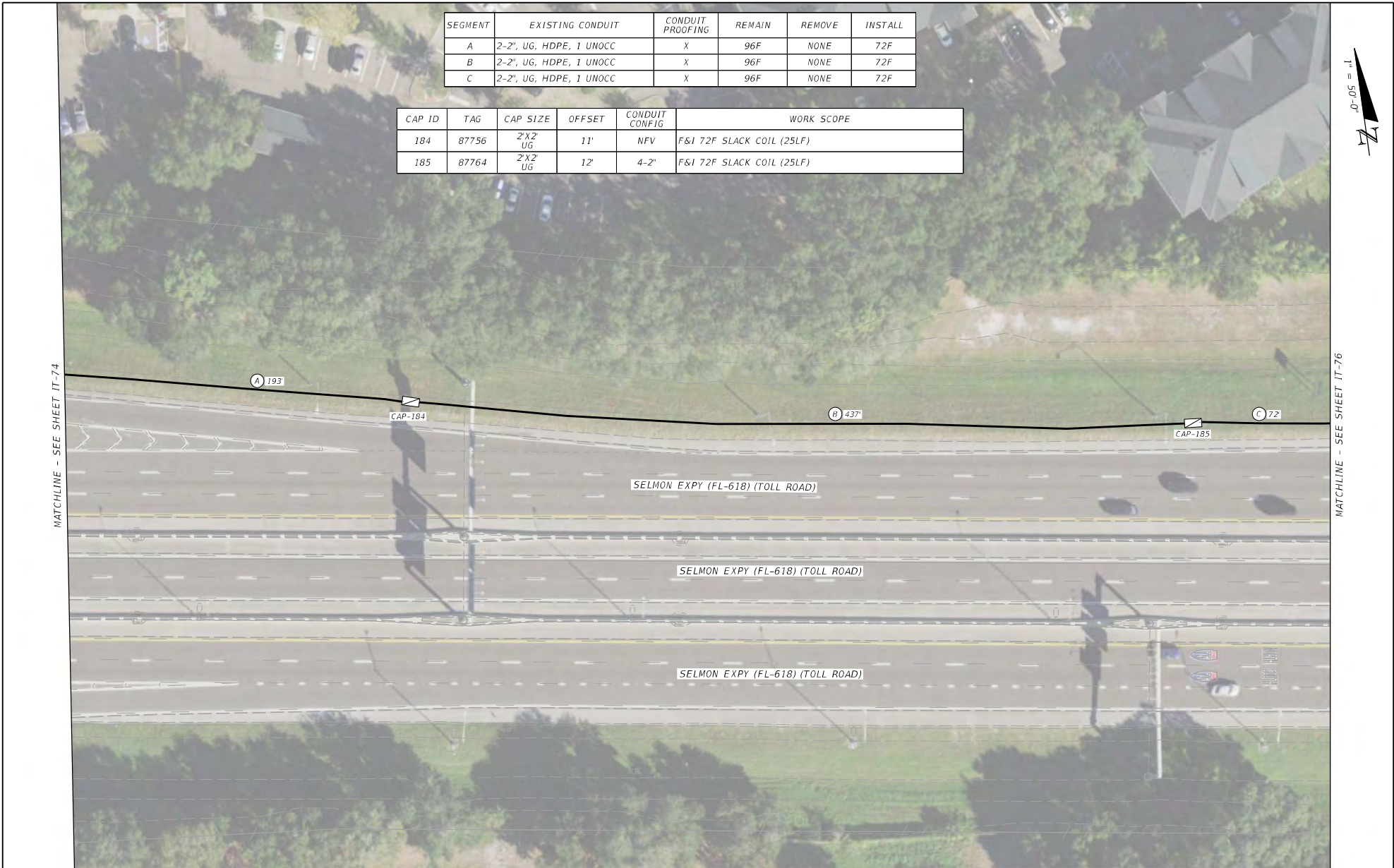
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
184	87756	2X2 UG	11'	NFV	F&I 72F SLACK COIL (25LF)
185	87764	2X2 UG	12'	4-2"	F&I 72F SLACK COIL (25LF)

MATCHLINE - SEE SHEET IT-74

MATCHLINE - SEE SHEET IT-76

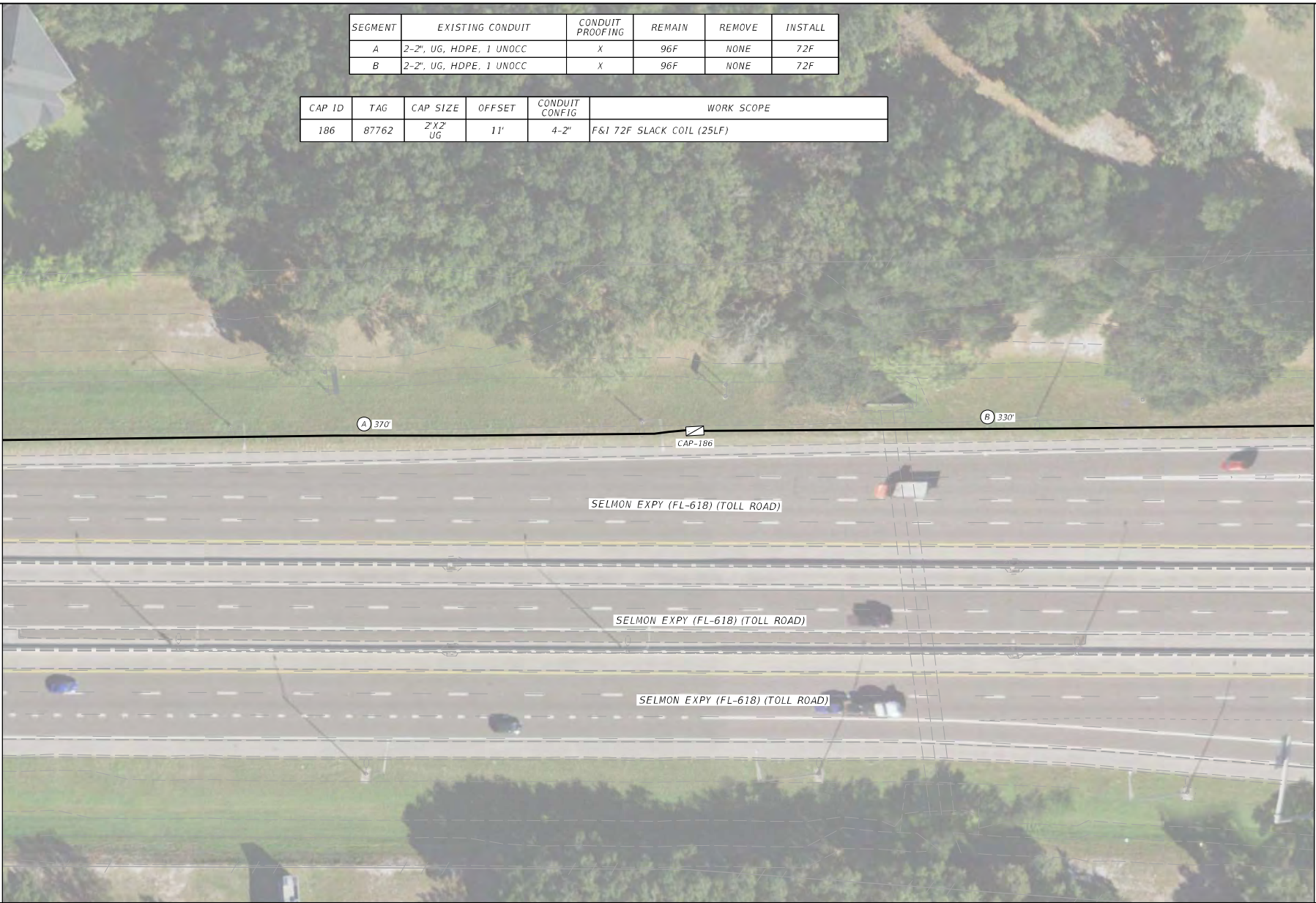


REVISIONS		REVISIONS		ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-75
							S.R. 618	HILLSBOROUGH			

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
186	87762	2'X2' UG	11'	4-2"	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-75

MATCHLINE - SEE SHEET IT-77

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-76
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

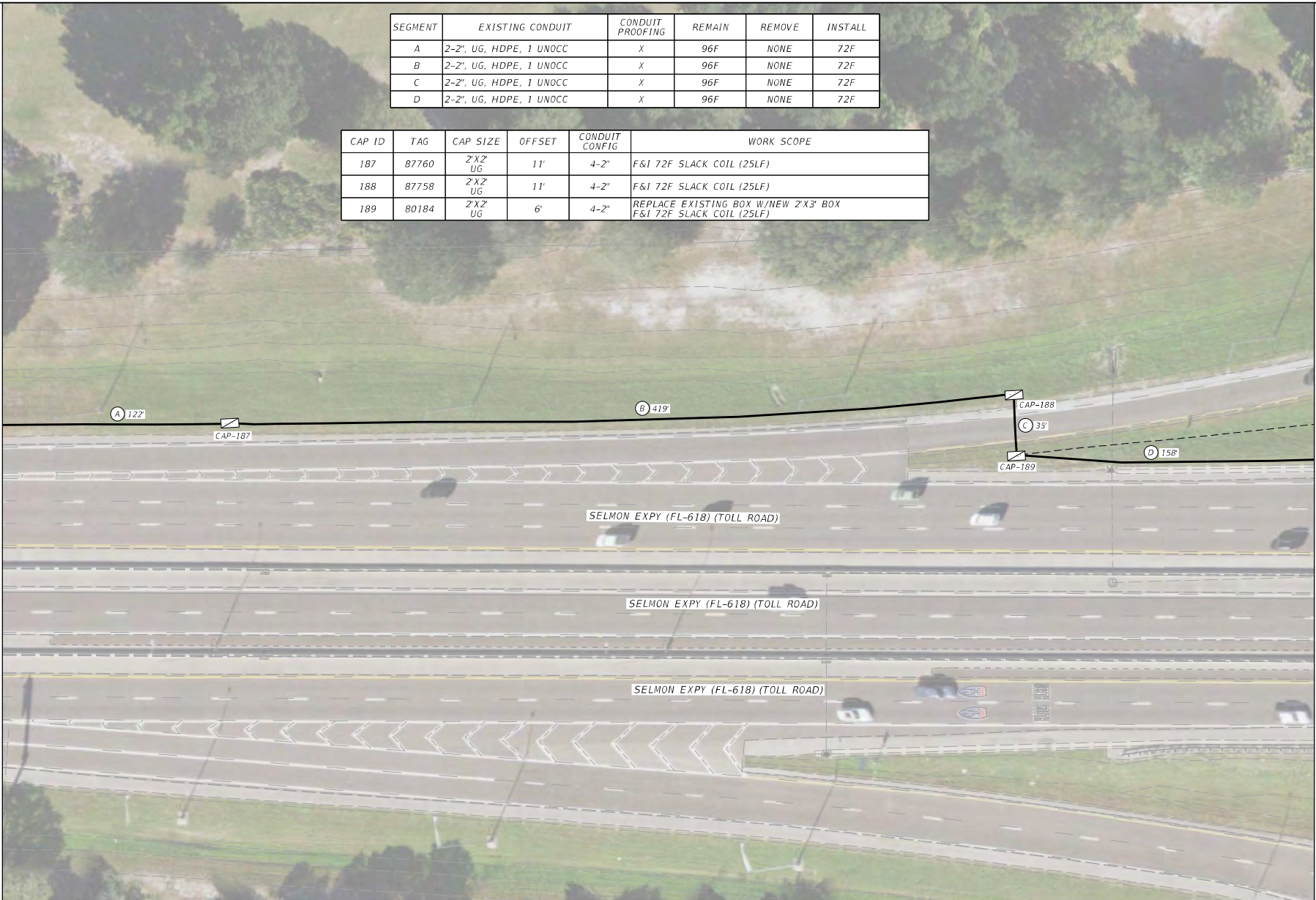
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
D	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
187	87760	2'X2' UG	11'	4-2"	F&I 72F SLACK COIL (25LF)
188	87758	2'X2' UG	11'	4-2"	F&I 72F SLACK COIL (25LF)
189	80184	2'X2' UG	6'	4-2"	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)

MATCHLINE - SEE SHEET IT-76



MATCHLINE - SEE SHEET IT-78

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-77
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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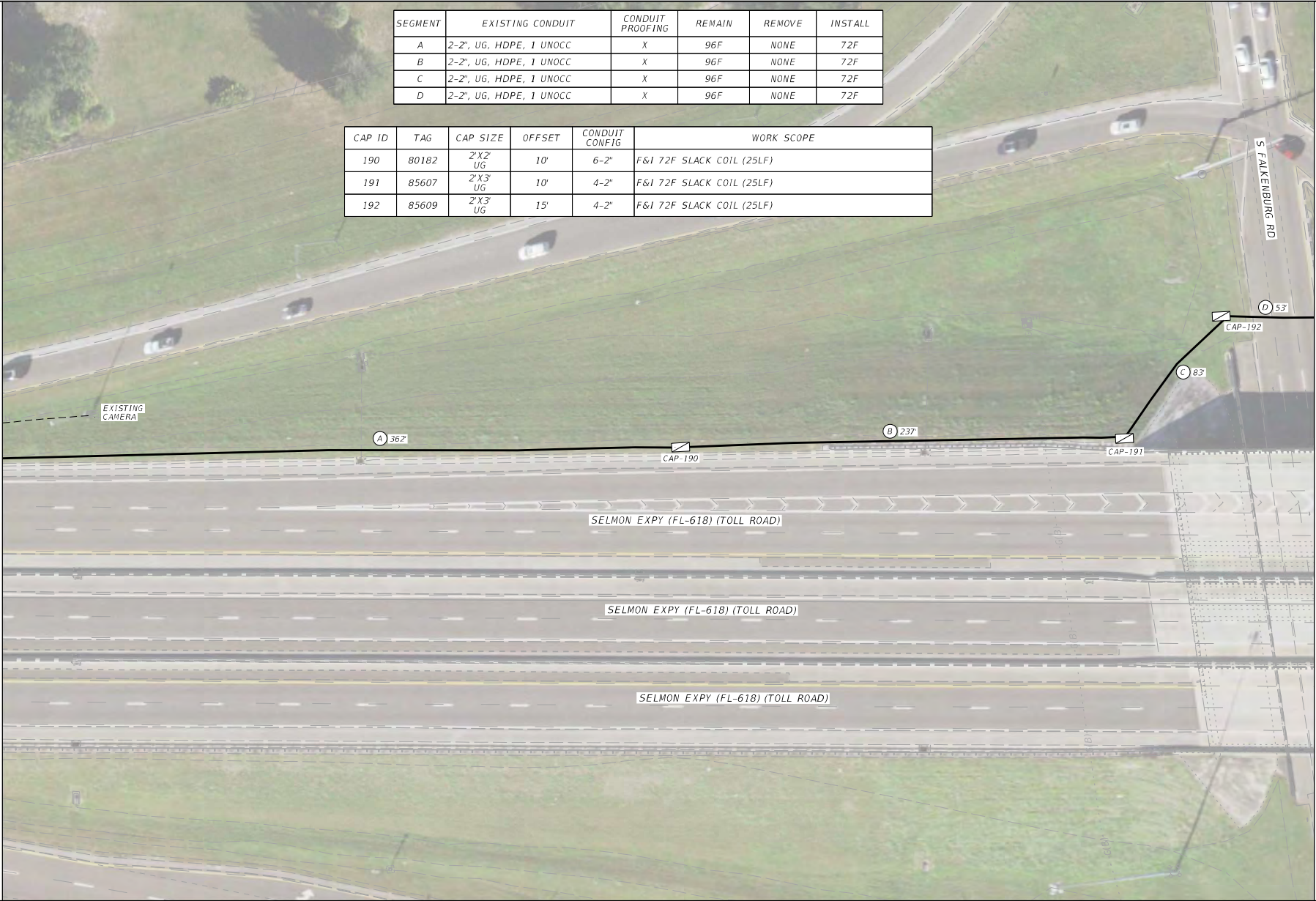
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
D	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
190	80182	2' X 2' UG	10'	6-2"	F&I 72F SLACK COIL (25LF)
191	85607	2' X 3' UG	10'	4-2"	F&I 72F SLACK COIL (25LF)
192	85609	2' X 3' UG	15'	4-2"	F&I 72F SLACK COIL (25LF)

MATCHLINE - SEE SHEET IT-77

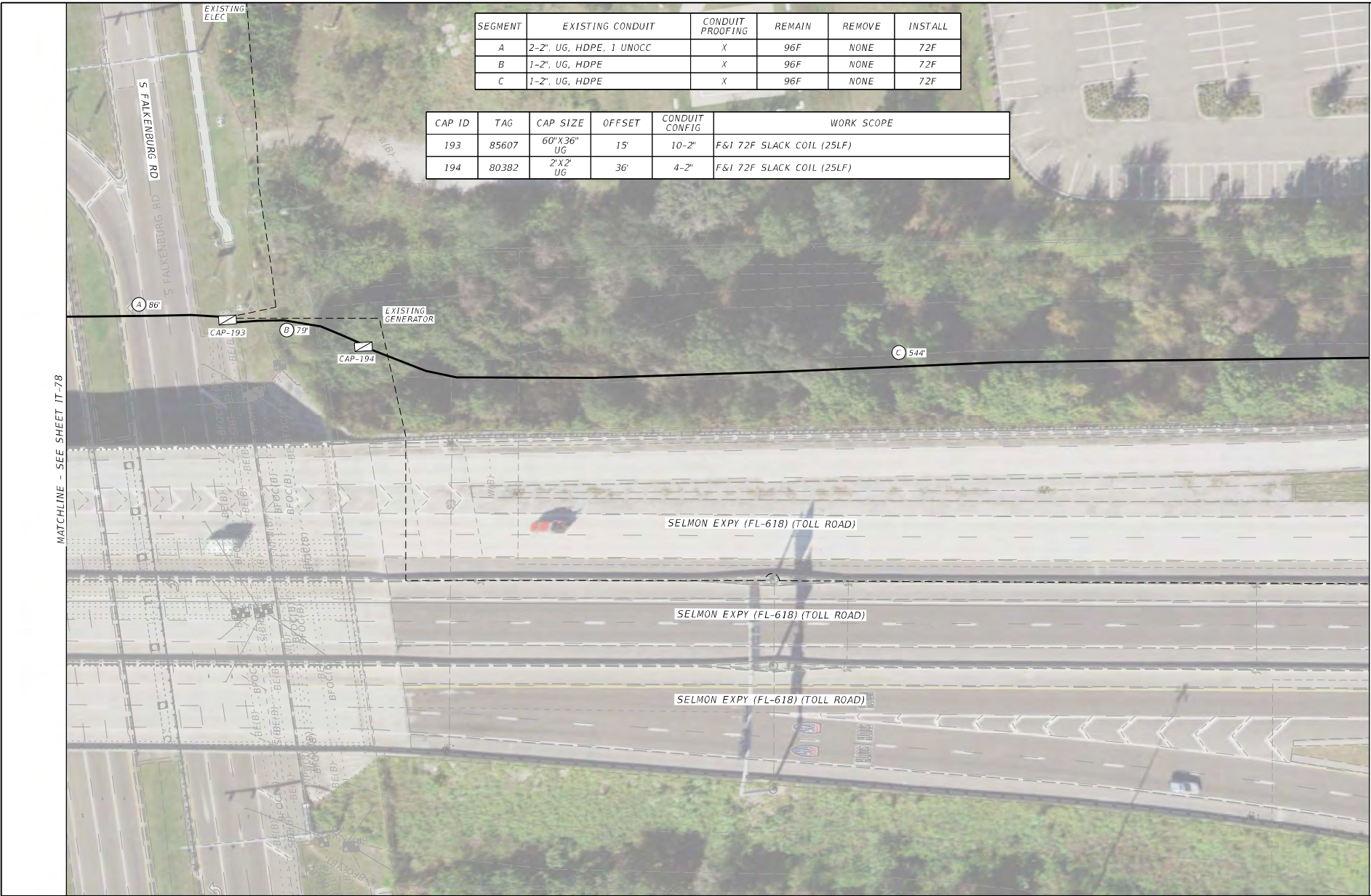


MATCHLINE - SEE SHEET IT-79



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REVISIONS		REVISIONS		ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-78
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		



SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	1-2", UG, HDPE	X	96F	NONE	72F
C	1-2", UG, HDPE	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
193	85607	60"X36" UG	15'	10-2"	F&I 72F SLACK COIL (25LF)
194	80382	2'X2' UG	36'	4-2"	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-78

MATCHLINE - SEE SHEET IT-80

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-79
				S.R. 618	HILLSBOROUGH			

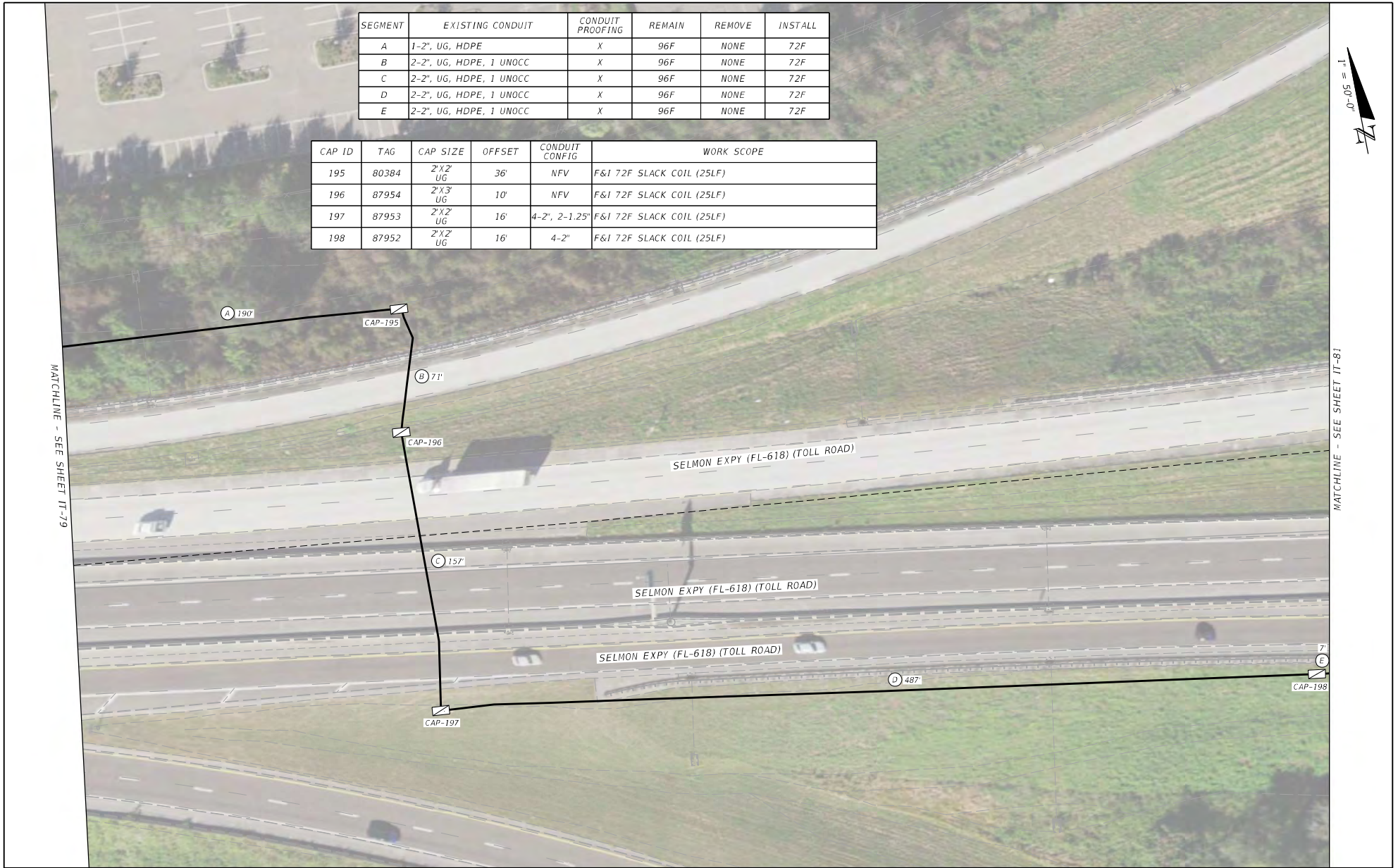
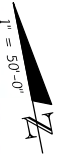
JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
D	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
E	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
195	80384	2'X2' UG	36'	NFV	F&I 72F SLACK COIL (25LF)
196	87954	2'X3' UG	10'	NFV	F&I 72F SLACK COIL (25LF)
197	87953	2'X2' UG	16'	4-2", 2-1.25"	F&I 72F SLACK COIL (25LF)
198	87952	2'X2' UG	16'	4-2"	F&I 72F SLACK COIL (25LF)

MATCHLINE - SEE SHEET IT-79

MATCHLINE - SEE SHEET IT-81



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-80
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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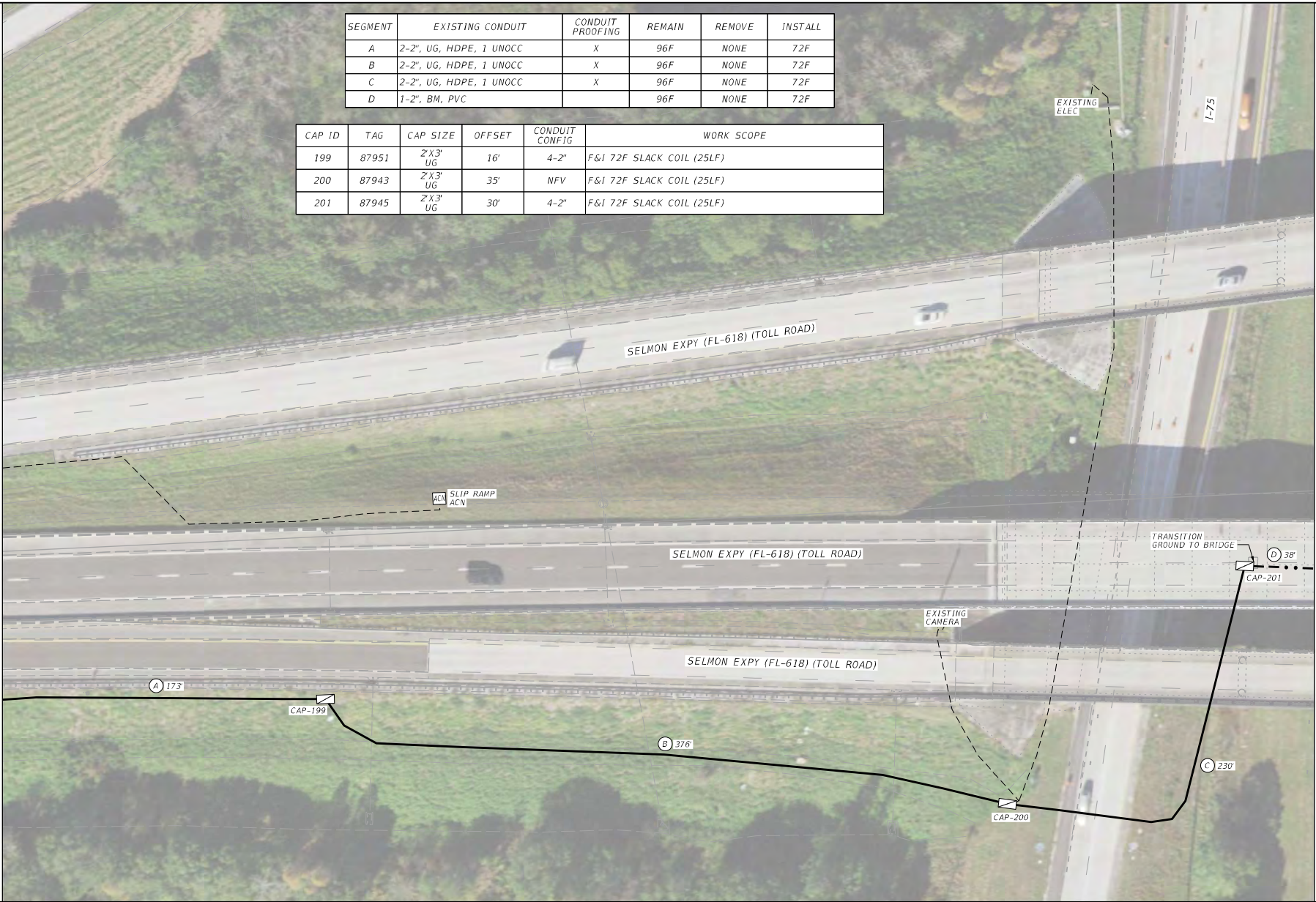
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
199	87951	2' X 3' UG	16'	4-2"	F&I 72F SLACK COIL (25LF)
200	87943	2' X 3' UG	35'	NFV	F&I 72F SLACK COIL (25LF)
201	87945	2' X 3' UG	30'	4-2"	F&I 72F SLACK COIL (25LF)

MATCHLINE - SEE SHEET IT-80



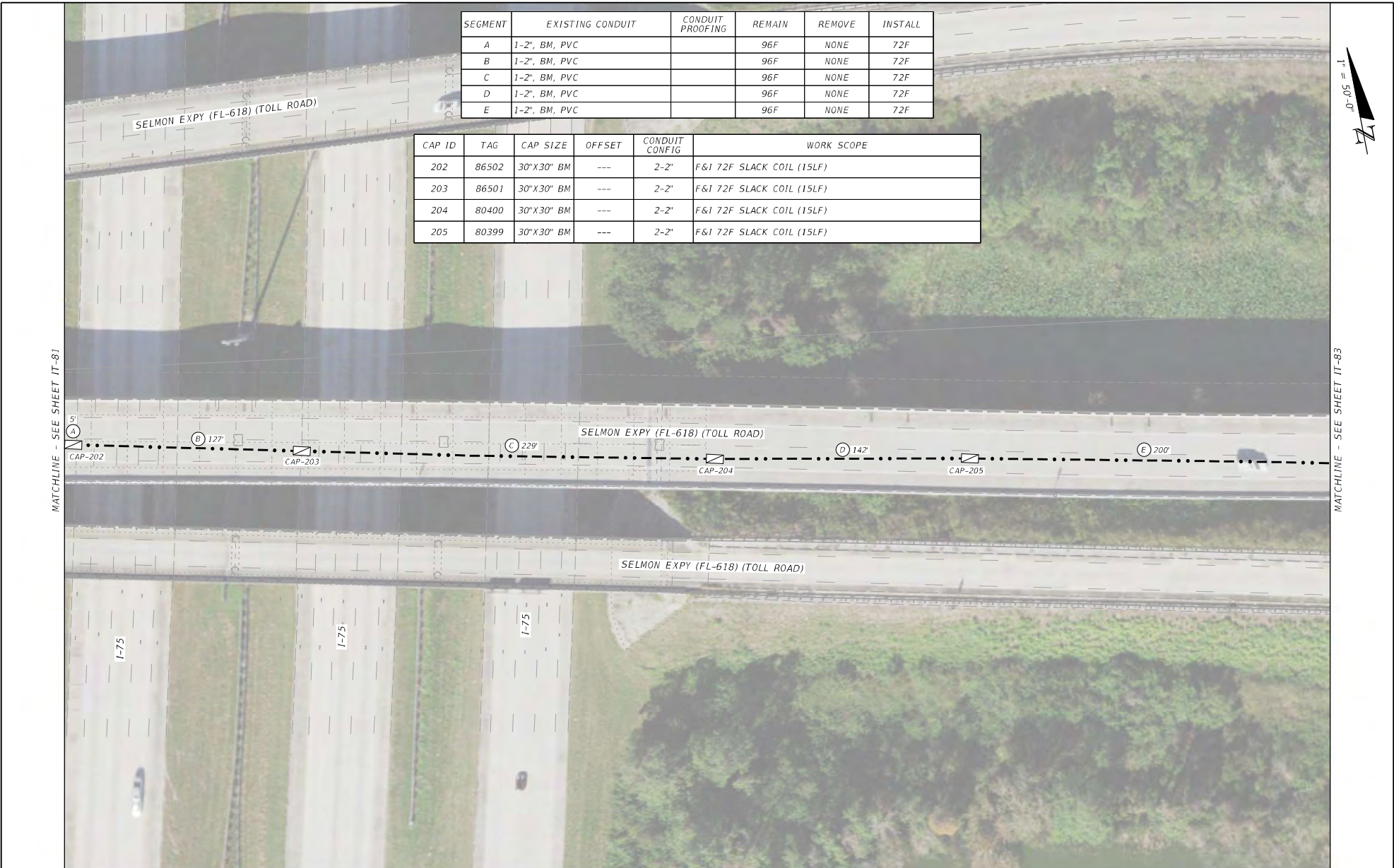
MATCHLINE - SEE SHEET IT-82



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REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-81
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578



SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F
E	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
202	86502	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
203	86501	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
204	80400	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
205	80399	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-81

MATCHLINE - SEE SHEET IT-83



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	DEPARTMENT OF TRANSPORTATION			
				JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578	ROAD NO.		COUNTY
					S.R. 618	HILLSBOROUGH	

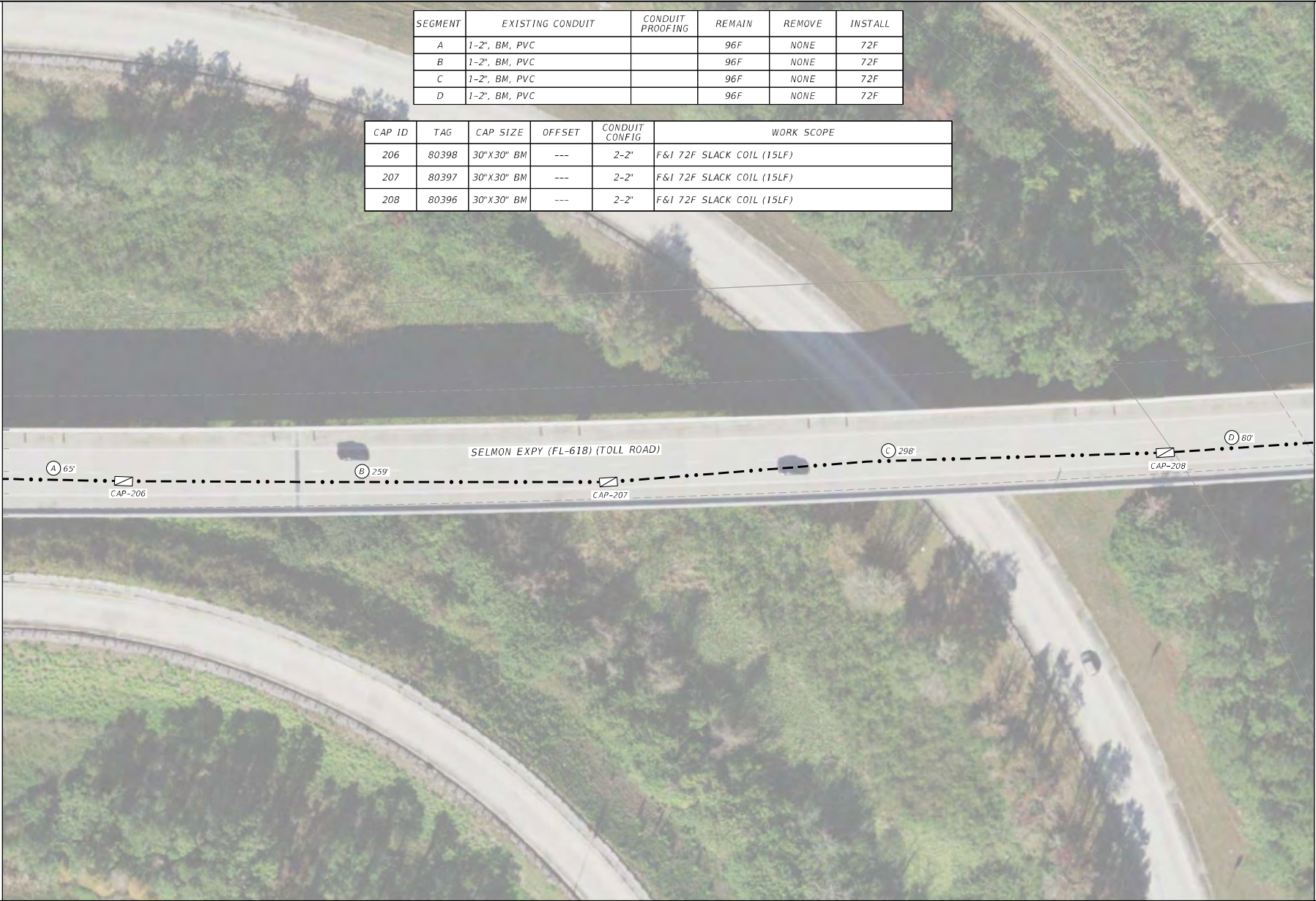
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IT-82

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
206	80398	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
207	80397	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
208	80396	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)

MATCHLINE - SEE SHEET IT-82



MATCHLINE - SEE SHEET IT-84



REVISIONS		REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.	
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY		FINANCIAL PROJECT ID	IT-83
									S.R. 618	

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
209	80395	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
210	80394	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
211	80393	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-83

MATCHLINE - SEE SHEET IT-85



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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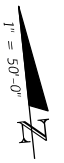
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	1-2", BM, PVC		96F	NONE	72F
D	1-2", BM, PVC		96F	NONE	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
212	80392	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
213	80391	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
214	80390	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)



MATCHLINE - SEE SHEET IT-84

MATCHLINE - SEE SHEET IT-86



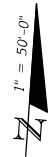
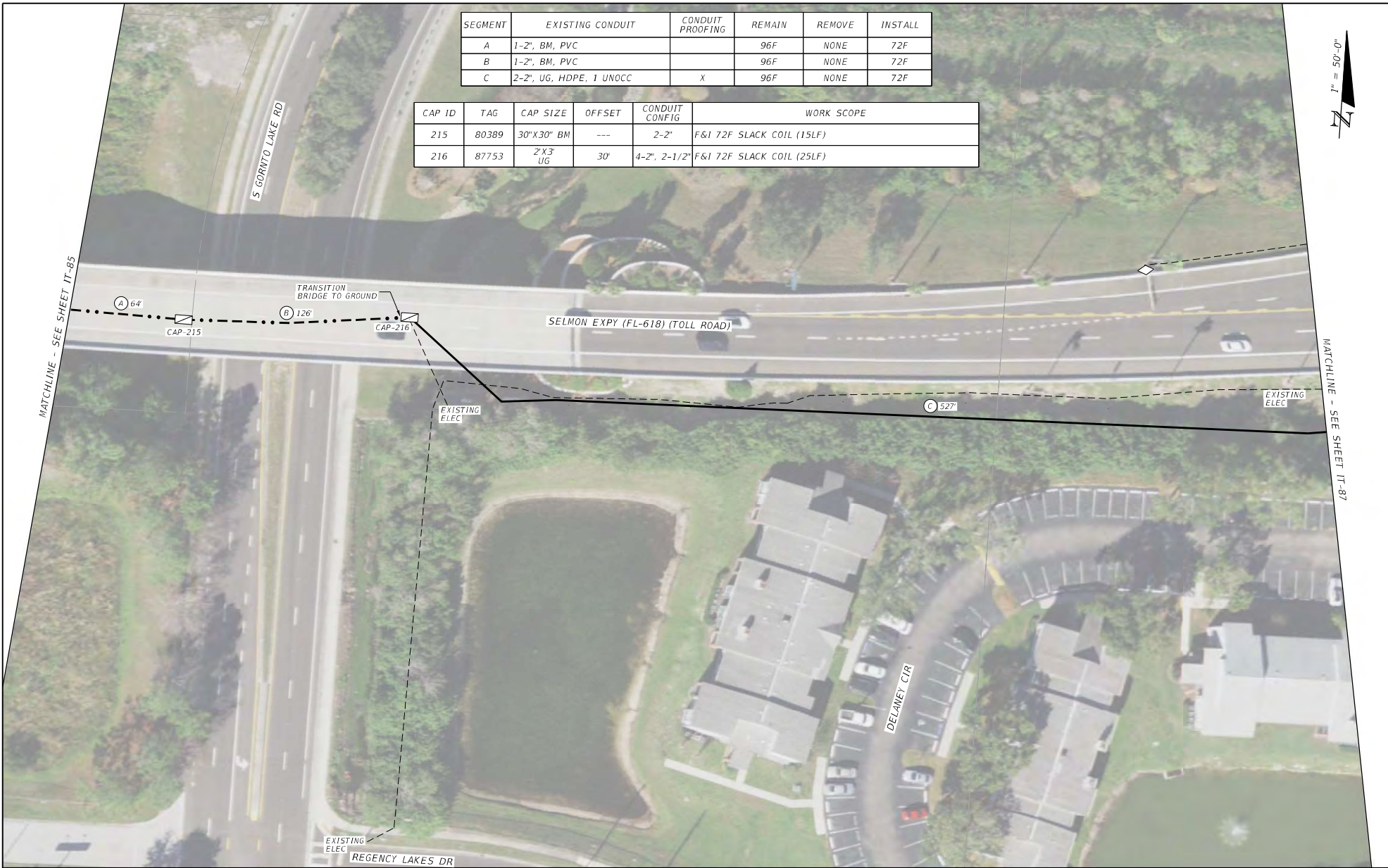
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DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", BM, PVC		96F	NONE	72F
B	1-2", BM, PVC		96F	NONE	72F
C	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F

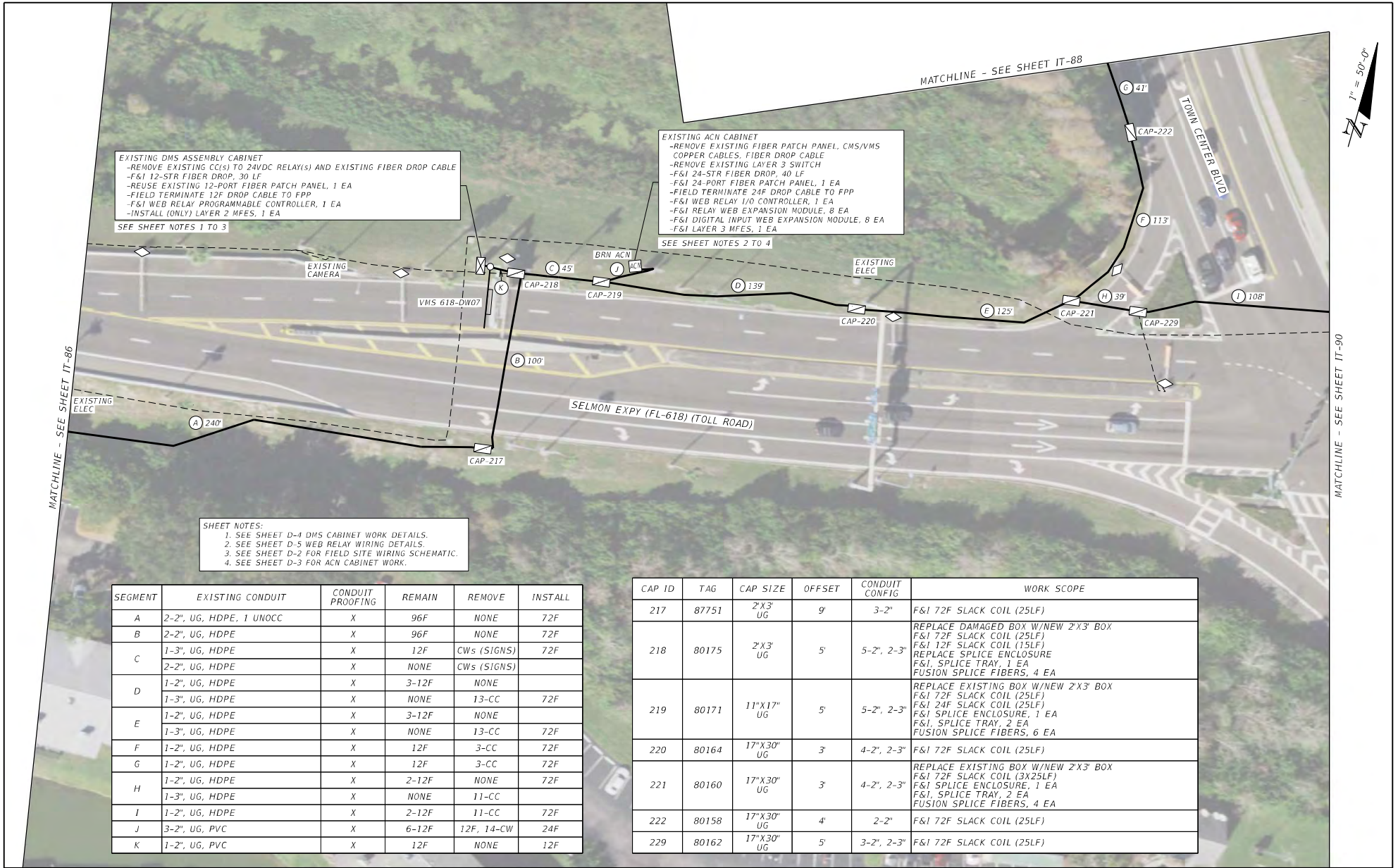
CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
215	80389	30"X30" BM	---	2-2"	F&I 72F SLACK COIL (15LF)
216	87753	2'X3' UG	30'	4-2", 2-1/2"	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-85

MATCHLINE - SEE SHEET IT-87

REVISIONS		REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-86
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY		
						S.R. 618	HILLSBOROUGH		



SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-2", UG, HDPE, 1 UNOCC	X	96F	NONE	72F
B	2-2", UG, HDPE	X	96F	NONE	72F
C	1-3", UG, HDPE	X	12F	CWs (SIGNS)	72F
	2-2", UG, HDPE	X	NONE	CWs (SIGNS)	
D	1-2", UG, HDPE	X	3-12F	NONE	
	1-3", UG, HDPE	X	NONE	13-CC	72F
E	1-2", UG, HDPE	X	3-12F	NONE	
	1-3", UG, HDPE	X	NONE	13-CC	72F
F	1-2", UG, HDPE	X	12F	3-CC	72F
G	1-2", UG, HDPE	X	12F	3-CC	72F
H	1-2", UG, HDPE	X	2-12F	NONE	72F
	1-3", UG, HDPE	X	NONE	11-CC	
I	1-2", UG, HDPE	X	2-12F	11-CC	72F
J	3-2", UG, PVC	X	6-12F	12F, 14-CW	24F
K	1-2", UG, PVC	X	12F	NONE	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
217	87751	2"X3" UG	9'	3-2"	F&I 72F SLACK COIL (25LF)
218	80175	2"X3" UG	5'	5-2", 2-3"	REPLACE DAMAGED BOX W/NEW 2"X3" BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) REPLACE SPLICE ENCLOSURE F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
219	80171	11"X17" UG	5'	5-2", 2-3"	REPLACE EXISTING BOX W/NEW 2"X3" BOX F&I 72F SLACK COIL (25LF) F&I 24F SLACK COIL (25LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 2 EA FUSION SPLICE FIBERS, 6 EA
220	80164	17"X30" UG	3'	4-2", 2-3"	F&I 72F SLACK COIL (25LF)
221	80160	17"X30" UG	3'	4-2", 2-3"	REPLACE EXISTING BOX W/NEW 2"X3" BOX F&I 72F SLACK COIL (3X25LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 2 EA FUSION SPLICE FIBERS, 4 EA
222	80158	17"X30" UG	4'	2-2"	F&I 72F SLACK COIL (25LF)
229	80162	17"X30" UG	5'	3-2", 2-3"	F&I 72F SLACK COIL (25LF)

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-87
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						S.R. 618	HILLSBOROUGH			

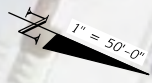
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	12F	3-CC	72F
B	1-2", UG, HDPE	X	12F	3-CC	72F
C	1-2", UG, HDPE	X	12F	2-CC	72F
D	1-2", UG, HDPE	X	12F	2-CC	72F
E	1-2", UG, PVC	X	NONE	3-CW	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
223	80156	17"X30" UG	5'	2-2"	F&I 72F SLACK COIL (25LF)
224	80152	17"X30" UG	3'	2-2", 1-1"	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
225	80149	2'X3" UG	3'	NFV	F&I 72F SLACK COIL (25LF)

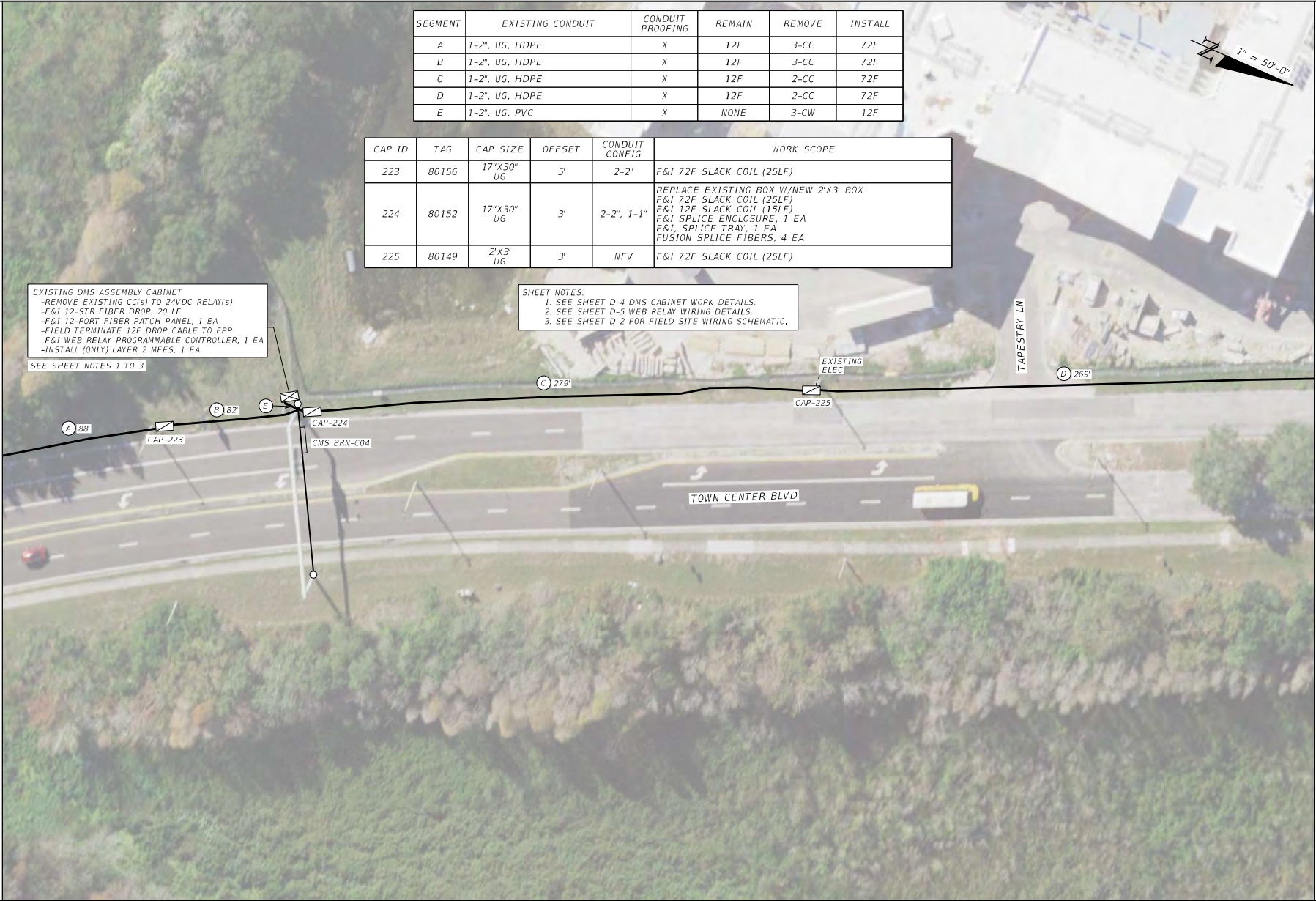
EXISTING DNS ASSEMBLY CABINET
 -REMOVE EXISTING CCI(S) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFEES, 1 EA

SHEET NOTES:
 1. SEE SHEET D-4 DNS CABINET WORK DETAILS.
 2. SEE SHEET D-3 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.



MATCHLINE - SEE SHEET IT-87

MATCHLINE - SEE SHEET IT-89



REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-88
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH			

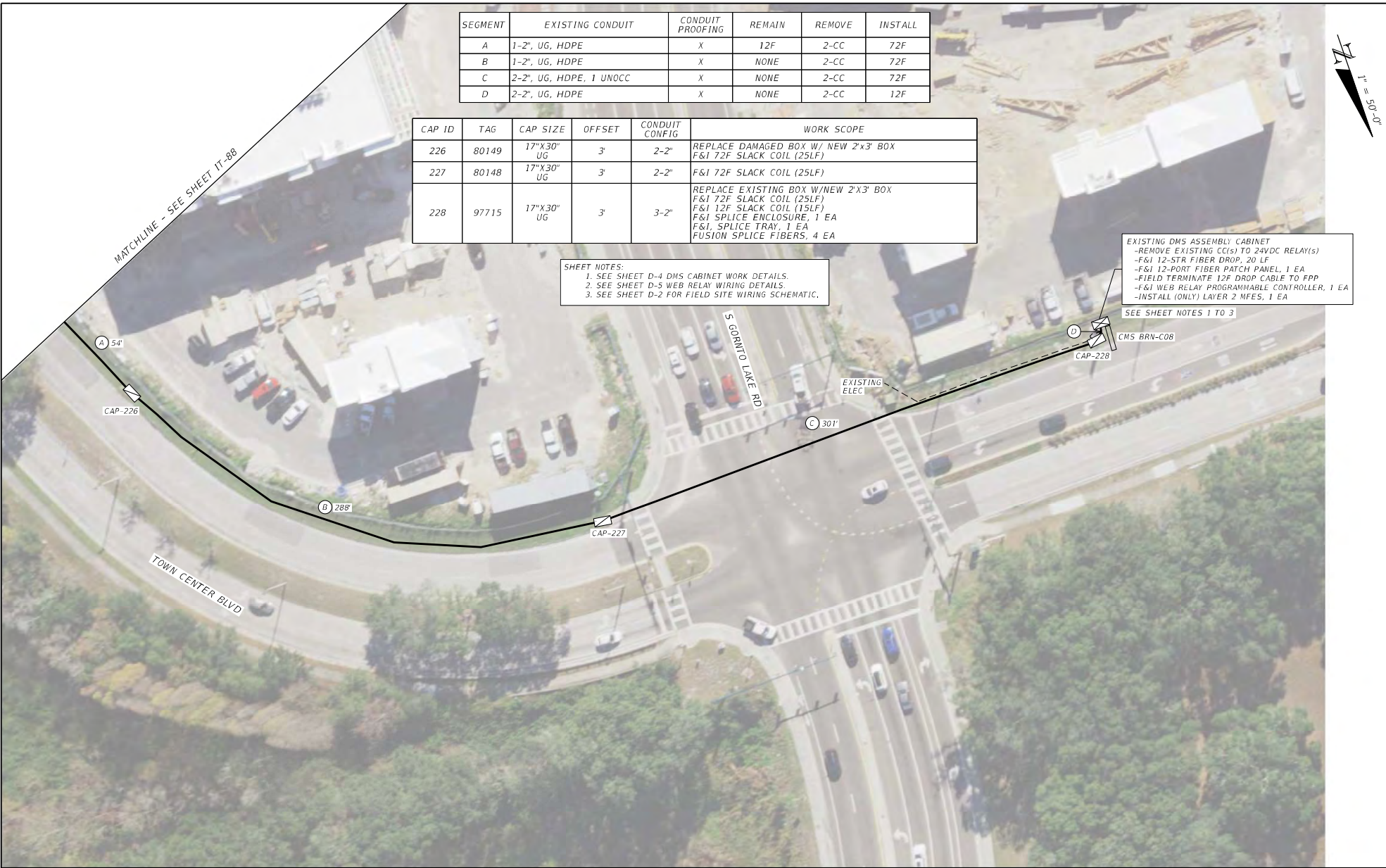
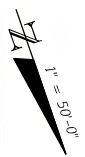
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	12F	2-CC	72F
B	1-2", UG, HDPE	X	NONE	2-CC	72F
C	2-2", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
D	2-2", UG, HDPE	X	NONE	2-CC	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
226	80149	17"X30" UG	3'	2-2"	REPLACE DAMAGED BOX W/ NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)
227	80148	17"X30" UG	3'	2-2"	F&I 72F SLACK COIL (25LF)
228	97715	17"X30" UG	3'	3-2"	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(s) TO 24VDC RELAY(s)
 -F&I 12-STR FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA

SEE SHEET NOTES 1 TO 3



REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-89
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH			

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	2-12F	11-CC	72F
B	2-3", UG, HDPE	X	12F	7-CC	72F
C	1-2", UG, HDPE	X	NONE	6-CC	72F
D	1-2", UG, HDPE	X	12F	5-CC	72F
E	1-2", UG, HDPE	X	12F	5-CC	72F
F	1-1.5", UG, PVC	X	NONE	2-CC	12F

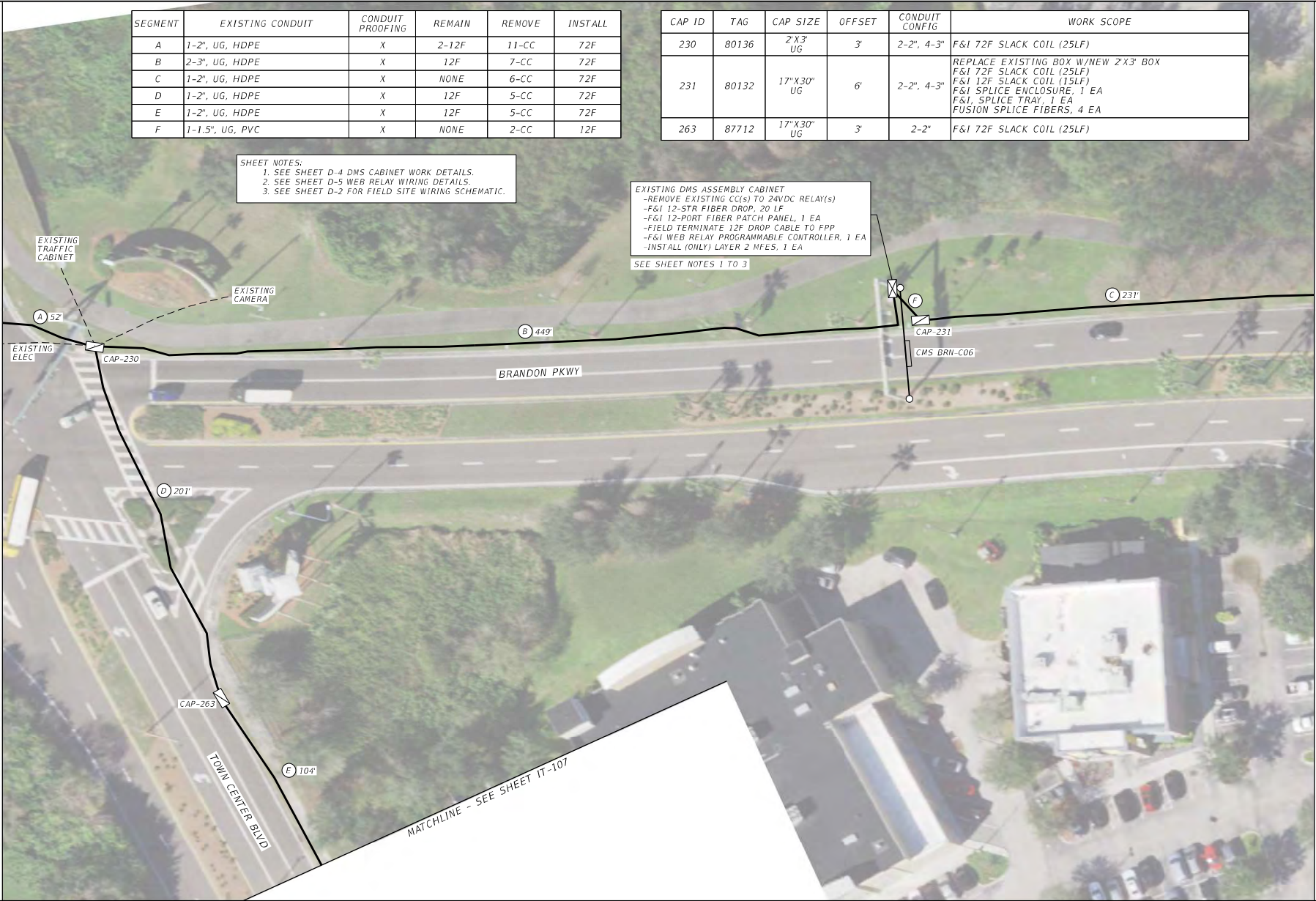
CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
230	80136	2"X3" UG	3'	2-2", 4-3"	F&I 72F SLACK COIL (25LF)
231	80132	17"X30" UG	6'	2-2", 4-3"	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
263	87712	17"X30" UG	3'	2-2"	F&I 72F SLACK COIL (25LF)

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(S) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

MATCHLINE - SEE SHEET IT-87

MATCHLINE - SEE SHEET IT-91



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-90
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
 P.E. LICENSE NUMBER 42883
 KCI TECHNOLOGIES, INC
 4041 CRESCENT PARK DRIVE
 TAMPA, FL 33578

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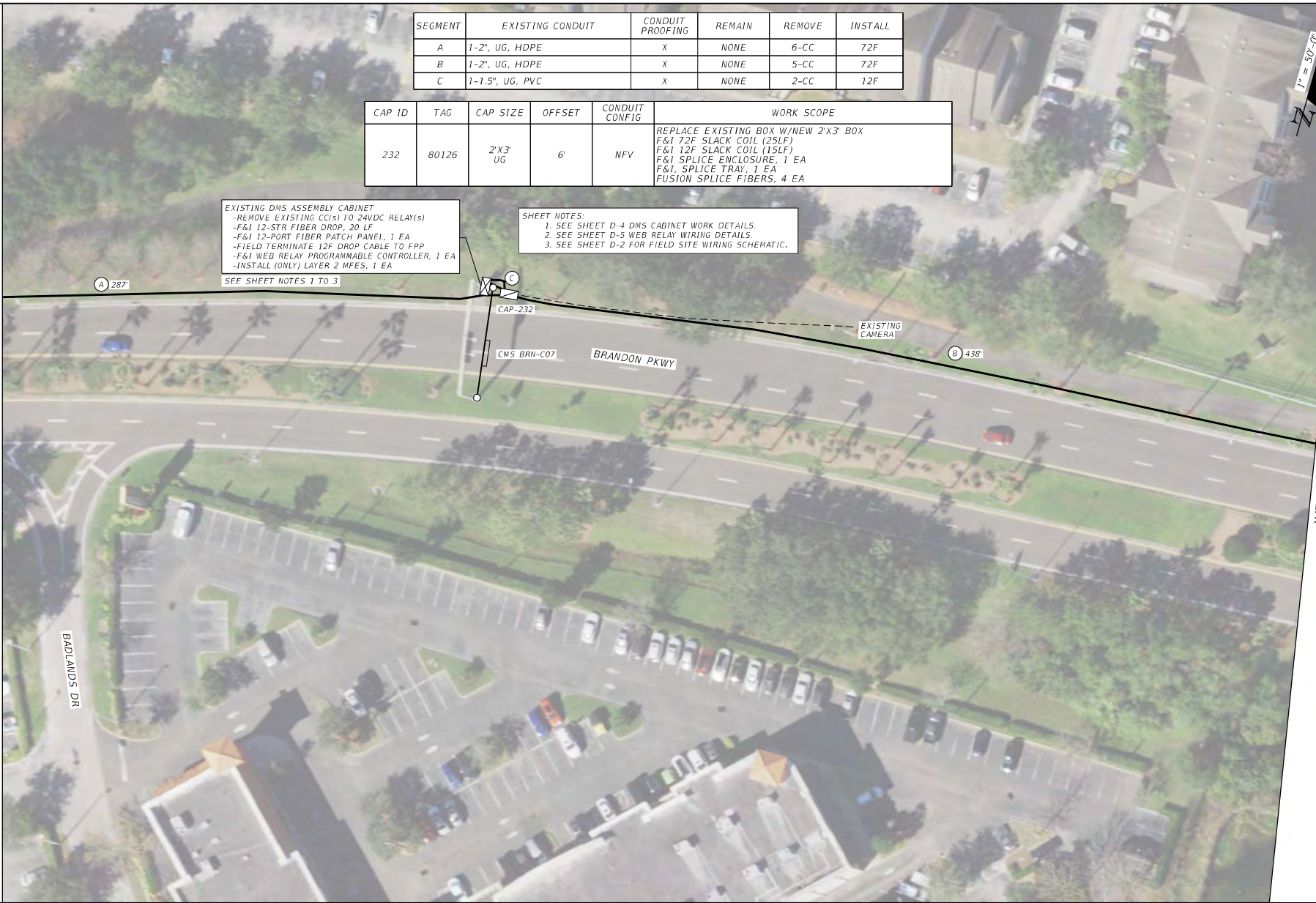
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	NONE	6-CC	72F
B	1-2", UG, HDPE	X	NONE	5-CC	72F
C	1-1.5", UG, PVC	X	NONE	2-CC	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
232	80126	2'X3' UG	6'	NFV	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA

EXISTING DMS ASSEMBLY CABINET
 REMOVE EXISTING CCI(S) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.



MATCHLINE - SEE SHEET IT-90

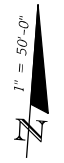
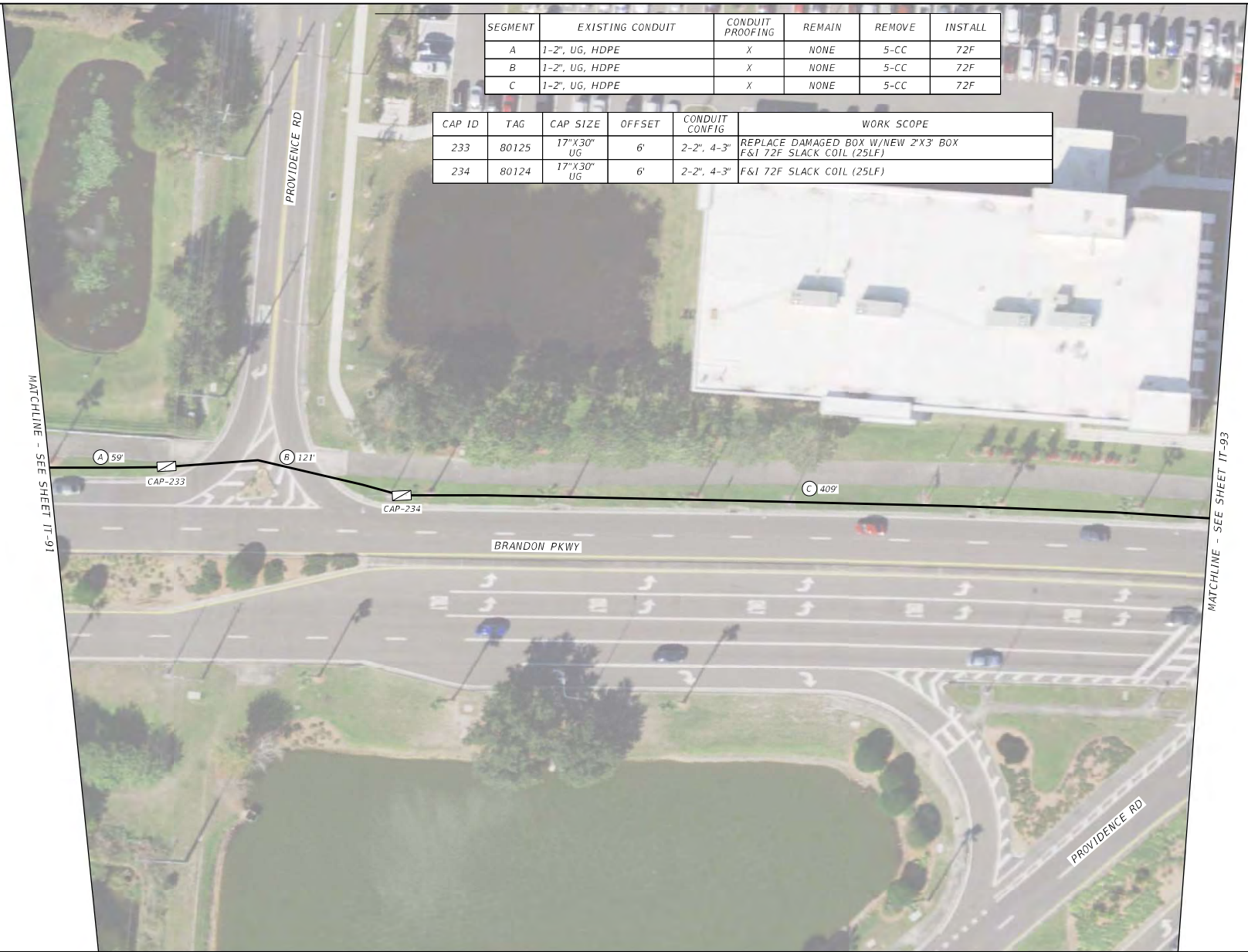
MATCHLINE - SEE SHEET IT-92

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-91
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
 P.E. LICENSE NUMBER 42883
 KCI TECHNOLOGIES, INC
 4041 CRESCENT PARK DRIVE
 TAMPA, FL 33578

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	NONE	5-CC	72F
B	1-2", UG, HDPE	X	NONE	5-CC	72F
C	1-2", UG, HDPE	X	NONE	5-CC	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
233	80125	17"X30" UG	6'	2-2", 4-3"	REPLACE DAMAGED BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)
234	80124	17"X30" UG	6'	2-2", 4-3"	F&I 72F SLACK COIL (25LF)

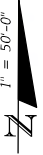


REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-92
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

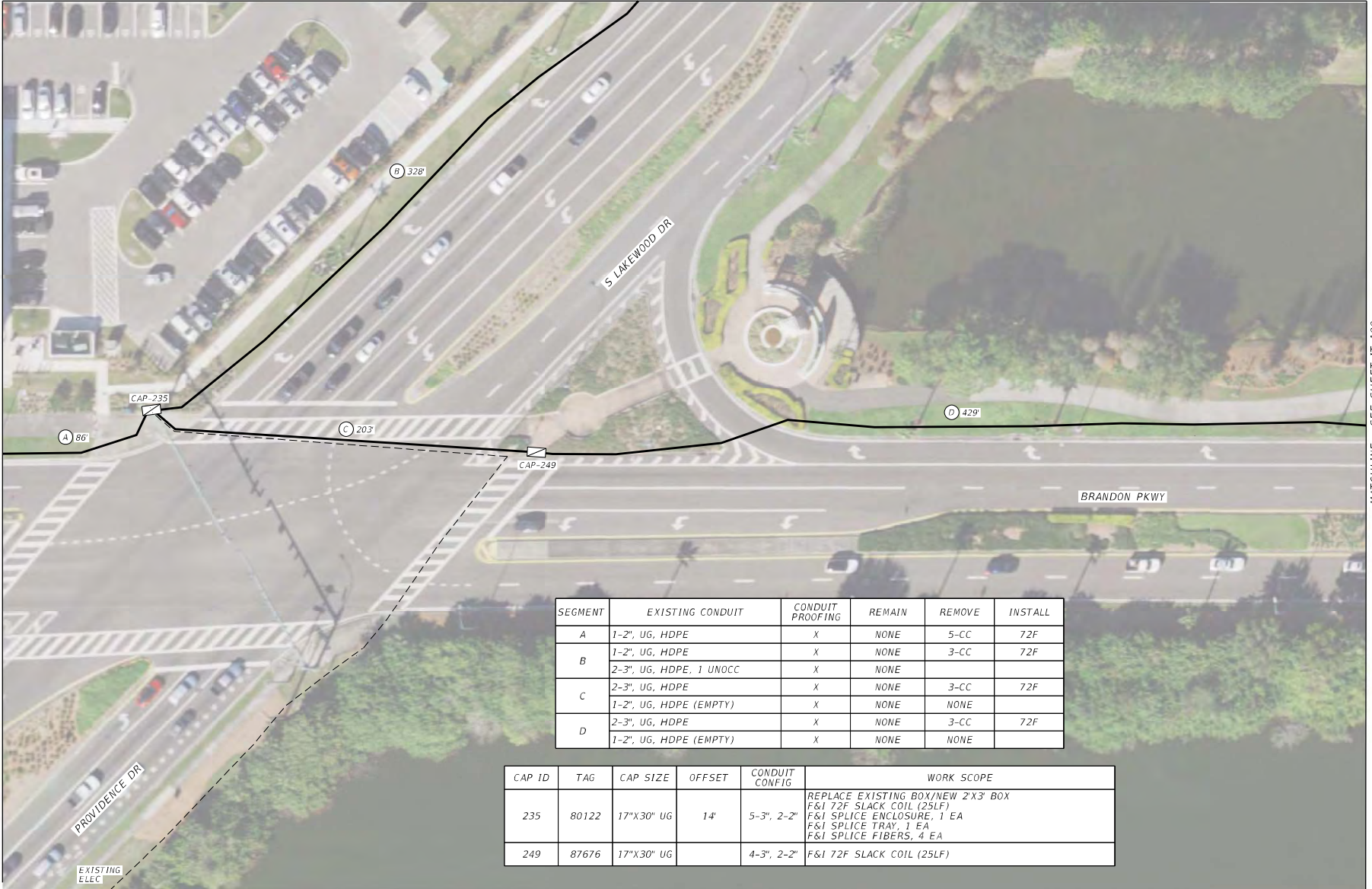
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MATCHLINE - SEE SHEET IT-94



MATCHLINE - SEE SHEET IT-92

MATCHLINE - SEE SHEET IT-100



SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	NONE	5-CC	72F
	1-2", UG, HDPE	X	NONE	3-CC	72F
B	2-3", UG, HDPE, 1 UNOCC	X	NONE		
	2-3", UG, HDPE	X	NONE	3-CC	72F
C	1-2", UG, HDPE (EMPTY)	X	NONE	NONE	
	2-3", UG, HDPE	X	NONE	3-CC	72F
D	1-2", UG, HDPE (EMPTY)	X	NONE	NONE	
	1-2", UG, HDPE (EMPTY)	X	NONE	NONE	

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
235	80122	17"x30" UG	14"	5-3", 2-2"	REPLACE EXISTING BOX/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA F&I SPLICE FIBERS, 4 EA
249	87676	17"x30" UG		4-3", 2-2"	F&I 72F SLACK COIL (25LF)

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-93
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH			

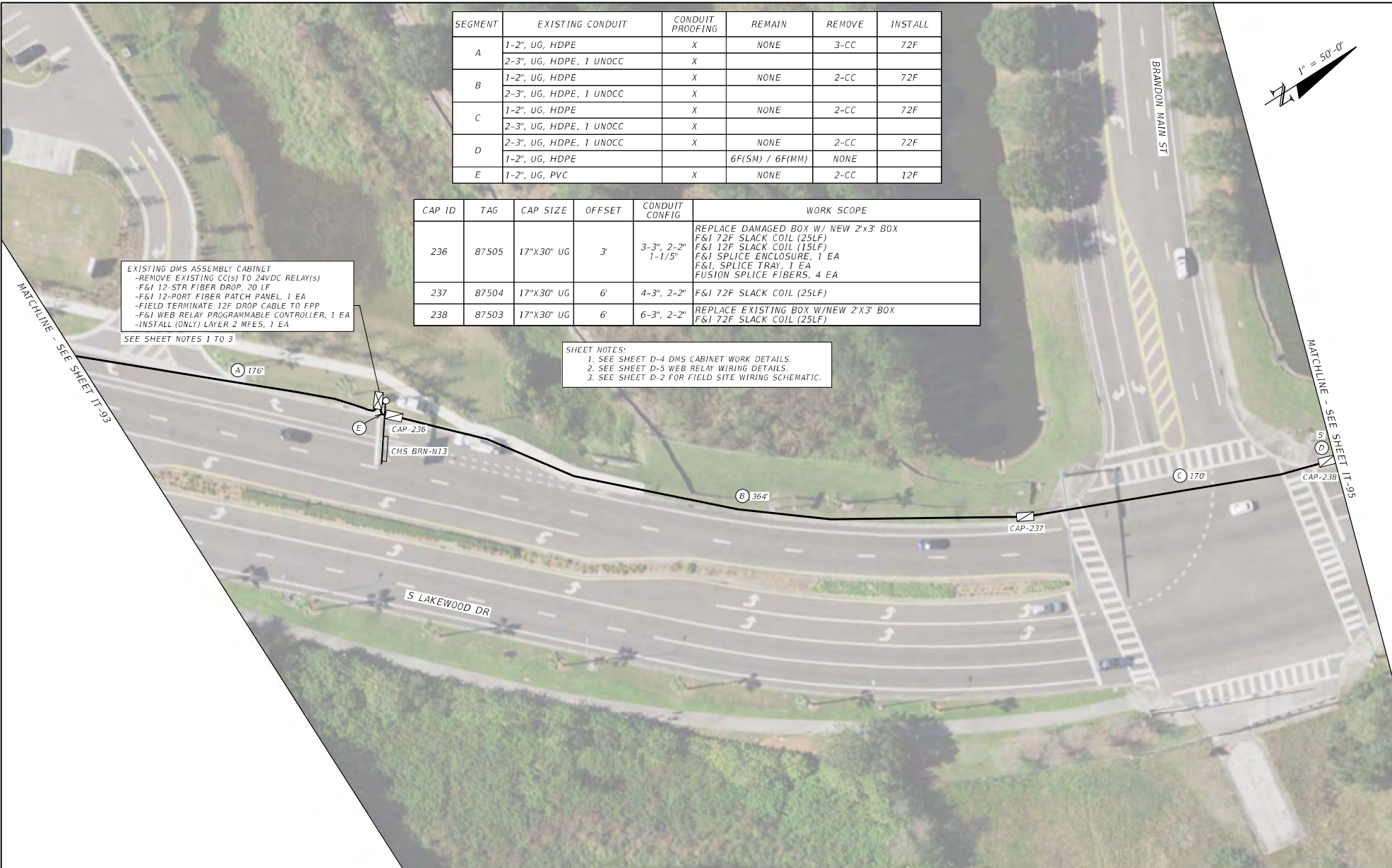
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	NONE	3-CC	72F
	2-3", UG, HDPE, 1 UNOCC	X			
B	1-2", UG, HDPE	X	NONE	2-CC	72F
	2-3", UG, HDPE, 1 UNOCC	X			
C	1-2", UG, HDPE	X	NONE	2-CC	72F
	2-3", UG, HDPE, 1 UNOCC	X			
D	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
	1-2", UG, HDPE		6F(SM) / 6F(MM)	NONE	
E	1-2", UG, PVC	X	NONE	2-CC	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
236	87505	17"x30" UG	3'	3-3", 2-2" 1-1/5"	REPLACE DAMAGED BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
237	87504	17"x30" UG	6'	4-3", 2-2"	F&I 72F SLACK COIL (25LF)
238	87503	17"x30" UG	6'	6-3", 2-2"	REPLACE EXISTING BOX W/NEW 2'x3' BOX F&I 72F SLACK COIL (25LF)

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(S) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

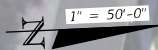
MATCHLINE - SEE SHEET IT-93

MATCHLINE - SEE SHEET IT-95

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-94
						S.R. 618	HILLSBOROUGH			

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
	1-2", UG, HDPE		6F(SM) / 6F(MM)	NONE	
B	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
	1-2", UG, HDPE		6F(SM) / 6F(MM)	NONE	

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
239	87502	17"X30" UG	10'	4-3", 2-2"	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-94

MATCHLINE - SEE SHEET IT-96

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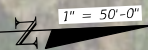
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REVISIONS		REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.	
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY		FINANCIAL PROJECT ID	IT-95
						S.R. 618	HILLSBOROUGH			

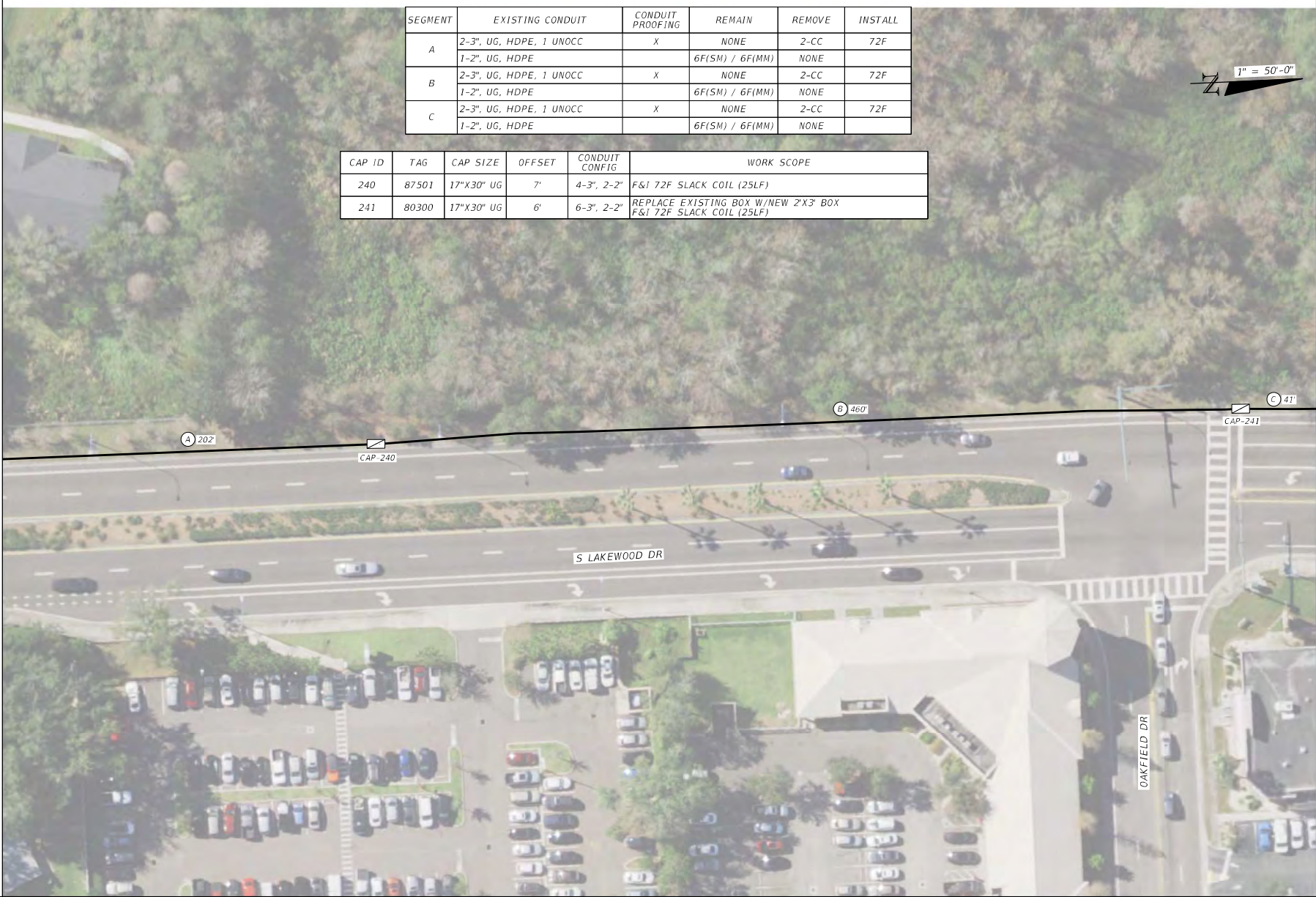
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
	1-2", UG, HDPE		6F(SM) / 6F(MM)	NONE	
B	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
	1-2", UG, HDPE		6F(SM) / 6F(MM)	NONE	
C	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
	1-2", UG, HDPE		6F(SM) / 6F(MM)	NONE	

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
240	87501	17"X30" UG	7"	4-3", 2-2"	F&I 72F SLACK COIL (25LF)
241	80300	17"X30" UG	6"	6-3", 2-2"	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-95

MATCHLINE - SEE SHEET IT-97



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			IT-96

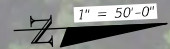
JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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MATCHLINE - SEE SHEET IT-96

MATCHLINE - SEE SHEET IT-98

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
	1-2", UG, HDPE		6F(SM) / 6F(MM)	NONE	
B	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
	1-2", UG, HDPE		6F(SM) / 6F(MM)	NONE	



CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
242	80299	17"X30" UG	7'	4-3", 2-2"	F&I 72F SLACK COIL (25LF)



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-97
				S.R. 618	HILLSBOROUGH			

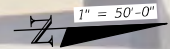
JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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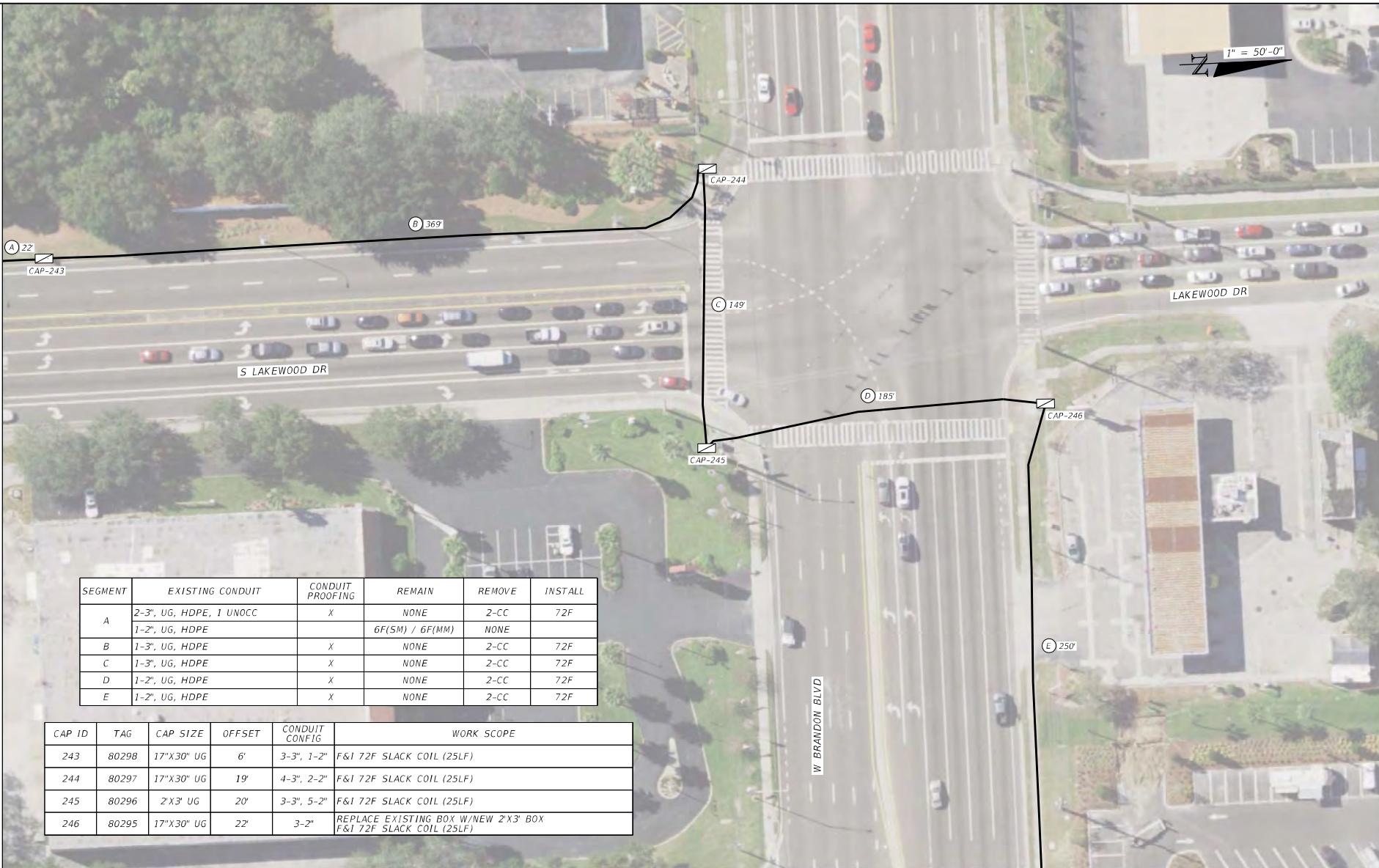
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MATCHLINE - SEE SHEET IT-97



SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
	1-2", UG, HDPE		6F(SM) / 6F(MM)	NONE	
B	1-3", UG, HDPE	X	NONE	2-CC	72F
C	1-3", UG, HDPE	X	NONE	2-CC	72F
D	1-2", UG, HDPE	X	NONE	2-CC	72F
E	1-2", UG, HDPE	X	NONE	2-CC	72F

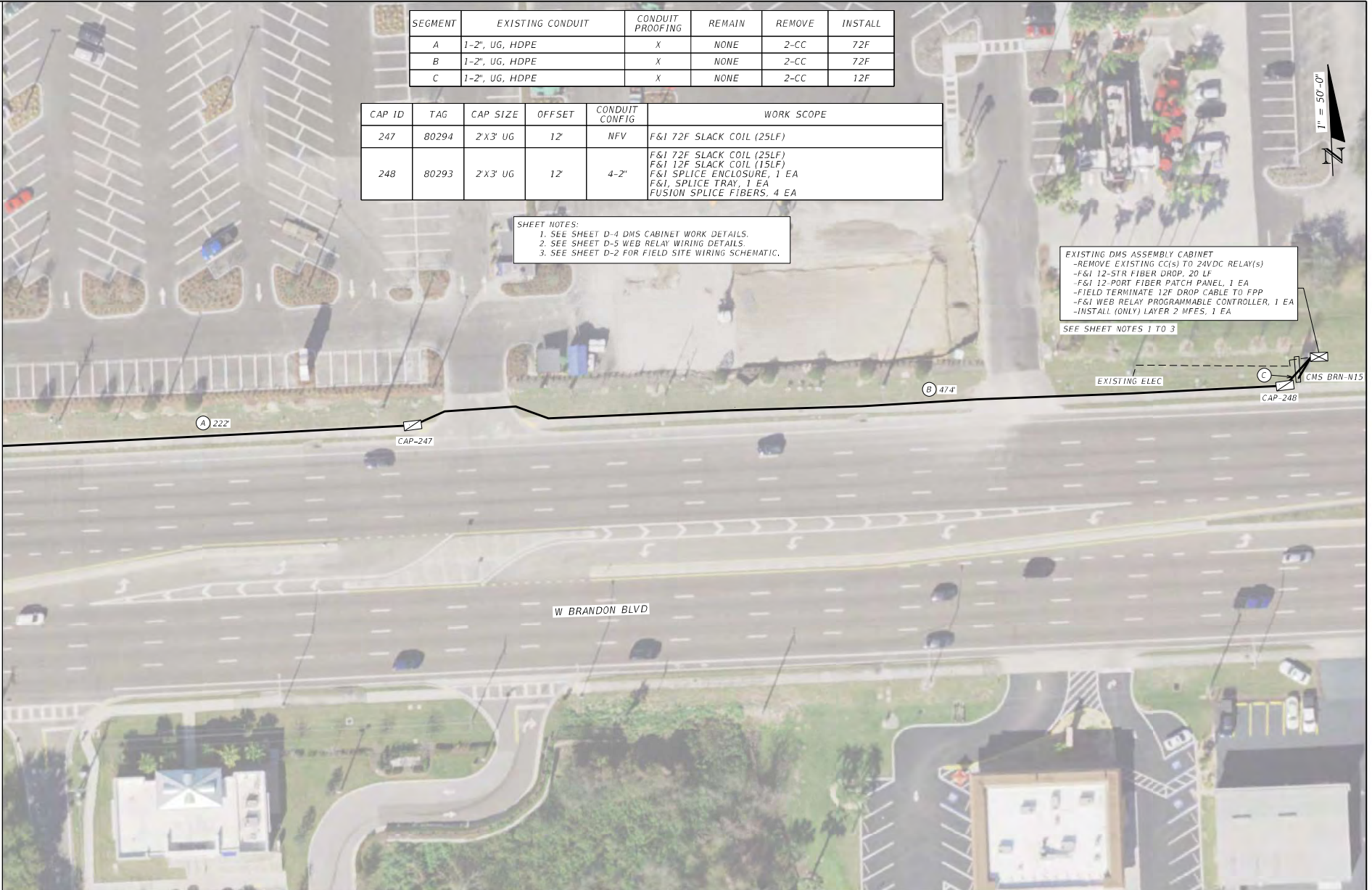
CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
243	80298	17"X30" UG	6'	3-3", 1-2"	F&I 72F SLACK COIL (25LF)
244	80297	17"X30" UG	19'	4-3", 2-2"	F&I 72F SLACK COIL (25LF)
245	80296	2'X3' UG	20'	3-3", 5-2"	F&I 72F SLACK COIL (25LF)
246	80295	17"X30" UG	22'	3-2"	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)

MATCHLINE - SEE SHEET IT-99

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-98
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							S.R. 618	HILLSBOROUGH			

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MATCHLINE - SEE SHEET IT-98



SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	NONE	2-CC	72F
B	1-2", UG, HDPE	X	NONE	2-CC	72F
C	1-2", UG, HDPE	X	NONE	2-CC	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
247	80294	2 X3" UG	12'	NFV	F&I 72F SLACK COIL (25LF)
248	80293	2 X3" UG	12'	4-2"	F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSTON SPLICE FIBERS, 4 EA

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CCI(S) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-99
							S.R. 618	HILLSBOROUGH			

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE	X	NONE	3-CC	72F
	1-2", UG, HDPE (EMPTY)	X	NONE	NONE	
B	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
C	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
D	1-2", UG, PVC	X	NONE	2-CC	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
250	87674	17"X30" UG	5'	4-3", 3-2"	REPLACE EXISTING BOX W/ NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
251	87673	17"X30" UG	3'	NFV	F&I 72F SLACK COIL (25LF)

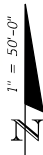
SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(S) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 20 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA

SEE SHEET NOTES 1 TO 3

MATCHLINE - SEE SHEET IT-93

MATCHLINE - SEE SHEET IT-101



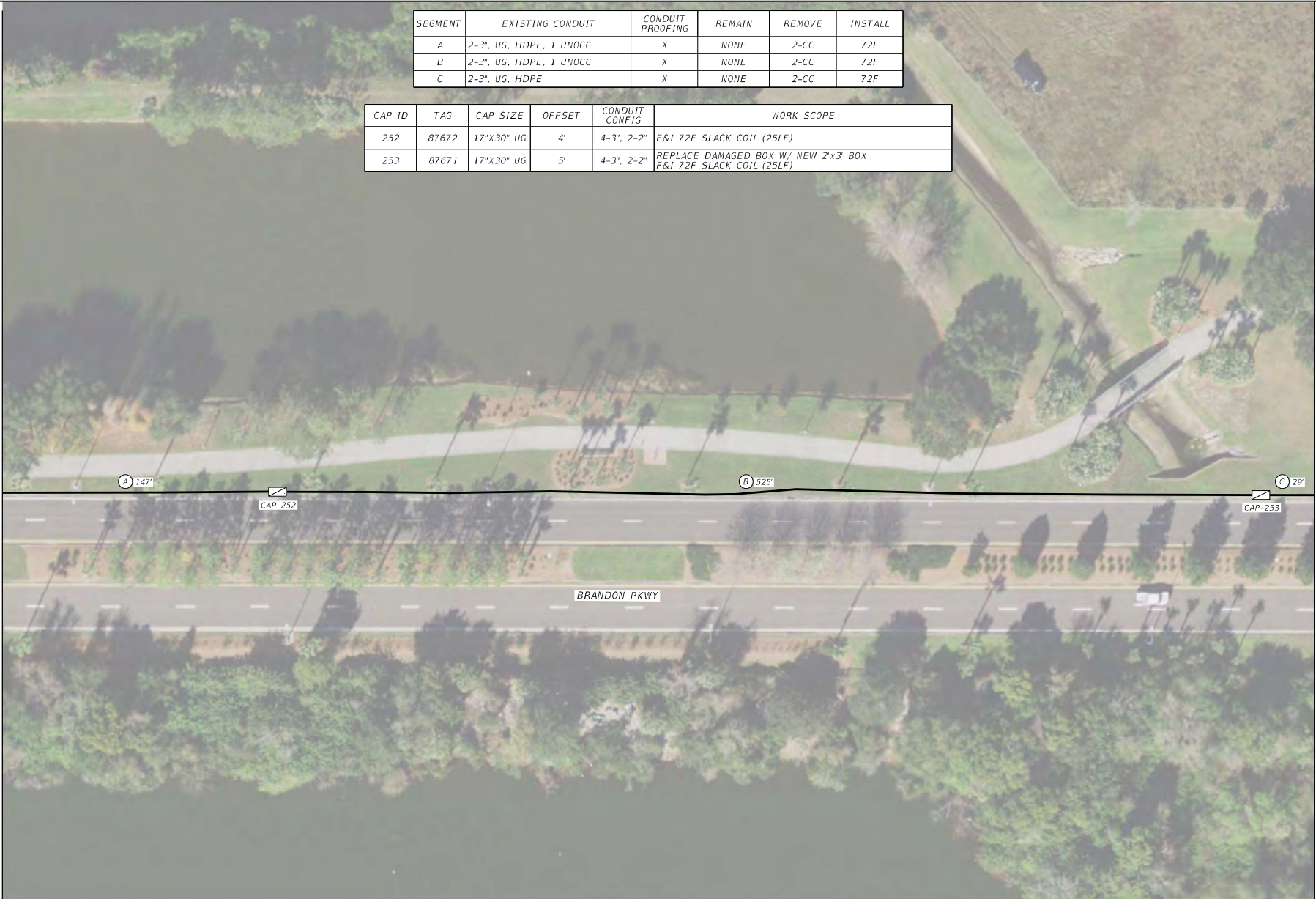
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-100
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
 P.E. LICENSE NUMBER 42883
 KCI TECHNOLOGIES, INC
 4041 CRESCENT PARK DRIVE
 TAMPA, FL 33578

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
B	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
C	2-3", UG, HDPE	X	NONE	2-CC	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
252	87672	17"x30" UG	4'	4-3", 2-2"	F&I 72F SLACK COIL (25LF)
253	87671	17"x30" UG	5'	4-3", 2-2"	REPLACE DAMAGED BOX W/ NEW 2'x3' BOX F&I 72F SLACK COIL (25LF)

MATCHLINE - SEE SHEET IT-100



MATCHLINE - SEE SHEET IT-102

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-101
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		
				JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE	X	NONE	2-CC	72F
B	2-3", UG, HDPE	X	NONE	2-CC	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
254	87670	17"X30" UG	3'	4-3"	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-101

MATCHLINE - SEE SHEET IT-103



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-102
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			
				JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578				

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE	X	NONE	2-CC	72F
B	2-3", UG, HDPE	X	NONE	2-CC	72F
C	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
255	87669	17"X30" UG	9'	6-3"	F&I 72F SLACK COIL (25LF)
256	87668	17"X30" UG	5'	4-3", 1-2"	F&I 72F SLACK COIL (25LF)



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-103
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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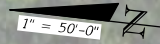
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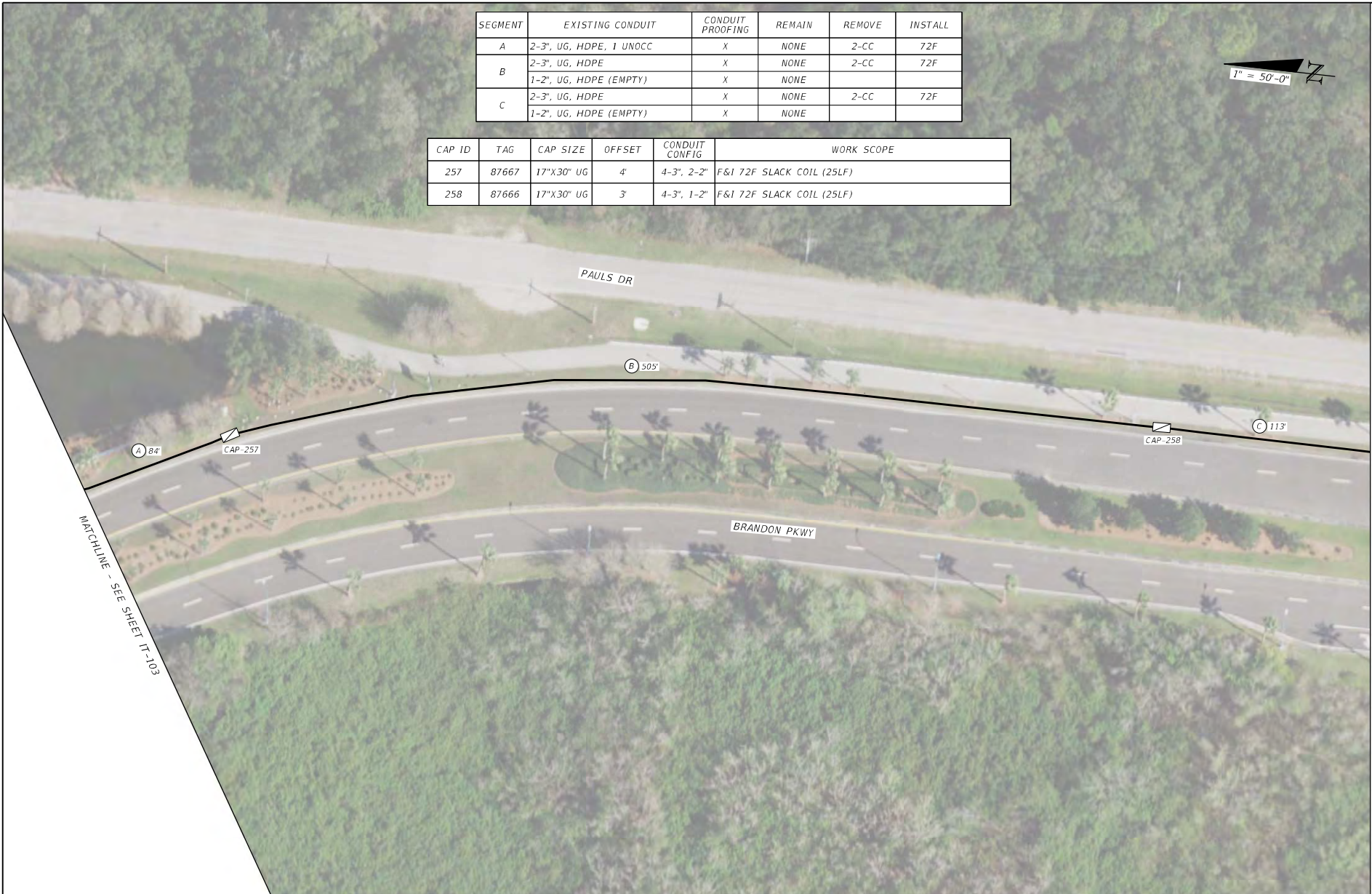
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE, 1 UNOCC	X	NONE	2-CC	72F
B	2-3", UG, HDPE	X	NONE	2-CC	72F
	1-2", UG, HDPE (EMPTY)	X	NONE		
C	2-3", UG, HDPE	X	NONE	2-CC	72F
	1-2", UG, HDPE (EMPTY)	X	NONE		



CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
257	87667	17"x30" UG	4'	4-3", 2-2"	F&I 72F SLACK COIL (25LF)
258	87666	17"x30" UG	3'	4-3", 1-2"	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-103

MATCHLINE - SEE SHEET IT-105

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-104
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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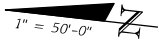
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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE	X	NONE	2-CC	72F
	1-2", UG, HDPE (EMPTY)	X			
B	2-3", UG, HDPE, 1 UNOCC	X	NONE		72F
	1-2", UG, HDPE	X	NONE	2-CC	

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
259	87665	17"X30" UG	5'	4-3", 4-2"	F&I 72F SLACK COIL (25LF)



MATCHLINE - SEE SHEET IT-104

MATCHLINE - SEE SHEET IT-106



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-105
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
				S.R. 618	HILLSBOROUGH		

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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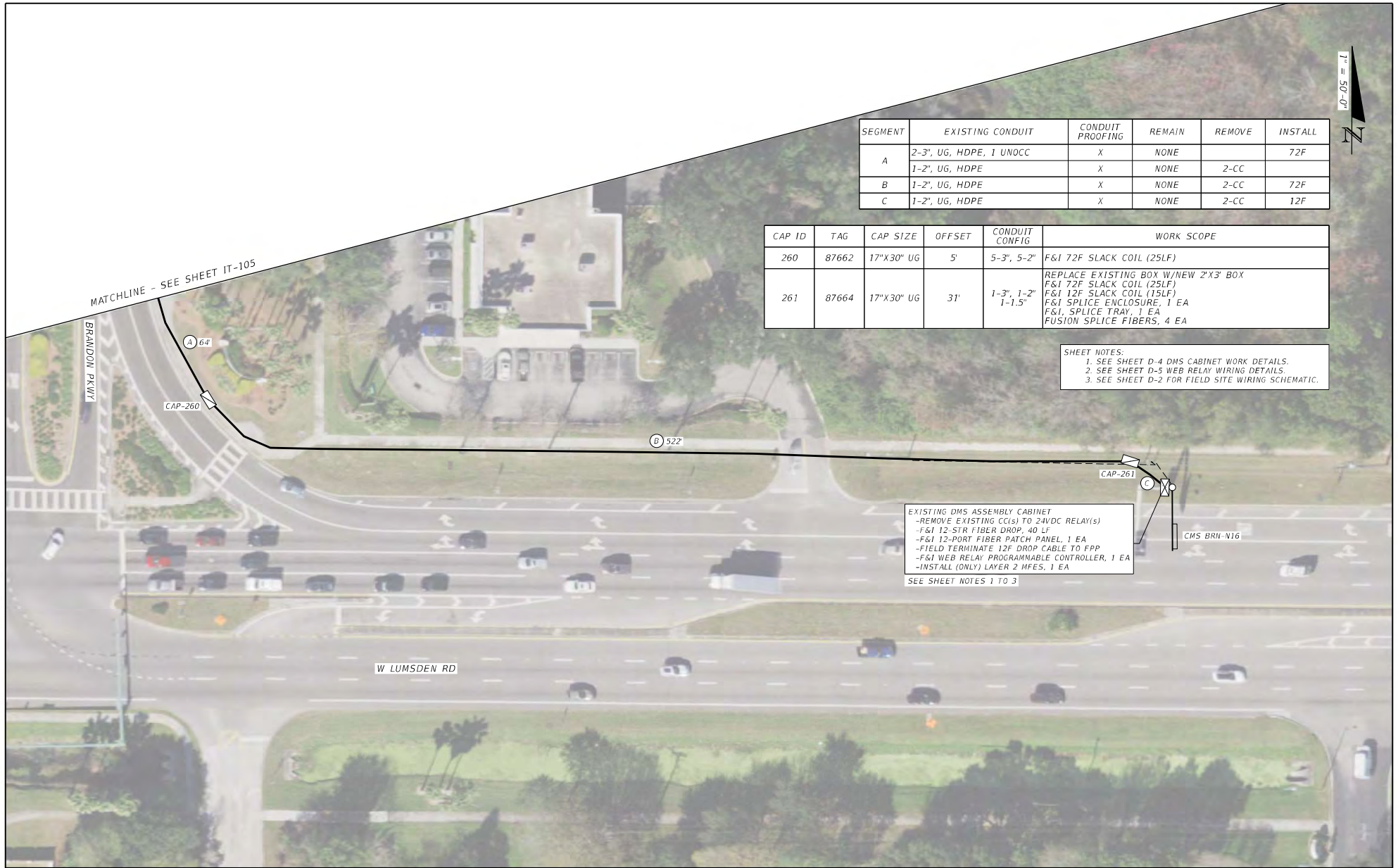


SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	2-3", UG, HDPE, 1 UNOCC	X	NONE		72F
	1-2", UG, HDPE	X	NONE	2-CC	
B	1-2", UG, HDPE	X	NONE	2-CC	72F
C	1-2", UG, HDPE	X	NONE	2-CC	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
260	87662	17"X30" UG	5'	5-3", 5-2"	F&I 72F SLACK COIL (25LF)
261	87664	17"X30" UG	31'	1-3", 1-2" 1-1.5"	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(S) TO 24VDC RELAY(S)
 -F&I 12 STR FIBER DROP, 40 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-106
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
 P.E. LICENSE NUMBER 42883
 KCI TECHNOLOGIES, INC
 4041 CRESCENT PARK DRIVE
 TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	12F	5-CC	72F
B	1-2", UG, HDPE	X	12F	4-CC	72F
C	1-2", UG, HDPE	X	NONE	4-CC	72F
D	2-1.5", UG, PVC	X	NONE	2-CC	12F

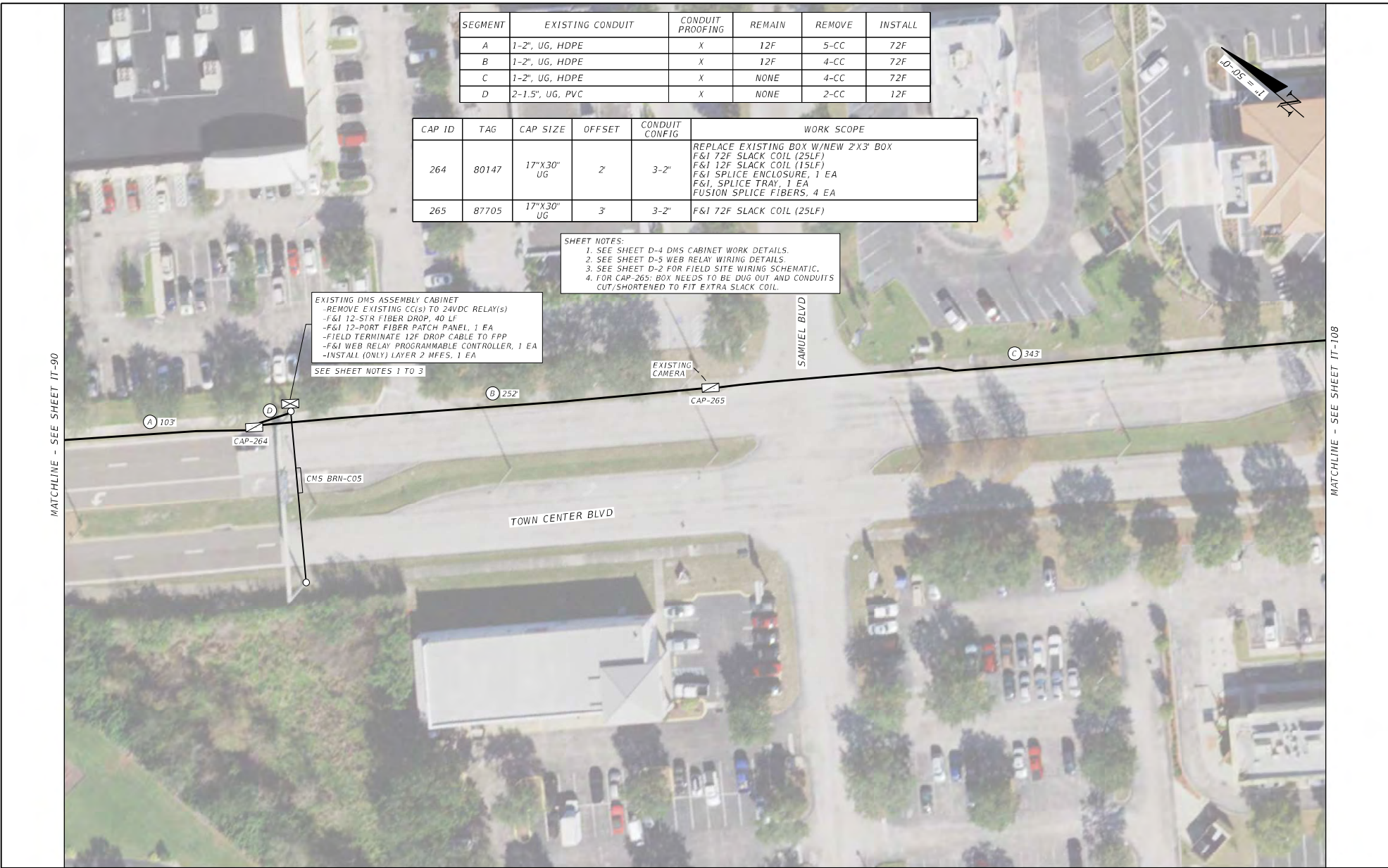
CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
264	80147	17"X30" UG	2'	3-2"	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
265	87705	17"X30" UG	3'	3-2"	F&I 72F SLACK COIL (25LF)

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.
 4. FOR CAP-265: BOX NEEDS TO BE DUG OUT AND CONDUITS CUT/SHORTENED TO FIT EXTRA SLACK COIL.

EXISTING DMS ASSEMBLY CABINET
 REMOVE EXISTING CC(S) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 40 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3

MATCHLINE - SEE SHEET IT-90

MATCHLINE - SEE SHEET IT-108



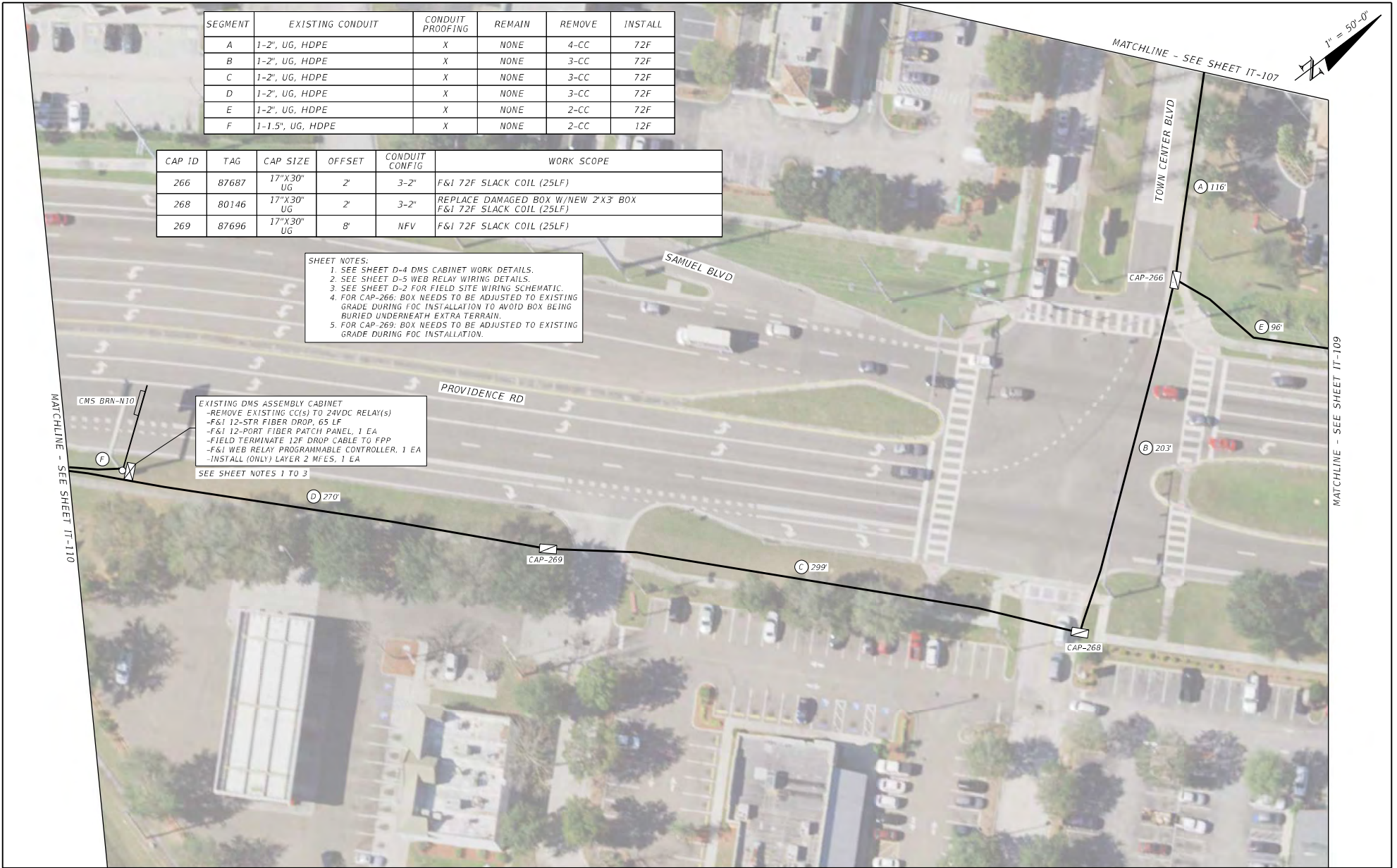
REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-107
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						S.R. 618	HILLSBOROUGH			

SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	NONE	4-CC	72F
B	1-2", UG, HDPE	X	NONE	3-CC	72F
C	1-2", UG, HDPE	X	NONE	3-CC	72F
D	1-2", UG, HDPE	X	NONE	3-CC	72F
E	1-2", UG, HDPE	X	NONE </td <td>2-CC</td> <td>72F</td>	2-CC	72F
F	1-1.5", UG, HDPE	X	NONE	2-CC	12F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
266	87687	17"X30" UG	2'	3-2"	F&I 72F SLACK COIL (25LF)
268	80146	17"X30" UG	2'	3-2"	REPLACE DAMAGED BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF)
269	87696	17"X30" UG	8'	NFV	F&I 72F SLACK COIL (25LF)

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.
 4. FOR CAP-266: BOX NEEDS TO BE ADJUSTED TO EXISTING GRADE DURING FOC INSTALLATION TO AVOID BOX BEING BURIED UNDERNEATH EXTRA TERRAIN.
 5. FOR CAP-269: BOX NEEDS TO BE ADJUSTED TO EXISTING GRADE DURING FOC INSTALLATION.

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CCI(S) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 65 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-108
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
 P.E. LICENSE NUMBER 42883
 KCI TECHNOLOGIES, INC
 4041 CRESCENT PARK DRIVE
 TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	NONE	2-CC	72F
B	1-2", UG, HDPE	X	NONE	2-CC	12F

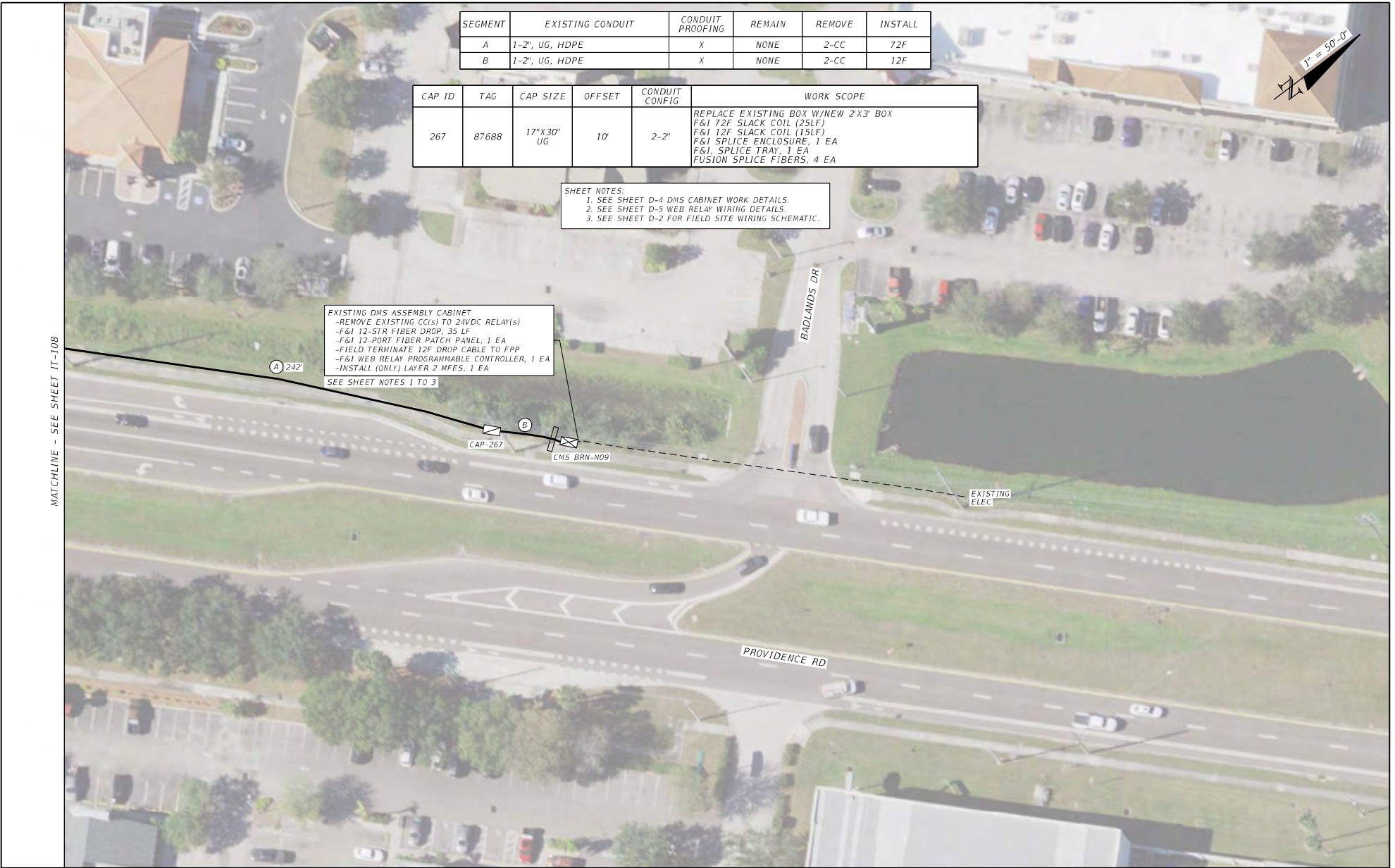
CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
267	87688	17"X30" UG	10'	2-2"	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA

SHEET NOTES:
 1. SEE SHEET D-4 DMS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

EXISTING DMS ASSEMBLY CABINET
 -REMOVE EXISTING CC(S) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 35 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3



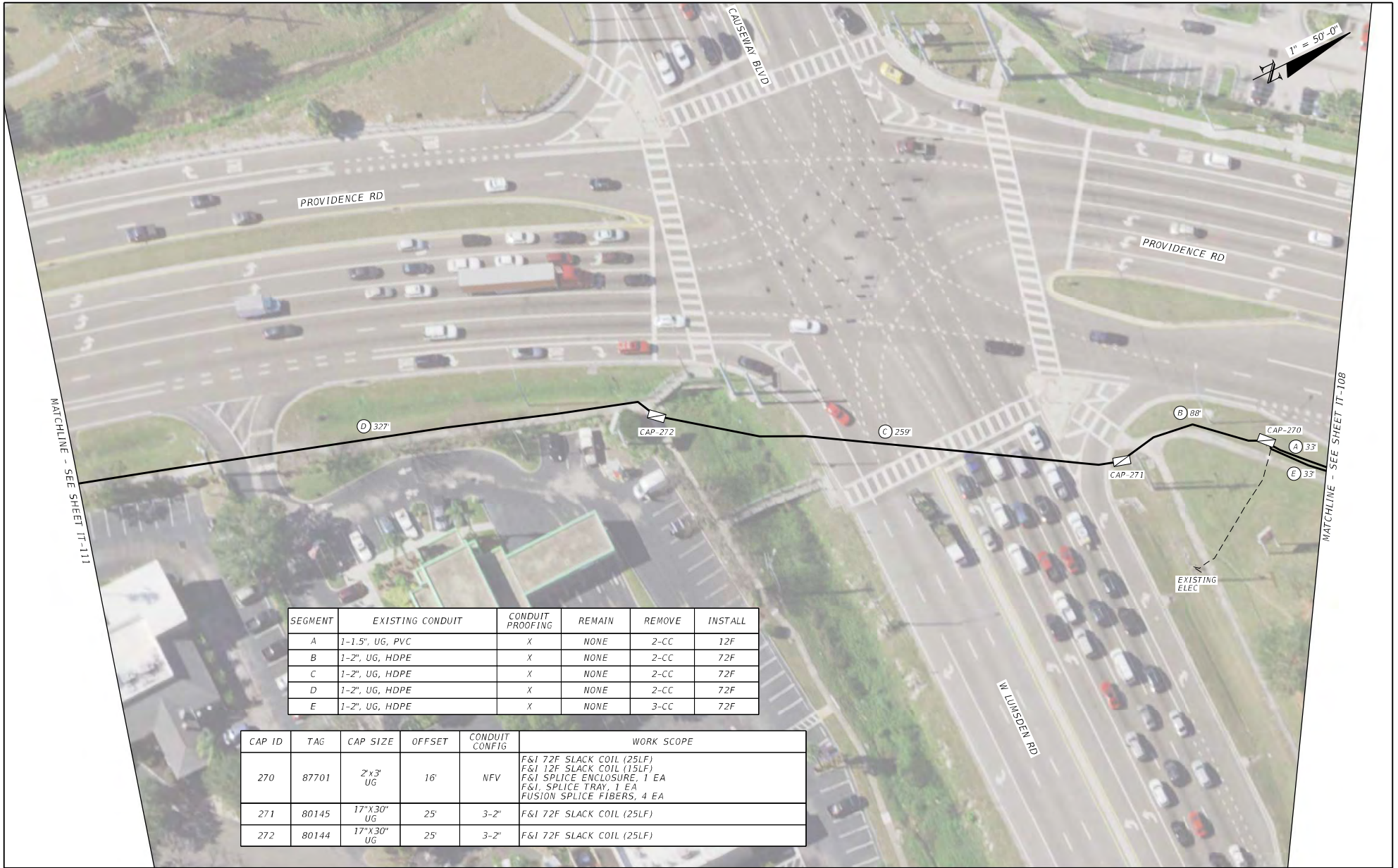
MATCHLINE - SEE SHEET IT-108



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-109
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
 P.E. LICENSE NUMBER 42883
 KCI TECHNOLOGIES, INC
 4041 CRESCENT PARK DRIVE
 TAMPA, FL 33578

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SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-1.5", UG, PVC	X	NONE	2-CC	12F
B	1-2", UG, HDPE	X	NONE	2-CC	72F
C	1-2", UG, HDPE	X	NONE	2-CC	72F
D	1-2", UG, HDPE	X	NONE	2-CC	72F
E	1-2", UG, HDPE	X	NONE	3-CC	72F

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
270	87701	2"x3" UG	16'	NFV	F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA
271	80145	17"x30" UG	25'	3-2"	F&I 72F SLACK COIL (25LF)
272	80144	17"x30" UG	25'	3-2"	F&I 72F SLACK COIL (25LF)

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-110
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						S.R. 618	HILLSBOROUGH			

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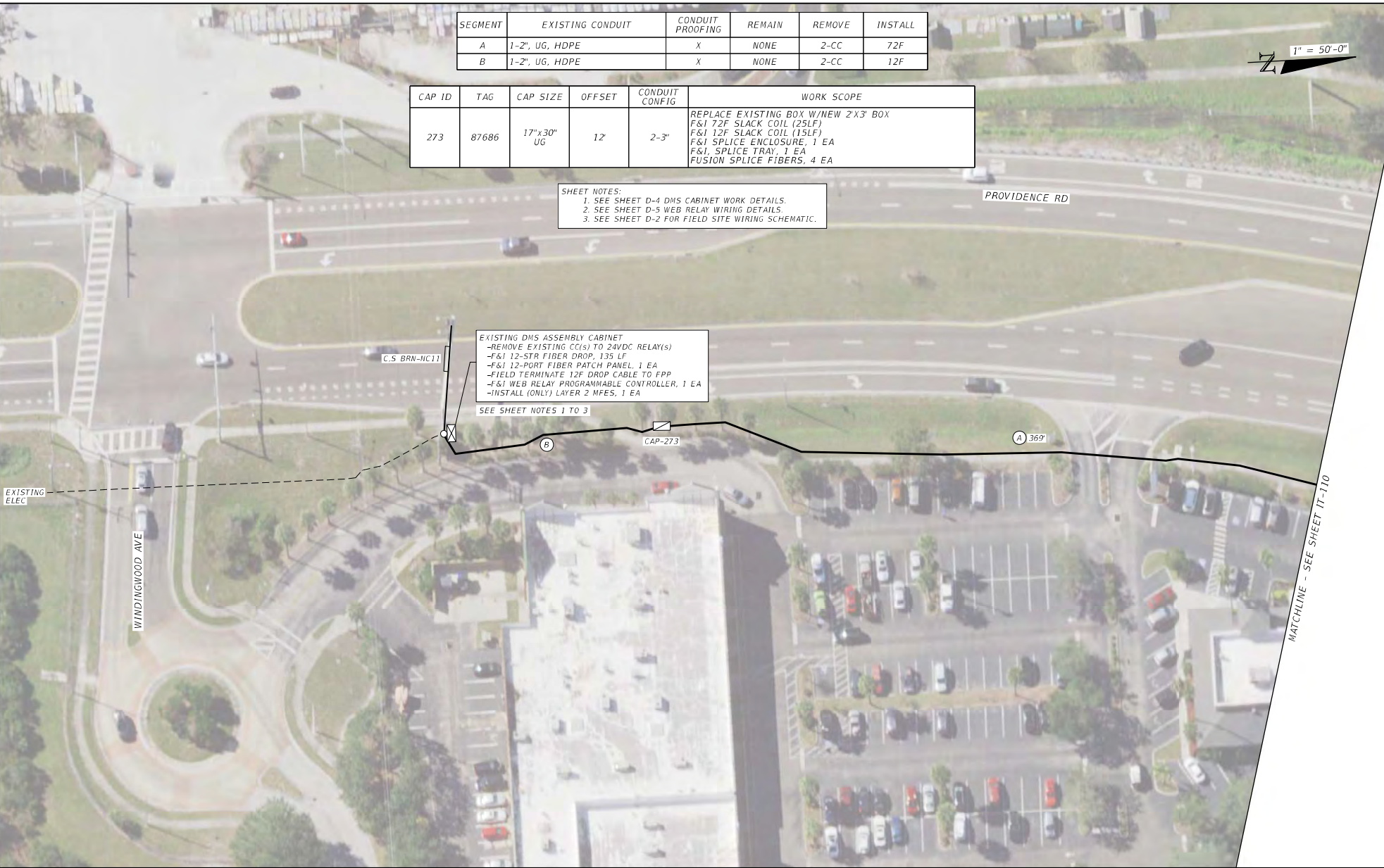
SEGMENT	EXISTING CONDUIT	CONDUIT PROOFING	REMAIN	REMOVE	INSTALL
A	1-2", UG, HDPE	X	NONE	2-CC	72F
B	1-2", UG, HDPE	X	NONE	2-CC	12F

1" = 50'-0"

CAP ID	TAG	CAP SIZE	OFFSET	CONDUIT CONFIG	WORK SCOPE
273	87686	17"x30" UG	12"	2-3"	REPLACE EXISTING BOX W/NEW 2'X3' BOX F&I 72F SLACK COIL (25LF) F&I 12F SLACK COIL (15LF) F&I SPLICE ENCLOSURE, 1 EA F&I SPLICE TRAY, 1 EA FUSION SPLICE FIBERS, 4 EA

SHEET NOTES:
 1. SEE SHEET D-4 DNS CABINET WORK DETAILS.
 2. SEE SHEET D-5 WEB RELAY WIRING DETAILS.
 3. SEE SHEET D-2 FOR FIELD SITE WIRING SCHEMATIC.

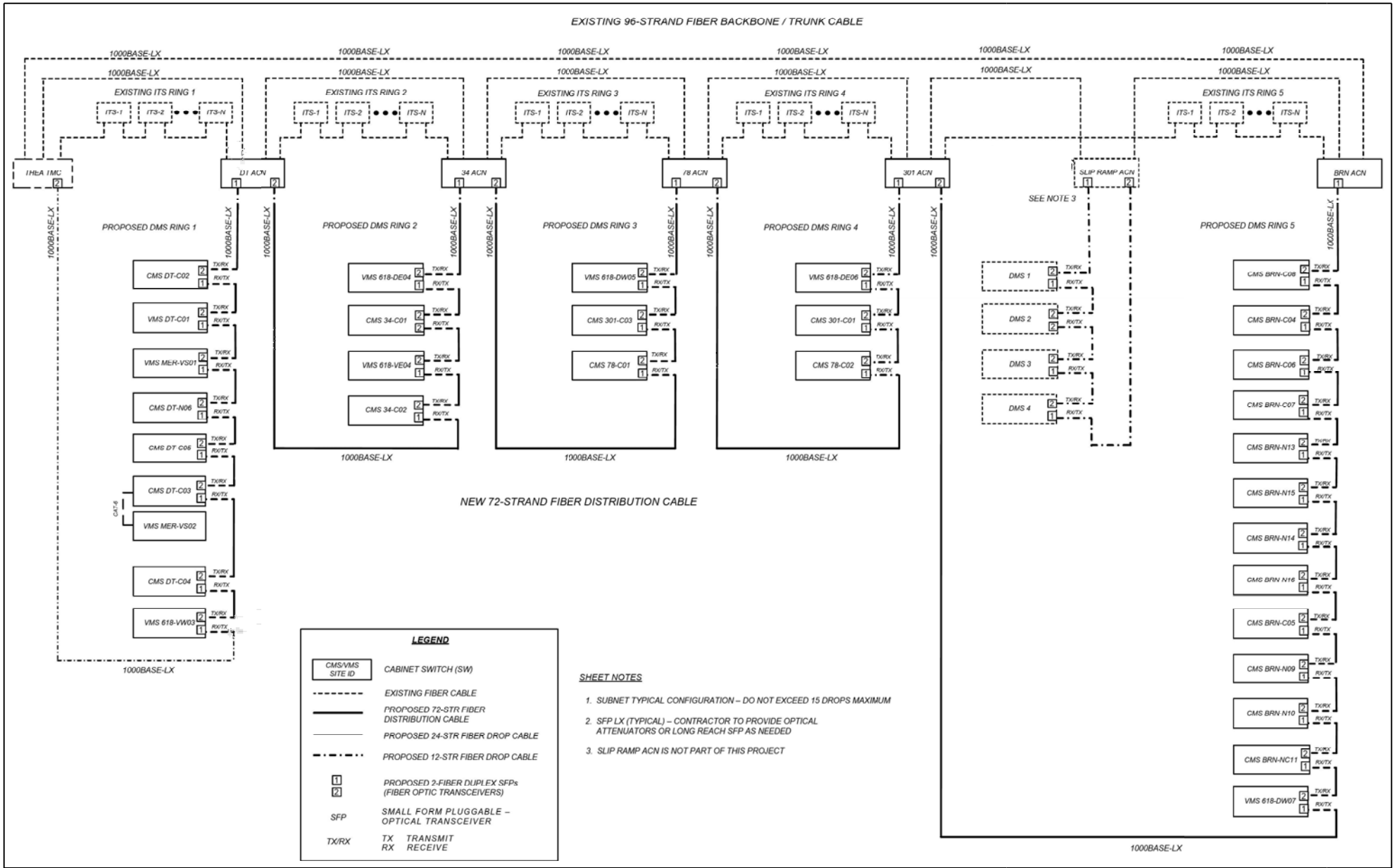
EXISTING DNS ASSEMBLY CABINET
 -REMOVE EXISTING CCI(s) TO 24VDC RELAY(S)
 -F&I 12-STR FIBER DROP, 135 LF
 -F&I 12-PORT FIBER PATCH PANEL, 1 EA
 -FIELD TERMINATE 12F DROP CABLE TO FPP
 -F&I WEB RELAY PROGRAMMABLE CONTROLLER, 1 EA
 -INSTALL (ONLY) LAYER 2 MFES, 1 EA
 SEE SHEET NOTES 1 TO 3



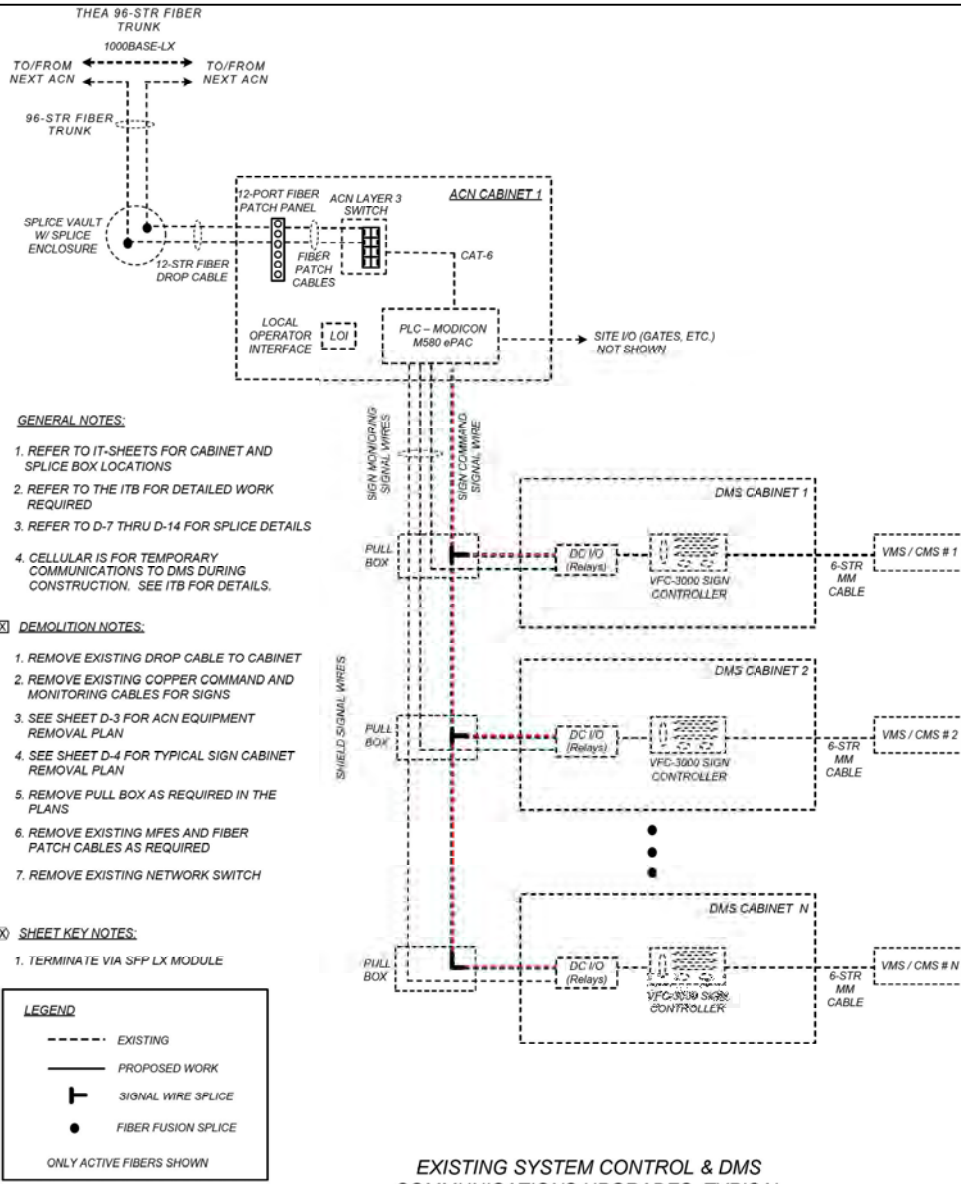
REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			INTELLIGENT TRANSPORTATION SYSTEM PLAN	SHEET NO. IT-111
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
 P.E. LICENSE NUMBER 42883
 KCI TECHNOLOGIES, INC
 4041 CRESCENT PARK DRIVE
 TAMPA, FL 33578

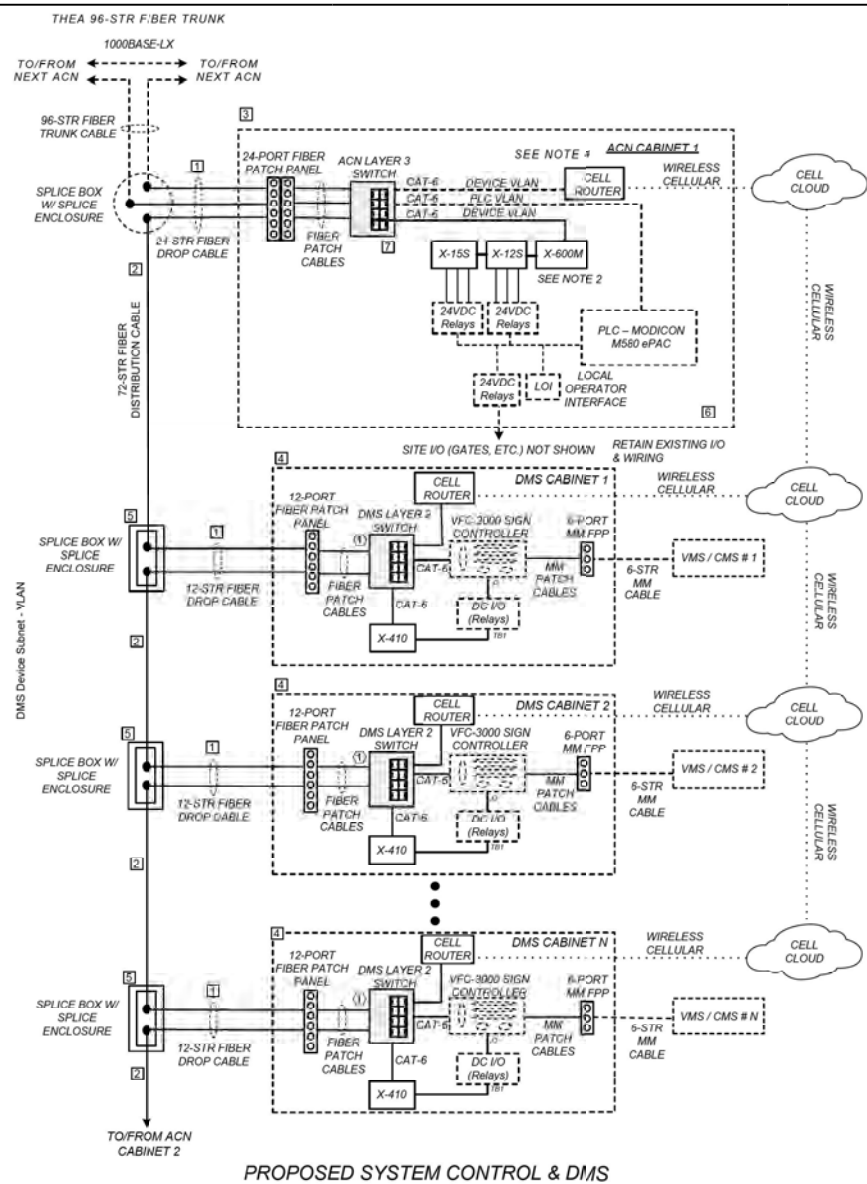
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REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			COMMUNICATIONS NETWORK INTERCONNECT SCHEMATIC	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		D-1
						S.R. 618	HILLSBOROUGH			



EXISTING SYSTEM CONTROL & DMS COMMUNICATIONS UPGRADES, TYPICAL
NOT TO SCALE



PROPOSED SYSTEM CONTROL & DMS COMMUNICATIONS UPGRADES, TYPICAL
NOT TO SCALE

- GENERAL NOTES:**
- REFER TO IT-SHEETS FOR CABINET AND SPLICE BOX LOCATIONS
 - REFER TO THE ITB FOR DETAILED WORK REQUIRED
 - REFER TO D-7 THRU D-14 FOR SPLICE DETAILS
 - CELLULAR IS FOR TEMPORARY COMMUNICATIONS TO DMS DURING CONSTRUCTION. SEE ITB FOR DETAILS.

- DEMOLITION NOTES:**
- REMOVE EXISTING DROP CABLE TO CABINET
 - REMOVE EXISTING COPPER COMMAND AND MONITORING CABLES FOR SIGNS
 - SEE SHEET D-3 FOR ACN EQUIPMENT REMOVAL PLAN
 - SEE SHEET D-4 FOR TYPICAL SIGN CABINET REMOVAL PLAN
 - REMOVE PULL BOX AS REQUIRED IN THE PLANS
 - REMOVE EXISTING MFES AND FIBER PATCH CABLES AS REQUIRED
 - REMOVE EXISTING NETWORK SWITCH

SHEET KEY NOTES:

- TERMINATE VIA SFP LX MODULE

LEGEND

- EXISTING
- PROPOSED WORK
- ⊥ SIGNAL WIRE SPLICE
- FIBER FUSION SPLICE
- ONLY ACTIVE FIBERS SHOWN

REVISIONS		REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.	
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						S.R. 618	HILLSBOROUGH		FIELD SITE WIRING SCHEMATIC	D-2

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.

GENERAL SHEET NOTES

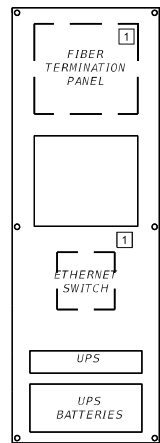
1. QUANTITY AND LAYOUTS OF EXISTING CABINETS MAY VARY.
2. SEE ITB FOR SPARE PARTS REQUIREMENTS.

DEMOLITION NOTES

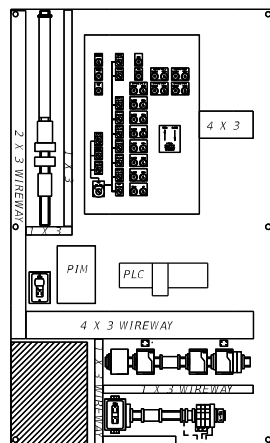
1. DEVICES MUST REMAIN IN CABINET AND WIRED TO THE EXTENT POSSIBLE UNTIL ALL TESTING IS COMPLETED. REMOVE DEVICES AFTER APPROVAL.
2. CONTRACTOR TO REMOVE EXISTING SIGN FIELD I/O SURGE ARRESTORS SA-XXX (PHOENIX CONTACT PT 4X1+F-BE TYPICAL).

SHEET KEY NOTES

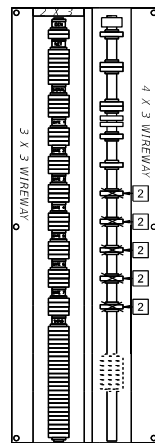
1. CONTRACTOR MUST COORDINATE WITH THEA FOR SCHEDULING OF INSTALLATION AND COMMISSIONING OF WEB RELAYS AND NETWORK EQUIPMENT.
2. CELLULAR ROUTER 2A CB
3. I/O CONTROLLER 2A CB
4. CELLULAR ROUTER
5. WEB RELAY I/O. NUMBER OF MODULES VARIES, LARGEST FOOTPRINT (BRANDON ACN) SHOWN.



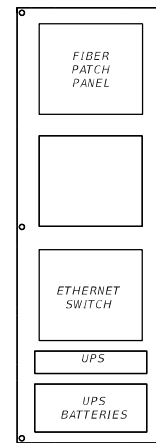
LEFT SIDE SUB-PANEL



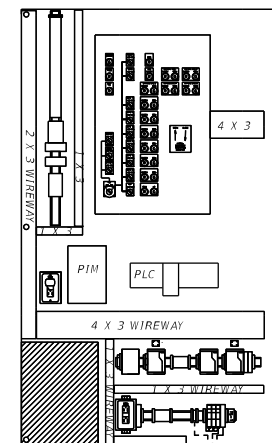
CENTER SUB-PANEL



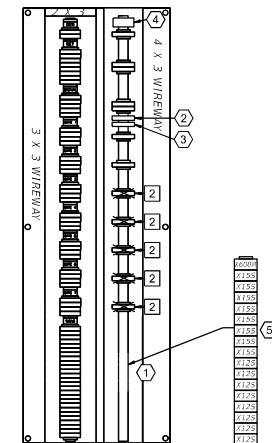
RIGHT SIDE SUB-PANEL



LEFT SIDE SUB-PANEL



CENTER SUB-PANEL

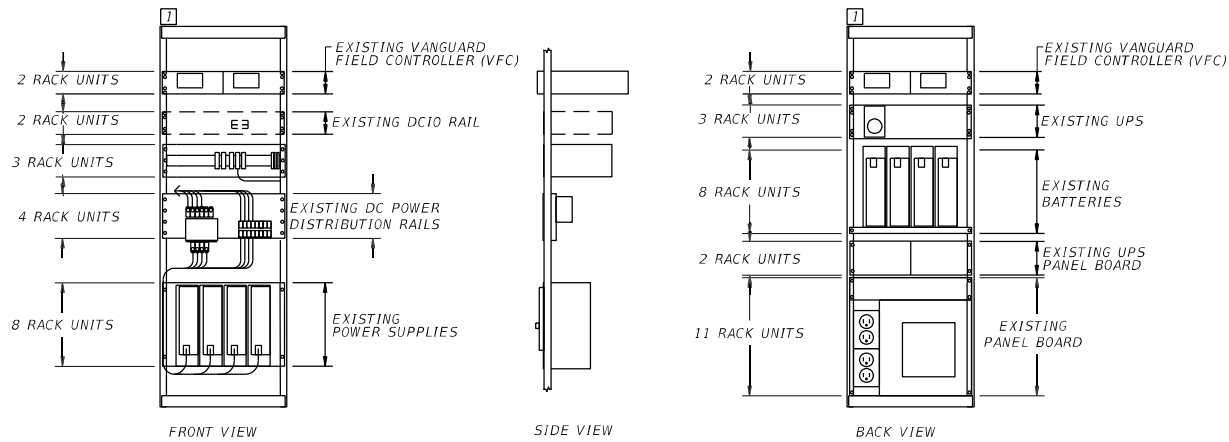


RIGHT SIDE SUB-PANEL

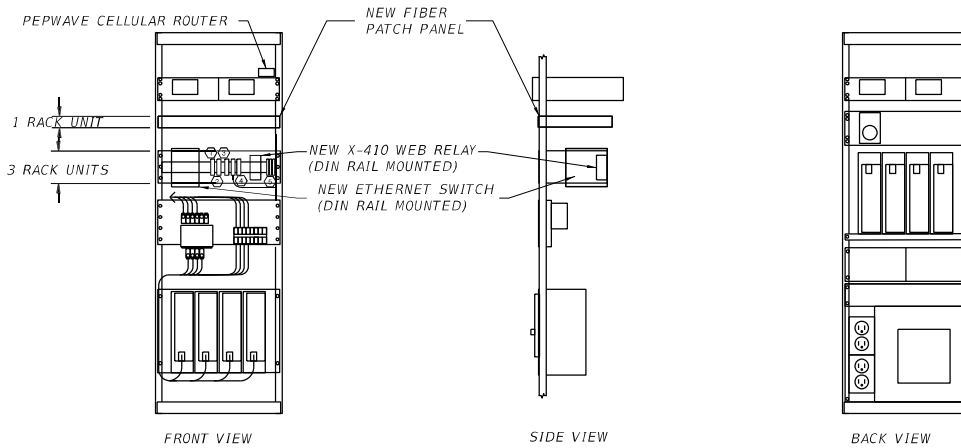
① TYPICAL REMOVAL FROM ACN DIAGRAM
SCALE: NONE

② TYPICAL ACN NEW WORK DIAGRAM
SCALE: NONE

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			ACN CABINET WORK	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH						D-3



1 TYPICAL REMOVAL FROM SIGN CABINET DIAGRAM
SCALE: NONE



2 TYPICAL SIGN CABINET NEW WORK DIAGRAM
SCALE: NONE

GENERAL SHEET NOTES

1. QUANTITY AND LAYOUTS OF EXISTING CABINETS MAY VARY.
2. CONTRACTOR TO PROVIDE A SHOP DRAWING SHOWING THE PROPOSED LOCATION OF WEB RELAY EQUIPMENT.

DEMOLITION NOTES

1. DEVICES MUST REMAIN IN CABINET AND WIRED TO THE EXTENT POSSIBLE UNTIL ALL TESTING IS COMPLETED. REMOVE DEVICES AFTER APPROVAL.






SHEET KEY NOTES

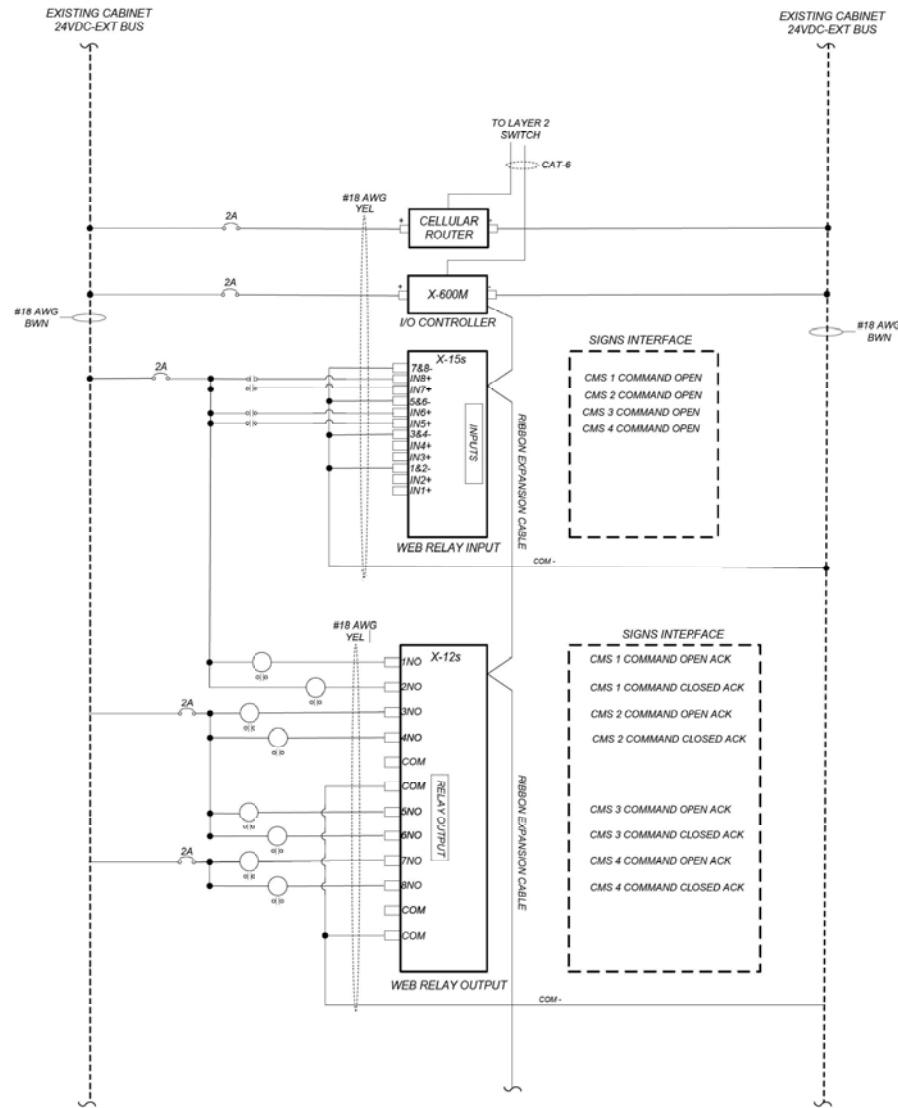
1. 120V DC POWER SUPPLY 2A CB
2. 24VDC BUS 5A CB
3. 24VDC CELL ROUTER 2A CB
4. WEB RELAY X-410 2A CB
5. 24VDC BUS TERMINAL BLOCK

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
							S.R. 618	HILLSBOROUGH		DMS CABINET WORK
										D-4

SHEET NOTES:

1. REFER TO IT-SHEETS FOR ACN CABINET LOCATIONS.
2. REFER TO THE ITB FOR DETAILED REQUIREMENTS.
3. REFER TO SHEET D-3 FOR ACN CABINET WORK
4. REFER TO ATTACHMENT 2 FOR TYPICAL ACN WIRING DIAGRAM
5. FIELD VERIFY RELAYS FOR INTERCONNECTION OF THE X-600M, X-12S AND X-15S WEB RELAYS I/O
6. EXISTING RELAYS WILL BE RE-USED.

LEGEND	
	NEW INTERNAL 18AWG WIRING
	EXISTING NEW INTERNAL 18AWG WIRING
	NEW CIRCUIT BREAKER
	EXISTING RELAY CONTACT
	EXISTING RELAY COILS



**PROPOSED ACN CABINET SIGN INTERCONNECT
DETAILS, TYPICAL FOR 4 SIGNS**

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
						S.R. 618	HILLSBOROUGH		TYPICAL ACN CABINET WEB RELAY WIRING SCHEMATIC D-5

cmconnect

12/18/2023

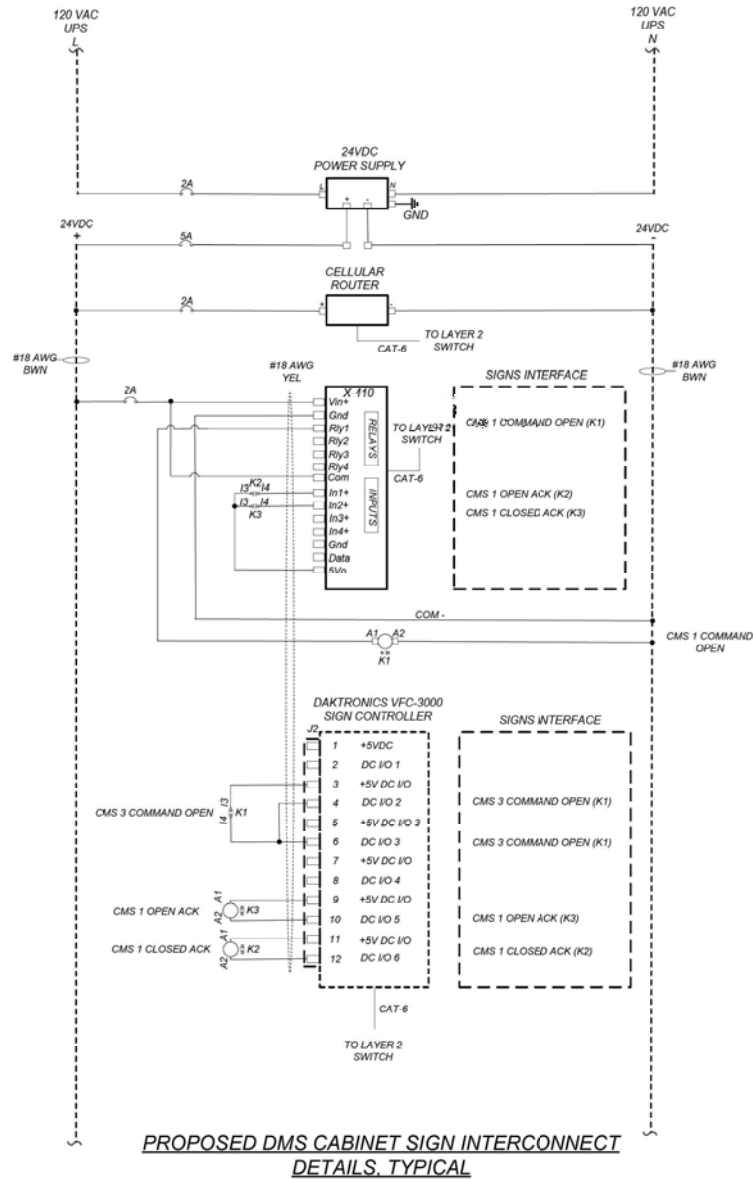
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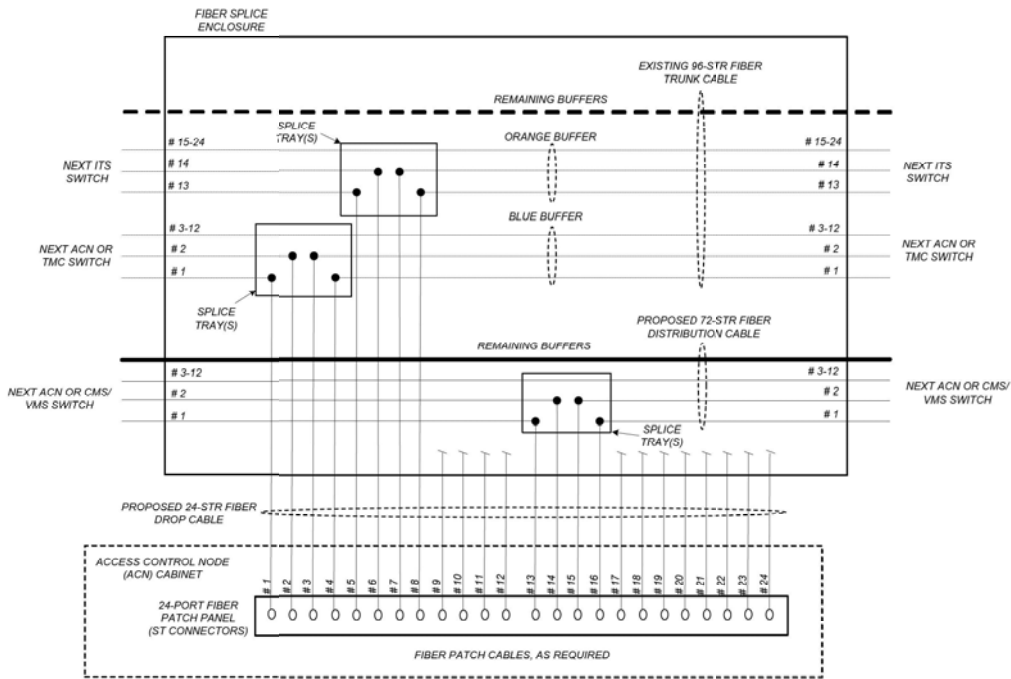
SHEET NOTES:

1. REFER TO IT-SHEETS FOR DMS CABINET LOCATIONS.
2. REFER TO THE ITB FOR DETAILED REQUIREMENTS.
3. REFER TO SHEET D-4 FOR DMS CABINET WORK
4. FIELD VERIFY RELAYS FOR INTERCONNECTION OF THE X-410 CONTROLLER IO.
5. EXISTING RELAYS WILL BE RE-USED.

LEGEND	
	NEW INTERNAL 18AWG WIRING
	EXISTING NEW INTERNAL 18AWG WIRING
	NEW CIRCUIT BREAKER
	EXISTING RELAY CONTACT
	EXISTING RELAY COILS

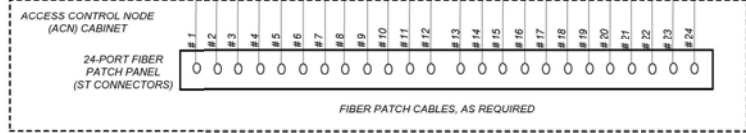


REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL DMS CABINET WEB RELAY WIRING SCHEMATIC	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		D-6
					S.R. 618	HILLSBOROUGH			



GENERAL NOTES

- REFER TO D-7 THRU D-14 FOR SPLICE DETAILS
- FIBER STRANDS OR BUFFERS NOT SHOWN ARE TO BE EXPRESSED THROUGH OR LEFT UN-TERMINATED (AS SHOWN)
- ONLY ACTIVE (LIT) FIBERS ARE SHOWN
- TERMINATE ALL FIBER STRANDS ON PATCH PANEL USING 6C STYLE CONNECTORS. TERMINATIONS AT SWITCHES MUST BE LC THROUGH A LX TYPE SFP MODULE
- DROP CABLE FIBERS NOT SPLICED IN A SPLICE ENCLOSURE OR A FIBER PATCH PANEL MUST BE LEFT UN-TERMINATED AND FULLY PROTECTED
- REFER TO THE ITB FOR DETAILED FIBER OPTIC REQUIREMENTS
- RE-TERMINATE EXISTING 6-STRAND TIGHT BUFFER MM FIBER DEVICE CABLE RUNNING BETWEEN THE AUXILIARY SIGN CONTROL BOARD IN THE SIGN ENCLOSURE TO THE DMS SIGN CONTROLLER.



LEGEND

- FUSION SPLICE
- UN-TERMINATED FIBER
- 0 0 0 0 FIBER PATCH PANEL
- - - - EXISTING FIBER OPTIC CABLE
- PROPOSED FIBER TRUNK CABLE
- TX/RX TX TRANSMIT
RX RECEIVE

FIBER COLOR STANDARD (PER EIA-598-C)

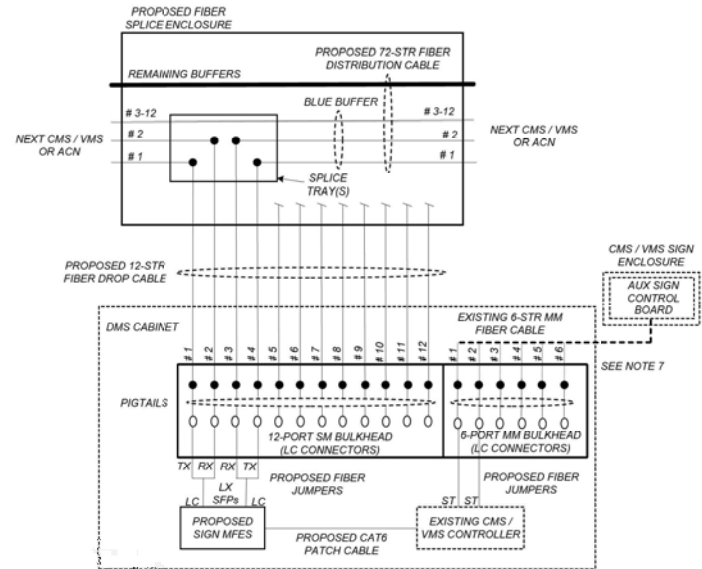
1 BL BLUE	7 RD RED
2 OR ORANGE	8 BK BLACK
3 GR GREEN	9 YL YELLOW
4 BR BROWN	10 VI VIOLET
5 SL SLATE	11 RS ROSE
6 WH WHITE	12 AQ AQUA

EXISTING FIBER UTILIZATION - 96 STR TRUNK CABLE

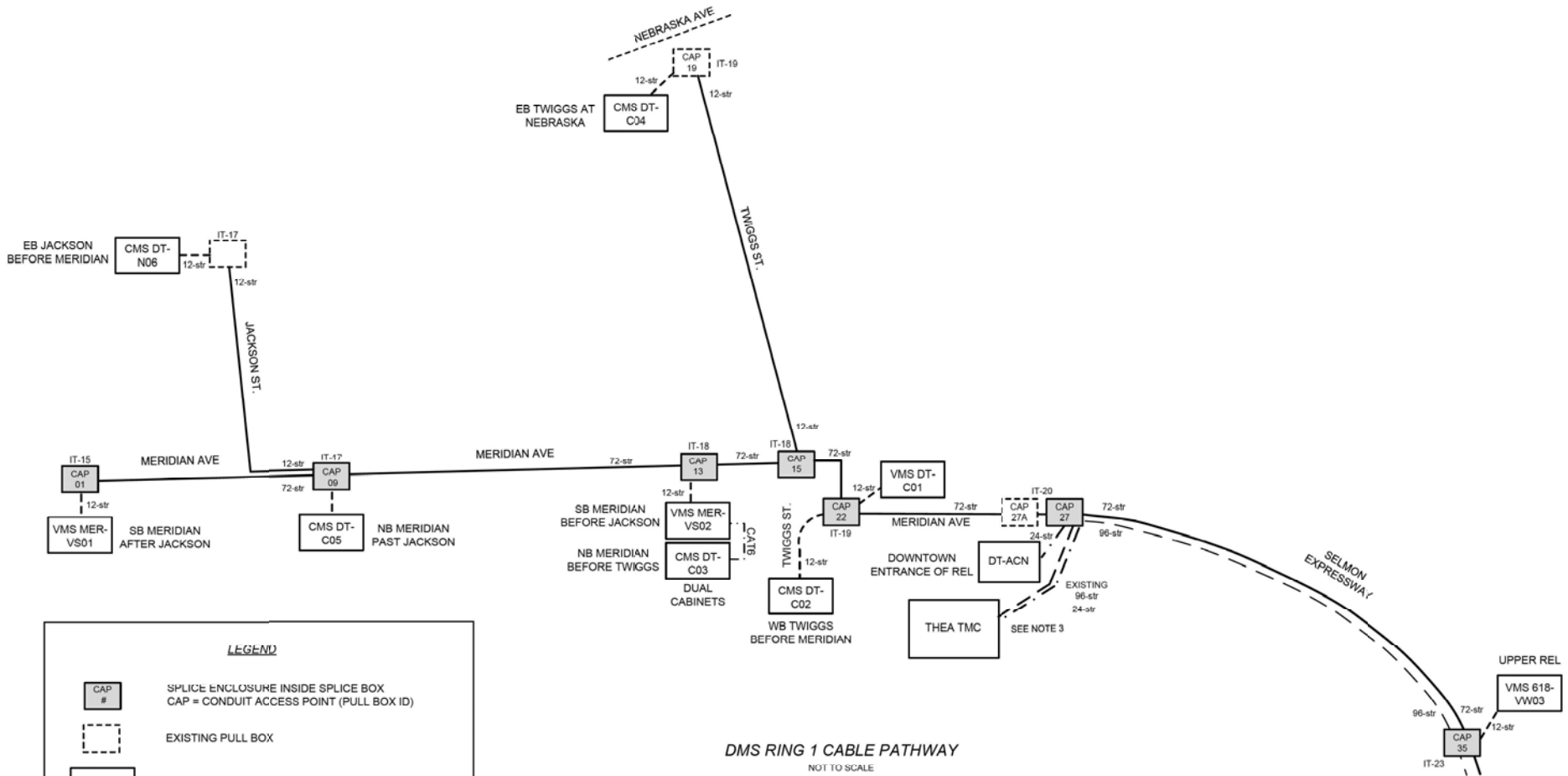
BLUE 1-12	THEA BACKBONE	SLATE 49-60	FUTURE
ORANGE 13-24	ITS DEVICE SUBNETS	WHITE 61-72	FUTURE
GREEN 25-36	FUTURE	RED 73-84	FUTURE
BROWN 37-48	FUTURE	BLACK 85-96	FUTURE

PROPOSED FIBER UTILIZATION - 72 STR DISTRIBUTION CABLE

BLUE 1-12	DMS RINGS / SUBNETS	BROWN 37-48	UNASSIGNED
ORANGE 13-24	UNASSIGNED	SLATE 49-60	UNASSIGNED
GREEN 25-36	UNASSIGNED	WHITE 61-72	UNASSIGNED



REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
			JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578	S.R. 618	HILLSBOROUGH		TYPICAL FIELD SITE SPLICING AND TERMINATION DETAILS D-7



LEGEND

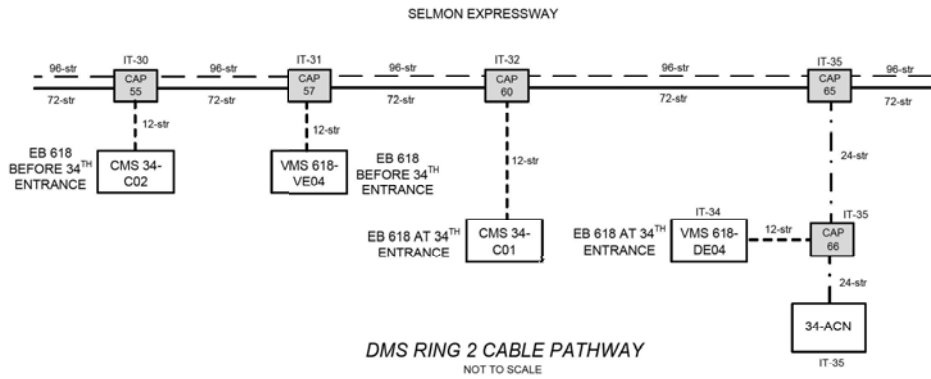
	SPLICE ENCLOSURE INSIDE SPLICE BOX CAP = CONDUIT ACCESS POINT (PULL BOX ID)
	EXISTING PULL BOX
	EXISTING FIELD CABINET
	PROPOSED FIBER DROP CABLE (12-STRAND)
	PROPOSED FIBER DROP CABLE (24-STRAND)
	PROPOSED FIBER DISTRIBUTION CABLE (72-STRAND)
	EXISTING FIBER TRUNK CABLE (96-STRAND)

DMS RING 1 CABLE PATHWAY
NOT TO SCALE

- SHEET NOTES**
- REFER TO SHEETS D-7 & D-11 FOR SPLICING & TERMINATION DETAILS
 - REFER TO THE ITB FOR DETAILED FIBER OPTIC REQUIREMENTS
 - COORDINATE WITH THEA TO PROVIDE A 24-PORT FIBER PATCH PANEL IN THE THEA BUILDING FOR TERMINATING THE 24-STRAND CABLE.

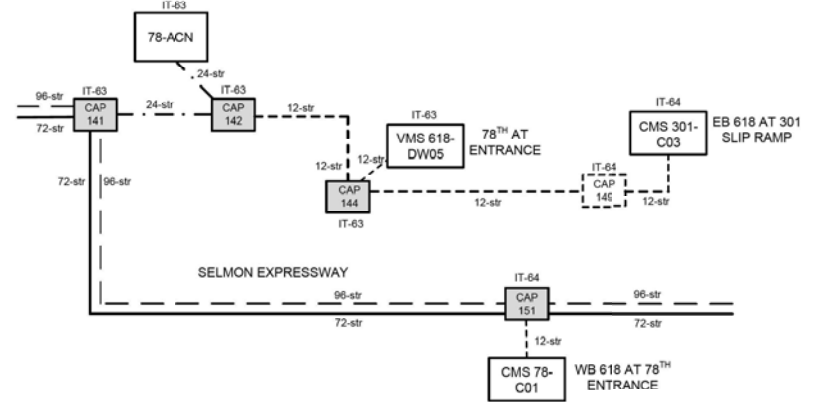
REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CABLE PATHWAY SCHEMATIC <i>(1 OF 3)</i>	SHEET NO.	
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY		FINANCIAL PROJECT ID	D-8
							S.R. 618	HILLSBOROUGH			

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DMS RING 2 CABLE PATHWAY
NOT TO SCALE

DMS RING 3 CABLE PATHWAY
NOT TO SCALE

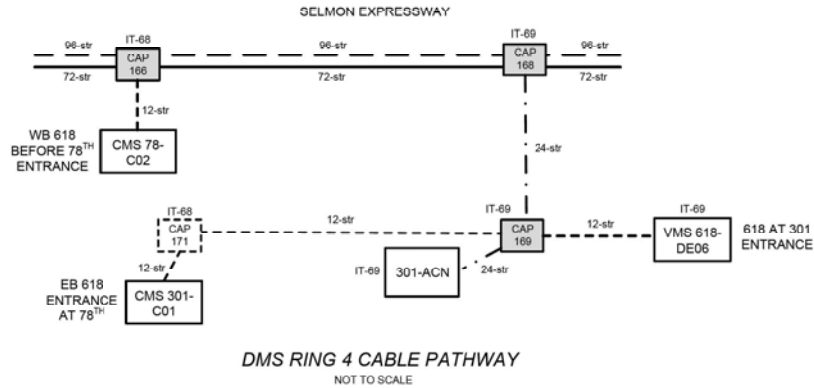


LEGEND

- CAP # SPLICE ENCLOSURE INSIDE SPLICE BOX
CAP = CONDUIT ACCESS POINT (PULL BOX ID)
- EXISTING PULL BOX
- SITE ID EXISTING FIELD CABINET
- PROPOSED FIBER DROP CABLE (12-STRAND)
- . - . - . PROPOSED FIBER DROP CABLE (24-STRAND)
- PROPOSED FIBER DISTRIBUTION CABLE (72-STRAND)
- EXISTING FIBER TRUNK CABLE (96-STRAND)

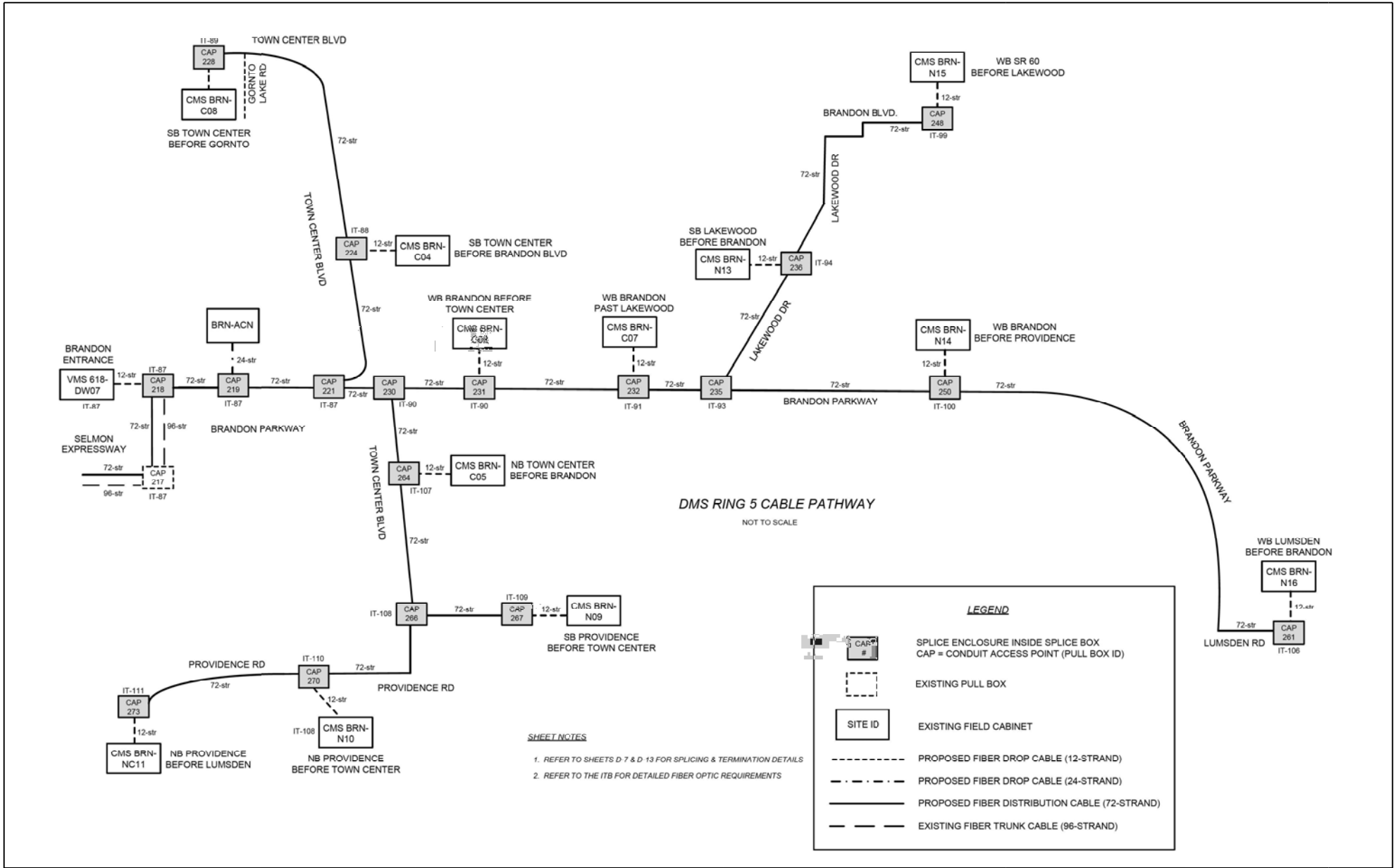
SHEET NOTES

1. REFER TO SHEETS D-7 & D-12 FOR SPLICING & TERMINATION DETAILS
2. REFER TO THE ITB FOR DETAILED FIBER OPTIC REQUIREMENTS



DMS RING 4 CABLE PATHWAY
NOT TO SCALE

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CABLE PATHWAY SCHEMATIC <i>(2 OF 3)</i>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		D-9
						S.R. 618	HILLSBOROUGH			



REVISIONS				ENGINEER OF RECORD JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CABLE PATHWAY SCHEMATIC (3 OF 3)	SHEET NO. D-10
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH				

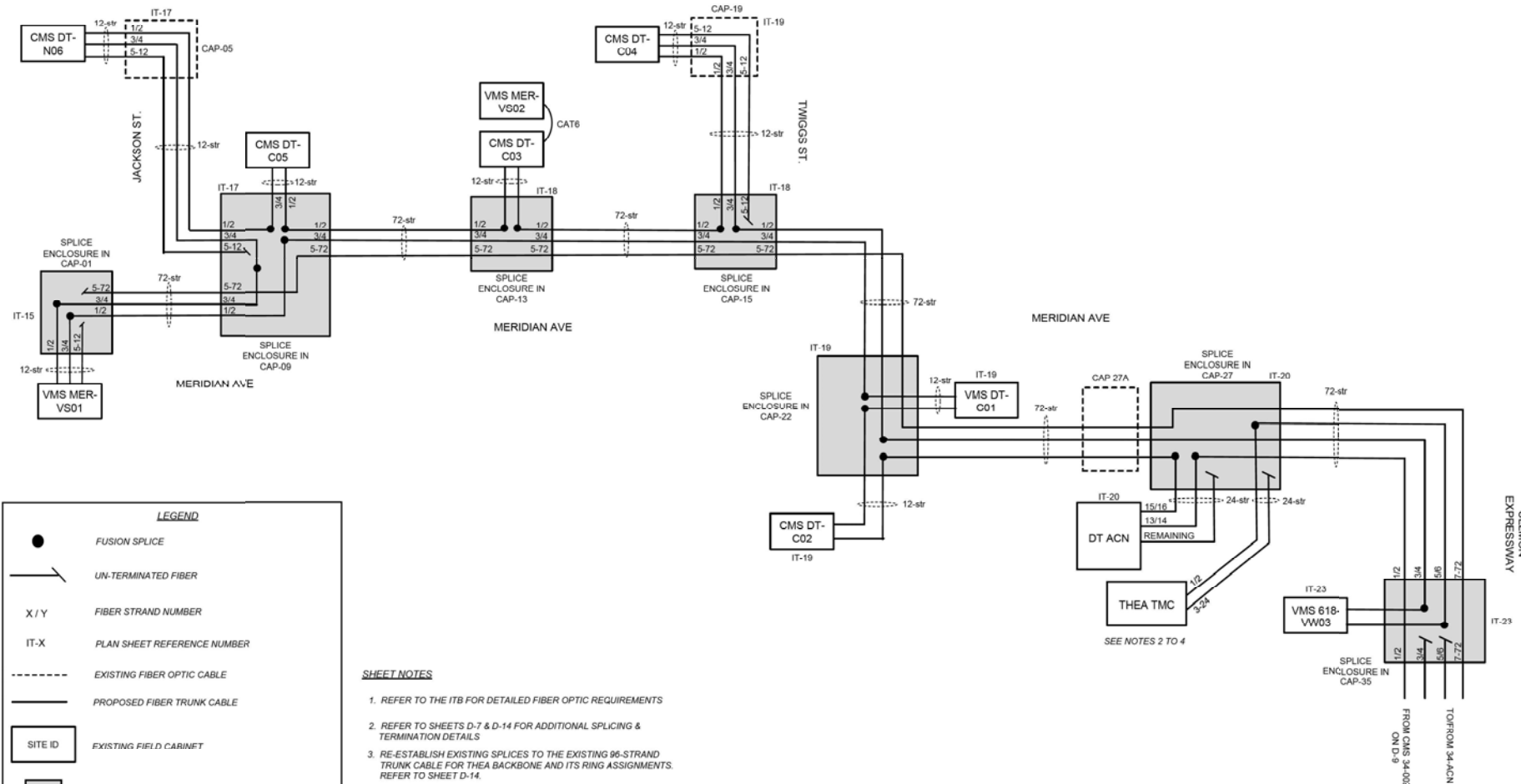
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LEGEND

- FUSION SPlice
- UN-TERMINATED FIBER
- X / Y FIBER STRAND NUMBER
- IT-X PLAN SHEET REFERENCE NUMBER
- - - - - EXISTING FIBER OPTIC CABLE
- — — — — PROPOSED FIBER TRUNK CABLE
- SITE ID
- EXISTING FIELD CABINET
- SPLICE ENCLOSURE INSIDE SPLICE BOX
- EXISTING PULL BOX

- SHEET NOTES**
1. REFER TO THE ITB FOR DETAILED FIBER OPTIC REQUIREMENTS
 2. REFER TO SHEETS D-7 & D-14 FOR ADDITIONAL SPLICING & TERMINATION DETAILS
 3. RE-ESTABLISH EXISTING SPLICES TO THE EXISTING 96-STRAND TRUNK CABLE FOR THEA BACKBONE AND ITS RING ASSIGNMENTS. REFER TO SHEET D-14.
 4. COORDINATE WITH THEA TO PROVIDE A 24-PORT FIBER PATCH PANEL IN THE THEA BUILDING FOR TERMINATING THE 24-STRAND CABLE.
 5. EXISTING 96-STRAND THEA BACKBONE CABLE NOT SHOWN FOR SIMPLICITY

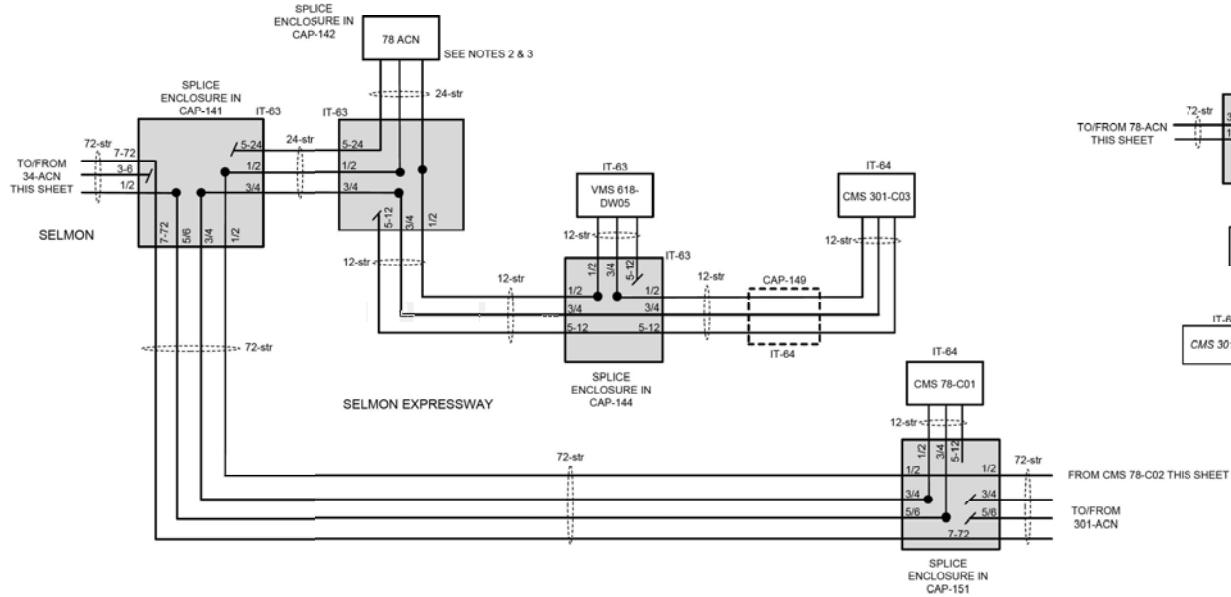
DMS RING 1 FIBER SPLICE DETAILS
NOT TO SCALE

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			FIBER DISTRIBUTION SPLICING DETAILS (1 OF 5)	SHEET NO. D-11
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						S.R. 618	HILLSBOROUGH			

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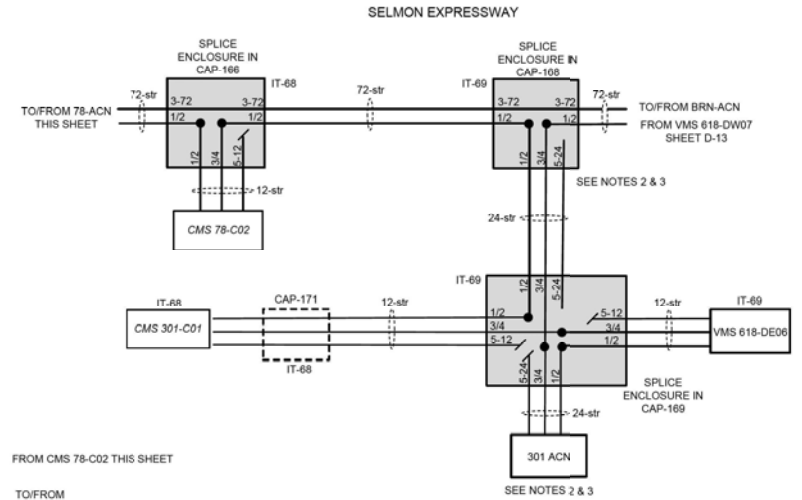
DMS RING 3 FIBER SPLICE DETAILS

NOT TO SCALE



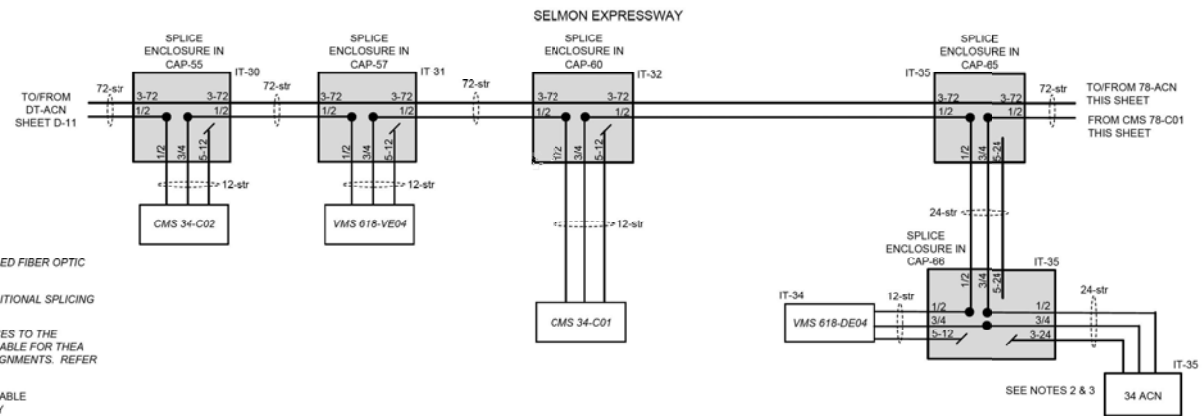
DMS RING 4 FIBER SPLICE DETAILS

NOT TO SCALE



DMS RING 2 FIBER SPLICE DETAILS

NOT TO SCALE



LEGEND

- FUSION SPLICE
- UN-TERMINATED FIBER
- X / Y FIBER STRAND NUMBER
- IT-X PLAN SHEET REFERENCE NUMBER
- - - - - EXISTING FIBER OPTIC CABLE
- PROPOSED FIBER TRUNK CABLE
- SITE ID EXISTING FIELD CABINET
- SPLICE ENCLOSURE INSIDE SPLICE BOX
- EXISTING PULL BOX

SHEET NOTES

1. REFER TO THE ITB FOR DETAILED FIBER OPTIC REQUIREMENTS
2. REFER TO SHEET D-7 FOR ADDITIONAL SPLICING & TERMINATION DETAILS
3. RE-ESTABLISH EXISTING SPLICES TO THE EXISTING 96-STRAND TRUNK CABLE FOR THEA BACKBONE AND ITS RING ASSIGNMENTS. REFER TO SHEET D-14.
4. EXISTING 96-STRAND TRUNK CABLE IS NOT SHOWN FOR SIMPLICITY

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			FIBER DISTRIBUTION SPLICING DETAILS (2 OF 5)	SHEET NO. D-12
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH					

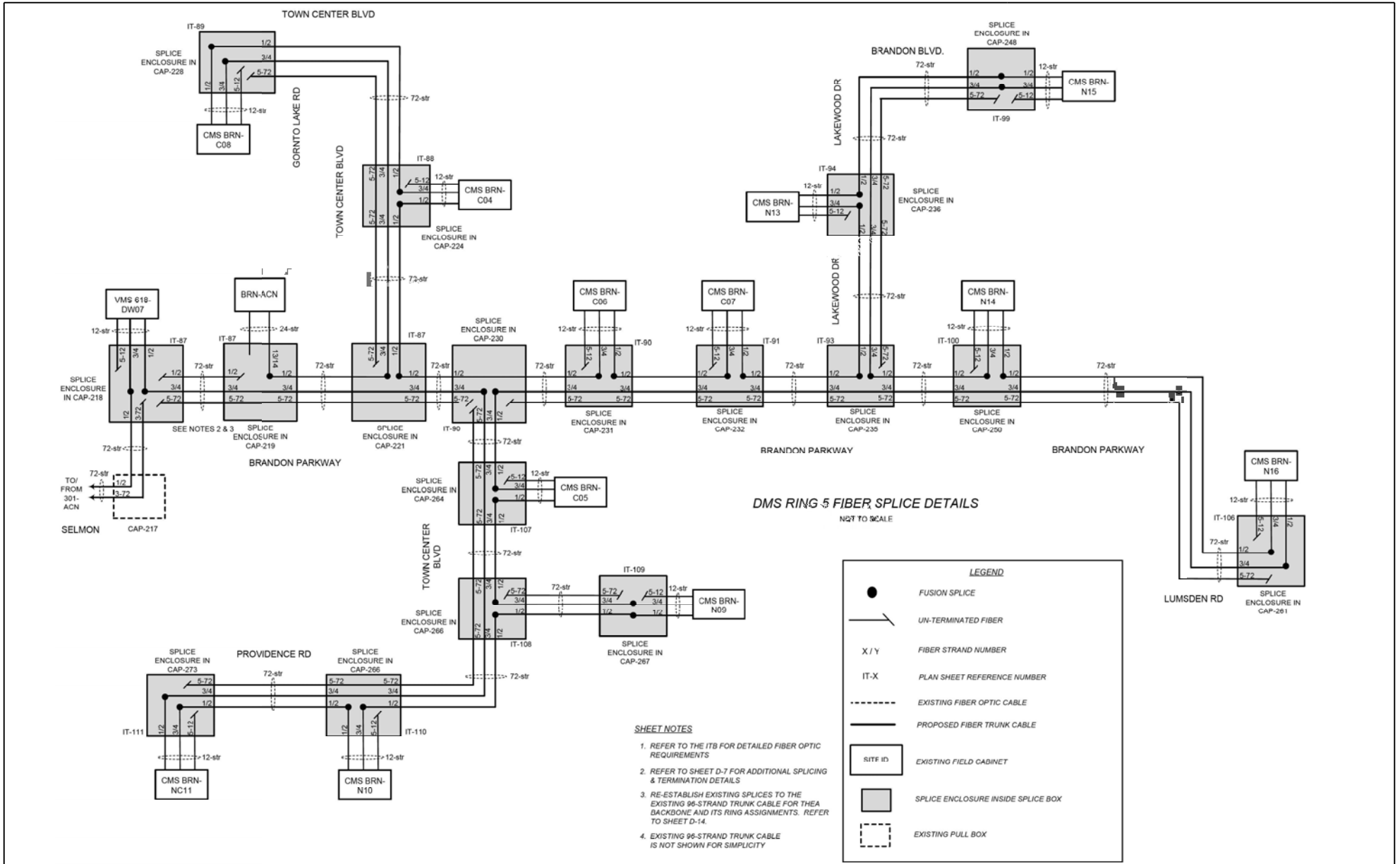
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DMS RING 5 FIBER SPLICE DETAILS

LEGEND

- FUSION SPLICE
- UN-TERMINATED FIBER
- FIBER STRAND NUMBER
- PLAN SHEET REFERENCE NUMBER
- EXISTING FIBER OPTIC CABLE
- PROPOSED FIBER TRUNK CABLE
- EXISTING FIELD CABINET
- SPLICE ENCLOSURE INSIDE SPLICE BOX
- EXISTING PULL BOX

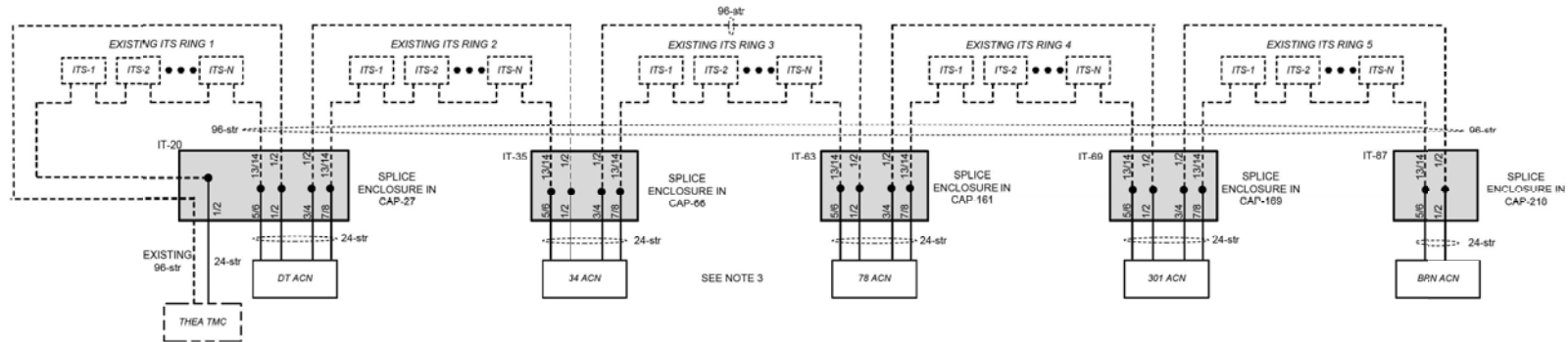
- SHEET NOTES**
- REFER TO THE ITB FOR DETAILED FIBER OPTIC REQUIREMENTS
 - REFER TO SHEET D-7 FOR ADDITIONAL SPLICING & TERMINATION DETAILS
 - RE-ESTABLISH EXISTING SPLICES TO THE EXISTING 96-STRAND TRUNK CABLE FOR THEA BACKBONE AND ITS RING ASSIGNMENTS. REFER TO SHEET D-14.
 - EXISTING 96-STRAND TRUNK CABLE IS NOT SHOWN FOR SIMPLICITY

REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			FIBER DISTRIBUTION SPLICING DETAILS (3 OF 5)	SHEET NO. D-13
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				S.R. 618	HILLSBOROUGH			

JEFFREY LAWRENCE P.E., PTOE
P.E. LICENSE NUMBER 42883
KCI TECHNOLOGIES, INC
4041 CRESCENT PARK DRIVE
TAMPA, FL 33578

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EXISTING 96-STRAND FIBER BACKBONE / TRUNK CABLE



LEGEND

- FUSION SPLICE
- UN-TERMINATED FIBER
- X / Y FIBER STRAND NUMBER
- IT-X PLAN SHEET REFERENCE NUMBER
- EXISTING FIBER OPTIC CABLE
- PROPOSED FIBER TRUNK CABLE
- SITE ID EXISTING FIELD CABINET
- SPLICE ENCLOSURE INSIDE SPLICE BOX
- EXISTING PULL BOX

EXISTING FIBER UTILIZATION - 96 STR TRUNK CABLE

COLOR	DESCRIPTION	STRANDS	STATUS
BLUE	THEA BACKBONE	1-12	FUTURE
ORANGE	ITS DEVICE SUBNETS	13-24	FUTURE
GREEN	FUTURE	25-36	FUTURE
BROWN	FUTURE	37-48	FUTURE
WHITE	FUTURE	49-60	FUTURE
RED	FUTURE	61-72	FUTURE
BLACK	FUTURE	73-84	FUTURE
BLACK	FUTURE	85-96	FUTURE

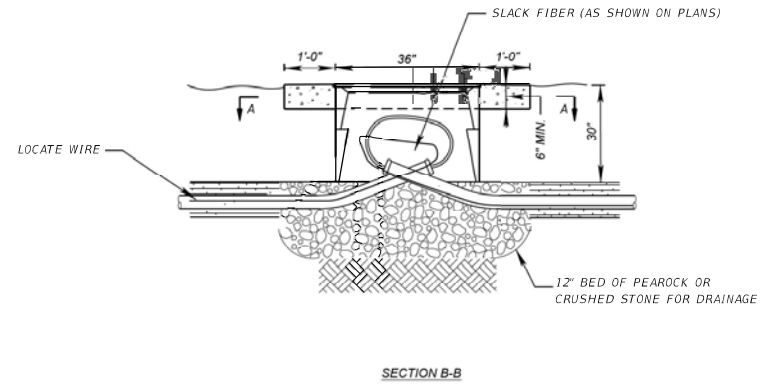
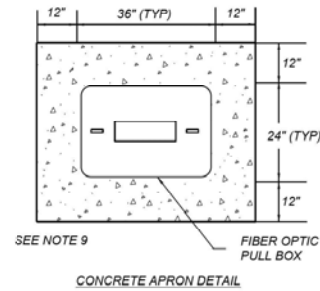
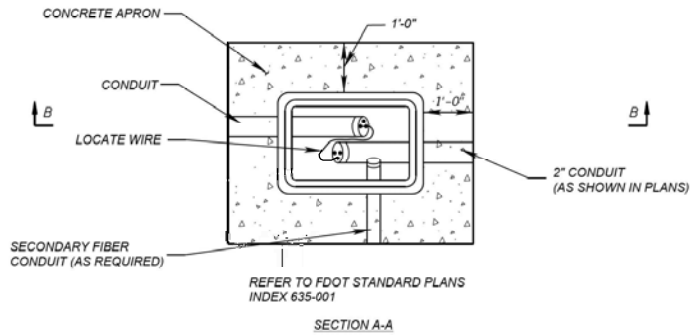
FIBER COLOR STANDARD (PER EIA-598-C)

1 BL BLUE	7 RD RED
2 OR ORANGE	8 BK BLACK
3 GR GREEN	9 YL YELLOW
4 BR BROWN	10 VI VIOLET
5 SL SLATE	11 RS ROSE
6 WH WHITE	12 AQ AQUA

SHEET NOTES

- REFER TO SHEETS D-7 TO D-13 FOR DETAILED FIBER OPTIC REQUIREMENTS
- REFER TO SHEETS D-7 TO D-13 FOR DETAILED 72-STRAND FIBER DISTRIBUTION SPLICING & TERMINATION DETAILS
- RE-ESTABLISH EXISTING SPLICES TO THE EXISTING 96-STRAND TRUNK CABLE FOR THEA BACKBONE AND ITS RING ASSIGNMENTS.

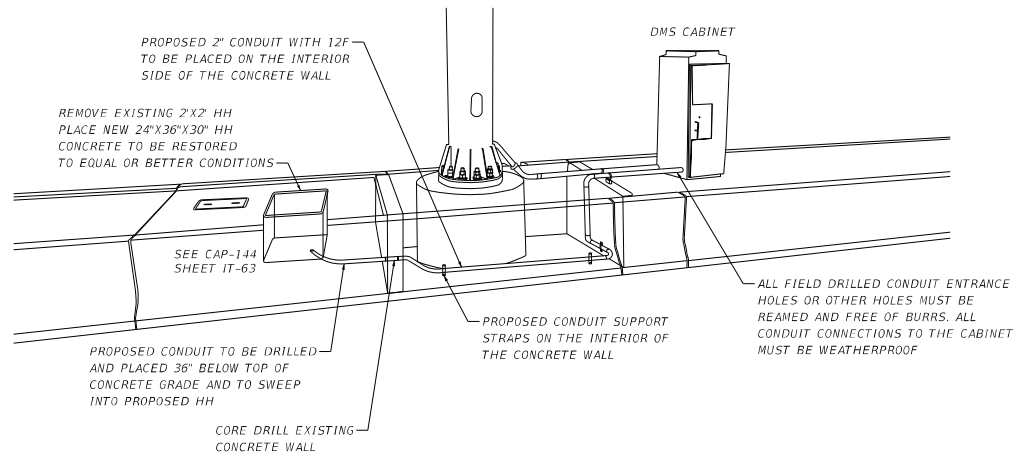
REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
							S.R. 618	HILLSBOROUGH		



PULL BOX SHOWN WITH 2-2\"/>

NOTES:

1. BOXES SHALL BE INSTALLED FLUSH WITH THE FINISHED GRADE SURFACE.
2. FIBER OPTIC SPLICE BOXES SHALL BE PROVIDED WITH CABLE HANGER RACKS DESIGNED TO SUPPORT CABLES AND SPLICE ENCLOSURES.
3. FIBER OPTIC BOXES SHALL CONTAIN ONLY FIBER OPTIC CABLE, CONDUIT AND LOCATE WIRE.
4. ALL BOXES SHALL HAVE A 1'-0" WIDE (MIN.) CONCRETE APRON. CONCRETE FOR CONCRETE APRONS SHALL BE CLASS NS WITH A MINIMUM STRENGTH AT 28 DAYS OF F'C-2.5 KSI. APRONS SHALL BE SLOPED AWAY FROM BOX.
5. PREVENT THE INGRESS OF WATER, DIRT, SAND AND OTHER FOREIGN MATERIALS INTO THE CONDUIT PRIOR, DURING AND AFTER CONSTRUCTION USING A FORM-SEALING MATERIAL, RUBBER PLUG OR OTHER DEVICE DESIGNED FOR THIS APPLICATION AND APPROVED.
6. FIBER OPTIC PULL BOX SHALL NOT CONTAIN ELECTRICAL CONDUIT OR CONDUCTOR.
7. FIBER DROP FIBER PULL BOXES AND SPLICE BOXES SHALL HAVE LIDS LABELED WITH RAISED LETTER OR INFORMATION PERMANENTLY CAST INTO THE LIDS "THEA FIBER OPTICS".
8. CONCRETE SLAB/CONCRETE APRON SHALL BE A MINIMUM 6" THICKNESS. REFER TO FDOT STANDARD PLANS INDEX 635-001.
9. CONDUIT ENTERING A PULL BOX SHALL NOT EXCEED 45 DEGREE ENTRY ANGLE OR PER MANUFACTURER RECOMMENDATIONS.
10. PULL BOXES INSTALLED IN SIDEWALKS SHALL COMPLY WITH ADA STANDARDS.



SITE VMS 618-DW05 PULL BOX REPLACEMENT DETAILS

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA			TYPICAL FIBER OPTIC PULL BOX DETAILS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		DEPARTMENT OF TRANSPORTATION				
				JEFFREY LAWRENCE P.E., PTOE P.E. LICENSE NUMBER 42883 KCI TECHNOLOGIES, INC 4041 CRESCENT PARK DRIVE TAMPA, FL 33578	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		D-15
					S.R. 618	HILLSBOROUGH			

encconnell

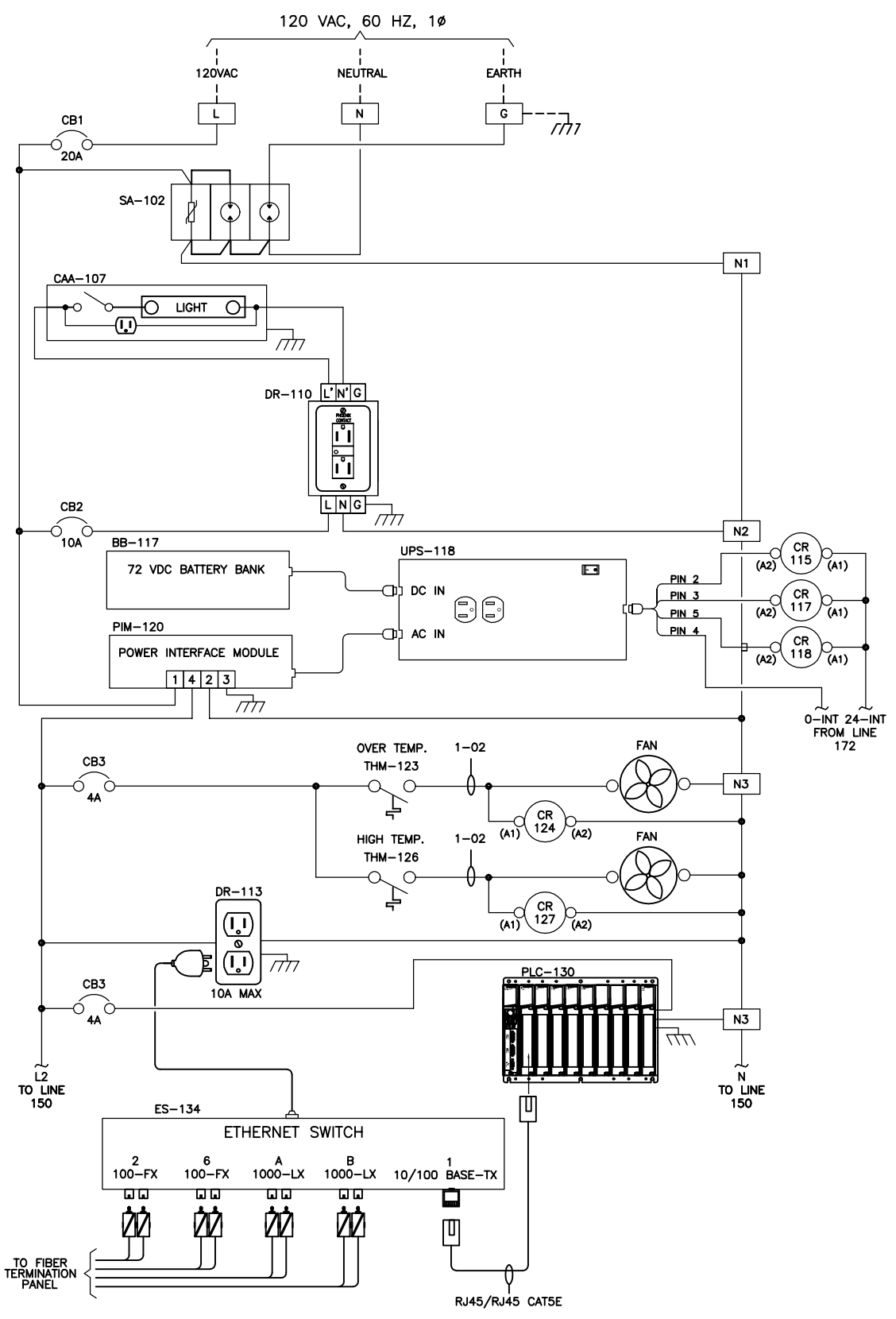
1/11/2024

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100
110
120
130
140



POWER DISTRIBUTION

PRIMARY TVSS SURGE PROTECTOR

CONVENIENCE ASSEMBLY

UPS

UTILITY FAIL

INVERTER ACTIVE

BATTERY LOW

OVER TEMP.

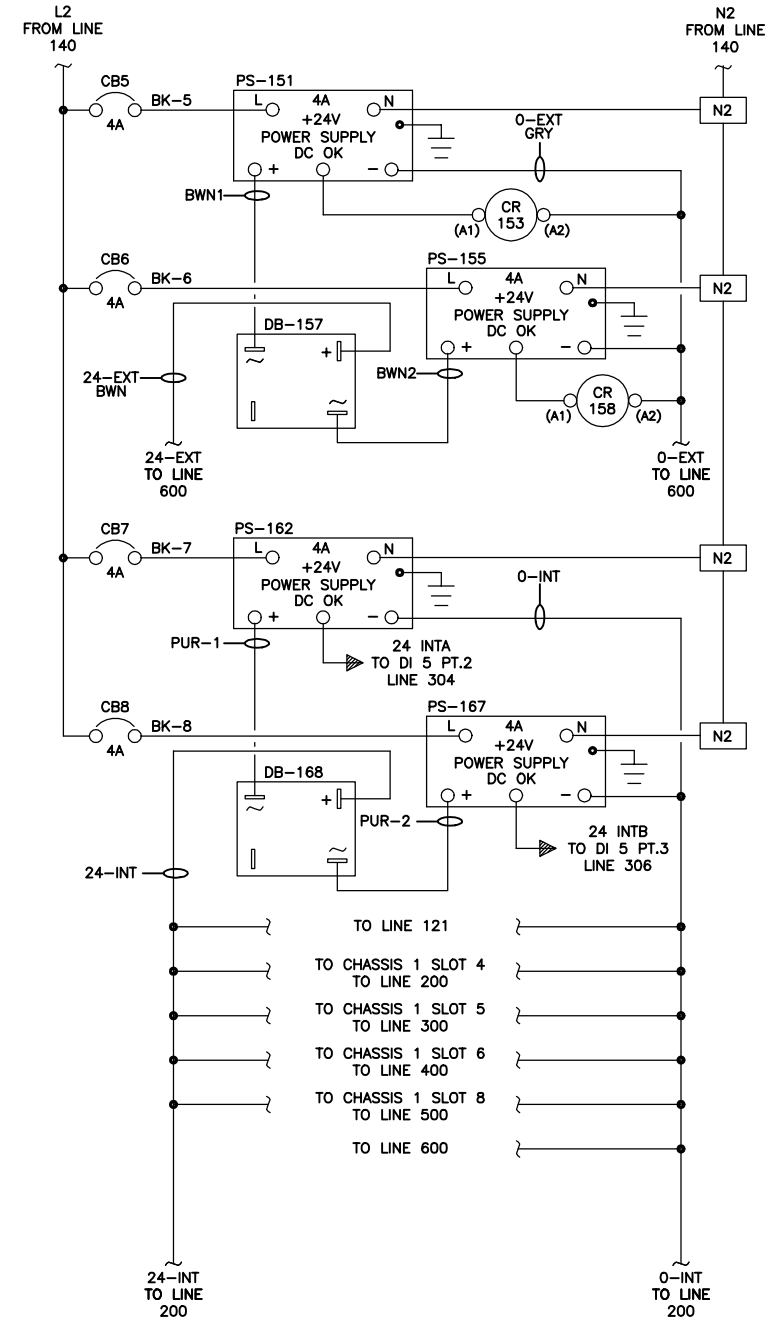
HIGH TEMP.

DUPLEX RECEPTACLE FOR ETHERNET SWITCH

PLC

ETHERNET SWITCH

150
160
170
180
190



WIRING SPECIFICATIONS:

AC WIRING

POWER
HOT-12AWG MTW BLACK
NEUTRAL-12AWG MTW WHITE
GROUND-12AWG MTW GREEN

CONTROL
IN PANEL-16AWG MTW RED

INTERNAL DC WIRING

POWER
24-INT (+)-18AWG MTW PURPLE
0-INT (-)-18AWG MTW ORANGE

CONTROL
18AWG MTW BLUE

EXTERNAL DC WIRING

POWER
24-EXT (+)-18AWG MTW BROWN
0-EXT (-)-18AWG MTW GRAY

CONTROL
18AWG MTW YELLOW

24VDC DISTRIBUTION EXTERNAL

24VDC DISTRIBUTION INTERNAL

NOTE:

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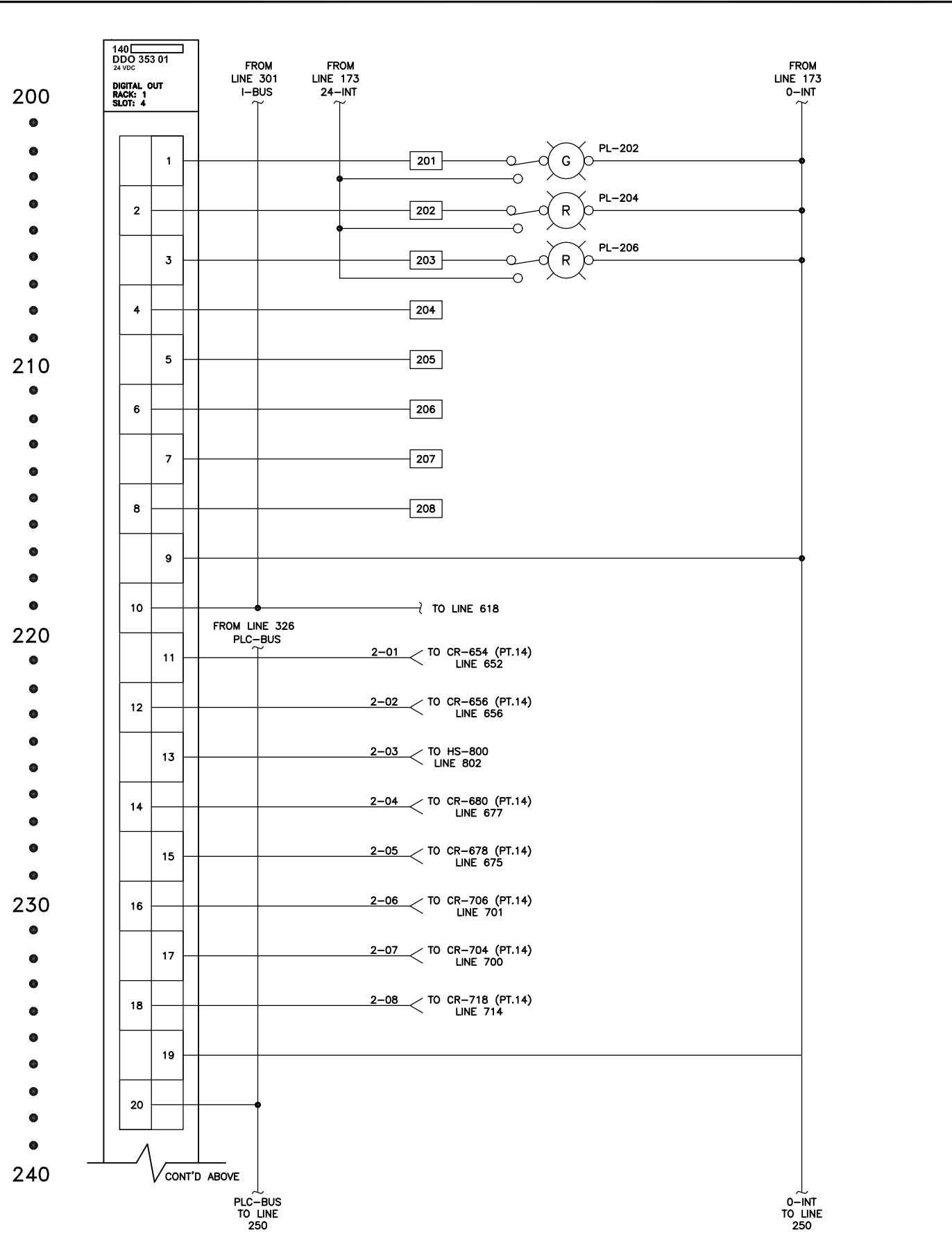
DESIGNED BY	C.MRAZ						
DRAWN BY	M.ORTH						
CHECKED BY	C.MRAZ						
DATE: 04-06-05	UPDATE: 05-12-05	REV. A	4-22-05	ISSUED FOR APPROVAL	MO	CM	6
				DESCRIPTION	BY	APP.	



ACCESS CONTROL NODE
GENERIC
WIRING DIAGRAM

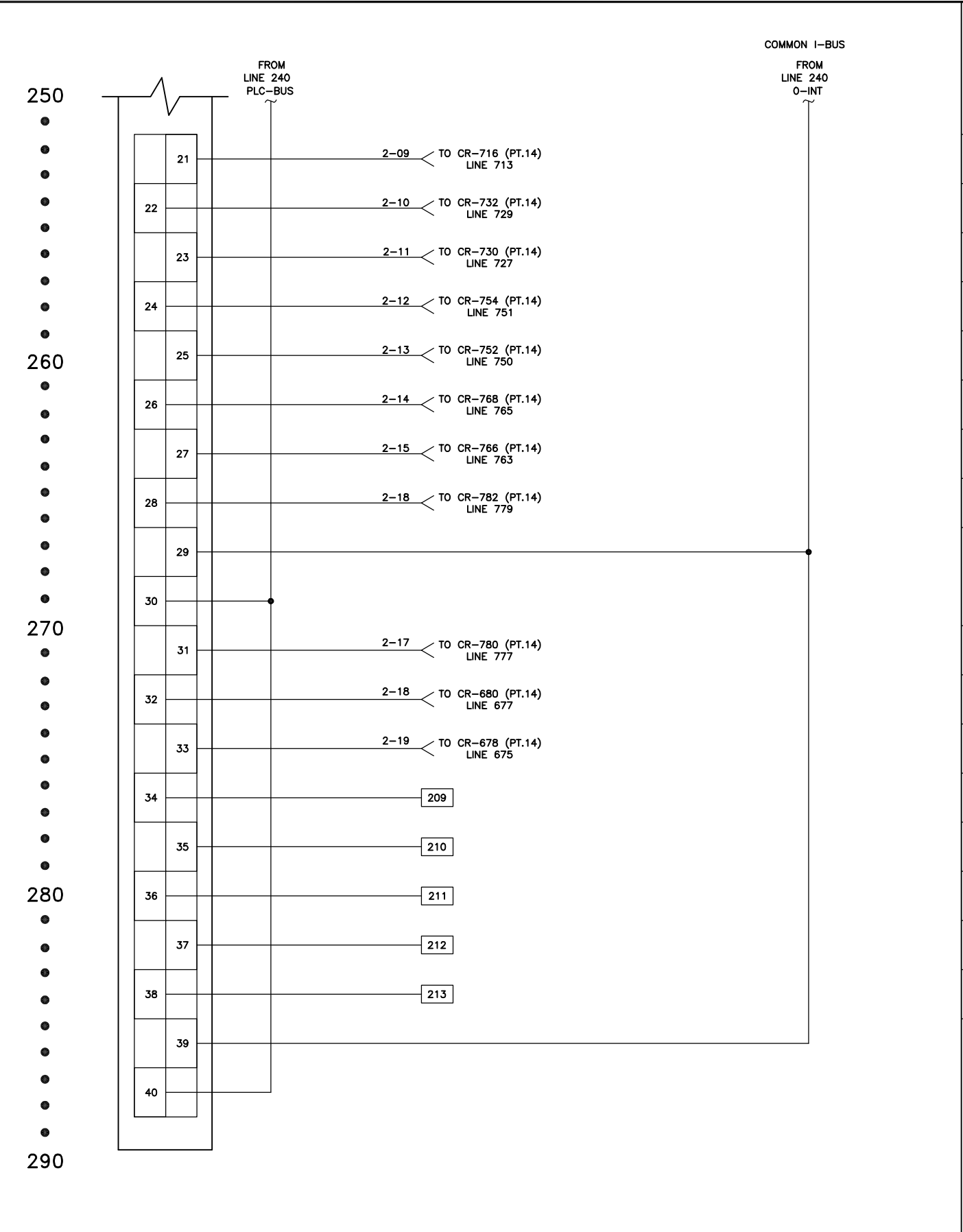
TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY
REVERSIBLE EXPRESS LANE ITS

SCALE: NONE	JOB NO. 3042
CAD FILE NO. 3042-2004-01	SHT. OF 1 9
DRAWING NO. 3042-2004-01	REV. A



DIGITAL INPUTS

OPEN-SAFE/HEARTBEAT INDICATOR
ACTIVE/FAILED INDICATOR
COM. FAIL INDICATOR
SPARE 1 I-BUS
SPARE 2 I-BUS
SPARE 3 I-BUS
SPARE 4 I-BUS
SPARE 5 I-BUS
SIGNAL PERMIT COMMAND
SIGNAL RECALL COMMAND
CMS OPEN COMMAND
GATE 1 OPEN COMMAND
GATE 1 CLOSE COMMAND
GATE 2 OPEN COMMAND
GATE 2 CLOSE COMMAND
GATE 3 OPEN COMMAND



GATE 3 CLOSE COMMAND
GATE 4 OPEN COMMAND
GATE 4 CLOSE COMMAND
GATE 5 OPEN COMMAND
GATE 5 CLOSE COMMAND
GATE 6 OPEN COMMAND
GATE 6 CLOSE COMMAND
GATE 7 OPEN COMMAND
GATE 7 CLOSE COMMAND
NET RAISE COMMAND
NET LOWER COMMAND
SPARE 1 PLC-BUS
SPARE 2 PLC-BUS
SPARE 3 PLC-BUS
SPARE 4 PLC-BUS
SPARE 5 PLC-BUS

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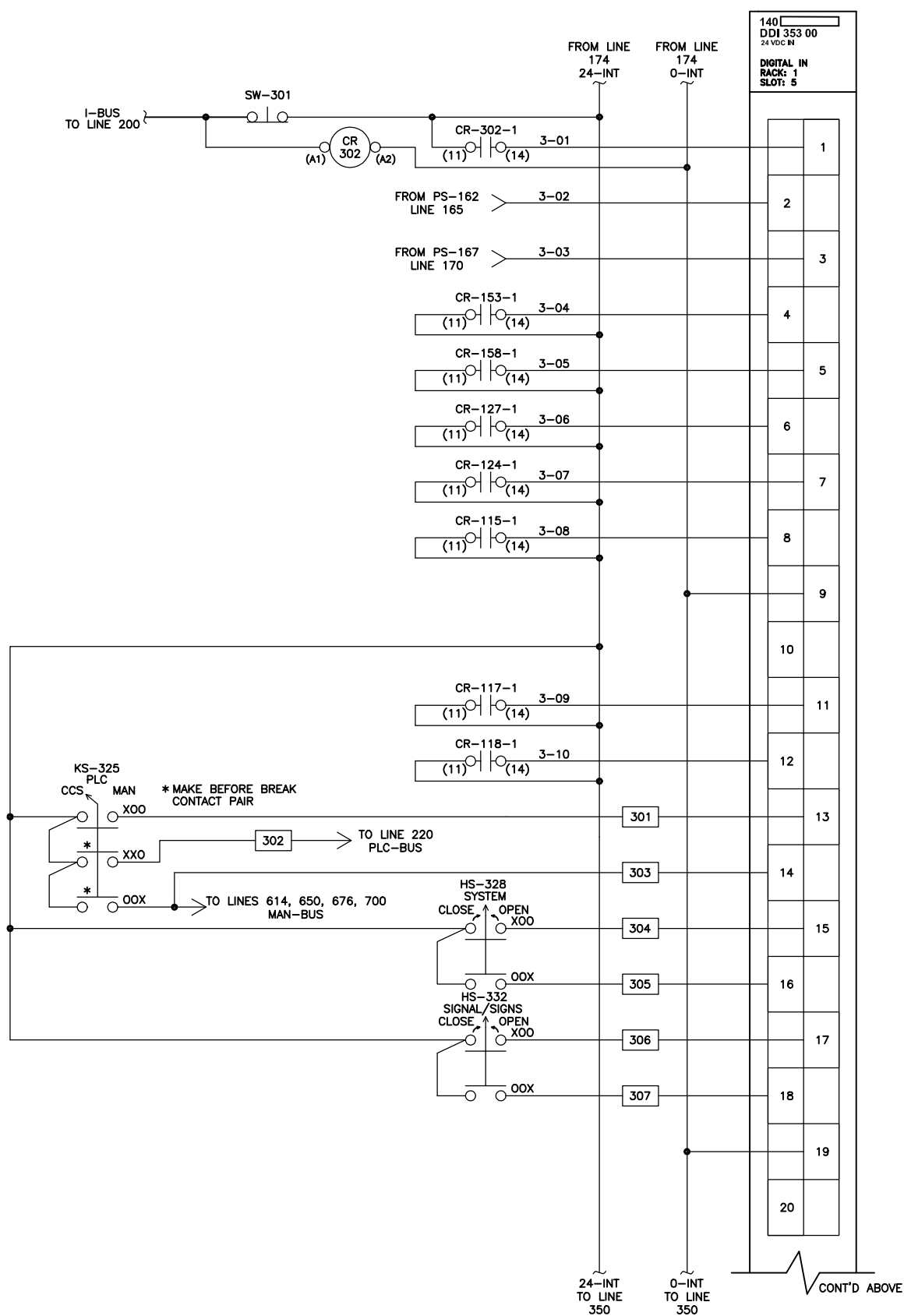
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CHECKED BY	C.MRAZ				
DATE: 05-03-05	UPDATE: 05-12-05	REV. A	4-22-05	ISSUED FOR APPROVAL	MO CM
		REV. DATE		DESCRIPTION	BY APP.



ACCESS CONTROL NODE
 GENERIC
 WIRING DIAGRAM
 TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY
 REVERSIBLE EXPRESS LANE ITS

SCALE: NONE	JOB NO. 3042
CAD FILE NO. 3042-2004-02	SHT. OF 2 9
DRAWING NO. 3042-2004-02	REV. A

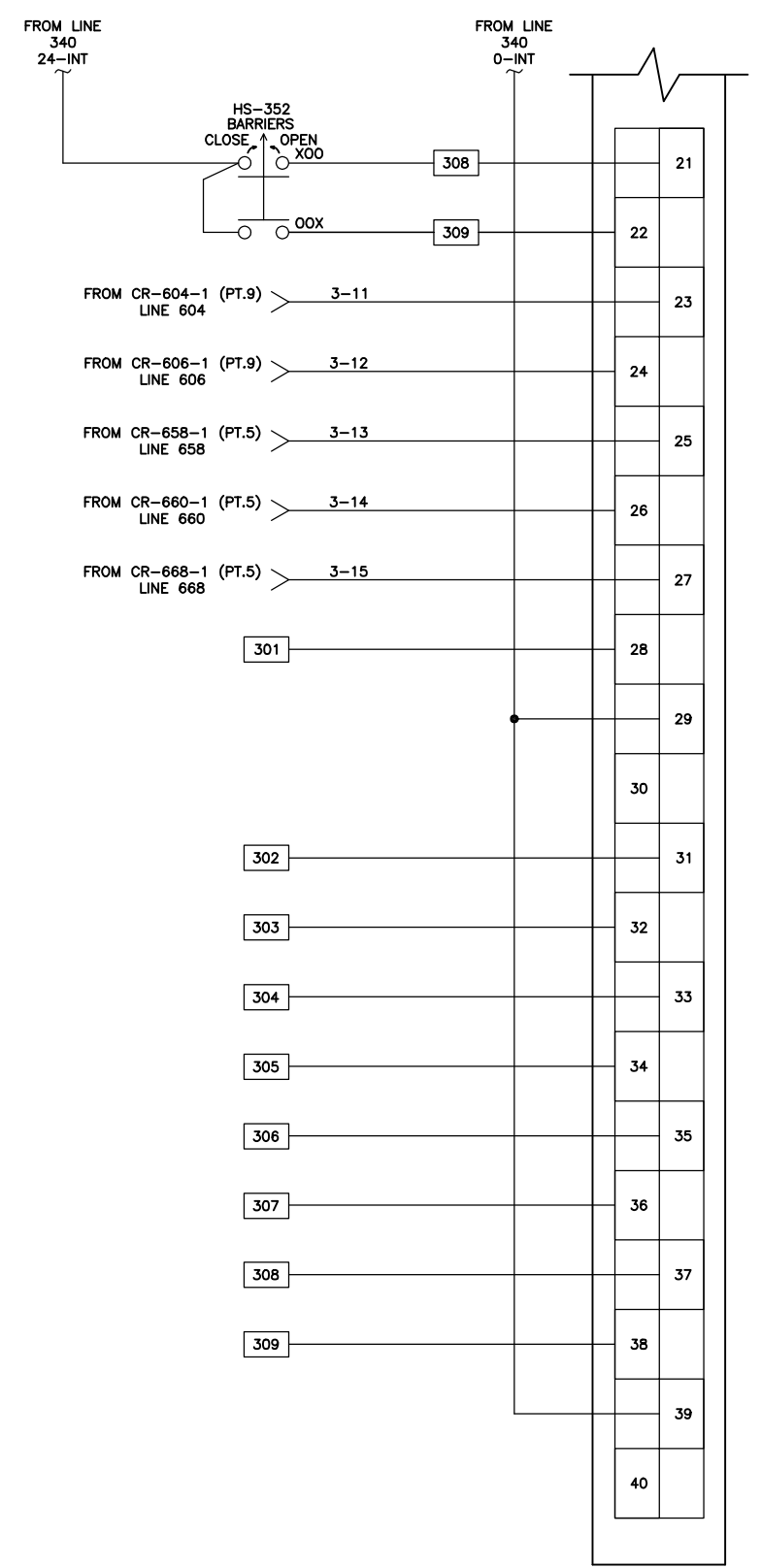
300
310
320
330
340



DIGITAL INPUTS

- 1 DOOR OPEN
- 2 24 INT A
- 3 24 INT B
- 4 24 EXT A
- 5 24 EXT B
- 6 HIGH TEMPERATURE
- 7 OVER TEMPERATURE
- 8 UPS UTILITY FAIL
- 9
- 10
- 11 UPS INVERTER ACTIVE
- 12 UPS BATTERY LOW
- 13 CCS SWITCH
- 14 MAN SWITCH
- 15 SYSTEM OPEN SWITCH
- 16 SYSTEM CLOSE SWITCH
- 17 SIGNAL/SIGNS OPEN SWITCH
- 18 SIGNAL/SIGNS CLOSE SWITCH
- 19
- 20

350
360
370
380
390



- 21 BARRIERS OPEN SWITCH
- 22 BARRIERS CLOSE SWITCH
- 23 GENERATOR ON
- 24 GENERATOR ALARM
- 25 SIGNAL OMIT
- 26 SIGNAL PHASE ON
- 27 SIGNAL RRPE
- 28 SPARE 1
- 29
- 30
- 31 SPARE 2
- 32 SPARE 3
- 33 SPARE 4
- 34 SPARE 5
- 35 SPARE 6
- 36 SPARE 7
- 37 SPARE 8
- 38 SPARE 9
- 39
- 40

NOTE:

DESIGNED BY C.MRAZ
DRAWN BY M.ORTH
CHECKED BY C.MRAZ
DATE: 04-06-05 UPDATE: 05-12-05

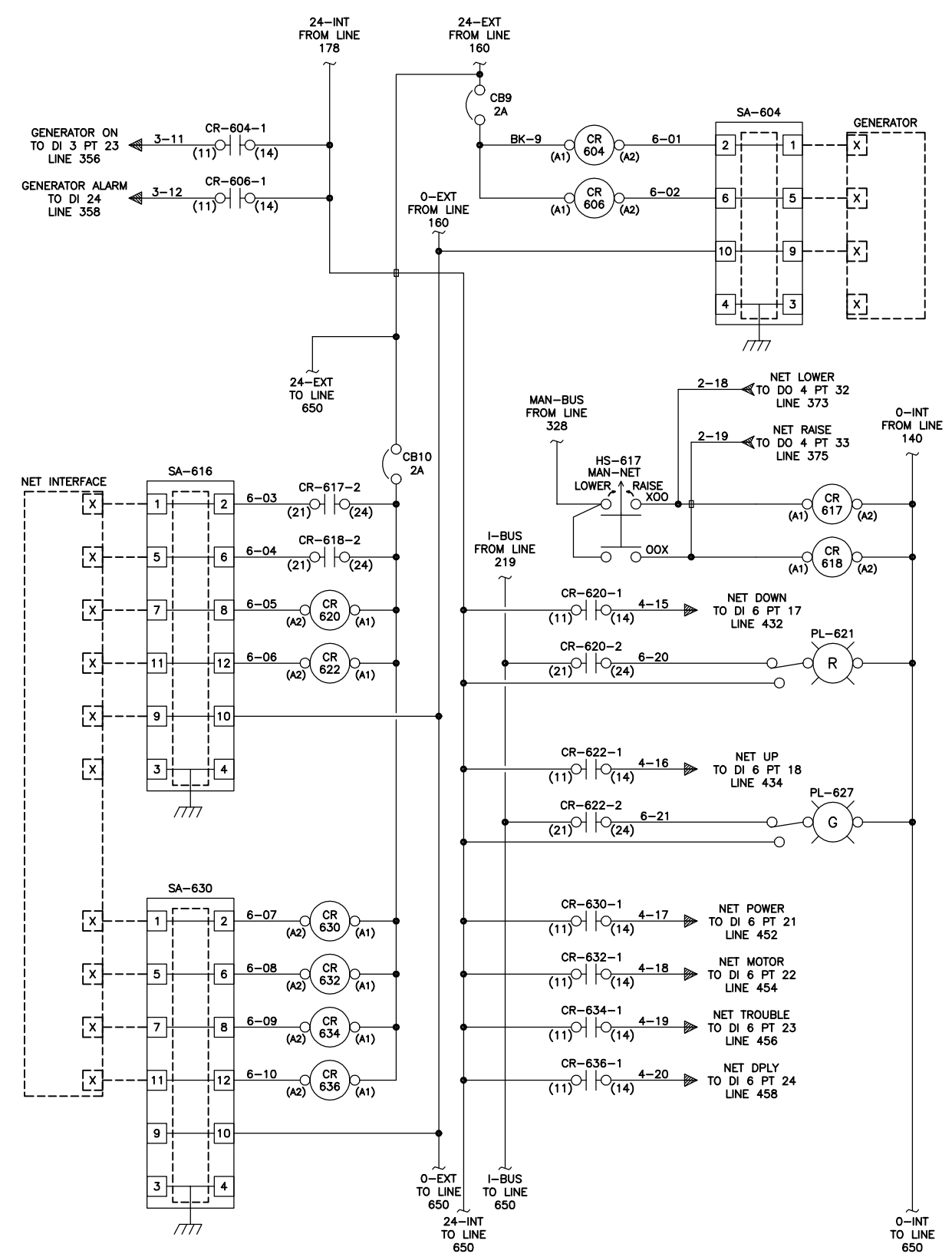
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A	4-22-05	ISSUED FOR APPROVAL	MO	CM



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GENERIC
WIRING DIAGRAM
TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY
REVERSIBLE EXPRESS LANE ITS

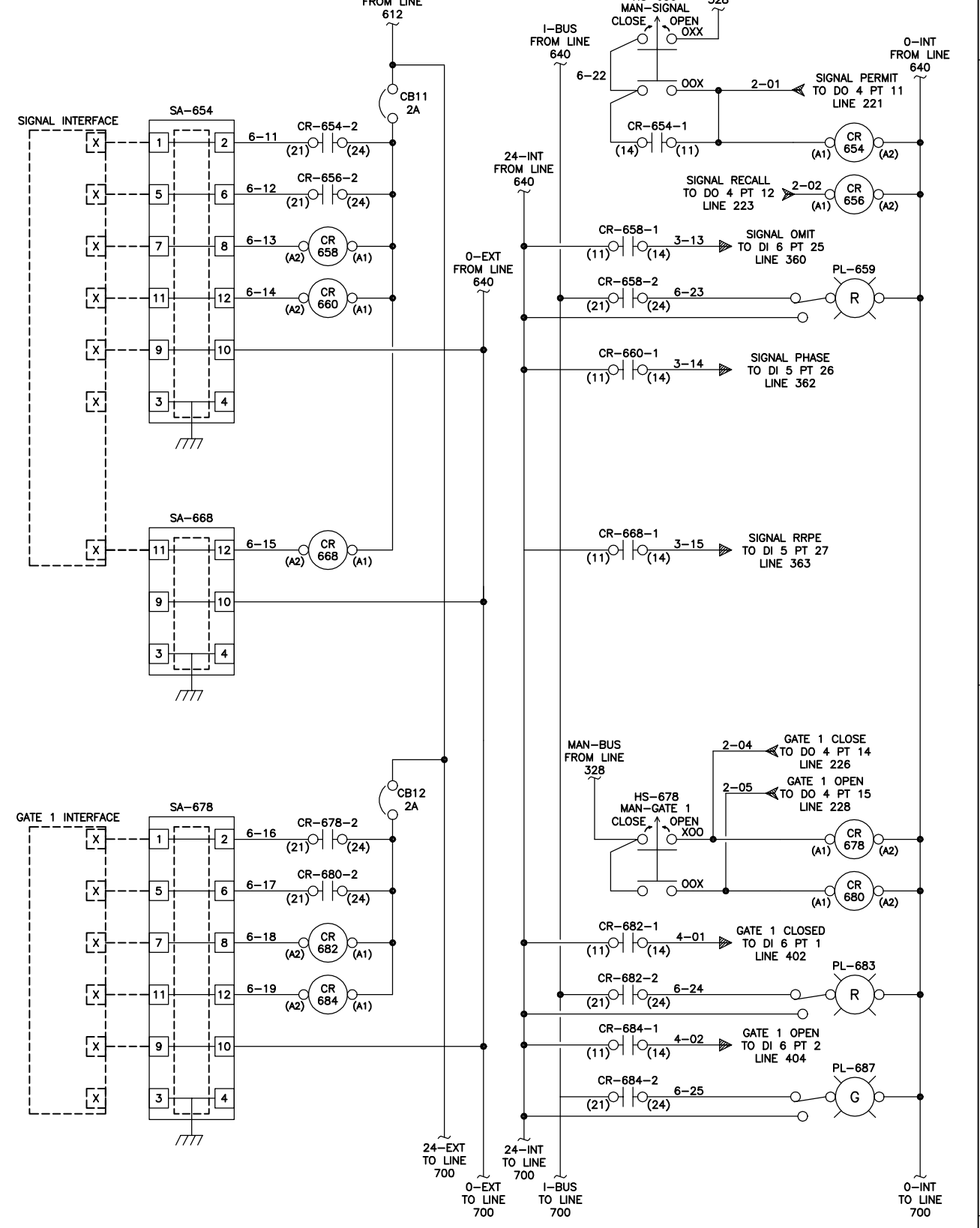
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CAD FILE NO. 3042-2004-03	SHT. OF 3 9
DRAWING NO. 3042-2004-03	REV. A

600
610
620
630
640



GENERATOR
GENERATOR ON
GENERATOR ALARM
NET INTERFACE
NET LOWER
NET RAISE
NET DOWN
NET UP
NET POWER
NET MOTOR
NET TROUBLE
NET DPLY

650
660
670
680
690



SIGNAL INTERFACE
SIGNAL PERMIT
SIGNAL RECALL
SIGNAL OMIT
SIGNAL PHASE
SIGNAL RRPE
GATE 1 INTERFACE
CLOSE COMMAND
OPEN COMMAND
GATE 1 CLOSED
GATE 1 OPEN

NOTE:

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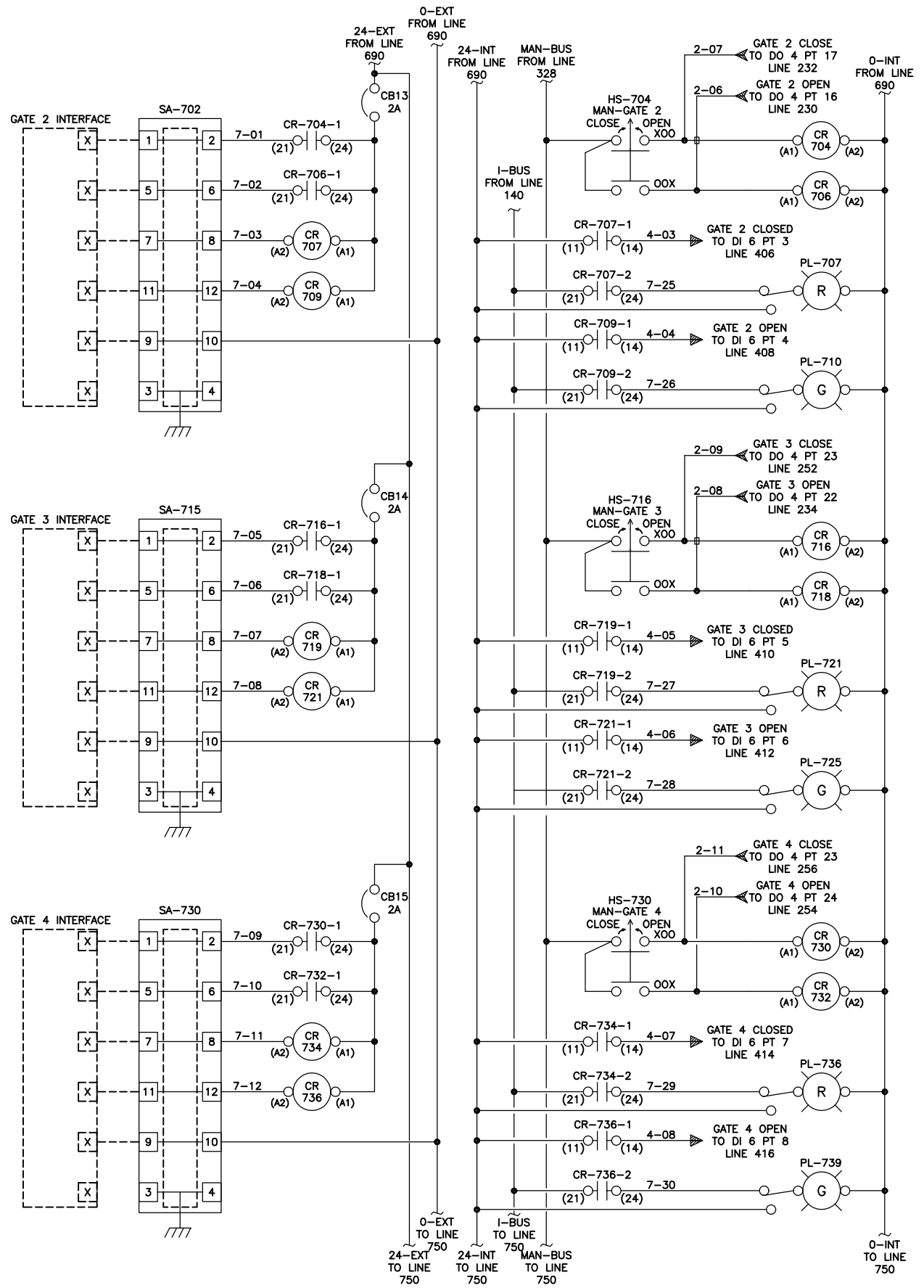
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DATE			DESCRIPTION	BY	APP.



ACCESS CONTROL NODE
GENERIC
WIRING DIAGRAM
TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY
REVERSIBLE EXPRESS LANE ITS

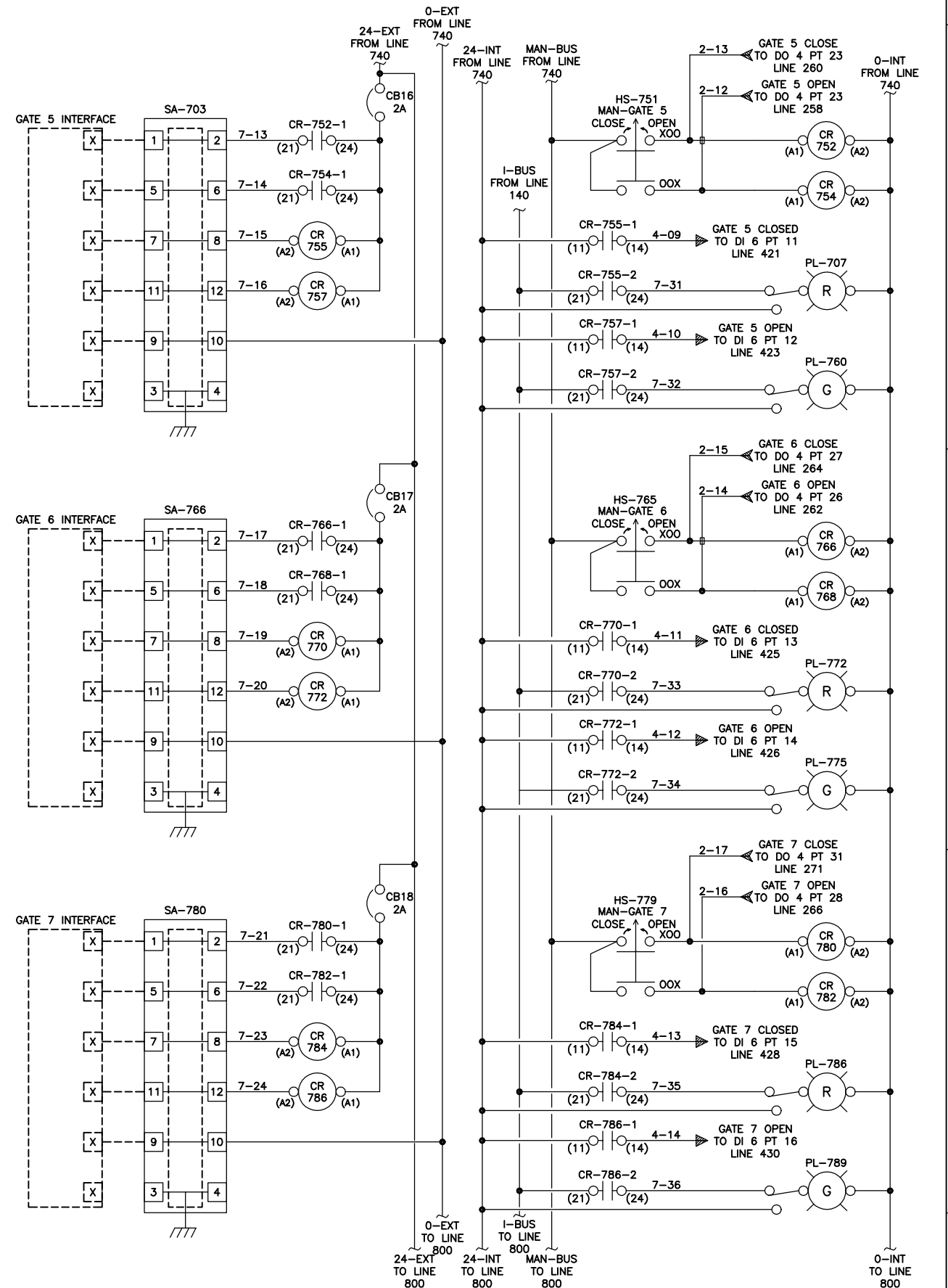
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CAD FILE NO.	3042-2004-06	SHT. OF	6 9
DRAWING NO.	3042-2004-06	REV.	A

700
710
720
730
740



GATE 2 INTERFACE
CLOSE COMMAND
OPEN COMMAND
GATE 2 CLOSED
GATE 2 OPEN
GATE 3 INTERFACE
CLOSE COMMAND
OPEN COMMAND
GATE 3 CLOSED
GATE 3 OPEN
GATE 4 INTERFACE
CLOSE COMMAND
OPEN COMMAND
GATE 4 CLOSED
GATE 4 OPEN

750
760
770
780
790



GATE 5 INTERFACE
CLOSE COMMAND
OPEN COMMAND
GATE 2 CLOSED
GATE 2 OPEN
GATE 6 INTERFACE
CLOSE COMMAND
OPEN COMMAND
GATE 3 CLOSED
GATE 3 OPEN
GATE 7 INTERFACE
CLOSE COMMAND
OPEN COMMAND
GATE 4 CLOSED
GATE 4 OPEN

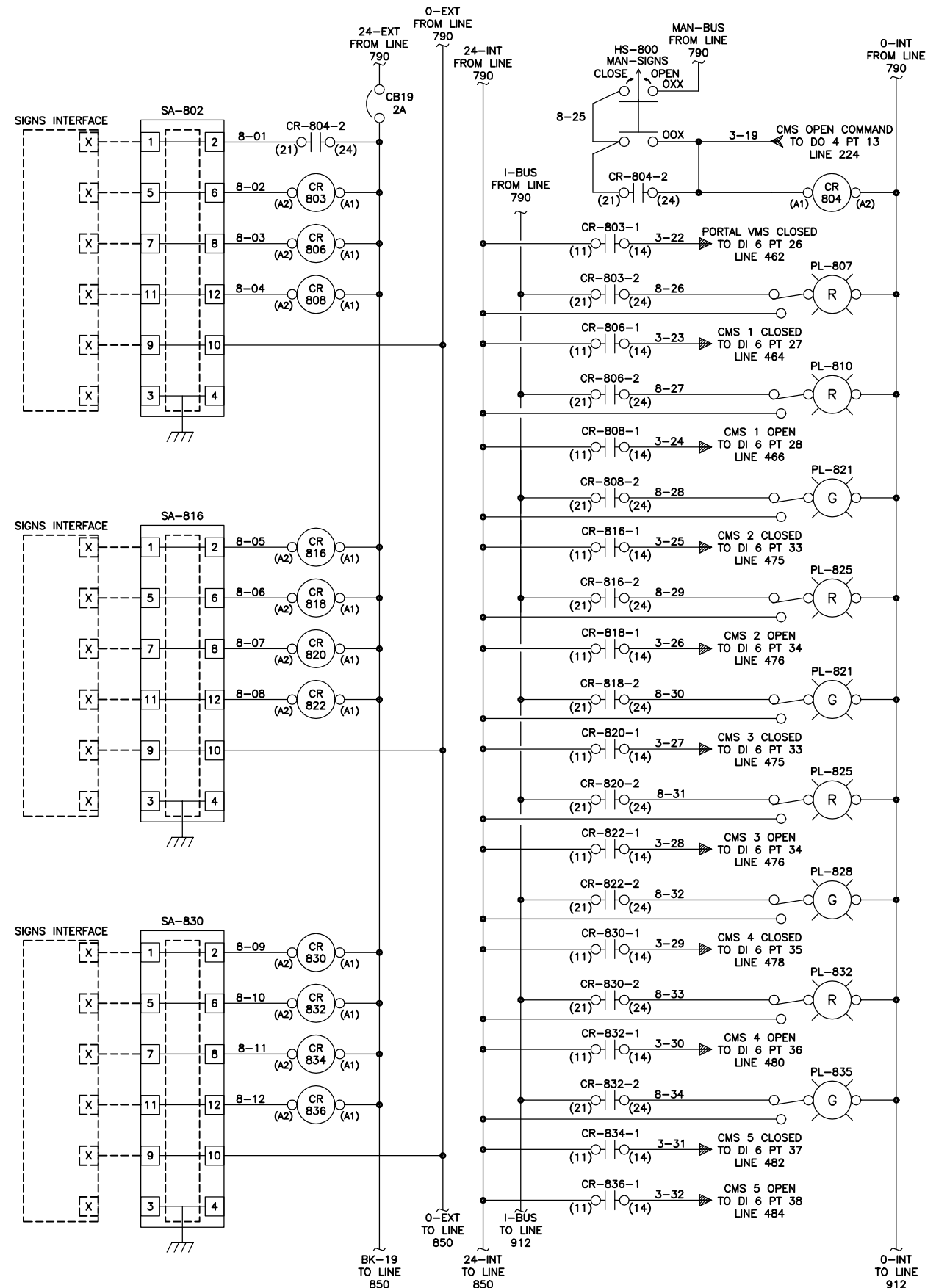
NOTE:
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DATE: 04-06-05 UPDATE: 05-12-05

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A	4-22-05	ISSUED FOR APPROVAL		
			BY	APP.



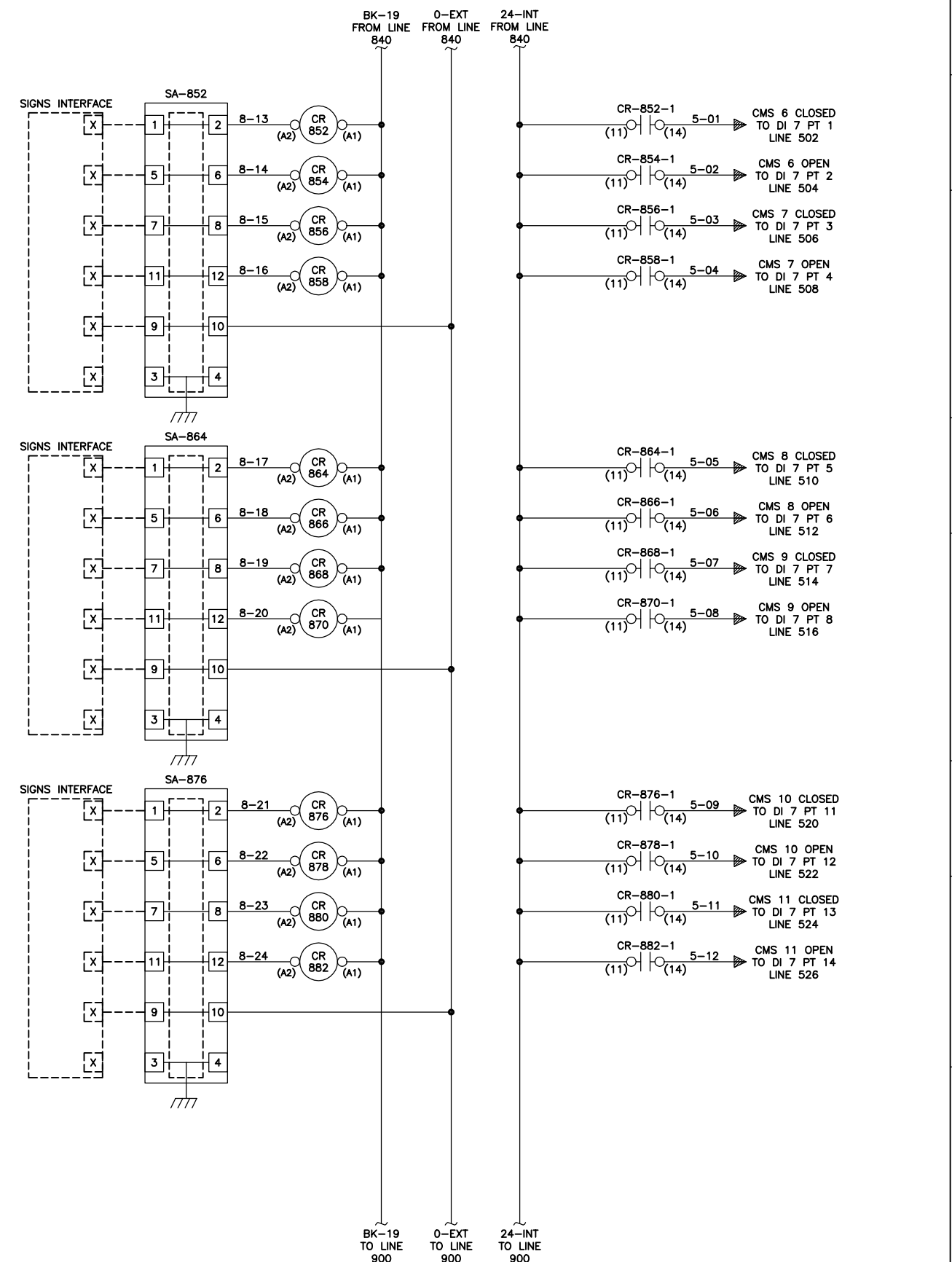
ACCESS CONTROL NODE GENERIC WIRING DIAGRAM		SCALE: NONE	JOB NO. 3042
TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY REVERSIBLE EXPRESS LANE ITS		CAD FILE NO. 3042-2004-07	SHT. OF 7 9
		DRAWING NO. 3042-2004-07	REV. A

800
810
820
830
840



CMS OPEN COMMAND
PORTAL VMS CLOSED
CMS 1 CMS 1 CLOSED
CMS 1 OPEN
CMS 2
CMS 2 CLOSED
CMS 2 OPEN
CMS 3 CMS 3 CLOSED
CMS 3 OPEN
CMS 4
CMS 4 CLOSED
CMS 4 OPEN
CMS 5 CMS 5 CLOSED
CMS 5 OPEN

850
860
870
880
890



CMS 6
CMS 6 CLOSED
CMS 6 OPEN
CMS 7 CMS 7 CLOSED
CMS 7 OPEN
CMS 8
CMS 8 CLOSED
CMS 8 OPEN
CMS 9 CMS 9 CLOSED
CMS 9 OPEN
CMS 10
CMS 10 CLOSED
CMS 10 OPEN
CMS 11 CMS 11 CLOSED
CMS 11 OPEN

NOTE:
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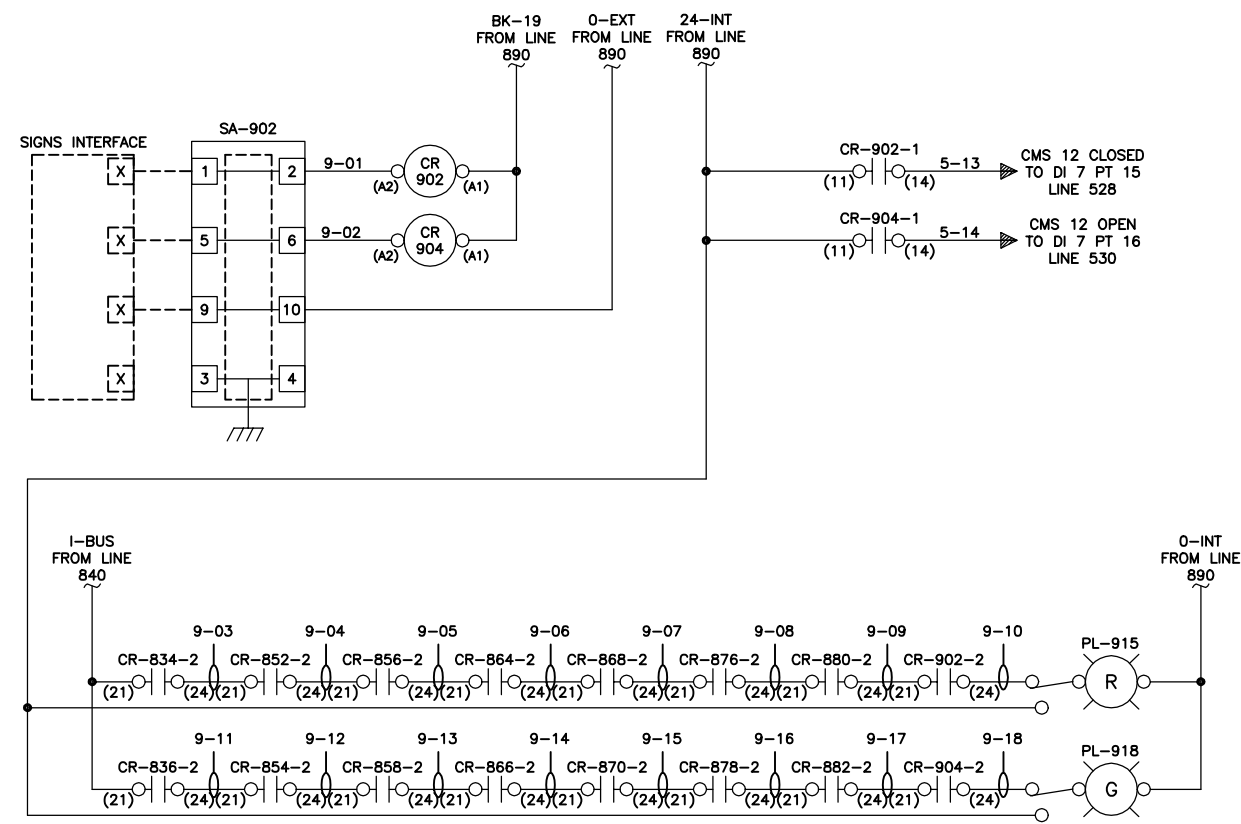
REV.	DATE	DESCRIPTION	BY	APP.
A	4-22-05	ISSUED FOR APPROVAL	MO	CM



ACCESS CONTROL NODE
 GENERIC
 WIRING DIAGRAM
 TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY
 REVERSIBLE EXPRESS LANE ITS

SCALE: NONE	JOB NO. 3042
CAD FILE NO. 3042-2004-08	SHT. OF 8 9
DRAWING NO. 3042-2004-08	REV. A

900
910
920
930
940



CMS 12

CMS 12 CLOSED

CMS 12 OPEN

NON-CRITICAL CMS'S ALL CLOSED

NON-CRITICAL CMS'S ALL OPEN

950
960
970
980
990

NOTE:

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DATE: 04-06-05	UPDATE: 05-12-05	A	4-22-05	ISSUED FOR APPROVAL	MO	CM	
		REV.	DATE	DESCRIPTION	BY	APP.	



ACCESS CONTROL NODE
GENERIC
WIRING DIAGRAM

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY
REVERSIBLE EXPRESS LANE ITS

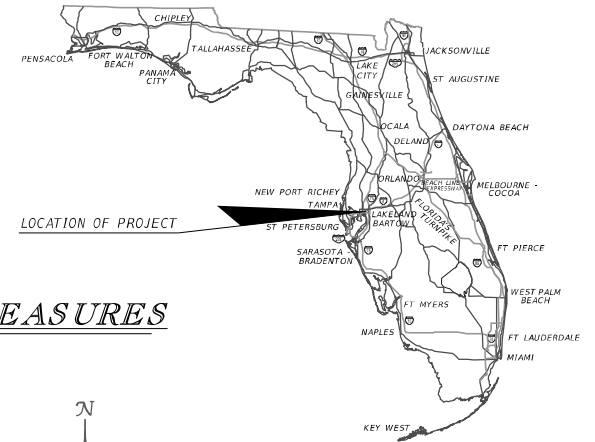
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CAD FILE NO.	3042-2004-09	SHT. OF	9 9
DRAWING NO.	3042-2004-09	REV.	A

CONTRACT PLANS COMPONENTS
INTELLIGENT TRANSPORTATION SYSTEM PLANS

**TAMPA-HILLSBOROUGH
EXPRESSWAY AUTHORITY**

CONTRACT PLANS

CONSTRUCTION PROJECT NO. HI-0172
HILLSBOROUGH COUNTY
LEE ROY SELMON CROSSTOWN EXPRESSWAY
STATE ROAD NO. 618



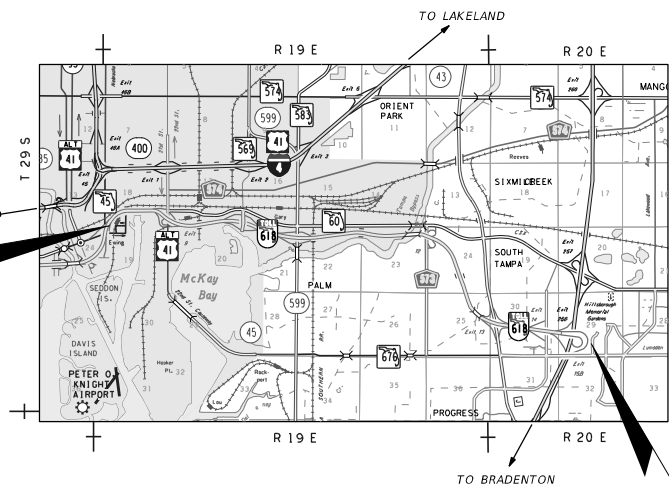
EAST SELMON WRONG WAY DRIVING COUNTERMEASURES

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

INDEX OF ITS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-01	KEY SHEET
IT-02	SIGNATURE SHEET
IT-03 TO IT-05	TABULATION OF QUANTITIES
IT-06	GENERAL NOTES
IT-07 TO IT-08	PROJECT LAYOUT
IT-09 TO IT-33	ITS PLANS
IT-34	DIRECTIONAL BORE DETAIL
IT-35	FIBER OPTIC SPLICE BOX DETAIL
IT-36	ELECTRICAL PULL BOX DETAIL
IT-37	FIBER PULL BOX DETAIL
IT-38	ITS CABINET DETAILS
IT-39 TO IT-43	WWDS INSTALLATION DETAILS
IT-44	WWDS NETWORK DIAGRAM
IT-45	EROSION CONTROL DETAILS
IT-46	BRIDGE STRUCTURE MOUNTING DETAILS
IT-47	ROUTE MARKER
IT-48 TO IT-54	ELECTRICAL SERVICE DETAILS
IT-55 TO IT-56	SPICING DIAGRAMS
IT-57	IN PAVEMENT FLASHER DETAIL
IT-58 TO IT-59	WWDS WIRING DIAGRAM
IT-60 TO IT-69	ITS TRAFFIC CONTROL PLANS

BEGIN PROJECT
SR 618 AT N MERIDIAN AVE
STA. 606+00



END PROJECT
SR 618 AT TOWN CENTER BLVD
STA. 1078+10

INTELLIGENT TRANSPORTATION
SYSTEMS PLANS
ENGINEER OF RECORD:

PLANS PREPARED BY:
ERIK SPILLMANN, P.E. NO. 58771
BCC ENGINEERING, LLC.
160 N. WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714
VENDOR NO.: 65-0540100

THEA PROJECT MANAGER:
JUDITH VILLEGAS, E.I.

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY 2023-24 Standard Plans for Road and Bridge Construction, and applicable Interim Revisions (IRs)

Standard Plans for Road Construction and associated IRs are available at the following website:
<http://www.fdot.gov/design/standardplans>

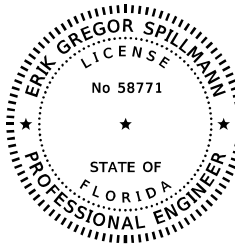
GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, July 2023 Standard Specifications for Road and Bridge Construction at the following website:
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

SHEET
NO.

IT-01

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Erik Spillmann Date:
2024.01.05
15:10:52 -05'00'

ON THE DATE ADJACENT TO THE SEAL

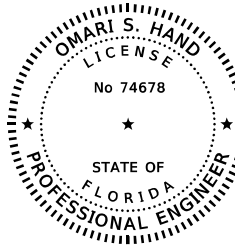
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160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FL 32714
CERTIFICATION OF AUTHORIZATION No. 7184
ERIK G. SPILLMANN, P.E. No. 58771

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

ITS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-01	KEY SHEET
IT-02	SIGNATURE SHEET
IT-03 TO IT-05	TABULATION OF QUANTITIES
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IT-375	FIBER PULL BOX DETAIL
IT-38	ITS CABINET DETAILS
IT-39 TO IT-43	WWDS INSTALLATION DETAILS
IT-44	WWDS NETWORK DIAGRAM
IT-45	EROSION CONTROL DETAILS
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IT-47	ROUTE MARKER
IT-48 TO IT-54	ELECTRICAL SERVICE DETAILS
IT-55 TO IT-56	SPLICING DIAGRAMS
IT-57	IN PAVEMENT FLASHER DETAIL
IT-58 TO IT-59	WWDS WIRING DIAGRAM



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Omari S Hand
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4905 WEST LAUREL STREET, SUITE 301
TAMPA, FL 33607
CERTIFICATION OF AUTHORIZATION No. 7184
OMARI S. HAND, P.E. No. 74678

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ITS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-02	SIGNATURE SHEET
IT-60 TO IT-69	ITS TRAFFIC CONTROL PLANS

DATE	DESCRIPTION	DATE	DESCRIPTION	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SIGNATURE SHEET	SHEET NO.
				ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	SR 618	HILLSBOROUGH	HI-0172		IT-02

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL					
			IT-09		IT-10		IT-11		IT-12		IT-13		IT-14		IT-15		IT-16		IT-17		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
101-1	MOBILIZATION	LS																						
102-1	MAINTENANCE OF TRAFFIC	LS																						
102-60	WORK ZONE SIGN	ED																						
102-74-1	CHANNELIZING DEVICE- TYPES I, II, DI, VP, DRUM, OR LCD	ED																						
102-99	PORTABLE CHANGEABLE MESSAGE SIGN, TEMPORARY	ED																						
102-115	TYPE III BARRICADE	ED																						
104-10-3	SEDIMENT BARRIER	LF				600									270							870		
611-1-1	ITSFM SUBSURFACE DOCUMENTATION- PROJECT LENGTH	MI																						
611-2-2	ITSFMLOCATION DOCUMENTATION- ITS SITE	EA	1			2							1		1								5	
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF		175		2105		80		80		685		655		30		50					3860	
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF		198		170		116		112		352		80		50		71					1149	
630-2-14	CONDUIT, FURNISH & INSTALL, ABOVEGROUND	LF		75				15		15								15					60	
630-2-15	CONDUIT, FURNISH & INSTALL, BRIDGE MOUNT	LF				50						50											100	
633-1-121	FIBER OPTIC CABLE, F&I, UG, 12 FIBERS	LF		165		3099		410		70		1622		350				70					5786	
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA		24		6		12		12		12						12					78	
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA																						
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE TRAY	EA		2		1		1		1		1						1					7	
633-3-13	FIBER OPTIC CONNECTION HARDWARE, F&I, PRETERMINATED CONNECTOR ASSEMBLY	EA		2		1		1		1		1						1					6	
633-3-16	FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL- FIELD TERMINATED	EA		2		1		1		1		1						1					6	
633-3-51	FIBER OPTIC CONNECTION HARDWARE, ADJUST/MODIFY SPLICE ENCLOSURE	EA				1																	1	
633-6	FIBER OPTIC CABLE LOCATOR	DA																						
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, FURNISH & INSTALL	LF		560				120		120								120					920	
635-2-11	PULL & SPLICE BOX, F&I, 13" X 24" COVER SIZE	EA		4		4		5		5		2				2		3					25	
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA		1		5		3		1		3						1					14	
635-3-11	JUNCTION BOX, FURNISH & INSTALL, AERIAL	EA										2											2	
635-3-13	JUNCTION BOX, FURNISH & INSTALL, EMBEDDED	EA		1																			1	
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS				1																	1	
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF		653		3475		316		312		1787		1505		80		247					8369	
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																						
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA		1				1		1													4	
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-11 SERVICE POLE	EA		1		1		1		1													5	
654-1-10	MIDBLOCK CROSSWALK: IN ROADWAY LIGHT ASSEMBLY, FURNISH & INSTALL- AC POWERED, COMPLETE CROSSING	AS		2		4		2		2													10	
660-7-21	VEHICLE DETECTION SYSTEM- WRONG WAY FOR EXIT RAMP, 1 OR 2 LANES, AC POWERED	EA		1		1		1		1													4	
676-2-143	ITS CABINET, FURNISH & INSTALL, BASE MOUNT, 334, 24" W X 66" H X 30" D	EA		1		1		1		1													4	
676-2-500	ITS CABINET- ADJUST/MODIFY	EA		1		1						1											2	
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL	EA		1				1		1													4	
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE	EA		1				1		1													4	
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS		3								5		5									17	
700-1-21	SINGLE POST SIGN, F&I BARRIER MOUNT INDEX 11871/700-013 UP TO 12 SF	AS		1																			1	
700-1-60	SINGLE POST SIGN, REMOVE	AS		1								2		2									8	
700-3-101	SIGN PANEL, FURNISH & INSTALL GROUND MOUNT, UP TO 12 SF	EA																						
700-6-11	HIGHLIGHTED SIGN, F&I GROUND MOUNT- AC POWERED, UP TO 12 SF	AS			2			4		4						2		2					14	
700-6-60	HIGHLIGHTED SIGN, REMOVE	AS				3		1															6	
700-13-12	RETROREFLECTIVE SIGN STRIP- FURNISH AND INSTALL, 2'	EA		3		2		4		4		5		5		2		2					31	
706-1-3	RAISED PAVEMENT MARKER	EA				17						51											68	
711-11-241	THERMOPLASTIC, STANDARD, YELLOW, 2-4 DOTTED GUIDE LINE /6-10 DOTTED EXTENSION LINE, 6"	GM		1																			1	
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW	EA				1						3											4	
711-17-1	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS- SURFACE TO REMAIN	EA																						
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA										1											1	

REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO. IT-03
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

TABULATION OF QUANTITIES

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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																TOTAL THIS SHEET		GRAND TOTAL			
			IT-18		IT-19		IT-20		IT-21		IT-22		IT-23		IT-24		IT-25		IT-26		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
101-1	MOBILIZATION	LS																						
102-1	MAINTENANCE OF TRAFFIC	LS																						
102-60	WORK ZONE SIGN	ED																						
102-74-1	CHANNELIZING DEVICE- TYPES I, II, DI, VP, DRUM, OR LCD	ED																						
102-99	PORTABLE CHANGEABLE MESSAGE SIGN, TEMPORARY	ED																						
102-115	TYPE III BARRICADE	ED																						
104-10-3	SEDIMENT BARRIER	LF																						
611-1-1	ITSFM SUBSURFACE DOCUMENTATION- PROJECT LENGTH	MI																						
611-2-2	ITSFMLOCATION DOCUMENTATION- ITS SITE	EA			1												1					2		
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	80		1285		80		780		40		20		70		20		555		2930			
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	103		150		116		80										296		745			
630-2-14	CONDUIT, FURNISH & INSTALL, ABOVEGROUND	LF	15				15															30		
630-2-15	CONDUIT, FURNISH & INSTALL, BRIDGE MOUNT	LF																						
633-1-121	FIBER OPTIC CABLE, F&I, UG, 12 FIBERS	LF	120		965		215		1000										529		2829			
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA	12				12		4												28			
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA	1				1		1												1			
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE TRAY	EA	1				1		1												3			
633-3-13	FIBER OPTIC CONNECTION HARDWARE, F&I, PRETERMINATED CONNECTOR ASSEMBLY	EA	1				1		1												2			
633-3-16	FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL- FIELD TERMINATED	EA	1				1		1												2			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, ADJUST/MODIFY SPLICE ENCLOSURE	EA																						
633-6	FIBER OPTIC CABLE LOCATOR	DA																						
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, FURNISH & INSTALL	LF	120				120															240		
635-2-11	PULL & SPLICE BOX, F&I, 13" X 24" COVER SIZE	EA	6		2		6												1		15			
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	2		2		3		1										1		9			
635-3-11	JUNCTION BOX, FURNISH & INSTALL, AERIAL	EA																						
635-3-13	JUNCTION BOX, FURNISH & INSTALL, EMBEDDED	EA																						
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS			1																	1		
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	303		1970		316		10		50		20		115		25		1595		4404			
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																						
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	1				1															2		
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-11 SERVICE POLE	EA	1		1																	3		
654-1-10	MIDBLOCK CROSSWALK: IN ROADWAY LIGHT ASSEMBLY, FURNISH & INSTALL- AC POWERED, COMPLETE CROSSING	AS	2				2		1		4		2		5		2					18		
660-7-21	VEHICLE DETECTION SYSTEM- WRONG WAY FOR EXIT RAMP, 1 OR 2 LANES, AC POWERED	EA	1				1															2		
676-2-143	ITS CABINET, FURNISH & INSTALL, BASE MOUNT, 334, 24" W X 66" H X 30" D	EA	1				1															2		
676-2-500	ITS CABINET- ADJUST/MODIFY	EA																						
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL	EA	1				1															2		
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE	EA	1				1															2		
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS			4															3		7		
700-1-21	SINGLE POST SIGN, F&I BARRIER MOUNT INDEX 11871/700-013 UP TO 12 SF	AS																						
700-1-60	SINGLE POST SIGN, REMOVE	AS			2																	2		
700-3-101	SIGN PANEL, FURNISH & INSTALL GROUND MOUNT, UP TO 12 SF	EA			4																	4		
700-6-11	HIGHLIGHTED SIGN, F&I GROUND MOUNT- AC POWERED, UP TO 12 SF	AS	4				4															8		
700-6-60	HIGHLIGHTED SIGN, REMOVE	AS					2														2	6		
700-13-12	RETROREFLECTIVE SIGN STRIP- FURNISH AND INSTALL, 2'	EA	4		4		4														3	15		
706-1-3	RAISED PAVEMENT MARKER	EA			34																17	51		
711-11-241	THERMOPLASTIC, STANDARD, YELLOW, 2-4 DOTTED GUIDE LINE /6-10 DOTTED EXTENSION LINE, 6"	GM																						
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW	EA			2																1	3		
711-17-1	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS- SURFACE TO REMAIN	EA																						
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA																						

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

TABULATION OF QUANTITIES

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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																TOTAL THIS SHEET		GRAND TOTAL	
			IT-27		IT-28		IT-29		IT-30		IT-31		IT-32		IT-33		PLAN	FINAL	PLAN	FINAL		
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
101-1	MOBILIZATION	LS																				
102-1	MAINTENANCE OF TRAFFIC	LS																				
102-60	WORK ZONE SIGN	ED																		5334		
102-74-1	CHANNELIZING DEVICE- TYPES I, II, DI, VP, DRUM, OR LCD	ED																		6720		
102-99	PORTABLE CHANGEABLE MESSAGE SIGN, TEMPORARY	ED																		168		
102-115	TYPE III BARRICADE	ED																		336		
104-10-3	SEDIMENT BARRIER	LF																		870		
611-1-1	ITSFM SUBSURFACE DOCUMENTATION- PROJECT LENGTH	MI																	9	9		
611-2-2	ITSFMLOCATION DOCUMENTATION- ITS SITE	EA	1					1					1						3	10		
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	758	126	80	1029	80	335	70	2478	9268											
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	291	96	85	240	172	50	62	996	2890											
630-2-14	CONDUIT, FURNISH & INSTALL, ABOVEGROUND	LF		75	15			15		60	150											
630-2-15	CONDUIT, FURNISH & INSTALL, BRIDGE MOUNT	LF									100											
633-1-121	FIBER OPTIC CABLE, F&I, UG, 12 FIBERS	LF	851	70	70	517	70	100	182	1860	10475											
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA	6	12	12	12	12	4	12	70	176											
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA	1					1		2	3											
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE TRAY	EA	1	1	1			1	1	2	3											
633-3-13	FIBER OPTIC CONNECTION HARDWARE, F&I, PRETERMINATED CONNECTOR ASSEMBLY	EA		1	1	1	1		1	5	13											
633-3-16	FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL- FIELD TERMINATED	EA		1	1	1	1		1	5	13											
633-3-51	FIBER OPTIC CONNECTION HARDWARE, ADJUST/MODIFY SPLICE ENCLOSURE	EA								5	13											
633-6	FIBER OPTIC CABLE LOCATOR	DA									1											
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, FURNISH & INSTALL	LF		120	120			120		480	1640											
635-2-11	PULL & SPLICE BOX, F&I, 13" X 24" COVER SIZE	EA	3	5	5	1	5		4	23	63											
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	1	1	1	1	1		1	6	29											
635-3-11	JUNCTION BOX, FURNISH & INSTALL, AERIAL	EA									2											
635-3-13	JUNCTION BOX, FURNISH & INSTALL, EMBEDDED	EA									1											
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1							1	3											
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	1829	398	285	2042	372	1055	294	6275	19048											
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF				130				130	130											
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA			1	1			1	4	10											
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-11 SERVICE POLE	EA	1	1	1				1	5	13											
654-1-10	MIDBLOCK CROSSWALK: IN ROADWAY LIGHT ASSEMBLY, FURNISH & INSTALL- AC POWERED, COMPLETE CROSSING	AS		2	2	2	2		2	8	36											
660-7-21	VEHICLE DETECTION SYSTEM- WRONG WAY FOR EXIT RAMP, 1 OR 2 LANES, AC POWERED	EA		1	1	1	1		1	4	10											
676-2-143	ITS CABINET, FURNISH & INSTALL, BASE MOUNT, 334, 24" W X 66" H X 30" D	EA		1	1				1	4	10											
676-2-500	ITS CABINET- ADJUST/MODIFY	EA				1				1	3											
684-1-3	MANAGED FIELD ETHERNET SWITCH, INSTALL	EA		1	1				1	4	10											
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE	EA		1	1	1			1	4	10											
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	3			4			3	10	34											
700-1-21	SINGLE POST SIGN, F&I BARRIER MOUNT INDEX 11871/700-013 UP TO 12 SF	AS									1											
700-1-60	SINGLE POST SIGN, REMOVE	AS					2			3	13											
700-3-101	SIGN PANEL, FURNISH & INSTALL GROUND MOUNT, UP TO 12 SF	EA							2	2	6											
700-6-11	HIGHLIGHTED SIGN, F&I GROUND MOUNT- AC POWERED, UP TO 12 SF	AS		4	4				4	15	37											
700-6-60	HIGHLIGHTED SIGN, REMOVE	AS	2						2	4	16											
700-13-12	RETROREFLECTIVE SIGN STRIP- FURNISH AND INSTALL, 2'	EA	3	4	4	4	4		3	25	71											
706-1-3	RAISED PAVEMENT MARKER	EA				17				17	136											
711-11-241	THERMOPLASTIC, STANDARD, YELLOW, 2-4 DOTTED GUIDE LINE /6-10 DOTTED EXTENSION LINE, 6"	GM									1											
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW	EA					1			1	8											
711-17-1	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS- SURFACE TO REMAIN	EA				4				4	4											
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA									7											

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
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TABULATION OF QUANTITIES

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GENERAL:

1. ALL ELECTRICAL WORK SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (N.E.C.), NATIONAL ELECTRIC SAFETY CODE (N.E.S.C.), AND THE STATE OF FLORIDA DOT STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER N.E.C. REQUIREMENTS.
2. ALL ELECTRICAL EQUIPMENT SHALL BE WEATHER RESISTANT.
3. ELECTRICAL CONDUCTOR SPLICES AND CONNECTIONS MADE IN ELECTRICAL PULL BOXES SHALL BE LIMITED TO THE SERVICE POINT PULL BOXES AND PULL BOXES WHERE A GIVEN PHASE OR GROUND CONDUCTOR WILL RUN IN MORE THAN TWO CONDUITS.

PULL BOXES/ SPLICE VAULTS/ ITS MANHOLES:

1. EXISTING IS TO REMAIN UNLESS SPECIFIED IN PLAN SHEETS

UTILITIES:

1. THE LOCATIONS OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNED VV, VH AND VVH) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.

UTILITY OWNERS

FIBERLIGHT LLC.
 ATT/IT
 SPECTRUM SUNSHINE STATE, LLC.
 DELTACOM
 BLACK & VEATCH TAMPA 1F
 KINDER MORGAN/CENTRAL FLORIDA PIPELINE
 DEAKIN PROPERTY SERVICES INC.
 FLORIDA GAS TRANSMISSION COMPANY
 ZAYO GROUP/FORMERLY LIGHTWAVE, LLC.
 FRONTIER COMMUNICATIONS
 HILLSBOROUGH COUNTY SHERIFF'S OFFICE
 HILLSBOROUGH COUNTY CLERK OF CIRCUIT CO.
 HILLSBOROUGH COUNTY TRAFFIC SERVICE UNIT
 HILLSBOROUGH COUNTY PUBLIC UTILITIES DEP.

CONTACT

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 (406) 496-6510
 (813) 875-1014
 (813) 290-2270
 (813) 276-2029 EXT. 4294
 (813) 744-5788 (FAX)
 (813) 272-5977

CONDUIT:

1. CONDUIT LOCATIONS AS SHOWN ON THE PLANS MUST BE ADHERED TO IN ORDER TO AVOID FUTURE GRADING, WALLS AND DRAINAGE INSTALLATION. CONDUIT SHALL BE PLACED WITHIN THE RIGHT-OF-WAY BUT CAN BE ADJUSTED TO FIT AROUND THE EXISTING AND PROPOSED UTILITIES. ANY DEVIATION FROM THE PLANS SHALL BE APPROVED AND AS-BUILT BY THE ENGINEER OF RECORD. PROPOSED FOUNDATIONS AND ITS BOXES SHALL AVOID BEING PLACED WITHIN DRAINAGE FEATURES.
2. MINIMUM REQUIRED CONDUIT BURY DEPTHS SHALL BE MAINTAINED WHERE CONFLICTS OCCUR WITH DRAINAGE OR OTHER UTILITIES PER THESE PLANS.
3. CONDUIT AND CABLING TO REMAIN UNLESS CALLED OUT IN PLANS.

MAINTENANCE OF COMMUNICATION (MOC) PHASING NOTES:

1. ENSURE THE PROTECTION OF EXISTING SPLICES WHEN WORKING IN EXISTING SPLICE ENCLOSURES, ESPECIALLY WHEN SPLICING IN THE SAME BUFFER TUBE OR SPLICE TRAY.

PROJECT CONTROL NOTES:

1. PROJECT IS BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, OF THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD 83/2011) AS ESTABLISHED FROM NATIONAL GEODETIC SURVEY (NGS) CONTROL STATION DESIGNATED "Q 18" (PID (PERMANENT IDENTIFIER) AG6038).
2. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. THE ALIGNMENT SHOWN HEREON IS BASED ON THE INFORMATION OBTAINED FROM PROJECT FPID 254415-1-52-01.

PAY ITEM NOTE:

1. 654-1-10 - IN-ROADWAY LIGHT ASSEMBLY PAY ITEM DOES NOT INCLUDE SIGNS. SIGN SUPPORT STRUCTURES, CABINET AND PEDESTRIAN DETECTORS. INCLUDES ONLY IN-ROADWAY LIGHTS, WIRING AND ELECTRONICS. ELECTRONICS ARE TO BE HOUSED IN WRONG WAY DETECTION CABINET OR GATE CABINET. NUMBER OF LIGHT FIXTURES PER SITE WILL VARY.
2. 684-1-3 THEA WILL PROVIDE THE CONFIGURED RUGGEDCOMM RSG920P MANAGED FIELD ETHERNET SWITCH AND THE 6GK6000-8FG52-0A00 SFP MODULE LC-INTERFACE. PROVIDE 8 WEEKS NOTIFICATION PRIOR TO PICKING UP THE SWITCH. FURNISH AND INSTALL ALL FIBER PATCH CABLES AND ETHERNET COPPER CABLES. CONSULT THE ENGINEER FOR THE SWITCH PORT NUMBER TO CONNECT EACH OF THE DEVICES.

LEGEND:

- EXISTING ITS CONDUIT RUN
- PROPOSED CONDUIT RUN OPEN TRENCH
- PROPOSED CONDUIT RUN DIRECTIONAL BORE
- PROPOSED BRIDGE MOUNT CONDUIT
- PROPOSED ITS POLE
- EXISTING ITS POLE
- PROPOSED SERVICE POLE
- EXISTING SERVICE POLE
- ELECTRICAL SOURCE (OVERHEAD)
- ELECTRICAL SOURCE (BASE MOUNT)
- PROPOSED SPLICE BOX
- EXISTING SPLICE VAULT
- PROPOSED FIBER PULL BOX
- EXISTING FIBER PULL BOX
- PROPOSED ELECTRICAL PULL BOX
- EXISTING ELECTRICAL PULL BOX
- PROPOSED FIBER JUNCTION BOX
- EXISTING FIBER JUNCTION BOX
- PROPOSED AERIAL JUNCTION BOX
- EXISTING AERIAL JUNCTION BOX
- PROPOSED NEMA ENCLOSURE
- EXISTING NEMA ENCLOSURE
- PROPOSED POLE MOUNT CABINET
- EXISTING POLE MOUNT CABINET
- PROPOSED BASE MOUNT CABINET
- EXISTING BASE MOUNT CABINET

ABBREVIATIONS:

AC=ALTERNATING CURRENT
 BE=BURIED ELECTRIC
 BT=BURIED TELEPHONE
 CKT=CIRCUIT
 COMM=COMMUNICATIONS
 DC=DIRECT CURRENT
 EB=EASTBOUND
 FO=FIBER OPTIC
 FOC=FIBER OPTIC CABLE
 HIL=HILLSBOROUGH
 LHUB=LOCAL HUB
 OE=OVERHEAD ELECTRIC
 PIN=PINELLAS
 SM=SINGLE MODE
 VAC=VOLTS, ALTERNATING CURRENTS
 W=WATER LINE
 WB=WESTBOUND
 WWD=WRONG WAY DEVICE

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTE DRIVE,
 SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

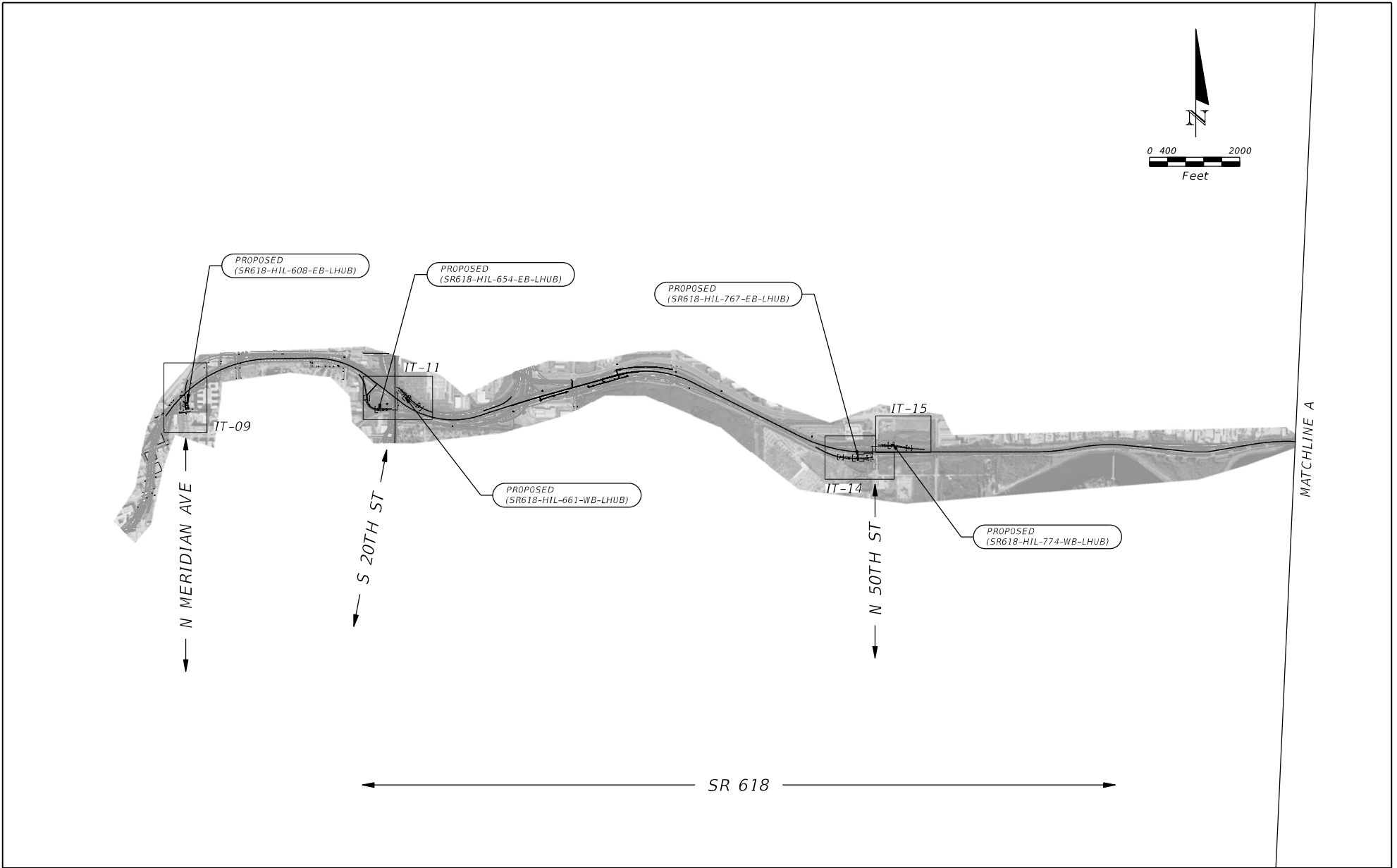
TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

GENERAL NOTES

SHEET NO.

IT-06



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

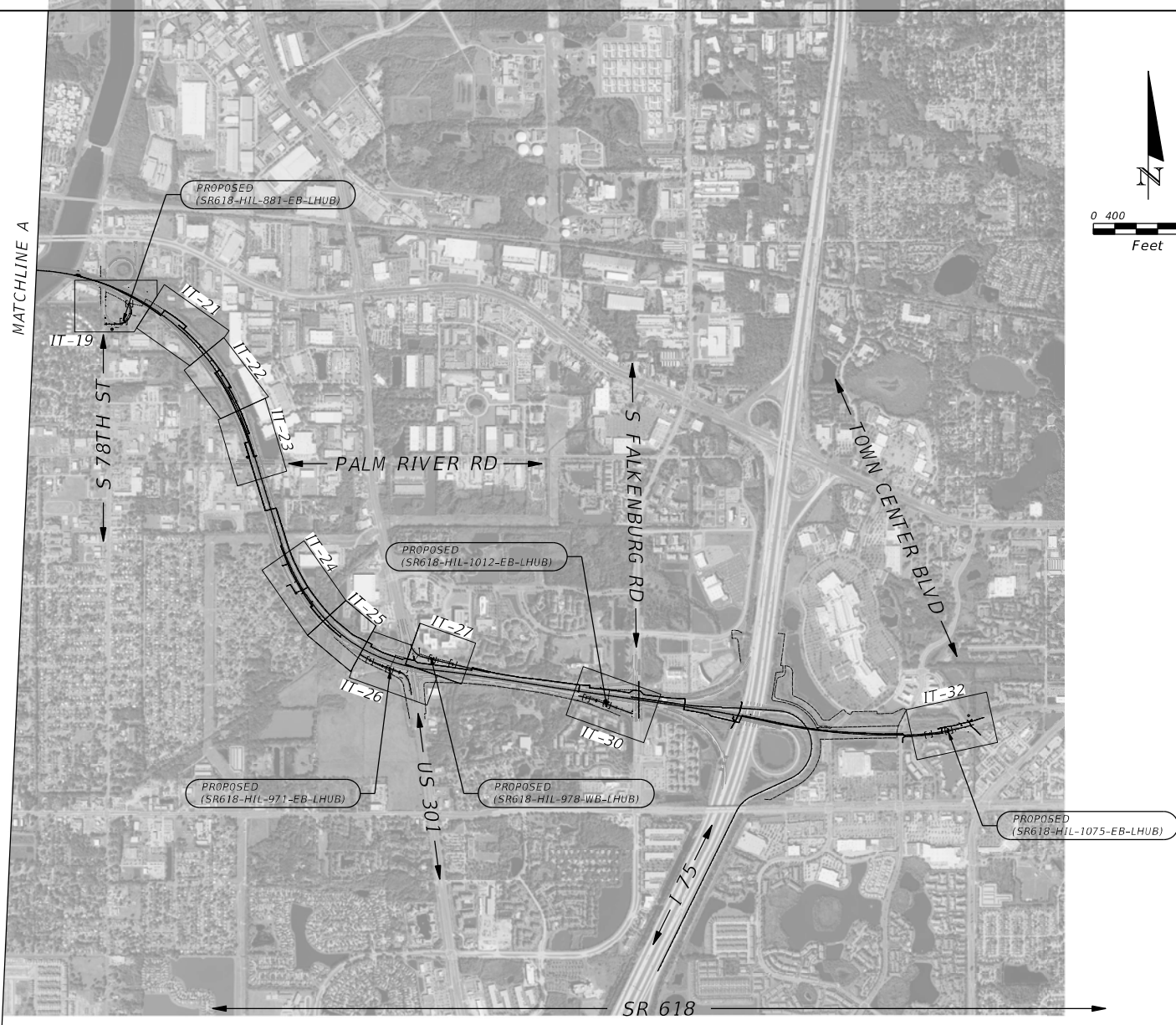
ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTE DRIVE,
 SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

PROJECT LAYOUT

SHEET NO.
IT-07

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REVISIONS	
DATE	DESCRIPTION

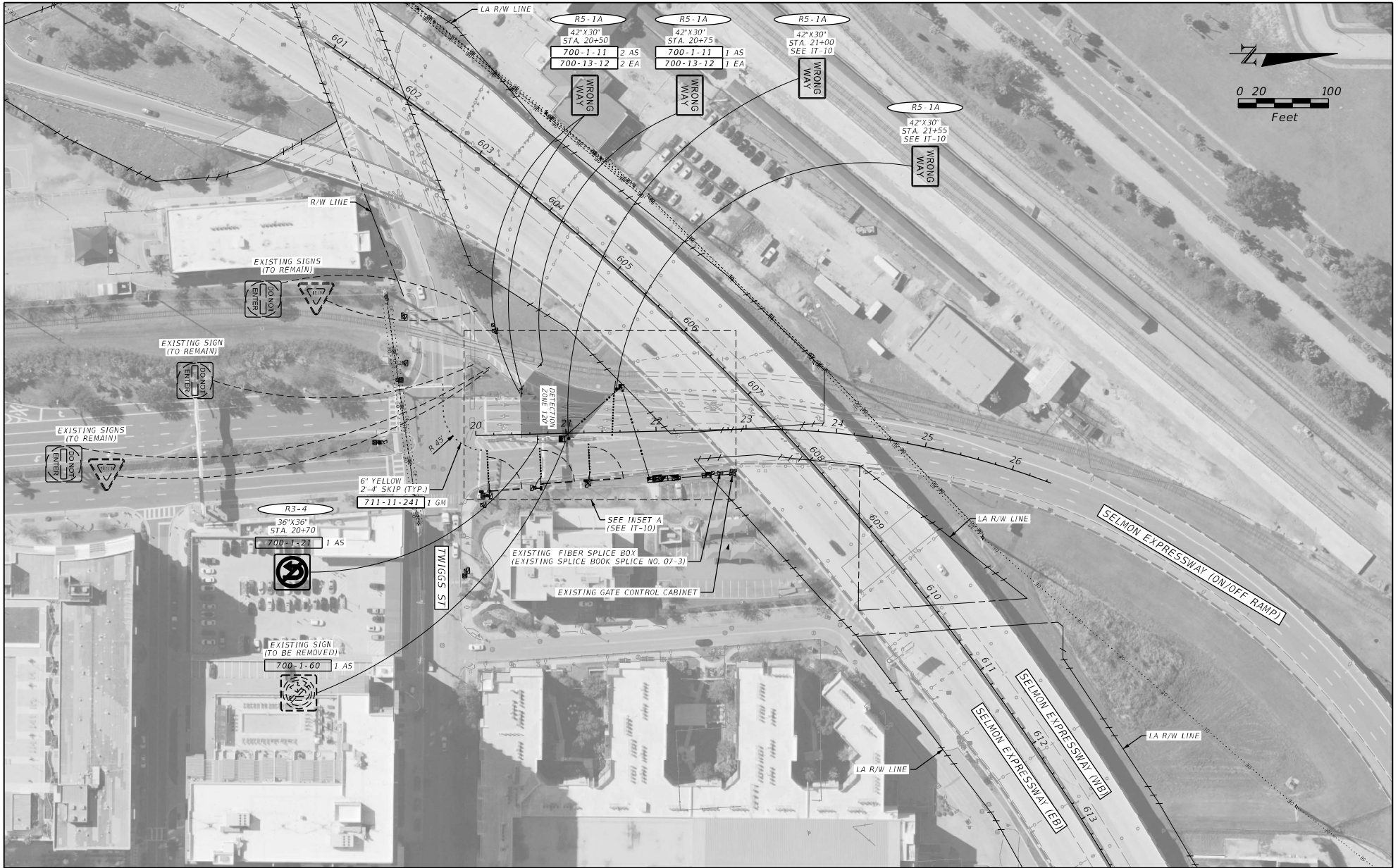
ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTE DRIVE,
 SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

PROJECT LAYOUT

SHEET NO.
IT-08

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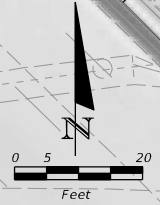
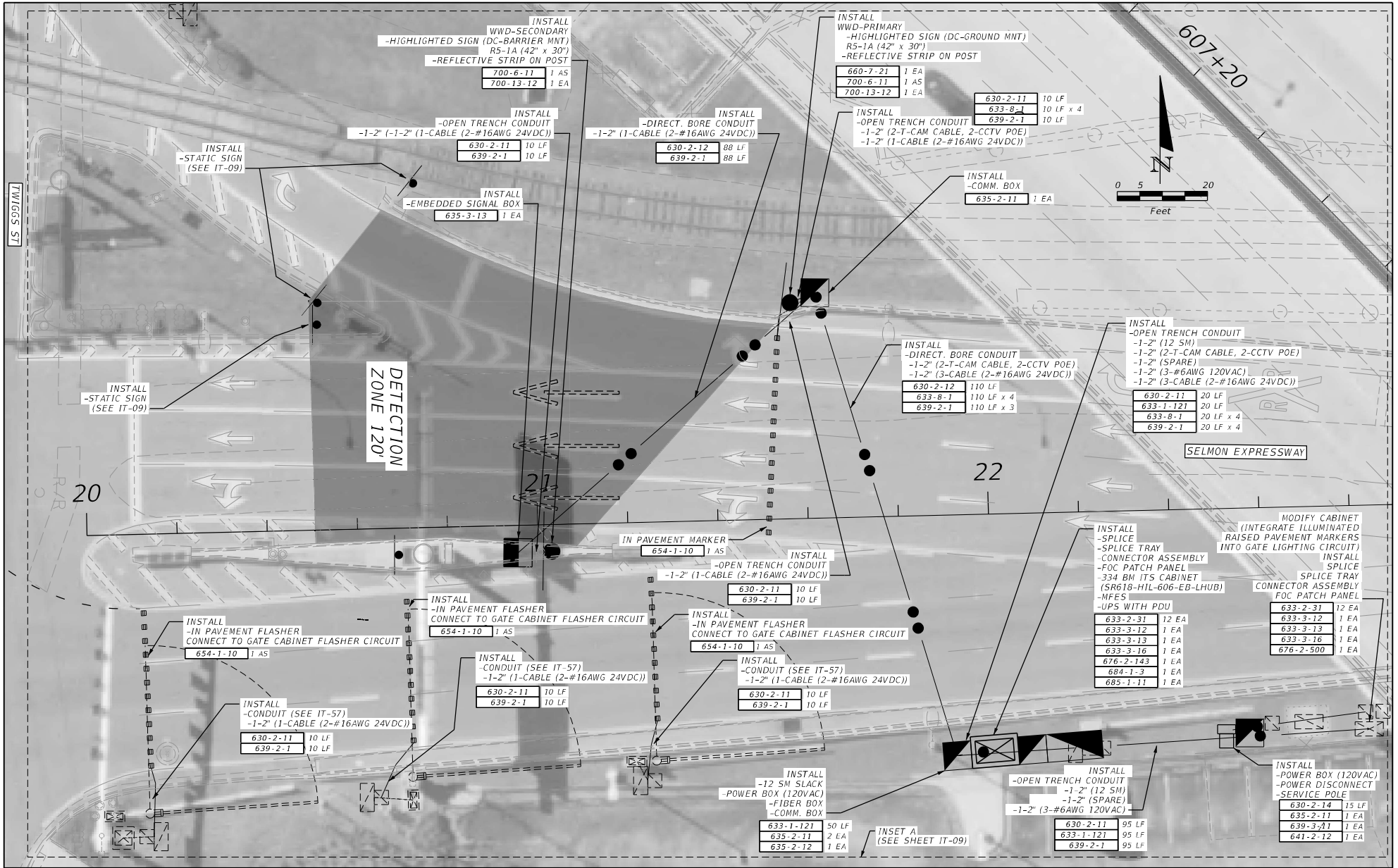
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTÉ DRIVE, SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-09



REVISIONS		ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		SHEET NO. IT-10
DATE	DESCRIPTION		ROAD NO.	COUNTY FINANCIAL PROJECT ID	
			SR 618 HILLSBOROUGH HI-0172		

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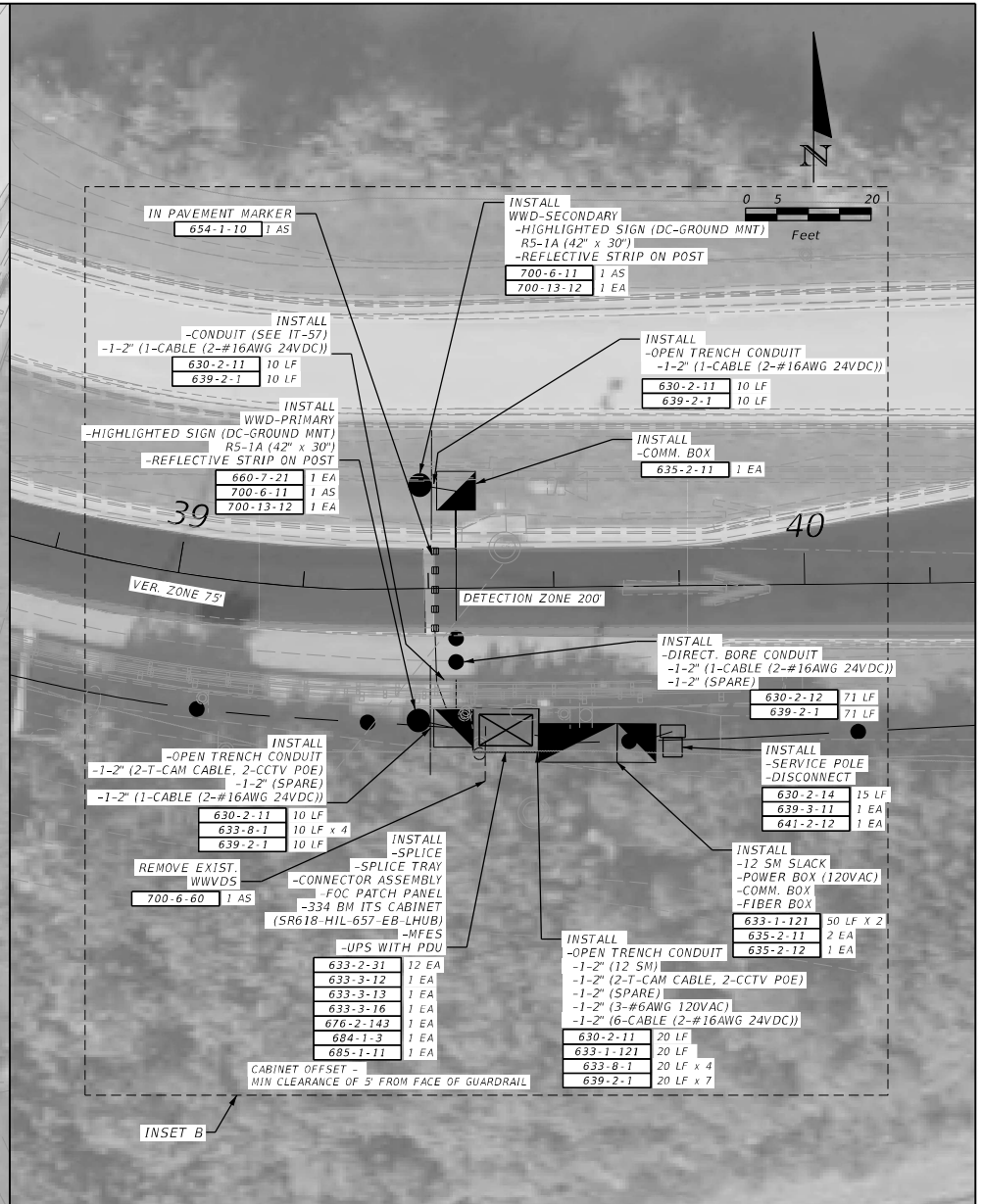
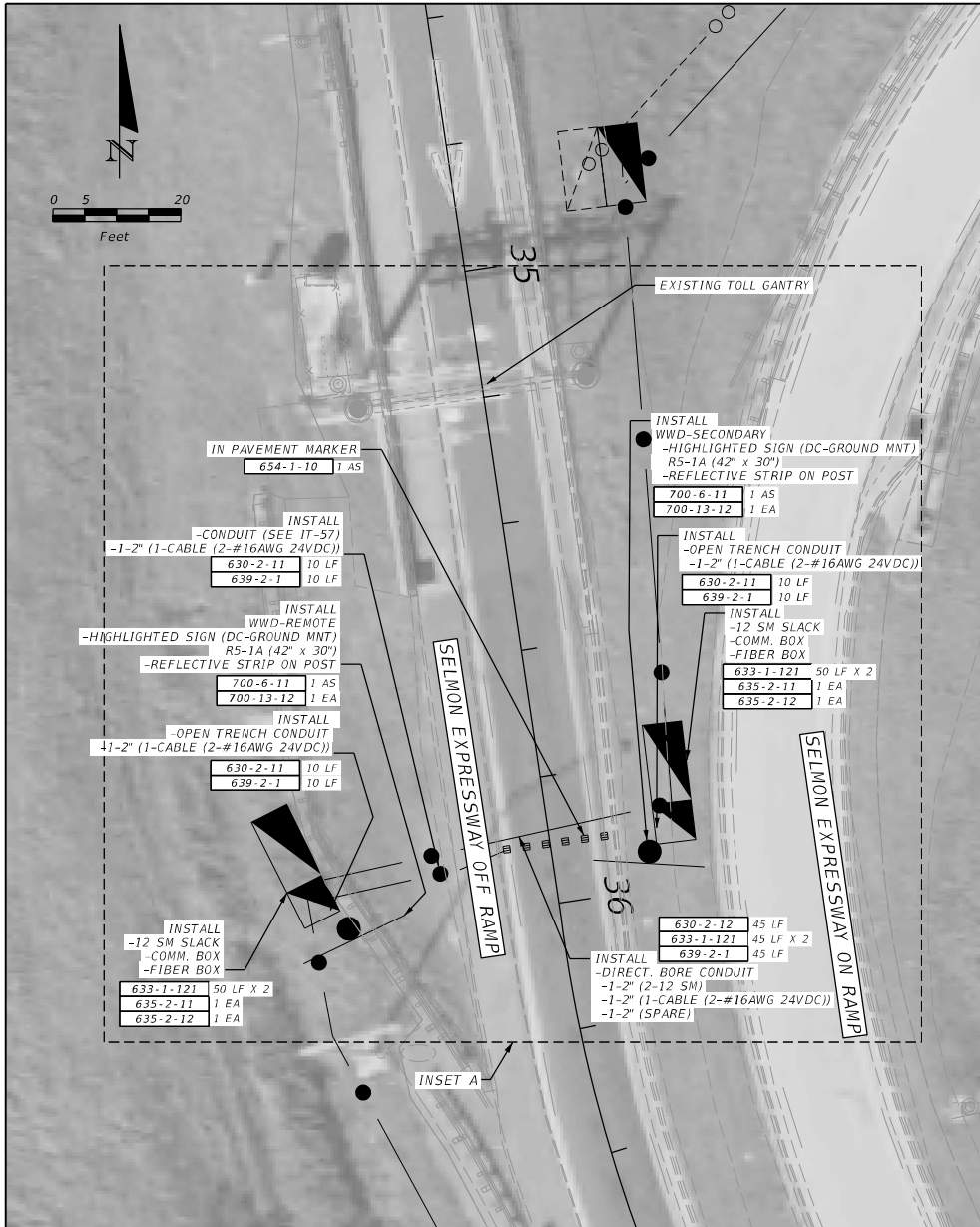
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DATE	DESCRIPTION	DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

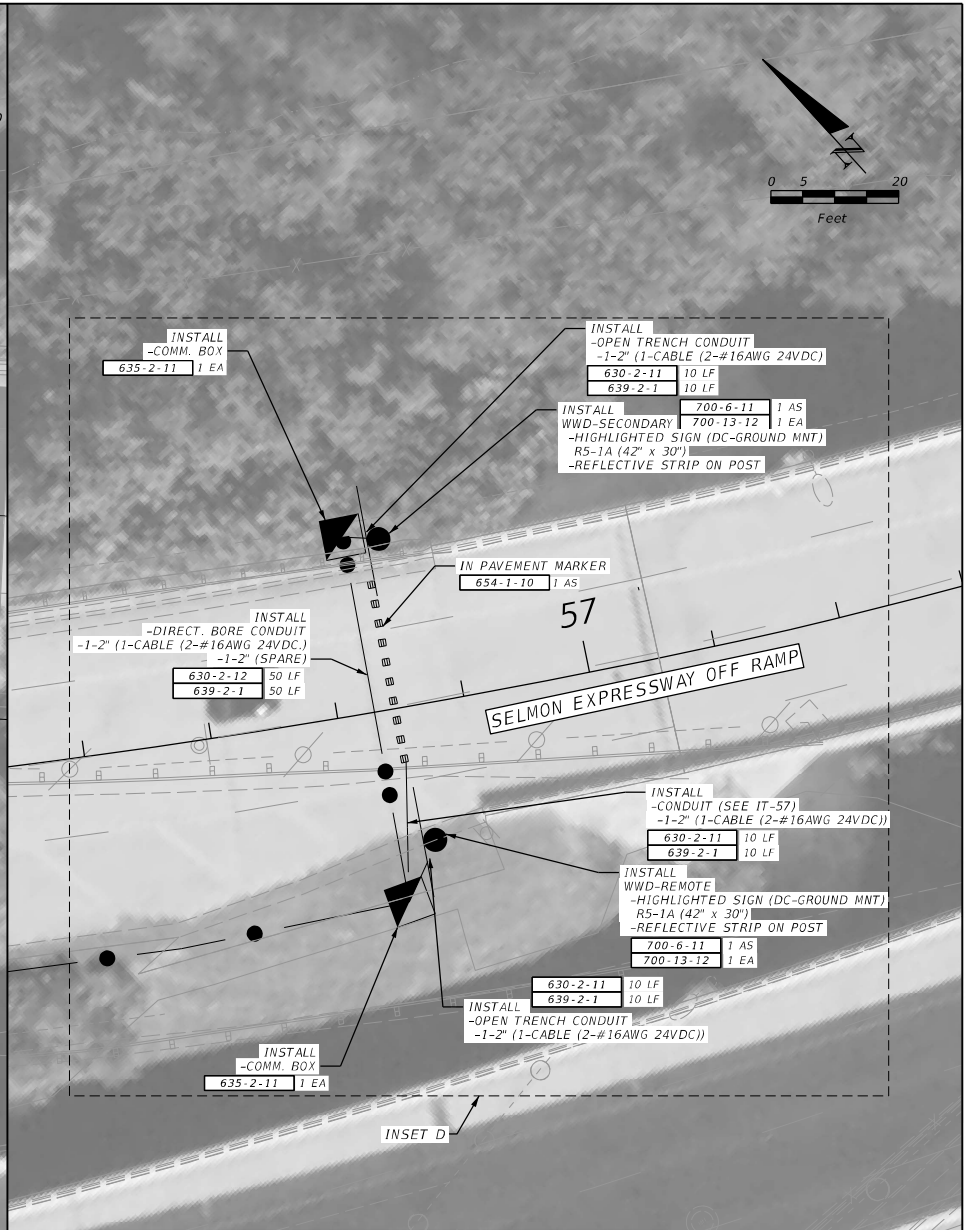
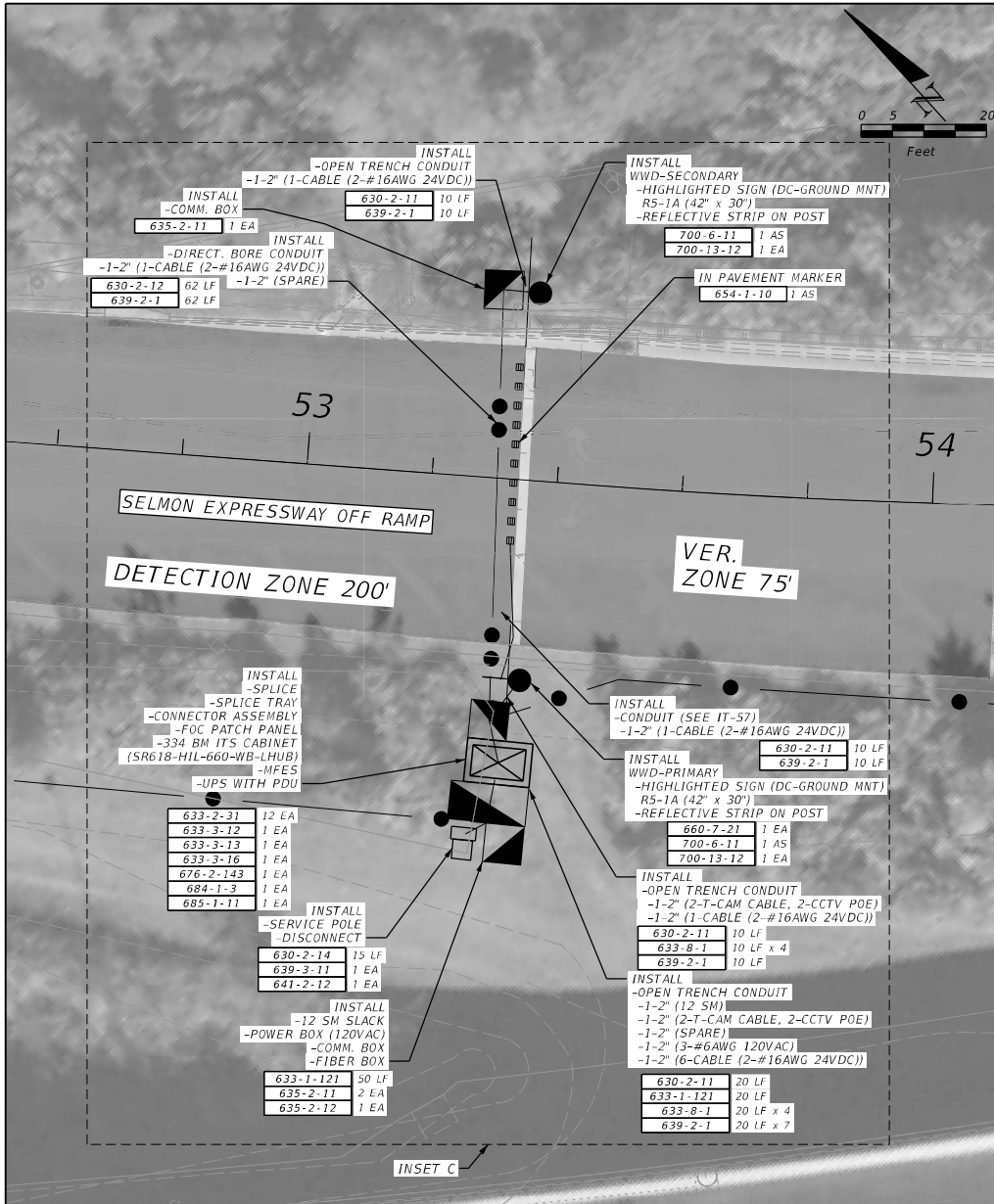
ITS PLANS		SHEET NO. IT-11
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REVISIONS				TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO.	
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	ITS PLANS	
				SR 618	HILLSBOROUGH	HI-0172	IT-12	

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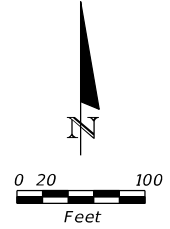
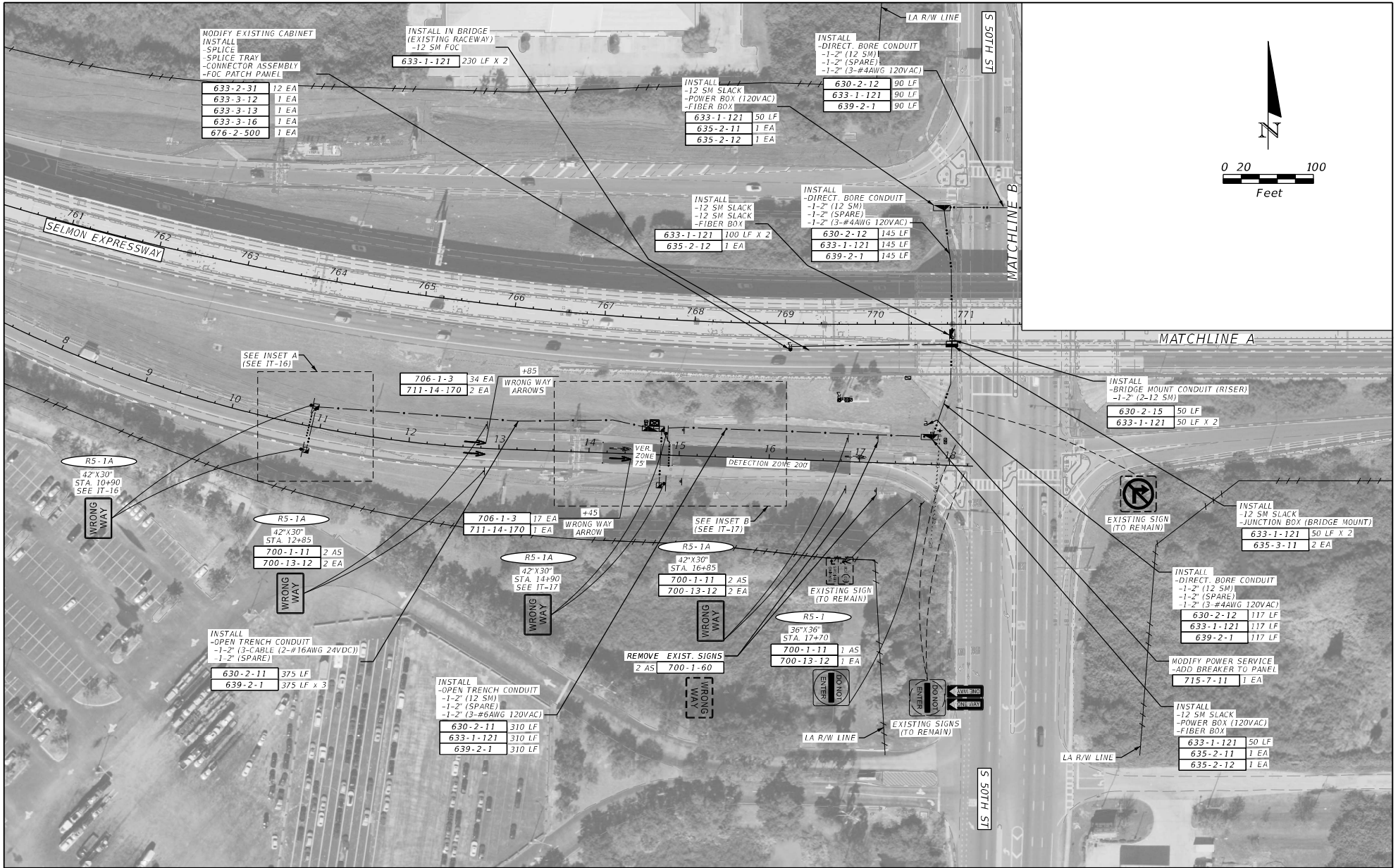
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DATE	DESCRIPTION	DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS		SHEET NO.
		IT-13

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DATE	DESCRIPTION

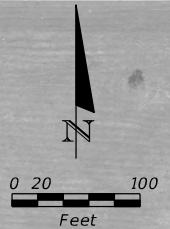
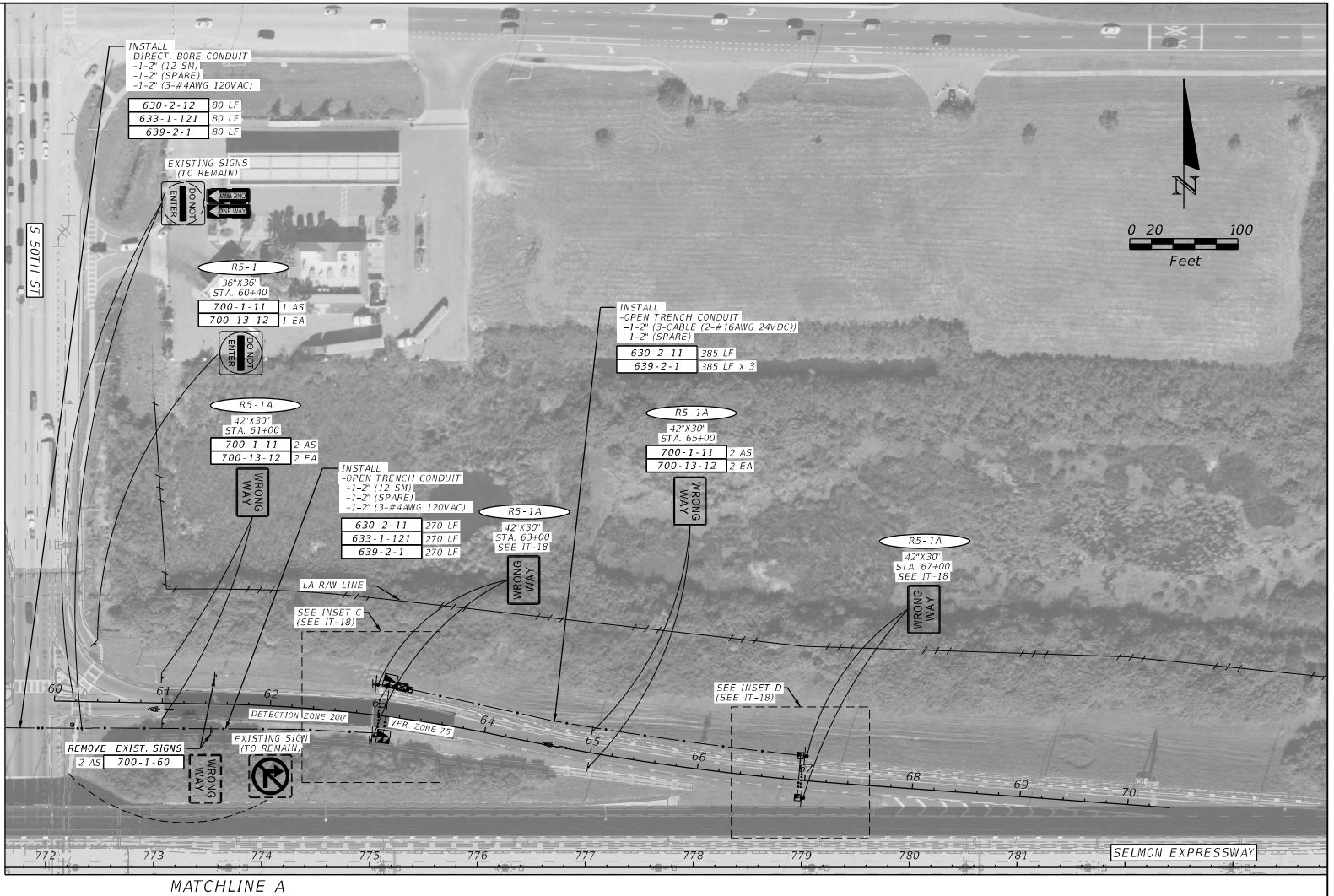
ERIK SPILLMANN, P.E.
P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-14

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MATCHLINE B

MATCHLINE A

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

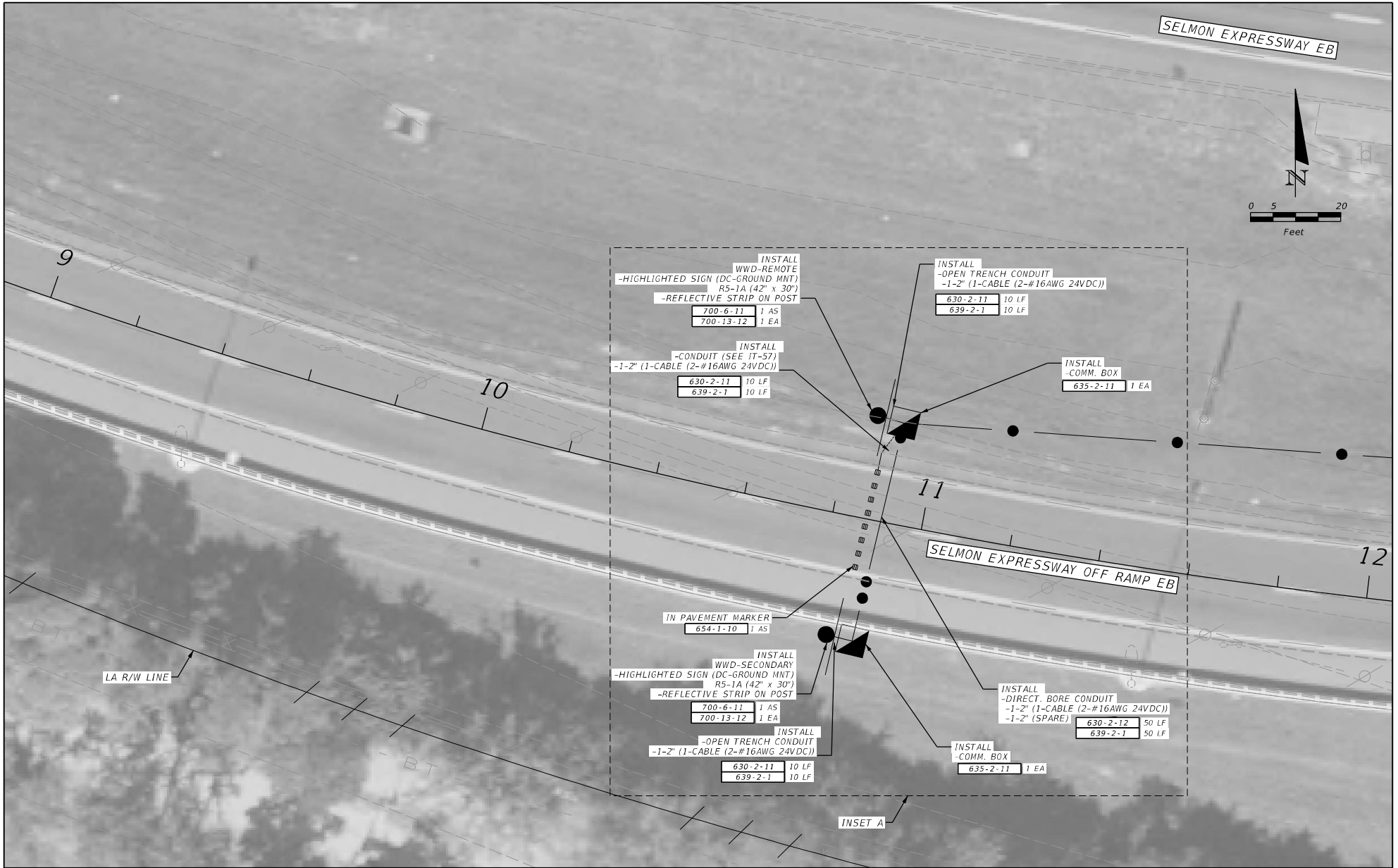
ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTE DRIVE, SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-15

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REVISIONS	
DATE	DESCRIPTION

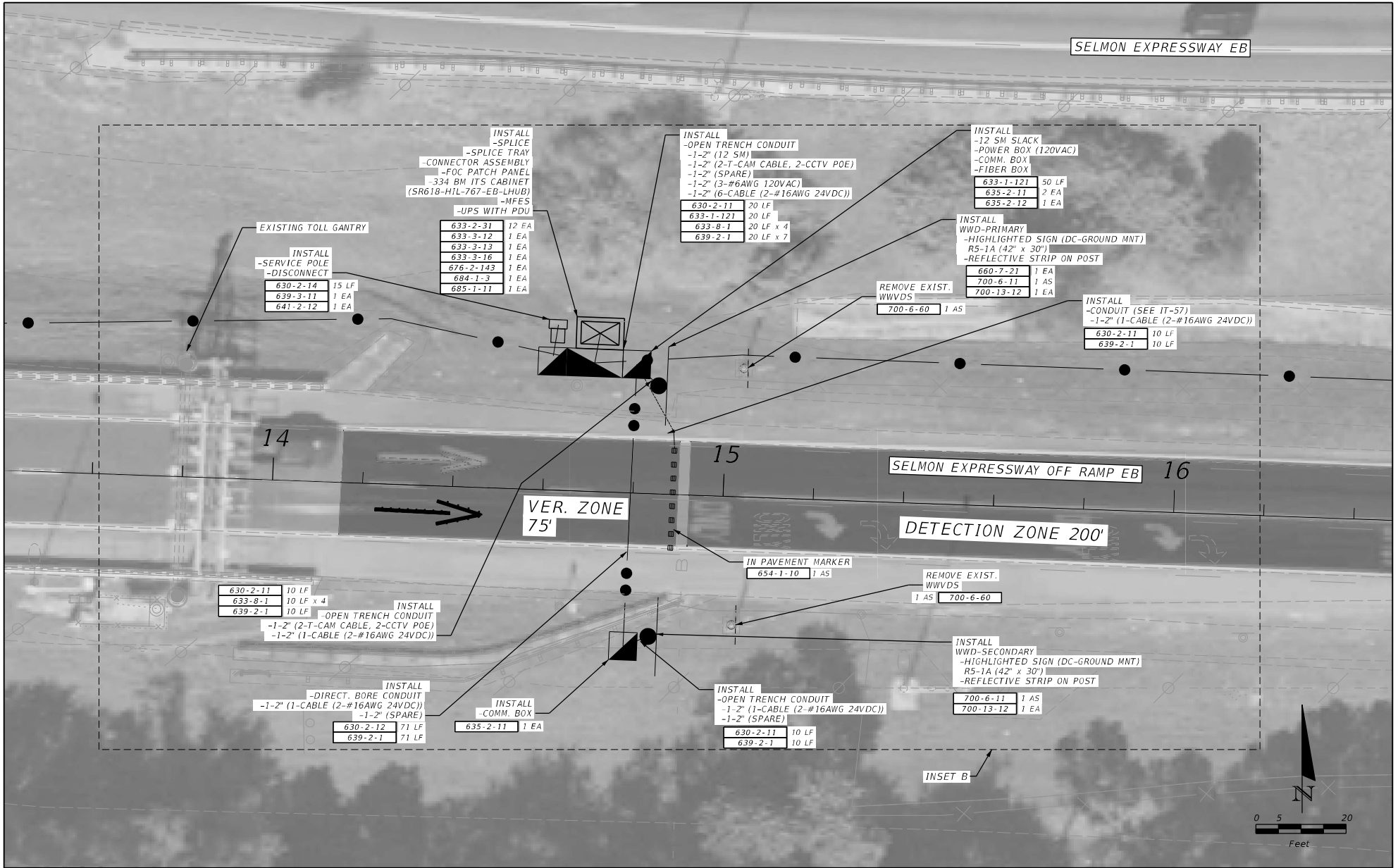
ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTE DRIVE, SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-16

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
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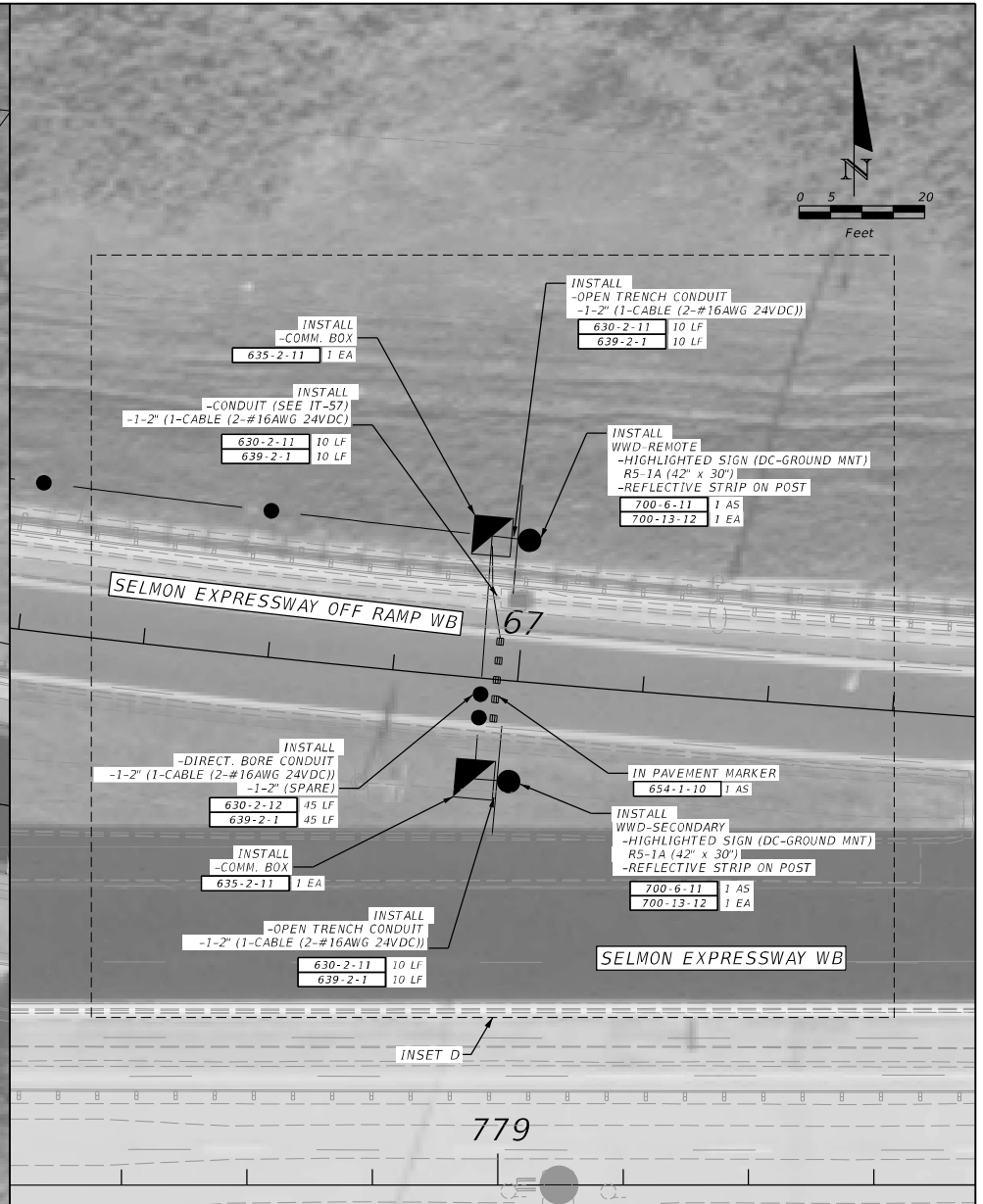
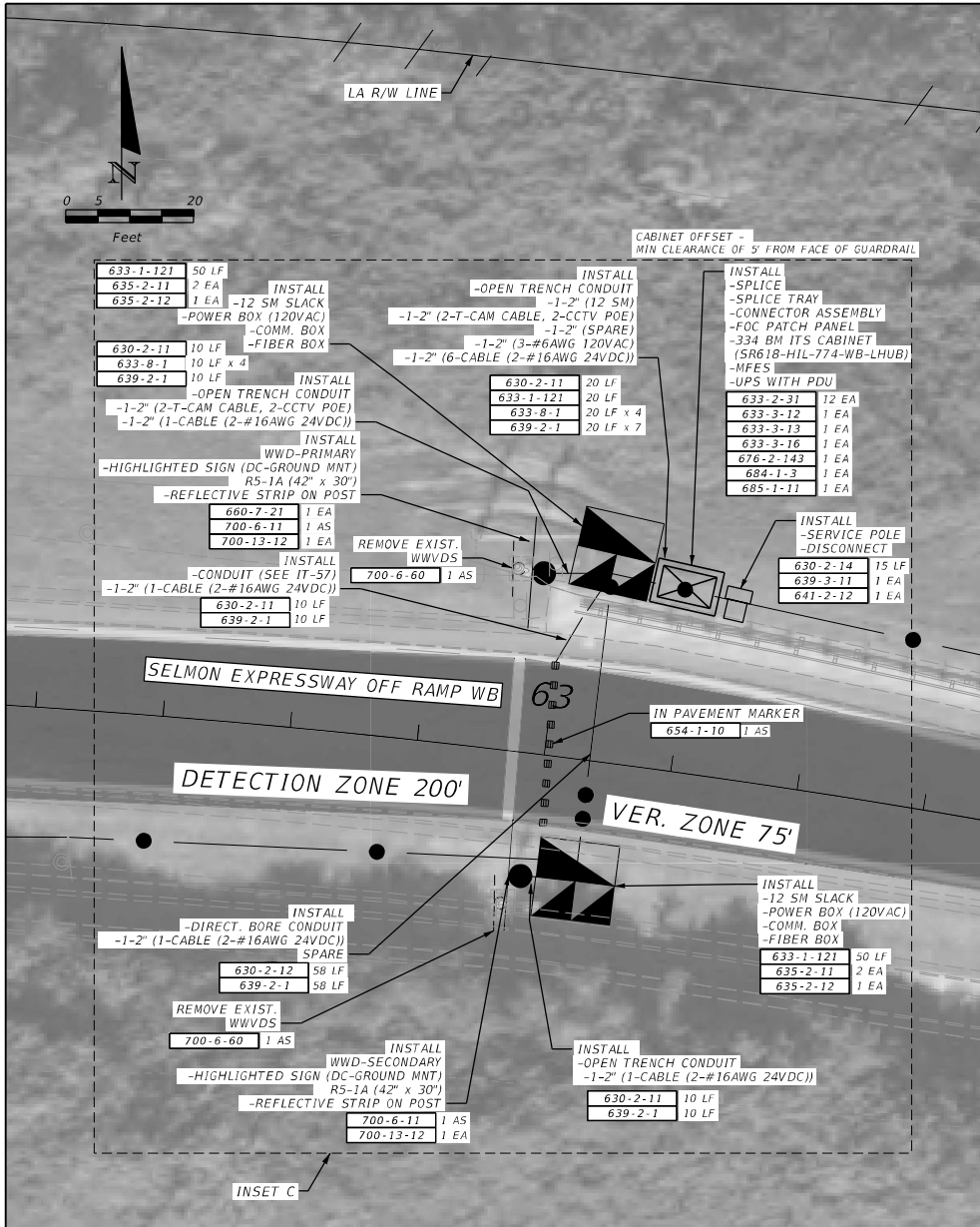
ERIK SPILLMANN, P.E.
P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-17

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	ITS PLANS

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REVISIONS	
DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

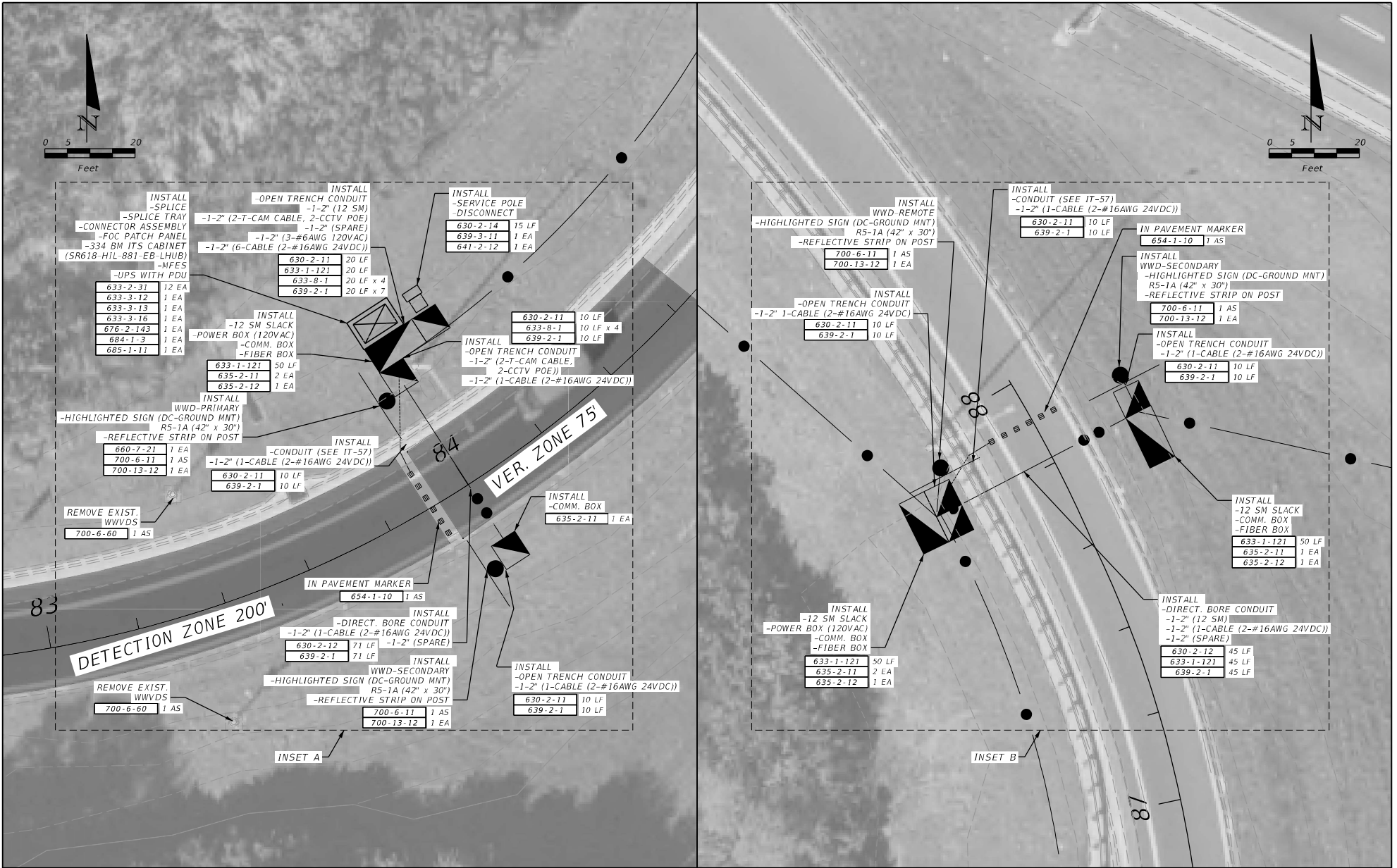
SHEET NO.
IT-19

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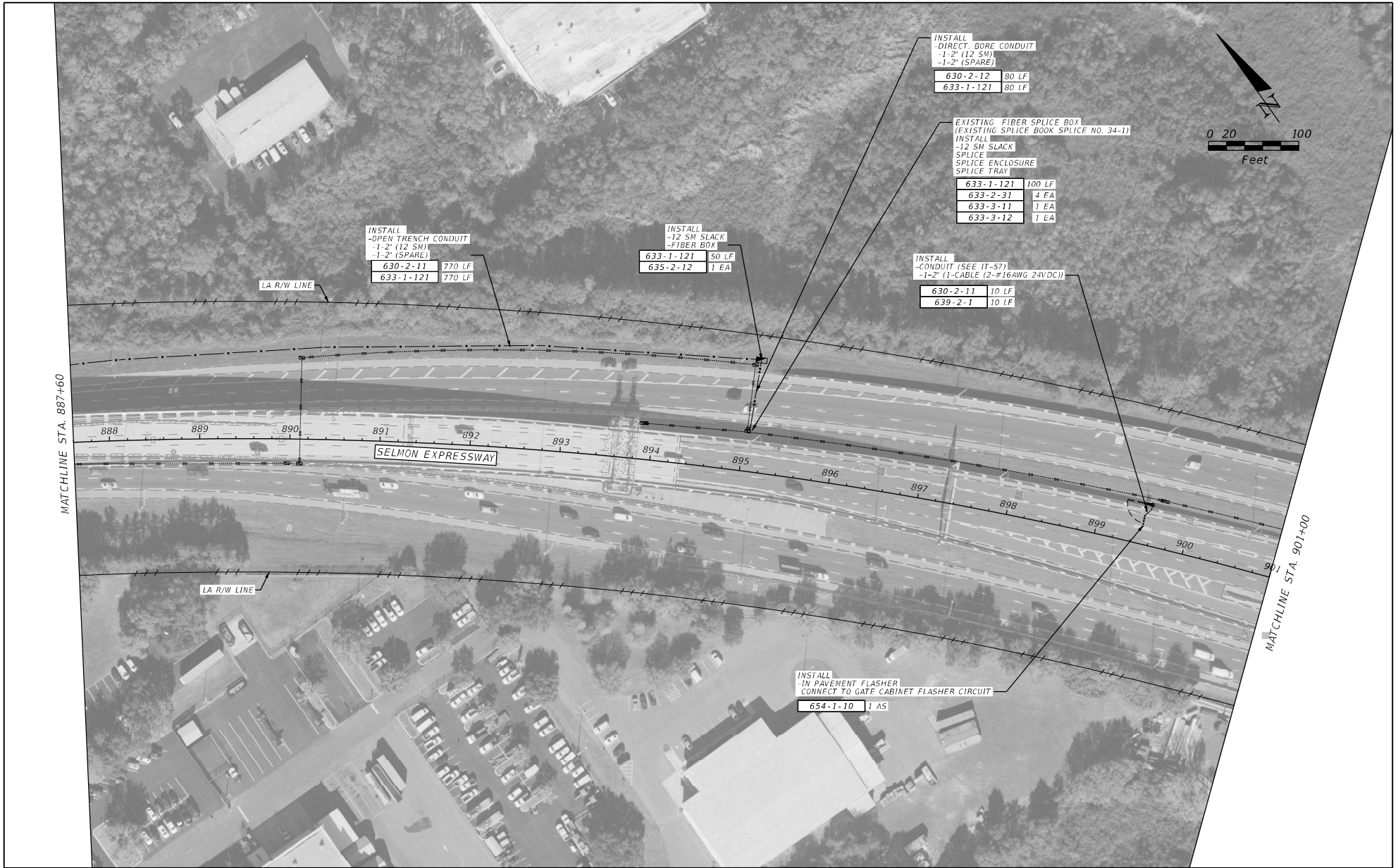


REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTTE DRIVE, SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

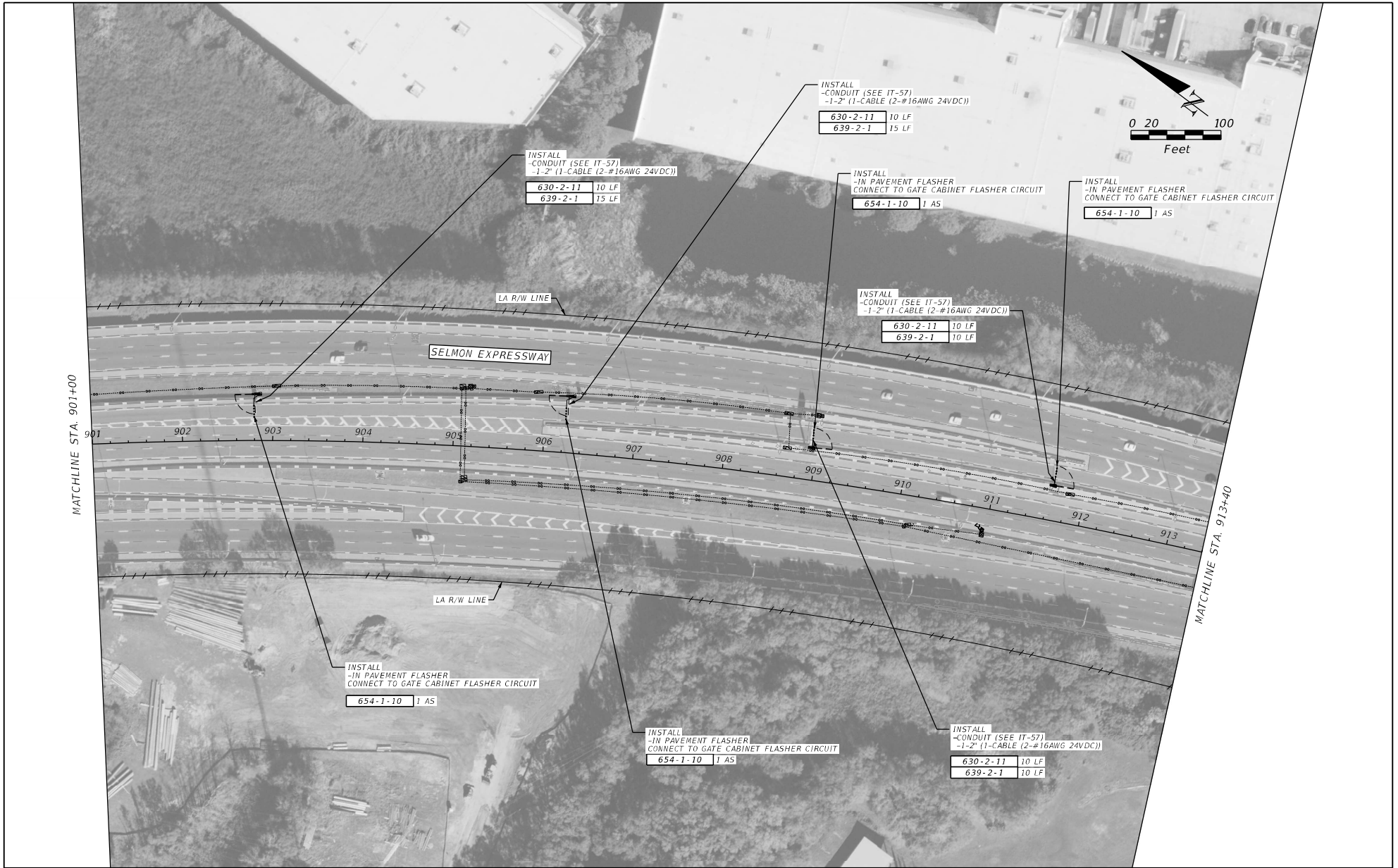
ITS PLANS		SHEET NO. IT-20
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DATE	DESCRIPTION		ROAD NO.	COUNTY	
			SR 618	HILLSBOROUGH	HI-0172

ITS PLANS



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

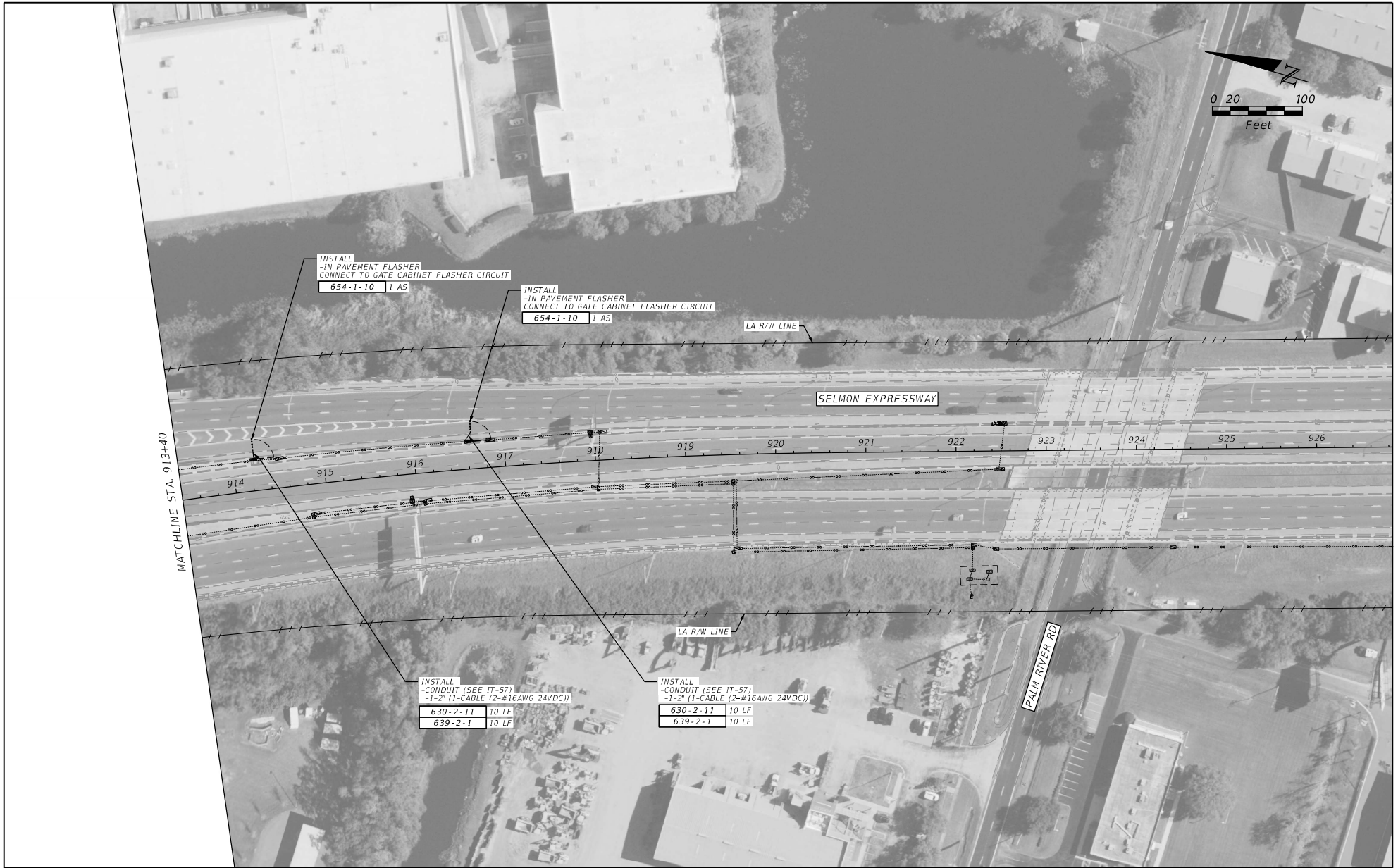
ERIK SPILLMANN, P.E.
P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-22

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MATCHLINE STA. 913+40

REVISIONS	
DATE	DESCRIPTION

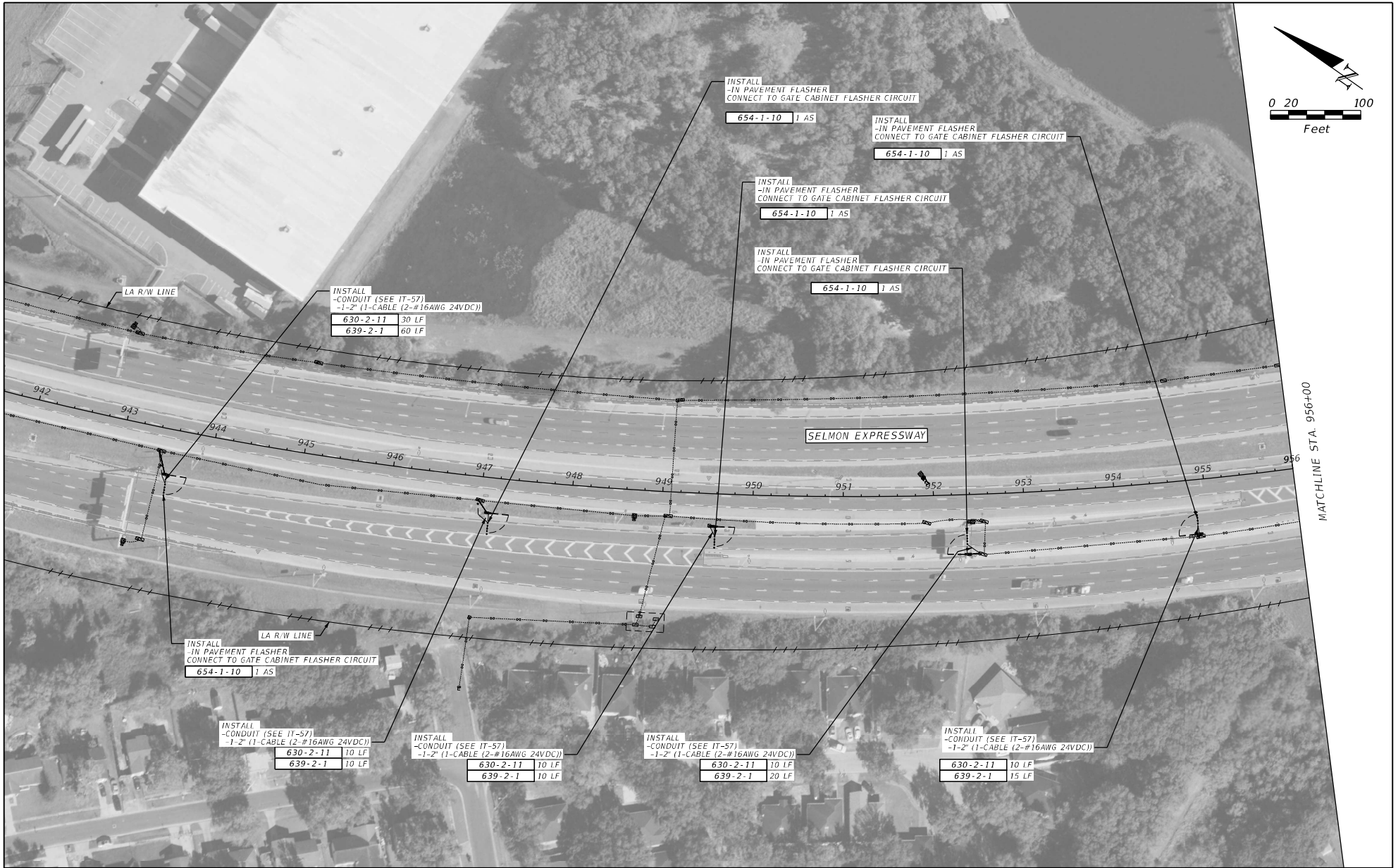
ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTE DRIVE, SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
 IT-23

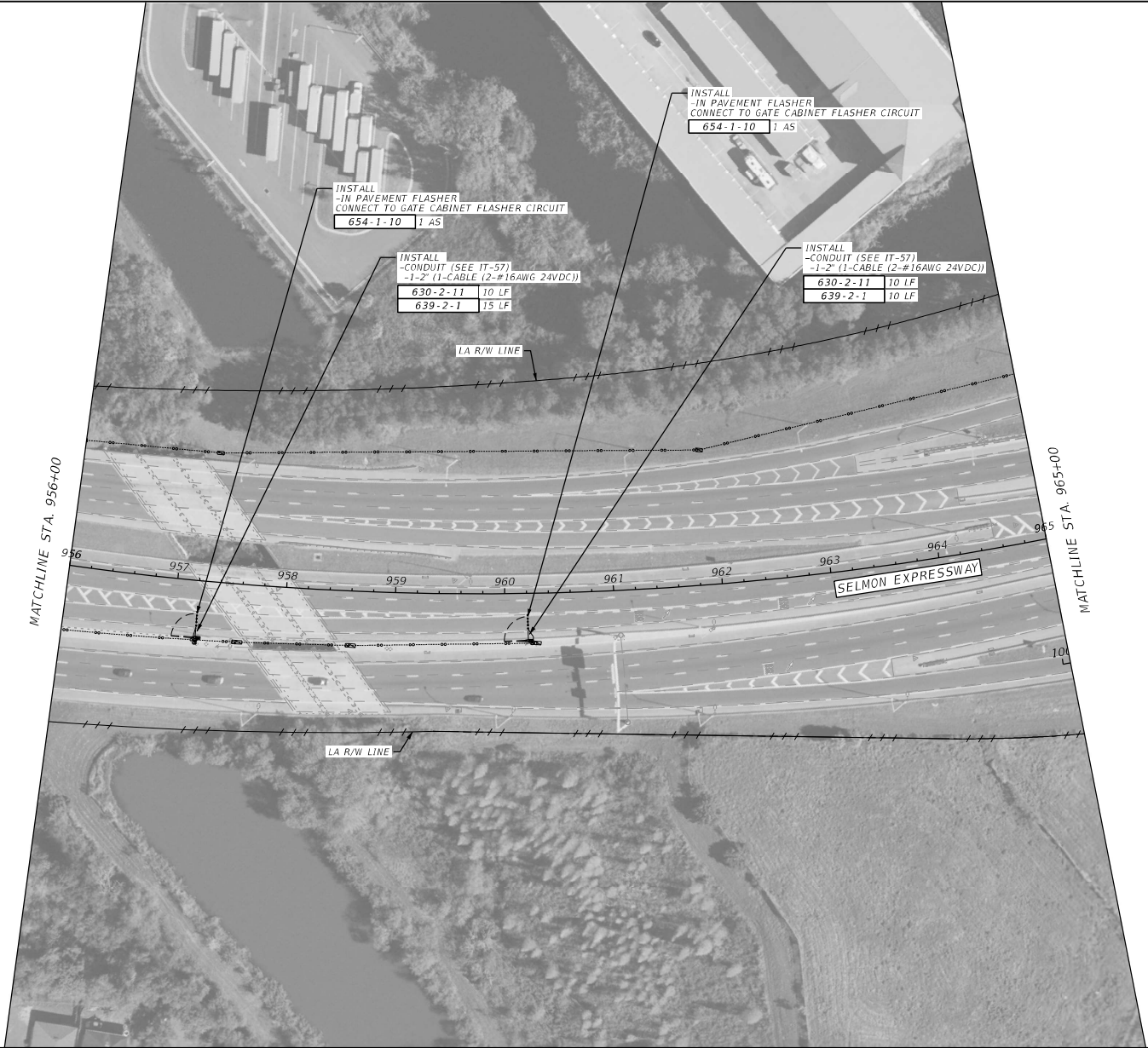
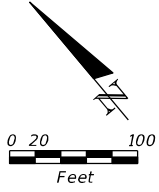
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MATCHLINE STA. 956+00

REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO. IT-24
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

ITS PLANS



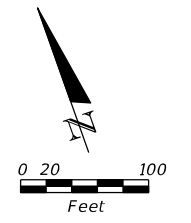
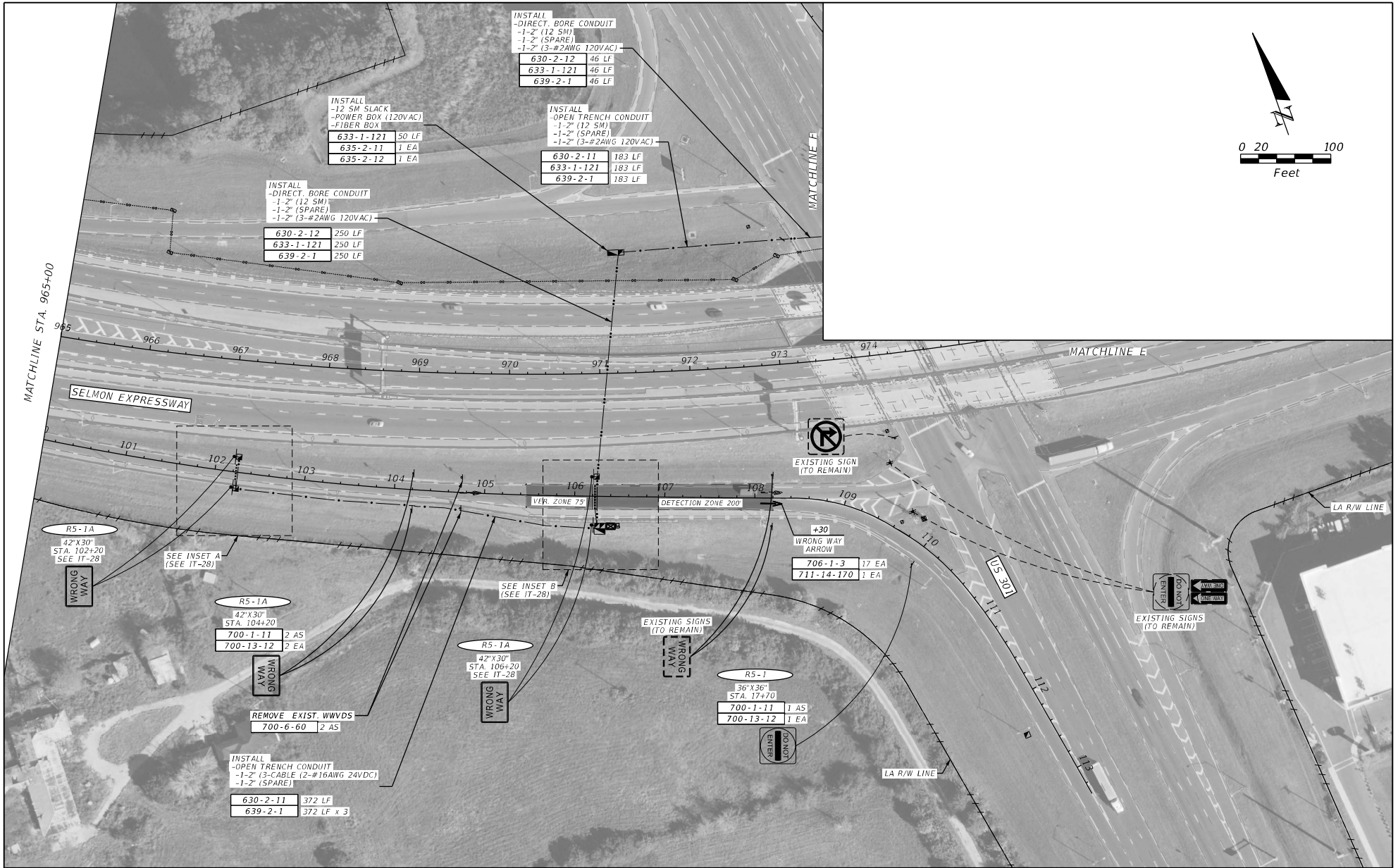
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

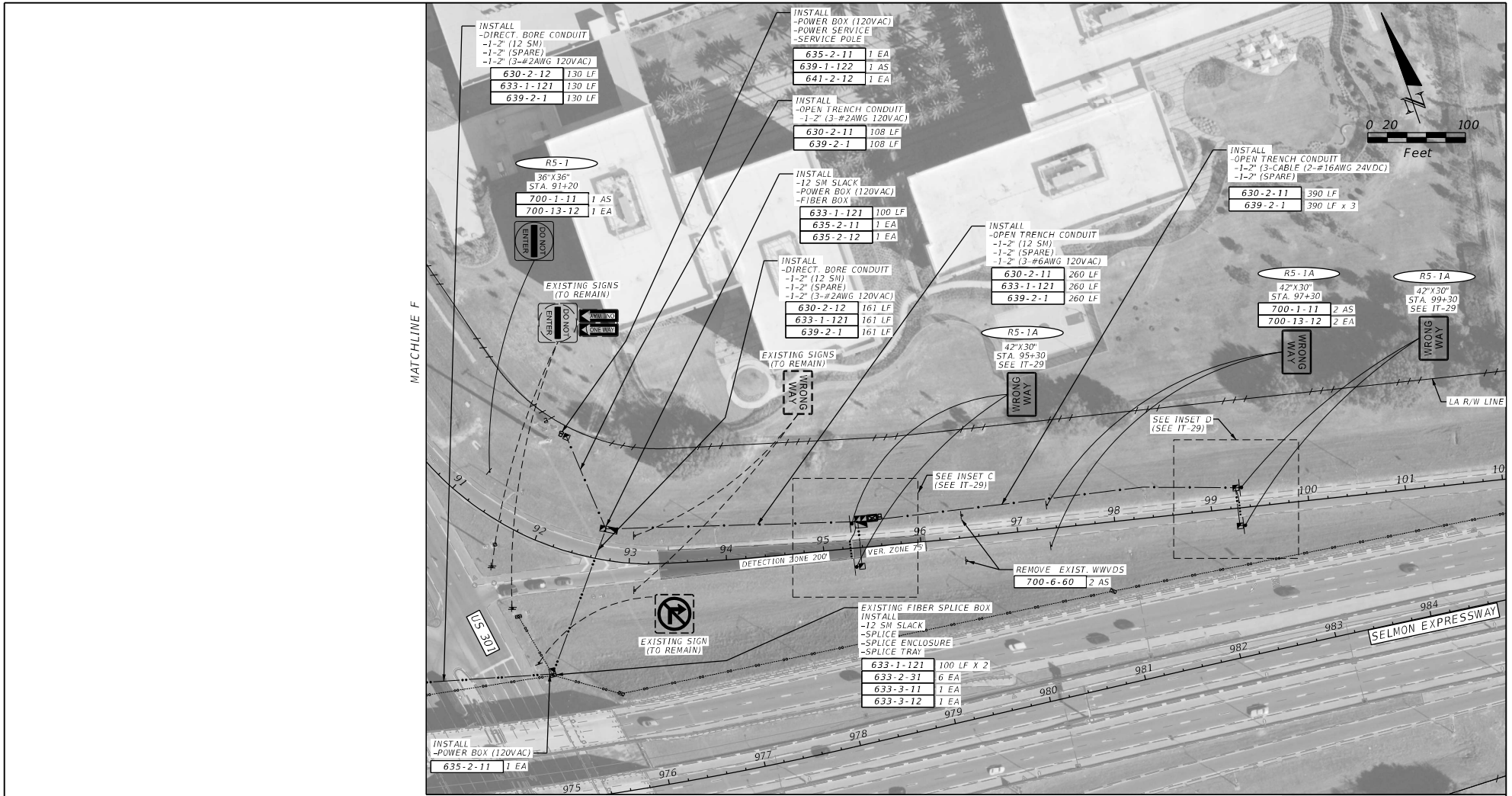
ITS PLANS

SHEET NO.
IT-25



REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO. IT-26
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



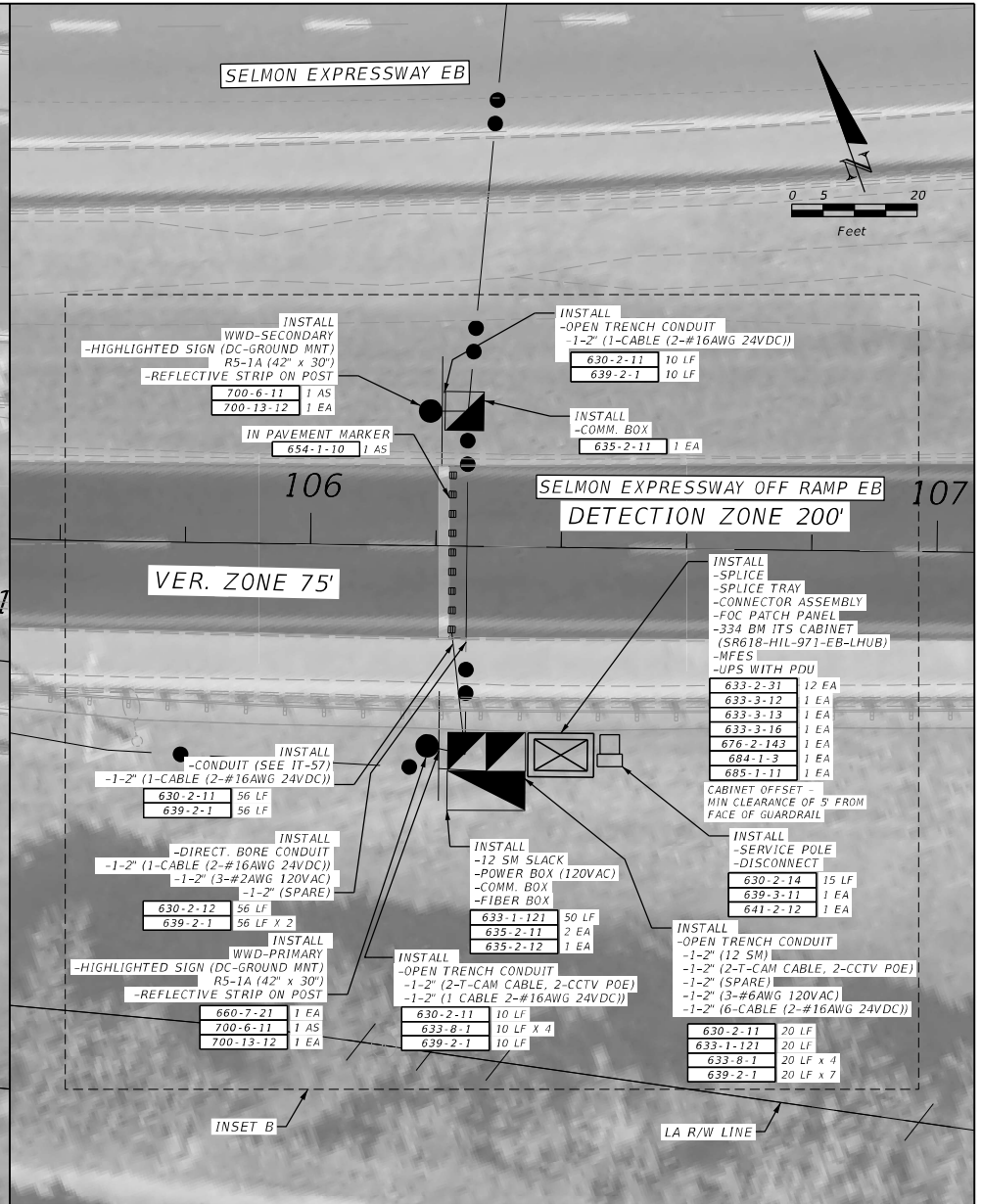
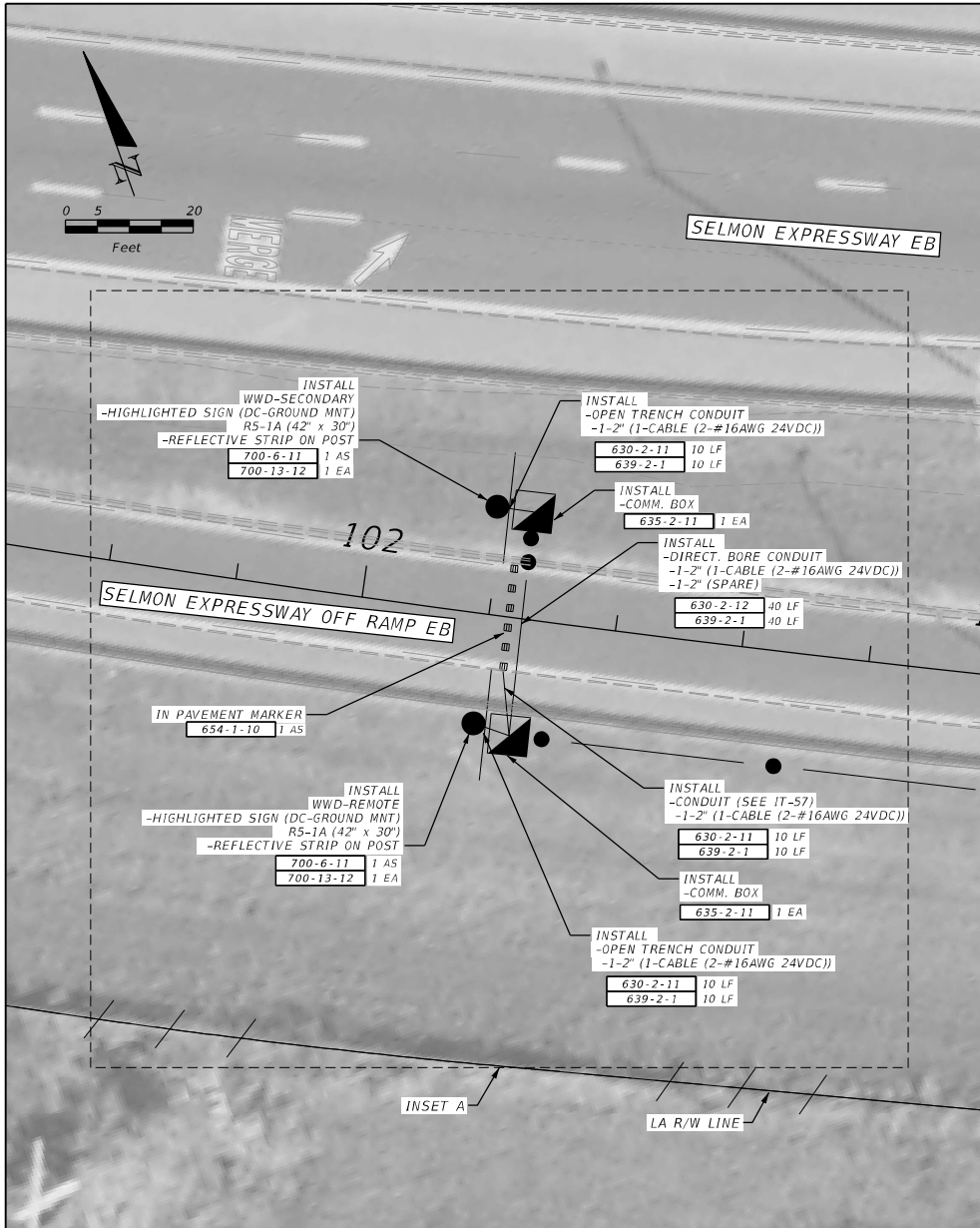
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTE DRIVE, SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

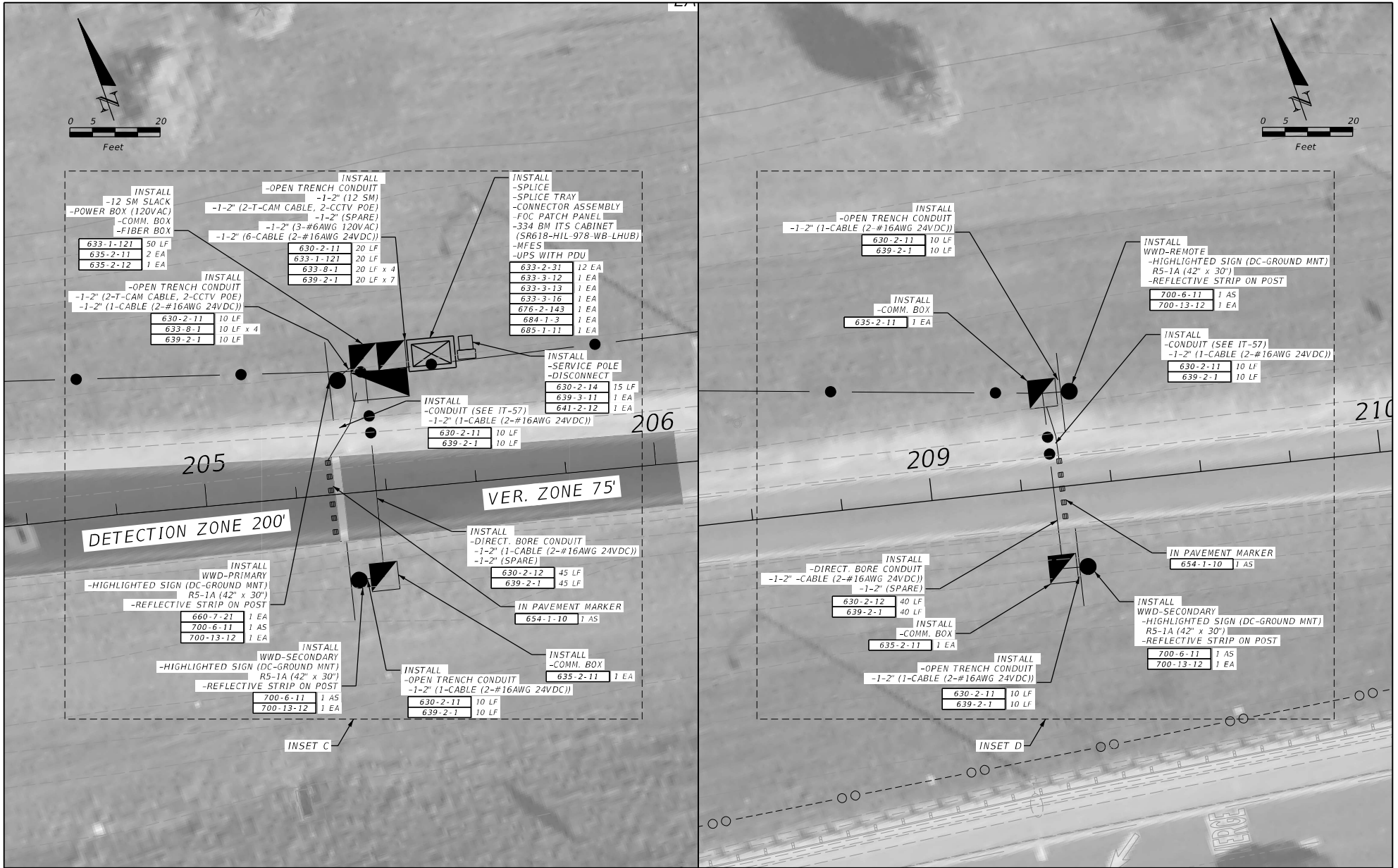
ITS PLANS

SHEET NO.
 IT-27



REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO. IT-28
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 618	HILLSBOROUGH	HI-0172	ITS PLANS	

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

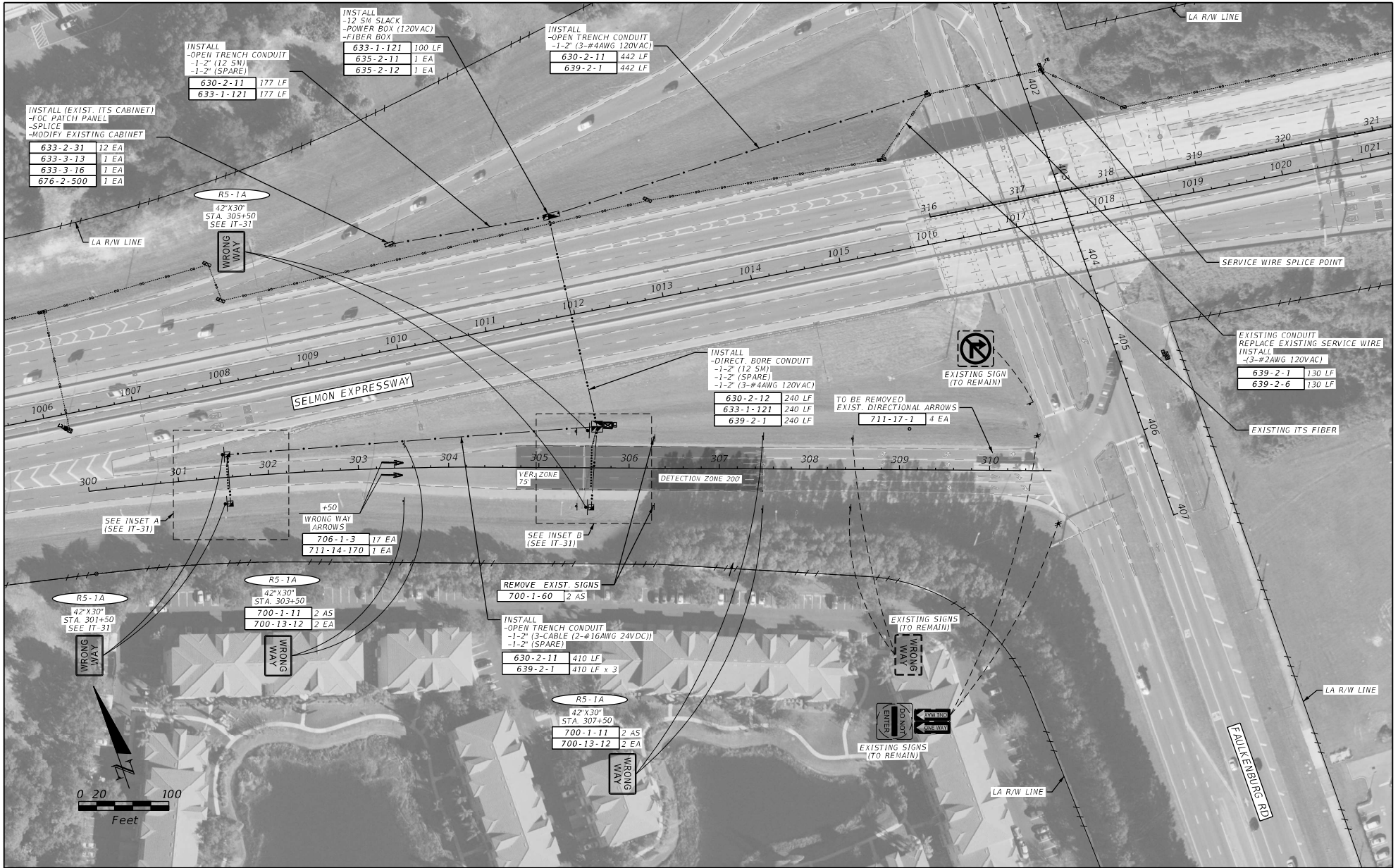
ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTTE DRIVE, SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-29

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



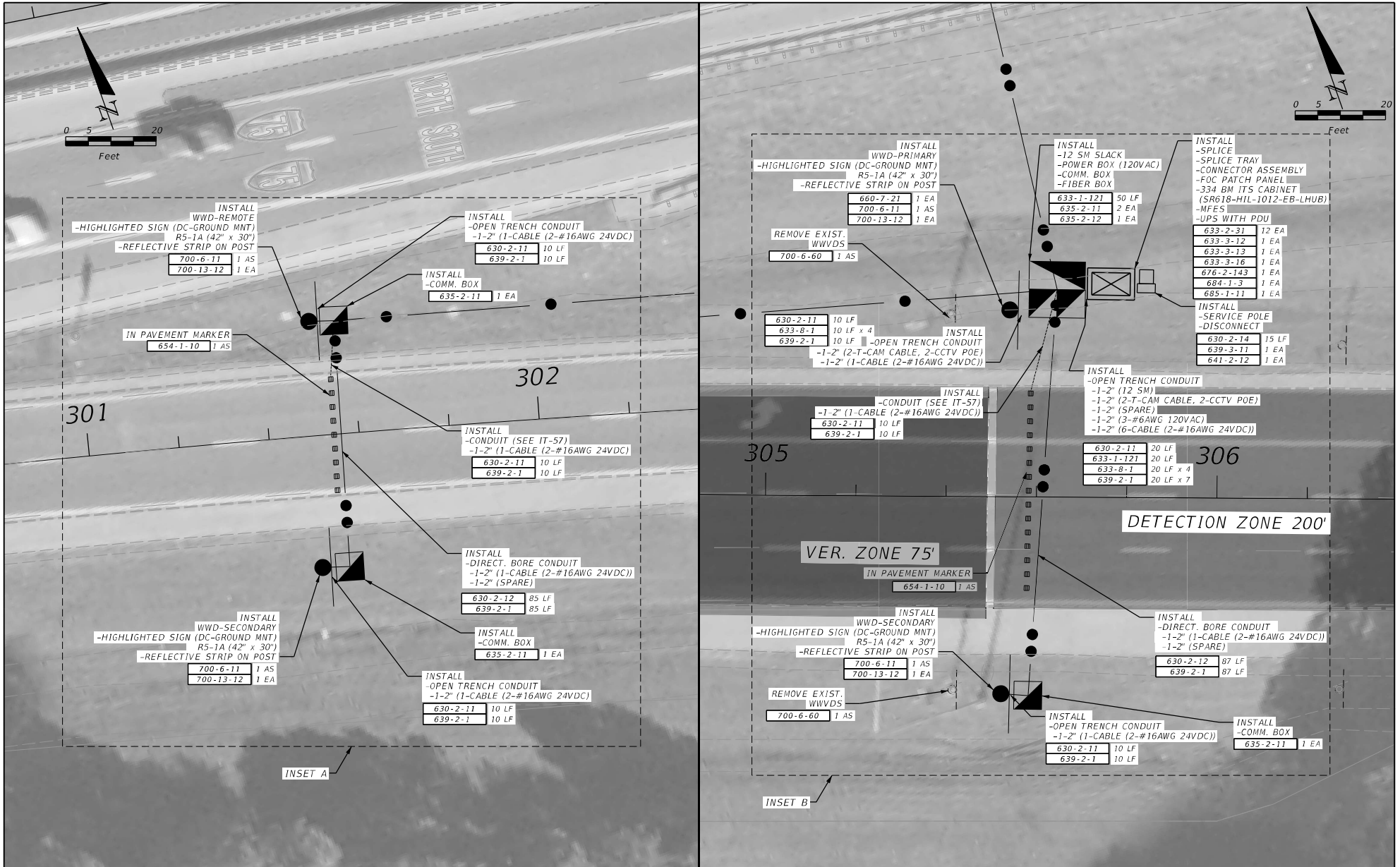
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BCC ENGINEERING, LLC.
 160 NORTH WESTMONTE DRIVE, SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-30



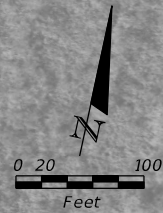
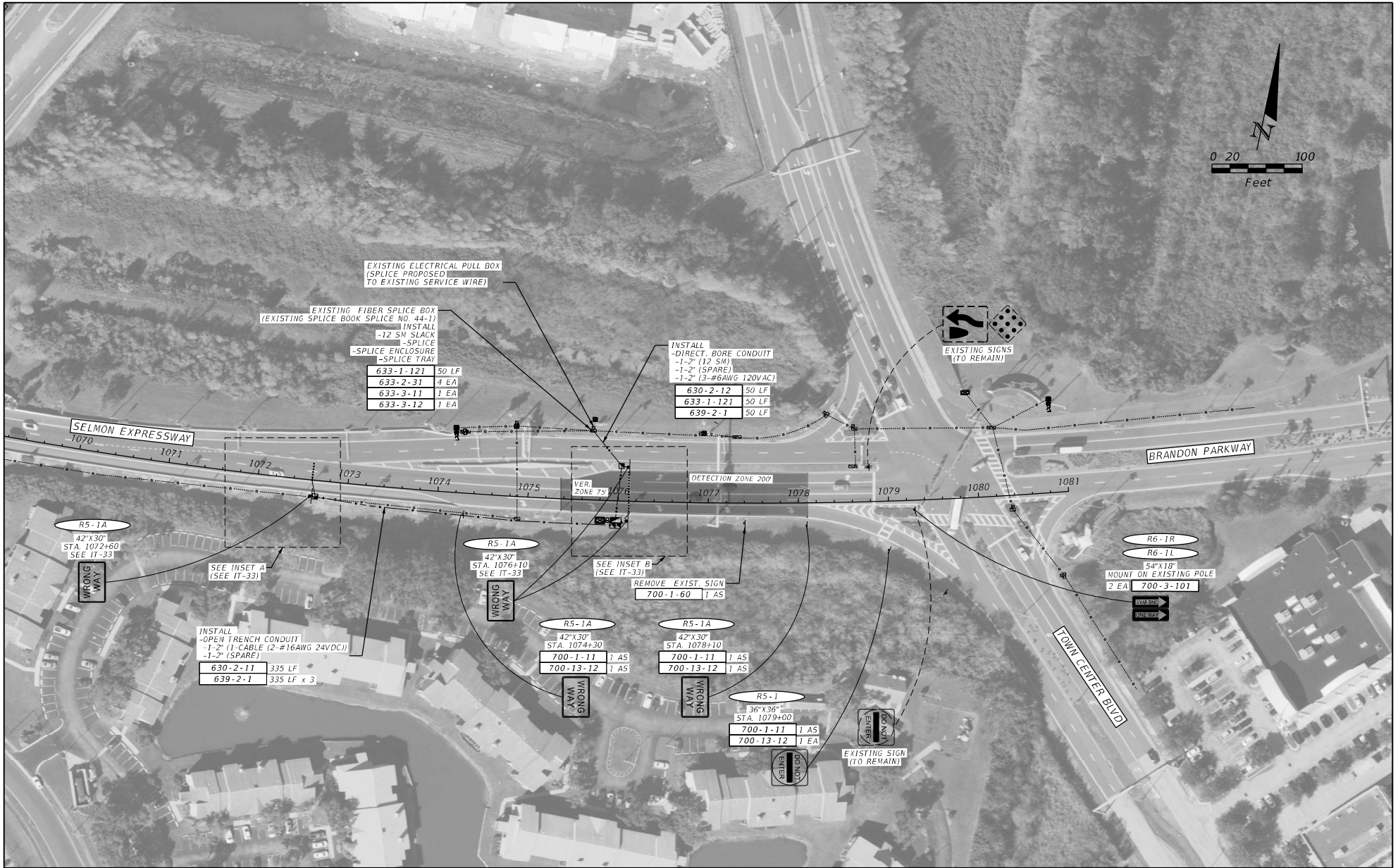
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-31



- EXISTING ELECTRICAL PULL BOX
(SPlice PROPOSED
TO EXISTING SERVICE WIRE)
- EXISTING FIBER SPlice BOX
(EXISTING SPlice BOOK SPlice NO. 44-1)
INSTALL
-12 SW SLACK
-SPlice
-SPlice ENCLOSURE
-SPlice TRAY
633-1-121 50 LF
633-2-31 1 EA
633-3-11 1 EA
633-3-12 1 EA
- INSTALL
-DIRECT BORE CONDUIT
-1-2" (12 SW)
-1-2" (SPARE)
-1-2" (3-#6AWG 120VAC)
630-2-12 50 LF
633-1-121 50 LF
639-2-1 50 LF
- EXISTING SIGNS
(TO REMAIN)
- DETECTION ZONE 200'
- VER ZONE 75'
- REMOVE EXIST SIGN
700-1-60 1 AS
- INSTALL
-OPEN TRENCH CONDUIT
-1-2" (1-CABLE (2-#16AWG 24VDC))
-1-2" (SPARE)
630-2-11 335 LF
639-2-1 335 LF x 3
- R5-1A
42"x30"
STA. 1072+60
SEE IT-33
- R5-1A
42"x30"
STA. 1076+10
SEE IT-33
- R5-1A
42"x30"
STA. 1074+30
700-1-11 1 AS
700-13-12 1 AS
- R5-1A
42"x30"
STA. 1078+10
700-1-11 1 AS
700-13-12 1 AS
- R5-1
36"x36"
STA. 1079+00
700-1-11 1 AS
700-13-12 1 EA
- EXISTING SIGN
(TO REMAIN)
- R6-1R
R6-1L
54"x18"
MOUNT ON EXISTING POLE
2 EA 700-3-101

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

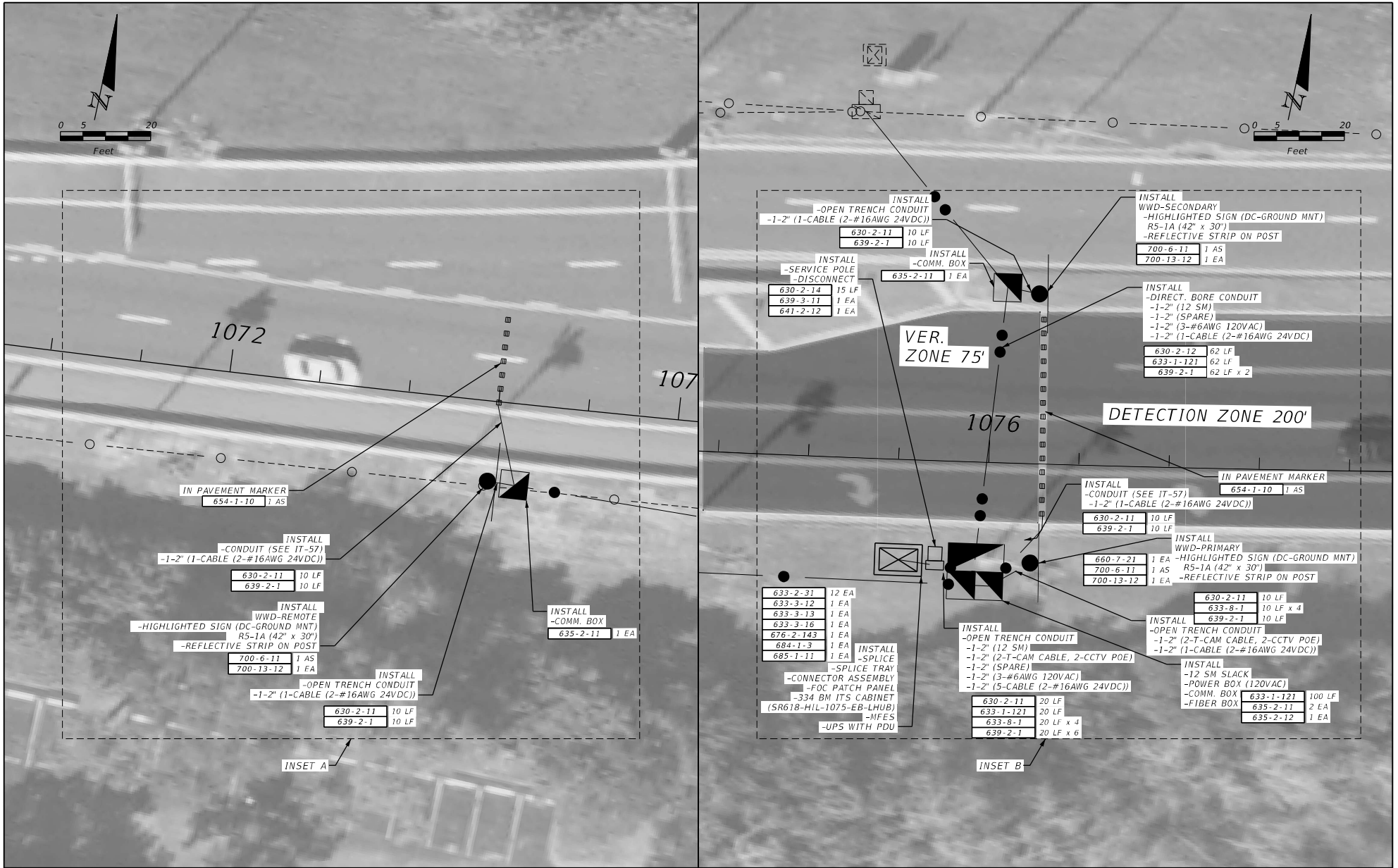
ERIK SPILLMANN, P.E.
P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-32

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REVISIONS	
DATE	DESCRIPTION

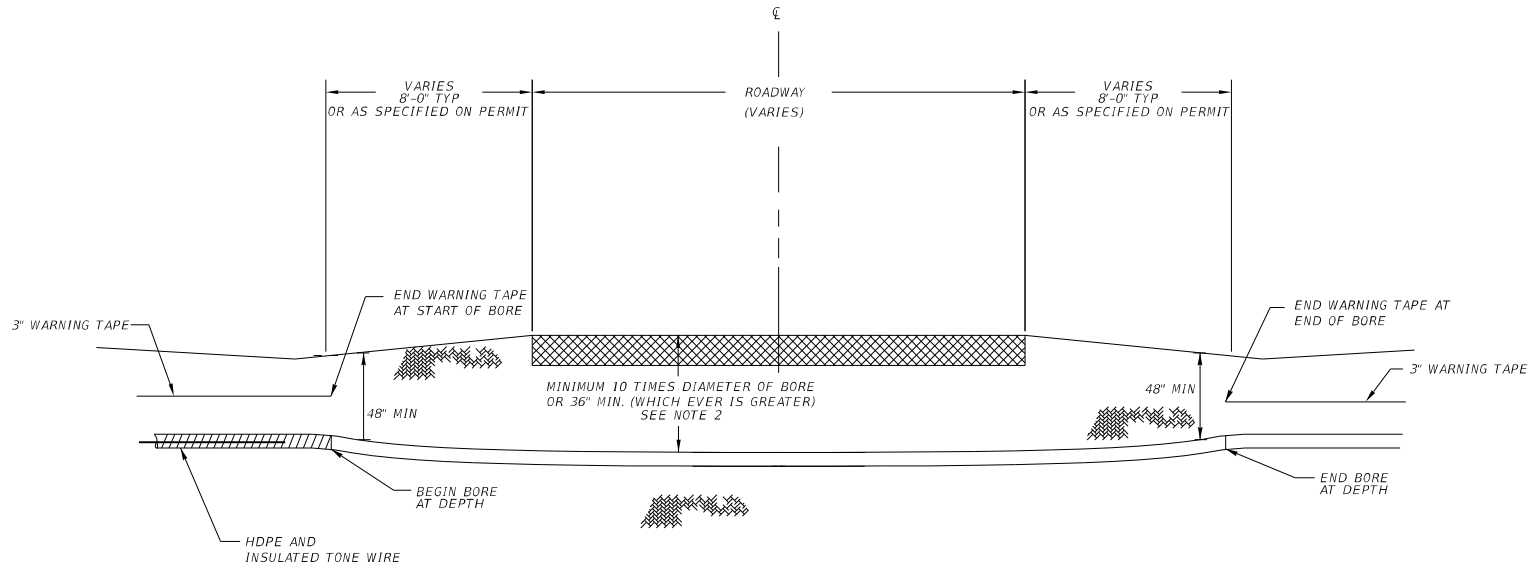
ERIK SPILLMANN, P.E.
P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE, SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

ITS PLANS

SHEET NO.
IT-33

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TYPICAL DIRECTIONAL BORE
N.T.S.

NOTES:

1. UTILITY IN THE PATH OF THE BORE SHALL BE LOCATED AND THE DEPTH OF THE BORE CROSSING SHALL BE DELINEATED TO ROSS UNDER OR OVER UTILITY WITH 12" MINIMUM SEPARATION.
2. HORIZONTAL DEPTH SHALL BE IN ACCORDANCE WITH FDOT UTILITY ACCOMMODATION MANUAL (2017)

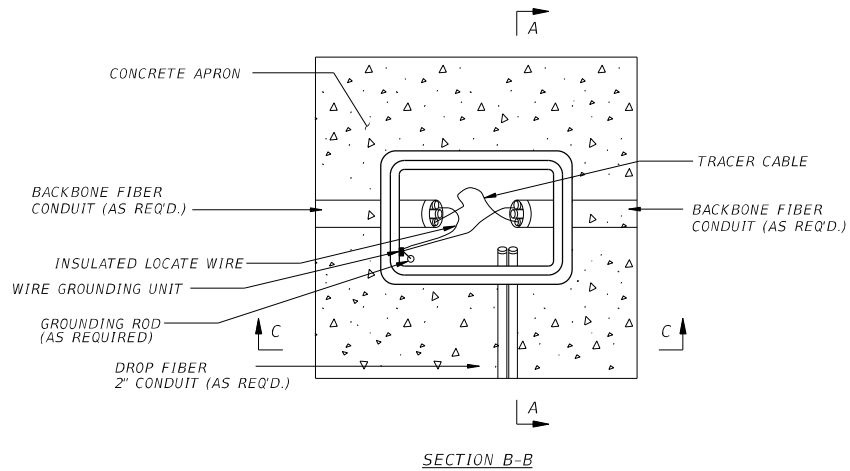
REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO. IT-34
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

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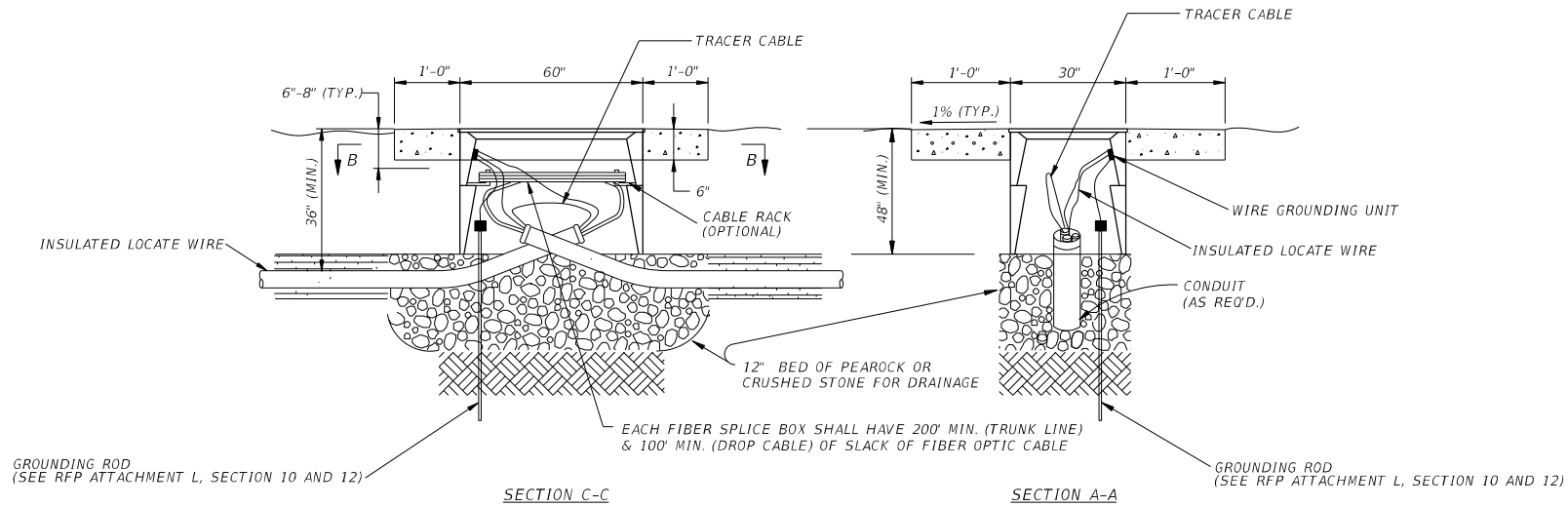
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NOTES:

1. ALL PULL BOXES SHALL HAVE MINIMUM 1'-0" WIDE x 6" DEEP CONCRETE APRONS SLOPED AWAY FROM PULL BOX. THE COST OF APRON IS TO BE INCLUDED IN THE COST OF EACH PULL BOX.
2. WIRE GROUNDING UNITS (WGU) FOR LOCATE WIRE REQUIRED IN SPLICE BOXES.
3. FIBER OPTIC SPLICE BOX LENGTH (LONG SIDE) SHALL BE PARALLEL TO THE CONDUIT RUN. WHEN THE CONDUIT RUN IS PERPENDICULAR AT THE JUNCTION POINT, THE SPLICE BOX SHALL BE PARALLEL TO THE ROADWAY.
4. NOTE THAT THE DIMENSIONS SHOWN ARE THE TYPICAL DIMENSIONS AND MANY VARY SLIGHTLY DEPENDING ON THE MANUFACTURER.
5. SPLICE BOX COVER LABELING TO BE DETERMINED FOR NEXT SUBMITTAL.



REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			FIBER OPTIC SPLICE BOX DETAIL	SHEET NO. IT-35
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 618	HILLSBOROUGH	HI-0172		

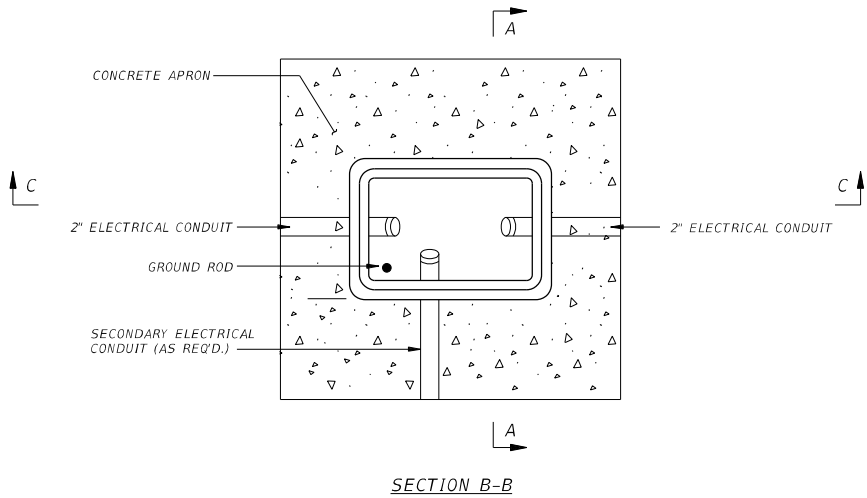
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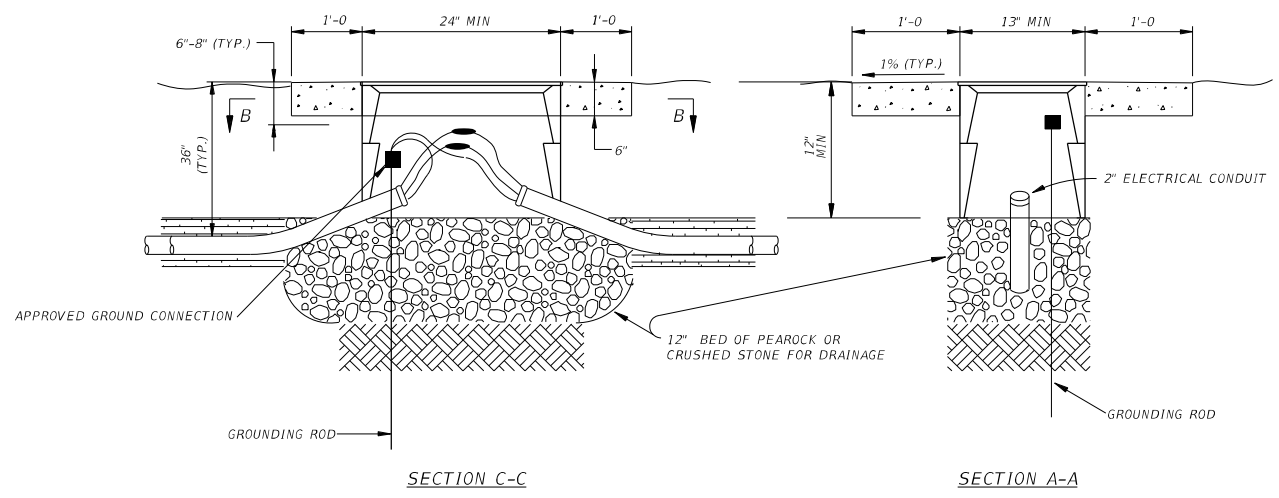
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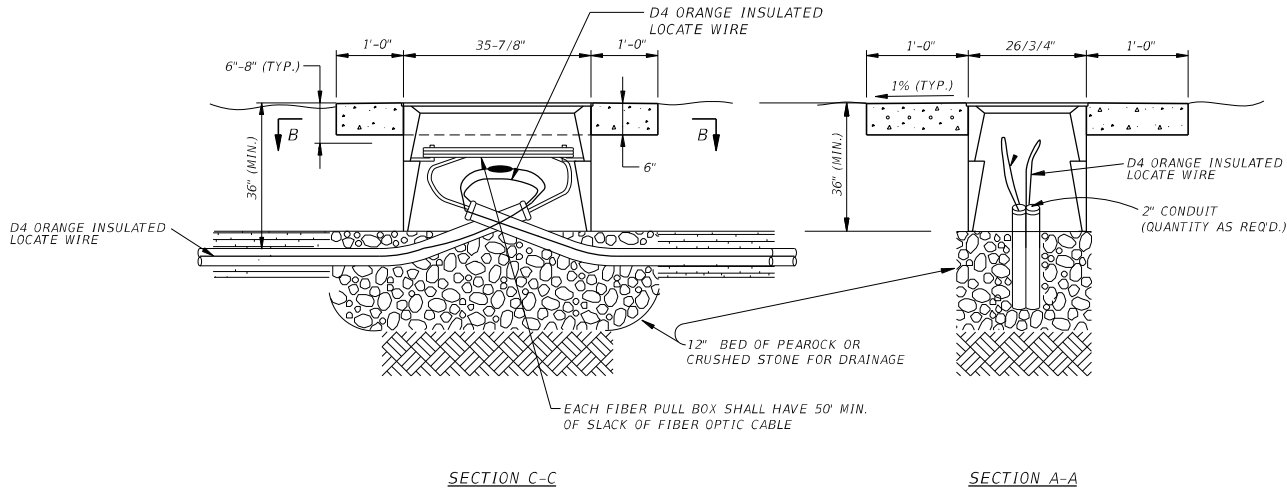
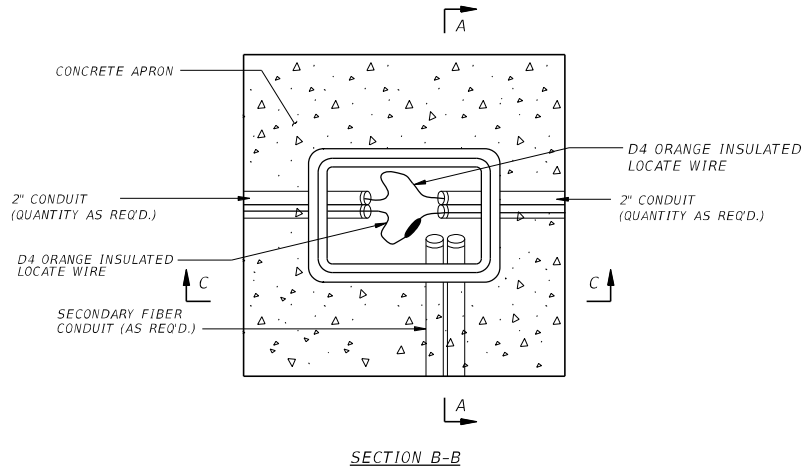
NOTES:

1. CONDUIT C/L SHALL BE ALIGNED TO TOP EDGE OF PULL BOX TO FACILITATE CABLE PULLING.
2. ALL FIBER OPTIC, SIGNAL, & ELECTRIC PULL BOXES SHALL HAVE MINIMUM 1'-0" WIDE X 6" DEEP CONC APRONS SLOPED AWAY FROM PULL BOX. THE COST OF APRON IS TO BE INCLUDED IN THE COST OF EACH PULL BOX.
3. ALL SPLICES SHALL BE MADE IN PULLBOX PROPERLY TAPED AND WEATHERPROOFED.
4. ALL ELECTRICAL SPLICE LOCATIONS SHALL USE POLARIS TAPS OR OTHER METHOD APPROVED BY THE ENGINEER (PER RFP ATTACHMENT L, SECTION 10.1).
5. ELECTRICAL PULL BOX COVERS LABELING TO BE DETERMINED FOR NEXT SUBMITTAL.



REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ELECTRICAL PULL BOX DETAIL	SHEET NO. IT-36
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR 618	HILLSBOROUGH	HI-0172			

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NOTES:

1. REFER TO FLORIDA DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED JULY 2023 SECTION 635 FOR PULL BOX REQUIREMENTS.
2. FIBER OPTIC PULL BOXES SHALL NOT CONTAIN ELECTRICAL CONDUIT OR CONDUCTOR. ELECTRICAL CONDUIT AND CONDUCTORS SHALL BE INSTALLED IN SEPARATE PULL BOXES.
3. CONDUIT C/L SHALL BE ALIGNED TO TOP EDGE OF PULL BOX TO FACILITATE CABLE PULLING.
4. ALL PULL BOXES SHALL HAVE MINIMUM 1'-0" WIDE x 6" DEEP CONCRETE APRONS SLOPED AWAY FROM PULL BOX. THE COST OF APRON IS TO BE INCLUDED IN THE COST OF EACH PULL BOX.
5. FIBER OPTIC SPLICE BOX SHALL NOT BE INSTALLED IN ROADWAYS OR DRIVEWAYS.
6. CONDUIT C/L SHALL BE ALIGNED TO TOP EDGE OF SPLICE BOX TO FACILITATE CABLE PULLING.
7. SPARE FIBER OPTIC CABLE IS TO BE WOUND NEATLY AND CAREFULLY, AS NOT TO EXCEED THE MINIMUM ALLOWABLE BENDING RADIUS OF THE FIBER OPTIC CABLE.
8. 5#8" COPPER BONDED GROUND RODS SHALL BE USED.
9. GROUNDING WIRES SHALL BE EXOTHERMIC ALLY WELDED TO GROUND RODS
10. NOTE THAT THE DIMENSIONS SHOWN ARE THE TYPICAL DIMENSIONS AND MANY VARY SLIGHTLY DEPENDING ON THE MANUFACTURER.
11. FIBER BOX COVER LABELING TO BE DETERMINED FOR NEXT SUBMITTAL.

REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			FIBER PULL BOX DETAIL	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 618	HILLSBOROUGH	HI-0172		

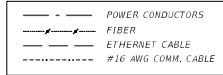
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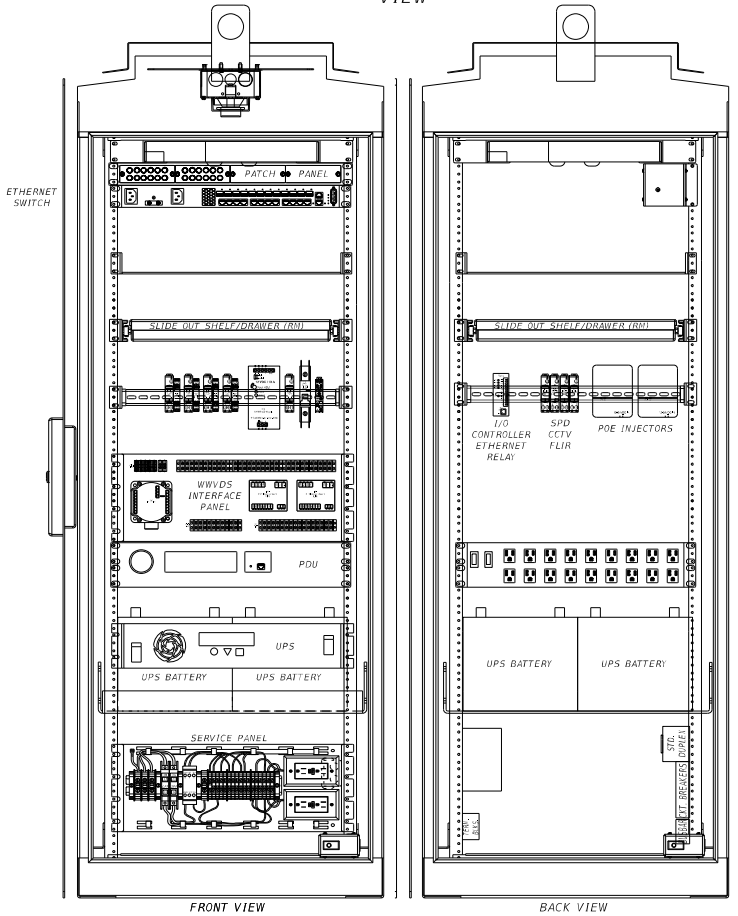
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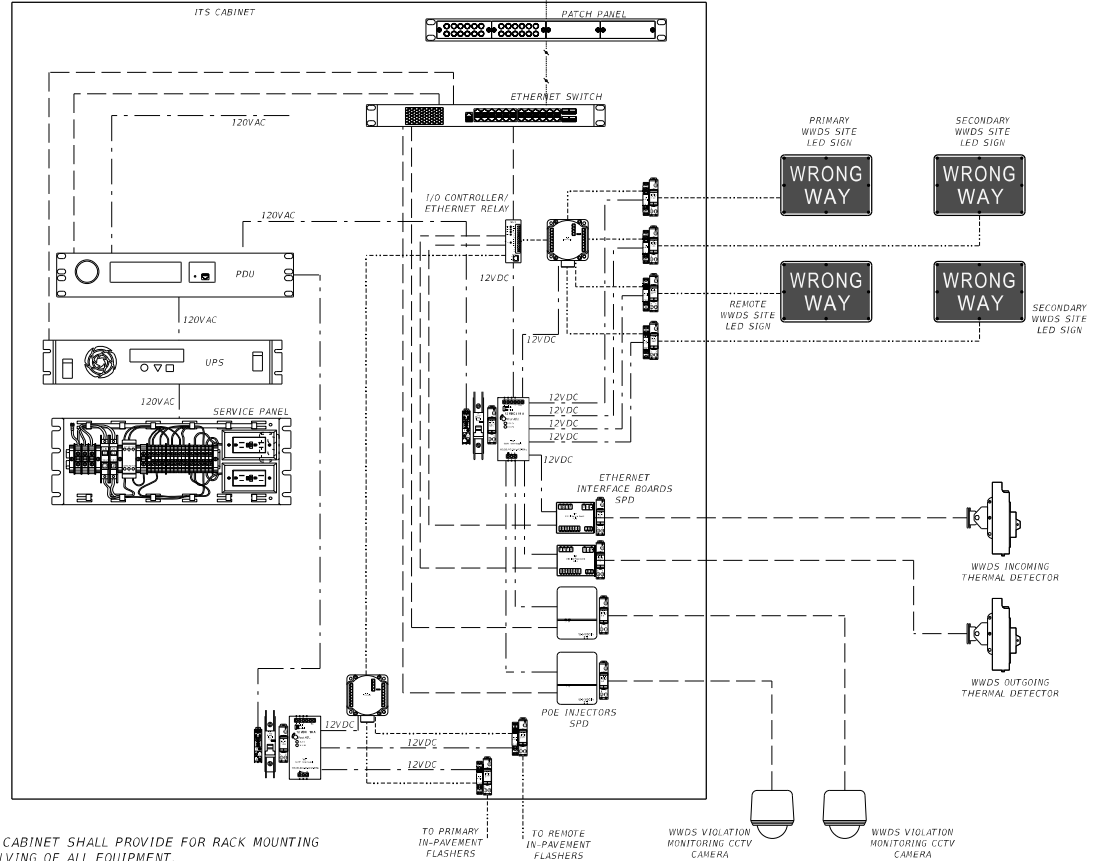
WRONG WAY DETECTION CABINET DETAIL - TYPICAL



GROUND MOUNTED
ITS CABINET
EQUIPMENT LAYOUT
VIEW



POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE BASE MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

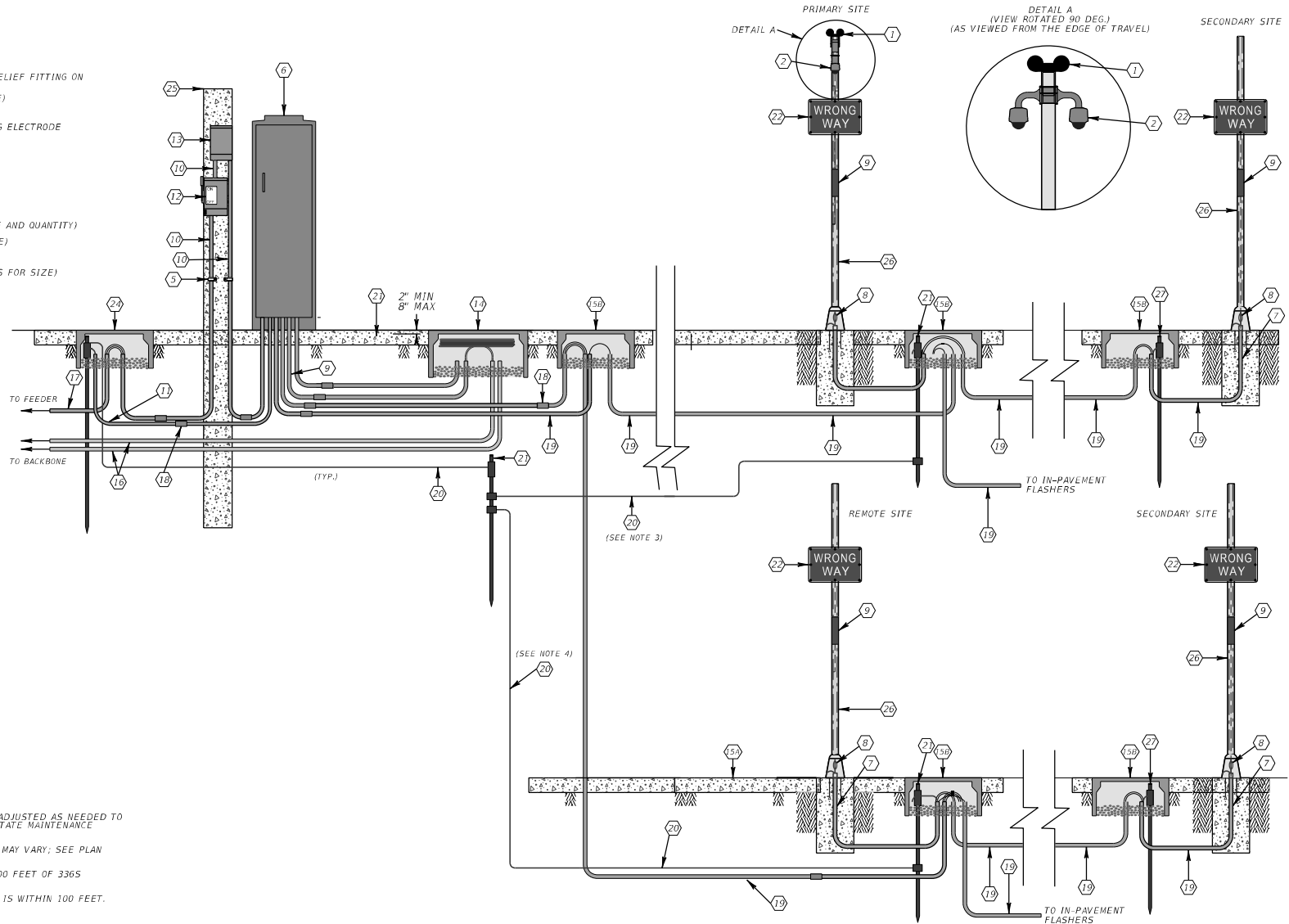
REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO. IT-38
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

ITS CABINET DETAILS

WWDS INSTALLATION DETAIL - HARDWARE N.T.S.

LEGEND

- 1 THERMAL SENSOR
- 2 VERIFICATION CAMERA
- 3 NOT USED
- 4 STAINLESS STEEL STRAPS
- 5 CONDUIT STRAPS (3' O.C. TYPICAL)
- 6 TYPE 334 FROUND MOUNTED CABINET
- 7 2" PVC CONDUIT EMBEDDED IN FOOTING
- 8 BREAKAWAY CONNECTOR FOR CABLES, INSTALL STRAIN RELIEF FITTING ON CONDUIT LEADING AWAY FROM BREAKAWAY POST
- 9 RETROREFLECTIVE SIGN STRIP (RED, 2" LENGTH, 2" WIDE)
- 10 RSC CONDUIT (POWER)
- 11 CONDUIT FOR CABINET #2 AWG BARE COPPER GROUNDING ELECTRODE CONDUCTOR (BOND TO GROUNDING ROD)
- 12 ELECTRICAL DISCONNECT
- 13 AC TRANSFORMER (WHEN REQUIRED)
- 14 FIBER OPTIC PULL BOX
- 15 ELECTRICAL PULL BOX (120V UPS OUTPUT)
- 16 ELECTRICAL PULL BOX (CAT-6/DC POWER)
- 17 HDPE CONDUIT FOR FIBER (SEE PLAN SHEETS FOR SIZE AND QUANTITY)
- 18 HDPE CONDUIT FOR POWER (SEE PLAN SHEETS FOR SIZE)
- 19 CONDUIT COUPLER
- 20 HDPE CONDUIT FOR CAT-6/DC POWER (SEE PLAN SHEETS FOR SIZE)
- 21 #2 AWG BARE SOLID COPPER GROUNDING ELECTRODE CONDUCTOR (BOND TO GROUNDING ROD)
- 22 1/2" X 20' MIN. GROUNDING ELECTRODE (EXTEND OR ADD ADDITIONAL GROUND RODS TO ACHIEVE 5 OHM MAX. RESISTANCE TO GROUND) ROD PLACEMENT PER FDOT INDEX 6-41-020
- 23 WRONG WAY HIGHLIGHTED SIGN PANEL
- 24 NEMA 3R POLE MOUNTED CABINET (ORIENTATION PER SITE DETAILS)
- 25 ELECTRICAL PULL BOX (POWER TO LOCAL HUB)
- 26 TYPE P-II SERVICE POLE
- 27 ALUMINUM SIGN POST WITH TRANSFORMER BASE PER STANDARD INDEX 700-120. INSTALL TOP CAP.
- 28 3/4" X 20' MIN. GROUNDING ELECTRODE



- NOTES:**
1. DISCONNECT AND TRANSFORMER MOUNTING HEIGHT MAY BE ADJUSTED AS NEEDED TO FIT ON THE POLE. ENSURE THAT MOUNTING HEIGHTS FACILITATE MAINTENANCE ACCESS.
 2. NUMBER AND USAGE OF PROPOSED UNDERGROUND CONDUITS MAY VARY; SEE PLAN SHEETS FOR FURTHER DETAIL.
 3. BOND TO GROUND ARRAYS WHEN PRIMARY SITE IS WITHIN 100 FEET OF 3365 CABINET.
 4. BOND TO PRIMARY SITE GROUND ARRAY WHEN PRIMARY SITE IS WITHIN 100 FEET.

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	WWDS INSTALLATION DETAILS

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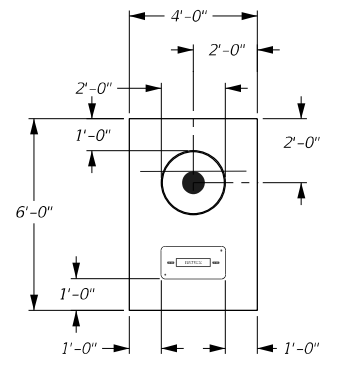
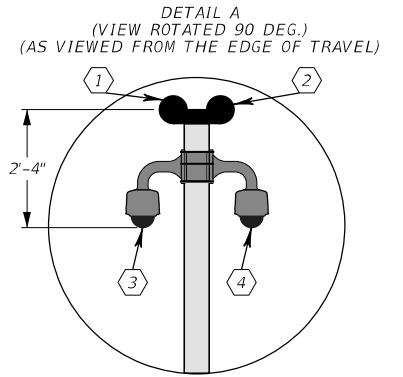
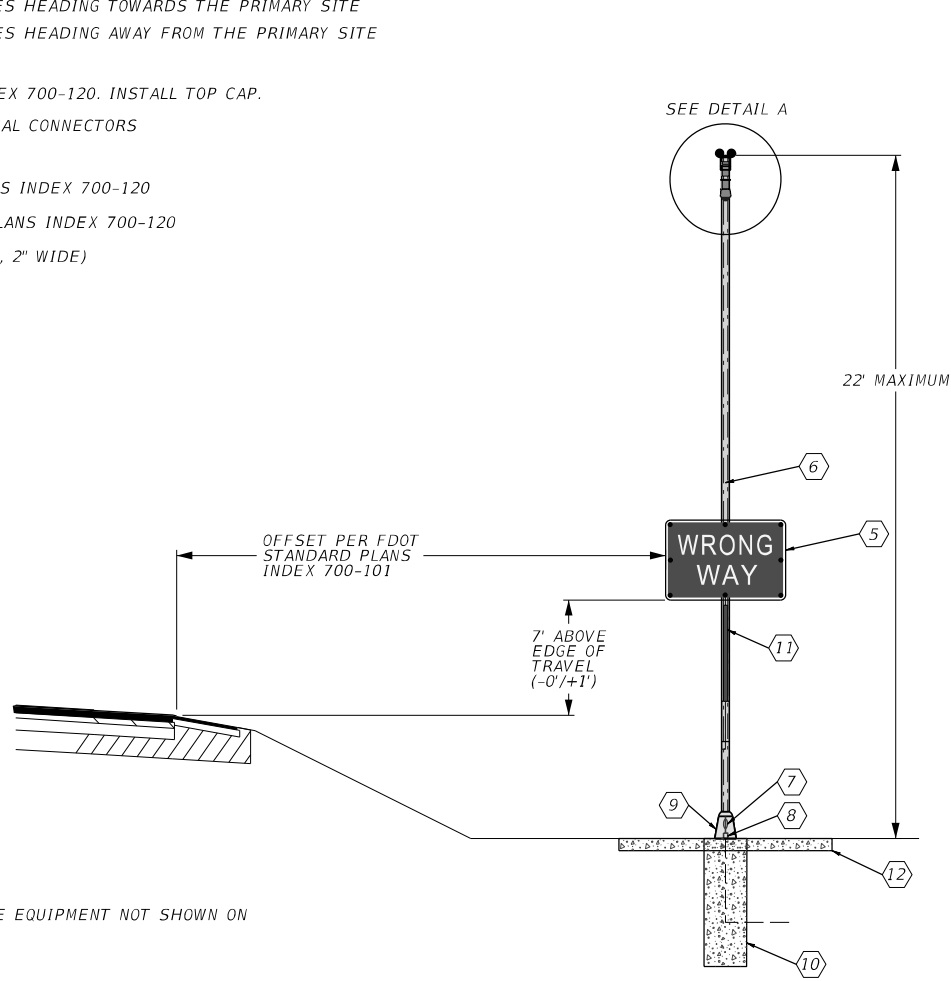
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PRIMARY SITE DETAIL - HARDWIRE

N.T.S.

LEGEND

- ① INCOMING THERMAL SENSOR
- ② OUTGOING THERMAL SENSOR
- ③ INCOMING CAMERA AIMED FOR VIEWING VEHICLES HEADING TOWARDS THE PRIMARY SITE
- ④ OUTGOING CAMERA AIMED FOR VIEWING VEHICLES HEADING AWAY FROM THE PRIMARY SITE
- ⑤ 42" X 30" R5-1A HIGHLIGHTED SIGN
- ⑥ ALUMINUM SIGN POST PER STANDARD PLAN INDEX 700-120. INSTALL TOP CAP.
- ⑦ NON-FUSED, WATERTIGHT BREAKAWAY ELECTRICAL CONNECTORS
- ⑧ STRAIN RELIEF FITTING
- ⑨ TRANSFORMER BASE PER FDOT STANDARD PLANS INDEX 700-120
- ⑩ CONCRETE FOUNDATION PER FDOT STANDARD PLANS INDEX 700-120
- ⑪ RETROREFLECTIVE SIGN STRIP (RED, 2' LENGTH, 2" WIDE)
- ⑫ CONCRETE APRON PER APRON DETAILS



NOTES:

1. CONDUITS, PULL BOXES, AND ELECTRICAL SERVICE EQUIPMENT NOT SHOWN ON THIS SHEET.

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 618	HILLSBOROUGH	HI-0172	IT-40	

WWDS INSTALLATION DETAILS

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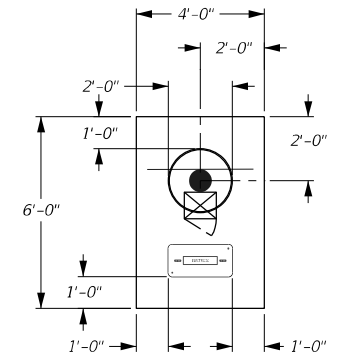
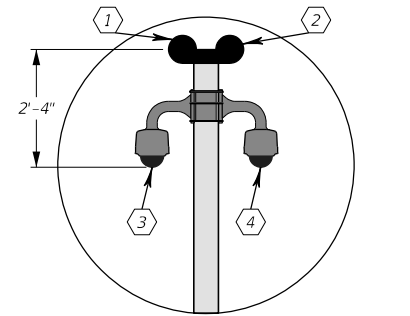
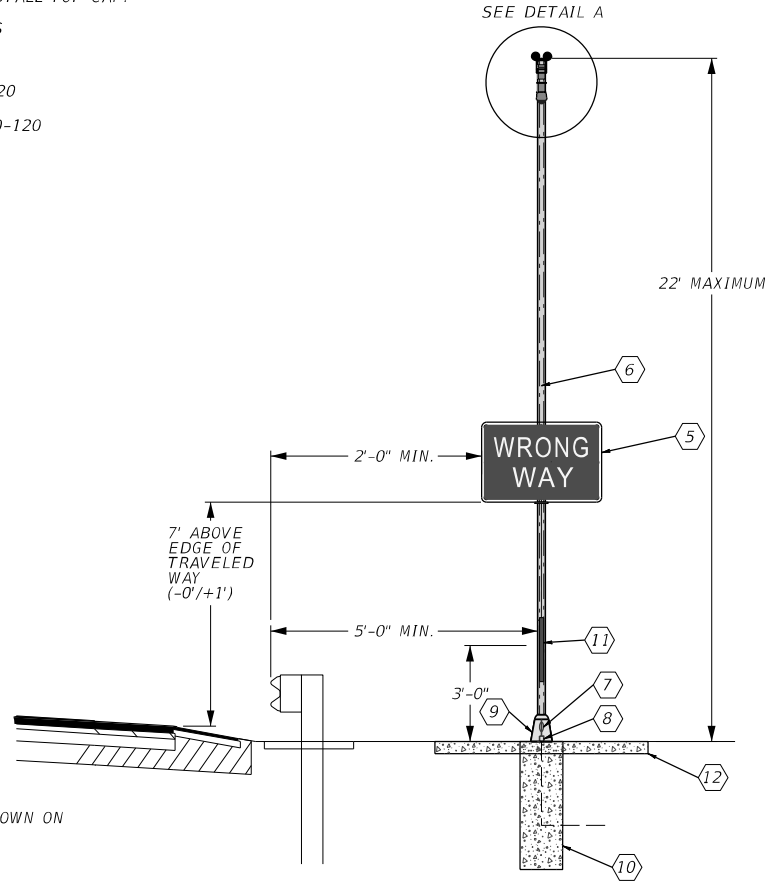
PRIMARY - HARDWIRE SITE DETAIL NEAR EXISTING GUARDRAIL
OUTSIDE CLEAR ZONE

N.T.S.

LEGEND

- ① INCOMING THERMAL SENSOR
- ② OUTGOING THERMAL SENSOR
- ③ INCOMING CAMERA AIMED FOR VIEWING VEHICLES HEADING TOWARDS THE PRIMARY SITE
- ④ OUTGOING CAMERA AIMED FOR VIEWING VEHICLES HEADING AWAY FROM THE PRIMARY SITE
- ⑤ 42" X 30" R5-1A HIGHLIGHTED SIGN
- ⑥ ALUMINUM SIGN POST PER STANDARD PLAN INDEX 700-120. INSTALL TOP CAP.
- ⑦ NON-FUSED, WATERTIGHT BREAKAWAY ELECTRICAL CONNECTORS
- ⑧ STRAIN RELIEF FITTING
- ⑨ TRANSFORMER BASE PER FDOT STANDARD PLANS INDEX 700-120
- ⑩ CONCRETE FOUNDATION PER FDOT STANDARD PLANS INDEX 700-120
- ⑪ RETROREFLECTIVE SIGN STRIP (RED, 2' LENGTH, 2" WIDE)
- ⑫ CONCRETE APRON PER APRON DETAILS

DETAIL A
 (VIEW ROTATED 90 DEG.)
 (AS VIEWED FROM THE EDGE OF TRAVEL)



APRON DETAIL

NOTES:

1. CONDUITS, PULL BOXES, AND ELECTRICAL SERVICE EQUIPMENT NOT SHOWN ON THIS SHEET.

REVISIONS		DATE	DESCRIPTION	ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO.
DATE	DESCRIPTION				ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 618	HILLSBOROUGH	HI-0172	WWDS INSTALLATION DETAILS	

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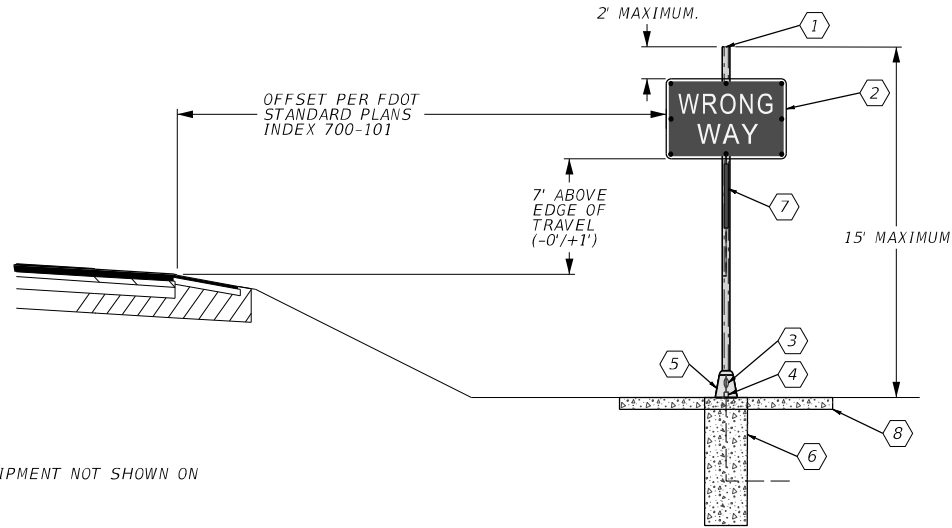
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SECONDARY - HARDWIRE SITE DETAIL

N.T.S.

LEGEND

- ① ALUMINUM SIGN POST PER STANDARD PLAN INDEX 700-120.
INSTALL TOP CAP.
- ② 42" X 30" R5-1A HIGHLIGHTED SIGN
- ③ NON-FUSED, WATERTIGHT BREAKAWAY ELECTRICAL CONNECTORS
- ④ STRAIN RELIEF FITTING
- ⑤ TRANSFORMER BASE PER FDOT STANDARD PLANS INDEX 700-120
- ⑥ CONCRETE FOUNDATION PER FDOT STANDARD PLANS INDEX 700-120
- ⑦ RETROREFLECTIVE SIGN STRIP (RED, 2' LENGTH, 2" WIDE)
- ⑧ CONCRETE APRON PER APRON DETAILS



NOTES:

1. CONDUITS, PULL BOXES, AND ELECTRICAL SERVICE EQUIPMENT NOT SHOWN ON THIS SHEET.

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 618	HILLSBOROUGH	HI-0172		

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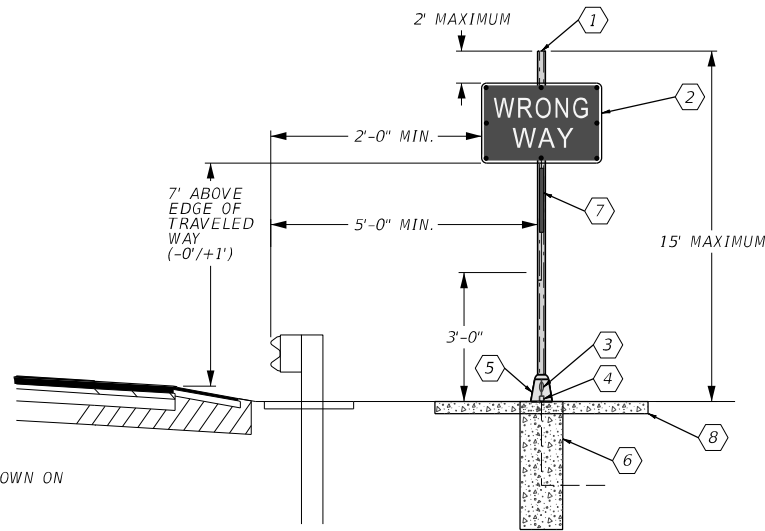
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**REMOTE - HARDWIRE SITE DETAIL NEAR EXISTING GUARDRAIL
OUTSIDE CLEAR ZONE**

N.T.S.

LEGEND

- ① ALUMINUM SIGN POST PER STANDARD PLAN INDEX 700-120.
INSTALL TOP CAP.
- ② 42" X 30" R5-1A HIGHLIGHTED SIGN
- ③ NON-FUSED, WATERTIGHT BREAKAWAY ELECTRICAL CONNECTORS
- ④ STRAIN RELIEF FITTING
- ⑤ TRANSFORMER BASE PER FDOT STANDARD PLANS INDEX 700-120
- ⑥ CONCRETE FOUNDATION PER FDOT STANDARD PLANS INDEX 700-120
- ⑦ RETROREFLECTIVE SIGN STRIP (RED, 2' LENGTH, 2" WIDE)
- ⑧ CONCRETE APRON PER APRON DETAILS



NOTES:

1. CONDUITS, PULL BOXES, AND ELECTRICAL SERVICE EQUIPMENT NOT SHOWN ON THIS SHEET.

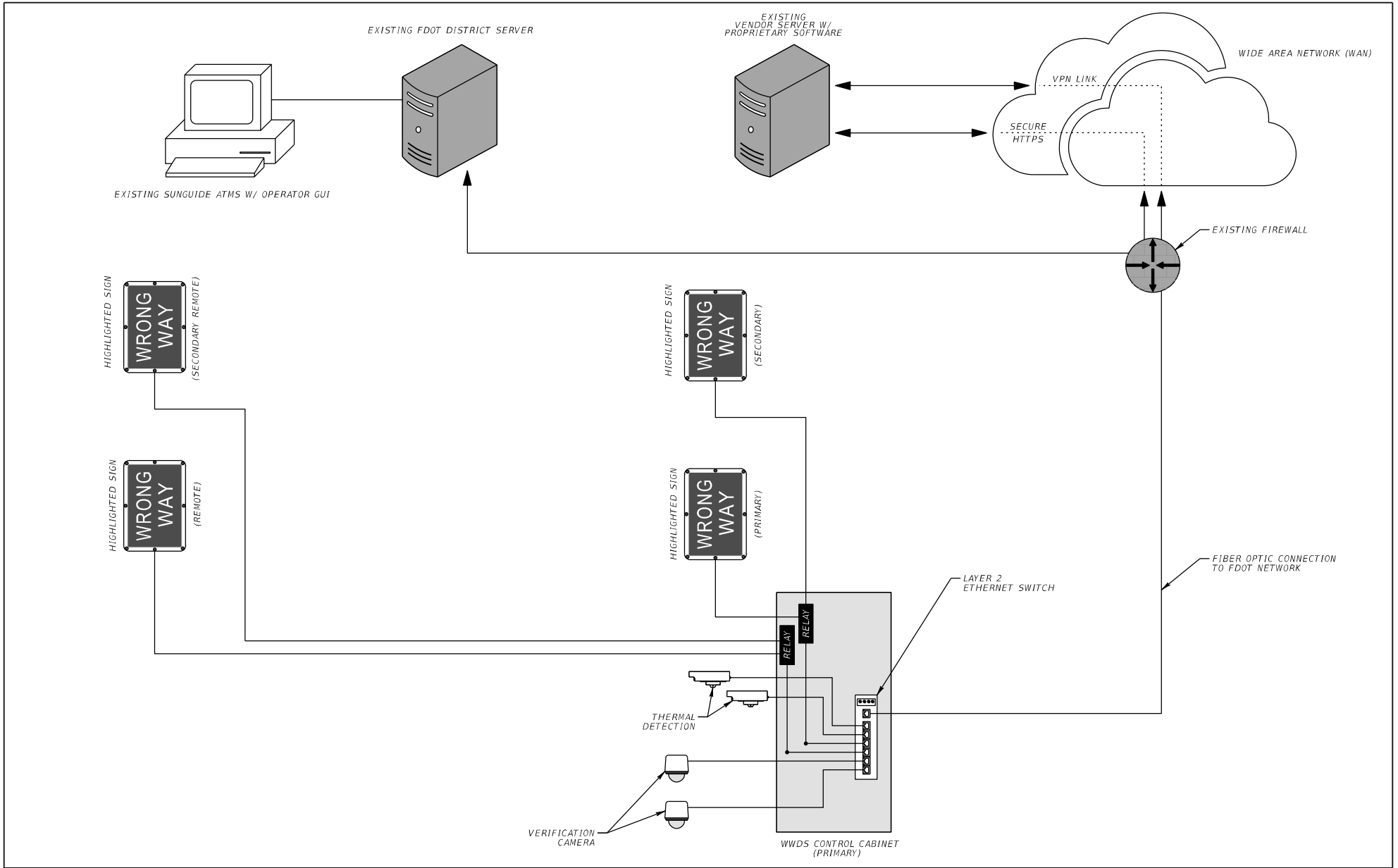
REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			WWDS INSTALLATION DETAILS	SHEET NO. IT-43
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 618	HILLSBOROUGH	HI-0172		

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 618	HILLSBOROUGH	HI-0172		

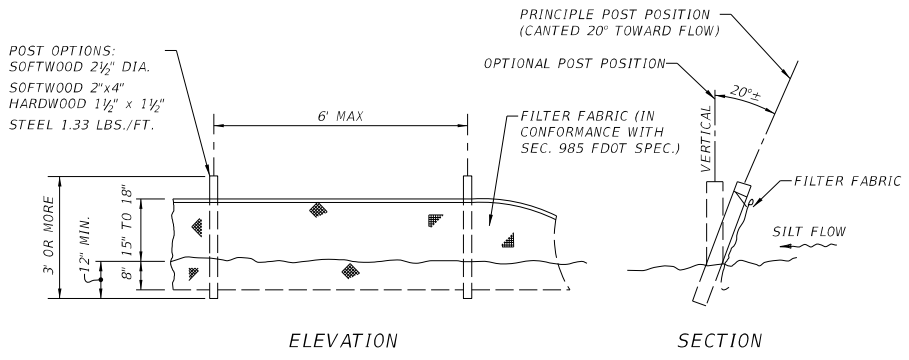
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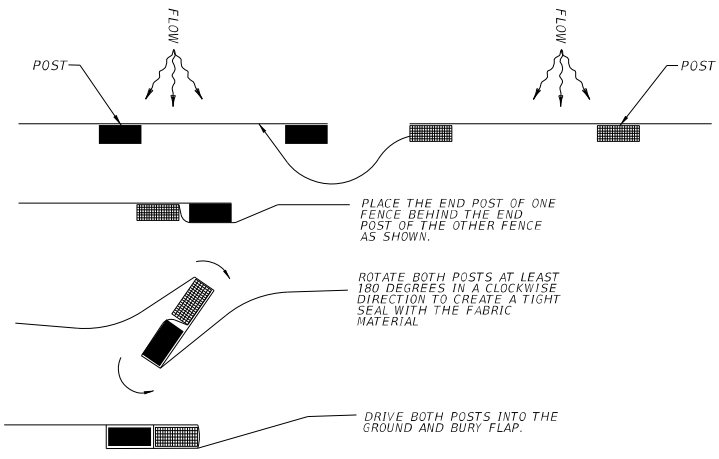
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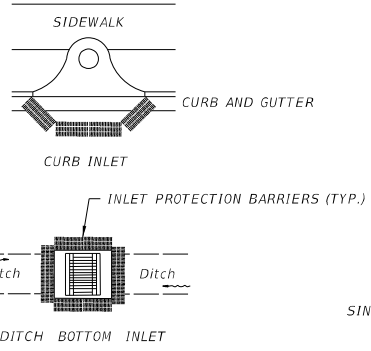


TYPE III SILT FENCE



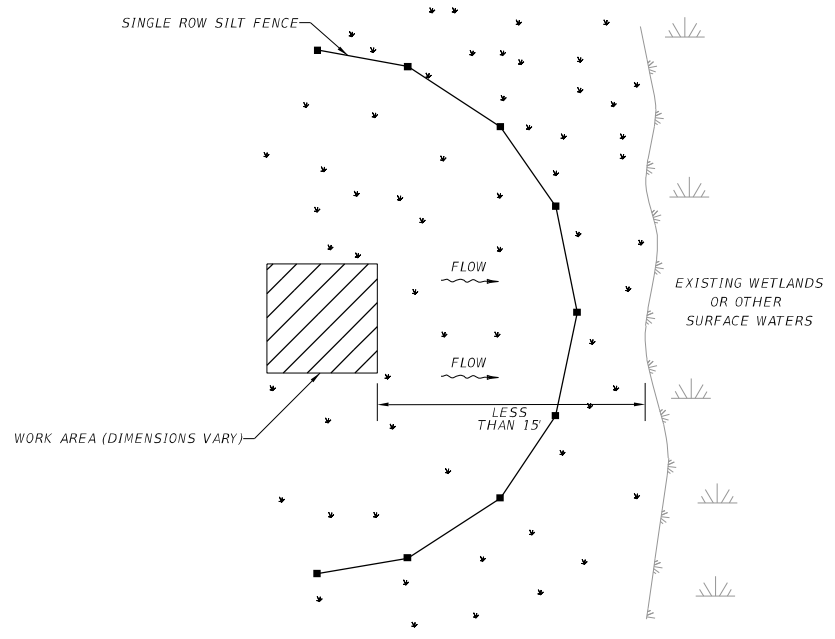
JOINING TWO SILT FENCES

- NOTES:**
1. THE CONTRACTOR SHALL UTILIZE ALL MEASURES NECESSARY TO LIMIT TRANSPORT OF SEDIMENTS, IN EXCESS OF EXISTING CONDITIONS, FROM THE PROJECT SITE.
 2. SILT FENCING IS INTENDED TO BE UTILIZED IN UPLAND AREAS. DO NOT PLACE SILT FENCING IN DITCHES, CHANNELS, AREAS OF CONCENTRATED FLOW, SURFACE WATERS OR WETLANDS.
 3. EXTRA CARE SHOULD BE TAKEN TO ENSURE THAT NO CONSTRUCTION ACTIVITY RELATED SEDIMENT LADEN RUNOFF ENTERS WETLANDS OR SURFACE WATERS.
 4. SILT FENCING IS REQUIRED WHEN PERFORMING WORK THAT DISTURBS EARTH IN CLOSE PROXIMITY TO A WETLAND OR OTHER SURFACE WATER, WITH THE EXCEPTION OF MINOR DISTURBANCES ASSOCIATED WITH CONDUIT INSTALLATION USING THE VIBRATORY PLOWING METHOD.
 5. TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 104.
 6. INLET PROTECTION SHALL BE ESTABLISHED WHERE NECESSARY TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING EXISTING STORMWATER MANAGEMENT SYSTEMS. IF NECESSARY, FLOATING TURBIDITY BARRIERS SHALL BE UTILIZED TO PROTECT PERMANENT BODIES OF WATER FROM SEDIMENT LADEN RUNOFF.



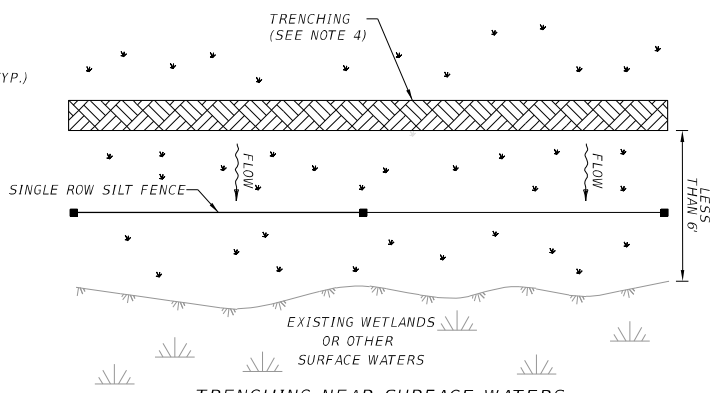
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

N.T.S.
INLET PROTECTION BARRIERS REQUIRED IF CONSTRUCTION IS WITHIN 15' OF INLET OR SIMILAR STRUCTURE.



WORK AREA NEAR SURFACE WATERS

N.T.S.

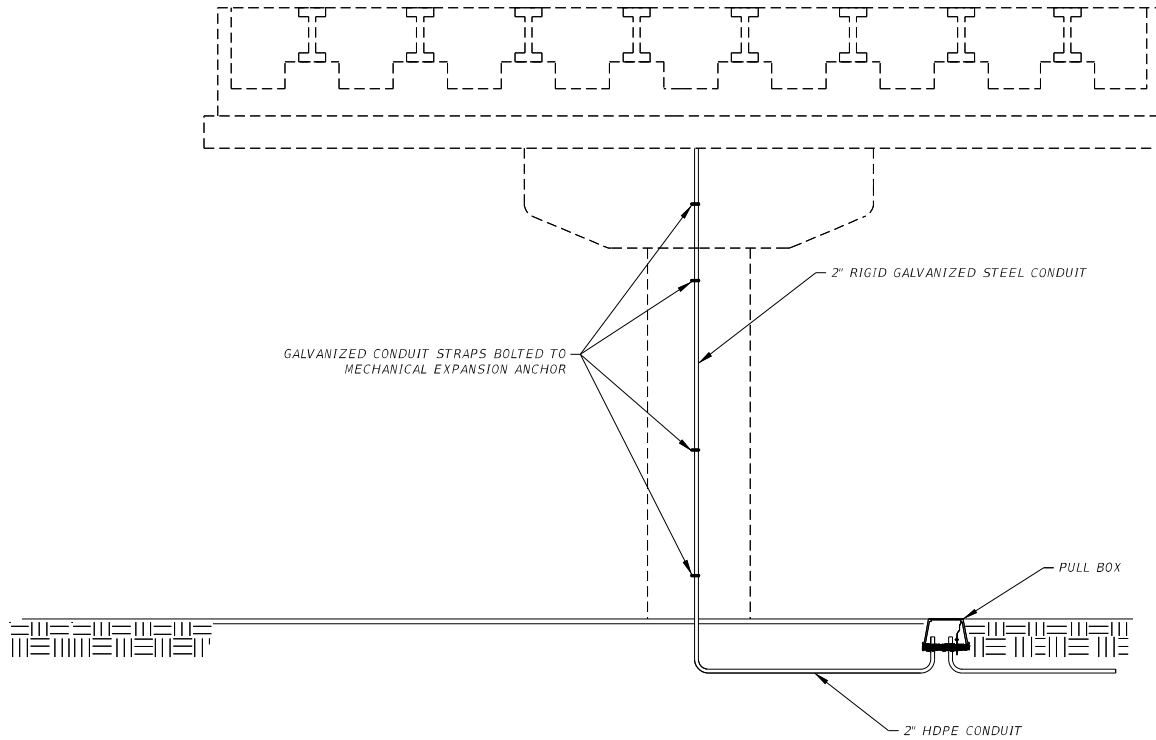


TRENCHING NEAR SURFACE WATERS

N.T.S.

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

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BRIDGE STRUCTURE MOUNTED CONDUIT RISER DETAIL
N.T.S.

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR 618	HILLSBOROUGH	HI-0172			

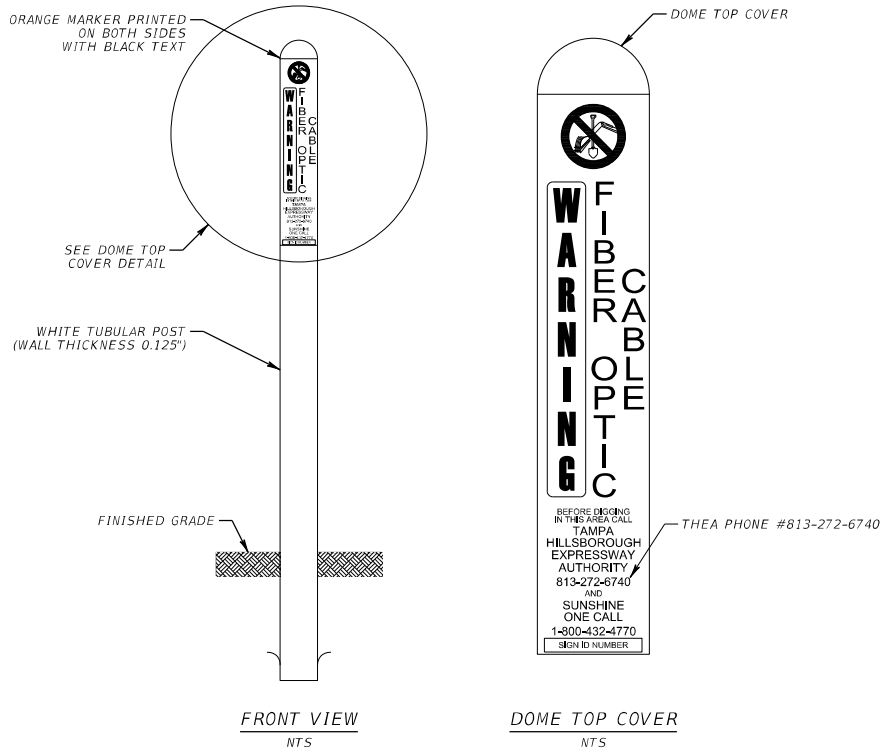
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THEA FIBER OPTIC CABLE ROUTE MARKER



NOTES:

1. FOR TRENCH LINES WITH BOTH FIBER OPTIC CABLE AND ELECTRICAL SERVICE WIRE, INSTALL ELECTRICAL MARKER NEXT TO FIBER MARKER, CONTRACTOR TO CONFIRM CONTACT INFORMATION PHONE NUMBERS PRIOR TO PROCURING ROUTE MARKERS.
2. A DOME TOP COVER SHALL BE INSTALLED ON EACH MARKER: ORANGE FOR FIBER AND RED FOR ELECTRICAL.
3. POST EMBEDMENT AND ANCHORING SHALL CONFORM TO MANUFACTURES RECOMMENDATIONS.

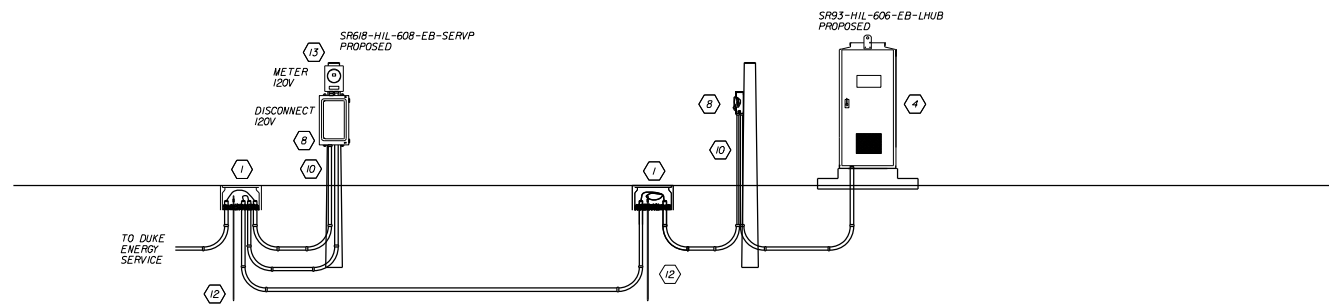
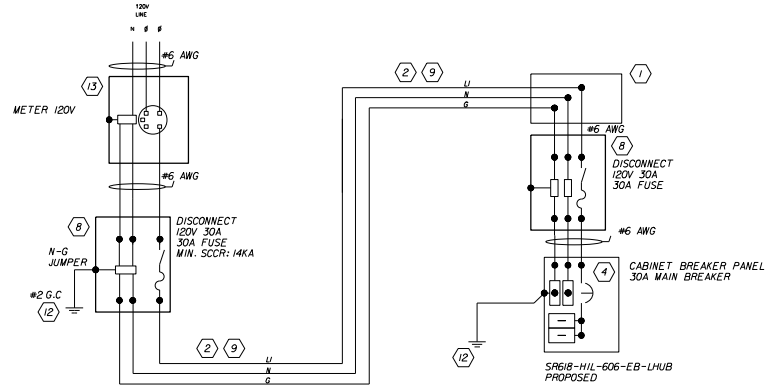
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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						SR 618	HILLSBOROUGH		HI-0172

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) EXISTING AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD(S) 5/8" DIA. x 20' MIN. (REFER FDOT INDEX 641-020)
- (12X) EXISTING COPPER CLAD GROUND ROD(S) 5/8" DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- (16) PROPOSED CCTV CABLING
- (16X) EXISTING CCTV CABLING
- (17) PROPOSED MVDS CABLING
- (17X) EXISTING MVDS CABLING
- (18) PROPOSED BRIDGE MOUNT (SCHEDULE 80) CONDUIT

NOTES:

1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
4. GROUNDING CONDUCTOR: FOR ITS ELECTRICAL SYSTEM USE SOLID #6 AWG COPPER INSULATED (GREEN) CONDUCTOR FROM SYSTEM GROUND BUS TO GROUNDING ELECTRODE ASSEMBLY OR AS SPECIFIED BELOW. FOR CONCRETE POLES AND DMS STRUCTURES USE #2 AWG TIN-PLATED BARE SOLID COPPER WIRE PER FDOT INDEX 641-020.



CIRCUIT 1

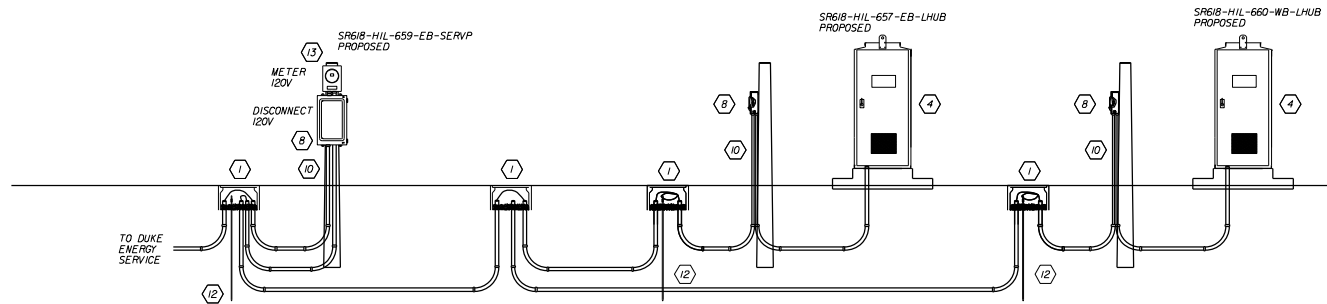
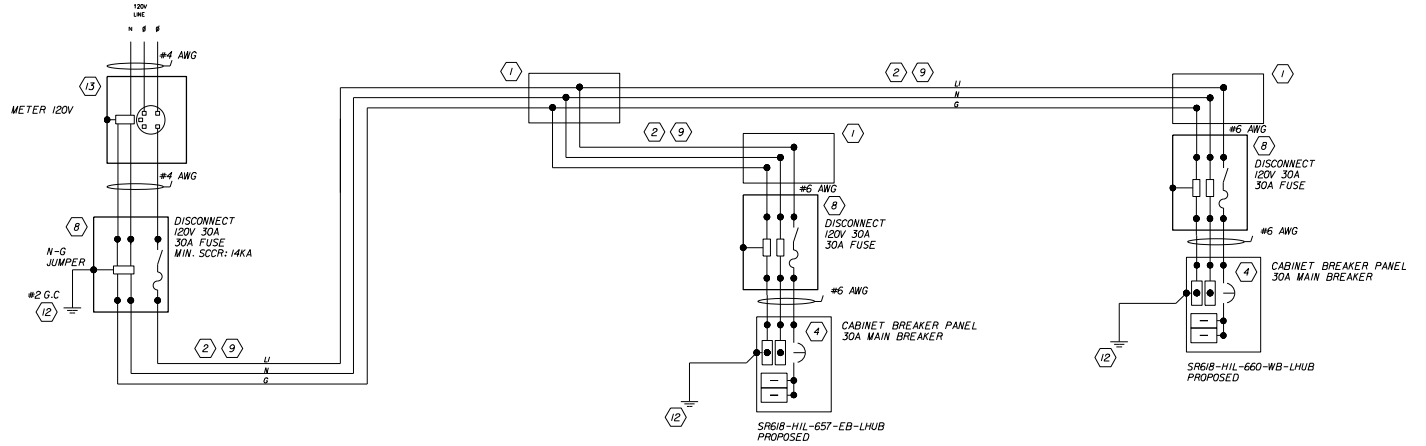
REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ELECTRICAL SERVICE DETAILS SHEET NO. IT-48
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) EXISTING AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD(S) 5/8" DIA. x 20' MIN. (PER FDOT INDEX 641-020)
- (12X) EXISTING COPPER CLAD GROUND ROD(S) 5/8" DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- (16) PROPOSED CCTV CABLING
- (16X) EXISTING CCTV CABLING
- (17) PROPOSED MVDS CABLING
- (17X) EXISTING MVDS CABLING
- (18) PROPOSED BRIDGE MOUNT (SCHEDULE 80) CONDUIT

NOTES:

1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
4. GROUNDING CONDUCTOR: FOR ITS ELECTRICAL SYSTEM USE SOLID #6 AWG COPPER INSULATED (GREEN) CONDUCTOR FROM SYSTEM GROUND BUS TO GROUNDING ELECTRODE ASSEMBLY OR AS SPECIFIED BELOW. FOR CONCRETE POLES AND DMS STRUCTURES USE #2 AWG TIN-PLATED BARE SOLID COPPER WIRE PER FDOT INDEX 641-020.



CIRCUIT 2

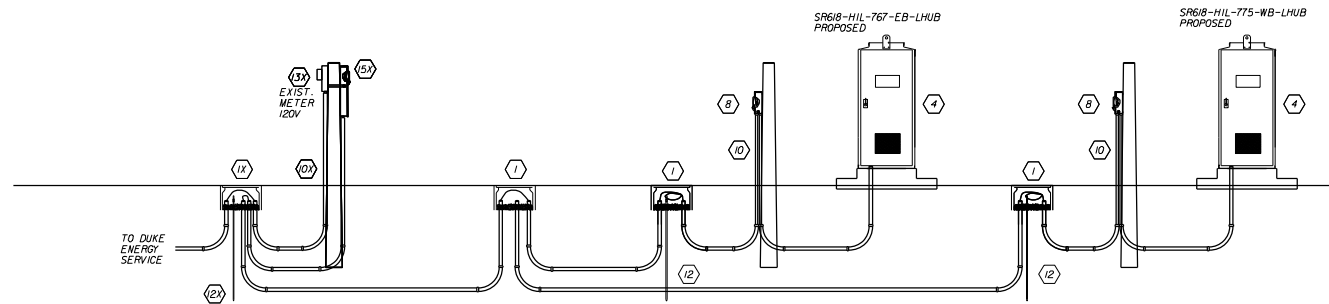
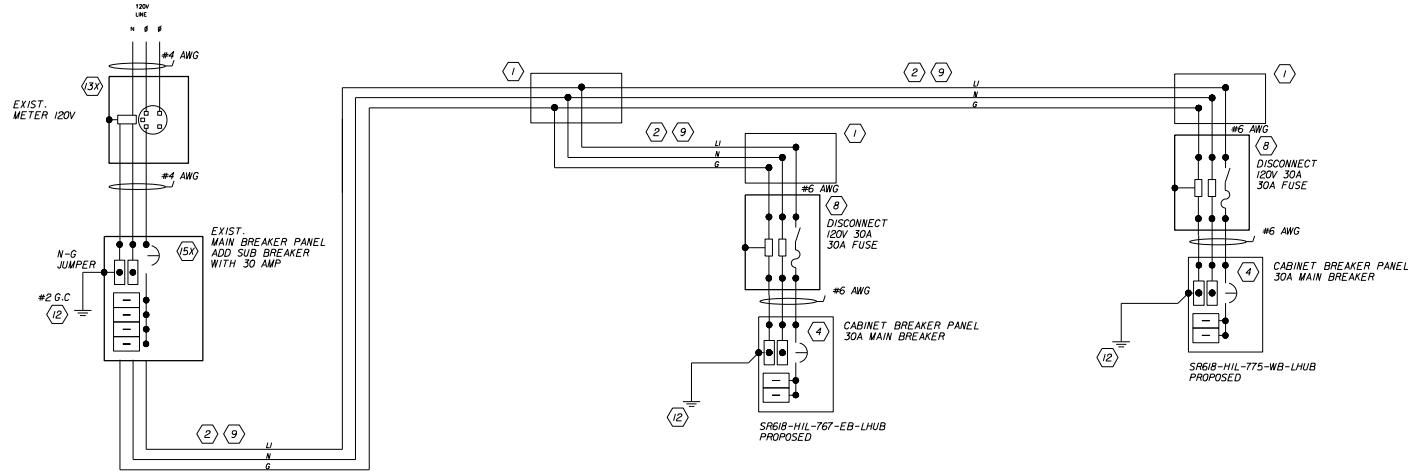
REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ELECTRICAL SERVICE DETAILS SHEET NO. IT-49
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) EXISTING AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD(S) 5/8" DIA. x 20' MIN. (PER FDOT INDEX 641-020)
- (12X) EXISTING COPPER CLAD GROUND ROD(S) 5/8" DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- (16) PROPOSED CCTV CABLING
- (16X) EXISTING CCTV CABLING
- (17) PROPOSED MVDS CABLING
- (17X) EXISTING MVDS CABLING
- (18) PROPOSED BRIDGE MOUNT (SCHEDULE 80) CONDUIT

NOTES:

1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
4. GROUNDING CONDUCTOR: FOR ITS ELECTRICAL SYSTEM USE SOLID #6 AWG COPPER INSULATED (GREEN) CONDUCTOR FROM SYSTEM GROUND BUS TO GROUNDING ELECTRODE ASSEMBLY OR AS SPECIFIED BELOW. FOR CONCRETE POLES AND DMS STRUCTURES USE #2 AWG TIN-PLATED BARE SOLID COPPER WIRE PER FDOT INDEX 641-020.



CIRCUIT 3

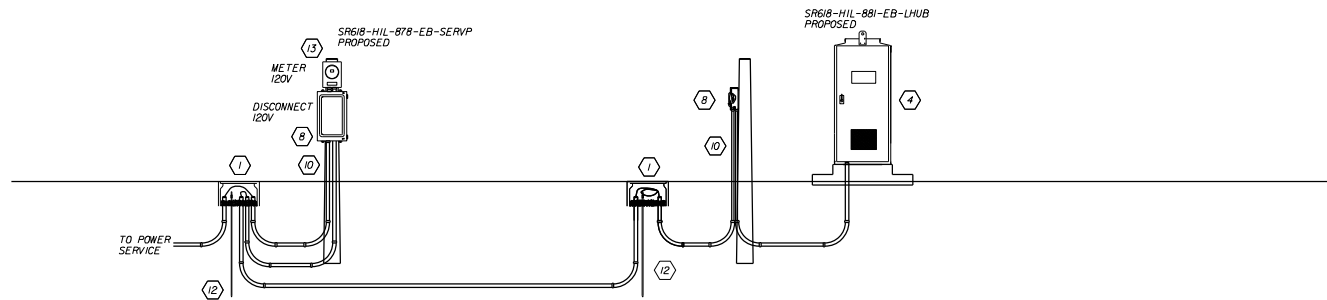
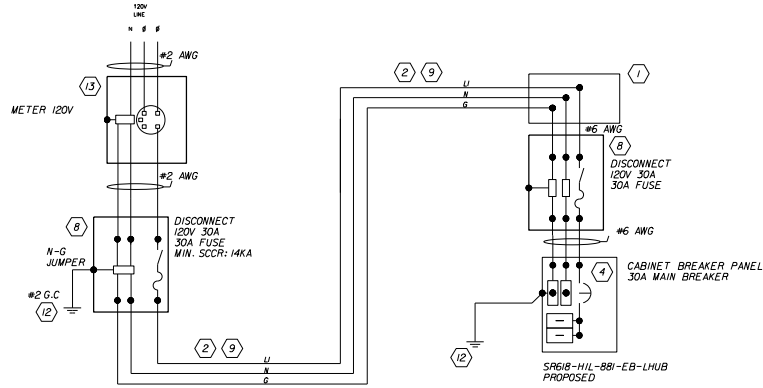
REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ELECTRICAL SERVICE DETAILS SHEET NO. IT-50
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) EXISTING AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD(S) 5/8" DIA. x 20' MIN. (PER FDOT INDEX 641-020)
- (12X) EXISTING COPPER CLAD GROUND ROD(S) 5/8" DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- (16) PROPOSED CCTV CABLING
- (16X) EXISTING CCTV CABLING
- (17) PROPOSED MVDS CABLING
- (17X) EXISTING MVDS CABLING
- (18) PROPOSED BRIDGE MOUNT (SCHEDULE 80) CONDUIT

NOTES:

1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
4. GROUNDING CONDUCTOR: FOR ITS ELECTRICAL SYSTEM USE SOLID #6 AWG COPPER INSULATED (GREEN) CONDUCTOR FROM SYSTEM GROUND BUS TO GROUNDING ELECTRODE ASSEMBLY OR AS SPECIFIED BELOW. FOR CONCRETE POLES AND DMS STRUCTURES USE #2 AWG TIN-PLATED BARE SOLID COPPER WIRE PER FDOT INDEX 641-020.



CIRCUIT 4

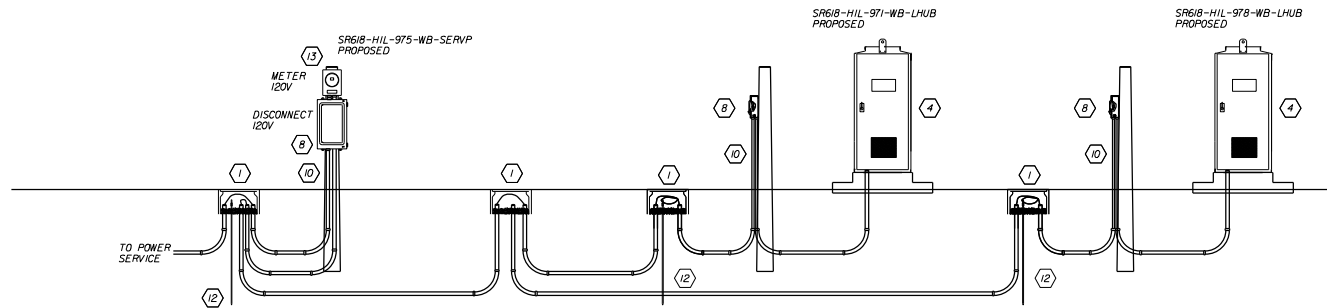
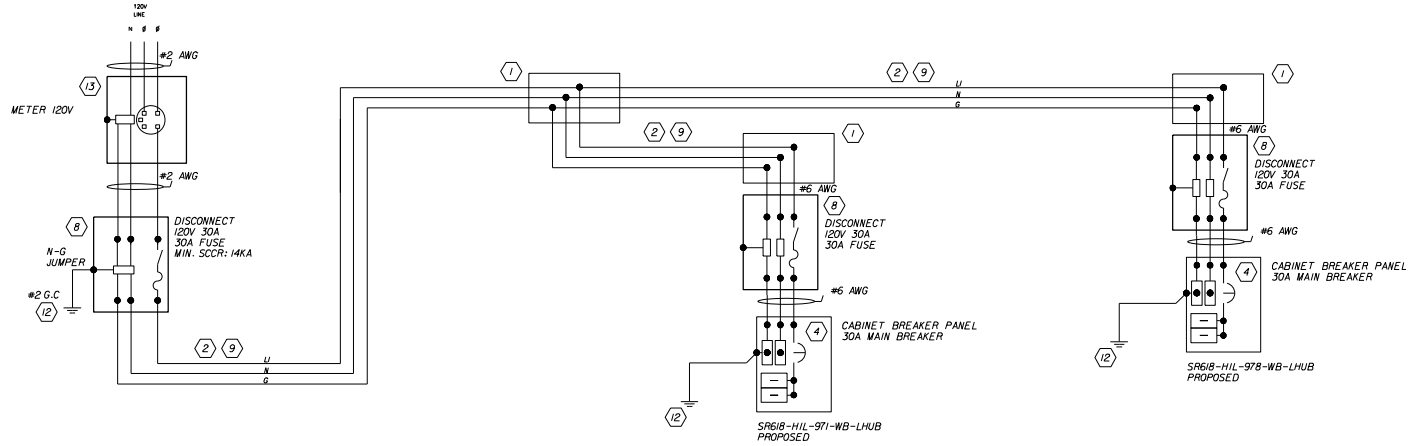
REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ELECTRICAL SERVICE DETAILS	SHEET NO. IT-51
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 618	HILLSBOROUGH	HI-0172		

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) EXISTING AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD(S) 5/8" DIA. x 20' MIN. (PER FDOT INDEX 641-020)
- (12X) EXISTING COPPER CLAD GROUND ROD(S) 5/8" DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- (16) PROPOSED CCTV CABLING
- (16X) EXISTING CCTV CABLING
- (17) PROPOSED MVDS CABLING
- (17X) EXISTING MVDS CABLING
- (18) PROPOSED BRIDGE MOUNT (SCHEDULE 80) CONDUIT

NOTES:

1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
4. GROUNDING CONDUCTOR: FOR ITS ELECTRICAL SYSTEM USE SOLID #6 AWG COPPER INSULATED (GREEN) CONDUCTOR FROM SYSTEM GROUND BUS TO GROUNDING ELECTRODE ASSEMBLY OR AS SPECIFIED BELOW. FOR CONCRETE POLES AND DMS STRUCTURES USE #2 AWG TIN-PLATED BARE SOLID COPPER WIRE PER FDOT INDEX 641-020.



CIRCUIT 5

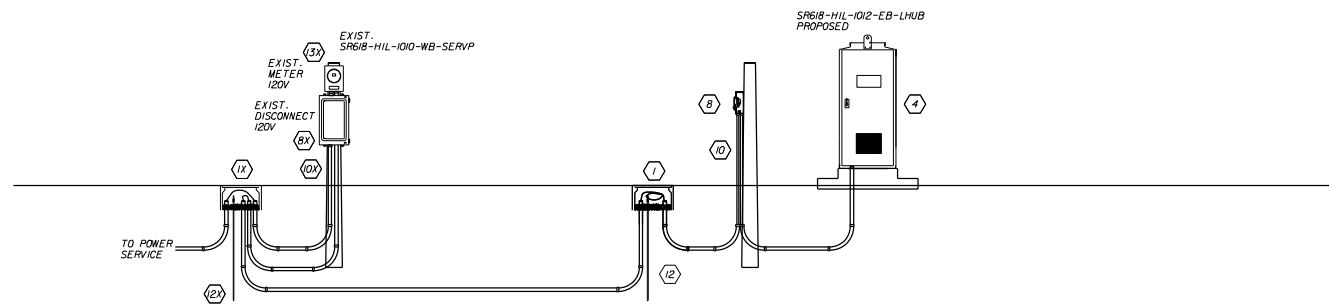
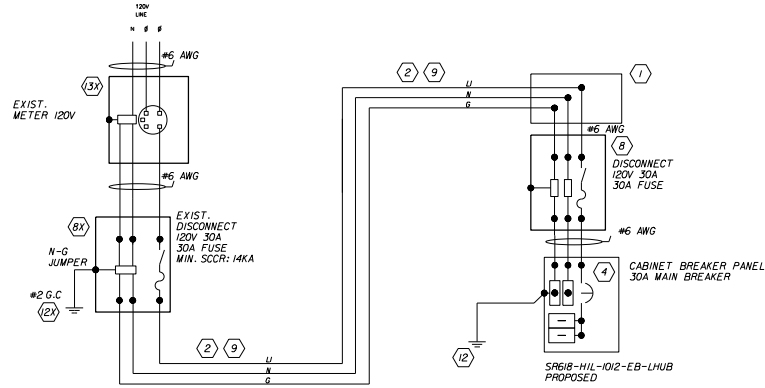
REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO. IT-52
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) EXISTING AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD(S) 5/8" DIA. x 20' MIN. (PER FDOT INDEX 641-020)
- (12X) EXISTING COPPER CLAD GROUND ROD(S) 5/8" DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- (16) PROPOSED CCTV CABLING
- (16X) EXISTING CCTV CABLING
- (17) PROPOSED MVDS CABLING
- (17X) EXISTING MVDS CABLING
- (18) PROPOSED BRIDGE MOUNT (SCHEDULE 80) CONDUIT

NOTES:

1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
4. GROUNDING CONDUCTOR: FOR ITS ELECTRICAL SYSTEM USE SOLID #6 AWG COPPER INSULATED (GREEN) CONDUCTOR FROM SYSTEM GROUND BUS TO GROUNDING ELECTRODE ASSEMBLY OR AS SPECIFIED BELOW. FOR CONCRETE POLES AND DMS STRUCTURES USE #2 AWG TIN-PLATED BARE SOLID COPPER WIRE PER FDOT INDEX 641-020.



CIRCUIT 6

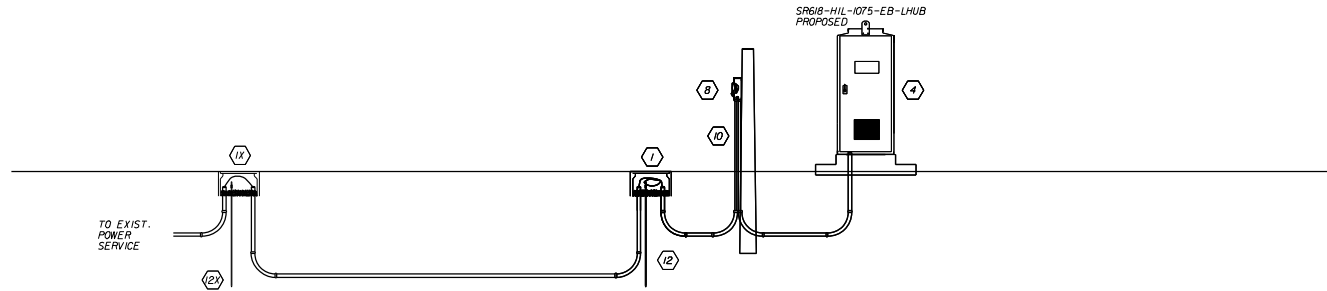
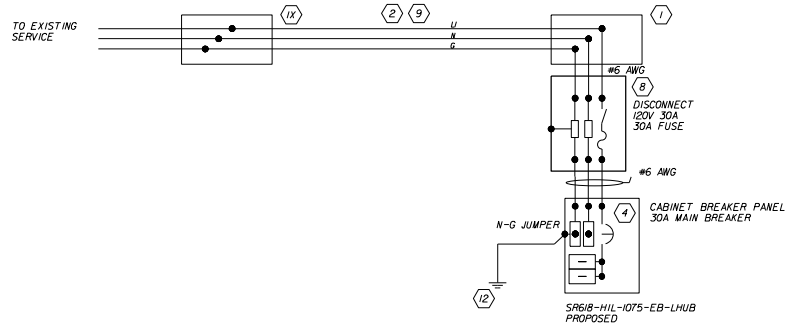
REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ELECTRICAL SERVICE DETAILS SHEET NO. IT-53
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) EXISTING AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD(S) 5/8" DIA. x 20' MIN. (PER FDOT INDEX 641-020)
- (12X) EXISTING COPPER CLAD GROUND ROD(S) 5/8" DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- (16) PROPOSED CCTV CABLING
- (16X) EXISTING CCTV CABLING
- (17) PROPOSED MVDS CABLING
- (17X) EXISTING MVDS CABLING
- (18) PROPOSED BRIDGE MOUNT (SCHEDULE 80) CONDUIT

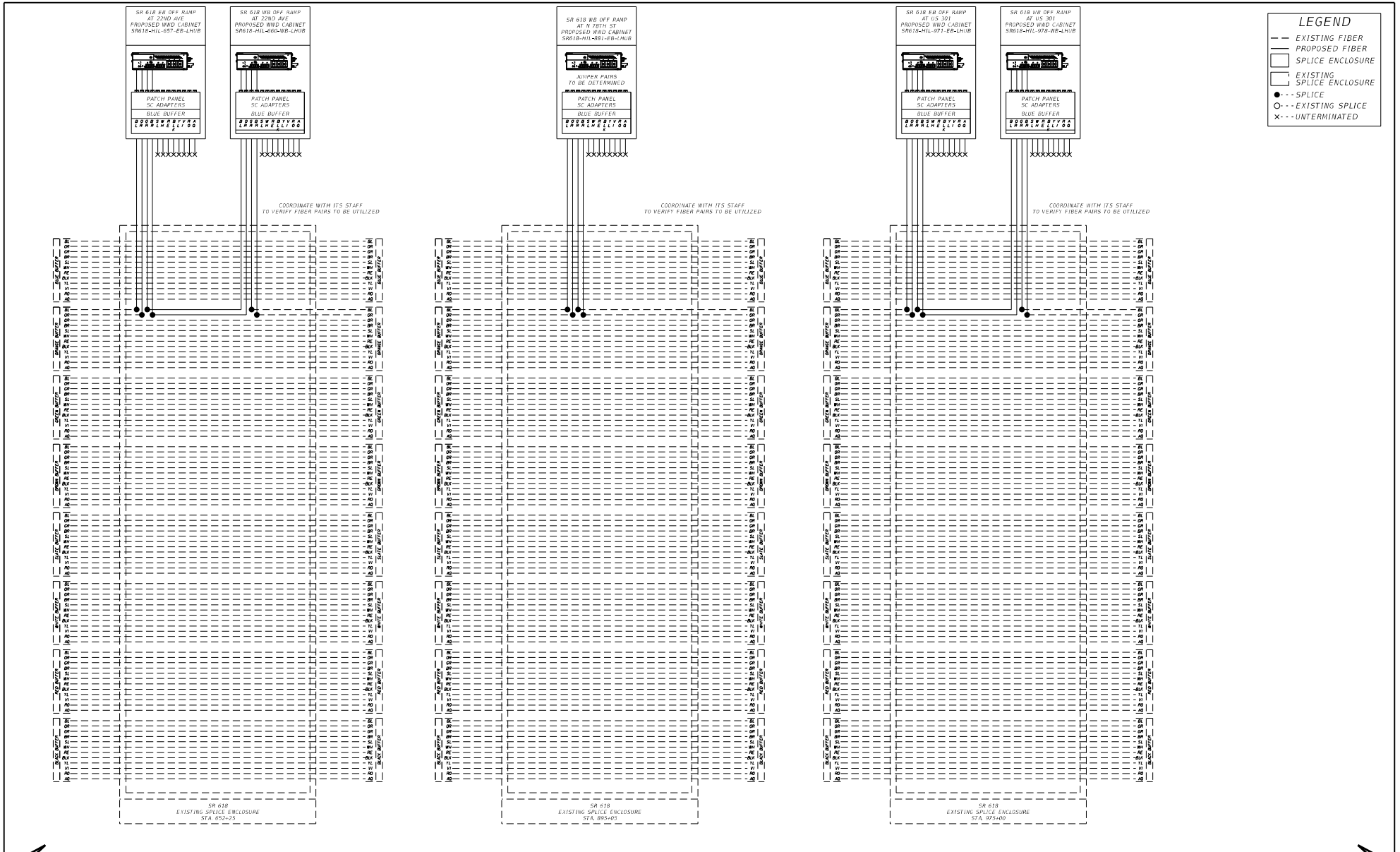
NOTES:

1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
4. GROUNDING CONDUCTOR: FOR ITS ELECTRICAL SYSTEM USE SOLID #6 AWG COPPER INSULATED (GREEN) CONDUCTOR FROM SYSTEM GROUND BUS TO GROUNDING ELECTRODE ASSEMBLY OR AS SPECIFIED BELOW. FOR CONCRETE POLES AND DMS STRUCTURES USE #2 AWG TIN-PLATED BARE SOLID COPPER WIRE PER FDOT INDEX 641-020.



CIRCUIT 7

REVISIONS				ERIK SPILLMANN, P.E. P.E. LICENSE NUMBER 58771 BCC ENGINEERING, LLC. 160 NORTH WESTMONTE DRIVE, SUITE 2000 ALTAMONTE SPRINGS, FLORIDA 32714	TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ELECTRICAL SERVICE DETAILS SHEET NO. IT-54
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 618	HILLSBOROUGH	HI-0172	



LEGEND

- EXISTING FIBER
- PROPOSED FIBER
- SPLICE ENCLOSURE
- EXISTING SPLICE ENCLOSURE
- - - SPLICE
- - - EXISTING SPLICE
- X - - UNTERMINATED

← WEST SR 618 EAST →

REVISIONS	
DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BEC ENGINEERING, LLC
 160 NORTH WESTMONTE DRIVE,
 SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

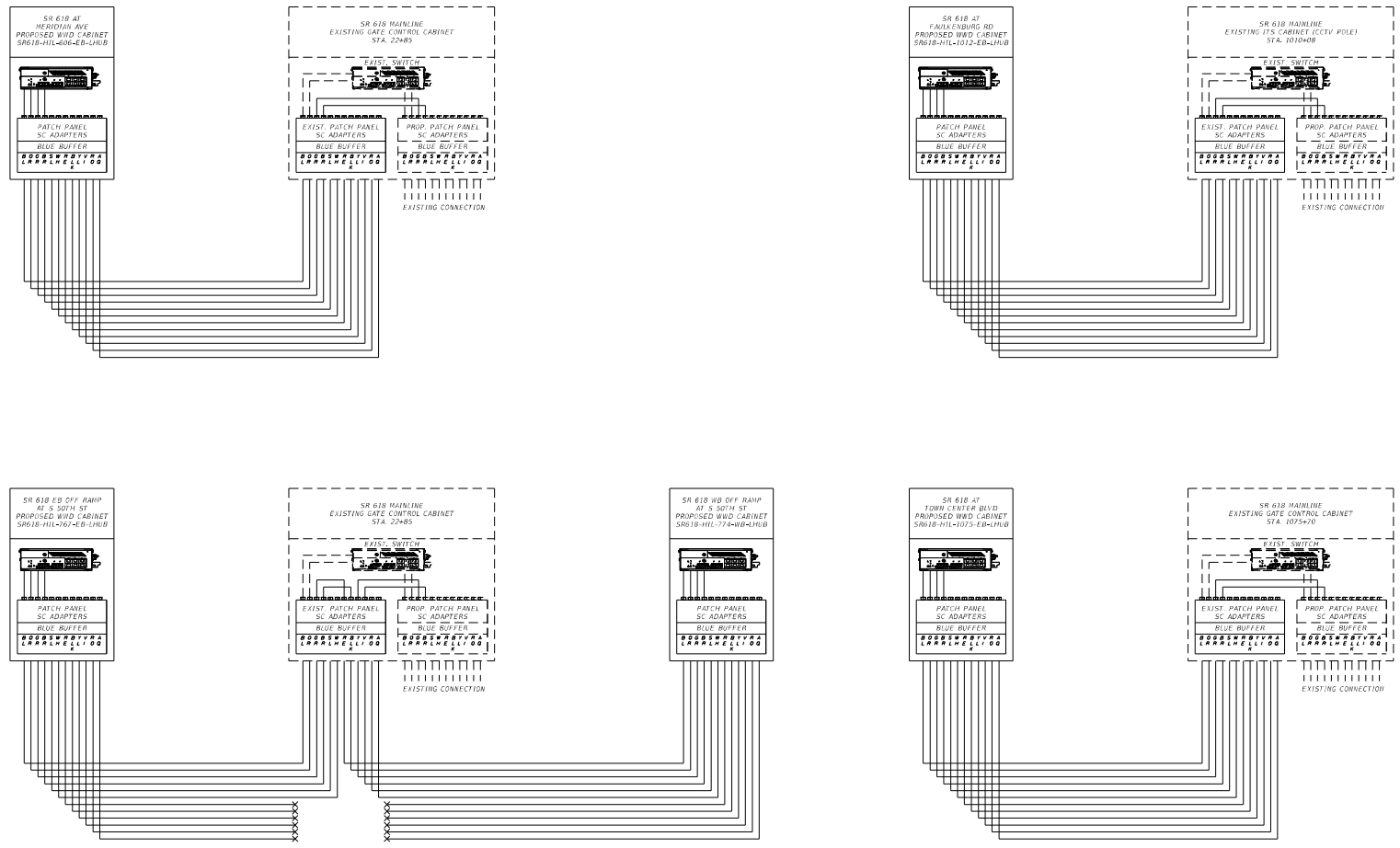
SPlicing DIAGRAM

SHEET NO.
IT-55

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LEGEND

- EXISTING FIBER
- PROPOSED FIBER
- SPLICE ENCLOSURE
- EXISTING SPLICE ENCLOSURE
- - SPLICE
- - EXISTING SPLICE
- X - UNTERMINATED



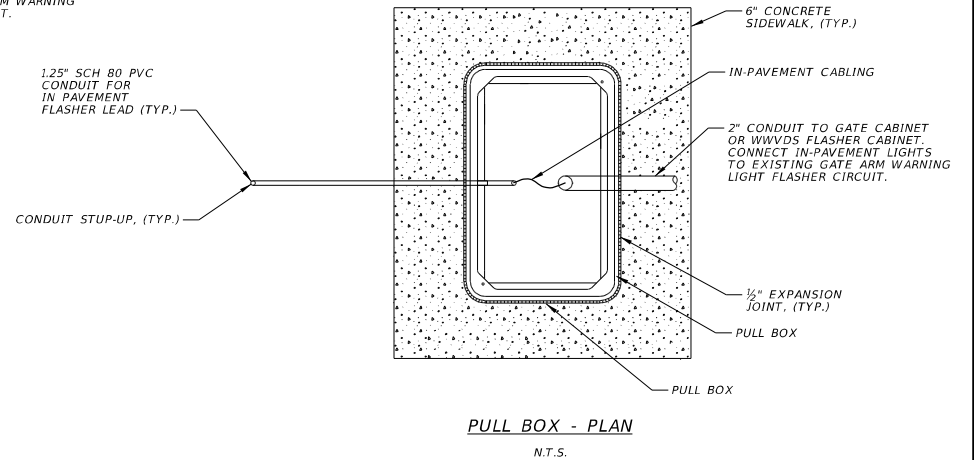
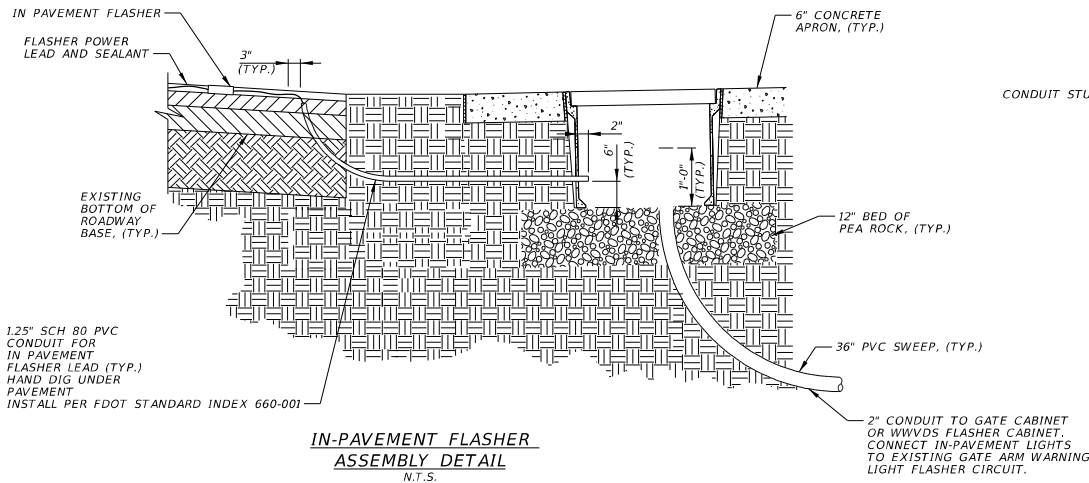
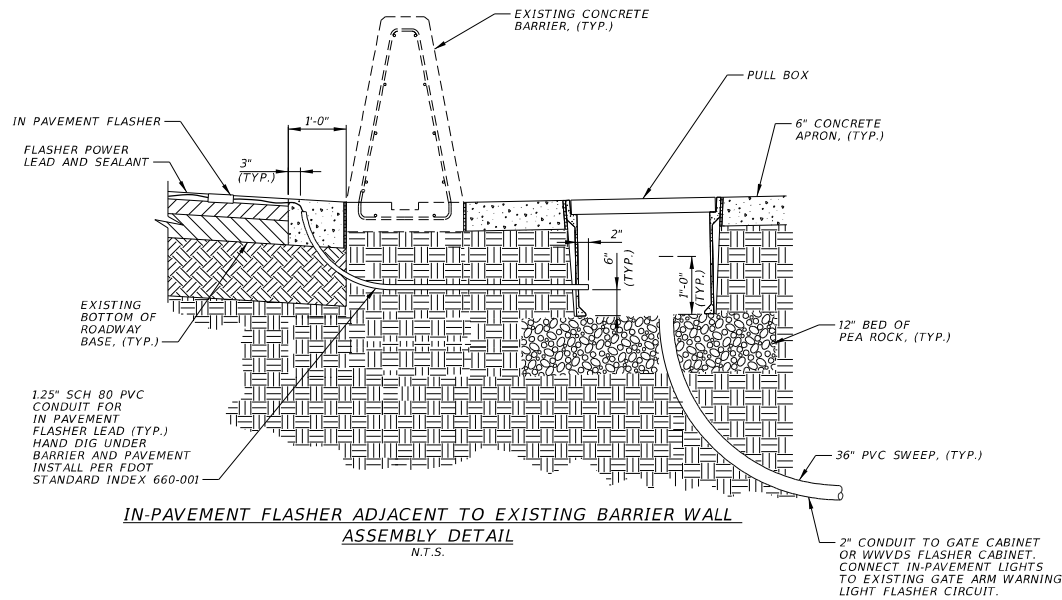
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIK SPILLMANN, P.E.
 P.E. LICENSE NUMBER 58771
 BEC ENGINEERING, LLC.
 160 NORTH WESTMONTE DRIVE,
 SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

SPLICING DIAGRAM

SHEET NO.
IT-56



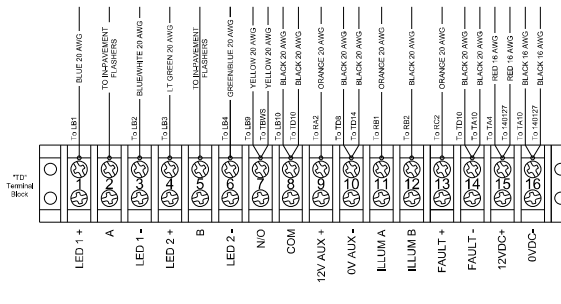
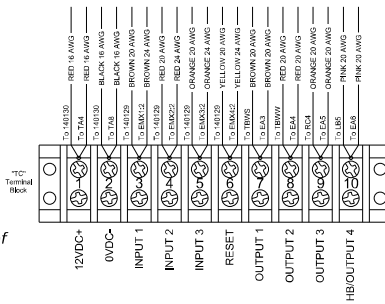
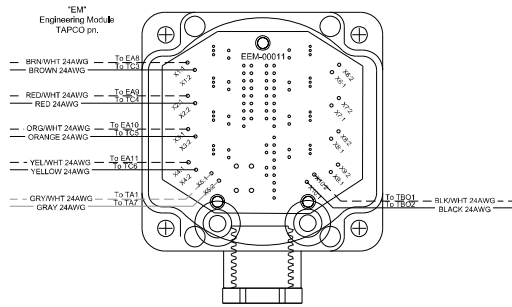
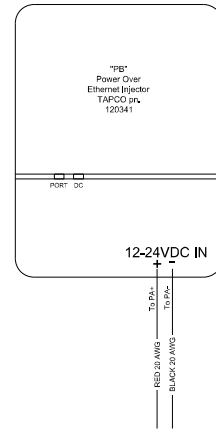
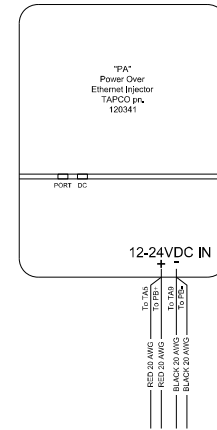
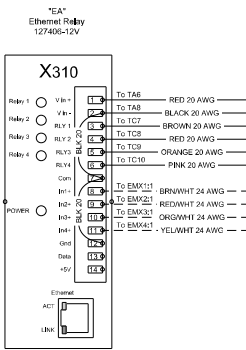
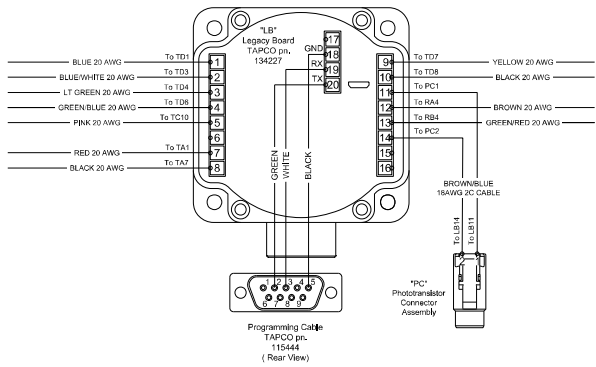
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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P.E. LICENSE NUMBER 58771
BCC ENGINEERING, LLC.
160 NORTH WESTMONTE DRIVE,
SUITE 2000
ALTAMONTE SPRINGS, FLORIDA 32714

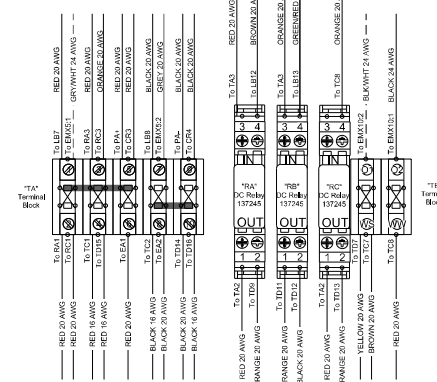
TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

IN PAVEMENT FLASHER DETAIL

SHEET NO.
IT-57



BACK PLANE WIRING DIAGRAM

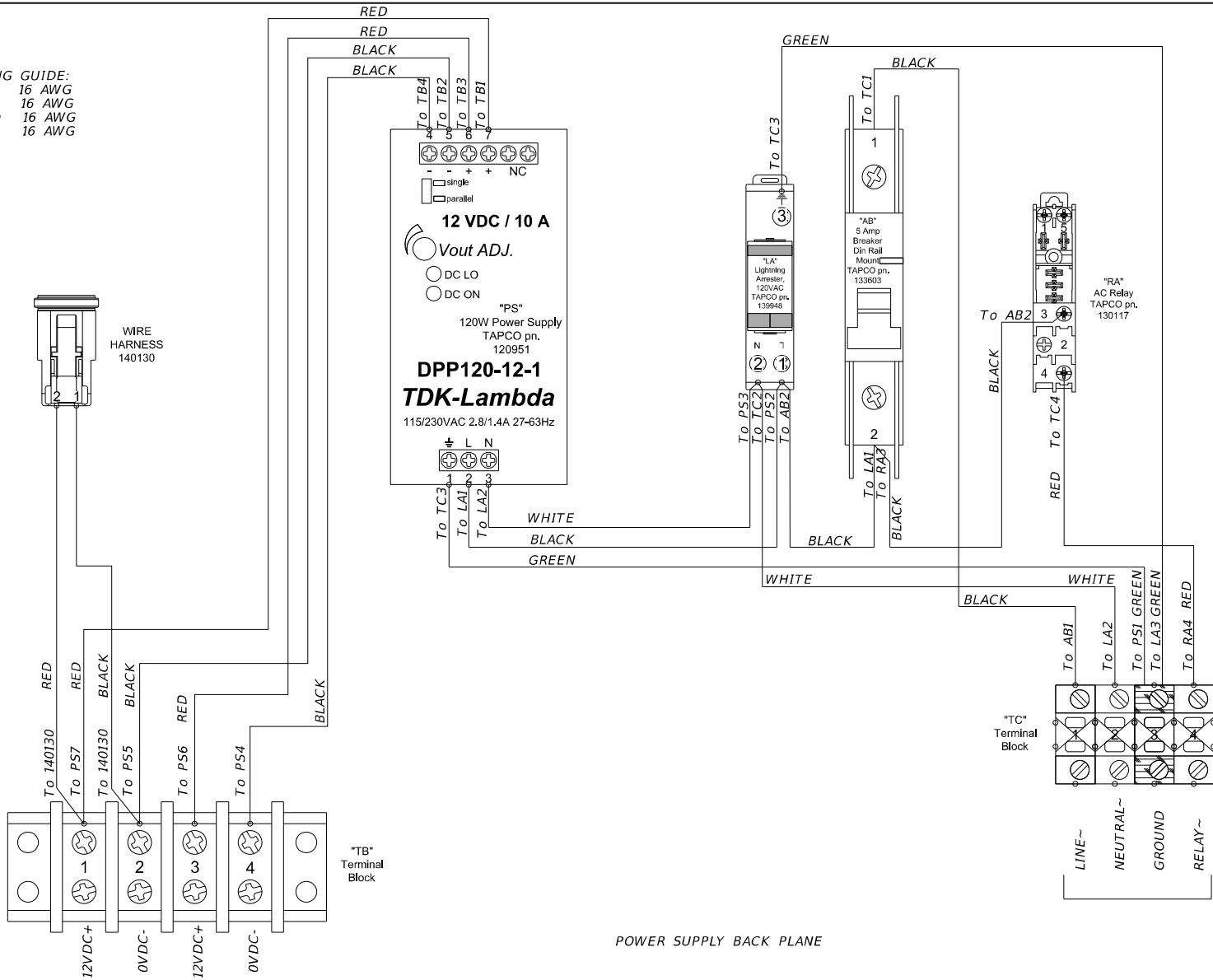


NOTE: WIRING DETAILS FOR PRIMARY CABINET.

Note: Connector end of harnesses 140127, 140129, and 140130 not shown. Refer to assembly drawings for details of harness pinout.

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DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR 618	HILLSBOROUGH	HI-0172		

WIRING GUIDE:
 Black 16 AWG
 White 16 AWG
 Green 16 AWG
 Red 16 AWG



POWER SUPPLY BACK PLANE

REVISIONS	
DATE	DESCRIPTION

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 160 NORTH WESTMONTE DRIVE,
 SUITE 2000
 ALTAMONTE SPRINGS, FLORIDA 32714

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 618	HILLSBOROUGH	HI-0172

WWDS
WIRING DIAGRAM (2)

SHEET NO.
 IT-59

GENERAL NOTES

1. FOR GENERAL TRAFFIC CONTROL PLAN REQUIREMENTS ON SR 618 /SELMON EXPRESSWAY UTILIZE STANDARD PLANS INDEX NO.102-600.
2. FOR WORK BEYOND THE SHOULDER ON SR 618 /SELMON EXPRESSWAY UTILIZE STANDARD PLANS INDEX NO.102-601. FOR WORK ON SHOULDER UTILIZE STANDARD PLANS INDEX NO.102-602.
3. FOR MOBILE OPERATIONS ON SR 618 /SELMON EXPRESSWAY UTILIZE STANDARD PLANS INDEX NO.102-607.
4. FOR SINGLE LANE CLOSURES ON SR 618 /SELMON EXPRESSWAY UTILIZE STANDARD PLANS INDEX NO.102-613.
5. EXISTING POSTED SPEED LIMITS SHALL BE MAINTAINED FOR ALL PHASES OF WORK. THE REGULATORY SPEED LIMITS FOR THE PROJECT ARE AS FOLLOW:

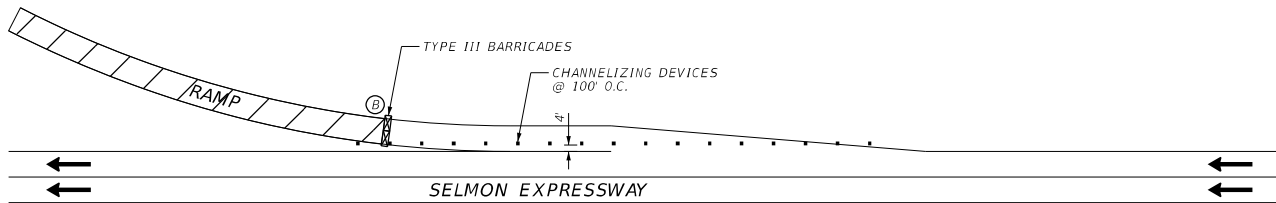
SELMON EXPRESSWAY	65 MPH
RAMPS	VARIES 25-50 MPH
22ND STREET	45 MPH
US 41 / 50TH STREET	50 MPH
SR 60 / ADAMO DRIVE	50 MPH
CR 573 / 78TH STREET	45 MPH
US 301	50 MPH
CR 676 / CAUSEWAY BOULEVARD	50 MPH
FALKENBURG ROAD	45 MPH
I-75	70 MPH
6. SR 618 /SELMON EXPRESSWAY LANE/ROAD CLOSURE RESTRICTIONS ARE AS FOLLOW:

SINGLE LANE CLOSURES ARE PERMITTED BETWEEN THE HOURS OF 7:30 PM AND 6:00 AM, AND BETWEEN 10:00 AM AND 3:00 PM.
7. SR 618 /SELMON EXPRESSWAY DETOUR RESTRICTIONS ARE AS FOLLOW:

WEEKENDS ONLY -- FRIDAY (7:30 PM) THROUGH MONDAY (6:00 AM). ALL RAMP DETOUR CLOSURES SHALL BE REOPENED AS DENOTED IN THE LANE CLOSURE RESTRICTION TIME FRAMES.
8. THERE SHALL BE NO MORE THAN ONE DETOUR IN PLACE AT ANY GIVEN TIME PER DIRECTION OF TRAVEL.
9. DO NOT CLOSE TWO EXIT RAMPS AT THE SAME INTERCHANGE AT THE SAME TIME.
10. UTILIZE THE APPLICABLE DETOUR SHEET FOR RAMP CLOSURES.
11. IN ADDITION TO SPECIFICATIONS 8-6.4, SPECIAL EVENTS FOR THIS PROJECT INCLUDE: FLORIDA STATE FAIRGROUNDS, AMPHITHEATER AND TAMPA STADIUM (RAYMOND JAMES STADIUM) WITH AN ANTICIPATED CROWD OF 35K OR HIGHER, FORUM /ICE PALACE (AMALIE ARENA) WITH AN ANTICIPATED CROWD OF 15K OR HIGHER, TROPICANA FIELD WITH AN ANTICIPATED CROWD OF 15K OR HIGHER, DOWNTOWN TAMPA, BAYSHORE BLVD, YBOR CITY, WITH AN ANTICIPATED CROWD OF 20K OR HIGHER, AND MACDILL AIR FORCE BASE.
12. CONTACT GINNY BURCHAM A MINIMUM OF 14 DAYS IN ADVANCE OF PERFORMING ANY LANE CLOSURE OR DETOUR. CONTACT INFORMATION AS FOLLOWS:

GINNY BURCHAM
GBURCHAM@HNTB.COM
(863) 412-4026

REVISIONS				ENGINEER OF RECORD			TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	OMARI S. HAND, P.E. LICENSE NUMBER 74678 BCC ENGINEERING, LLC 4905 WEST LAUREL STREET, SUITE 301 TAMPA, FL 33607			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	ITS TRAFFIC CONTROL PLANS
							SR 618	HILLSBOROUGH	HI-0172	

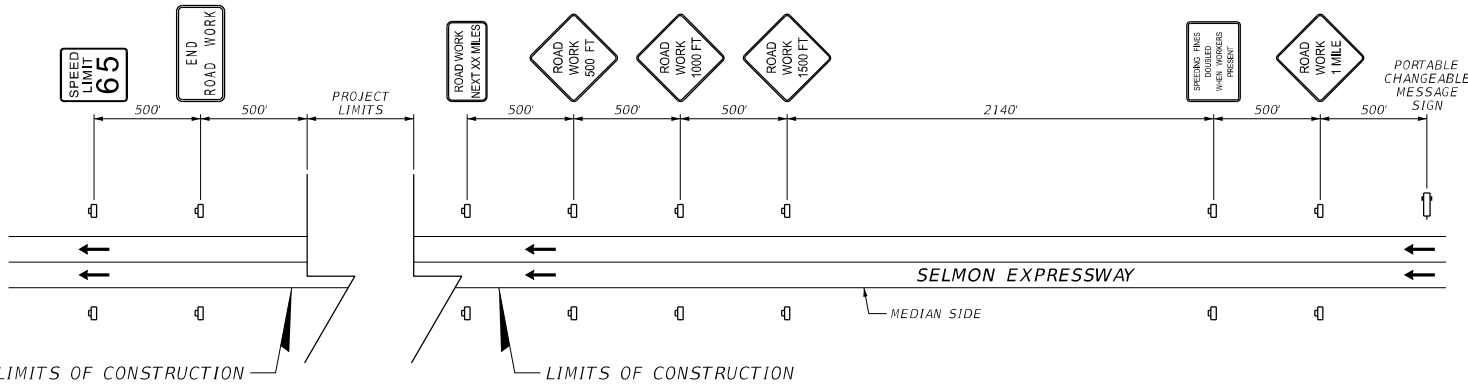


RAMP CLOSURE DETAIL

N.T.S

NOTES

1. TO BE USED AT NIGHT DURING SINGLE RAMP CLOSURES ONLY.
2. FOR RAMP CLOSURE ADVANCE SIGNING SEE APPROPRIATE DETOUR DETAILS SHEETS.
3. NUMBER OF MAINLINE LANES VARIES.



MAINLINE ADVANCE WARNING SIGNING DETAIL

N.T.S

NOTES

1. ADVANCE WARNING SIGNING DETAIL TO BE USED IN CONJUNCTION WITH STANDARD PLANS LISTED IN THE ITS TRAFFIC CONTROL GENERAL NOTES.
2. ADVANCE SIGNING DETAIL SHOWN APPLIES FOR BOTH EASTBOUND AND WESTBOUND DIRECTIONS.

PCMS DISPLAY

7 DAYS IN ADVANCE:	DISPLAY 1 SELMON EXWY WORK	DISPLAY 2 BEGINS STARTING DATE
--------------------	-------------------------------	-----------------------------------

PCMS DISPLAY

DURING LANE CLOSURE:	DISPLAY 1 LANE CLOSURES AHEAD	DISPLAY 2 EXPECT DELAYS
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LEGEND

- TRAFFIC FLOW DIRECTION
- ⊘ TYPE III BARRICADE
- PORTABLE CHANGEABLE MESSAGE SIGN
- WORK ZONE SIGN
- ▨ WORK ZONE
- CHANNELIZING DEVICE

EXIT CLOSED

REVISIONS				ENGINEER OF RECORD		TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ITS TRAFFIC CONTROL PLANS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	OMARI S. HAND, P.E. LICENSE NUMBER 74678 BCC ENGINEERING, LLC 4905 WEST LAUREL STREET, SUITE 301 TAMPA, FL 33607		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						SR 618	HILLSBOROUGH	HI-0172		IT-61

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SEE RAMP CLOSURE DETAIL

LEGEND	
	WORK ZONE SIGN
	TYPE III BARRICADE
	SIGNAGE SCHEME LOCATIONS
	TRAFFIC FLOW DIRECTION
	WORK ZONE
	PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGN (PCMS)

NOTES
 1. PLACE SIGN ⑥ AT 1/2 MILE INTERVALS AND MAJOR INTERSECTIONS.

PCMS #1 PCMS #2
 EXIT 9 22ND ST CLOSED EXIT 9 22ND ST CLOSED
 CLOSED XX XX XX USE DETOUR
 PCMS #1 SHALL BE PLACED 7 DAYS PRIOR TO DETOUR, THEN REPLACED WITH PCMS #2 WHEN THE DETOUR BEGINS



REVISIONS		ENGINEER OF RECORD		TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ITS TRAFFIC CONTROL PLANS	SHEET NO. IT-62
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			OMARI S. HAND, P.E. LICENSE NUMBER 74678 BCC ENGINEERING, LLC 4905 WEST LAUREL STREET, SUITE 301 TAMPA, FL 33607	SR 618	HILLSBOROUGH	HI-0172		

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PCMS #1	PCMS #2	PCMS #3
EXIT 9 22ND ST CLOSED	EXIT 9 22ND ST CLOSED	EXIT 9 22ND ST CLOSED
CLOSED XX XX XX	USE DETOUR	DETOUR EXIT 11

PCMS #1 SHALL BE PLACED 7 DAYS PRIOR TO DETOUR, THEN REPLACED WITH PCMS #2 OR PCMS #3 WHEN THE DETOUR BEGINS

SEE RAMP CLOSURE DETAIL

NOTES
1. PLACE SIGN (B) AT 1/2 MILE INTERVALS AND MAJOR INTERSECTIONS.

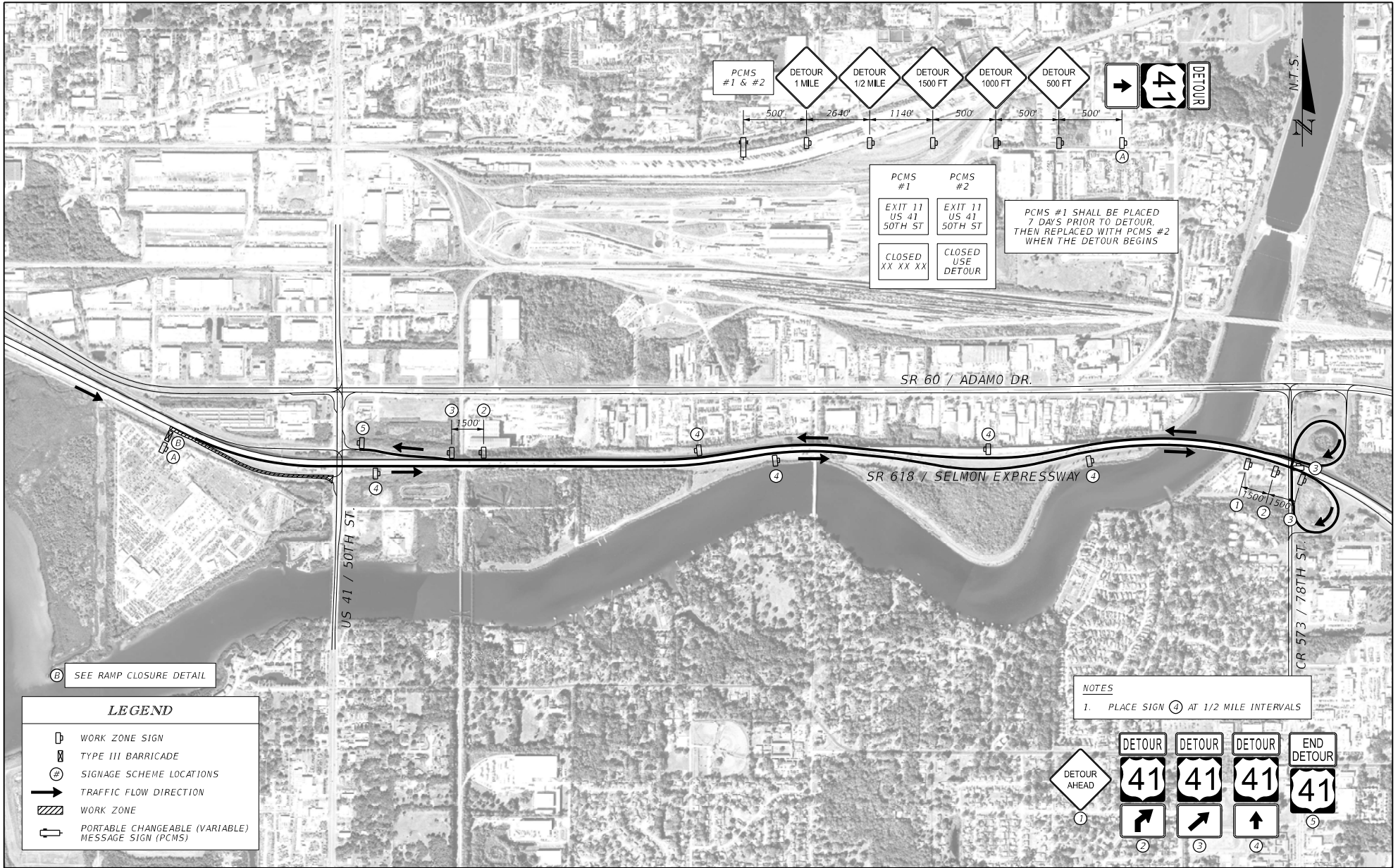
LEGEND	
	WORK ZONE SIGN
	TYPE III BARRICADE
	SIGNAGE SCHEME LOCATIONS
	TRAFFIC FLOW DIRECTION
	WORK ZONE
	PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGN (PCMS)



REVISIONS		ENGINEER OF RECORD		TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 618	HILLSBOROUGH	HI-0172	IT-63
				ITS TRAFFIC CONTROL PLANS			

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(B) SEE RAMP CLOSURE DETAIL

LEGEND

- WORK ZONE SIGN
- TYPE III BARRICADE
- SIGNAGE SCHEME LOCATIONS
- TRAFFIC FLOW DIRECTION
- WORK ZONE
- PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGN (PCMS)

PCMS #1 SHALL BE PLACED 7 DAYS PRIOR TO DETOUR. THEN REPLACED WITH PCMS #2 WHEN THE DETOUR BEGINS

PCMS #1	PCMS #2
EXIT 11 US 41 50TH ST	EXIT 11 US 41 50TH ST
CLOSED XX XX XX	CLOSED USE DETOUR

NOTES

1. PLACE SIGN (4) AT 1/2 MILE INTERVALS

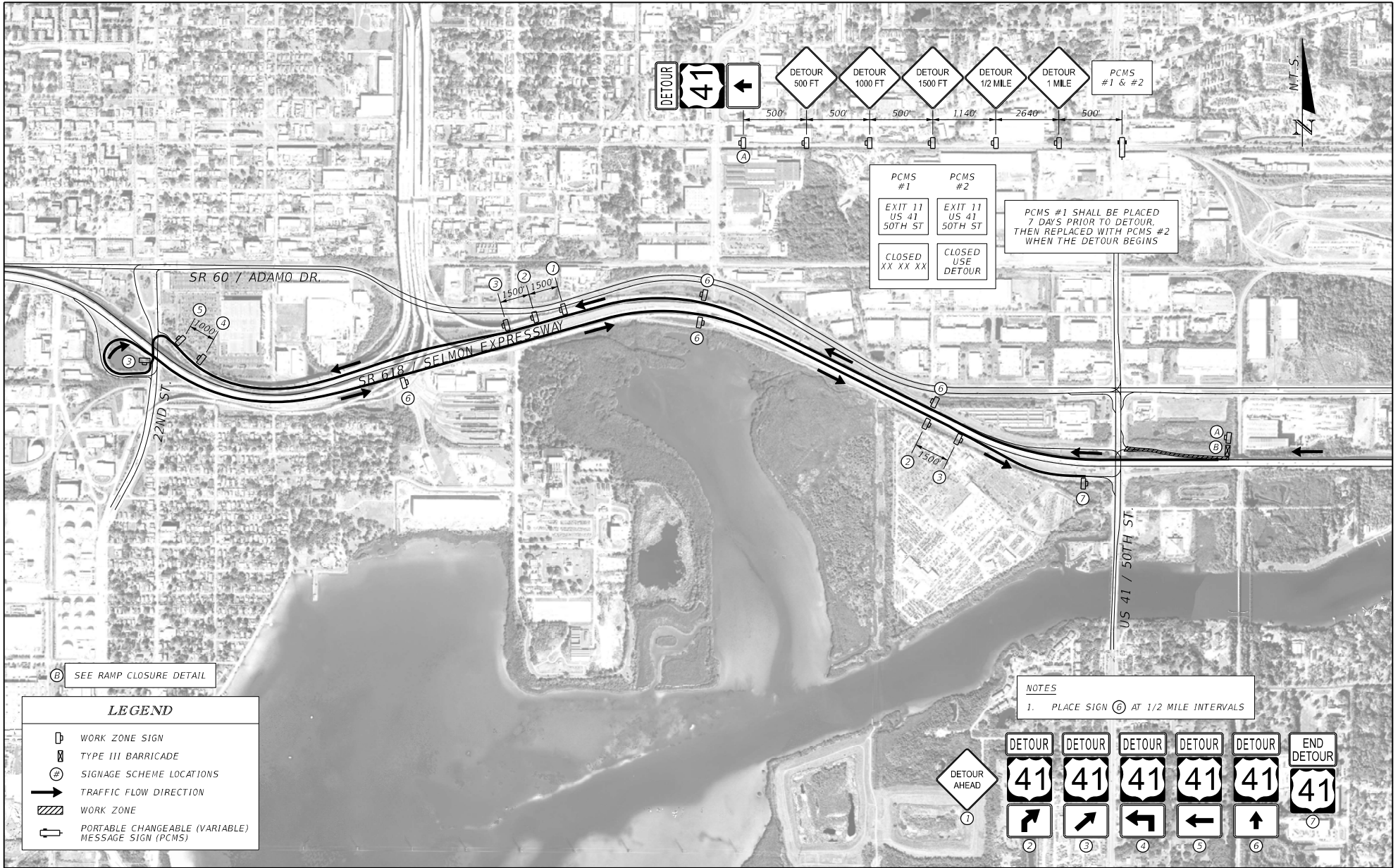
DETOUR AHEAD (1)

DETOUR (2) (3) (4) (5)

END DETOUR (5)

<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS		DATE	DESCRIPTION			<p>ENGINEER OF RECORD</p> <p>OMARI S. HAND, P.E. LICENSE NUMBER 74678 BCC ENGINEERING, LLC 4905 WEST LAUREL STREET, SUITE 301 TAMPA, FL 33607</p>		<p>TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY</p> <table border="1"> <tr> <th>ROAD NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> <tr> <td>SR 618</td> <td>HILLSBOROUGH</td> <td>HI-0172</td> </tr> </table>		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	SR 618	HILLSBOROUGH	HI-0172	<p>ITS TRAFFIC CONTROL PLANS</p>		<p>SHEET NO.</p> <p>IT-64</p>
REVISIONS																				
DATE	DESCRIPTION																			
ROAD NO.	COUNTY	FINANCIAL PROJECT ID																		
SR 618	HILLSBOROUGH	HI-0172																		

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(B) SEE RAMP CLOSURE DETAIL

LEGEND

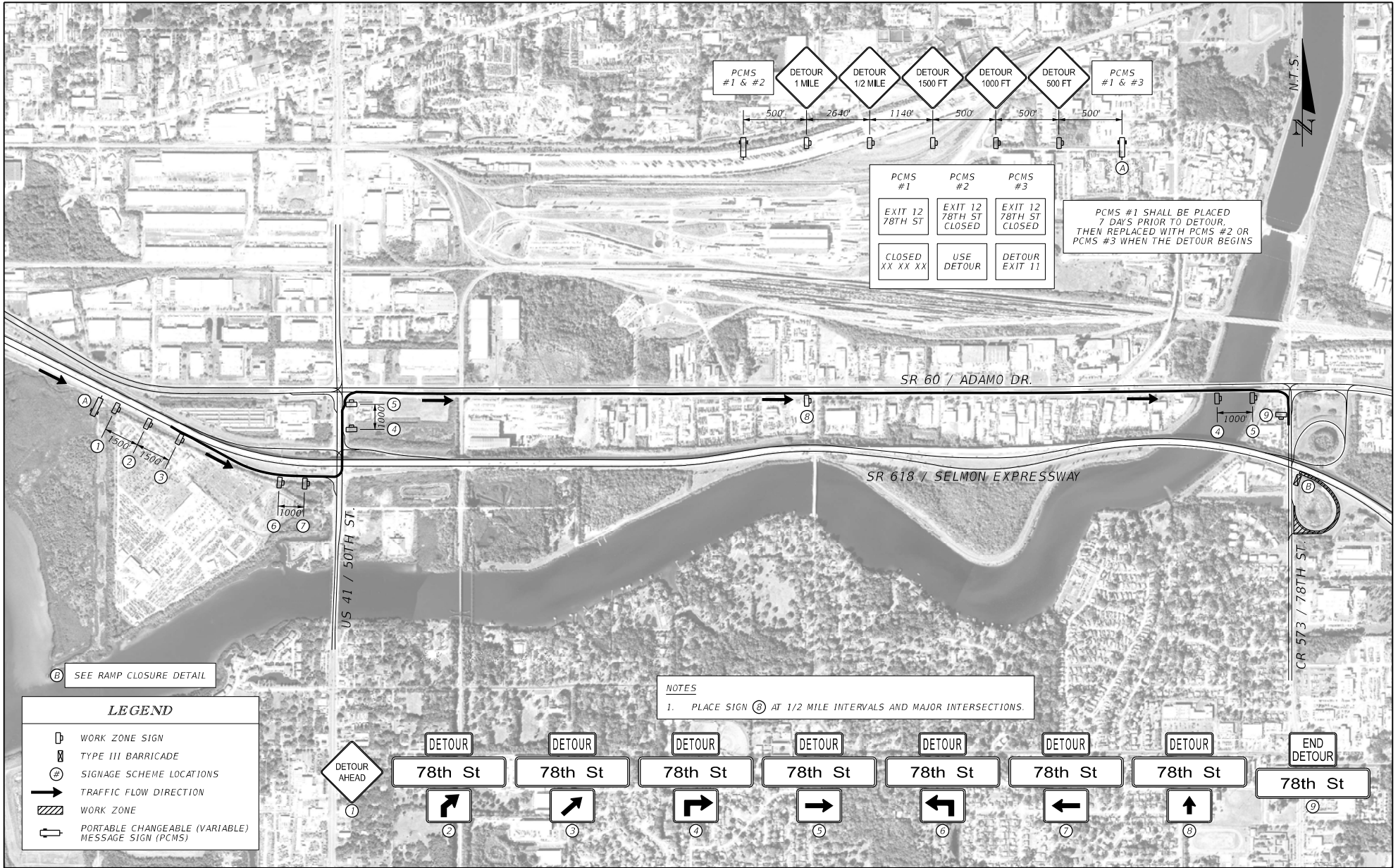
- WORK ZONE SIGN
- TYPE III BARRICADE
- SIGNAGE SCHEME LOCATIONS
- TRAFFIC FLOW DIRECTION
- WORK ZONE
- PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGN (PCMS)

NOTES
 1. PLACE SIGN (6) AT 1/2 MILE INTERVALS

REVISIONS		ENGINEER OF RECORD		TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ITS TRAFFIC CONTROL PLANS	SHEET NO. IT-65
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR 618	HILLSBOROUGH	HI-0172		

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DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
			OMARI S. HAND, P.E. LICENSE NUMBER 74678 BCC ENGINEERING, LLC 4905 WEST LAUREL STREET, SUITE 301 TAMPA, FL 33607	SR 618	HILLSBOROUGH	HI-0172	ITS TRAFFIC CONTROL PLANS IT-66

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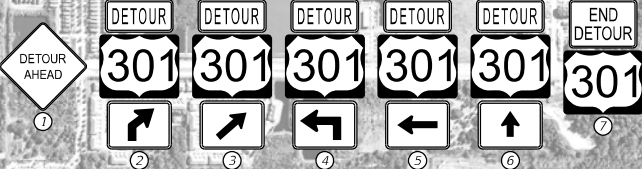
(B) SEE RAMP CLOSURE DETAIL

LEGEND	
	WORK ZONE SIGN
	TYPE III BARRICADE
	SIGNAGE SCHEME LOCATIONS
	TRAFFIC FLOW DIRECTION
	WORK ZONE
	PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGN (PCMS)

PCMS #1	PCMS #2
EXIT 13 US 301 CLOSED	EXIT 13 US 301 CLOSED
CLOSED XX XX XX	USE DETOUR

PCMS #1 SHALL BE PLACED 7 DAYS PRIOR TO DETOUR. THEN REPLACED WITH PCMS #2 WHEN THE DETOUR BEGINS

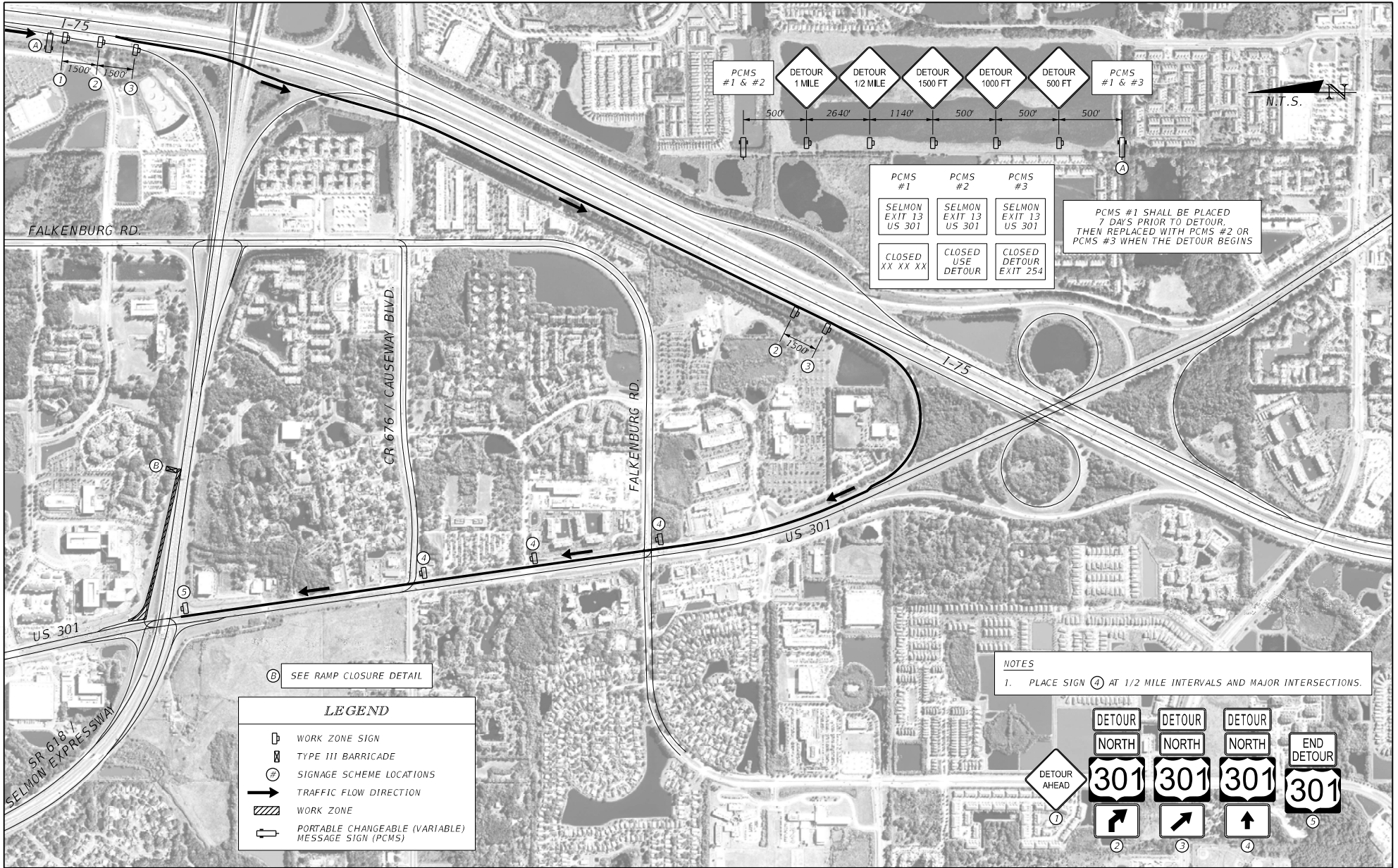
NOTES
1. PLACE SIGN (C) AT 1/2 MILE INTERVALS



REVISIONS		ENGINEER OF RECORD		TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ITS TRAFFIC CONTROL PLANS	SHEET NO. IT-67
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR 618	HILLSBOROUGH	HI-0172		

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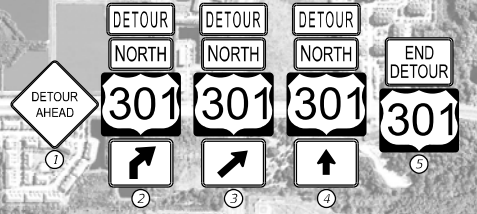
SEE RAMP CLOSURE DETAIL

LEGEND	
	WORK ZONE SIGN
	TYPE III BARRICADE
	SIGNAGE SCHEME LOCATIONS
	TRAFFIC FLOW DIRECTION
	WORK ZONE
	PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGN (PCMS)

PCMS #1	PCMS #2	PCMS #3
SELMON EXIT 13 US 301	SELMON EXIT 13 US 301	SELMON EXIT 13 US 301
CLOSED XX XX XX	CLOSED USE DETOUR	CLOSED DETOUR EXIT 254

PCMS #1 SHALL BE PLACED 7 DAYS PRIOR TO DETOUR, THEN REPLACED WITH PCMS #2 OR PCMS #3 WHEN THE DETOUR BEGINS

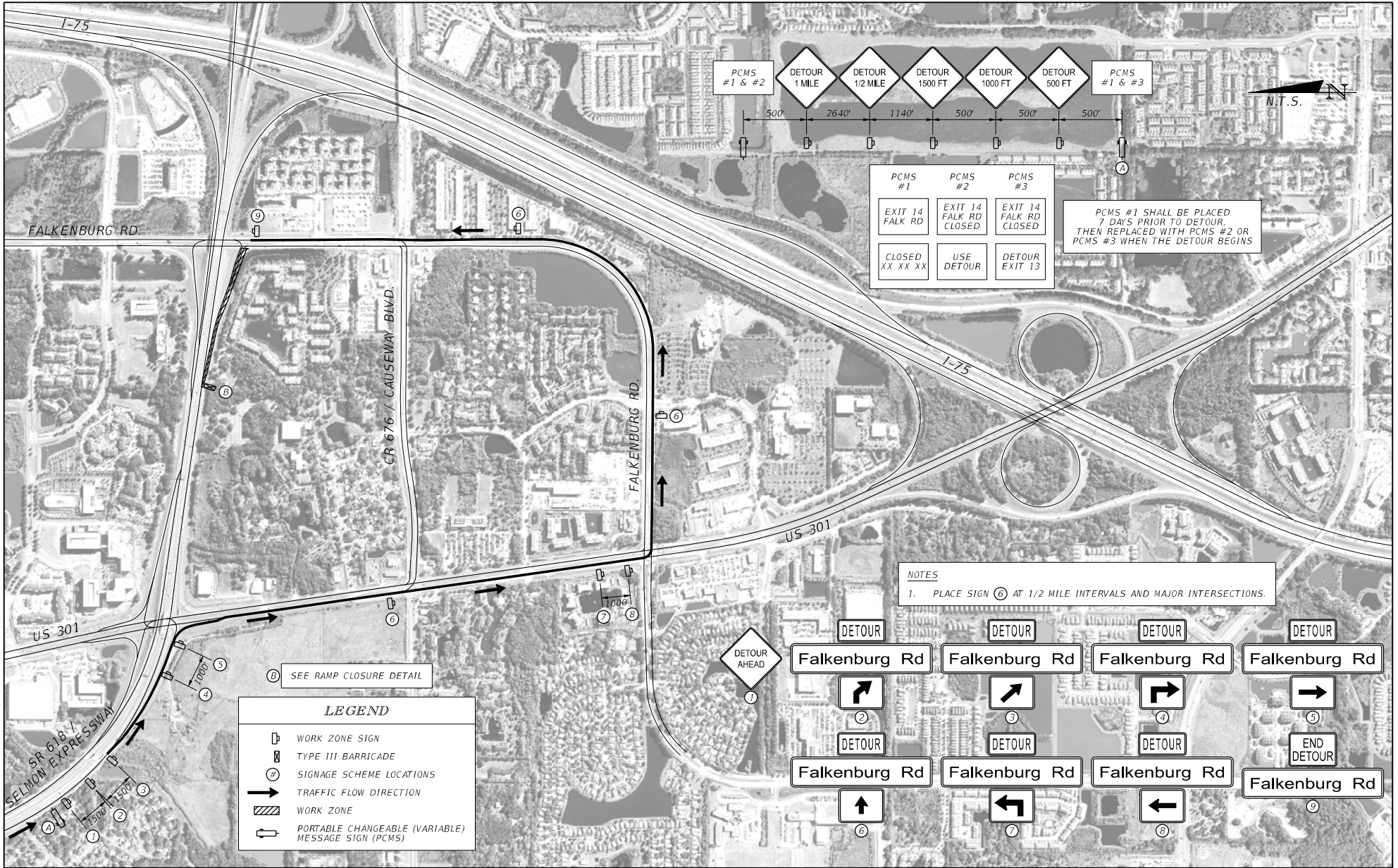
NOTES
1. PLACE SIGN (4) AT 1/2 MILE INTERVALS AND MAJOR INTERSECTIONS.



REVISIONS		ENGINEER OF RECORD		TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY			ITS TRAFFIC CONTROL PLANS	SHEET NO. IT-68
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR 618	HILLSBOROUGH	HI-0172		

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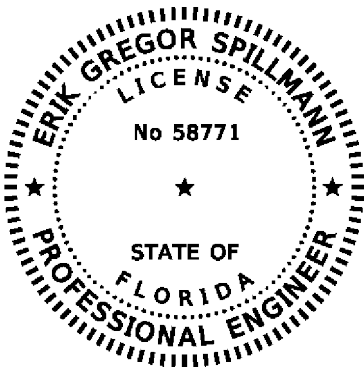
SPECIFICATIONS PACKAGE
PROJECT ID: HI-0172
HILLSBOROUGH COUNTY

The July 2023 Edition of the Florida Department of Transportation Standard Specifications is revised as follows:

I hereby certify that this specifications package has been properly prepared by me, or under my responsible charge, in accordance with procedures adopted by the Florida Department of Transportation.

Signature and Seal: Erik Spillmann, PE
Date: December 27, 2023
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DIVISION I

General Requirements and Covenants

SECTION 1

DEFINITIONS AND TERMS

Where the Standard Specifications and this Specifications Package references the “Department”, it simultaneously means Tampa Hillsborough Expressway Authority. All references to the “Department” in Section 337, Florida Statutes, in whole or in part, shall hereby be further applied to the Tampa Hillsborough Expressway Authority. Authorization reserved in the Standard Specifications for the Director, Office of Construction shall hereby be exclusively granted to the Tampa Hillsborough Expressway Authority Director of Operations and Engineering, and authorization reserved for the Secretary shall be exclusively granted to the Tampa Hillsborough Expressway Authority Executive Director.

1-1 General.

These Specifications are written to the bidder, prior to award of the Contract, and to the Contractor. Within Divisions I and II of the specifications, sentences that direct the Contractor to perform work are written in the active voice-imperative mood. These directions to the Contractor are written as commands. In the imperative mood, the subject “the bidder” or “the Contractor” is understood.

All other requirements to be performed by others, with the exception of the Method of Measurement and the Basis of Payment Articles, have been written in the active voice, but not in the imperative mood. Sentences written in the active voice identify the party responsible for performing the action. For example, “The Engineer will determine the density of the compacted material.” Certain requirements of the Contractor may also be written in the active voice, rather than active voice-imperative mood.

Division III of the Specifications (Materials) is written in the passive voice writing style.

1-2 Abbreviations.

The following abbreviations, when used in the Contract Documents, represent the full text shown.

AAN	American Association of Nurserymen, Inc.
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	The Associated General Contractors of America, Inc.
AGMA	American Gear Manufacturers Association
AIA	American Institute of Architects
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute, Inc.
AREA	American Railway Engineering Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association

CRSI	Concrete Reinforcing Steel Institute
EASA	Electrical Apparatus Service Association
EPA	Environmental Protection Agency of the United States Government
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FSS	Federal Specifications and Standards
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
ISO	International Organization for Standards
MASH	AASHTO Manual for Assessing Safety Hardware
MUTCD	Manual on Uniform Traffic Control Devices
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIST	National Institute for Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
OSHA	Occupational Safety and Health Administration
SAE	Society of Automotive Engineers
SI	International System of Units
SSPC	Society of Protective Coatings
UL	Underwriters' Laboratories

Each of the above abbreviations, when followed by a number or letter designation, or combination of numbers and letters, designates a specification, test method, or other code or recommendation of the particular authority or organization shown.

Use standards, specifications, test methods, or other codes as specified in the current edition at the time of the bid opening.

1-3 Definitions.

The following terms, when used in the Contract Documents, have the meaning described.

Advertisement.

The public announcement, as required by law, inviting bids for work to be performed or materials to be furnished, usually issued as “Notice to Contractors,” or “Notice to Bidders.”

Article.

The numbered prime subdivision of a Section of these Specifications.

Authority.

The Tampa-Hillsborough County Expressway Authority.

Bidder.

An individual, firm, or corporation submitting a proposal for the proposed work.

Bridge.

A structure, including supports, erected over a depression or over an obstruction such as water, highway or railway, or for elevated roadway, for carrying traffic or other moving loads, and having a length, measured along the center of the roadway, of more than 20 feet between the inside faces of end supports. A multiple-span box culvert is considered a bridge, where the length between the extreme ends of the openings exceeds 20 feet.

Calendar day.

Every day shown on the calendar, ending and beginning at midnight.

Contract.

The term “Contract” means the entire and integrated agreement between the parties thereunder and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract Documents form the Contract between the Authority and the Contractor setting forth the obligations of the parties thereunder, including, but not limited to, the performance of the Work and the basis of payment.

Contract Bond.

The security furnished by the Contractor and the surety as a guaranty that the Contractor shall fulfill the terms of the Contract and pay all legal debts pertaining to the construction of the project.

Contract Claim (Claim).

A written demand submitted to the Authority by the Contractor in compliance with 5-12.3 seeking additional monetary compensation, time, or other adjustments to the Contract, the entitlement or impact of which is disputed by the Authority.

Contract Documents.

The term “Contract Documents” includes: Advertisement for Proposal, Proposal, Certification as to Publication and Notice of Advertisement for Proposal, Appointment of Agent by Nonresident Contractors, Noncollusion Affidavit, Warranty Concerning Solicitation of the Contract by Others, Resolution of Award of Contract, Executed Form of Contract, Performance Bond and Payment Bond, Specifications, Plans (including revisions thereto issued during construction), Estimated Quantities Report, Standard Plans, Addenda, or other information mailed or otherwise transmitted to the prospective bidders prior to the receipt of bids, work orders and supplemental agreements, all of which are to be treated as one instrument whether or not set forth at length in the form of contract.

Note: As used in Sections 2 and 3 only, Contract Documents do not include work orders, and supplementary agreements. As used in Section 2 only, Contract Documents also do not include Resolution of Award of Contract, Executed Form of Contract, and Performance and Payment Bond.

Contract Letting.

The date that the Authority opened the bid proposals.

Contract Time.

The number of calendar days allowed for completion of the Contract work, including authorized time extensions.

Contractor.

The individual, firm, joint venture, or company contracting with the Authority to perform the work.

Contractor’s Engineer of Record.

A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing of components of the permanent structure as part of a redesign or Cost Savings Initiative Proposal, or for repair

designs and details of the permanent work. The Contractor's Engineer of Record may also serve as the Specialty Engineer.

The Contractor's Engineer of Record must be an employee of a pre-qualified firm. The firm shall be pre-qualified in accordance with the Rules of the Department of Transportation, Chapter 14-75. Any Corporation or Partnership offering engineering services must hold a Certificate of Authorization from the Florida Department of Business and Professional Regulation.

As an alternate to being an employee of a pre-qualified firm, the Contractor's Engineer of Record may be a Department-approved Specialty Engineer. For items of the permanent work declared by the State Construction Office to be "major" or "structural", the work performed by a Department-approved Specialty Engineer must be checked by another Department-approved Specialty Engineer. An individual Engineer may become a Department-approved Specialty Engineer if the individual meets the Professional Engineer experience requirements set forth within the individual work groups in Chapter 14-75, Rules of the Department of Transportation, Florida Administrative Code. Department-approved Specialty Engineers are listed on the State Construction Website. Department-approved Specialty Engineers will not be authorized to perform redesigns or Cost Savings Initiative Proposal designs of items fully detailed in the Plans.

Controlling Work Items.

The activity or work item on the critical path having the least amount of total float. The controlling item of work will also be referred to as a Critical Activity.

Culverts.

Any structure not classified as a bridge that provides an opening under the roadway.

Delay.

Any unanticipated event, action, force or factor which extends the Contractor's time of performance of any controlling work item under the Contract. The term "delay" is intended to cover all such events, actions, forces or factors, whether styled "delay", "disruption", "interference", "impedance", "hindrance", or otherwise, which are beyond the control of and not caused by the Contractor, or the Contractor's subcontractors, materialmen, suppliers or other agents. This term does not include "extra work".

Department.

State of Florida Department of Transportation.

Developmental Specification.

See definition for Specifications.

Engineer.

The Director, Office of Construction, acting directly or through duly authorized representatives; such representatives acting within the scope of the duties and authority assigned to them.

Note: In order to avoid cumbersome and confusing repetition of expressions in these Specifications, it is provided that whenever anything is, or is to be done, if, as, or, when, or where "acceptable, accepted, approval, approved, authorized, condemned, considered necessary, contemplated, deemed necessary, designated, determined, directed, disapproved, established,

given, indicated, insufficient, ordered, permitted, rejected, required, reserved, satisfactory, specified, sufficient, suitable, suspended, unacceptable, or unsatisfactory,” it shall be understood as if the expression were followed by the words “by the Engineer,” “to the Engineer,” or “of the Engineer.”

Engineer of Record.

The Professional Engineer or Engineering Firm registered in the State of Florida that develops the criteria and concept for the project, performs the analysis, and is responsible for the preparation of the Plans and Specifications. The Engineer of Record may be an Authority in-house staff or a consultant retained by the Authority.

The Contractor shall not employ the Engineer of Record as the Contractor’s Engineer of Record or as a Specialty Engineer.

Equipment.

The machinery and equipment, together with the necessary supplies for upkeep and maintenance thereof, and all other tools and apparatus necessary for the construction and acceptable completion of the work.

Estimated Quantities Report.

The Estimated Quantities Report contains pay item and quantity information for the project. When the Plans do not adequately describe quantity related information, refer to the Estimated Quantities Report.

Extra Work.

Any “work” which is required by the Engineer to be performed and which is not otherwise covered or included in the project by the existing Contract Documents, whether it be in the nature of additional work, altered work, deleted work, work due to differing site conditions, or otherwise. This term does not include a “delay”.

Federal, State, and Local Rules and Regulations.

The term “Federal, State and Local Rules and Regulations” includes: any and all Federal, State, and Local laws, bylaws, ordinances, rules, regulations, orders, permits, or decrees including environmental laws, rules, regulations, and permits.

Highway, Street, or Road.

A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

Holidays.

Days designated by the State Legislature or Cabinet as holidays, which include, but are not limited to, New Year’s Day, Martin Luther King’s Birthday, Memorial Day, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day and the following Friday, and Christmas Day.

Inspector.

An authorized representative of the Engineer, assigned to make official inspections of the materials furnished and of the work performed by the Contractor.

Laboratory.

The official testing laboratory used by the Authority.

Major Item of Work.

Any item of work having an original Contract value in excess of 5% of the original Contract amount.

Materials.

Any substances to be incorporated in the work under the Contract.

Median.

The portion of a divided highway or street separating the traveled ways for traffic moving in opposite directions.

Plans.

The plans sheets and digital models (2D and 3D) provided as contract documents, including reproductions thereof, showing the location, character, dimensions, and details of the work.

Proposal (Bid, Bid Proposal).

The offer of a bidder, on the prescribed form, to perform the work and to furnish the labor and materials at the prices quoted.

Proposal Form.

The official form or the electronically generated bid item sheets on which the Authority requires formal bids to be prepared and submitted for the work.

Proposal Guaranty.

The security furnished by the bidder as guaranty that the bidder will enter into the Contract for the work if the Authority accepts the proposal.

Request for Correction.

A document initiated by the Contractor proposing a method for correction of work that is not in compliance with the Contract Documents. The Request for Correction is submitted to the Engineer for review and disposition.

Request for Information.

A document initiated by the Contractor that is submitted to the Engineer for interpretation of a Contract Document provision, the meaning of which is not clear to the Contractor. The Request for Information is submitted to the Engineer for review and disposition.

Request for Modification.

A document initiated by the Contractor requesting to modify the Contract Documents, that is submitted to the Engineer for review and disposition.

Right-of-Way.

The land that the Authority has title to, or right of use, for the road and its structures and appurtenances, and for material pits furnished by the Authority.

Roadbed.

The portion of the roadway occupied by the subgrade and shoulders.

Roadway.

The portion of a highway within the limits of construction.

Secretary.

Secretary of Transportation, State of Florida Department of Transportation, acting directly or through an assistant or other representative authorized by him; the chief officer of the Department of Transportation.

Section.

A numbered prime division of these Specifications.

Special Event.

Any event, including but not limited to, a festival, fair, run or race, motorcade, parade, civic activity, cultural activity, charity or fund drive, sporting event, or similar activity designated in the Contract Documents.

Special Provisions.

See definition for Specifications.

Specialty Engineer.

A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing preparation of components, systems, or installation methods and equipment for specific temporary portions of the project work or for special items of the permanent works not fully detailed in the Plans and required to be furnished by the Contractor. The Specialty Engineer may also provide designs and details, repair designs and details, or perform Engineering Analyses for items of the permanent work declared by the State Construction Office to be “minor” or “non-structural”.

For items of work not specifically covered by the Rules of the Department of Transportation, a Specialty Engineer is qualified if he has the following qualifications:

1. Registration as a Professional Engineer in the State of Florida.
2. The education and experience necessary to perform the submitted design as required by the Florida Department of Business and Professional Regulation.

Specifications.

The directions, provisions, and requirements contained herein, together with all stipulations contained in the Contract Documents, setting out or relating to the method and manner of performing the work, or to the quantities and qualities of materials and labor to be furnished under the Contract.

Standard Specifications: “Standard Specifications for Road and Bridge Construction” an electronic book, applicable to all Department Contracts containing adopted requirements, setting out or relating to the method or manner of performing work, or to the quantities and qualities of materials and labor.

Supplemental Specifications: Approved additions and revisions to the Standard Specifications, applicable to all Department Contracts.

Special Provisions: Specific clauses adopted by the Authority that add to or revise the Standard Specifications or supplemental specifications, setting forth conditions varying from or additional to the Standard Specifications applicable to a specific project.

Technical Special Provisions: Specifications, of a technical nature, prepared, signed, and sealed by an Engineer registered in the State of Florida other than the State Specifications Engineer or his designee, that are made part of the Contract as an attachment to the Contract Documents.

Developmental Specification: A specification developed around a new process, procedure, or material.

Standard Plans.

“Standard Plans for Road and Bridge Construction”, an electronic book describing and detailing aspects of the Work. Where the term Design Standards appears in the Contract Documents, it will be synonymous with Standard Plans.

Standard Specifications.

See definition for Specifications.

State.

State of Florida.

Subarticle.

A headed and numbered subdivision of an Article of a Section of these Specifications.

Subgrade.

The portion of the roadbed immediately below the base course or pavement, including below the curb and gutter, valley gutter, shoulder and driveway pavement. The subgrade limits ordinarily include those portions of the roadbed shown in the Plans to be constructed to a design bearing value or to be otherwise specially treated. Where no limits are shown in the Plans, the subgrade section extends to a depth of 12 inches below the bottom of the base or pavement and outward to 6 inches beyond the base, pavement, or curb and gutter.

Substructure.

All of that part of a bridge structure below the bridge seats, including the parapets, backwalls, and wingwalls of abutments.

Superintendent.

The Contractor’s authorized representative in responsible charge of the work.

Superstructure.

The entire bridge structure above the substructure, including anchorage and anchor bolts, but excluding the parapets, backwalls, and wingwalls of abutments.

Supplemental Agreement.

A written agreement between the Contractor and the Authority, and signed by the surety, modifying the Contract within the limitations set forth in these Specifications.

Supplemental Specifications.

See definition for Specifications.

Surety.

The corporate body that is bound by the Contract Bond with and for the Contractor and responsible for the performance of the Contract and for payment of all legal debts pertaining thereto.

Technical Special Provisions.

See definition for Specifications.

Traveled Way.

The portion of the roadway for the movement of vehicles, exclusive of shoulders and bicycle lanes.

Unilateral Payment.

A payment of money made to the Contractor by the Authority pursuant to Section 337.11(12), Florida Statutes (2009), for sums the Authority determines to be due to the Contractor for work performed on the project, and whereby the Contractor by acceptance of such payment does not waive any rights the Contractor may otherwise have against the Authority for payment of any additional sums the Contractor claims are due for the work.

Work.

All labor, materials and incidentals required to execute and complete the requirements of the Contract including superintendence, use of equipment and tools, and all services and responsibilities prescribed or implied.

Work Order.

A written agreement between the Contractor and the Authority modifying the Contract within the limitations set forth in these Specifications. Funds for this agreement are drawn against the Initial Contingency Pay Item or a Contingency Supplemental Agreement.

Working Day.

Any calendar day on which the Contractor works or is expected to work in accordance with the approved work progress schedule.

SECTION 2 PROPOSAL REQUIREMENTS AND CONDITIONS

2-1 Prequalification of Bidders.

Except as noted below, prequalify with the Authority to be eligible to bid. The Authority publishes regulations covering prequalification of Bidders under separate cover.

The Authority does not require the Bidder to be a prequalified Contractor if bidding construction contracts of \$250,000 or less, or if constructing buildings. In addition, at its sole discretion, the Authority may waive prequalification requirements on contracts of \$500,000 or less.

For construction contracts requiring prequalification, file an application for qualification using the Authority's online prequalification application system, giving detailed information with respect to financial resources, equipment, past record, personnel, and experience. For qualified applicants, the Authority will issue a certificate fixing the types of work and the aggregate amount of work that the Authority allows the prequalified Bidder to have under contract at any one time.

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit the following:

1. A bid on a Contract to provide any goods or services to a public entity.
2. A bid on a Contract with a public entity for the construction or repair of a public building or public work.
3. Bids on leases of real property to a public entity.

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 F.S., for Category Two. All restrictions apply for a period of 36 months from the date of placement on the convicted vendor list.

All prequalified Contractors bidding on any Contract must certify their total dollar amount of Work Underway and submit Form 375-020-39 or a spreadsheet in a similar format prior to submitting a bid. This information must be submitted at least once during the month the bid is due via the "Work Underway" link in the Contractor Pre-Qualification System.

2-2 Proposals.

2-2.1 Obtaining Proposal Forms: Obtain Proposal Forms under the conditions stipulated in the Advertisement. The Advertisement states the location and description of the work to be performed; the estimate of the various quantities (if applicable); the pay items of work to be performed (if applicable); the Contract Time; the amount of Proposal Guaranty; and the date, time, and place of the opening of Proposals.

The Plans, Specifications and other documents designated in the Advertisement are part of the Proposal, whether attached or not.

Upon advertising, the Authority will make the Proposal Forms available for download as an electronic file from the Online Ordering System or provide the Proposal Forms on portable electronic media as stipulated in the Advertisement. This file contains the information to be used by the Bidder, who has ordered and obtained the Proposal Forms, to submit the Proposal.

The Authority is not responsible for loss of or damage to the portable electronic media after it has been received by or delivered to the Bidder. If loss or damage occurs, the Bidder may order replacement Proposal Forms.

If the Bidder requests replacement Proposal Forms, the Authority will attempt to provide the replacement by overnight delivery or by electronic transmittal of the files. The Authority will not be held responsible if the Bidder cannot complete and submit a bid due to failure or incomplete delivery of the files.

Unless otherwise indicated in the Advertisement, the Bidder has the option to submit a bid either as an Internet Bid Submittal in accordance with 2-2.3 or as a Hard Copy Bid Submittal in accordance with 2-2.4. When an Internet bid submittal is used, the hard copy will not be considered.

2-2.2 Authority Modifications to Contract Documents: Notification of modifications to any Contract Documents will be posted to the Authority's bid software and the Authority's procurement website and will also be transmitted to the Bidder. The email address provided by the Bidder will be used to transmit notification of modifications. Follow the instructions provided in the notification of modifications to access the amendment files.

The Bidder shall take responsibility for downloading the revised information per the instructions included in the notification of modifications.

2-2.3 Internet Bid Submittals: Unless otherwise indicated in the Advertisement, the Bidder shall use the Authority's bid software to prepare a bid for Internet submittal. The Authority will accept, as the official bid, the set of Proposal Forms generated from the Authority's bid software along with a complete Proposal package, submitted via the Internet in accordance with 2-5 and 2-8. A Digital ID may be required to submit a bid via the Internet. Digital IDs may be obtained as outlined in the Advertisement. The Authority will not be responsible for any communications or machine breakdowns, transmission interruptions, delays, or any other problems that interfere with the receipt of Proposals as required above either at the Bidder's transmitting location, at the Authority's receiving location, or anywhere between these locations. Receipt or non-receipt of Proposals will not be considered grounds for a bid protest. The Authority will not be held responsible if the Bidder cannot complete or submit a bid due to failure or incomplete delivery of the files submitted via the Internet.

2-2.4 Hard Copy Bid Submittals: Unless otherwise indicated in the Advertisement, the Bidder shall use the Authority's bid software to prepare a bid for hard copy submittal.

The Authority will accept, as the official bid, this set of Proposal Forms generated from the Authority's bid software along with a complete Proposal package, delivered to the Authority in hard copy in accordance with the instructions listed below and the requirements of 2-5 and 2-8.

Print and submit bid item sheets generated from the Authority's bid software on letter size paper. Ensure that all computer generated sheets are legible. Do not submit computer generated sheets using a font size smaller than 9 point.

Return the Authority's bid software generated Proposal as the official bid, with the Proposal labeled with the Bidder's Name, Vendor Number, Letting Date, Revision Date (if applicable) and the Proposal ID.

2-3 Interpretation of Estimated Quantities.

2-3.1 Lump Sum Contracts: The Bidder is responsible for the determination of the quantities for those items constructed within the authorized plan limits or dimensions.

The Authority does not assume any responsibility for any incidental information in bid documents that may be construed as a quantity of work and/or materials.

2-3.2 Contracts other than Lump Sum: For those items constructed within authorized plan limits or dimensions, use the quantities shown in the Plans and in the Proposal Form as the basis of the bid. The Authority will also use these quantities for final payment as limited by the provisions for the individual items. For those items having variable final pay quantities that are dependent on actual field conditions, use and measurement, the quantities shown in the Plans and in the Proposal Form are approximate and provide only a basis for calculating the bid upon which the Authority will award the Contract. Where items are listed for payment as lump sum units and the Plans show estimates of component quantities, the Authority is responsible for the accuracy of those quantities limited to the provisions of 9-3.3. Where items are listed for payment as lump sum units and the Plans do not show estimates of component quantities, the Bidder is solely responsible for their own estimates of such quantities.

The Authority may increase, decrease, or omit the estimated quantities of work to be done or materials to be furnished.

2-4 Examination of Plans, Specifications, Special Provisions, and Site of Work.

Examine the Contract Documents and the site of the proposed work carefully before submitting a Proposal for the work contemplated. Investigate the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished and as to the requirements of all Contract Documents. Direct all questions to the Authority by posting the question to procurement@tampa-xway.com.

The Authority does not guarantee the details pertaining to borings, and pavement cores as shown in the Contract Documents, to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. The Bidder shall examine boring and pavement core data, where available, and make their own interpretation of the subsoil investigations and other preliminary data and shall base their bid solely on their own opinion of the conditions likely to be encountered.

The Bidder's submission of a Proposal is prima facie evidence that the Bidder has made an examination as described in this Article.

2-5 Preparation of Proposals.

2-5.1 General: Submit Proposals on the Proposal Form described in 2-2. Any pay item that will be provided free or at no cost to the Authority shall be indicated as "free" or "\$.00". If the pay item is left blank or n/a is used, the bid may be declared irregular. Show the total of the bid on the face of the Proposal.

2-5.2 Internet Bid Submittals: The Bidder shall execute the Proposal under the Bidder's Digital ID and enter the firm's bidding office street address on the Bidders Information Tab in the Authority's bid software. This Digital ID represents the firm as an individual, partnership, corporation, limited liability company, or joint venture. By entering and submitting the Digital ID the authorized parties obligate the firm to the bid. Internet Bid Submittals must acknowledge, on behalf of, the person, firm, association, or corporation submitting the bid certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free

competitive bidding in connection with the submitted bid, by indicating such in the Proposal. The Authority will not consider any bid unless such acknowledgment is included.

2-5.3 Hard Copy Bid Submittals: If the Proposal is made by an individual, either in the Bidder's own proper person or under a trade or firm name, the Bidder shall execute the Proposal under the Bidder's signature and enter the firm's bidding office street address. If the Proposal is made by a partnership, execute the Proposal by setting out in full the names of the partners, the firm name of the partnership, if any, have two or more of the general partners or authorized person sign the Proposal and enter the firm's bidding office street address. If the Proposal is made by a corporation, execute the Proposal by setting out in full the corporate name and have the president or other legally authorized corporate officer or agent sign the Proposal, affix the corporate seal and enter the corporation's bidding office street address. If the Proposal is made by a limited liability company, execute the Proposal by setting out the company name, have the manager or authorized member sign the Proposal and enter the company's bidding office address. If the Proposal is made by a joint venture, execute the Proposal by setting out the joint venture name, have the authorized parties sign the Proposal and enter the bidding office's street address. File with the Department Form 375-020-08, contained in the Proposal, which includes an unsworn statement executed by, or on behalf of, the person, firm, association, or corporation submitting the bid certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the submitted bid. The Authority will not consider any bid unless such form is properly completed in accordance with the requirements shown thereon.

2-6 Rejection of Irregular Proposals.

A Proposal is irregular and the Authority may reject such Proposal if the Proposal shows omissions, alterations of form, additions not specified or required, conditional or unauthorized alternate bids, or irregularities of any kind; or if the unit prices are obviously unbalanced, or if the cost is in excess of or below the reasonable cost analysis values, or if the Bidder submits a Proposal which was not generated using the Authority's bid software.

When the Authority provides for alternate bids in the Proposal Form, make only one entry for each alternate. A Proposal that provides for alternative bids is irregular and the Authority may reject such Proposal if the Bidder makes entries for more than one alternate.

2-7 Guaranty to Accompany Proposals.

The Authority will not consider any Proposal unless accompanied by a Proposal Guaranty of the character and amount indicated in the Advertisement, and unless made payable to the Authority. Submit the Proposal with the understanding that the successful Bidder shall furnish a Contract Bond pursuant to the requirements of 3-5.

The Bidder's Proposal Guaranty is binding for all projects included in the Contract awarded to the Contractor pursuant to the provisions of this Subarticle.

2-8 Delivery of Proposals.

2-8.1 Internet Bid Submittals: Unless otherwise indicated in the Advertisement, the Proposal may be submitted via the Internet. The Authority will not accept responsibility for Internet bids not meeting the time requirement stipulated in the Advertisement.

2-8.2 Hard Copy Bid Submittals: Unless otherwise indicated in the Advertisement, the Proposal may be submitted via hard copy. Submit the Proposal in a sealed envelope, bearing on

the outside the name of the Bidder, the Bidder's address, and the Proposal ID of the project for which the Bidder submitted the bid. For Proposals that are submitted by mail, enclose the Proposal in a sealed envelope, marked as directed above. Enclose the sealed envelope in a second outer envelope addressed to the Authority, at the place designated in the Advertisement. For a Proposal that is not submitted by mail, deliver the Proposal to the Contracts Office of the Authority, or to the place as designated in the Advertisement. The Authority will not consider Proposals received after the time set for opening bids. The Authority will retain these Proposals unopened.

2-9 Withdrawal or Revision of Proposals.

2-9.1 Internet Bid Submittals: A Bidder may withdraw a Proposal any time prior to the bid submittal deadline specified in the Advertisement. The resubmission of any Proposal so withdrawn must be made as a complete Proposal, subject to the provisions of 2-8.

A Bidder may revise a Proposal any time prior to the bid submittal deadline specified in the Advertisement. Revisions may be made via Internet in accordance with 2-8.1 or by fax in accordance with 2-9.2.

The Authority will not be responsible for any communications or machine breakdowns, transmission interruptions, delays, or any other problems that interfere with the receipt of revisions to Proposals as required above either at the Bidder's transmitting location, at the Authority's receiving location, or anywhere between these locations. Receipt or non-receipt of revisions to a Proposal will not be considered grounds for a bid protest. The Authority will not be held responsible if the Bidder cannot complete or submit revisions to a bid due to failure or incomplete delivery of the files submitted via the Internet.

2-9.2 Hard Copy Bid Submittals: A Bidder may withdraw or revise a Proposal after submission, provided the Authority receives a written request to withdraw or revise the Proposal prior to the time set for opening of bids. The resubmission of any Proposal withdrawn under this provision is subject to the provisions of 2-8.

Legible facsimile (FAX) Proposal changes will be accepted if received in full at the fax number listed in the Bid Solicitation Notice by the time Proposals are due on the day of the letting and provided that all of the following conditions are met:

1. The Bidder's name is the same on the faxed Proposal change as shown on the original Proposal.

2. The Proposal change includes the following:

- a. The correct Proposal ID.
- b. The correct bid item number for which the price is being changed and the respective unit price change.

c. The correct revised total per item.

d. The revised total bid amount.

e. The signature of the President or Vice President of the Company.

Faxed Proposal changes failing to meet all of these requirements will not be considered and will not change the original bid.

The Authority will not be responsible for any communications or fax machine breakdowns, transmission interruptions, delays, or any other problems that interfere with the receipt of faxed Proposal changes as required above either at the Bidder's fax location, at the Authority's fax location, or anywhere between these locations. Receipt or non-receipt of a faxed Proposal change will not be considered grounds for a bid protest.

2-10 Opening of Proposals.

The Authority will open and publicly announce Proposals at the time and place indicated in the Advertisement. The Authority invites Bidders, their authorized agents, and other interested parties to attend.

2-11 Disqualification of Bidders.

The Authority may disqualify any Bidder and reject the Bidder's Proposal or Proposals for any of the following reasons:

1. The submission of more than one Proposal for the same work from an individual, firm, or corporation under the same or a different name.
2. Evidence that one Bidder has a financial interest in the firm of another Bidder for the same work.
3. Evidence of collusion among Bidders. The Authority will not recognize a participant in such collusion as a Bidder for any future work of the Authority until the Authority reinstates such participant as a qualified Bidder.
4. Failure to qualify in accordance with 2-1.
5. Uncompleted work on other projects that, in the judgment of the Authority, could hinder or prevent the prompt completion of the proposed work.
6. Failure to pay or satisfactorily settle all bills due for labor and material on other contracts in force at the time of advertisement for bids.
7. Default under a previous contract.
8. Employment of unauthorized aliens in violation of Section 274A (e) of the Immigration and Nationality Act.
9. Falsification on any form required by the Authority.
10. The submission of a Proposal that was not solicited by the Authority.

2-12 Material, Samples and Statement.

The Authority may require that the Bidder furnish a statement of the origin, composition, and manufacture of any and all materials to be used in the construction of the work, together with samples that may be subjected to the tests provided for in these Specifications to determine the materials' quality and fitness for the work.

SECTION 3 AWARD AND EXECUTION OF CONTRACT

3-1 Consideration of Bids.

For the purpose of award, after opening and reading the Proposals, the Authority will consider as the bid the correct summation of each unit bid price multiplied by the estimated quantities shown in the Proposal. On this basis, the Authority will compare the amounts of each bid and make the results of such comparison available to the public. Until the actual award of the Contract, however, the Authority reserves the right to reject any or all Proposals and to waive technical errors that the Authority determines, in its sole discretion, to be in the best interest of the State.

The Authority reserves the right to delete the bid portion of the utility relocation work from the Contract. When the Authority deletes utility relocation work from the Contract, the Authority will recalculate the Contract bid tabulations based on the remaining project quantities.

In the event that the Authority deletes utility relocation work from the Contract, the utility owner will relocate such utilities in accordance with the backup Utility Relocation Schedule contained in the Contract Documents.

3-2 Award of Contract.

3-2.1 General: If the Authority decides to award the Contract, the Authority will award the Contract to the lowest responsible Bidder whose Proposal complies with all the Contract Document requirements. If awarded, the Authority will award the Contract within 50 days after the opening of the Proposals, unless the Special Provisions change this time limit, or the Bidder and the Authority extend the time period by mutual consent.

Prior to award of the Contract by the Authority, the Bidder must provide proof of authorization to conduct business in the State of Florida.

3-2.2 Bids Exceeding Bidder's Maximum Capacity Rating: Prior to award of the Contract, the Authority will address bids exceeding a Bidder's maximum capacity rating, and the resulting impact on the Bidder's qualification to bid, in accordance with Florida Administrative Code Rules 14-22.003 and 14-22.009.

3-3 Cancellation of Award.

The Authority reserves the right to cancel the award of any Contract at any time before the execution of the Contract by all parties, with no compensation due any of the Bidders.

3-4 Release of Proposal Guaranty.

The Authority will release all Proposal Guaranties except those of the two lowest responsible Bidders immediately following the opening and checking of the Proposals. The Authority will immediately release the Proposal Guaranty of the two lowest responsible Bidders after the successful Bidder delivers the executed Contract and a satisfactory Contract Bond to the Authority, except that the Authority will not retain the Proposal Guaranty of the next-to-lowest responsible Bidder longer than 50 days after the opening of the Proposals unless the Authority awards the Contract to the next lowest responsible Bidder prior to the expiration of this time limit.

3-5 Contract Bond Required.

3-5.1 General Requirements of the Contract Bond: Upon award, furnish to the Authority, and maintain in effect throughout the life of the Contract, an acceptable Contract Bond in a sum at least equal to the amount of the Contract. Execute such Contract Bond on Department Form 375-020-27. Obtain the Contract Bond from a Surety licensed to conduct business in the State of Florida, meeting all of the requirements of the laws of Florida and the regulations of the Authority, and having the Authority's approval. Ensure that the Surety's Florida Licensed Insurance Agent's name, address, and telephone number is clearly stated on the Contract Bond form.

The Authority may waive the requirement for all or a portion of a Contract Bond if:

1. The Contract amount is \$250,000 or less, and the Authority determines that the project is of a noncritical nature and that nonperformance will not endanger the public health, safety, or property;
2. The Contractor is a qualified nonprofit agency for the blind or for the other severely handicapped under Section 413.036(2), Florida Statutes; or,
3. The Contractor uses a subcontractor that is a qualified nonprofit agency for the blind or for the other severely handicapped under Section 413.036(2), Florida Statutes. However, the Authority may not waive more than the amount of the subcontract.

The Authority may require alternate means of security if it waives the requirement for a Contract Bond.

3-5.2 Continued Acceptability of Surety: Provide a Contract Bond that remains acceptable to the Authority throughout the life of the Contract. In the event that the Surety executing the Contract Bond, although acceptable to the Authority at the time of execution of the Contract, subsequently becomes insolvent or bankrupt, or becomes unreliable or otherwise unsatisfactory due to any cause that becomes apparent after the Authority's initial approval of the Surety, then the Authority may require that the Contractor immediately replace the Contract Bond with a similar Contract Bond issued by a Surety that is reliable and acceptable to the Authority. In such an event, the Authority will bear all costs of the premium for the new Contract Bond, after deducting any amounts that are returned to the Contractor from their payment of premium on the original Contract Bond.

3-5.3 Default by Contractor: In case of default on the part of the Contractor, the Authority will charge against the Contract Bond all expenses for services incidental to ascertaining and collecting losses under the Contract Bond, including accounting, engineering, and legal services, together with any and all costs incurred in connection with renegotiation of the Contract.

3-5.4 Surety to Furnish Legal Defense as to Payment and Performance Claims or Suits: The Surety shall indemnify and provide defense for the Authority when called upon to do so for all claims or suits against the Authority, by third parties, pertaining to Contractor payment or performance issues arising out of the Contract where the Contractor has failed to timely provide the Authority such defense. It is expressly understood that the monetary limitation on the extent of the indemnification shall be the approved Contract amount, which shall be the original Contract amount as may be modified by subsequent Supplemental Agreements.

3-5.5 Liability for Wrongful or Criminal Act by Contractor: The principal and Surety executing the Contract Bond shall be liable to the Authority in any civil action that might be instituted by the Authority or any officer of the State authorized in such cases, for double any amount in money or property the Authority might lose, or be overcharged, or otherwise be defrauded of by any wrongful or criminal act of the Contractor, their agent or their employees.

3-6 Execution of Contract and Contract Bond.

Within 10 calendar days, excluding Saturdays, Sundays, and State holidays, after receipt of the Contract award, execute the necessary agreements to enter into a Contract with the Authority and return the Contract along with a satisfactory Contract Bond and documentation evidencing all insurance required by 7-13 to the Authority's Contracts Office that awarded the Contract. For each calendar day, excluding Saturdays, Sundays, and State holidays, the Contractor is late in delivering to the Authority's Contracts Office all required documents in properly executed form, the Authority will deduct one day from the Contract Time. The Authority will not be bound by any Proposal until the Authority executes the associated Contract.

The Authority will execute the Contract within 5 calendar days, excluding Saturdays, Sundays, and State holidays, after receipt of the signed Contract, necessary agreements, Contract Bond, and all other required documents from the Contractor.

3-7 Failure by Contractor to Execute Contract and Furnish Bond.

In the event that the Contractor fails to execute the awarded Contract and to submit an acceptable Contract Bond, as prescribed in 3-5 and 3-6, within 10 calendar days, excluding Saturdays, Sundays, and State holidays, of receipt of the Contract award, the Authority may annul the award, causing the Contractor to forfeit the Proposal Guaranty to the Authority as liquidation of damages sustained. The Authority may then award the Contract to the next lowest responsible Bidder, re-advertise, or accomplish the Work using alternate resources.

3-8 Audit of Contractor's Records.

Upon execution of the Contract, the Authority reserves the right to conduct an audit of the Contractor's records pertaining to the project. The Authority or its representatives may conduct an audit, or audits, at any time prior to final payment, or thereafter pursuant to 5-13. The Authority may also require submittal of the records from either the Contractor or any subcontractor or material supplier. As the Authority deems necessary, records include all books of account, supporting documents, and papers pertaining to the cost of performance of the Work.

Retain all records pertaining to the Contract for a period of not less than three years from the date of the Engineer's final acceptance of the project, unless a longer minimum period is otherwise specified. Upon request, make all such records available to the Authority or its representative(s). For the purpose of this Article, records include but are not limited to all books of account, supporting documents, and papers that the Authority deems necessary to ensure compliance with the provisions of the Contract Documents.

If the Contractor fails to comply with these requirements, the Authority may disqualify or suspend the Contractor from bidding on or working as a subcontractor on future Contracts.

Ensure that the subcontractors provide access to their records pertaining to the project upon request by the Authority.

Comply with Section 20.055(5), Florida Statutes, and incorporate in all subcontracts the obligation to comply with Section 20.055(5), Florida Statutes.

3-9 Public Records.

The Contractor shall comply with Chapter 119, Florida Statutes. Specifically, the Contractor shall:

1. Keep and maintain public records required by the Authority to perform the service.
2. Upon request from the Authority's custodian of public records, provide the Authority with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of the Contract if the Contractor does not transfer the records to the Authority.
4. Upon completion of the Contract, transfer at no cost to the Authority, all public records in possession of the Contractor or keep and maintain public records required by the Authority to perform the service. If the Contractor transfers all public records to the Authority upon completion of the Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Authority, upon request from the Authority's custodian of public records, in a format that is compatible with the information technology systems of the Authority.

Failure to comply with Chapter 119, Florida Statutes and the Article 3-9 shall be grounds for immediate unilateral termination of this Contract by the Authority pursuant to 8-9.1.

SECTION 4 SCOPE OF THE WORK

4-1 Intent of Contract.

The intent of the Contract is to provide for the construction and completion in every detail of the work described in the Contract. Furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the Contract Documents.

Upon execution of the Contract, conduct all written communication associated with the Contract using a paperless electronic means. When the Specifications require a submission of documentation, such documents must be submitted and exchanged electronically using the Authority provided web-based collaboration site.

All documents requiring a signature must be executed electronically by both parties in accordance with Chapter 668, Florida Statutes, and have the same force and effect as a written signature. All persons requiring access to the collaboration site shall be identified during the preconstruction conference. Persons may be added or removed during the life of the Contract on an as needed basis. All signatories must acquire a digital signature certificate.

4-2 Work not covered by Standard Specifications.

Proposed construction and any contractual requirements not covered by these Standard Specifications may be covered by Contract Plan notes or by Supplemental Specifications or Special Provisions for the Contract, and all requirements of such Supplemental Specifications or Special Provisions shall be considered as a part of these Specifications.

4-3 Alteration of Plans or of Character of Work.

4-3.1 General: The Engineer reserves the right to make, at any time prior to or during the progress of the work, such increases or decreases in quantities, whether a significant change or not, and such alterations in the details of construction, whether a substantial change or not, including but not limited to alterations in the grade or alignment of the road or structure or both, as may be found necessary or desirable by the Engineer. Such increases, decreases or alterations shall not constitute a breach of Contract, shall not invalidate the Contract, nor release the Surety from any liability arising out of this Contract or the Surety bond. The Contractor agrees to perform the work, as altered, the same as if it had been a part of the original Contract.

The term “significant change” applies only when:

1. The Engineer determines that the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction, or

2. A major item of work, as defined in 1-3, is increased in excess of 125% or decreased below 75% of the original Contract quantity. The Authority will apply any price adjustment for an increase in quantity only to that portion in excess of 125% of the original Contract item quantity in accordance with 4-3.2 below. In the case of a decrease below 75% the Authority will only apply a price adjustment for the additional costs that are a direct result of the reduction in quantity.

In (1) above, the determination by the Engineer shall be conclusive. If the determination is challenged by the Contractor in any proceeding, the Contractor must establish

by clear and convincing proof that the determination by the Engineer was without any reasonable basis.

4-3.2 Increase, Decrease or Alteration in the Work: The Engineer reserves the right to make alterations in the character of the work which involve a substantial change in the nature of the design or in the type of construction or which materially increases or decreases the cost or time of performance. Such alteration shall not constitute a breach of Contract, shall not invalidate the Contract or release the Surety.

Notwithstanding that the Contractor shall have no formal right whatsoever to any extra compensation or time extension deemed due by the Contractor for any cause unless and until the Contractor follows the procedures set forth in 5-12.2 for preservation, presentation and resolution of the claim, the Contractor may at any time, after having otherwise timely submitted a notice of intent to claim or preliminary time extension request pursuant to 5-12.2 and 8-7.3.2, submit to the Authority a request for equitable adjustment of compensation or time or other dispute resolution proposal. The Contractor shall in any request for equitable adjustment of compensation, time, or other dispute resolution proposal certify under oath and in writing, in accordance with the formalities required by Florida law, that the request is made in good faith, that any supportive data submitted is accurate and complete to the Contractor's best knowledge and belief, and that the amount of the request accurately reflects what the Contractor in good faith believes to be the Authority's responsibility. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor. Any such certified statements of entitlement and costs shall be subject to the audit provisions set forth in 5-12.14. While the submittal or review of a duly certified request for equitable adjustment shall neither create, modify, nor activate any legal rights or obligations as to the Contractor or the Authority, the Authority will review the content of any duly certified request for equitable adjustment or other dispute resolution proposal, with any further action or inaction by the Authority thereafter being in its sole discretion. Any request for equitable adjustment that fails to fully comply with the certification requirements will not be reviewed by the Authority.

The monetary compensation provided for below constitutes full and complete payment for such additional work and the Contractor shall have no right to any additional monetary compensation for any direct or indirect costs or profit for any such additional work beyond that expressly provided below. The Contractor shall be entitled to a time extension only to the extent that the performance of any portion of the additional work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. All time related costs for actual performance of such additional work are included in the compensation already provided below and any time extension entitlement hereunder will be without additional monetary compensation. The Contractor shall have no right to any monetary compensation or damages whatsoever for any direct or indirect delay to a controlling work item arising out of or in any way related to the circumstances leading up to or resulting from additional work (but not relating to the actual performance of the additional work, which is paid for as otherwise provided herein), except only as provided for under 5-12.6.2.1.

4-3.2.1 Allowable Costs for Extra Work: The Engineer may direct in writing that extra work be done and, at the Engineer's sole discretion, the Contractor will be paid pursuant to an agreed Supplemental Agreement or in the following manner:

1. Labor and Burden: The Contractor will receive payment for actual costs of direct labor and burden for the additional or unforeseen work. Labor includes foremen

actually engaged in the work; and will not include project supervisory personnel nor necessary on-site clerical staff, except when the additional or unforeseen work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. Compensation for project supervisory personnel, but in no case higher than a Project Manager’s position, shall only be for the pro-rata time such supervisory personnel spent on the contract. In no case shall an officer or director of the Company, nor those persons who own more than 1% of the Company, be considered as project supervisory personnel, direct labor or foremen hereunder.

Payment for burden shall be limited solely to the following:

Table 4-1	
Item	Rate
FICA	Rate established by Law
FUTA/SUTA	Rate established by Law
Medical Insurance	Actual
Holidays, Sick & Vacation benefits	Actual
Retirement benefits	Actual
Workers Compensation	Rates based on the National Council on Compensation Insurance basic rate tables adjusted by Contractor’s actual experience modification factor in effect at the time of the additional work or unforeseen work.
Per Diem	Actual but not to exceed State of Florida’s rate
Insurance*	Actual
*Compensation for Insurance is limited solely to General Liability Coverage and does not include any other insurance coverage (such as, but not limited to, Umbrella Coverage, Automobile Insurance, etc.).	

At the Pre-construction conference, certify to the Engineer the following:

- a. A listing of on-site clerical staff, supervisory personnel and their pro-rated time assigned to the contract,
- b. Actual Rate for items listed in Table 4-1,
- c. Existence of employee benefit plan for Holiday, Sick and Vacation benefits and a Retirement Plan, and,
- d. Payment of Per Diem is a company practice for instances when compensation for Per Diem is requested.

Such certification must be made by an officer or director of the Contractor with authority to bind the Contractor. Timely certification is a condition precedent to any right of the Contractor to recover compensations for such costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such costs. Any subsequent changes shall be certified to the Engineer as part of the cost proposal or seven calendar days in advance of performing such extra work.

2. Materials and Supplies: For materials accepted by the Engineer and used on the project, the Contractor will receive the actual cost of such materials incorporated into the work, including Contractor paid transportation charges (exclusive of equipment as hereinafter

set forth). For supplies reasonably needed for performing the work, the Contractor will receive the actual cost of such supplies.

3. Equipment: For any machinery or special equipment (other than small tools), including fuel and lubricant, the Contractor will receive 100% of the “Rental Rate Blue Book” for the actual time that such equipment is in operation on the work, and 50% of the “Rental Rate Blue Book” for the time the equipment is directed to standby and remain on the project site, to be calculated as indicated below. The equipment rates will be based on the latest edition (as of the date the work to be performed begins) of the “Rental Rate Blue Book for Construction Equipment” as published by EquipmentWatch, a division of Informa Business Media, Inc., using all instructions and adjustments contained therein and as modified below. On all projects, the Engineer will adjust the rates using regional adjustments and Rate Adjustment Tables according to the instructions in the “Rental Rate Blue Book.”

Allowable Equipment Rates will be established as set out below:

- a. Allowable Hourly Equipment Rate = Monthly Rate/176 x Adjustment Factors x 100%.
- b. Allowable Hourly Operating Cost = Hourly Operating Cost x 100%.
- c. Allowable Rate Per Hour = Allowable Hourly Equipment Rate + Allowable Hourly Operating Cost.
- d. Standby Rate = Allowable Hourly Equipment Rate x 50%.

The Monthly Rate is The Basic Machine Rate Plus Any Attachments. Standby rates will apply when equipment is not in operation and is directed by the Engineer to standby at the project site when needed again to complete work and the cost of moving the equipment will exceed the accumulated standby cost. Standby rates will not apply on any day the equipment operates for eight or more hours. Standby payment will be limited to only that number of hours which, when added to the operating time for that day equals eight hours. Standby payment will not be made on days that are not normally considered work days on the project.

The Authority will allow for the cost of transporting the equipment to and from the location at which it will be used. If the equipment requires assembly or disassembly for transport, the Authority will pay for the time to perform this work at the rate for standby equipment.

Equipment may include vehicles utilized only by Labor, as defined above.

4. Indirect Costs, Expenses, and Profit: Compensation for all indirect costs, expenses, and profit of the Contractor, including but not limited to overhead of any kind, whether jobsite, field office, division office, regional office, home office, or otherwise, is expressly limited to the greater of either (a) or (b) below:

- a. Solely a mark-up of 17.5% on the payments in (1) through (3), above.

1. Bond: The Contractor will receive compensation for any premium for acquiring a bond for such additional or unforeseen work at the original Contract bond rate paid by the Contractor. No compensation for bond premium will be allowed for additional or unforeseen work paid by the Authority via initial contingency pay item.

2. The Contractor will be allowed a markup of 10% on the first \$50,000 and a markup of 5% on any amount over \$50,000 on any subcontract directly related to the additional or unforeseen work. Any such subcontractor mark-up will be allowed only by the prime Contractor and a first tier subcontractor, and the Contractor must elect the markup for any eligible first tier subcontractor to do so.

b. Solely the formula set forth below and only as applied solely as to such number of calendar days of entitlement that are in excess of ten cumulative calendar days as defined below.

$$D = \frac{A \times C}{B}$$

Where A = Original Contract Amount

B = Original Contract Time

C = 8%

D = Average Overhead Per Day

Cumulative Calendar Days is defined as the combined total number of calendar days granted as time extensions due to either extra work, excluding overruns to existing contract items, that extend the duration of the project or delay of a controlling work item caused solely by the Authority, or the combined total number of calendar days for which a claim of entitlement to a time extension due to delay of a controlling work item caused solely by the Authority is otherwise ultimately determined to be in favor of the Contractor.

No compensation, whatsoever, will be paid to the Contractor for any jobsite overhead and other indirect impacts when the total number of calendar days granted for time extension due to delay of a controlling work item caused solely by the Authority is, or the total number of calendar days for which entitlement to a time extension due to delay of a controlling work item caused solely by the Authority is otherwise ultimately determined in favor of the Contractor to be, equal to or less than ten calendar days and the Contractor also fully assumes all monetary risk of any and all partial or single calendar day delay periods, due to delay of a controlling work item caused solely by the Authority, that when combined together are equal to or less than ten calendar days and regardless of whether monetary compensation is otherwise provided for hereunder for one or more calendar days of time extension entitlement for each calendar day exceeding ten calendar days. All calculations under this provision shall exclude weather days, Holidays, and Special Events.

Further, for (a) or (b) above, in the event there are concurrent delays to one or more controlling work items, one or more being caused by the Authority and one or more being caused by the Contractor, the Contractor shall be entitled to a time extension for each day that a controlling work item is delayed by the Authority but shall have no right to nor receive any monetary compensation for any indirect costs for any days of concurrent delay.

4-3.2.2 Subcontracted Work: Compensation for the additional or unforeseen work performed by a subcontractor shall be limited solely to that provided for in 4-3.2.1 (1), (2), (3) and (4)(a). In addition, the Contractor compensation is expressly limited to the greater of the total provided in either 4-3.2.1(4)(a) or (4)(b), except that the Average Overhead Per-Day calculation is as follows:

$$Ds = \frac{As \times C}{B}$$

Where As = Original Contract Amount minus Original

Subcontract amounts(s)*

B = Original Contract Time

C = 8%

Ds = Average Overhead Per-Day

* deduct Original Subcontract Amount(s) of subcontractor(s) performing the work

The subcontractor may receive compensation for any premium for acquiring a bond for the additional or unforeseen work; provided, however, that such payment for additional subcontractor bond will only be paid upon presentment to the Authority of clear and convincing proof that the subcontractor has actually submitted and paid for separate bond premiums for such additional or unforeseen work in such amount and that the subcontractor was required by the Contractor to acquire a bond.

The Contractor shall require the subcontractor to submit a certification, in accordance with 4-3.2.1 (1), as part of the cost proposal and submit such to the Engineer. Such certification must be made by an officer or director of the subcontractor with authority to bind the subcontractor. Timely certification is a condition precedent to any right of the Contractor to recover compensation for such subcontractor costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such subcontractor costs.

4-3.3 No Waiver of Contract: Changes made by the Engineer will not be considered to waive any of the provisions of the Contract, nor may the Contractor make any claim for loss of anticipated profits because of the changes, or by reason of any variation between the approximate quantities and the quantities of work actually performed. All work shall be performed as directed by the Engineer and in accordance with the Contract Documents.

4-3.4 Conditions Requiring a Supplemental Agreement or Unilateral Payment: A Supplemental Agreement or Unilateral Payment will be used to clarify the Plans and Specifications of the Contract; to provide for unforeseen work, grade changes, or alterations in the Plans which could not reasonably have been contemplated or foreseen in the original Plans and Specifications; to change the limits of construction to meet field conditions; to provide a safe and functional connection to an existing pavement; to settle documented Contract claims; to make the project functionally operational in accordance with the intent of the original Contract and subsequent amendments thereto.

A Supplemental Agreement or Unilateral Payment may be used to expand the physical limits of the project only to the extent necessary to make the project functionally operational in accordance with the intent of the original Contract. The cost of any such agreement extending the physical limits of the project shall not exceed \$100,000 or 10% of the original Contract price, whichever is greater.

Perform no work to be covered by a Supplemental Agreement or Unilateral Payment before written authorization is received from the Engineer. The Engineer's written authorization will set forth sufficient work information to allow the work to begin. The work

activities, terms and conditions will be reduced to written Supplemental Agreement or Unilateral Payment form promptly thereafter. No payment will be made on a Supplemental Agreement or Unilateral Payment prior to the Authority's approval of the document.

4-3.5 Extra Work: Extra work authorized in writing by the Engineer will be paid in accordance with the formula in 4-3.2. Such payment will be the full extent of all monetary compensation entitlement due to the Contractor for such extra work. Any entitlement to a time extension due to extra work will be limited solely to that provided for in 4-3.2 for additional work.

4-3.6 Connections to Existing Pavement, Drives and Walks: Generally adhere to the limits of construction at the beginning and end of the project as detailed in the Plans. However, if the Engineer determines that it is necessary to extend the construction in order to make suitable connections to existing pavement, the Engineer will authorize such a change in writing.

For necessary connections to existing walks and drives that are not indicated in the Plans, the Engineer will submit direction regarding the proper connections in accordance with the Standard Plans.

4-3.7 Differing Site Conditions: During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract, or if unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the Contractor disturbs the conditions or performs the affected work.

Upon receipt of written notification of differing site conditions from the Contractor, the Engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly. The Engineer will notify the Contractor whether or not an adjustment of the Contract is warranted.

The Engineer will not allow a Contract adjustment for a differing site condition unless the Contractor has submitted the required written notice.

The Engineer will not allow a Contract adjustment under this clause for any effects caused to any other Authority or non-Authority projects on which the Contractor may be working.

4-3.8 Changes Affecting Utilities: The Contractor shall be responsible for identifying and assessing any potential impacts to a utility that may be caused by the changes proposed by the Contractor, and the Contractor shall at the time of making the request for a change notify the Authority in writing of any such potential impacts to utilities.

Authority approval of a Contractor proposed change does not relieve the Contractor of sole responsibility for all utility impacts, costs, delays or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those in the original Contract Specifications, Design Plans (including Traffic Control Plans) or other Contract Documents and which effect a change in utility work different from that shown in the Utility Plans, joint project agreements or utility relocation schedules.

4-3.9 Cost Savings Initiative Proposal:

4-3.9.1 Intent and Objective:

1. This Subarticle applies to any cost reduction proposal (hereinafter referred to as a Proposal) that the Contractor initiates and develops for the purpose of refining the Contract to increase cost effectiveness or significantly improve the quality of the end result. A mandatory Cost Savings Initiative Workshop will be held prior to Contract Time beginning for the Contractor and Authority to discuss potential Proposals. This mandatory workshop can only be eliminated if agreed to in writing by both the Contractor and Authority. This Subarticle does not, however, apply to any such proposal unless the Contractor identifies it at the time of its submission to the Authority as a proposal submitted pursuant to this Subarticle.

2. The Authority will consider Proposals that would result in net savings to the Authority by providing a decrease in the cost of the Contract. Proposals must result in savings without impairing essential functions and characteristics such as safety, service, life, reliability, economy of operation, ease of maintenance, aesthetics and necessary standard design features. The Authority will not recognize the Contractor's correction of plan errors that result in a cost reduction, as a Proposal. Deletions of work, approved by the Engineer which are not directly associated with or integral to a Proposal will be handled as full credits to the Authority for the work deleted.

3. The Authority shall have the right to reject, at its discretion, any Proposal submitted that proposes a change in the design of the pavement system or that would require additional right-of-way. Pending the Authority's execution of a formal supplemental agreement implementing an approved Proposal, the Contractor shall remain obligated to perform the work in accordance with the terms of the existing Contract. The Authority may grant time extensions to allow for the time required to develop and review a Proposal.

4. For potential Proposals not discussed at the Cost Savings Initiative Workshop, a mandatory concept meeting will be held for the Contractor and Authority to discuss the potential Proposal prior to development of the Proposal. This mandatory meeting can only be eliminated if agreed to in writing by both the Contractor and Authority.

4-3.9.2 Subcontractors: The Authority encourages the Contractor to include the provisions of this Subarticle in Contracts with subcontractors and to encourage submission of Proposals from subcontractors. However, it is not mandatory to submit Proposals to the Authority or to accept or transmit subcontractor proposed Proposals to the Authority.

4-3.9.3 Data Requirements: As a minimum, submit the following information with each Proposal:

1. a description of the difference between the existing Contract requirement, including any time extension request, and the proposed change, and the comparative advantages and disadvantages.

2. separate detailed cost estimates for both the existing Contract requirement and the proposed change. Break down the cost estimates by pay item numbers indicating quantity increases or decreases and deleted pay items. Identify additional proposed work not covered by pay items within the Contract, by using pay item numbers in the Basis of Estimates Manual. In preparing the estimates, include overhead, profit, and bond within pay items in the Contract. Separate pay item(s) for the cost of overhead, profit, and bond will not be allowed.

3. an itemization of the changes, deletions or additions to plan details, plan sheets, Standard Plans and Specifications that are required to implement the Proposal if the Authority adopts it. Submit preliminary plan drawings sufficient to describe the proposed changes.

4. engineering or other analysis in sufficient detail to identify and describe specific features of the Contract that must be changed if the Authority accepts the Proposal with a proposal as to how these changes can be accomplished and an assessment of their effect on other project elements. The Authority may require that engineering analyses be performed by a prequalified consultant in the applicable class of work. Support all design changes that result from the Proposal with drawings and computations signed and sealed by the Contractor's Engineer of Record. Written documentation or drawings will be submitted clearly delineating the responsibility of the Contractor's Engineer of Record.

5. the date by which the Authority must approve the Proposal to obtain the total estimated cost reduction during the remainder of the Contract, noting any effect on the Contract completion time or delivery schedule.

6. a revised project schedule that would be followed upon approval of the Proposal. This schedule would include submittal dates and review time for the Authority and Peer reviews.

4-3.9.4 Processing Procedures: Submit Proposals to the Engineer or his duly authorized representative. The Authority will process Proposals expeditiously; however, the Authority is not liable for any delay in acting upon a Proposal submitted pursuant to this Subarticle. The Contractor may withdraw, in whole or in part, a Proposal not accepted by the Authority within the period specified in the Proposal. The Authority is not liable for any Proposal development cost in the case where the Authority rejects or the Contractor withdraws a Proposal.

The Engineer is the sole judge of the acceptability of a Proposal and of the estimated net savings in construction costs from the adoption of all or any part of such proposal. In determining the estimated net savings, the Authority reserves the right to disregard the Contract bid prices if, in the judgment of the Engineer, such prices do not represent a fair measure of the value of work to be performed or to be deleted.

Prior to approval, the Engineer may modify a Proposal, with the concurrence of the Contractor, to make it acceptable. If any modification increases or decreases the net savings resulting from the Proposal, the Authority will determine the Contractor's fair share upon the basis of the Proposal as modified and upon the final quantities. The Authority will compute the net savings by subtracting the revised total cost of all bid items affected by the Proposal from the total cost of the same bid items as represented in the original Contract.

Prior to approval of the Proposal that initiates the supplemental agreement, submit acceptable Contract-quality plan sheets revised to show all details consistent with the Proposal design.

4-3.9.5 Computations for Change in Contract Cost of Performance: If the Proposal is adopted, the Contractor's share of the net savings as defined hereinafter represents full compensation to the Contractor for the Proposal.

The Authority will not include its costs to process and implement a Proposal in the estimate. However, the Authority reserves the right, where it deems such action appropriate, to require the Contractor to pay the Authority's cost of investigating and implementing a Proposal as a condition of considering such proposal. When the Authority imposes such a condition, the Contractor shall accept this condition in writing, authorizing the Authority to deduct amounts payable to the Authority from any monies due or that may become due to the Contractor under the Contract.

4-3.9.6 Conditions of Acceptance for Major Design Modifications of

Category 2 Bridges: A Proposal that proposes major design modifications of a category 2 bridge, as determined by the Engineer, shall have the following conditions of acceptance:

All bridge Plans relating to the Proposal shall undergo an independent peer review conducted by a single independent engineering firm referred to for the purposes of this article as the Independent Review Engineer who is not the originator of the Proposal design, and is pre-qualified by the Authority in accordance with Rule 14-75, Florida Administrative Code. The independent peer review is intended to be a comprehensive, thorough verification of the original work, giving assurance that the design is in compliance with all Authority requirements. The Independent Review Engineer’s comments, along with the resolution of each comment, shall be submitted to the Authority. The Independent Review Engineer shall sign and seal the submittal cover letter stating that all comments have been adequately addressed and the design is in compliance with the Authority requirements. If there are any unresolved comments the Independent Review Engineer shall specifically list all unresolved issues in the signed and sealed cover letter.

The Contractor shall designate a primary engineer responsible for the Proposal design and as such will be designated as the Contractors Engineer of Record for the Proposal design. The Authority reserves the right to require the Contractor’s Engineer of Record to assume responsibility for design of the entire structure.

New designs and independent peer reviews shall be in compliance with all applicable Authority, Department, FHWA and AASHTO criteria requirements including bridge load ratings.

4-3.9.7 Sharing Arrangements: If the Authority approves a Proposal, the Contractor shall receive 50% of the net reduction in the cost of performance of the Contract as determined by the final negotiated agreement between the Contractor and the Authority. The net reduction will be determined by subtracting from the savings of the construction costs the reasonable documented engineering costs incurred by the contractor to design and develop a Proposal. The reasonable documented engineering costs will be paid by the Authority. Engineering costs will be based on the consultant’s certified invoice and may include the costs of the Independent Review Engineer in 4-3.9.6. The total engineering costs to be subtracted from the savings to determine the net reduction will be limited to 25% of the construction savings and shall not include any markup by the Contractor or the costs for engineering services performed by the Contractor.

4-3.9.8 Notice of Intellectual Property Interests and Authority’s Future Rights to a Proposal:

4-3.9.8.1 Notice of Intellectual Property Interests: The Contractor’s Proposal submittal shall identify with specificity any and all forms of intellectual property rights that either the Contractor or any officer, shareholder, employee, consultant, or affiliate, of the Contractor, or any other entity who contributed in any measure to the substance of the Contractor’s Proposal development, have or may have that are in whole or in part implicated in the Proposal. Such required intellectual property rights notice includes, but is not limited to, disclosure of any issued patents, copyrights, or licenses; pending patent, copyright or license applications; and any intellectual property rights that though not yet issued, applied for or intended to be pursued, could nevertheless otherwise be subsequently the subject of patent, copyright or license protection by the Contractor or others in the future. This notice requirement does not extend to intellectual property rights as to stand-alone or integral components of the

Proposal that are already on the Department's Approved Product List (APL) or Standard Plans, or are otherwise generally known in the industry as being subject to patent or copyright protection.

4-3.9.8.2 Authority's Future Rights to a Proposal: Notwithstanding 7-3 nor any other provision of the Standard Specifications, upon acceptance of a Proposal, the Contractor hereby grants to the Authority and its contractors (such grant being expressly limited solely to any and all existing or future Authority construction projects and any other Authority projects that are partially or wholly funded by or for the Authority) a royalty-free and perpetual license under all forms of intellectual property rights to manufacture, to use, to design, to construct, to disclose, to reproduce, to prepare and fully utilize derivative works, to distribute, display and publish, in whole or in part, and to permit others to do any of the above, and to otherwise in any manner and for any purpose whatsoever do anything reasonably necessary to fully utilize any and all aspects of such Proposal on any and all existing and future construction projects and any other Authority projects.

Contractor shall hold harmless, indemnify and defend the Authority and its contractors and others in privity therewith from and against any and all claims, liabilities, other obligations or losses, and reasonable expenses related thereto (including reasonable attorneys' fees), which are incurred or are suffered by any breach of the foregoing grants, and regardless of whether such intellectual property rights were or were not disclosed by the Contractor pursuant to 4-3.9.8.1, unless the Authority has by express written exception in the Proposal acceptance process specifically released the Contractor from such obligation to hold harmless, indemnify and defend as to one or more disclosed intellectual property rights.

4-4 Unforeseeable Work.

When the Authority requires work that is not covered by a price in the Contract and such work does not constitute a "Significant Change" as defined in 4-3.1, and the Authority finds that such work is essential to the satisfactory completion of the Contract within its intended scope, the Authority will make an adjustment to the Contract. The Engineer will determine the basis of payment for such an adjustment in a fair and equitable amount.

4-5 Rights in and Use of Materials Found on the Site of the Work.

4-5.1 Ownership and Disposal of Existing Materials: Take ownership and dispose of all materials that are not designated as the property of other parties, in both roadway and structures, found on the right-of-way, and all material in structures designated for removal. Such materials do not include earth or other excavated material required for the construction of the project. During construction, the Contractor may use materials from existing structures that are required to be removed and that are designated to remain the property of the Authority. Do not cut or otherwise damage such material during removal unless the Engineer gives permission to do so. Store material in an accessible location as the Engineer directs. The Authority is not responsible for the quality or quantity of any material salvaged.

4-5.2 Ornamental Trees and Shrubs: Take ownership of all ornamental trees or shrubs existing in the right-of-way that are required to be removed for the construction operations and which are not specifically designated in the Plans to be reset, or to be removed by others prior to the construction operations.

4-6 Final Cleaning Up of Right-of-Way.

Upon completion of the work, and before the Authority accepts the work and makes final payment, remove from the right-of-way and adjacent property all falsework, equipment, surplus and discarded materials, rubbish and temporary structures; restore in an acceptable manner all property, both public and private, that has been damaged during the prosecution of the work; and leave the waterways unobstructed and the roadway in a neat and presentable condition throughout the entire length of the work under Contract. Do not dispose of materials of any character, rubbish or equipment, on abutting property, with or without the consent of the property owners. The Engineer will allow the Contractor to temporarily store equipment, surplus materials, usable forms, etc., on a well-kept site owned or leased by the Contractor, adjacent to the project. However, do not place or store discarded equipment, materials, or rubbish on such a site.

Shape and dress areas adjacent to the project right-of-way that were used as plant sites, materials storage areas or equipment yards when they are no longer needed for such purposes. Restore these areas in accordance with 7-11.1 and 7-11.2. Grass these areas when the Engineer directs.

SECTION 5 CONTROL OF THE WORK

5-1 Plans and Working Drawings.

5-1.1 Contract Documents: Have available the Contract Documents on the worksite at all times.

5-1.2 Authority's Plans: Plans consist of general drawings showing such details as are necessary to give a comprehensive idea of the construction contemplated. In general, roadway plans will show alignment, profile grades, typical sections and general plan view details. Cross sectional views maybe provided or created from provided surface models. In general, structure plans will show in detail all dimensions of the work contemplated. When the structure plans do not show the dimensions in detail, they will show general features and such details as are necessary to give a comprehensive idea of the structure.

Elevations and B.M. Datum shown are North American Vertical Datum 1988 (NAVD-1988), National Geodetic Vertical Datum of 1929 (NGVD-1929), or other datum as noted in the Plans.

The existing surface is a combination of the following:

1. The natural ground or the original ground line,
2. The bottom of the existing pavement,
3. The bottom of existing features removed by clearing and grubbing,
4. The bottom of the existing base, if the base is to be removed,

The finished graded surface includes the completed grades of side slopes, unpaved shoulders, and the bottom of the base for flexible or rigid pavement.

5-1.3 Alterations in Plans: The Authority will issue, in writing, all authorized alterations affecting the requirements and information given on the approved Plans.

5-1.4 Shop Drawings:

5-1.4.1. Definitions: In addition to the definitions below, also refer to Section 1, Definitions and Terms.

1. Bracing: Temporary structural member(s) placed between beams, girders, piles, precast columns, etc. to provide stability during construction activities.
2. Construction Affecting Public Safety: Construction that may jeopardize public safety such as structures and construction operations spanning over or adjacent to functioning vehicular roadways, pedestrian walkways, railroads, navigable waterways and walls supporting fill sections or excavations immediately adjacent to functioning roadways. Construction Affecting Public Safety may also apply to the construction or demolition of a bridge with continuous beams or girders if traffic is being placed under one of the spans within the unit. It does not apply to those areas of the site outside the limits of normal public access. Adjacent as used above applies to any project or property where normal construction operations could impact functioning vehicular roadways, pedestrian walkways, railroads, and navigable waterways.
3. Contractor Originated Designs: Items which the Contract Documents require the Contractor to design, detail and incorporate into the permanent works.
4. Detailer: The steel detailer that prepares the steel shop drawings for the fabrication, geometry and fit-up for all steel members in accordance with the Plans.
5. Falsework: Any temporary construction work used to support the permanent structure until it becomes self-supporting. Falsework includes steel or timber beams,

girders, columns, bracing, piles and foundations, and any proprietary equipment including modular shoring frames, post shores, and adjustable horizontal shoring.

6. Formwork: Any structure or mold used to retain plastic or fluid concrete in its designated shape until it hardens. Formwork may be comprised of common materials such as wood or metal sheets, battens, soldiers and walers, ties, proprietary forming systems such as stay-in-place metal forms, and proprietary supporting bolts, hangers and brackets. Formwork may be either permanent formwork requiring a shop drawing submittal such as stay-in-place metal or concrete forms or may be temporary formwork which requires certification by the Specialty Engineer for Construction Affecting Public Safety and for Major and Unusual Structures.

7. Major and Unusual Structures: Bridges of complex design. Generally, this includes the following types of structures:

- a. Bridges with an individual span longer than 300 feet.
- b. Structurally continuous superstructures with spans over 150 feet.
- c. Steel box and plate girder bridges.
- d. Concrete or steel straddle piers and straddle pier caps.
- e. Steel truss bridges including pedestrian steel truss spans that utilize proprietary designs.
- f. Concrete segmental, post-tensioned girder bridges and post-tensioned substructures.
- g. Cable stayed, extradosed or suspension bridges.
- h. Arch bridges.
- i. Tunnels.
- j. All movable bridges (including specifically structural, electrical and mechanical components).
- k. Rehabilitation, widening, lengthening or jacking of any of the above structures.

8. Permanent Works: All the permanent structures and parts thereof required of the completed Contract.

9. QA/QC Shop Drawing Check Prints: The Engineer of Record is responsible for conducting a review of all shop drawings regardless of whether the shop drawing is originated by the Engineer of Record or by others. QA/QC Shop Drawing Check Prints shall consist of highlighting items that the EOR is able to verify based on the EOR's plans and design information on each sheet reviewed. Each sheet shall be initialed by the reviewer. QA/QC Shop Drawing Check Prints shall be submitted to the Authority along with the stamped Shop Drawing.

10. Scaffolding: An elevated work platform used to support workers, materials and equipment, but not intended to support the structure.

11. Shop Drawings: A shop drawing is a drawing or set of drawings produced by the contractor, supplier, manufacturer, subcontractor, or fabricator for prefabricated components. Shop drawings also include all working drawings, erection plans, associated trade literature, material cut-sheets, calculations, schedules, erection manuals, geometry control manuals and other manuals and similar documents submitted by the Contractor to define some portion of the project work. The type of work includes both permanent and temporary works as appropriate to the project.

12. Shoring: A component of falsework such as horizontal, vertical or inclined support members. In this Section, this term is interchangeable with falsework.

13. Special Erection Equipment: Includes launching gantries, beam and winch equipment, form travelers, segment lifters, beam shifters, erection trusses, launching noses or similar items made purposely for construction of the structure. It does not apply to commonly available proprietary construction equipment such as cranes.

14. Temporary Works: Any temporary construction work necessary for the construction of the permanent works. This includes but is not limited to bracing, falsework, formwork, scaffolding, shoring, stability towers, strong-backs, counterweights, temporary earthworks, sheeting, cofferdams, and special erection equipment.

5-1.4.2 Shop Drawing Submittal and Review Requirements: See table below for shop drawing submittal and review requirements.

Table 5-1 Submittal and Review Requirements					
Shop Drawing for:	Originated by Specialty Engineer Not Signed and Sealed	Originated by Detailer Not Signed and Sealed	Originated by Specialty Engineer Signed and Sealed	Originated by Contractor's EOR Signed and Sealed	Requires Review, QA/QC Shop Drawing Check prints and disposition stamp by Design EOR
Steel Fabrication Drawings		Originator			Reviewer
Steel Erection Plan			Originator		Reviewer
Geometry Control Manual				Originator	Reviewer
Segmental Erection Manual				Originator	Reviewer
Segmental Shop Drawings					Reviewer
Post-tensioning Mock-up Plan			Originator		Reviewer
Post-tensioning Systems ₁			Originator		Reviewer
Pretensioned Prestressed Concrete Products Containing FRP Bars or Strands Excluding Standard Piles and Sheet Piles			Originator		Reviewer

Table 5-1 Submittal and Review Requirements					
Shop Drawing for:	Originated by Specialty Engineer Not Signed and Sealed	Originated by Detailer Not Signed and Sealed	Originated by Specialty Engineer Signed and Sealed	Originated by Contractor's EOR Signed and Sealed	Requires Review, QA/QC Shop Drawing Check prints and disposition stamp by Design EOR
Temporary Works Affecting Public Safety ₂			Originator		Reviewer
Demolition Plans of Bridges with Continuous Beams or Girders Where One Span Within the Unit is Over Traffic			Originator		Reviewer
Prefabricated Bridge Elements and System Connection Mock-Up Plans			Originator		Reviewer
Bridge Formwork Including SIP Forms			Originator		Reviewer
Construction Equipment Placed on Existing Bridges				Originator	Reviewer
Bridge components not fully detailed in the Plans, i.e., post-tensioning details, handrails, temporary operating systems for movable bridges etc.				Originator	Reviewer
Retaining Wall Systems			Originator		Reviewer

Table 5-1 Submittal and Review Requirements					
Shop Drawing for:	Originated by Specialty Engineer Not Signed and Sealed	Originated by Detailer Not Signed and Sealed	Originated by Specialty Engineer Signed and Sealed	Originated by Contractor's EOR Signed and Sealed	Requires Review, QA/QC Shop Drawing Check prints and disposition stamp by Design EOR
Precast Box Culverts			Originator		Reviewer
Non-standard structures and components for drainage, lighting, signalization and signing			Originator		Reviewer
Building structures			Originator ³		Reviewer ⁴
Non-standard crash cushions and other nonstructural items			Originator		Reviewer
Design and structural details furnished by the Contractor in compliance with the Contract				Originator	Reviewer
Material or Product Cut-Sheets	Originator				Reviewer
1. Include integration details of the post-tensioning system. 2. Does not include formwork complying with Standard Plans, Index 102-600 (concrete placement is not permitted directly over traffic). Also, does not include critical temporary walls that are fully detailed in the plans unless redesigned by the Contractor. Does not include specialized equipment if traffic is removed from under equipment while equipment is being loaded, launched, and while loads are being transported by equipment. 3. In lieu of a Specialty Engineer, originator may be a licensed Architect. 4. In lieu of the Design Engineer of Record, the reviewer may be the Design Architect of Record.					

5-1.4.3 Schedule of Submittals: Prepare and submit a schedule of submittals that identifies the work for which shop drawings apply. For each planned submittal, define the type, and approximate number of drawings or other documents that are included and the planned submittal date, considering the processing requirements herein. Submit the schedule of submittals to the Authority's Shop Drawing Review Office and the Engineer of Record within 60 days of the start of the Contract, and prior to the submission of any shop drawings.

Coordinate subsequent submittals with construction schedules to allow sufficient time for review, resubmittal and approval prior to beginning fabrication, as necessary.

5-1.4.4 Style, Numbering, and Material of Submittals:

5-1.4.4.1 Drawings: Submit all shop drawings that are necessary to complete the structure in compliance with the design shown in the Plans. Prepare all shop drawings using the same units of measure as those used in the Plans. Consecutively number each sheet in the submittal series and indicate the total number in the series (i.e., 1 of 12, 2 of 12 . . . 12 of 12). Include on each sheet the following items as a minimum requirement: the complete Financial Project Identification Number, Bridge Number(s), drawing title and number, a title block showing the names of the fabricator or producer and the Contractor for which the work is being done, the initials of the person(s) responsible for the drawing, the date on which the drawing was prepared, the location of the item(s) within the project, the Contractor's approval stamp with date and initials, and, when applicable, the documents shall be signed and sealed by the Specialty Engineer or Contractor's Engineer of Record. A re-submittal will be requested when any of the required information is not included.

Shop drawings shall be submitted in Portable Document Format (PDF) files, formatted on sheets 11 by 17 inches.

5-1.4.4.2 Other Documents: Submit PDF files of other documents such as trade literature, catalogue information, calculations, and manuals formatted on sheets no larger than 11 by 17 inches. Clearly label and number each sheet in the submittal to indicate the total number of sheets in the series (i.e., 1 of 12, 2 of 12 . . . 12 of 12).

Prepare all documents using the same units of measure as the Plans and include a Table of Contents cover sheet. List on the cover sheet the total number of pages and appendices, and include the complete Financial Project Identification Number, a title referencing the submittal item(s), the name of the firm and person(s) responsible for the preparation of the document, the Contractor's approval stamp with date and initials, and, when applicable, the documents shall be signed and sealed by the Specialty Engineer or Contractor's Engineer of Record.

Submit appropriately prepared and checked calculations and manuals that clearly outline the design criteria. Include on the internal sheets the complete Financial Project Identification Number and the initials of the person(s) responsible for preparing and checking the document.

Clearly label trade literature and catalogue information on the front cover with the title, Financial Project Identification Number, date and name of the firm and person(s) responsible for that document.

5-1.4.5 Submittal Paths:

5-1.4.5.1 General: Shop drawings are not required for items on the Approved Products List used as intended in the relevant Standard Plans and Standard Specifications. For non-qualified items, determine the submittal path to be followed based upon the identity of the Engineer of Record as shown adjacent to the title block on the structural plan sheets, and on the key sheets of roadway plans, signing, and pavement marking plans, and/or lighting plans. At the preconstruction conference, the Authority will notify the Contractor in writing of any changes in the submittal path and whether the Authority's or the Consultant's review stamp will signify an officially reviewed shop drawing.

1. When the Authority is the Engineer of Record, submit shop drawings to the Resident Engineer and to the appropriate Department

Review Office. Include in the submittal other information such as catalog data, procedure manuals, fabrication/welding procedures, and maintenance and operating procedures when required by the work. Submit material certifications and material tests to the Resident Engineer.

2. When the Engineer of Record is a consultant hired by the Authority, submit shop drawings to the consultant, the Resident Engineer and, when requested, to the appropriate Authority Review Office. Include in the submittal other documentation such as catalog data, procedure manuals, fabrication/welding procedures, and maintenance and operating manuals when required by the work. Submit material certifications and material tests to the Resident Engineer.

5-1.4.5.2 Building Structures: Submit shop drawings and all correspondence related to building structures, such as Rest Area Pavilions, Office Buildings, and Maintenance Warehouses, to the Architect of Record and the Resident Engineer for review and approval.

5-1.4.5.3 Contractor-Originated Design: Submit shop drawings and applicable calculations to the Engineer of Record for review. The shop drawings and applicable calculations must be signed and sealed by the Specialty Engineer or the Contractor's Engineer of Record. Submit in accordance with the requirements of 5-1.4.1 through 5-1.4.3, as appropriate.

5-1.4.5.4 Temporary Works: For Construction Affecting Public Safety, submit to the Engineer of Record shop drawings and the applicable calculations for the design of special erection equipment, bracing, falsework, scaffolding, etc. The shop drawings and applicable calculations must be signed and sealed by the Specialty Engineer. Submit in accordance with the requirements of 5-1.4.1 through 5-1.4.3, as appropriate.

5-1.4.5.5 Demolition Plans of Bridges with Continuous Beams or Girders when Traffic is Under Any of the Spans of the Unit During Demolition Activities: For demolition plans of bridges with continuous beams or girders when traffic is placed under any of the spans of the unit during demolition activities, the Specialty Engineer shall prepare signed and sealed demolition plans and applicable calculations including a step-by-step sequence of demolition, etc. Clearly denote any traffic restrictions for all demolition steps. Submit in accordance with the requirements of 5-1.4. 1 through 5-1.4. 3, as appropriate.

5-1.4.5.6 Falsework Founded on Shallow Foundations: When vertical displacement limits are provided in the Plans for falsework founded on shallow foundations such as spread footings and mats, submit to the Engineer of Record shop drawings and applicable calculations of the falsework system including subsurface conditions and settlement estimates. The shop drawings and applicable calculations must be signed and sealed by the Specialty Engineer. Submit in accordance with the requirements of 5-1.4.1 through 5-1.4.3, as appropriate.

5-1.4.5.7 Formwork and Scaffolding: The Contractor is solely responsible for the safe installation and use of all formwork and scaffolding. The Authority does not require any formwork or scaffolding submittals unless such work would be classified as Construction Affecting Public Safety. For formwork, scaffolding, or other temporary works affecting public safety; develop the required designs in accordance with the AASHTO Guide Design Specifications for Bridge Temporary Works, the AASHTO Construction Handbook for Bridge Temporary Works, and Chapter 11 of the Structures Design Guidelines (SDG) using wind loads specified in the SDG.

5-1.4.5.8 Beam, Girder and Column Temporary Bracing: The Contractor is solely responsible for ensuring stability of beams, girders and columns during all handling, storage, shipping and erection. Adequately brace beams, girders and columns to resist

wind, weight of forms and other temporary loads, especially those eccentric to the vertical axis of the products, considering actual beam geometry and support conditions during all stages of erection and deck construction. At a minimum, provide temporary bracing at each end of each beam or girder. Develop the required bracing designs in accordance with the AASHTO LRFD Bridge Design Specifications (LRFD) and Chapter 11 of the SDG using wind loads specified in the SDG. For information not included in the SDG or LRFD, refer to the AASHTO Guide Design Specifications for Bridge Temporary Works and the AASHTO Construction Handbook for Bridge Temporary Works.

For Construction Affecting Public Safety, when temporary bracing requirements are shown in the Plans, submit plans and calculations signed and sealed by a Specialty Engineer for the design of temporary bracing members and connections based on the forces shown in the Plans. In addition, submit a written certification that construction loads do not exceed the assumed loads shown in the Plans.

For Construction Affecting Public Safety, when temporary bracing requirements are not shown in the Plans or an alternate temporary bracing system is proposed, submit plans and calculations signed and sealed by a Specialty Engineer including the stability analysis and design of temporary bracing members and connections.

5-1.4.5.9 Erection Plan, Geometry Control Manual and Erection

Manual: Submit, for the Engineer’s review, an Erection Plan that meets the specific requirements of Sections 450, 452 and 460 and this section. Submit in writing for the Engineer’s review, an Erection Manual and Geometry Control Manual that meets the specific requirements of Section 462 and this Section. For all Erection Plans and Erection Manuals refer to Standard Plans, Index 102-600 for construction activities not permitted over traffic. For construction activities not covered in Index 102-600, clearly denote what additional construction steps are not allowed over traffic.

5-1.4.5.10 Other Miscellaneous Design and Structural Details

Furnished by the Contractor in Compliance with the Contract: The Engineer of Record shall review all shop drawings and the applicable calculations for miscellaneous design and structural details as required by the Contract. The shop drawings and applicable calculations will be signed and sealed by the Specialty Engineer. Submit in accordance with the requirements of 5-1.4.1 through 5-1.4.3, as appropriate.

5-1.4.6 Processing of Shop Drawings:

5-1.4.6.1 Contractor Responsibility for Accuracy and Coordination of

Shop Drawings: Coordinate, schedule, and control all submittals, with a regard for the required priority, including those of the various subcontractors, suppliers, and engineers, to provide for an orderly and balanced distribution of the work.

Coordinate, review, date, stamp, approve and sign all shop drawings prepared by the Contractor or agents (subcontractor, fabricator, supplier, etc.) prior to submitting them to the Engineer for review. Submittal of the drawings confirms verification of the work requirements, units of measurement, field measurements, construction criteria, sequence of assembly and erection, access and clearances, catalog numbers, and other similar data. Indicate on each series of drawings the Specification section and sheet or drawing number of the Plans to which the submission applies. Indicate on the shop drawings all deviations from the Contract drawings and itemize all deviations in the letter of transmittal. Likewise, whenever a submittal does not deviate from the Plans, clearly state so in the submittal.

Schedule the submission of shop drawings to allow for a 45 calendar day review period for all submittals associated with a category 2 bridge; tolling components identified in the current FDOT General Tolling Requirements (GTR) Part 3; and the tolling-related signing, DMS and ITS infrastructure. Schedule the submission of shop drawings to allow for a 25 calendar day review period for all other items. The review period commences upon the Engineer's receipt of the valid submittal or valid re-submittal and terminates upon the transmittal of the submittal back to the Contractor. A valid submittal includes all the minimum requirements outlined in 5-1.4.4.

Submit shop drawings to facilitate expeditious review. The Contractor is discouraged from transmitting voluminous submittals of shop drawings at one time. For submittals transmitted in this manner, allow for the additional review time that may result.

Only shop drawings distributed with the approval stamps are valid and all work that the Contractor performs in advance of approval will be at the Contractor's risk. Work affecting Public Safety may not be performed prior to approval of appropriate submittals and work may not proceed at the Contractor's risk.

5-1.4.6.2 Scope of Review by Engineer of Record: The Engineer of Record's review of the shop drawings is for conformity to the requirements of the Contract Documents and to the intent of the design. The Engineer of Record's review of shop drawings which include means, methods, techniques, sequences, and construction procedures are limited to the effects on the permanent works. The Engineer of Record's review of submittals which include means, methods, techniques, sequences, and construction procedures does not include an in-depth check for the ability to perform the work in a safe or efficient manner.

5-1.4.6.3 Special Review by Engineer of Shop Drawings for Construction Affecting Public Safety: The Engineer may request copies of shop drawings related to Construction Affecting Public Safety for review and comment. When shop drawings are requested, do not proceed with construction of the permanent works until receiving the Engineer's written approval.

5-1.4.7 Other Requirements for Shop Drawings for Bridges:

5-1.4.7.1 Shop Drawings for Structural Steel and Miscellaneous Metals: Submit shop drawings for structural steel and miscellaneous metals. Shop drawings shall consist of shop and erection drawings, welding procedures, and other working plans, showing details, dimensions, sizes of material, and other information necessary for the complete fabrication and erection of the metal work.

5-1.4.7.2 Shop Drawings for Concrete Structures: Submit shop drawings for concrete components that are not cast-in-place and are not otherwise exempted from submittal requirements. Also, submit shop drawings for all details that are required for the effective execution of the concrete work and are not included in the Contract Documents such as: special erection equipment, masonry layout diagrams, and diagrams for bending reinforcing steel, in addition to any details required for concrete components for the permanent work.

5-1.4.7.3 Shop Drawings for Major and Unusual Structures: In addition to any other requirements, within 60 days from the Notice to Proceed, submit information to the Engineer outlining the integration of the Major and Unusual Structure into the overall approach to the project. Where applicable to the project, include, but do not limit this information to:

1. The overall construction program for the duration of the Contract. Clearly show the Milestone dates. (For example, the need to open a structure by a certain time for traffic operations.)

2. The overall construction sequence. The order in which individual structures are to be built, the sequence in which individual spans of girders or cantilevers are erected, and the sequence in which spans are to be made continuous, and the order that components are to be installed (such as mechanical and electrical devices in moveable bridges).

3. The general location of any physical obstacles to construction that might impose restraints or otherwise affect the construction, and an outline of how to deal with such obstacles while building the structure(s). (For example, obstacles might include road, rail and waterway clearances, temporary diversions, transmission lines, utilities, property, and the Contractor's own temporary works, such as haul roads, cofferdams, plant clearances and the like.)

4. The approximate location of any special lifting equipment in relation to the structure, including clearances required for the operation of the equipment. (For example, crane positions, operating radii and the like.)

5. The approximate location of any temporary falsework, and the conceptual outline of any special erection equipment. Provide the precise locations and details of attachments, fixing devices, loads, etc. in later detailed submittals.

6. An outline of the handling, transportation, and storage of fabricated components, such as girders or concrete segments. Provide the precise details in later detailed submittals.

7. Any other information pertinent to the proposed scheme or intended approach.

Clearly and concisely present the above information on as few drawings as possible in order to provide an overall, integrated summary of the intended approach to the project. The Authority will use these drawings for information, review planning, and to assess the Contractor's approach in relation to the intent of the original design. Submittal to and receipt by the Engineer does not constitute any Authority acceptance or approval of the proposals shown thereon. Include the details of such proposals on subsequent detailed shop drawing submittals. Submit timely revisions and re-submittals for all variations from these overall scheme proposals.

5-1.4.8 Cost of Shop Drawings: Include the cost of shop drawings submittal in the Contract prices for the work requiring the shop drawings. The Authority will not pay the Contractor additional compensation for such drawings.

5-1.5 Certifications:

5-1.5.1 Special Erection Equipment: Prior to its use, ensure that the Specialty Engineer personally inspects the special erection equipment and submits a written certification to the Engineer that the equipment has been fabricated in accordance with the submitted drawings and calculations. In addition, after assembly, ensure that the Specialty Engineer observes the equipment in use and submits a written certification to the Engineer that such equipment is being used as intended and in accordance with the submitted drawings and calculations. In each case, the Specialty Engineer must sign and seal the letter of certification.

5-1.5.2 Falsework and Shoring Requiring Shop Drawings: After its erection or installation but prior to the application of any superimposed load, ensure that a Specialty

Engineer or a designee inspects the falsework and certifies to the Engineer in writing that the falsework has been constructed in accordance with the materials and details shown on the submitted drawings and calculations. The letter of certification must be signed and sealed by the Specialty Engineer. Where so directed in the shop drawings, ensure all welds are performed by welders qualified under AWS D1.5 for the type of weld being performed.

5-1.5.3 Temporary Formwork: For Construction Affecting Public Safety and for Major and Unusual Structures, prior to the placement of any concrete, ensure that a Specialty Engineer or a designee inspects the formwork and submits a written certification to the Engineer that the formwork has been constructed to safely withstand the superimposed loads to which it will be subjected. The Specialty Engineer must sign and seal the letter of certification.

5-1.5.4 Erection: For Construction Affecting Public Safety, submit an erection plan signed and sealed by the Specialty Engineer to the Engineer at least four weeks prior to erection commencing. Include, as part of this submittal, signed and sealed calculations and details for any falsework, bracing or other connection supporting the structural elements shown in the erection plan. Unless otherwise specified in the Plans, erection plans are not required for simple span precast prestressed concrete girder bridges with spans of 170 feet or less.

At least two weeks prior to beginning erection, conduct a Pre-erection meeting to review details of the plan with the Specialty Engineer that signed and sealed the plan, and any Specialty Engineers that may inspect the work and the Engineer.

After erection of the elements, but prior to opening of the facility below the structure, ensure that a Specialty Engineer or a designee has inspected the erected member. Ensure that the Specialty Engineer has submitted a written certification to the Engineer that the structure has been erected in accordance with the signed and sealed erection plan.

For structures without temporary supports but with temporary girder bracing systems, perform, as a minimum, weekly inspections of the bracing until all the diaphragms and cross frames are in place. For structures with temporary supports, perform daily inspections until the temporary supports are no longer needed as indicated in the erection plans. Submit written documentation of the inspections to the Engineer within 24 hours of the inspection.

5-1.6 Request for Correction: For work that the Contractor constructs incorrectly or does not meet the requirements of the Contract Documents, the Contractor has the prerogative to submit an acceptance proposal to the Engineer for review and disposition. The acceptance proposal shall describe the error or defect and either describe remedial action for its correction or propose a method for its acceptance. In either case, the acceptance proposal shall address structural integrity, aesthetics, maintainability, and the effect on Contract Time. The Authority will judge any such proposal for its effect on these criteria and for its effect on Contract Administration.

When the Engineer judges that a proposal infringes on the structural integrity or maintainability of the structure, the Contractor's Engineer of Record will perform a technical assessment and submit it to the Engineer for approval. Do not take any corrective action without the Engineer's written approval.

Carry out all approved corrective construction measures at no expense to the Authority.

Notwithstanding any disposition of the compensation aspects of the defective work, the Engineer's decision on the technical merits of a proposal is final.

5-1.7 Request for Information: Submit Requests for Information in writing to the Engineer to request clarification where a provision, detail or drawing in the Contract Documents seems to have more than one meaning, have an unclear meaning, or have conflicts between Plans and Specifications. A Request for Information is not considered a Notice of Claim. Notices of Claim must be submitted in accordance with 5-12.2.

5-1.8 Request for Modification: Where the Engineer allows the Contractor to make modifications to the permanent works for the purposes of expediting the Contractor's chosen construction methods, the Contractor shall submit proposals to the Engineer for review and approval prior to modifying the works. Submit proposals for minor modifications under the shop drawing process. Indicate on all drawings the deviations from the Contract Documents and itemize all deviations in the letter of transmittal. Major modifications must be submitted as a Cost Savings Initiative Proposal.

Minor modifications are those items that, in the opinion of the Engineer, do not significantly affect the quantity of measured work, or the integrity or maintainability of the structure or its components.

The Engineer's decision on the delineation between a minor and a major modification and the disposition of a proposal is final.

5-2 Coordination of Contract Documents.

These Specifications, the Plans, Special Provisions, and all supplementary documents are integral parts of the Contract; a requirement occurring in one is as binding as though occurring in all. All parts of the Contract are complementary and describe and provide for a complete work. In addition to the work and materials specified in the Specifications as being included in any specific pay item, include in such pay items additional, incidental work, not specifically mentioned, when so shown in the Plans, or if indicated, or obvious and apparent, as being necessary for the proper completion of the work under such pay item and not stipulated as being covered under other pay items.

In cases of discrepancy, the governing order of the documents is as follows:

1. Special Provisions.
2. Technical Special Provisions.
3. Plans.
4. Standard Plans.
5. Developmental Specifications.
6. Supplemental Specifications.
7. Standard Specifications.

Computed dimensions govern over scaled dimensions.

5-3 Conformity of Work with Contract Documents.

Perform all work and furnish all materials in reasonably close conformity with the lines, grades, models, dimensions, and material requirements, including tolerances, as specified in the Contract Documents.

In the event that the Engineer finds that the Contractor has used material or produced a finished product that is not in reasonably close conformity with the Contract Documents, but that the Contractor has produced reasonably acceptable work, the Engineer will determine if the Authority will accept the work in place. In this event, the Engineer will document the basis of acceptance by Contract modification, which provides for an appropriate reduction in the Contract

price for such work or materials included in the accepted work as deemed necessary to conform to the determination based on engineering judgment.

In the event that the Engineer finds that the Contractor has used material or produced a finished product that is not in reasonably close conformity with the Contract Documents, and that the Contractor has produced an inferior or unsatisfactory product, the Contractor shall remove and replace or otherwise correct the work or materials at no expense to the Authority.

For base and surface courses, the Authority will allow the finished grade to vary as much as 0.1 foot from the grade shown in the Plans, provided that the Contractor's work meets all templates and straightedge requirements and contains suitable transitions.

5-4 Errors or Omissions in Contract Documents.

Do not take advantage of any apparent error or omission discovered in the Contract Documents, but immediately notify the Engineer in writing of such discovery. The Engineer will then make such corrections and interpretations as necessary to reflect the actual spirit and intent of the Contract Documents.

5-5 Authority of the Engineer.

Perform all work to the satisfaction of the Engineer.

The Director, Office of Construction will decide all questions, difficulties, and disputes, of whatever nature, that may arise relative to the interpretation of the Plans, construction, prosecution, and fulfillment of the Contract, and as to the character, quality, amount, and value of any work done, and materials furnished, under or by reason of the Contract.

5-6 Authority and Duties of Engineer's Assistants.

The Director, Office of Construction may appoint such assistants and representatives as desired. These assistants and representatives are authorized to inspect all work done and all materials furnished. Such inspection may extend to all or any part of the work and to the manufacture, preparation, or fabrication of the materials to be used. Such assistants and representatives are not authorized to revoke, alter, or waive any requirement of these Specifications. Rather, they are authorized to call to the attention of the Contractor any failure of the work or materials to meet the Contract Documents, and have the authority to reject materials or suspend the work until any questions at issue can be referred to and decided by the Engineer. The Engineer will immediately submit written notification to the Contractor of any such suspension of the work, stating in detail the reasons for the suspension. The presence of the inspector or other assistant in no way lessens the responsibility of the Contractor.

5-7 Engineering and Layout.

5-7.1 Control Points Furnished by the Authority: The Engineer will provide centerline control points (Begin Project, End Project, PIs, PTs, etc.) and benchmarks at appropriate intervals along the line of the project to facilitate the proper layout of the work. Normally, the Engineer will furnish only one benchmark for water crossings. Preserve all reference points and benchmarks that the Authority furnishes.

As an exception to the above, for projects where the Plans do not show a centerline or other survey control line for construction of the work (e.g., resurfacing, safety modifications, etc.) the Engineer will provide only points marking the beginning and ending of the project, and all exceptions.

5-7.2 Furnishing of Stake Materials: Furnish all stakes, templates, and other materials necessary for establishing and maintaining the lines and grades necessary for control and construction of the work.

5-7.3 Layout of Work: Utilizing the control points furnished by the Authority in accordance with 5-7.1, establish all horizontal and vertical controls necessary to construct the work in conformity to the Contract Documents. Perform all calculations required, and set all stakes needed such as grade stakes, offset stakes, reference point stakes, slope stakes, and other reference marks or points necessary to provide lines and grades for construction of all roadway, bridge, and miscellaneous items.

When performing utility construction as part of the project, establish all horizontal and vertical controls necessary to carry out such work.

5-7.4 Specific Staking Requirements: When performing new base construction as part of the project, set stakes to establish lines and grades for subgrade, base, curb, and related items at intervals along the line of the work. If Automated Machine Guidance is utilized, set stakes as needed. If Automated Machine Guidance is not utilized, set stakes no greater than 50 feet on tangents and 25 feet on curves. Set grade stakes at locations that the Engineer directs to facilitate checking of subgrade, base, and pavement elevations in crossovers, intersections, and irregular shaped areas.

For bridge construction stakes and other control, set references at sufficiently frequent intervals to ensure construction of all components of a structure in accordance with the lines and grades shown in the Plans.

For projects where the Plans do not show a centerline or other survey control line for construction of the work (resurfacing, safety modifications, etc.), provide only such stakes as necessary for horizontal and vertical control of work items.

For resurfacing and resurfacing-widening type projects, establish horizontal controls adequate to ensure that the asphalt mix added matches with the existing pavement. In tangent sections, set horizontal control points at 100-foot intervals by an instrument survey. In curve sections, set horizontal control points at 25-foot intervals by locating and referencing the centerline of the existing pavement.

Establish by an instrument survey, and mark on the surface of the finished pavement at 25-foot intervals, the points necessary for striping of the finished roadway. As an exception, for resurfacing and resurfacing/widening projects, establish these points in the same manner as used for horizontal control of paving operations. Mark the pavement with white paint. If performing striping, the Engineer may approve an alternate method for layout of striping provided that the Contractor achieves an alignment equal to or better than the alignment that would be achieved using an instrument survey.

For projects that include temporary or permanent striping of "no passing zones", provide the location and length of these zones as shown in the Plans, except projects where the vertical or horizontal alignment is new or altered from preconstruction alignment. For projects that consist of new or altered vertical or horizontal alignment, the Authority will provide the location and length of the "no passing zones" during construction. For these projects, submit written notification to the Engineer not less than 21 calendar days prior to beginning striping.

For all projects, set a station identification stake at each right-of-way line at 100-foot intervals and at all locations where a change in right-of-way width occurs. Mark each of these stakes with painted numerals, of a size readable from the roadway, corresponding to the project station at which it is located. As an exception to the above, for projects where Plans do

not show right-of-way lines, set station identification stakes at locations and intervals appropriate to the type of work being done. For resurfacing and resurfacing/widening projects, set station identification stakes at 200-foot intervals.

5-7.5 Personnel, Equipment, and Record Requirements: Employ only competent personnel and use only suitable equipment in performing layout work. Do not engage the services of any person or persons in the employ of the Authority for performance of layout work.

Keep adequate field notes and records while performing as layout work. Make these field notes and records available for the Engineer's review as the work progresses, and submit to the Engineer at the time of completion of the project. The Engineer's inspection, checking, or acceptance of the Contractor's field notes or layout work does not relieve the Contractor of his responsibility to achieve the lines, grades, and dimensions shown in the Contract Documents.

Prior to final acceptance of the project, mark, in a permanent manner on the surface of the completed work, all horizontal control points originally furnished by the Authority.

5-7.6 Global Navigation Satellite Systems (GNSS) Work Plan: If used, submit a comprehensive written GNSS Work Plan to the Engineer for Authority review and acceptance at the preconstruction conference or at least 30 days before starting work using GNSS. Update the plan as necessary during construction and notify the Authority of all changes. The GNSS Work Plan shall describe how GNSS enabled Automated Machine Guidance technology will be integrated into other technologies employed on the project. At a minimum, the GNSS Work Plan will include the following:

1. Designate which portions of the Contract will be done using GNSS enabled Automated Machine Guidance and which portions will be constructed using conventional survey methodology.
2. Describe the manufacturer, model, and software version of the GNSS equipment.
3. Provide information on the qualifications of Contractor staff. Include formal training and field experience. Designate a single staff person as the primary contact for GNSS technology issues.
4. Describe how project control will be established. Include a list and map showing control points enveloping the site.
5. Describe site calibration procedures. Include a map of the control points used for site calibration and control points used to validate the site calibration. Describe the frequency of site calibration and how site calibration will be documented. At a minimum, verify the site calibration twice daily.
6. Describe the Contractor's quality control procedures for verifying mechanical calibration and maintenance of construction and guidance equipment. Include the frequency and type of verification performed to ensure the constructed grades conform to the Contract Documents.

Keep on site and provide upon request, a copy of the project's most up to date GNSS Work Plan at the project site.

5-7.7 Payment: Include the cost of performing layout work as described above in the Contract unit prices for the various items of work that require layout.

5-8 Contractor's Supervision.

5-8.1 Prosecution of Work: Give the work the constant attention necessary to ensure the scheduled progress, and cooperate fully with the Engineer and with other contractors at work in the vicinity.

5-8.2 Contractor's Superintendent: Maintain a competent superintendent at the site at all times while work is in progress to act as the Contractor's agent. Provide a superintendent who is a competent superintendent capable of properly interpreting the Contract Documents and is thoroughly experienced in the type of work being performed. Provide a superintendent with the full authority to receive instructions from the Engineer and to execute the orders or directions of the Engineer, including promptly supplying any materials, tools, equipment, labor, and incidentals that may be required. Provide such superintendence regardless of the amount of work sublet.

Provide a superintendent who speaks and understands English, and maintain at least one other responsible person who speaks and understands English, on the project during all working hours.

5-8.3 Supervision for Emergencies: Provide a responsible person, who speaks and understands English, and who is available at or reasonably near the worksite on a 24-hour basis, seven days a week. Designate this person as the point of contact for emergencies and in cases that require immediate action to maintain traffic or to resolve any other problem that might arise. Submit the phone numbers and names of personnel designated to be contacted in cases of emergencies, along with a description of the project location, to the Florida Highway Patrol and all other local law enforcement agencies.

5-9 General Inspection Requirements.

5-9.1 Cooperation by Contractor: Do not perform work or furnish materials without obtaining inspection by the Engineer. Provide the Engineer with safe means of access to the work, so the Engineer can determine whether the work performed and materials used are in accordance with the requirements and intent of the Contract Documents. For bridge projects with construction operations accessible only by watercraft, provide safe passage and transport to facilitate the Engineer's inspection of the Work. If the Engineer so requests at any time before final acceptance of the work, remove or uncover such portions of the finished work as directed. After examination, restore the uncovered portions of the work to the standard required by the Contract Documents. If the Engineer determines that the work so exposed or examined is unacceptable, perform the uncovering or removal, and the replacing of the covering or making good of the parts removed, at no expense to the Authority. However, if the Engineer determines that the work thus exposed or examined is acceptable, the Authority will pay for the uncovering or removing, and the replacing of the covering or making good of the parts removed in accordance with Section 4-4.

5-9.2 Failure of Engineer to Reject Work During Construction: If, during or prior to construction operations, the Engineer fails to reject defective work or materials, whether from lack of discovery of such defect or for any other reason, such initial failure to reject in no way prevents the later rejection when such defect is discovered, or obligates the Authority to final acceptance. The Authority is not responsible for losses suffered due to any necessary removals or repairs of such defects.

5-9.3 Failure to Remove and Renew Defective Materials and Work: If the Contractor fails or refuses to remove and renew any defective materials used or work performed, or to make any necessary repairs in an acceptable manner and in accordance with the requirements of the

Contract within the time indicated in writing, the Engineer has the authority to repair, remove, or renew the unacceptable or defective materials or work as necessary, all at the Contractor's expense. The Authority will obtain payment for any expense it incurs in making these repairs, removals, or renewals, that the Contractor fails or refuses to make, by deducting such expenses from any moneys due or which may become due the Contractor, or by charging such amounts against the Contract bond.

5-9.4 Inspection by Federal Government: When the United States Government pays a portion of the cost of construction, its representatives may inspect the construction work as they deem necessary. However, such inspection will in no way make the Federal Government a party to the Contract.

5-10 Final Inspection.

5-10.1 Maintenance until Acceptance: Maintain all Work until the Engineer has given final acceptance in accordance with 5-11.

5-10.2 Inspection for Acceptance: Upon submittal of written notification that all Contract Work, or all Contract Work on the portion of the Contract scheduled for acceptance, has been completed, the Engineer will make an inspection for acceptance. The inspection will be made within seven days of such notification. If the Engineer finds that all work has been satisfactorily completed, the Authority will consider such inspection as the final inspection. If any or all of the Work is found to be unsatisfactory, the Engineer will detail the remedial work required to achieve acceptance. Immediately perform such remedial work. Subsequent inspections will be made on the remedial work until the Engineer accepts all Work.

Upon satisfactory completion of the Work, the Authority will submit written notice of acceptance, either partial or final, to the Contractor.

Until final acceptance in accordance with 5-11, replace or repair any damage to the accepted Work. Payment of such work will be as provided in 7-14.

5-10.3 Partial Acceptance: At the Engineer's sole discretion, the Engineer may accept any portion of the Work under the provisions of 5-10.2.

5-10.4 Conditional Acceptance: The Engineer will not make, or consider requests for conditional acceptance of a project.

5-11 Final Acceptance.

When, upon completion of the final construction inspection of the entire project, the Engineer determines that the Contractor has satisfactorily completed the work, the Engineer will submit written notice of final acceptance to the Contractor.

5-12 Claims by Contractor.

5-12.1 General: When the Contractor deems that extra compensation or a time extension is due beyond that agreed to by the Engineer, whether due to delay, additional work, altered work, differing site conditions, breach of Contract, or for any other cause, the Contractor shall follow the procedures set forth herein for preservation, presentation and resolution of the claim.

Submission of timely notice of intent to file a claim, preliminary time extension request, time extension request, and the certified written claim, together with full and complete claim documentation, are each a condition precedent to the Contractor bringing any circuit court, arbitration, or other formal claims resolution proceeding against the Authority for the items and for the sums or time set forth in the Contractor's certified written claim. The failure to provide such notice of intent, preliminary time extension request, time extension request,

certified written claim and full and complete claim documentation within the time required shall constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to additional compensation or a time extension for such claim.

5-12.2 Notice of Claim:

5-12.2.1 Claims For Extra Work: Where the Contractor deems that additional compensation or a time extension is due for work or materials not expressly provided for in the Contract or which is by written directive expressly ordered by the Engineer pursuant to 4-3, the Contractor shall submit written notification to the Engineer of the intention to make a claim for additional compensation before beginning the work on which the claim is based, and if seeking a time extension, the Contractor shall also submit a preliminary request for time extension pursuant to 8-7.3.2 within ten calendar days after commencement of a delay and a request for Contract Time extension pursuant to 8-7.3.2 within thirty calendar days after the elimination of the delay. If such written notification is not submitted and the Engineer is not afforded the opportunity for keeping strict account of actual labor, material, equipment, and time, the Contractor waives the claim for additional compensation or a time extension. Such notice by the Contractor, and the fact that the Engineer has kept account of the labor, materials and equipment, and time, shall not in any way be construed as establishing the validity of the claim or method for computing any compensation or time extension for such claim. On projects with an original Contract amount of \$3,000,000 or less within 90 calendar days after final acceptance of the project in accordance with 5-11, and on projects with an original Contract amount greater than \$3,000,000 within 180 calendar days after final acceptance of the project in accordance with 5-11, the Contractor shall submit full and complete claim documentation as described in 5-12.3 and duly certified pursuant to 5-12.9. However, for any claim or part of a claim that pertains solely to final estimate quantities disputes the Contractor shall submit full and complete claim documentation as described in 5-12.3 and duly certified pursuant to 5-12.9, as to such final estimate claim dispute issues, within 90 or 180 calendar days, respectively, of the Contractor's receipt of the Authority's final estimate.

If the Contractor fails to submit a certificate of claim as described in 5-12.9, the Authority will so notify the Contractor in writing. The Contractor shall have ten calendar days from receipt of the notice to resubmit the claim documentation, without change, with a certificate of claim as described in 5-12.9, without regard to whether the resubmission is within the applicable 90 or 180 calendar day deadline for submission of full and complete claim documentation. Failure by the Contractor to comply with the ten-calendar day notice shall constitute a waiver of the claim.

5-12.2.2 Claims For Delay: Where the Contractor deems that additional compensation or a time extension is due on account of delay, differing site conditions, breach of Contract, or any other cause other than for work or materials not expressly provided for in the Contract (Extra Work) or which is by written directive of the Engineer expressly ordered by the Engineer pursuant to 4-3, the Contractor shall submit a written notice of intent to the Engineer within ten days after commencement of a delay to a controlling work item expressly notifying the Engineer that the Contractor intends to seek additional compensation, and if seeking a time extension, the Contractor shall also submit a preliminary request for time extension pursuant to 8-7.3.2 within ten calendar days after commencement of a delay to a controlling work item, as to such delay and providing a reasonably complete description as to the cause and nature of the delay and the possible impacts to the Contractor's work by such delay, and a request for Contract Time extension pursuant to 8-7.3.2 within thirty calendar days after the elimination of the delay.

On projects with an original Contract amount of \$3,000,000 or less within 90 calendar days after final acceptance of the project in accordance with 5-11, and on projects with an original Contract amount greater than \$3,000,000 within 180 calendar days after final acceptance of the project in accordance with 5-11, the Contractor shall submit full and complete documentation as described in 5-12.3 and duly certified pursuant to 5-12.9.

If the Contractor fails to submit a certificate of claim as described in 5-12.9, the Authority will so notify the Contractor in writing. The Contractor shall have ten calendar days from receipt of the notice to resubmit the claim documentation, without change, with a certificate of claim as described in 5-12.9, without regard to whether the resubmission is within the applicable 90 or 180 calendar day deadline for submission of full and complete claim documentation. Failure by the Contractor to comply with the ten-calendar day notice shall constitute a waiver of the claim.

There shall be no Contractor entitlement to any monetary compensation or time extension for any delays or delay impacts, whatsoever, that are not to a controlling work item, and then as to any such delay to a controlling work item entitlement to any monetary compensation or time extension shall only be to the extent such is otherwise provided for expressly under 4-3 or 5-12, except that in the instance of delay to a non-controlling item of work the Contractor may be compensated for the direct costs of idle labor or equipment only, at the rates set forth in 4-3.2.1(1) and (3), and then only to the extent the Contractor could not reasonably mitigate such idleness.

If the Contractor provides the written notice of intent, the preliminary request for time extension, and the request for Contract Time extension in compliance with the aforementioned time and content requirements, the Contractor's claim for delay to a controlling work item will be evaluated as of the date of the elimination of the delay even if the Contractor's performance subsequently overcomes the delay. If the claim for delay has not been settled, the Contractor must also comply with 5-12.3 and 5-12.9 to preserve the claim.

5-12.3 Content of Written Claim: As a condition precedent to the Contractor being entitled to additional compensation or a time extension under the Contract, for any claim, the Contractor shall submit a certified written claim to the Authority which will include for each individual claim, at a minimum, the following information:

1. A detailed factual statement of the claim providing all necessary dates, locations, and items of work affected and included in each claim;
2. The date or dates on which actions resulting in the claim occurred or conditions resulting in the claim became evident;
3. Identification of all pertinent documents and the substance of any material oral communications relating to such claim and the name of the persons making such material oral communications;
4. Identification of the provisions of the Contract which support the claim and a statement of the reasons why such provisions support the claim, or alternatively, the provisions of the Contract which allegedly have been breached and the actions constituting such breach;
5. A detailed compilation of the amount of additional compensation sought and a breakdown of the amount sought as follows:
 - a. documented additional job site labor expenses;
 - b. documented additional cost of materials and supplies;
 - c. a list of additional equipment costs claimed, including each piece of equipment and the rental rate claimed for each;

d. any other additional direct costs or damages and the documents in support thereof;

e. any additional indirect costs or damages and all documentation in support thereof.

6. A detailed compilation of the specific dates and the exact number of calendar days sought for a time extension, the basis for entitlement to time for each day, all documentation of the delay, and a breakout of the number of days claimed for each identified event, circumstance or occurrence.

Further, the Contractor shall be prohibited from amending either the bases of entitlement or the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder, and any circuit court, arbitration, or other formal claims resolution proceeding shall be limited solely to the bases of entitlement and the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder. This shall not, however, preclude a Contractor from withdrawing or reducing any of the bases of entitlement and the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder at any time.

5-12.4 Action on Claim: The Engineer will respond in writing on projects with an original Contract amount of \$3,000,000 or less within 90 calendar days of receipt of a complete claim submitted by a Contractor in compliance with 5-12.3, and on projects with an original Contract amount greater than \$3,000,000 within 120 calendar days of receipt of a complete claim submitted by a Contractor in compliance with 5-12.3. Failure by the Engineer to respond to a claim in writing within 90 or 120 days, respectively, after receipt of a complete claim submitted by the Contractor in compliance with 5-12.3 constitutes a denial of the claim by the Engineer. If the Engineer finds the claim or any part thereof to be valid, such partial or whole claim will be allowed and paid for to the extent deemed valid and any time extension granted, if applicable, as provided in the Contract. No circuit court or arbitration proceedings on any claim, or a part thereof, may be filed until after final acceptance per 5-11 of all Contract work by the Authority or denial hereunder, whichever occurs last.

5-12.5 Pre-Settlement and Pre-Judgment Interest: Entitlement to any pre-settlement or pre-judgment interest on any claim amount determined to be valid subsequent to the Authority's receipt of a certified written claim in full compliance with 5-12.3, whether determined by a settlement or a final ruling in formal proceedings, the Authority shall pay to the Contractor simple interest calculated at the Prime Rate (as reported by the Wall Street Journal as the base rate on corporate loans posted by at least 75% of the nation's 30 largest banks) as of the 60th calendar day following the Authority's receipt of a certified written claim in full compliance with 5-12.3, such interest to accrue beginning 60 calendar days following the Authority's receipt of a certified written claim in full compliance with 5-12.3 and ending on the date of final settlement or formal ruling.

5-12.6 Compensation for Extra Work or Delay:

5-12.6.1 Compensation for Extra Work: Notwithstanding anything to the contrary contained in the Contract Documents, the Contractor shall not be entitled to any compensation beyond that provided for in 4-3.2.

5-12.6.2 Compensation for Delay: Notwithstanding anything to the contrary contained in the Contract Documents, the additional compensation set forth in 5-12.6.2.1 shall be the Contractor's sole monetary remedy for any delay other than to perform extra work caused by

the Authority unless the delay shall have been caused by acts constituting willful or intentional interference by the Authority with the Contractor's performance of the work and then only where such acts continue after Contractor's written notice to the Authority of such interference. The parties anticipate that delays may be caused by or arise from any number of events during the term of the Contract, including, but not limited to, work performed, work deleted, supplemental agreements, work orders, disruptions, differing site conditions, utility conflicts, design changes or defects, time extensions, extra work, right-of-way issues, permitting issues, actions of suppliers, subcontractors or other contractors, actions by third parties, suspensions of work by the Engineer pursuant to 8-6.1, shop drawing approval process delays, expansion of the physical limits of the project to make it functional, weather, weekends, holidays, special events, suspension of Contract Time, or other events, forces or factors sometimes experienced in construction work. Such delays or events and their potential impacts on the performance by the Contractor are specifically contemplated and acknowledged by the parties in entering into this Contract, and shall not be deemed to constitute willful or intentional interference with the Contractor's performance of the work without clear and convincing proof that they were the result of a deliberate act, without reasonable and good-faith basis, and specifically intended to disrupt the Contractor's performance.

5-12.6.2.1 Compensation for Direct Costs, Indirect Costs, Expenses, and Profit thereon, of or from Delay: For any delay claim, the Contractor shall be entitled to monetary compensation for the actual idle labor (including supervisory personnel) and equipment, and indirect costs, expenses, and profit thereon, as provided for in 4-3.2.1(4) and solely for costs incurred beyond what reasonable mitigation thereof the Contractor could have undertaken.

5-12.7 Mandatory Claim Records: After submitting to the Engineer a notice of intent to file a claim for extra work or delay, the Contractor must keep daily records of all labor, material and equipment costs incurred for operations affected by the extra work or delay. These daily records must identify each operation affected by the extra work or delay and the specific locations where work is affected by the extra work or delay, as nearly as possible. The Engineer may also keep records of all labor, material and equipment used on the operations affected by the extra work or delay. The Contractor shall, once a notice of intent to claim has been timely filed, and not less than weekly thereafter as long as appropriate, submit the Contractor's daily records to the Engineer and be likewise entitled to receive the Authority's daily records. The daily records to be submitted hereunder shall be done at no cost to the recipient.

5-12.8 Claims for Acceleration: The Authority shall have no liability for any constructive acceleration of the work, nor shall the Contractor have any right to make any claim for constructive acceleration nor include the same as an element of any claim the Contractor may otherwise submit under this Contract. If the Engineer gives express written direction for the Contractor to accelerate its efforts, such written direction will set forth the prices and other pertinent information and will be reduced to a written Contract Document promptly. No payment will be made on a Supplemental Agreement for acceleration prior to the Authority's approval of the documents.

5-12.9 Certificate of Claim: When submitting any claim, the Contractor shall certify under oath and in writing, in accordance with the formalities required by Florida law, that the claim is made in good faith, that the supportive data are accurate and complete to the Contractor's best knowledge and belief, and that the amount of the claim accurately reflects what

the Contractor in good faith believes to be the Authority's liability. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor.

5-12.10 Non-Recoverable Items: The parties agree that for any claim the Authority will not have liability for the following items of damages or expense:

1. Loss of profit, incentives or bonuses;
2. Any claim for other than extra work or delay;
3. Consequential damages, including, but not limited to, loss of bonding capacity, loss of bidding opportunities, loss of credit standing, cost of financing, interest paid, loss of other work or insolvency;
4. Acceleration costs and expenses, except where the Authority has expressly and specifically directed the Contractor in writing "to accelerate at the Authority's expense"; nor
5. Attorney fees, claims preparation expenses and costs of litigation.

5-12.11 Exclusive Remedies: Notwithstanding any other provision of this Contract, the parties agree that the Authority shall have no liability to the Contractor for expenses, costs, or items of damages other than those which are specifically identified as payable under 5-12. In the event any legal action for additional compensation, whether on account of delay, acceleration, breach of contract, or otherwise, the Contractor agrees that the Authority's liability will be limited to those items which are specifically identified as payable in 5-12.

5-12.12 Settlement Discussions: The content of any discussions or meetings held between the Authority and the Contractor to settle or resolve any claims submitted by the Contractor against the Authority shall be inadmissible in any legal, equitable, arbitration or administrative proceedings brought by the Contractor against the Authority for payment of such claim. Dispute Resolution Board, State Arbitration Board and Claim Review Committee proceedings are not settlement discussions, for purposes of this provision.

5-12.13 Personal Liability of Public Officials: In carrying out any of the provisions of the Contract or in exercising any power or authority granted to the Secretary of Transportation, Engineer or any of their respective employees or agents, there shall be no liability on behalf of any employee, officer or official of the Authority for which such individual is responsible, either personally or as officials or representatives of the Authority. It is understood that in all such matters such individuals act solely as agents and representatives of the Authority.

5-12.14 Auditing of Claims: All claims filed against the Authority shall be subject to audit at any time following the filing of the claim, whether or not such claim is part of a suit pending in the Courts of this State. The audit may be performed, at the Authority's sole discretion, by employees of the Authority or by any independent auditor appointed by the Authority, or both. The audit may begin after ten days written notice to the Contractor, subcontractor, or supplier. The Contractor, subcontractor, or supplier shall make a good faith effort to cooperate with the auditors. As a condition precedent to recovery on any claim, the Contractor, subcontractor, or supplier must retain sufficient records, and provide full and reasonable access to such records, to allow the Authority's auditors to verify the claim and failure to retain sufficient records of the claim or failure to provide full and reasonable access to such records shall constitute a waiver of that portion of such claim that cannot be verified and shall bar recovery thereunder. Further, and in addition to such audit access, upon the Contractor submitting a written claim, the Authority shall have the right to request and receive, and the Contractor shall have the affirmative obligation to submit to the Authority any and all documents in the possession of the Contractor or its subcontractors, materialmen or suppliers as

may be deemed relevant by the Authority in its review of the basis, validity or value of the Contractor's claim.

Without limiting the generality of the foregoing, the Contractor shall upon written request of the Authority make available to the Authority's auditors, or upon the Authority's written request, submit at the Authority's expense, any or all of the following documents:

1. Daily time sheets and foreman's daily reports and diaries;
2. Insurance, welfare and benefits records;
3. Payroll register;
4. Earnings records;
5. Payroll tax return;
6. Material invoices, purchase orders, and all material and supply acquisition contracts;
7. Material cost distribution worksheet;
8. Equipment records (list of company owned, rented or other equipment used);
9. Vendor rental agreements and subcontractor invoices;
10. Subcontractor payment certificates;
11. Canceled checks for the project, including, payroll and vendors;
12. Job cost report;
13. Job payroll ledger;
14. General ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals;
15. Cash disbursements journal;
16. Financial statements for all years reflecting the operations on this project;
17. Income tax returns for all years reflecting the operations on this project;
18. All documents which reflect the Contractor's actual profit and overhead during the years this Contract was being performed and for each of the five years prior to the commencement of this Contract;
19. All documents related to the preparation of the Contractor's bid including the final calculations on which the bid was based;
20. All documents which relate to each and every claim together with all documents which support the amount of damages as to each claim;
21. Worksheets used to prepare the claim establishing the cost components for items of the claim including, but not limited to, labor, benefits and insurance, materials, equipment, subcontractors, and all documents that establish which time periods and individuals were involved, and the hours and rates for such individuals.

5-13 Recovery Rights, Subsequent to Final Payment.

The Authority reserves the right, if it discovers an error in the partial or final estimates, or if it discovers that the Contractor performed defective work or used defective materials, after the final payment has been made, to claim and recover from the Contractor or his surety, or both, by process of law, such sums as may be sufficient to correct the error or make good the defects in the work and materials.

SECTION 6 CONTROL OF MATERIALS

6-1 Acceptance Criteria.

6-1.1 General: Acceptance of materials is based on the following criteria. All requirements may not apply to all materials. Use only materials in the work that meet the requirements of these Specifications. The Engineer may inspect and test any material, at points of production, distribution and use.

6-1.2 Sampling and Testing: Use the Authority's current sample identification and tracking system to provide related information and attach the information to each sample. Restore immediately any site from which material has been removed for sampling purposes to the pre-sampled condition with materials and construction methods used in the initial construction, at no additional cost to the Authority.

Ensure when a material is delivered to the location as described in the Contract Documents, there is enough material delivered to take samples, at no expense to the Authority.

6-1.2.1 Pretest by Manufacturers: Submit certified manufacturer's test results to the Engineer for qualification and use on Authority projects. Testing will be as specified in the Contract Documents. The Authority may require that manufacturers submit samples of materials for independent verification purposes.

6-1.2.2 Point of Production Test: Test the material during production as specified in the Contract Documents.

6-1.2.3 Point of Distribution Test: Test the material at Distribution facilities as specified in the Contract Documents.

6-1.2.4 Point of Use Test: Test the material immediately following placement as specified in the Specifications. After delivery to the project, the Authority may require the retesting of materials that have been tested and accepted at the source of supply, or may require the testing of materials that are to be accepted by manufacturer certification. The Authority may reject all materials that, when retested, do not meet the requirements of these Specifications.

6-1.3 Certification:

6-1.3.1 Manufacturer Material Certification: Submit material certifications for all materials to the Engineer for approval when required by the Specifications. Materials will not be considered for payment when not accompanied by a material certification. Sample material certification forms are available on the Department's website at the following URL:

<https://www.fdot.gov/materials/administration/resources/library/publications/certifications/sampleforms.shtm> . Ensure that the material certification follows the format of the sample form, is submitted on the manufacturer's letterhead and is signed by a legally responsible person employed by the manufacturer.

6-1.3.1.1 Approved Product List: This list provides assurance to Contractors, consultants, designers, and Authority personnel that specific products and materials are approved for use on Authority facilities. The Authority will limit the Contractor's use of products and materials that require use of APL items to those listed on the APL effective at the time of placement. Where the terms Qualified Products List (QPL) appear in the Contract Documents, they will be synonymous with Approved Product List (APL).

Manufacturers seeking to have a product evaluated for the APL must submit a Request for Product Consideration application, available on the Department's website at the following URL:

<https://www.fdot.gov/programmanagement/ProductEvaluation/Default.shtm>. Applications must include supporting documentation as required by the Specifications, Standard Plans, and APL approval process. Required test reports must be conducted by an independent laboratory or other independent testing facility and required drawings and calculations must be signed and sealed by a Professional Engineer licensed in the State of Florida unless defined otherwise in the Specifications, Standard Plans, and APL approval process requirements. Applications must be signed by a legally responsible person employed by the manufacturer of the product. Manufacturer name and material designation (product name, product model/part number/style number, etc.) submitted on the application must be as identified on the product, product packaging or product labels as required by the Specifications.

Products that have successfully completed the Department’s evaluation process are eligible for inclusion on the APL. Unless defined otherwise in the Specifications, Standard Plans, or APL approval process requirements, products listed on the APL must have an associated photograph, drawing, or product label submitted by the product manufacturer before listing on the APL. Manufacturers are required to submit requests to the Department for approval of any modifications or alterations made to a product listed on the APL. This includes, but is not limited to, design, materials, fabrication methods or operational modifications. Modification or alteration requests must be submitted along with supporting documentation that the product continues to meet the Specification or Standard Plans requirements. A product sample and additional product testing may be required for the modification evaluation. Any marked variations from original test values, failure to notify the Department of any modifications or alterations, or any evidence of inadequate performance of a product as a result of product modification or alteration, may result in removal of the product from the APL.

Manufacturers must submit supporting documentation to the Department for a periodic review and re-approval of their APL products on or before the product’s original approval anniversary. APL products that are not re-approved may be removed from the APL. Documentation requirements for the product review and re-approval, including schedule and criteria, are available on the Department’s website at the following URL: <https://www.fdot.gov/programmanagement/ProductEvaluation/Default.shtm>.

6-1.3.2 Contractor Installation Certification: Submit installation certifications as required by the Contract Documents.

6-2 Applicable Documented Authorities Other Than Specifications.

6-2.1 General: Details on individual materials are identified in various material specific Sections of the Specifications that may refer to other documented authorities for requirements. When specified, meet the requirements as defined in such references.

6-2.2 Test Methods: Methods of sampling and testing materials are in accordance with the Florida Methods (FM). If an FM does not exist for a particular test, perform the testing in accordance with the method specified in the Specification. When test methods or other standards are referenced in the Specifications without identification of the specific time of issuance, use the most current issuance, including interims or addenda thereto, at the time of bid opening.

6-2.3 Construction Aggregates: Aggregates used on Authority projects must be in accordance with Rule 14-103, FAC.

6-3 Storage of Materials and Samples.

6-3.1 Method of Storage: Store materials in such a manner as to preserve their quality and fitness for the work, to facilitate prompt inspection, and to minimize noise impacts on sensitive receivers. More detailed specifications concerning the storage of specific materials are prescribed under the applicable Specifications. The Authority may reject improperly stored materials.

6-3.2 Use of Right-of-Way for Storage: If the Engineer allows, the Contractor may use a portion of the right-of-way for storage purposes and for placing the Contractor's plant and equipment. Use only the portion of the right-of-way that is outside the clear zone, which is the portion not required for public vehicular or pedestrian travel. When used, restore the right-of-way to pre-construction condition at no additional cost to the Authority or as specified in the Contract Documents. Provide any additional space required at no expense to the Authority.

6-3.3 Responsibility for Stored Materials: Accept responsibility for the protection of stored materials. The Authority is not liable for any loss of materials, by theft or otherwise, or for any damage to the stored materials.

6-3.4 Storage Facilities for Samples: Provide facilities for storage of samples as described in the Contract Documents and warranted by the test methods and Specifications.

6-4 Defective Materials.

Materials not meeting the requirements of these Specifications will be considered defective. The Engineer will reject all such materials, whether in place or not. Remove all rejected material immediately from the site of the work and from storage areas, at no expense to the Authority.

Do not use material that has been rejected, until the Engineer has approved the material's use. Upon failure to comply promptly with any order of the Engineer made under the provisions of this Article, the Engineer has the authority to have the defective material removed and replaced by other forces and deduct the cost of removal and replacement from any moneys due or to become due the Contractor.

6-4.1 Engineering Analysis: As an exception to the above, within 30 calendar days of the termination of the LOT or rejection of the material, the Contractor may submit to the Engineer a proposed Engineering Analysis Scope to determine the disposition of the material. The Engineering Analysis Scope must contain at a minimum:

1. Description of the defective materials.
2. Supporting information, testing or inspection reports with nonconformities, pictures, drawings, and accurately dimensioned deficiency maps as necessary. For cracked elements, provide drawings showing the location, average width, depth, length, and termination points of each crack along the surfaces. Provide the distance from each termination point to a fixed reference point on the component, such as beam end or edge of flange.
3. Proposed approach of investigation and analysis.
4. Name and credentials of the proposed Specialty Engineer or Contractor's Engineer of Record who will perform the engineering analysis.
5. Proposed testing laboratories, qualified in accordance with

Section 105-7.

Upon approval of the Engineering Analysis Scope by the Engineer, the Specialty Engineer or Contractor's Engineer of Record may perform the engineering analysis as defined in

the approved scope and submit a signed and sealed Engineering Analysis Report (EAR) to the Engineer. The EAR must contain at a minimum:

1. The approved Engineering Analysis Scope.
2. Any investigations performed and the associated results obtained.
3. Analysis and conclusion.
4. Proposed disposition of the material, addressing the performance and durability of the proposed action.

Provide as appropriate:

1. Written evidence of a previously approved comparable deficiency and its repair.
2. Documented research demonstrating the effectiveness of the proposed repair.
3. Engineering calculations.

A Specialty Engineer, who is an independent consultant, or the Contractor’s Engineer of Record as stated within each individual Section shall perform any such analysis within 45 calendar days of the Engineer’s approval of the Engineering Analysis Scope, complete and submit the EAR. The EAR must be signed and sealed by the Specialty Engineer or the Contractor’s Engineer of Record that performed the engineering analysis. Allow for a 45 calendar day review period for all EARs associated with a category 2 bridge; tolling components identified in the current FDOT General Tolling Requirements (GTR) Part 3; and the tolling-related signing, DMS and ITS infrastructure. Allow for a 25 calendar day review period for all other items. The Engineer will determine the final disposition of the material after review of the EAR. No additional monetary compensation or time extension will be granted for the impact of any such analysis or review.

6-5 Products and Source of Supply.

6-5.1 Source of Supply–Convict Labor (Federal-Aid Contracts Only): Do not use materials that were produced after July 1, 1991, by convict labor for Federal-aid highway construction projects unless the prison facility has been producing convict-made materials for Federal-aid highway construction projects before July 1, 1987.

Use materials that were produced prior to July 2, 1991, by convicts on Federal-aid highway construction projects free from the restrictions placed on the use of these materials by 23 U.S.C. 114. The Authority will limit the use of materials produced by convict labor for use in Federal-aid highway construction projects to:

1. Materials produced by convicts on parole, supervised release, or probation from a prison or,
2. Materials produced in a qualified prison facility.

The amount of such materials produced for Federal-aid highway construction during any 12-month period shall not exceed the amount produced in such facility for use in such construction during the 12-month period ending July 1, 1987.

6-5.2 Source of Supply–Steel: Use steel and iron manufactured in the United States, in accordance with the Buy America provisions of 23 CFR 635.410, as amended. Ensure that all manufacturing processes for this material occur in the United States. As used in this specification, a manufacturing process is any process that modifies the chemical content, physical shape or size, or final finish of a product, beginning with the initial melting and continuing through the final shaping and coating. If a steel or iron product is taken outside the United States for any manufacturing process, it becomes foreign source material. When using

steel or iron materials as a component of any manufactured product (e.g., concrete pipe, prestressed beams, corrugated steel pipe, etc.), these same provisions apply. Foreign steel and iron may be used when the total actual cost of such foreign materials does not exceed 0.1% of the total Contract amount or \$2,500, whichever is greater. These requirements are applicable to all steel and iron materials incorporated into the finished work, but are not applicable to steel and iron items that the Contractor uses but does not incorporate into the finished work. Submit a certification from the manufacturer of steel or iron, or any product containing steel or iron, stating that all steel or iron furnished or incorporated into the furnished product was produced and manufactured in the United States or a statement that the product was produced within the United States except for minimal quantities of foreign steel and iron valued at \$ (actual cost). Submit each such certification to the Engineer prior to incorporating the material or product into the project. Prior to the use of foreign steel or iron materials on a project, submit invoices to document the actual cost of such material, and obtain the Engineer's written approval prior to incorporating the material into the project.

6-5.3 Contaminated, Unfit, Hazardous, and Dangerous Materials: Do not use any material that, after approval and/or placement, has in any way become unfit for use. Do not use materials containing any substance that has been determined to be hazardous by the State of Florida Department of Environmental Protection or the U.S. Environmental Protection Agency (EPA). Provide workplaces free from serious recognized hazards and to comply with occupational safety and health standards, as determined by the U.S. Department of Labor Occupational Safety and Health Administration (OSHA).

SECTION 7 LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC

7-1 Laws to be Observed.

7-1.1 General: Become familiar with and comply with all Federal, State, and Local Rules and Regulations that control the action or operation of those engaged or employed in the work or that affect material used. Pay particular attention called to the safety regulations promulgated by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). In addition, comply with Chapter 403, of the Florida Statutes, regarding control of air pollution. Direct special attention to that portion of Chapter 62-256, Rules of the Department of Environmental Protection, Florida Administrative Code, pertaining to open burning in land clearing operations. Where work or structures included in the Contract are in “Navigable Waters of the U.S.,” (reference 33 of the Code of Federal Regulations, Part 329); “Waters of the U.S.,” (reference 33 of the Code of Federal Regulations, Parts 323 and 328); or “Waters of the State,” (reference Part 4, Chapters 253 and 373 of the Florida Statutes and Section 62-340 of the Florida Administrative Code); comply with the regulatory provisions of Section 404 of the Federal Clean Water Act of 1977; Sections 9 and 10 of the Federal River and Harbor Act of 1899; Chapter 161 of the Florida Statutes; and any local authority having jurisdiction over such waters.

Comply with Part IV, Chapter 378, of the Florida Statutes regarding land reclamation. Direct special attention to Chapters 62C-36 and 62C-39 of the Florida Administrative Code. Submit the Notice of Intent to Mine to:

Department of Environmental Protection
Collins Building
2051 East Dirac Drive
Tallahassee, Florida 32310-3760

with a copy to the Engineer. The Engineer will determine consistency with the environmental documents prior to commencement of mining.

Obtain certification from the Construction Industry Licensing Board as required by Part I, Chapter 489, of the Florida Statutes, regardless of exemptions allowed by subsection 489.103, prior to removing underground pollutant storage tanks. Dispose of tanks and pollutants in accordance with the requirements and regulations of any Federal, State, or local, agency having jurisdiction.

Prior to building construction or renovation, submit current registrations or certifications issued by the Florida Construction Industry Licensing Board in accordance with Chapter 489, for the appropriate category of construction.

Corporations must be registered with the State of Florida, Department of State, Division of Corporations, and hold a current State Corporate Charter Number in accordance with Chapter 607, Florida Statutes.

The Contractor or the authorized subcontractor applying the roofing material must be licensed or be an approved dealer and applicator of the proposed roofing material.

Indemnify, defend, and save harmless the Authority and all of its officers, agents, and employees, in the amount of the Contract price, against all claims or liability arising from or based on the violation of any such Federal, State, and Local Rules and Regulations, whether by himself or his employees.

The Contractor shall comply with all environmental permits, including measures identified in the National Pollutant Discharge Elimination System (NPDES) Stormwater Pollution Prevention Plan and Sediment and Erosion Control Plan for the work.

The Contractor shall exert every reasonable and diligent effort to ensure that all labor employed by the Contractor and his subcontractors for work on the project work harmoniously and compatibly with all labor used by other building and construction contractors now or hereafter on the site of the work covered by this Contract. Include this provision in all subcontracts, and require all subcontractors to include it in their subcontracts with others. However, do not interpret or enforce this provision so as to deny or abridge, on account of membership or non-membership in any labor union or labor organization, the right of any person to work as guaranteed by Article I, Section 6 of the Florida Constitution.

Comply with Chapter 556 of the Florida Statutes during the performance of excavation or demolition operations.

The Executive Order 11246 Electronic version, dated September 24, 1965 is posted on the Department's website at the following URL address:

https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/urlinspecs/files/deo112468a91904c88e94148b94569982fdff3d2.pdf?sfvrsn=6b78d1d6_2. Take responsibility to obtain the information posted on this website up through five calendar days before the opening of bids and comply with the provisions contained in Executive Order 11246.

If the Department's website cannot be accessed, contact the Department's Specifications Office Web Coordinator at (850) 414-4101.

7-1.2 Plant Quarantine Regulations: The U.S. Department of Agriculture and the Florida Department of Agriculture and Consumer Services have issued quarantine regulations pertaining to control of the nematodes of citrus, Rule 5B-44, Florida Administrative Code, and other plant pests. Contact the local (or other available) representatives of the Animal and Plant Health Inspection Service of the U.S. Department of Agriculture, and the Division of Plant Industry of the Florida Department of Agriculture and Consumer Services to ascertain all current restrictions regarding plant pests that are imposed by these agencies. Keep advised of current quarantine boundary lines throughout the construction period.

These restrictions may affect operations in connection with such items as clearing and grubbing, earthwork, grassing and mulching, sodding, landscaping, and other items which might involve the movement of materials containing plant pests across quarantine lines.

Obtain quarantine regulations and related information from the following:

Animal and Plant Health Inspection Service
U.S. Department of Agriculture
3029 Lake Alfred Road
Winter Haven, Florida 33881

Director, Division of Plant Industry
Florida Department of Agriculture and Consumer Services
Post Office Box 147100
Gainesville, Florida 32614-7100

7-1.3 Introduction or Release of Prohibited Aquatic Plants, Plant Pests, or Noxious Weeds: Do not introduce or release prohibited aquatic plants, plant pests, or noxious weeds into the project limits as a result of clearing and grubbing, earthwork, grassing and mulching,

sodding, landscaping, or other such activities. Immediately notify the Engineer upon discovery of all prohibited aquatic plants, plant pests, or noxious weeds within the project limits. Do not move prohibited aquatic plants, plant pests, or noxious weeds within the project limits or to locations outside of the project limits without the Engineer’s permission. Maintain all borrow material brought onto the project site free of prohibited aquatic plants, plant pests, noxious weeds, and their reproductive parts. Refer to Rule 5B-64 and Rule 5B-57, of the Florida Administrative Code for the definition of prohibited aquatic plants, plant pests, and noxious weeds.

7-1.4 Compliance with Federal Endangered Species Act and other Wildlife

Regulations: The Federal Endangered Species Act requires that the Authority investigate the potential impact to a threatened or endangered species prior to initiating an activity performed in conjunction with a highway construction project. If the Authority’s investigation determines that there is a potential impact to a protected, threatened or an endangered species, the Authority will conduct an evaluation to determine what measures may be necessary to mitigate such impact. When mitigation measures and/or special conditions are necessary, these measures and conditions will be addressed in the Contract Documents or in permits as identified in 7-2.1.

In addition, in cases where certain protected, threatened or endangered species are found or appear within close proximity to the project boundaries, the Authority has established guidelines that will apply when interaction with certain species occurs, absent of any special mitigation measures or permit conditions otherwise identified for the project.

These guidelines are posted at the following URL address:

https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/urlinspecs/files/endangeredwildlifeguidelines.pdf?sfvrsn=e27baf3f_2.

Take responsibility to obtain this information and take all actions and precautions necessary to comply with the conditions of these guidelines during all project activities.

Prior to establishing any off-project activity in conjunction with a project, notify the Engineer of the proposed activity. Covered activities include but are not necessarily limited to borrow pits, concrete or asphalt plant sites, disposal sites, field offices, and material or equipment storage sites. Include in the notification the Financial Project ID, a description of the activity, the location of the site by township, range, section, county, and city, a site location map including the access route, the name of the property owner, and a person to contact to arrange a site inspection. Submit this notification at least 30 days in advance of planned commencement of the off-site activity, to allow for the Authority to conduct an investigation without delaying job progress.

Do not perform any off-project activity without obtaining written clearance from the Engineer. In the event the Authority’s investigation determines a potential impact to a protected, threatened or endangered species and mitigation measures or permits are necessary, coordinate with the appropriate resource agencies for clearance, obtain permits and perform mitigation measures as necessary. Immediately notify the Engineer in writing of the results of this coordination with the appropriate resource agencies. Additional compensation or time will not be allowed for permitting or mitigation, associated with Contractor initiated off-project activities.

7-1.5 Occupational Safety and Health Requirements: The Contractor shall take all precautions necessary for the protection of life, health, and general occupational welfare of all

persons, including employees of both the Contractor and the Authority, until the Contractor has completed the work required under the Contract as provided in 5-10 and 5-11.

Comply at all times with applicable Federal, State, and local laws, provisions, and policies governing safety and health, including 29 CFR 1926, including all subsequent revisions and updates.

7-1.6 Discovery of an Unmarked Human Burial: When an unmarked human burial is discovered, immediately cease all activity that may disturb the unmarked human burial and notify the Engineer. Do not resume activity until specifically authorized by the Engineer.

7-1.7 Insecticides, Herbicides and Fertilizers:

7-1.7.1 Insecticides and Herbicides: Use products found on the following website, <http://state.ceris.purdue.edu/>, approved by the Florida Department of Agriculture and Consumer Services. The use of restricted products is prohibited. Do not use any products in the sulfonylurea family of chemicals. Herbicide application by broadcast spraying is not allowed.

Procure any necessary licenses, pay all charges and fees, and give all notices necessary for lawful performance of the work.

Ensure that all insecticides and herbicides are applied in accordance with Chapter 5E-9, Florida Administrative Code. Submit a copy of current certificates to the Engineer upon request.

Ensure that employees who work with herbicides comply with all applicable Federal, State, and local regulations.

Comply with all regulations and permits issued by any regulatory agency within whose jurisdiction work is being performed. Post all permit placards in a protected, conspicuous location at the work site.

Acquire any permits required for work performed on the rights-of-way within the jurisdiction of National Forests in Florida. Contact the Local National Forest Ranger District, or the United States Department of Agriculture (USDA) office for the proper permits and subsequent approval.

Acquire all permits required for aquatic plant control as outlined in Chapter 62C-20, Florida Administrative Code Rules of the Florida Department of Environmental Protection. Contact the Regional Field Office of Bureau of Invasive Plant Management of the Florida Department of Environmental Protection for proper permits and subsequent approval. If application of synthetic organo-auxin herbicides is necessary, meet the requirements of Chapter 5E-2, Florida Administrative Code.

7-1.7.2 Fertilizer: Ensure that all employees applying fertilizer, possess a current Florida Department of Agriculture and Consumer Services Commercial Applicator license in accordance with Section 482.1562, F.S. Upon request, submit the current certificates to the Engineer.

7-1.8 Compliance with Section 4(f) of the USDOT Act: Section 4(f) of the USDOT Act prohibits the U. S. Secretary of Transportation from approving a project which requires the use of publicly owned land of a public park, recreation area or a wildlife and waterfowl refuge, or of any historic site of national, state, or local significance unless there is no prudent or feasible alternative to using that land and the program or project includes all possible planning to minimize the harm to the site resulting from the use.

Before undertaking any off-project activity associated with any federally assisted undertaking, ensure that the proposed site does not represent a public park, recreation area, wildlife or waterfowl refuge, or a historic site (according to the results of the Cultural Resources

Survey discussed in 120-6.2). If such a site is proposed, notify the Engineer and provide a description of the proposed off-site activity, the Financial Project ID, the location of the site by township, range, section, a county or city map showing the site location, including the access route and the name of the property. It is the Contractor's responsibility to submit justification for use of Section 4(f) property that is sufficient for the Florida Department of Transportation and the Federal Highway Administration to make a Section 4(f) determination. Submit this notification sufficiently in advance of planned commencement of the off-site activity to allow a reasonable time for the Engineer to conduct an investigation without delaying job progress. Do not begin any off-project activity without obtaining written clearance from the Engineer.

7-1.9 Florida Minority Business Loan Mobilization Program: The Loan Mobilization Program is established by Section 288.706 of the Florida Statutes, and has as its goal to assist minority business enterprises by facilitating working capital loans to those eligible businesses that are Contractors or subcontractors on Authority contracts.

The limits of such advances under this program shall be as specified in Section 288.706 of the Florida Statutes. In the case of a subcontractor, the amount of the advance will be based on the subcontract unit prices, not the contract unit prices.

All prime Contractor vendors shall be required to incorporate the designated loan mobilization payment procedures in subcontract agreements with minority business enterprise vendors participating in this program and to cooperate in the release of designated loan mobilization payments to achieve the objective of providing working capital for minority business enterprise subcontract vendors.

When the Contract has been awarded or, in the case of a subcontractor, a subcontract has been signed with the prime Contractor, application for participation in this program will be submitted in writing to the Engineer. Such application must be made prior to commencement of the work. If the application is made on behalf of a subcontractor, it shall be considered incomplete if the subcontract with the unit prices of the work clearly delineated is not included in the submittal.

When all applicable conditions have been met, approval for participation will be made by the Office of the Comptroller and the applicant will be notified of the approval action taken.

Once approval has been obtained and the Notice to Proceed has been issued, disbursement of the monies will be made at the request of the applicant. The designated loan mobilization payment may be paid prior to the commencement of work on the Contract. However, if the work on the Contract has not commenced and the payment has not been made, then the Contract Time may not commence until the payment is made. All designated loan mobilization payments will be made payable jointly to the prime Contractor and the participating financial institution. When a subcontractor is the participant in the program, such payments shall be paid to the participant within 10 business days after receipt of the funds from the Authority.

Repayment of monies advanced through this program will be made after the value of the work accomplished by the participant reaches 50 percent. Contractors are encouraged to make weekly or bi-weekly payments to subcontractors participating in this program.

7-2 Permits and Licenses.

7-2.1 General: Except for permits procured by the Authority, as incorporated by Special Provision expanding this Subarticle, if any, procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

The Authority will also acquire any modifications or revisions to an original permit incorporated by Special Provision to this Subarticle when the Contractor requires such modifications or revisions to complete the construction operations specified in the Plans or Special Provisions and within the right-of-way limits.

Acquire all permits for work performed outside the right-of-way or easements for the project.

In carrying out the work in the Contract, when under the jurisdiction of any environmental regulatory agency, comply with all regulations issued by such agencies and with all general, special, and particular conditions relating to construction activities of all permits issued to the Authority as though such conditions were issued to the Contractor. Post all permit placards in a protected location at the worksite.

In case of a discrepancy between any permit condition and other Contract Documents, the more stringent condition shall prevail.

7-2.2 Work or Structures in Navigable Waters of the U.S., Waters of the U.S., and Waters of the State: In general, one or more governmental agencies will exercise regulatory authority over work or structures, including related construction operations, in all tidal areas (channelward of the mean high water lines on the Atlantic and Gulf Coast); in the ocean and gulf waters to the outer limits of the continental shelf; in all rivers, streams, and lakes to the ordinary high water line; in marshes and shallows that are periodically inundated and normally characterized by aquatic vegetation capable of growth and reproduction; in all artificially created channels and canals used for recreational, navigational, or other purposes that are connected to navigable waters; and in all tributaries of navigable waters up to their headwaters.

Whenever the work under or incidental to the Contract requires structures or dredge/fill/construction activities in “Navigable Waters of the U.S.,” “Waters of the U.S.,” and “Waters of the State,” the Federal, State, county, and local regulatory agencies may require the Authority to obtain a permit. For such dredge/fill /construction specified in the Plans to be accomplished within the limits of the project, or for any dredge/fill/construction within the limits of Authority-furnished borrow areas, the Authority will procure the necessary permits prior to advertising for bids.

7-2.3 As-Built Drawings and Certified Surveys:

7-2.3.1 Surface Water Management Systems for Water Management

Districts: As a condition precedent to final acceptance of the project, submit to the Engineer the as-built drawings and a certified survey verifying the as-built conditions for all installed and constructed surface water management systems. The as-built drawings and certified survey must be PDF files in the same scale as the Plans, formatted on 11 inch by 17 inch sheets, and satisfy all the requirements and special conditions listed in the Water Management District’s Environmental Resource Permit (ERP) and any applicable local permit. The as-built drawings and certified survey must be signed and sealed by an appropriately licensed professional registered in the State of Florida.

If the ERP does not contain specific requirements, submit as-built drawings with the following information as a minimum:

1. Discharge structures: structure identification number, type, locations (latitude and longitude), dimensions and elevations of all, including weirs, bleeders, orifices, gates, pumps, pipes, and oil and grease skimmers.

2. Side bank and underdrain filters, or exfiltration trenches: locations, dimensions and elevations of all, including clean-outs, pipes, connections to control structures and points of discharge to receiving waters.

3. Storage areas for treatment and attenuation: storage area identification number, dimensions, elevations, contours or cross-sections of all, sufficient to determine stage-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems.

4. System grading: dimensions, elevations, contours, final grades or cross-sections to determine contributing drainage areas, flow directions and conveyance of runoff to the system discharge points.

5. Conveyance: dimensions, elevations, contours, final grades or cross-sections of systems utilized to divert off-site runoff around or through the new system.

6. Water levels: existing water elevations and the date determined.

7. Benchmarks: location and description (minimum of one per major water control structure).

7-2.3.2 Bridge Clearances for Projects under the Authority of a U.S. Coast

Guard Permit: As a condition precedent to final acceptance of the project, submit to the Engineer a certified survey verifying the as-built clearances described in the U.S. Coast Guard Owner's Certification of Bridge Completion. The certified survey must be signed and sealed by a Professional Engineer or Professional Surveyor and Mapper registered in the State of Florida.

7-2.3.3 Projects Under the Authority of a U.S. Army Corps of Engineers

Permit: As a condition precedent to final acceptance of the project, submit to the Engineer the as-built drawings and a certified survey verifying the as-built conditions. The as-built drawings and certified survey must be submitted in PDF files formatted in the same scale as the Plans, formatted on 11 inch by 17 inch sheets, and satisfy all of the requirements and special conditions listed in the U.S. Army Corps of Engineers permit. The as-built drawings and certified survey must be signed and sealed by a Professional Engineer or Professional Surveyor and Mapper registered in the State of Florida.

7-3 Patented Devices, Materials and Processes.

Include all royalties and costs arising from patents, trademarks, and copyrights, in any way involved in the work in the Contract price. Whenever using any design, device, material, or process covered by letters patent or copyright, obtain the right for such use by suitable legal agreement with the patentee or owner of the copyright. File a copy of such agreement with the Engineer. However, whether or not such agreement is made or filed as noted, the Contractor and the surety in all cases shall indemnify, defend, and save harmless, the Authority from all claims for infringement by reason of the use of any such patented design, device, material, or process on work under the Contract, and shall indemnify the Authority for all costs, expenses, and damages that it may be obliged to pay by reason of any such infringement, at any time during the prosecution or after the completion of the work.

7-4 Right-of-Way Furnished by the Authority.

Except as otherwise stipulated in these Specifications or as shown in the Plans, the Authority will furnish all rights-of-way necessary for the proper completion of the work at no expense to the Contractor.

Should Authority-furnished areas for obtaining borrow material, contain limerock material do not remove such material from the pit unless the Engineer gives specific approval.

Use of Authority owned right-of-way for the purpose of equipment or material storage, lay-down facilities, pre-cast material fabrication sites, batch plants for the production of asphalt, concrete or other construction related materials, or other similar activities, shall require advance written approval by the Authority prior to making use of said Authority owned right of way. Use of Authority owned right of way for these purposes is expressly limited to the storage of equipment and materials for the Project or production of materials or products for the Project.

7-5 Restoration of Surfaces Opened by Permit.

Upon the presentation of a duly authorized and satisfactory permit that provides that all necessary repair work will be paid for by the party holding such permit, the Engineer may authorize the Contractor to allow parties bearing such permits to make openings in the highway. Upon the Engineer's written order, perform, in an acceptable manner, all necessary repairs due to such openings, and such necessary work that the Engineer orders, subject to the same conditions as the original work performed. The Authority will pay the Contractor for such work either under applicable Contract items or in accordance with 4-4 when Contract items are not applicable.

7-6 Sanitary Provisions.

The Contractor shall provide and maintain, in a neat and sanitary condition, such accommodations for the use of his employees as are necessary to comply with the requirements and regulations of the State and local boards of health. Commit no public nuisance.

7-7 Control of the Contractor's Equipment.

7-7.1 Traffic Interference: Do not allow equipment, while it is on or traversing a road or street, to unreasonably interfere with traffic.

7-7.2 Overloaded Equipment: Do not operate on any road, street or bridge including a Authority owned temporary bridge, any hauling unit or equipment loaded in excess of:

1. the maximum weights specified in the Florida Highway Patrol, Commercial Motor Vehicle Manual (Trucking Manual), or
2. lower weight limits legally established and posted for any section of road or bridge by the Authority or local authorities.

The governmental unit having jurisdiction over a particular road or bridge may provide exceptions by special permit under the provisions of 7-7.3.

This restriction applies to all roads and bridges inside and outside the Contract limits as long as these roads and bridges are open for public use. The Contractor may overload roads and bridges which are to be demolished after they are permanently closed to the public. The Contractor is responsible for all loss or damages resulting from equipment operated on a structure permanently closed to the public.

7-7.3 Crossings: Where it is necessary to cross an existing road or street, including specifically the existing traveled lanes of a divided highway within the limits of the project, obtain permits from the Authority, for crossing overloaded or oversized equipment. Cross existing roads or streets only at Engineer-designated points. The Engineer may require the Contractor to protect the pavement or Roadway at the crossing by using lumber, planks, or fill. Movement of equipment around the project site must be in accordance with requirements of the Standard Plans and not create an undue hazard to the traveling public or workers. Provide flagging and watchman service, or approved signal devices, for the protection of traffic at all such crossings, in accordance with an approved written plan for that activity.

7-7.4 Protection from Damage by Tractor-Type Equipment: Take positive measures to ensure that tractor-type equipment does not damage the road. If any such damage should occur, repair it without delay, at no expense to the Authority and subject to the Engineer’s approval.

7-7.5 Contractor’s Equipment on Bridge Structures: The Contractor’s Engineer of Record shall analyze the effect of imposed loads on bridge structures, including Authority owned temporary bridges, within the limits of a construction contract, resulting from the following operations:

1. Overloaded Equipment as defined in 7-7.2:
 - a. Operating on or crossing over completed bridge structures.
 - b. Operating on or crossing over partially completed bridge structures.
2. Equipment within legal load limits:
 - a. Operating on or crossing over partially completed bridge structures.
3. Construction cranes:
 - a. Operating on completed bridge structures.
 - b. Operating on partially completed bridge structures.
4. Asphalt Milling Equipment:
 - a. In excess of 90,000 lbs crossing bridge structures.
 - b. Less than 90,000 lbs crossing bridge structures listed on the overweight

routing map CRN-2 located on the Office of Maintenance Over-Weight Dimension Permits website at <https://www.fdot.gov/maintenance/owod-permit-documents#BlanketAttachments>.

Any pipe culvert(s) or box culvert(s) qualifying as a bridge under 1-3 is excluded from the requirements above.

A completed bridge structure is a bridge structure in which all elemental components comprising the load carrying assembly have been completed, assembled, and connected in their final position. The components to be considered shall also include any related members transferring load to any bridge structure.

The Contractor’s Engineer of Record shall determine the effect that equipment loads have on the bridge structure and develop the procedures for using the loaded equipment without exceeding the structure’s design load capacity.

Submit to the Authority for approval the design calculations, layout drawings, and erection drawings showing how the equipment is to be used so that the bridge structure will not be overstressed. The Contractor’s Engineer of Record shall sign and seal the drawings and the cover sheet of the calculations for the Authority’s Record Set.

7-7.6 Posting of the Legal Gross Vehicular Weight: Display the maximum legal gross weight, as specified in the Florida Uniform Traffic Code, in a permanent manner on each side of any dump truck or dump type tractor-trailer unit hauling embankment material, construction aggregates, road base material, or hot bituminous mixture to the project over any public road or street. Display the weight in a location clearly visible to the scale operator, in numbers that contrast in color with the background and that are readily visible and readable from a distance of 50 feet.

7-8 Structures over Navigable Waters.

7-8.1 Compliance with Federal and Other Regulations: When working on structures in, adjacent to, or over, navigable waters, observe all regulations and instructions of Federal and other authorities having control over such waters. Do not obstruct navigation channels without permission from the proper authority, and provide and maintain navigation lights and signals in

accordance with the Federal requirements for the protection of the structure, of false work, and of navigation.

When working on moveable bridges, requests for temporarily changing the operating requirements for the moveable bridge must be submitted in writing to the appropriate Coast Guard District Bridge Branch, 90 days before the start of any action.

For all other bridges, notify the appropriate Coast Guard District Bridge Branch, at least 60 days prior to the start of any operations including construction and 30 days prior to any channel operations, closures, or opening restrictions.

When work platforms are indicated in the permit for construction, submit work platform construction plans to the appropriate Coast Guard District for approval. Obtain approval prior to beginning construction on the platform.

7-8.2 Maintenance of Channel: Where the work includes the excavation of a channel or other underwater areas to a required section, maintain the section from shoaling or other encroachment until final acceptance of the project.

In the event of accidental blocking of the navigation channel, immediately notify the U.S. Coast Guard of the blockage and upon removal of the blockage.

7-9 Use of Explosives.

When using explosives for the prosecution of the work, exercise the utmost care not to endanger life or property, including new work. The Contractor is responsible for all damage resulting from the use of explosives.

Store all explosives in a secure manner in compliance with all laws and ordinances, and clearly mark all such storage places with the words: "DANGEROUS - EXPLOSIVES". Place such storage in the care of a competent watchman. Where no local laws or ordinances apply, provide storage satisfactory to the Engineer and, in general, not closer than 1,000 feet from the road or from any building, camping area, or place of human occupancy.

Notify each public utility company having structures in proximity to the site of the work of the intention to use explosives. Give such notice sufficiently in advance to enable the companies to take precautionary steps to protect their property from injury.

7-10 Forest Protection.

7-10.1 Compliance with State and Federal Regulations: In carrying out work within or adjacent to State or National forests or parks, comply with all of the regulations of the State or Federal authority having jurisdiction, governing the protection of and the carrying out of work in forests or parks, and observe all sanitary laws and regulations with respect to the performance of work in these areas. Keep the areas in an orderly condition, dispose of all refuse, and obtain permits for the construction, installation, and maintenance of any construction camps, living quarters, stores, warehouses, sanitary facilities, and other structures; all in accordance with the requirements of the forest or park official.

7-10.2 Prevention and Suppression of Forest Fires: Take all reasonable precautions to prevent and suppress forest fires. Require employees and subcontractors, both independently and at the request of forest officials, to do all reasonably within their power to prevent and suppress forest fires. Assist in preventing and suppressing forest fires, and make every possible effort to notify a forest official at the earliest possible moment of the location and extent of all fires. Extinguish the fire if practicable.

7-11 Preservation of Existing Property.

7-11.1 General: Preserve from damage all existing property within the project limits of or in any way affected by the Work, the removal or destruction of which is not specified in the Plans. This applies to, but is not limited to, public and private property, public and private utilities (except as modified by the provisions of 7-11.5), trees, shrubs, crops, sod, signs, monuments, fences, guardrail, pipe and underground structures, Intelligent Transportation Systems (ITS) facilities, traffic control signals and devices, highway lighting, and public highways (except natural wear and tear of highway resulting from legitimate use thereof by the Contractor).

Authority owned underground facility locations shown in the Plans are approximate. Unless otherwise shown in the Plans, Authority owned underground facilities will not be located by the Authority nor through notification to "Sunshine 811". Locate all fiber optic cables. Provide a fiber optic cable locator in accordance with Section 633.

Whenever the Contractor's activities damage such existing property, immediately restore it to a condition equal to or better than that existing at the time such damage occurred, at no expense to the Authority. Temporary repairs may be used to immediately restore ITS facilities and traffic control signals and devices. Permanent repairs to ITS facilities and traffic control signals and devices shall be made within 90 days of any temporary repairs and prior to final acceptance of the project. Submit permanent ITS facility repair plans to the Engineer prior to beginning repair work.

Protect existing bridges during the entire construction period from damage caused by the Work. Immediately repair, at no expense to the Authority, all damage to existing bridges caused by the Work, prior to continuing the Work. The Authority will not require the Contractor to provide routine repairs or maintenance for such structures.

Direct special attention to the protection of all geodetic monuments, horizontal or vertical, and Public Land Survey Corners located within the project. If any geodetic monument or Public Land Survey Corner, located within the project, is at risk of being damaged or destroyed, immediately notify the Engineer. Locate and replace any damaged or destroyed geodetic monuments or Public Land Survey Corners under the direction of a Professional Surveyor and Mapper registered in the State of Florida.

Whenever the actions of a third party damage such existing property and is not otherwise due to any fault or activities of the Contractor, either restore it to a condition equal to or better than that existing at the time such damage occurred or provide access and coordinate with the Authority's maintenance Contractor in accordance with 8-4.4 as directed by the Engineer. The Authority will compensate the Contractor for the costs associated with the repairs for restoring the existing property in accordance with 4-4. Theft and vandalism are considered damage caused by a third party.

7-11.2 Failure to Restore Damaged Existing Property: In case of failure on the part of the Contractor to restore such property, bridge, road or street, or to make good such damage or injury, the Engineer may, upon 48 hours notice, proceed to repair, rebuild, or otherwise restore such property, road, or street as may be deemed necessary, and the Authority will deduct the cost thereof from any monies due or which may become due the Contractor under the Contract. Nothing in this clause prevents the Contractor from receiving proper compensation for the removal, damage, or replacement of any public or private property, not shown in the Plans, that is made necessary by alteration of grade or alignment. The Engineer will authorize such work,

provided that the Contractor, or his employees or agents, have not, through their own fault, damaged such property.

7-11.3 Contractor's Use of Streets and Roads:

7-11.3.1 On Systems Other than the State Highway System: When hauling materials or equipment to the project over roads and bridges on the State park road system, county road system, or city street system, and such use causes damage, immediately, at no expense to the Authority, repair such road or bridge to as good a condition as before the hauling began.

The Authority may modify the above requirement in accordance with any agreement the Contractor might make with the governmental unit having jurisdiction over a particular road or bridge, provided that the Contractor submits written evidence of such agreement to the Engineer.

7-11.3.2 On the State Highway System: The Authority is responsible for the repair of any damage that hauling materials to the site causes to roads outside the limits of the project, that are either on the State highway system (roads under the jurisdiction of the Authority) or specifically designated in the Plans as haul roads from Authority-furnished material pits, except in the event damage is due to failure to comply with 7-7.2. The Contractor is responsible for all damages to any road or bridge caused by the Contractor's failure to comply with 7-7.2.

7-11.3.3 Within the Limits of a Construction Project: The Authority will not allow the operation of equipment or hauling units of such weight as to cause damage to previously constructed elements of the project, including but not necessarily limited to bridges, drainage structures, base course, and pavement. Do not operate hauling units or equipment loaded in excess of the maximum weights specified in 7-7.2 on existing pavements that are to remain in place (including pavement being resurfaced), cement-treated subgrades and bases, concrete pavement, any course of asphalt pavement, and bridges. The Engineer may allow exceptions to these weight restrictions for movement of necessary equipment to and from its worksite, for hauling of offsite fabricated components to be incorporated into the project, and for crossings as specified in 7-7.3.

7-11.4 Operations within Railroad Right-of-Way: Submit written advanced notification of the flagging services and railroad right-of-way access required, construction timeframe, and duration to the Engineer and District Rail Office at least 45 calendar days prior to beginning any operation within the limits of the railroad right-of-way or the adjoining 15 feet. Operations include the movement of employees, equipment, and trucks in areas other than public crossings or any traffic signal work within 500 feet of a signalized at-grade railroad crossing. The Railroad Company will notify the District Rail Office when flaggers are available for use in project scheduling.

No operations shall be conducted that affect railroad operations and property without written approval from the railroad.

7-11.4.1 Notification to the Railroad Company: Submit written notification to the Engineer, District Rail Office and the authorized Railroad Representative at least 72 hours before beginning any operation within the limits of the railroad right-of-way; any operation requiring movement of employees, trucks, or other equipment across the tracks of the railroad company at locations other than an established public crossing; and any other work that may affect railroad operations or property.

7-11.4.1.1 Florida East Coast Railway (FEC): Contact the FEC Signal Office at 904-279-3182 and FEC Railway at 1-800-342-1131, ext. 2377 in addition to the requirements in Section 7-11.4.1.

7-11.4.2 Contractor's Responsibilities: Unless instructed otherwise in writing by the Railroad Company, do not perform work within or adjacent to the railroad right-of-way without a flagger present (including temporary lane closures, lane shifts or detours). Comply with requirements deemed necessary by the railroad company's authorized representative to safeguard the railroad's property and operations.

The Contractor is responsible for all damages, delays, or injuries and all suits, actions, or claims brought on account of damages or injuries resulting from the Contractor's operations within or adjacent to railroad company right-of-way. The work includes all items necessary to relieve the flagger from providing protective services.

Costs incurred by the Railroad Company for Contractor-caused delays that adversely impact railway operations will be forwarded to the Contractor for payment. If the Contractor fails to pay said cost, the Authority will deduct the amount from payments owed to the Contractor.

7-11.4.2.1 CSXT: Comply with the Construction Submission Criteria of the CSXT Public Project Information document and Construction Requirements sections of the CSXT Pipeline and Wireline Design and Construction Specifications prior to beginning work. These documents are available at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/CSXT.shtm>.

Perform no work within the limits of the railroad right-of-way on CSXT holidays (except with permission of CSXT for emergencies such as natural disasters). CSXT holidays are New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and the following Friday, Christmas Eve, Christmas Day, and New Year's Eve. Holidays falling on Saturday are observed on Friday and those falling on Sunday are observed on Monday.

7-11.4.2.2 Norfolk Southern (NS): Comply with the NS Special Provisions for Protection of Railway Interests (Appendix E) and the Construction Requirements (Appendix 4.3) of the NS Public Projects Manual document prior to beginning and during all work. These documents are available at the following URL:

http://www.nscorp.com/content/dam/nscorp/ship/shipping-tools/Public_Projects_Manual.pdf.

7-11.4.2.3 FEC: Complete the On-Track Contractor Roadway Worker Training Course for FEC Railway. Contact FEC Railway at 1-800-342-1131 for training information.

7-11.4.2.4 South Florida Rail Corridor (SFRC): Complete the On-Track Contractor Roadway Worker Training Course for South Florida Regional Transportation Authority (SFRTA) Railway. Contact SFRTA at 954-788-7920 for training information.

7-11.4.3 Watchman or Flagging Services: The railroad company will furnish protective services (i.e., watchman or flagging services) to ensure the safety of railroad operations during certain periods of the project. The Authority will reimburse the railroad company for the cost thereof. Schedule work that affects railroad operations so as to minimize the need for protective services by the railroad company.

Submit construction schedules and schedule changes to the Engineer and District Rail Office which include an estimated start date, weekly construction schedule, daily

hours of operation, and the calendar day duration for which flagging services will be necessary to perform work activities within railroad right-of-way in accordance with 8-3.2.

7-11.4.3.1 Central Florida Rail Corridor (CFRC) and SFRC: The Authority will furnish protective services (i.e., watchman or flagging services) to ensure the safety of railroad operations.

7-11.5 Utilities:

7-11.5.1 Arrangements for Protection or Adjustment: Do not commence work at points where the construction operations are adjacent to utility facilities until all necessary arrangements have been made for removal, temporary removal, relocation, de-energizing, deactivation or adjustment with the utility facilities owner to protect against damage that might result in expense, loss, disruption of service, or other undue inconvenience to the public or to the owners. The Contractor is solely and directly responsible to the owners and operators of such properties for all damages, injuries, expenses, losses, inconveniences, or delays caused by the Contractor's operations.

Do not request utility removal, temporary removal, relocation, de-energizing, deactivation, or adjustment when work can be accomplished within the utility work schedules. In the event that removal, temporary removal, relocation, de-energizing, deactivation, or adjustment of a utility or a particular sequence of timing in the relocation of a utility is necessary and has not been addressed in a utility work schedule, the Engineer will determine the necessity for any such utility work. Coordinate such work as to cause the least impediment to the overall construction operations and utility service. The Authority is not responsible for utility removal, temporary removal, relocation, de-energizing, deactivation, or adjustment work where such work is determined not necessary by the Engineer or done solely for the benefit or convenience of the utility owner or its contractor, or the Contractor.

7-11.5.2 Cooperation with Utility Owners: Cooperate with the owners of all underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner, that duplication or rearrangement work may be reduced to a minimum, and that services rendered by the utility owners will not be unnecessarily interrupted.

In the event of interruption of water or other utility services as a result of accidental breakage, exposure, or lack of support, promptly notify the proper authority and cooperate with the authority in the prompt restoration of service. If water service is interrupted and the Contractor is performing the repair work, the Contractor shall work continuously until the service is restored. Do not begin work around fire hydrants until the local fire authority has approved provisions for continued service.

7-11.5.3 Utility Adjustments: Certain utility adjustments and reconstruction work may be underway during the progress of the Contract. Cooperate with the various utility construction crews who are maintaining utility service. Exercise due caution when working adjacent to relocated utilities. The Contractor shall repair all damage to the relocated utilities resulting from his operations at no expense to the Authority. The requirements of 7-11.1 and 7-11.5.2 outline the Contractor's responsibility for protecting utility facilities. The Authority will include in the Contract the utility authorities who are scheduled to perform utility work on the project.

7-11.5.4 Weekly Meetings: Conduct weekly meetings on the job site with all the affected utility companies and the Engineer in attendance to coordinate project construction and utility relocation. Submit a list of all attendees one week in advance to the Engineer for approval.

Submit the approved Work Progress Schedule and Work Plan for the project, as specified in 8-3.2, to document the schedule and plan for road construction and utility adjustments.

When utility relocations no longer affect construction activities, the Contractor may discontinue the meetings with the Engineer's approval.

7-12 Responsibility for Damages, Claims, etc.

7-12.1 Contractor to Provide Indemnification: The Contractor shall indemnify and hold harmless the Authority, its officers and employees from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of the construction Contract.

It is specifically agreed between the parties executing this Contract that it is not intended by any of the provisions of any part of the Contract to create in the public or any member thereof, a third party beneficiary hereunder, or to authorize anyone not a party to this Contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Contract.

7-12.2 Guaranty of Payment for Claims: The Contractor guaranties the payment of all just claims for materials, supplies, tools, or labor and other just claims against him or any subcontractor, in connection with the Contract. The Authority's final acceptance and payment does not release the Contractor's bond until all such claims are paid or released.

7-13 Insurance.

7-13.1 Workers' Compensation Insurance: Provide Workers' Compensation Insurance in accordance with Florida's Workers' Compensation law for all employees. If subletting any of the work, ensure that the subcontractor(s) have Workers' Compensation Insurance for their employees in accordance with Florida's Workers' Compensation law. If using "leased employees" or employees obtained through professional employer organizations ("PEO's"), ensure that such employees are covered by Workers' Compensation insurance through the PEO's or other leasing entities. Ensure that any equipment rental agreements that include operators or other personnel who are employees of independent Contractors, sole proprietorships or partners are covered by insurance required under Florida's Workers' Compensation law.

7-13.2 Commercial General Liability Insurance: Carry Commercial General Liability insurance providing continuous coverage for all work or operations performed under the Contract. Such insurance shall be no more restrictive than that provided by the latest occurrence form edition of the standard Commercial General Liability Coverage Form (ISO Form CG 00 01) as filed for use in the State of Florida. Cause the Authority to be made an Additional Insured as to such insurance. Such coverage shall be on an "occurrence" basis and shall include Products/Completed Operations coverage. The coverage afforded to the Authority as an Additional Insured shall be primary as to any other available insurance and shall not be more restrictive than the coverage afforded to the Named Insured. The limits of coverage shall not be less than \$1,000,000 for each occurrence and not less than a \$5,000,000 annual general aggregate, inclusive of amounts provided by an umbrella or excess policy. The limits of coverage described herein shall apply fully to the work or operations performed under the Contract, and may not be shared with or diminished by claims unrelated to the contract. The policy/ies and coverage described herein may be subject to a deductible. Pay all deductibles as required by the policy. No policy/ies or coverage described herein may contain or be subject to a

Retention or a Self-Insured Retention. Prior to the execution of the Contract, and at all renewal periods which occur prior to final acceptance of the work, the Authority shall be provided with an ACORD Certificate of Liability Insurance reflecting the coverage described herein. The Authority shall be notified in writing within ten days of any cancellation, notice of cancellation, lapse, renewal, or proposed change to any policy or coverage described herein. The Authority's approval or failure to disapprove any policy/ies, coverage, or ACORD Certificates shall not relieve or excuse any obligation to procure and maintain the insurance required herein, nor serve as a waiver of any rights or defenses the Authority may have.

7-13.3 Insurance Required for Construction at Railroads: When the Contract includes the construction of a railroad grade crossing, railroad overpass or underpass structure, or any other work or operations within the limits of the railroad right-of-way, including any encroachments thereon from work or operations in the vicinity of the railroad right-of-way, you shall, in addition to the insurance coverage required pursuant to 7-13.2 above, procure and maintain Railroad Protective Liability Coverage (ISO Form CG 00 35) where the railroad is the Named Insured and where the limits are not less than \$2,000,000 combined single limit for bodily injury and/or property damage per occurrence, and with an annual aggregate limit of not less than \$6,000,000. The railroad shall also be added along with the Authority as an Additional Insured on the policy/ies procured pursuant to subsection 7-13.2 above. At the preconstruction conference, and at all renewal periods which occur prior to final acceptance of the work, both the Authority and the railroad shall be provided with an ACORD Certificate of Liability Insurance reflecting the coverage described herein. The insurance described herein shall be maintained through final acceptance of the work. Both the Authority and the railroad shall be notified in writing within ten days of any cancellation, notice of cancellation, renewal, or proposed change to any policy or coverage described herein. The Authority's approval or failure to disapprove any policy/ies, coverage, or ACORD Certificates shall not relieve or excuse any obligation to procure and maintain the insurance required herein, nor serve as a waiver of any rights the Authority may have.

7-13.4 Insurance for Protection of Utility Owners: When the Contract involves work on or in the vicinity of utility-owned property or facilities, the utility shall be added along with the Authority as an Additional Insured on the policy/ies procured pursuant to subsection 7-13.2 above.

7-14 Contractor's Responsibility for Work.

The Contractor will take charge and custody of the Work and take every necessary precaution against damage to the Work, by the action of the elements or from any other cause whatsoever, until the Authority's final acceptance of the Work. The Contractor will rebuild, repair, restore, and make good, all damage to any portion of the Work occasioned by any of the above causes before final acceptance of the Contract.

The Authority will have no obligation to pay any reimbursement for damage caused by the execution or nonexecution of the Work by the Contractor or its sub-contractors, or damage the Contractor was negligent in preventing.

For damage to installed material caused by third parties, the Contractor may pursue recovery from the third party or seek reimbursement from the Authority, but not both. The Authority will not reimburse the Contractor for repair costs due to damage to installed material caused by known third parties unless the Contractor has contacted law enforcement within 14 days of the damage, filed a report, and provided the report to the Authority within 14 calendar days of receiving the report from law enforcement. Upon submission of the report to

the Authority, the Authority solely retains the right to pursue recovery from the known third party. If damage to installed material is caused by a known third party, the Authority will reimburse the Contractor for costs associated with the repair after reducing the amount of the repair cost by a \$2000.00 deductible for each occurrence, borne solely by the Contractor. If the Authority is successful in recovery, the Contractor may be reimbursed proportionally, up to the amount of the deductible.

If damage to installed material other than guardrail, guardrail transitions and end treatments, and crash cushions is caused by an unknown third party, the Authority will reimburse the contractor for 50% of the cost of the repair after reducing the amount of the repair cost by a \$2000.00 deductible for each occurrence, borne solely by the Contractor. Repair costs for damage to guardrail, guardrail transitions and end treatments, and crash cushions installed as part of the work caused by unknown third parties will be reimbursed at the manufacturer's/distributor's invoice price for the new materials/parts plus 20% markup. The 20% markup is compensation for all necessary work, including but not limited to labor, equipment, supplies and profit, as authorized by the Engineer. Payment for any additional MOT required for the repair of guardrail, guardrail transitions and end treatments, and crash cushions installed as part of the work will be paid for under the appropriate MOT pay item.

Repair cost will be determined in accordance with 4-4. Theft and vandalism are considered damage caused by an unknown third party.

The Authority may, at its discretion, reimburse the Contractor for the repair of damage to the Work not caused by a third party and due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to Acts of God, of the public enemy, or of governmental authorities.

7-15 Opening Sections of the Project to Traffic.

Whenever any section of the project is in acceptable condition for use, the Engineer may direct the Contractor to open it to vehicular or pedestrian traffic. The Authority's direction to open a section of the project does not constitute an acceptance of the project, or any part thereof, or waive any Contract provisions. Perform all necessary repairs or renewals, on any section of the project thus opened to traffic under direction from the Engineer, due to defective material or work or to any cause other than ordinary wear and tear, pending completion and the Engineer's acceptance of the project, at no expense to the Authority.

7-16 Wage Rates for Federal-Aid Projects.

For all projects that include Federal-aid participation, the Special Provisions contain requirements with regard to payment of predetermined minimum wages. Predetermined Wage Rate Decisions (U.S. Department of Labor provided Wage Rate Tables) exist for Heavy, Highway, and Building Construction Projects.

7-17 Supplemental Agreements.

Section 337.11 of the Florida Statutes as amended, which prescribe certain limitations on the use of supplemental agreements, are a part of the Contract.

7-18 Scales for Weighing Materials.

7-18.1 Applicable Regulations: When determining the weight of material for payment, use scales meeting the requirements of Chapter 531 of Florida Statutes, pertaining to

specifications, tolerances, and regulations, as administered by the Bureau of Weights and Measures of the Florida Department of Agriculture.

7-18.2 Base for Scales: Place such scales on a substantial horizontal base to provide adequate support and rigidity and to maintain the level of the scales.

7-18.3 Protection and Maintenance: Maintain all scale parts in proper condition as to level and vertical alignment, and fully protect them against contamination by dust, dirt, and other matter that might affect their operation.

7-19 Source of Forest Products.

As required by Section 255.2575 of the Florida Statutes, where price, fitness and quality are equal, and when available, use only timber, timber piling, or other forest products that are produced and manufactured in the State of Florida. This provision does not apply to Federal-aid projects.

7-20 Regulations of Air Pollution from Asphalt Plants.

7-20.1 General: Perform all work in accordance with all Federal, State, and local laws and regulations regarding air pollution and burning. In particular, pay attention to Chapters 62-210 and 62-256, Rules of the Department of Environmental Protection, Florida Administrative Code, and to any part of the State Implementation Plan applicable to the project. See also 110-9.2 regarding burning of debris.

7-20.2 Dust Control: Control dust during the storage and handling of dusty materials by wetting, covering, or other means as approved by the Engineer.

7-20.3 Asphalt Material: Use only emulsified asphalt, unless otherwise stated in the Plans and allowed by Chapter 62-210, Rules of the Department of Environmental Protection, Florida Administrative Code. Store and handle asphalt materials and components so as to minimize unnecessary release of hydrocarbon vapors.

7-20.4 Asphalt Plants: Operate and maintain asphalt plants in accordance with Chapter 62-210, Rules of the Department of Environmental Protection, Florida Administrative Code. Provide the plant site with a valid permit as required under Chapter 62-210 prior to start of work.

7-21 Dredging and Filling.

Section 370.033 of the Florida Statutes, requires that all persons, who engage in certain dredge or fill activities in the State of Florida, obtain a certificate of registration from the Florida Department of Environmental Protection, Tallahassee, Florida 32301, and that they keep accurate logs and records of all such activities for the protection and conservation of the natural resources. Obtain details as to the application of this law from the Department of Environmental Protection.

7-22 Available Funds.

For Contracts in excess of \$25,000 or a term for more than one year, comply with the following provisions of Chapter 339 of the Florida Statutes:

The Authority will not, during any fiscal year, expend money, incur any liability, or enter into any Contract that, by its terms, involves the expenditures of money in excess of the amounts budgeted as available for expenditure during such fiscal year. If the Authority enters into such a Contract, verbal or written, in violation of this subsection, such Contract is null and void, and the Authority will not make any payments thereon. The Authority will require a

statement from the Authority's comptroller that funds are available prior to entering into any such Contract or other binding commitment of funds. Nothing herein contained prevents the Authority from executing Contracts for a period exceeding one year, but the Authority will make such Contracts executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years. The Authority will incorporate this paragraph verbatim in all Contracts in excess of \$25,000 or having a term for more than one year.

7-23 Contractor's Motor Vehicle Registration.

The Contractor shall provide the Authority with proof that all motor vehicles operated or caused to be operated by such Contractor are registered in compliance with Chapter 320 of the Florida Statutes. Submit such proof of registration on Department Form 700-010-52.

The Authority will not make payment to the Contractor until the required proof of registration is on file with the Authority.

If the Contractor fails to register any motor vehicle that he operates in Florida, pursuant to Chapter 320 of the Florida Statutes, the Authority may disqualify the Contractor from bidding, or the Authority may suspend and revoke the Contractor's certificates of qualification.

7-24 Disadvantaged Business Enterprise Program.

7-24.1 Disadvantaged Business Enterprise Affirmative Action Plan: Prior to award of the Contract, have an approved Disadvantaged Business Enterprise (DBE) Affirmative Action Program Plan filed with the Equal Opportunity Office. Update and resubmit the plan every three years. No Contract will be awarded until the Authority approves the Plan. The DBE Affirmative Action Program Plan is incorporated into and made a part of the Contract.

7-24.2 Required Contract and Subcontract DBE Assurance Language: In accordance with 49 CFR 26.13 (b), the Contract FDOT signs with the Contractor (and each subcontract the prime contractor signs with a subcontractor) must include the following assurance: "The Contractor, sub-recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted Contracts. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to,

1. Withholding monthly progress payments;
2. Assessing sanctions;
3. Liquidated damages; and/or
4. Disqualifying the Contractor from future bidding as non-responsible."

7-24.3 Plan Requirements: Include the following in the DBE Affirmative Action Program Plan:

1. A policy statement, signed by an authorized representative (president, chief executive officer, or chairman of the contractor), expressing a commitment to use DBEs in all aspects of contracting to the maximum extent feasible, outlining the various levels of responsibility, and stating the objectives of the program. Circulate the policy statement throughout the Contractor's organization.

2. The designation of a Liaison Officer within the Contractor's organization, as well as support staff, necessary and proper to administer the program, and a description of the authority, responsibility, and duties of the Liaison Officer and support staff. The Liaison Officer and staff are responsible for developing, managing, and implementing the program on a day-to-

day basis for carrying out technical assistance activities for DBEs and for disseminating information on available business opportunities so that DBEs are provided an equitable opportunity to participate in Contracts let by the Authority.

3. Utilization of techniques to facilitate DBE participation in contracting activities which include, but are not limited to:

a. Soliciting price quotations and arranging a time for the review of Plans, quantities, specifications, and delivery schedules, and for the preparation and presentation of quotations.

b. Providing assistance to DBEs in overcoming barriers such as the inability to obtain bonding, financing, or technical assistance.

c. Carrying out information and communication programs or workshops on contracting procedures and specific contracting opportunities in a timely manner, with such programs being bilingual where appropriate.

d. Encouraging eligible DBEs to apply for certification with the Authority.

e. Contacting Minority Contractor Associations and city and county agencies with programs for disadvantaged individuals for assistance in recruiting and encouraging eligible DBE contractors to apply for certification with the Authority.

7-24.4 DBE Records and Reports: Submit the following through the Equal Opportunity Compliance System:

1. DBE Commitments - at or before the Pre-Construction Conference.

2. Report monthly, through the Equal Opportunity Compliance System on the Authority's Website, actual payments (including retainage) made to DBEs for work performed with their own workforce and equipment in the area in which they are certified. Report payments made to all DBE and Minority Business Enterprise (MBE) subcontractors and DBE and MBE construction material and major suppliers.

The Equal Opportunity Office will provide instructions on accessing this system. Develop a record keeping system to monitor DBE affirmative action efforts which include the following:

1. the procedures adopted to comply with these Specifications;

2. the number of subordinated Contracts on Authority projects awarded to DBEs;

3. the dollar value of the Contracts awarded to DBEs;

4. the percentage of the dollar value of all subordinated Contracts awarded to DBEs as a percentage of the total Contract amount;

5. a description of the general categories of Contracts awarded to DBEs;

and

6. the specific efforts employed to identify and award Contracts to DBEs.

Upon request, provide the records to the Authority for review.

Maintain all such records for a period of five years following acceptance of final payment and have them available for inspection by the Authority and the Federal Highway Administration.

7-24.5 Counting DBE Participation and Commercially Useful Functions:

49 CFR Part 26.55 specifies when DBE credit shall be awarded for work performed by a DBE. DBE credit can only be awarded for work actually performed by DBEs themselves for the types of work for which they are certified. When reporting DBE Commitments, only include the

dollars that a DBE is expected to earn for work they perform with their own workforce and equipment. Update DBE Commitments to reflect changes to the initial amount that was previously reported or to add DBEs not initially reported.

When a DBE participates in a contract, the value of the work is determined in accordance with 49 CFR Part 26.55, for example:

1. The Authority will count only the value of the work performed by the DBE toward DBE goals. The entire amount of the contract that is performed by the DBE's own forces (including the cost of supplies, equipment and materials obtained by the DBE for the contract work) will be counted as DBE credit.

2. The Authority will count the entire amount of fees or commissions charged by the DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services or for providing bonds or insurance specifically required for the performance of a Authority-assisted contract, toward DBE goals, provided that the Authority determines the fees to be reasonable and not excessive as compared with fees customarily followed for similar services.

3. When the DBE subcontracts part of the work of its contract to another firm, the Authority will count the value of the subcontracted work only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.

4. When a DBE performs as a participant in a joint venture, the Authority will count the portion of the dollar value of the contract equal to the distinct, clearly defined portion of the work the DBE performs with its own forces toward DBE goals.

5. The Contractors shall ensure that only expenditures to DBEs that perform a commercially useful function (CUF) in the work of a contract may be counted toward the voluntary DBE goal.

6. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.

7. Contractors wishing to use joint checks involving DBE credit must provide written notice to the District Contract Compliance Office prior to issuance of the joint check. The Contractor must also provide a copy of the notice to the DBE subcontractor and maintain a copy with the project records.

8. To determine whether a DBE is performing a commercially useful function, the Authority will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

9. A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

10. If a DBE does not perform or exercise responsibility for at least 30% of the total cost of its contract with its own workforce, or if the DBE subcontracts a greater

portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the DBE has not performed a commercially useful function.

7-24.6 Prompt Payments: Meet the requirements of 9-5 for payments to all DBE subcontractors.

7-25 On-The-Job Training Requirements.

As part of the Contractor’s equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide On-The-Job Training aimed at developing full journeymen in the type of trade or job classification involved in the work. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this Section. Ensure that, when feasible, 25% of trainees in each occupation are in their first year of training. The Contractor shall incorporate the requirements of this Section into such subcontract.

The number of trainees will be estimated on the number of calendar days of the contract, the dollar value, and the scope of work to be performed. The trainee goal will be finalized at a Post-Preconstruction Trainee Evaluation Meeting and the goal will be distributed among the work classifications based on the following criteria:

1. Determine the number of trainees on Federal Aid Contract:
 - a. No trainees will be required for contracts with a Contract Time allowance of less than 275 calendar days.
 - b. If the Contract Time allowance is 275 calendar days or more, the number of trainees shall be established in accordance with the following chart:

Estimated Contract Amount	Trainees Required
\$2,000,000 or less	0
Over \$2,000,000 to \$4,000,000	2
Over \$4,000,000 to \$6,000,000	3
Over \$6,000,000 to \$12,000,000	5
Over \$12,000,000 to \$18,000,000	7
Over \$18,000,000 to \$24,000,000	9
Over \$24,000,000 to \$31,000,000	12
Over \$31,000,000 to \$37,000,000	13
Over \$37,000,000 to \$43,000,000	14
Over \$43,000,000 to \$49,000,000	15
Over \$49,000,000 to \$55,000,000	16
Over \$55,000,000 to \$62,000,000	17
Over \$62,000,000 to \$68,000,000	18
Over \$68,000,000 to \$74,000,000	19
Over \$74,000,000 to \$81,000,000	20
Over \$81,000,000 to \$87,000,000	21
Over \$87,000,000 to \$93,000,000	22
Over \$93,000,000 to \$99,000,000	23
Over \$99,000,000 to \$105,000,000	24
Over \$105,000,000 to \$112,000,000	25

Estimated Contract Amount	Trainees Required
Over \$112,000,000 to \$118,000,000	26
Over \$118,000,000 to \$124,000,000	27
Over \$124,000,000 to \$130,000,000	28
Over \$130,000,000 to *	
*One additional trainee per \$6,000,000 of estimated Construction Contract amount over \$130,000,000	

Further, if the Contractor or subcontractor requests to utilize banked trainees as discussed later in this Section, a Banking Certificate will be validated at this meeting allowing credit to the Contractor for previously banked trainees. Banked credits of prime Contractors working as Subcontractors may be accepted for credit. The Contractor’s Project Manager, the Construction Project Engineer and the Authority’s Contract Compliance Manager will attend this meeting. Within ten days after the Post-Preconstruction Training Evaluation Meeting, the Contractor shall submit to the Authority for approval an On-The-Job Training Schedule indicating the number of trainees to be trained in each selected classification and the portion of the Contract Time during which training of each trainee is to take place. This schedule may be subject to change if any of the following occur:

1. When a start date on the approved On-The-Job Training Schedule has been missed by 14 or more days;
2. When there is a change in previously approved classifications; or
3. When replacement trainees are added due to voluntary or involuntary termination

The revised schedule will be resubmitted to and approved by the Authority’s Contract Compliance Manager.

The following criteria will be used in determining whether or not the Contractor has complied with this Section as it relates to the number of trainees to be trained:

1. Credit will be allowed for each trainee that is both enrolled and satisfactorily completes training on this Contract. Credit for trainees, over the established number for this Contract, will be carried in a “bank” for the Contractor and credit will be allowed for those surplus trainees in subsequent, applicable projects. A “banked” trainee is described as an employee who has been trained on a project, over and above the established goal, and for which the Contractor desires to preserve credit for utilization on a subsequent project.
2. Credit will be allowed for each trainee that has been previously enrolled in the Authority’s approved training program on another contract and continues training in the same job classification and completes their training on a different contract.
3. Credit will be allowed for each trainee who, due to the amount of work available in their classification, is given the greatest practical amount of training on the contract regardless of whether or not the trainee completes training.
4. Credit will be allowed for any training position indicated in the approved On-The-Job Training Schedule, if the Contractor can demonstrate that a good faith effort to provide training in that classification was made.
5. No credit will be allowed for a trainee whose employment by the Contractor is involuntarily terminated unless the Contractor can clearly demonstrate good cause for this action.

Training and upgrading of minorities, women and economically disadvantaged persons toward journeyman status is a primary objective of this Section. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic

and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. If a non-minority male is enrolled into the On-The-Job Training Program, the On-The-Job Training Notification of Personnel Action Form notifying the District Contract Compliance Manager of such action shall be accompanied by a disadvantaged certification or a justification for such action acceptable to the Authority's Contract Compliance Manager. The Contractor will be given an opportunity and will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Section. This training is not intended, and shall not be used, to discriminate against any applicant for training, whether a minority, woman or disadvantaged person.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeyman status, or have been employed as a journeyman. The Contractor may satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established at the Post-Preconstruction Trainee Evaluation Meeting and approved by the Authority. Graduation to journeyman status will be based upon satisfactory completion of a Proficiency Demonstration set up at the completion of training and established for the specific training classification, completion of the minimum hours in a training classification range, and the employer's satisfaction that the trainee does meet journeyman status in the classification of training. Upon reaching journeyman status, the following documentation must be forwarded to the District Contract Compliance Office:

1. Trainee Enrollment and Personnel Action Form
2. Proficiency Demonstration Verification Form indicating completion of each standard established for the classification signed by representatives of both the Contractor and the Authority.

The Authority and the Contractor shall establish a program that is tied to the scope of the work in the project and the length of operations providing it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classifications concerned, by at least, the minimum hours prescribed for a training classification. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal Aid highway construction contract. Approval or acceptance of a training schedule shall be obtained from the Authority prior to commencing work on the classifications covered by the program.

A voluntary On-The-Job Training Program is available to a Contractor which has been awarded a state funded project. Through this program, the Contractor will have the option to train employees on state funded projects for "banked credit" as discussed previously in this provision, to be utilized on subsequent Federal Aid Projects where training is required. Those Contractors availing themselves of this opportunity to train personnel on state funded projects and bank trainee hours for credit shall comply with all training criteria set forth in this Section

for Federal Aid Projects; voluntary banking may be denied by the Authority if staff is not available to monitor compliance with the training criteria.

It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial type positions. Training is permissible in lower level management positions such as office engineers, estimators, etc., where the training is oriented toward construction applications. Training in the laborer classifications, except Common/General Laborer, may be permitted provided that significant and meaningful training is provided and approved by the District Contract Compliance Office.

When approved in advance by the District Contract Compliance Manager, credit will be given for training of persons in excess of the number specified herein under the current contract or a Contractor will be allowed to bank trainees who have successfully completed a training program and may apply those trainees to a training requirement in subsequent project(s) upon approval of the Authority's Contract Compliance Manager. This credit will be given even though the Contractor may receive training program funds from other sources, provided such other source do not specifically prohibit the Contractor from receiving other form of compensation. Offsite training is permissible as long as the training is an integral part of an approved training program and does not compromise a significant part of the overall training. Credit for offsite training indicated above may only be made to the Contractor when it does one or more of the following and the trainees are concurrently employed on a Federal Aid Project:

1. Contributes to the cost of the training,
2. Provides the instruction to the trainee,
3. Pays the trainee's wages during the offsite training period.

The Contractor shall compensate the trainee at no less than the laborer rate established in the Contract at the onset of training. The compensation rate will be increased to the journeyman's wage upon graduation from the training program for the remainder of the time the trainee works in the classification in which they were trained.

The Contractor shall furnish the trainee a copy of the program they will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed. The Contractor shall enroll a trainee in one training classification at a time to completion before the trainee can be enrolled in another classification on the same project.

The Contractor shall maintain records to document the actual hours each trainee is engaged in training on work being performed as a part of this Contract.

The Contractor shall submit to the District Contract Compliance Manager a copy of an On-The-Job Training Notification of Personnel Action form no later than seven days after the effective date of the action when the following actions occur: a trainee is transferred on the project, transferred from the project to continue training on another contract, completes training, is upgraded to journeyman status or voluntarily terminates or is involuntary terminated from the project.

The Contractor shall furnish to the District Contract Compliance Manager a copy of a Monthly Time Report for each trainee. The Monthly Time Report for each month shall be submitted no later than the tenth day of the subsequent month. The Monthly Time Report shall indicate the phases and sub-phases of the number of hours devoted to each proficiency.

Highway or Bridge Carpenter Helper, Mechanic Helper, Rodman/Chainman, and Timekeeper classifications will not be approved for the On-The-Job Training Program.

The number of trainees may be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

The Contractor will have fulfilled the responsibilities of this Specification when acceptable training has been provided to the trainee as specified above.

7-26 Cargo Preference Act – Use of United States-Flag Vessels.

Pursuant to Title 46 CFR 381, the Contractor agrees

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this Contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph 1 of this Article to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

3. To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this Contract.

SECTION 8 PROSECUTION AND PROGRESS

8-1 Subletting or Assigning of Contracts.

Do not, sell, transfer, assign or otherwise dispose of the Contract or Contracts or any portion thereof, or of the right, title, or interest therein, without written consent of the Authority. If the Contractor chooses to sublet any portion of the Contract, the Contractor must submit a written request to sublet work on the Certification of Sublet Work form developed by the Authority for this purpose. With the Engineer's acceptance of the request, the Contractor may sublet a portion of the work, but shall perform with its own organization work amounting to not less than 40% of the total Contract amount. The Certification of Sublet Work request will be deemed acceptable by the Authority, for purposes of the Authority's consent, unless the Engineer notifies the Contractor within 5 business days of receipt of the Certification of Sublet Work that the Authority is not consenting to the requested subletting.

Include in the total Contract amount the cost of materials and manufactured component products, and their transportation to the project site. For the purpose of meeting this requirement the Authority will not consider off-site commercial production of materials and manufactured component products that the Contractor purchases, or their transportation to the project, as subcontracted work.

If the Contractor sublets a part of a Contract item, the Authority will use only the sublet proportional cost in determining the percentage of subcontracted normal work.

Execute all agreements to sublet work in writing and include all pertinent provisions and requirements of the Contract. All other agreements must be in writing and reference all applicable Contract provisions. Upon request, submit to the Authority a copy of the subcontract and agreement. The subletting of work does not relieve the Contractor or the surety of their respective liabilities under the Contract.

The Authority recognizes a subcontractor only in the capacity of an employee or agent of the Contractor, and the Engineer may require the Contractor to remove the subcontractor as in the case of an employee.

8-2 Work Performed by Equipment-Rental Agreement.

The limitations set forth in 8-1, concerning the amount of work that may be sublet, do not apply to work performed by equipment-rental agreement. However, for any work proposed to be performed by equipment-rental agreement, notify the Engineer in writing of such intention before using the rented equipment, and indicate whether the equipment will be rented on an operated or non-operated basis. Include with the written notice a listing and description of the equipment and a description of the particular work to be performed with such equipment. As an exception to the above requirements, the Authority will not require written notice for equipment to be rented (without operators) from an equipment dealer or from a firm whose principal business is the renting or leasing of equipment.

The operators of all rented equipment, whether rented on an operated or a non-operated basis, are subject to all wage rate requirements applicable to the project. When renting equipment without operators, the Contractor shall carry the operators on his own payroll. For equipment that is rented on an operated basis, and when required by the Contract or requested by the Engineer, submit payrolls from the lessor with the names of the operators shown thereon.

When a lessor provides rentals of equipment on an operated basis that exceed \$10,000, such lessor is subject to any Equal Employment Opportunity requirements that are applicable to the project.

8-3 Prosecution of Work.

8-3.1 Compliance with Time Requirements: Commence work in accordance with the accepted working schedule and provide sufficient labor, materials, and equipment to complete the work within the time limit(s) set forth in the proposal. Should the Contractor fail to furnish sufficient and suitable equipment, forces, and materials, as necessary to prosecute the work in accordance with the required schedule, the Engineer may withhold all estimates that are, or may become due, or suspend the work until the Contractor corrects such deficiencies.

8-3.2 Submission of Contract Schedule: Within 21 calendar days after Contract award or at the preconstruction conference, whichever is earlier, submit to the Engineer a Contract Schedule for the project. The Engineer will review and respond to the Contractor within 15 calendar days of receipt.

Provide a Contract Schedule that shows the various activities of work in sufficient detail to demonstrate a reasonable and workable plan to complete the project within the Contract Time. Show the order and interdependence of activities and the sequence for accomplishing the work. Describe all activities in sufficient detail so that the Engineer can readily identify the work and measure the progress on of each activity. Show each activity with a beginning work date, a duration, and a monetary value. Include activities for procurement fabrication, and delivery of materials, plant, and equipment, and review time for shop drawings and submittals. Include milestone activities when milestones are required by the Contract Documents. In a project with more than one phase, adequately identify each phase and its completion date, and do not allow activities to span more than one phase.

Conduct sufficient liaison and provide sufficient information to indicate coordination activities with utility owners that have facilities within the limits of construction have been resolved. Incorporate in the Contract Schedule any utility work schedules included in the Contract Documents unless the utility company and the Authority mutually agree to changes to the utility schedules shown in the Contract.

Submit a working plan with the Contract Schedule, consisting of a concise written description of the construction plan.

The Engineer will return inadequate Contract Schedules to the Contractor for corrections. Resubmit a corrected schedule within 15 calendar days from the date of the Engineer's return transmittal.

Submit an updated Contract Schedule, for Engineer's acceptance, if there is a significant change in the planned order or duration of an activity. The Engineer will review the corrected schedule and respond within 7 calendar days of receipt.

By acceptance of the Contract Schedule, the Engineer does not endorse or otherwise certify the validity or accuracy of the activity durations or sequencing of activities. The Engineer will use the accepted schedule as the baseline against which to measure the progress.

If the Contractor fails to finalize either the initial or a revised Contract Schedule in the time specified, the Engineer may withhold all Contract payments until the Engineer accepts the schedule.

The Contract Schedule may indicate a completion date in advance of the expiration of Contract Time. However, the Authority will not be liable in any way for the

Contractor's failure to complete the project prior to expiration of Contract Time. Any additional costs, including extended overhead incurred between the Contractor's scheduled completion date and the expiration of Contract Time, shall be the responsibility of the Contractor. The Contractor shall not be entitled to claim or recover any such costs from the Authority.

8-3.3 Beginning Work: Notify the Engineer not less than five days in advance of the planned start day of work. Upon the receipt of such notice, the Engineer may give the Contractor Notice to Proceed and may designate the point or points to start the work. In the Notice to Proceed, the Engineer may waive the five-day advance notice and authorize the Contractor to begin immediately. Notify the Engineer in writing at least two days in advance of the starting date of important features of the work. Do not commence work under the Contract until after the Authority has issued the Notice to Proceed. The Authority will issue the Notice to Proceed within 20 calendar days, excluding Saturdays, Sundays and Holidays, after execution of the Contract.

8-3.4 Provisions for Convenience of Public: Schedule construction operations so as to minimize any inconvenience to adjacent businesses or residences. Where necessary, the Engineer may require the Contractor to first construct the work in any areas along the project where inconveniences caused by construction operations would present a more serious handicap. In such critical locations, where there is no assurance of continuous effective prosecution of the work once the construction operations are begun, the Engineer may require the Contractor to delay removal of the existing (usable) facilities.

8-3.5 Preconstruction Conference: Immediately after awarding the Contract but before the Contractor begins work, the Engineer will call a preconstruction conference at a place the Engineer designates to go over the construction aspects of the project. Attend this meeting, along with the Authority and the various utility companies that will be involved with the road construction.

8-4 Limitations of Operations.

8-4.1 Night Work: During active nighttime operations, furnish, place and maintain lighting sufficient to permit proper workmanship and inspection. Use lighting with 5 ft-cd minimum intensity. Arrange the lighting to prevent interference with traffic or produce undue glare to property owners. Operate such lighting only during active nighttime construction activities. Provide a light meter to demonstrate that the minimum light intensity is being maintained.

Lighting may be accomplished by the use of portable floodlights, standard equipment lights, existing street lights, temporary street lights, or other lighting methods approved by the Engineer.

Submit a lighting plan at the Preconstruction Conference for review and acceptance by the Engineer. Submit the plan as a PDF file, in the same scale as the Plans, and formatted on 11 inch by 17 inch sheets. Do not start night work prior to the Engineer's acceptance of the lighting plan.

During active nighttime operations, furnish, place and maintain variable message signs to alert approaching motorists of lighted construction zones ahead. Operate the variable message signs only during active construction activities.

Include compensation for lighting for night work in the Contract prices for the various items of the Contract. Take ownership of all lighting equipment for night work.

8-4.2 Sequence of Operations: Do not open up work to the prejudice of work already started. The Engineer may require the Contractor to finish a section on which work is in progress before starting work on any additional section.

8-4.3 Interference with Traffic: At all times conduct the work in such manner and in such sequence as to ensure the least practicable interference with traffic. Operate all vehicles and other equipment safely and without hindrance to the traveling public. Park all private vehicles outside the clear zone. Place materials stored along the roadway so as to cause no obstruction to the traveling public as possible.

Where existing pavement is to be widened and stabilizing is not required, prevent any open trench from remaining after working hours by scheduling operations to place the full thickness of widened base by the end of each day. Do not construct widening strips simultaneously on both sides of the road, except where separated by a distance of at least 1/4 mile along the road and where either the work of excavation has not been started or the base has been completed.

8-4.4 Coordination with other Contractors: Sequence the Work and dispose of materials so as not to interfere with the operations of other Contractors engaged upon adjacent work; coordinate the Work, including the placement of work zone signs and temporary traffic control devices, to that of others in a proper manner, in accordance with the spirit of the Contract Documents; and perform the work in the proper sequence in relation to that of other Contractors; all as may be directed by the Engineer.

Each Contractor is responsible for any damage done by it or its agents to the adjoining work being performed by another Contractor.

8-4.5 Drainage: Conduct the operations and maintain the work in such condition to provide adequate drainage at all times. Do not obstruct existing functioning storm sewers, gutters, ditches, and other run-off facilities.

8-4.6 Fire Hydrants: Keep fire hydrants on or adjacent to the highway accessible to fire apparatus at all times, and do not place any material or obstruction within 15 feet of any fire hydrant.

8-4.7 Protection of Structures: Do not operate heavy equipment close enough to pipe headwalls or other structures to cause their displacement.

8-4.8 Fencing: Erect permanent fence as a first order of business on all projects that include fencing where the Engineer determines that the fencing is necessary to maintain the security of livestock on adjacent property, or for protection of pedestrians who are likely to gain access to the project from adjacent property.

8-4.9 Contaminated Materials: When the construction operations encounter or expose any abnormal condition that may indicate the presence of a contaminated material, discontinue such operations in the vicinity of the abnormal condition and notify the Engineer immediately. Be alert for the presence of tanks or barrels; discolored or stained earth, metal, wood, ground water; visible fumes; abnormal odors; excessively hot earth; smoke; or other conditions that appear abnormal as possible indicators of the presence of contaminated materials. Treat these conditions with extraordinary caution.

Make every effort to minimize the spread of any contaminated materials into uncontaminated areas.

Do not resume the construction operations in the vicinity of the abnormal conditions until so directed by the Engineer.

Dispose of the contaminated material in accordance with the requirements and regulations of any Local, State, or Federal agency having jurisdiction. Where the Contractor performs work necessary to dispose of contaminated material, and the Contract does not include pay items for disposal, the Authority will pay for this work as provided in 4-4.

The Authority agrees to hold harmless and indemnify the Contractor for damages when the Contractor discovers or encounters contaminated materials or pollutants during the performance of services for the Authority when the presence of such materials or pollutants were unknown or not reasonably discoverable. Such indemnification agreement is only effective if the Contractor immediately stops work and notifies the Authority of the contaminated material or pollutant problem.

Such indemnification agreement is not valid for damages resulting from the Contractor's willful, wanton, or intentional conduct or the operations of Contaminated and Hazardous Material Contractors.

8-5 Qualifications of Contractor's Personnel.

Provide competent, careful, and reliable superintendents, foremen, and workmen. Provide workmen with sufficient skill and experience to properly perform the work assigned to them. Provide workmen engaged on special work, or skilled work, such as bituminous courses or mixtures, concrete bases, pavements, or structures, or in any trade, with sufficient experience in such work to perform it properly and satisfactorily and to operate the equipment involved. Provide workmen that shall make due and proper effort to execute the work in the manner prescribed in the Contract Documents, or the Engineer may take action as prescribed below.

It is prohibited as a conflict of interest for a Contractor to subcontract with a Consultant to perform Contractor Quality Control when the Consultant is under contract with the Authority to perform work on any project described in the Contractor's Contract with the Authority. Prior to approving a Consultant for Contractor Quality Control, the Contractor shall submit to the Authority a Certificate from the proposed Consultant certifying that no conflict of interest exists.

Whenever the Engineer determines that any person employed by the Contractor is incompetent, unfaithful, intemperate, disorderly, or insubordinate, the Engineer will provide written notice and the Contractor shall discharge the person from the work. Do not employ any discharged person on the project without the written consent of the Engineer. If the Contractor fails to remove such person or persons, the Engineer may withhold all estimates that are or may become due, or suspend the work until the Contractor complies with such orders. Protect, defend, indemnify, and hold the Authority, its agents, officials, and employees harmless from all claims, actions, or suite arising from such removal, discharge, or suspension of employees.

8-6 Temporary Suspension of Contractor's Operations.

8-6.1 Authority to Suspend Contractor's Operations: The Engineer has the authority to suspend the Contractor's operations, wholly or in part. The Engineer will order such suspension in writing, giving in detail the reasons for the suspension. Contract Time will be charged during all suspensions of Contractor's operations. The Authority may grant an extension of Contract Time in accordance with 8-7.3.2 when determined appropriate in the Authority's sole judgment.

No additional compensation or time extension will be paid or granted to the Contractor when the operations are suspended for the following reasons:

1. The Contractor fails to comply with the Contract Documents.

2. The Contractor fails to carry out orders given by the Engineer.
3. The Contractor causes conditions considered unfavorable for continuing

the Work.

Immediately comply with any suspension order. Do not resume operations until authorized to do so by the Engineer in writing. Any operations performed by the Contractor, and otherwise constructed in conformance with the provisions of the Contract, after the issuance of the suspension order and prior to the Engineer's authorization to resume operations will be at no cost to the Authority. Further, failure to immediately comply with any suspension order will also constitute an act of default by the Contractor and is deemed sufficient basis in and of itself for the Authority to declare the Contractor in default, in accordance with 8-9, with the exception that the Contractor will not have ten calendar days to correct the conditions for which the suspension was ordered.

8-6.1.1 State of Emergency: The Engineer has the authority to suspend the Contractor's operations, wholly or in part, pursuant to a Governor's Declaration of a State of Emergency. The Engineer will order such suspension in writing, giving in detail the reasons for the suspension. Contract Time will be charged during all suspensions of Contractor's operations. The Authority, at its sole discretion, may grant an extension of Contract Time and reimburse the Contractor for specific costs associated with such suspension. Further, in such instances, the Authority's determination as to entitlement to either time or compensability will be final, unless the Contractor can prove by clear and convincing evidence to a Disputes Review Board that the Authority's determination was without any reasonable factual basis.

8-6.2 Prolonged Suspensions: If the Engineer suspends the Contractor's operations for an indefinite period, store all materials in such manner that they will not obstruct or impede the traveling public unnecessarily or become damaged in any way. Take every reasonable precaution to prevent damage to or deterioration of the work performed. Provide suitable drainage of the roadway by opening ditches, shoulder drains, etc., and provide any temporary structures necessary for public travel through the project.

8-6.3 Permission to Suspend Contractor's Operations: Do not suspend operations or remove equipment or materials necessary for completing the work without obtaining the Engineer's written permission. Submit all requests for suspension of operations in writing to the Engineer, and identify specific dates to begin and end the suspension. The Contractor is not entitled to any additional compensation for suspension of operations during such periods.

8-6.4 Suspension of Contractor's Operations - Holidays and Special Events: Unless the Contractor submits a written request to work during one or more days of a Holiday or Special Event at least ten calendar days in advance of the beginning date of the Holiday or Special Event and receives written approval from the Engineer, the Contractor shall not work on the following days: Martin Luther King, Jr. Day; Memorial Day; the Saturday and Sunday immediately preceding Memorial Day; Independence Day; Independence Day (Observed); Labor Day; the Friday, Saturday, and Sunday immediately preceding Labor Day; Veterans Day; Veterans Day (Observed); the Wednesday immediately preceding Thanksgiving Day; Thanksgiving Day; the Friday, Saturday and Sunday immediately following Thanksgiving Day; December 24 through January 2, inclusive; and Special Events noted in the Contract Documents. Contract Time will be charged during these Holiday and Special Event periods. Contract Time will be adjusted in accordance with 8-7.3.2. The Contractor is not entitled to any additional compensation beyond any allowed Contract Time adjustment for suspension of operations during such Holiday and Special Event periods.

During such suspensions, remove all equipment and materials from the clear zone, except those required for the safety of the traveling public and retain sufficient personnel at the job site to properly meet the requirements of Sections 102 and 104. The Contractor is not entitled to any additional compensation for removal of equipment from clear zones or for compliance with Section 102 and Section 104 during such Holiday and Special Event periods.

8-7 Computation of Contract Time.

8-7.1 General: Perform the contracted work fully, entirely, and in accordance with the Contract Documents within the Contract Time specified in the proposal, or as may be extended in accordance with the provisions herein below.

The Authority considers in the computation of the Contract Time the effect that utility relocation and adjustments have on job progress and the scheduling of construction operations required in order to adequately maintain traffic, as detailed in the Plans or as scheduled in the Special Provisions.

8-7.2 Date of Beginning of Contract Time: The date on which Contract Time begins is either the date on which the Contractor actually begins work, or the date for beginning the charging of Contract Time as set forth in the proposal; whichever is earlier.

8-7.3 Adjusting Contract Time:

8-7.3.1 Increased Work: The Authority may grant an extension of Contract Time when it increases the Contract amount due to overruns in original Contract items, adds new work items, or provides for unforeseen work. The Authority will base the consideration for granting an extension of Contract Time on the extent that the time normally required to complete the additional designated work delays the Contract completion schedule.

8-7.3.2 Contract Time Extensions: The Authority may grant an extension of Contract Time when a controlling item of work is delayed by factors not reasonably anticipated or foreseeable at the time of bid. The Authority may allow such extension of time only for delays occurring during the Contract Time period or authorized extensions of the Contract Time period. When failure by the Authority to fulfill an obligation under the Contract results in delays to the controlling items of work, the Authority will consider such delays as a basis for granting a time extension to the Contract.

Whenever the Engineer suspends the Contractor's operations, as provided in 8-6, for reasons other than the fault of the Contractor, the Engineer will grant a time extension for any delay to a controlling item of work due to such suspension. The Authority will not grant time extensions to the Contract for delays due to the fault or negligence of the Contractor.

The Authority does not include an allowance for delays caused by the effects of inclement weather or suspension of Contractor's operations as defined in 8-6.4, in establishing Contract Time. The Engineer will continually monitor the effects of weather and, when found justified, grant time extensions on either a bimonthly or monthly basis. The Engineer will not require the Contractor to submit a request for additional time due to the effects of weather.

The Authority will grant time extensions, on a day for day basis, for delays caused by the effects of rains or other inclement weather conditions, related adverse soil conditions or suspension of operations as defined in 8-6.4 that prevent the Contractor from productively performing controlling items of work resulting in:

1. The Contractor being unable to work at least 50% of the normal work day on pre-determined controlling work items; or

2. The Contractor must make major repairs to work damaged by weather, provided that the damage is not attributable to the Contractor's failure to perform or neglect; and provided that the Contractor was unable to work at least 50% of the normal workday on pre-determined controlling work items.

When the Authority grants a time extension due to rains or other inclement weather, the Contractor shall submit any objection to the additional time in writing within ten calendar days from receipt of written notice from the Engineer. Failure to submit a written appeal within ten calendar days from receipt of the written notice shall constitute a waiver of any and all rights to appeal the Authority's decision at a later time.

No additional compensation will be made for delays caused by the effects of inclement weather.

The Authority will consider the delays in delivery of materials or component equipment that affect progress on a controlling item of work as a basis for granting a time extension if such delays are beyond the control of the Contractor or supplier. Such delays may include an area-wide shortage, an industry-wide strike, or a natural disaster that affects all feasible sources of supply. In such cases, the Contractor shall submit substantiating letters from a representative number of manufacturers of such materials or equipment clearly confirming that the delays in delivery were the result of an area-wide shortage, an industry-wide strike, etc. No additional compensation will be made for delays caused by delivery of materials or component equipment.

The Authority will not consider requests for time extension due to delay in the delivery of custom manufactured equipment such as traffic signal equipment, highway lighting equipment, etc., unless the Contractor submits documentation that he placed the order for such equipment in a timely manner, the delay was caused by factors beyond the manufacturer's control, and the lack of such equipment caused a delay in progress on a controlling item of work. No additional compensation will be paid for delays caused by delivery of custom manufactured equipment.

The Authority will consider the effect of utility relocation and adjustment work on job progress as the basis for granting a time extension only if all the following criteria are met:

1. Delays are the result of either utility work that was not detailed in the Plans, or utility work that was detailed in the Plans but was not accomplished in reasonably close accordance with the schedule included in the Contract Documents.

2. Utility work actually affected progress toward completion of controlling work items.

3. The Contractor took all reasonable measures to minimize the effect of utility work on job progress, including cooperative scheduling of the Contractor's operations with the scheduled utility work at the preconstruction conference and providing adequate advance notification to utility companies as to the dates to coordinate their operations with the Contractor's operations to avoid delays.

As a condition precedent to an extension of Contract Time the Contractor must submit to the Engineer:

A preliminary request for an extension of Contract Time must be submitted in writing to the Engineer within ten calendar days after the commencement of a delay to a controlling item of work. If the Contractor fails to submit this required preliminary request for an extension of Contract Time, the Contractor fully, completely, absolutely and irrevocably

waives any entitlement to an extension of Contract Time for that delay. In the case of a continuing delay only a single preliminary request for an extension of Contract Time will be required. Each such preliminary request for an extension of Contract Time shall include as a minimum the commencement date of the delay, the cause of the delay, and the controlling item of work affected by the delay.

Furthermore, the Contractor must submit to the Engineer a request for a Contract Time extension in writing within 30 days after the elimination of the delay to the controlling item of work identified in the preliminary request for an extension of Contract Time. Each request for a Contract Time extension shall include as a minimum all documentation that the Contractor wishes the Authority to consider related to the delay, and the exact number of days requested to be added to Contract Time. If the Contractor contends that the delay is compensable, then the Contractor shall also be required to submit with the request for a Contract Time extension a detailed cost analysis of the requested additional compensation. If the Contractor fails to submit this required request for a Contract Time extension, with or without a detailed cost analysis, depriving the Engineer of the timely opportunity to verify the delay and the costs of the delay, the Contractor waives any entitlement to an extension of Contract Time or additional compensation for the delay.

Upon timely receipt of the preliminary request of Contract Time from the Contractor, the Engineer will investigate the conditions, and if it is determined that a controlling item of work is being delayed for reasons beyond the control of the Contractor the Engineer will take appropriate action to mitigate the delay and the costs of the delay. Upon timely receipt of the request for a Contract Time extension the Engineer will further investigate the conditions, and if it is determined that there was an increase in the time or the cost of performance of the controlling item of work beyond the control of the Contractor, then an adjustment of Contract Time will be made, and a monetary adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly.

The existence of an accepted schedule, including any required update(s), as stated in 8-3.2, is a condition precedent to the Contractor having any right to the granting of an extension of Contract Time or any monetary compensation arising out of any delay. Contractor failure to have an accepted schedule, including any required update(s), for the period of potential impact, or in the event the currently accepted schedule and applicable updates do not accurately reflect the actual status of the project or fail to accurately show the true controlling or non-controlling work activities for the period of potential impact, will result in any entitlement determination as to time or money for such period of potential impact being limited solely to the Authority's analysis and identification of the actual controlling or non-controlling work activities. Further, in such instances, the Authority's determination as to entitlement as to either time or compensability will be final, unless the Contractor can prove by clear and convincing evidence to a Disputes Review Board that the Authority's determination was without any reasonable factual basis.

8-8 Failure of Contractor to Maintain Satisfactory Progress.

8-8.1 General: Pursue the work to completion: Section 337.16 of the Florida Statutes establishes certain requirements pertaining to the suspension or revocation of a Contractor's Certificate of Qualification because of delinquency on a previously awarded Contract.

8-8.2 Regulations Governing Suspension for Delinquency:

1. A Contractor is delinquent when the Contract Time for performing the work has expired, and the Contractor has not completed the Contract work.

2. Once the Authority determines that the Contractor is delinquent, the Authority will give the Contractor written notice of intent to suspend the Contractor's Certificate of Qualification. If the Contractor disagrees with the delinquency, the Contractor shall file a request for an administrative hearing with the Clerk of Agency Proceedings within ten days of receipt of the notice of intent to suspend. If the Contractor does not file a request, the Authority will make the suspension conclusive and final. The request for hearing is filed when the Contractor delivers it to, and it is received by, the Clerk of Agency Proceedings, Mail Station 58, Room 562, Haydon Burns Building, 605 Suwannee Street, Tallahassee, Florida 32399-0450.

3. If the Contractor files a request for a hearing, the Authority will schedule the hearing within 30 days of the hearing officer's receipt of the request.

4. The Authority will continue the period of suspension of the Contractor's Certificate of Qualification until the Contractor is no longer delinquent. If the Contractor requests an administrative hearing, the Authority's final order, depending on the outcome of the hearing, will set forth the time period of suspension for the number of days the Authority determines that the Contractor was delinquent, even if the Contractor cures the delinquency during the pendency of the administrative proceedings.

5. During the period of suspension of the Contractor's Certificate of Qualification, the Authority will not allow the Contractor and its affiliates to bid on any Authority Contract, regardless of dollar amount, and will not approve the Contractor as a subcontractor on any Authority contract.

6. The Authority may grant extensions of time during the prosecution of the work as allowed under these Specifications regardless of the Contractor's delinquency status.

8-9 Default and Termination of Contract.

8-9.1 Determination of Default: The following acts or omissions constitute acts of default and, except as to subparagraphs 9 and 11, the Authority will give notice, in writing, to the Contractor and his surety for any delay, neglect or default, if the Contractor:

1. fails to begin the work under the Contract within the time specified in the Notice to Proceed;
2. fails to perform the work with sufficient workmen and equipment or with sufficient materials to ensure prompt completion of the Contract;
3. performs the work unsuitably, or neglects or refuses to remove materials or to perform anew such work that the Engineer rejects as unacceptable and unsuitable;
4. discontinues the prosecution of the work, or fails to resume discontinued work within a reasonable time after the Engineer notifies the Contractor to do so;
5. becomes insolvent or is declared bankrupt, or files for reorganization under the bankruptcy code, or commits any act of bankruptcy or insolvency, either voluntarily or involuntarily;
6. allows any final judgment to stand against him unsatisfied for a period of ten calendar days;
7. makes an assignment for the benefit of creditors;
8. fails to comply with Contract requirements regarding minimum wage payments or EEO requirements;
9. fails to comply with the Engineer's written suspension of work order within the time allowed for compliance and which time is stated in that suspension of work order; or

10. for any other cause whatsoever, fails to carry on the work in an acceptable manner, or if the surety executing the bond, for any reasonable cause, becomes unsatisfactory in the opinion of the Authority.

11. fails to comply with 3-9.

For a notice based upon reasons stated in subparagraphs (1) through (8) and (10): if the Contractor, within a period of ten calendar days after receiving the notice described above, fails to correct the conditions of which complaint is made, the Authority will, upon written certificate from the Engineer of the fact of such delay, neglect, or default and the Contractor's failure to correct such conditions, have full power and authority, without violating the Contract, to take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

If the Contractor, after having received a prior notice described above for any reason stated in subparagraph (2), (3), (4), (5), (6) or (8), commits a second or subsequent act of default for any reason covered by the same subparagraph (2), (3), (4), (5), (6) or (8) as stated in the prior notice, and regardless whether the specific reason is the same, then, regardless of whether the Contractor has cured the deficiency stated in that prior notice, the Authority will, upon written certificate from the Engineer of the fact of such delay, neglect or default and the Contractor's failure to correct such conditions, have full power and authority, without any prior written notice to the Contractor and without violating the Contract, to take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

Regarding subparagraph (9), if the Contractor fails to comply with the Engineer's written suspension of work order within the time allowed for compliance and which time is stated in that suspension of work order, the Authority will, upon written certificate from the Engineer of the fact of such delay and the Contractor's failure to correct that condition, have full power and authority, without violating the Contract, to immediately take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

Regarding subparagraph (11), if the Contractor fails to comply with 3-9, the Authority will have full power and authority, without violating the Contract, to immediately take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

The Authority has no liability for anticipated profits for unfinished work on a Contract that the Authority has determined to be in default.

Notwithstanding the above, the Authority shall have the right to declare the Contractor (or its "affiliate") in default and immediately terminate this Contract, without any prior notice to the Contractor, in the event the Contractor (or its "affiliate") is at any time "convicted" of a "contract crime," as these terms are defined in Section 337.165(1), Florida Statutes. The Authority's right to default the Contractor (or its "affiliate") for "conviction" of a "contract crime" shall extend to and is expressly applicable to any and all Authority Contracts that were either advertised for bid; for which requests for proposals or letters of interest were requested; for which an intent to award was posted or otherwise issued; or for which a Contract was entered into, after the date that the underlying or related criminal indictment, criminal information or other criminal charge was filed against the Contractor (or its "affiliate") that resulted in the "conviction." In the event the Authority terminates this Contract for this reason, the Contractor shall hereby forfeit any claims for additional compensation, extra time, or anticipated profits. The Contractor shall only be paid for any completed work up to the date of

termination. Further, the Contractor shall be liable for any and all additional costs and expenses the Authority incurs in completing the Contract work after such termination.

8-9.2 Termination of Contract for Convenience: The Authority may terminate the entire Contract or any portion thereof, if the Secretary determines that a termination is in the Authority's interest. The Secretary will deliver to the Contractor a Written Notice of Termination specifying the extent of termination and the effective date.

When the Authority terminates the entire Contract, or any portion thereof, before the Contractor completes all items of work in the Contract, the Authority will make payment for the actual number of units or items of work that the Contractor has completed, at the Contract unit price, and according to the formulas and provisions set forth in 4-3.2 for items of work partially completed, and such payments will constitute full and complete compensation for such work or items. No payment of any kind or amount will be made for items of work not started. The Authority will not consider any claim for loss of anticipated profits, or overhead of any kind (including home office and jobsite overhead or other indirect impacts) except as provided in 4-3.2 for partially completed work.

The Authority will consider reimbursing the Contractor for actual cost of mobilization (when not otherwise included in the Contract) including moving equipment to the job where the volume of the work that the Contractor has completed is too small to compensate the Contractor for these expenses under the Contract unit prices.

The Authority may purchase at actual cost acceptable materials and supplies procured for the work, that the Authority has inspected, tested, and approved and that the Contractor has not incorporated in the work. Submit the proof of actual cost, as shown by receipted bills and actual cost records, at such points of delivery as the Engineer may designate.

Termination of a contract or a portion thereof, under the provisions of this Subarticle, does not relieve the Contractor or the surety of its responsibilities for the completed portion of the Contract or its obligations for and concerning any just claims arising out of the work performed.

All Contractor claims for additional payment, due to the Authority's termination of the entire Contract or any portion thereof, must meet the requirements of 5-12.

8-9.3 Completion of Work by Authority: Upon declaration of default, the Authority will have full authority to appropriate or use any or all suitable and acceptable materials and equipment on the site and may enter into an agreement with others to complete the work under the Contract, or may use other methods to complete the work in an acceptable manner. The Authority will charge all costs that the Authority incurs because of the Contractor's default, including the costs of completing the work under the Contract, against the Contractor. If the Authority incurs such costs in an amount that exceeds the sum that would have been payable under the Contract, then the Contractor and the surety shall be liable and shall pay the Authority the amount of the excess.

If, after the ten day notice period and prior to any action by the Authority to otherwise complete the work under the Contract, the Contractor establishes his intent to prosecute the work in accordance with the Authority's requirements, then the Authority may allow the Contractor to resume the work, in which case the Authority will deduct from any monies due or that may become due under the Contract, any costs to the Authority incurred by the delay, or from any reason attributable to the delay.

8-10 Liquidated Damages for Failure to Complete the Work.

8-10.1 Highway Code Requirements Pertaining to Liquidated Damages:

Section 337.18, paragraph (2) of the Florida Statutes, requires that the Authority adopt regulations for the determination of default and provides that the Contractor pay liquidated damages to the Authority for any failure of the Contractor to complete the Contract work within the Contract Time. These Code requirements govern, and are herewith made a part of the Contract. Liquidated damages for this Contract will be a summation of the damages referenced above and projected lost toll revenues due to failure to timely open the project to revenue-producing traffic.

8-10.2 Amount of Liquidated Damages: Applicable liquidated damages are the amounts established in the following schedule:

Original Contract Amount	Daily Charge Per Calendar Day
\$50,000 and under.....	\$868
Over \$50,000 but less than \$250,000.....	\$882
\$250,000 but less than \$500,000.....	\$1,197
\$500,000 but less than \$2,500,000.....	\$1,694
\$2,500,000 but less than \$5,000,000.....	\$2,592
\$5,000,000 but less than \$10,000,000	\$3,786
\$10,000,000 but less than \$15,000,000	\$4,769
\$15,000,000 but less than \$20,000,000.....	\$5,855
\$20,000,000 and over.....	\$9,214 plus 0.00005 of any amount over \$20 million (Round to nearest whole dollar)

The Engineer may approve adjustments to the liquidated damages amounts in accordance with the Construction Project Administration Manual (CPAM) provided all contract work is complete.

8-10.3 Determination of Number of Days of Default: For all contracts, regardless of whether the Contract Time is stipulated in calendar days or working days, the Engineer will count default days in calendar days.

8-10.4 Conditions under which Liquidated Damages are Imposed: If the Contractor or, in case of his default, the surety fails to complete the work within the time stipulated in the Contract, or within such extra time that the Authority may have granted then the Contractor or, in case of his default, the surety shall pay to the Authority, not as a penalty, but as liquidated damages, the amount so due as determined by the Code requirements, as provided in 8-10.2.

8-10.5 Right of Collection: The Authority has the right to apply, as payment on such liquidated damages, any money the Authority owes the Contractor.

8-10.6 Allowing Contractor to Finish Work: The Authority does not waive its right to liquidated damages due under the Contract by allowing the Contractor to continue and to finish the work, or any part of it, after the expiration of the Contract Time.

8-10.7 Completion of Work by Authority: In the case of a default of the Contract and the completion of the work by the Authority, the Contractor and his surety are liable for the liquidated damages under the Contract, but the Authority will not charge liquidated damages for any delay in the final completion of the Authority’s performance of the work due to any unreasonable action or delay on the part of the Authority.

8-11 Release of Contractor's Responsibility.

The Authority considers the Contract complete when the Contractor has completed all work and the Authority has accepted the work. The Authority will then release the Contractor from further obligation except as set forth in his bond, and except as provided in 5-13.

8-12 Recovery of Damages Suffered by Third Parties.

In addition to the damages provided for in 8-10.2 and pursuant to Section 337.18 of the Florida Statutes, when the Contractor fails to complete the work within the Contract Time the Authority may recover from the Contractor amounts that the Authority pays for damages suffered by third parties unless the failure to timely complete the work was caused by the Authority's act or omission.

SECTION 9 MEASUREMENT AND PAYMENT

9-1 Measurement of Quantities.

9-1.1 Measurement Standards: The Engineer will measure all work completed under the Contract in accordance with the United States Standard Measures.

9-1.2 Method of Measurements: The Engineer will take all measurements horizontally or vertically.

9-1.3 Determination of Pay Areas:

9-1.3.1 Final Calculation: When measuring items paid for on the basis of area of finished work, where the pay quantity is designated to be determined by calculation, the Engineer will use lengths and widths in the calculations based on the station to station dimensions shown in the Plans; the station to station dimensions actually constructed within the limits designated by the Engineer; or the final dimensions measured along the surface of the completed work within the neat lines shown in the Plans or designated by the Engineer. The Engineer will use the method or combination of methods of measurement that reflect, with reasonable accuracy, the actual surface area of the finished work as the Engineer determines.

9-1.3.2 Plan Quantity: When measuring items paid for on the basis of area of finished work, where the pay quantity is designated to be the plan quantity, the Engineer will determine the final pay quantity based on the plan quantity subject to the provisions of 9-3.2. Generally, the Engineer will calculate the plan quantity using lengths based on station to station dimensions and widths based on neat lines shown in the Plans.

9-1.4 Construction Outside Authorized Limits: The Engineer will not pay for surfaces constructed over a greater area than authorized, or for material that the Contractor has moved from outside of slope stakes and lines shown in the Plans, except where the Engineer provides written instruction for the Contractor to perform such work.

9-1.5 Truck Requirements: Provide all trucks with numbers and certify that all trucks used have a manufacturer's certification or permanent decal showing the truck capacity rounded to the nearest tenth of a cubic yard placed on both sides of the truck. This capacity will include the truck body only and any side boards added will not be included in the certified truck body capacity. Ensure the lettering and numbers are legible for identification purposes at all times.

9-1.6 Ladders and Instrument Stands for Bridge Projects: On bridge projects, in order to facilitate necessary measurements, provide substantial ladders to the tops of piers and bents, and place and move such ladders as the Engineer directs.

For bridge projects crossing water or marshy areas, supply fixed stands for instrument mounting and measurements, in accordance with the details stipulated in the Specifications for the project.

9-2 Scope of Payments.

9-2.1 Items Included in Payment: Accept the compensation as provided in the Contract as full payment for furnishing all materials and for performing all work contemplated and embraced under the Contract; also for all loss or damage arising out of the nature of the work or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its final acceptance; also for all other costs incurred under the provisions of Division I.

For any item of work contained in the proposal, except as might be specifically provided otherwise in the basis of payment clause for the item, include in the Contract unit price (or lump sum price) for the pay item or items the cost of all labor, equipment, materials, tools and incidentals required for the complete item of work, including all requirements of the Section specifying such item of work, except as specifically excluded from such payments.

9-2.1.1 Fuel: The Authority will, in the Contract Documents, provide an estimated quantity for fuel requirements for diesel to cover the Work specified in the Contract. Price adjustments will be made only for the amount of diesel fuel estimated by the Authority as required to complete the Contract. The requirement of fuel for each pay item is estimated by multiplying the Authority’s standard fuel factor for that pay item by the quantity of that pay item. On Contracts with an original Contract Time in excess of 120 calendar days, the Authority will make price adjustments on each applicable progress estimate to reflect increases or decreases in the price of diesel from those in effect during the month in which bids were received. The Contractor will not be given the option of accepting or rejecting these adjustments. Price adjustments for fuel will be made only when the current fuel price (CFP) varies by more than 5% from the price prevailing in the month when bids were received (BFP), and then only on the portion that exceeds 5%.

Price adjustments will be based on the monthly bulk average price for diesel as derived by the Department. These average indexes shall be determined by averaging bulk fuel prices on the first day of each month as quoted by major oil companies that are reasonably expected to furnish fuel for projects in the State of Florida. Average price indices for will be available on the Construction Office website before the 15th of each month, at the following URL:

<https://www.fdot.gov/construction/fuel-bit/fuel-bit.shtm>.

Payment will be based on the quantities shown on the progress estimate on all items for which established standard fuel factors are on a file maintained by the Department.

Payment on progress estimates will be adjusted to reflect adjustments in the prices for diesel in accordance with the following:

When fuel prices have decreased between month of bid and month of this progress estimate:

$A_i = F_i (P_i - 0.95 P_b)$ during a period of decreasing prices.

A_i = Total dollar amount - positive or negative - of the cost adjustment for fuel used by the Contractor during the month “i.”

F_i = Total gallons calculated as being used during the month.

P_i = Average price for fuel prevailing during month “i.”

P_b = Average price for fuel prevailing during the month “b” when bids were received on this Contract.

When fuel prices have increased between month of bid and month of this progress estimate:

$A_i = F_i (P_i - 1.05 P_b)$ during a period of increasing prices.

A_i = Total dollar amount - positive or negative - of the cost adjustment for fuel used by the Contractor during the month “i.”

F_i = Total gallons calculated as being used during the month.

P_i = Average price for fuel prevailing during month “i.”

P_b = Average price for fuel prevailing during the month “b” when bids were received on this Contract.

Payment will be made on the current progress estimate to reflect the index difference at the time Work was performed.

Adjustments will be paid or charged to the Prime Contractor only. Any Contractor receiving an adjustment under this provision shall distribute the proper proportional part of such adjustment to subcontractors who perform applicable Work.

9-2.1.2 Bituminous Material: Prepare a Contractor’s Certification of Quantities, using the Department’s current approved form for Superpave Asphalt Base, Driveway Asphalt Base, Asphalt Treated Permeable Base, Superpave Asphaltic Concrete, Miscellaneous Asphalt Pavement, Asphalt Concrete Friction Course, and Asphalt Membrane Interlayer pay items. Submit this certification to the Engineer no later than Twelve O’clock noon Monday after the estimate cut-off or as directed by the Engineer, based on the quantity of asphalt produced and accepted on the roadway per Contract. Ensure the certification includes the Contract Number, Financial Project Identification (FPID) Number, Certification Date and Number, the period the certification represents and the tons produced for each asphalt pay item.

On Contracts having an original Contract Time of more than 365 calendar days, or more than 5,000 tons of asphalt concrete, the Authority will adjust the bid unit price for bituminous material, excluding cutback and emulsified asphalt to reflect increases or decreases in the Asphalt Price Index (API) of bituminous material from that in effect during the month in which bids were received. The Contractor will not be given the option of accepting or rejecting this adjustment. Bituminous adjustments will be made only when the current API (CAPI) varies by more than 5% of the API prevailing in the month when bids were received (BAPI), and then only on the portion that exceeds 5%.

The Authority will determine the API for each month by averaging quotations in effect on the first day of the month at all terminals that could reasonably be expected to furnish bituminous material to projects in the State of Florida.

The API will be available on the Construction Office website before the 15th day of each month at the following URL: <https://www.fdot.gov/construction/fuel-bit/fuel-bit.shtm>.

Payment on progress estimates will be adjusted to reflect adjustments in the prices for bituminous materials in accordance with the following:

$$\text{\$ Adjustment} = (\text{ID})(\text{Gallons})$$

Where ID = Index Difference = [CAPI - 0.95(BAPI)] when the API has decreased between the month of bid and month of this progress estimate.

Where ID = Index Difference = [CAPI - 1.05(BAPI)] when the API has increased between the month of bid and month of this progress estimate.

Payment will be made on the current progress estimate to reflect the index difference at the time work was performed.

For asphalt concrete items payable by the ton or square yard, the number of gallons will be determined assuming a mix design with 6.25% liquid asphalt weighing 8.58 pounds per gallon.

For asphalt concrete items payable by the cubic yard, the number of gallons will be determined assuming a mix design with 3% liquid asphalt weighing 8.58 pounds per gallon.

9-2.2 Non-Duplication of Payment: In cases where the basis of payment clause in these Specifications relating to any unit price in the bid schedule requires that the unit price cover and be considered compensation for certain work or material essential to the item, the Authority

will not measure or pay for this same work or material under any other pay item that may appear elsewhere in these Specifications.

9-3 Compensation for Altered Quantities.

9-3.1 General: When alteration in Plans or quantities of work not requiring a supplemental agreement as hereinbefore provided for are offered and performed, the Contractor shall accept payment in full at Contract unit bid prices for the actual quantities of work done, and no allowance will be made for increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor, resulting either directly from such alterations, or indirectly from unbalanced allocation among the Contract items of overhead expense on the part of the bidder and subsequent loss of expected reimbursement therefore, or from any other cause.

Compensation for alterations in Plans or quantities of work requiring supplemental agreements shall be stipulated in such agreement, except when the Contractor proceeds with the work without change of price being agreed upon, the Contractor shall be paid for such increased or decreased quantities at the Contract unit prices bid in the Proposal for the items of work. If no Contract unit price is provided in the Contract, and the parties cannot agree as to a price for the work, the Contractor agrees to do the work in accordance with 4-3.2.

9-3.2 Payment Based on Plan Quantity:

9-3.2.1 Error in Plan Quantity: As used in this Article, the term “substantial error” is defined as the smaller of (1) or (2) below:

1. a difference between the original plan quantity and final quantity of more than 5%,
2. a change in quantity which causes a change in the amount payable of more than \$5,000.

On multiple job Contracts, changes made to an individual pay item due to substantial errors will be based on the entire Contract quantity for that pay item.

Where the pay quantity for any item is designated to be the original plan quantity, the Authority will revise such quantity only in the event that the Authority determines it is in substantial error. In general, the Authority will determine such revisions by final measurement, plan calculations, or both, as additions to or deductions from plan quantities.

In the event that either the Authority or the Contractor contends that the plan quantity for any item is in error and additional or less compensation is thereby due, the claimant shall submit, at their own expense, evidence of such in the form of acceptable and verifiable measurements or calculations. The Authority will not revise the plan quantity solely on the basis of a particular method of construction that the Contractor selects. For earthwork items, the claimant must note any differences in the existing surfaces from that shown in the Plans that would result in a substantial error to the plan quantity, and must be properly documented by appropriate verifiable level notes, acceptable to both the Contractor and the Authority, prior to disturbance of the existing surface by construction operations. The claimant shall support any claim based upon a substantial error for differences in the existing surface by documentation as provided above.

9-3.2.2 Authorized Changes in Limits of Work: Where the Authority designates the pay quantity for any item to be the original plan quantity and authorizes a plan change which results in an increase or decrease in the quantity of that item, the Authority will revise the plan quantity accordingly. In general, the Authority will determine such revisions by final measurement, plan calculations or both.

9-3.2.3 Specified Adjustments to Pay Quantities: Do not apply the limitations specified in 9-3.2.1 and 9-3.2.2 to the following:

1. Where these Specifications or Special Provisions provide that the Authority determines the pay quantity for an item on the basis of area of finished work adjusted in accordance with the ratio of measured thickness to nominal thickness.
2. Where these Specifications provide for a deduction due to test results falling outside of the allowable specified tolerances.
3. To payment for extra length fence posts, as specified in 550-6.3.

9-3.3 Lump Sum Quantities:

9-3.3.1 Error in Lump Sum Quantity: Where the Authority designates the pay quantity for an item to be a lump sum and the Plans show an estimated quantity, the Authority will adjust the lump sum compensation only in the event that either the Contractor submits satisfactory evidence or the Authority determines and furnishes satisfactory evidence that the lump sum quantity shown is in substantial error as defined in 9-3.2.1.

9-3.3.2 Authorized Changes in Work: Where the Authority designates the pay quantity for an item to be a lump sum and the Plans show an estimated quantity, the Authority will adjust compensation for that item proportionately when an authorized plan change is made which results in an increase or decrease in the quantity of that item. When the Plans do not show an estimated plan quantity or the applicable specifications do not provide adjustments for contingencies, the Authority will compensate for any authorized plan change resulting in an increase or decrease in the cost of acceptably completing the item by establishing a new unit price through a supplemental agreement as provided in 4-3.2.

9-3.4 Deviation from Plan Dimensions: If the Contractor fails to construct any item to Plan or to authorized dimensions within the specified tolerances, the Engineer, at his discretion will: require the Contractor to reconstruct the work to acceptable tolerances at no additional cost to the Authority; accept the work and provide the Contractor no pay; or accept the work and provide the Contractor a reduced final pay quantity or reduced unit price. The Authority will not make reductions to final pay quantities for those items designated to be paid on the basis of original plan quantity or a lump sum quantity under the provisions of this Article unless such reduction results in an aggregate monetary change per item of more than \$100, except that for earthwork items, the aggregate change must exceed \$5,000 or 5% of the original plan quantity, whichever is smaller. If, in the opinion of the Engineer, the Contractor has made a deliberate attempt to take advantage of the construction tolerances as defined in 120-12.1 to increase borrow excavation in fill sections or to decrease the required volume of roadway or lateral ditch excavation or embankment, the Authority will take appropriate measurements and will apply reductions in pay quantities. The Authority will not use the construction tolerance, as defined in 120-12.1, as a pay tolerance. The construction tolerance is not to be construed as defining a revised authorized template.

9-4 Deleted Work.

The Authority will have the right to cancel the portions of the Contract relating to the construction of any acceptable item therein, by making an adjustment in payment to the Contractor of a fair and equitable amount covering the value of all cancelled work less all items of cost incurred prior to the date that the Engineer cancels the work.

9-5 Partial Payments.

9-5.1 General: The Engineer will make partial payments on monthly estimates based on the amount of work that the Contractor completes during the month (including delivery of certain materials, as specified herein below). The Engineer will make approximate monthly payments, and the Authority will correct all partial estimates and payments in the subsequent estimates and in the final estimate and payment.

The Authority will base the amount of such payments on the total value of the work that the Contractor has performed to the date of the estimate, based on the quantities completed and the Contract prices, less payments previously made and less any retainage withheld.

Retainage will not be withheld until the percent of Contract Time used exceeds 75%. From that time forward, the Authority will withhold retainage of 10% of the amount due on the current estimate as retainage when the percent of Contract Time used exceeds the percent of Contract amount earned by more than 15%.

Contract amount is defined as the original Contract amount adjusted by approved supplemental agreements.

Retainage will be determined for each job on multiple job Contracts. The Authority will not accept Securities, Certificates of Deposit or letters of credit as a replacement for retainage. Amounts withheld will not be released until payment of the final estimate.

9-5.2 Unsatisfactory Payment Record: In accordance with Sections 255.05 and 337.16 of the Florida Statutes, and the rules of the Authority, the Authority may disqualify the Contractor from bidding on future Authority contracts if the Contractor's payment record in connection with contract work becomes unsatisfactory.

9-5.3 Withholding Payment:

9-5.3.1 Withholding Payment for Defective Work: If the Authority discovers any defective work or material prior to the final acceptance, or if the Authority has a reasonable doubt as to the integrity of any part of the completed work prior to final acceptance, then the Authority will not allow payment for such defective or questioned work until the Contractor has remedied the defect and removed any causes of doubt.

9-5.3.2 Withholding Payment for Failure to Comply: The Authority will withhold progress payments from the Contractor if he fails to comply with any or all of the following within 60 days after beginning work:

1. Comply with and submit required documentation relating to prevailing wage rate provisions, Equal Employment Opportunity, On-The-Job Training, and Affirmative Action;
2. Comply with the requirement to report all necessary information, including actual payments to DBEs, all other subcontractors and major suppliers, through the Internet based Equal Opportunity Reporting System;
3. Comply with or make a good faith effort to ensure employment opportunity for minorities and females in accordance with the required contract provisions for Federal Aid Construction Contracts, and
4. Comply with or make a good faith effort to meet On-The-Job Training goals.

The Authority will withhold progress payments until the Contractor has satisfied the above conditions.

9-5.4 Release of Retainage After Acceptance: When the Contractor has furnished the Authority with all submittals required by the Contract, such as invoices, EEO reports, materials certifications, certification of materials procured, etc., (excluding Contractor's letter of acceptance of final amount due and Form 21-A release) and the Engineer has determined that the measurement and computation of pay quantities is correct, the Authority may reduce the retainage to \$1,000 plus any amount that the Authority elects to deduct for defective work as provided in 9-5.3.

The Authority may deduct from payment estimates any sums that the Contractor owes to the Authority on any account. Where more than one project or job (separate job number) is included in the Contract, the Authority will distribute the reduced retainage as provided in the first paragraph of this subarticle to each separate project or job in the ratio that the Contract value of the work for the particular job bears to the total Contract amount.

9-5.5 Partial Payments for Delivery of Certain Materials:

9-5.5.1 General: The Authority will allow partial payments for new materials that will be permanently incorporated into the project and are stockpiled in approved locations in the project vicinity. Stockpile materials so that they will not be damaged by the elements and in a manner that identifies the project on which they are to be used.

The following conditions apply to all payments for stockpiled materials:

1. There must be reasonable assurance that the stockpiled material will be incorporated into the specific project on which partial payment is made.
2. The stockpiled material must be approved as meeting applicable specifications.
3. The total quantity for which partial payment is made shall not exceed the estimated total quantity required to complete the project.
4. The Contractor shall submit to the Engineer certified invoices to document the value of the materials received. The amount of the partial payment will be determined from invoices for the material up to the unit price in the Contract.
5. Delivery charges for materials delivered to the jobsite will be included in partial payments if properly documented.
6. Partial payments will not be made for materials which were stockpiled prior to award of the Contract for a project.

9-5.5.2 Partial Payment Amounts: The following partial payment restrictions apply:

1. Partial payments less than \$5,000 for any one month will not be processed.
2. Partial payments for structural steel and precast prestressed items will not exceed 85% of the bid price for the item. Partial payments for all other items will not exceed 75% of the bid price of the item in which the material is to be used.
3. Partial payment will not be made for aggregate and base course material received after paving or base construction operations begin except when a construction sequence designated by the Authority requires suspension of paving and base construction after the initial paving operations, partial payments will be reinstated until the paving and base construction resumes.

9-5.5.3 Off Site Storage: If the conditions of 9-5.5.1 are satisfied, partial payments will be allowed for materials stockpiled in approved in-state locations. Additionally,

partial payments for materials stockpiled in approved out-of-state locations will be allowed if the conditions of 9-5.5.1 and the following conditions are met:

1. Furnish the Authority a Materials Bond stating the supplier guarantees to furnish the material described in the Contract to the Contractor and Authority. Under this bond, the Obligor shall be the material supplier and the Obligees shall be the Contractor and the Clerk of Agency Proceedings. The bond shall be in the full dollar amount of the bid price for the materials described in the contract.

2. The following clauses must be added to the construction Contract between the Contractor and the supplier of the stockpiled materials:

“Notwithstanding anything to the contrary, <supplier> will be liable to the Contractor and the Tampa Hillsborough Expressway Authority should <supplier> default in the performance of this agreement.”

“Notwithstanding anything to the contrary, this agreement, and the performance bond issued pursuant to this agreement, does not alter, modify, or otherwise change the Contractor’s obligation to furnish the materials described in this agreement to the Tampa Hillsborough Expressway Authority.”

3. The agreement between the Contractor and the supplier of the stockpiled materials must include provisions that the supplier will store the materials and that such materials are the property of the Contractor.

9-5.6 Certification of Payment to Subcontractors: The term “subcontractor,” as used herein, includes persons or firms furnishing materials or equipment incorporated into the work or stockpiled for which the Authority has made partial payment and firms working under equipment-rental agreements. The Contractor is required to pay all subcontractors for satisfactory performance of their Contracts before the Authority will make a further progress (partial) payment. The Contractor shall also return all retainage withheld to the subcontractors within 30 days after the subcontractor’s work is satisfactorily complete, as determined by the Authority. Prior to receipt of any progress (partial) payment, the prime contractor shall certify that all subcontractors having an interest in the Contract were paid for satisfactory performance of their Contracts and that the retainage is returned to subcontractors within 30 days after satisfactory completion of the subcontractor’s work. Submit this certification in the form designated by the Authority.

Within 30 days of the Contractor’s receipt of the final progress payment or any other payments thereafter, except the final payment, the Contractor shall pay all subcontractors and suppliers having an interest in the Contract for all work completed and materials furnished. The Authority will honor an exception to the above when the Contractor demonstrates good cause for not making any required payment and submits written notification of any such good cause to both the Authority and the affected subcontractors or suppliers within said 30 day period.

The Contractor shall indemnify and provide defense for the Authority when called upon to do so for all claims or suits against the Authority, by third parties, pertaining to Contractor payment or performance issues arising out of the Contract. It is expressly understood that the monetary limitation on the extent of the indemnification shall be the approved Contract amount, which shall be the original Contract amount as may be increased by subsequent Supplemental Agreements.

9-6 Record of Construction Materials.

9-6.1 General: For all construction materials used in the construction of the project, (except materials exempted by 9-6.2), preserve for the Authority's inspection the invoices and records of the materials for a period of three years from the date of completion of the project. Apply this requirement when subcontractors purchase materials, and obtain the invoices and other materials records from the subcontractors. By providing the materials, the Contractor certifies that all invoices will be maintained for the required period.

9-6.2 Non-Commercial Materials: The provisions of 9-6.1 do not apply to materials generally classed as non-commercial, such as fill materials, local sand, sand-clay, or local materials used as stabilizer.

9-7 Disputed Amounts Due the Contractor.

The Authority reserves the right to withhold from the final estimate any disputed amounts between the Contractor and the Authority. The Authority will release all other amounts due, as provided in 9-8.

9-8 Acceptance and Final Payment.

9-8.1 Acceptance and Final Payment Documents: Whenever the Contractor has completely performed the work provided for under the Contract and the Engineer has performed a final inspection and made final acceptance (as provided in 5-10 and 5-11), and subject to the terms of 8-11, the Engineer will prepare a final estimate showing the value of the work as soon as the Engineer makes the necessary measurements and computations. The Engineer will correct all prior estimates and payments in the final estimate and payment. The Authority will pay the estimate, less any sums that the Authority may have deducted or retained under the provisions of the Contract, as soon as practicable after final acceptance of the work, along with all executed supplemental agreements received after final acceptance.

If the Contractor fails to furnish all required Contract Documents as listed in (1) through (9) below within 90 days of the Authority's offer of final payment or request for refund of overpayment, the Authority may suspend the Contractor's Certificate of Qualification under the provisions of Florida Administrative Code 14-22.

1. The Contractor has agreed in writing to accept the balance due or refund the overpayment, as determined by the Authority, as full settlement of his account under the Contract and of all claims in connection therewith, or the Contractor, has through the use of the Qualified Acceptance Letter, accepted the balance due or refunded the overpayment, as determined by the Authority, with the stipulation that his acceptance of such payment or the making of such refund does not constitute any bar, admission, or estoppel, or have any effect as to those payments in dispute or the subject of a pending claim between the Contractor and the Authority. To receive payment based on a Qualified Acceptance Letter, define in writing the dispute or pending claim with full particular of all items of all issues in dispute, including itemized amounts claimed for all particulars of all items, and submit it as part of the Qualified Acceptance Letter. The Contractor further agrees, by submitting a Qualified Acceptance Letter that any pending or future arbitration claim or suit is limited to those particulars, including the itemized amounts, defined in the original Qualified Acceptance Letter, and that he will commence with any such arbitration claim or suit within 820 calendar days from and after the time of final acceptance of the work and that his failure to file a formal claim within this period constitutes his full acceptance of the Engineer's final estimate and payment. The overpayment

refund check from the Contractor, if required, will be considered a part of any Acceptance Letter executed.

2. The Contractor has properly maintained the project, as specified hereinbefore.

3. The Contractor has furnished a sworn affidavit to the effect that the Contractor has paid all bills and no suits are pending (other than those exceptions listed, if any) in connection with work performed under the Contract and that the Contractor has not offered or made any gift or gratuity to, or made any financial transaction of any nature with, any employee of the Authority in the performance of the Contract. Include with the listed tort liability exceptions, if any, evidence of adequate insurance coverage as required in 7-13.

4. The surety on the Contract bond consents, by completion of their portion of the affidavit and surety release subsequent to the Contractor's completion of his portion, to final payment to the Contractor and agrees that the making of such payment does not relieve the surety of any of its obligations under the bond.

5. The Contractor has complied with and settled all requirements pertaining to any wage-rate provisions.

6. The Contractor has submitted all required mill tests and analysis reports to the Engineer.

7. The Contractor has furnished the Construction Compliance with Specifications and Plans Certification. Provide the Engineer with a notarized final certification of compliance with the requirements of Section 105 to accompany the final estimate. Certification must be on a form provided by the Engineer.

8. The Contractor has submitted and the Authority has accepted all as-built drawings and certified surveys.

9. The Contractor has furnished all required manufacturers' warranties to the Engineer.

9-8.2 Review of Engineer's Final Estimate: The Authority may review the Engineer's final estimate and make changes as necessary. If changes are made, the Contractor will be so notified in writing in the "Notification of Findings Due to Additional Review". This notification letter will detail the changes made as a result of the review, and will stipulate the actions to be taken by the Authority and those required by the Contractor. The issuance of a "Notification of Findings Due to Additional Review" will not impact the requirements of 9-8.1, above.

Complete the required actions and submit the signed "Notification of Findings Due to Additional Review" to the Authority within the timeframe specified in 9-8.1. If the "Notification of Findings Due to Additional Review" is received after the time has expired in 9-8.1, submit to the Authority within 30 days signifying agreement or disagreement with the findings. For disagreement items, submit a full explanation including the items and amount. For any claim or part of a claim that pertains solely to the "Notification of Findings Due to Additional Review" disputes, submit full and complete claim documentation as described in 5-12.3 as to such claim dispute issues within 90 days of receipt of the notification. Failure to submit the signed notification or to submit such claim documentation within the time frames specified may result in suspension of the Contractor's Certificate of Qualification under the provisions of Florida Administrative Code 14-22.

9-9 Interest Due on Delayed Payments.

The Authority will determine and pay any interest due the Contractor for delays in final payment in accordance with Section 337.141 of the Florida Statutes.

9-10 Offsetting Payments.

Section 337.145 of the Florida Statutes, providing for offsetting payments to the Contractor, is hereby made a part of this Contract:

1. After settlement, arbitration, or final adjudication of any claim of the Authority for work done pursuant to a construction contract with any party, the Authority may offset such amount from payments due for work done on any construction contract, excluding amounts owed to subcontractors, suppliers, and laborers, which it has with the party owing such amount if, upon demand, payment of the amount is not made within 60 days to the Authority.

2. Offsetting any amount pursuant to (1) above shall not be considered a breach of Contract by the Authority.

SPECIAL PROVISIONS

**AWARD AND EXECUTION OF CONTRACT – PUBLIC RECORDS.
(REV 10-17-16) (FA 10-24-16) (7-22)**

ARTICLE 3-9 is expanded by the following:

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

**General Counsel
1104 E. Twiggs Street, Suite 300, Tampa, FL 33602
813-272-6740**

**SCOPE OF WORK – INTENT OF CONTRACT.
(REV 10-25-21) (FA 1-26-22) (FY 2023-24)**

ARTICLE 4-1 is expanded by the following:

4-1 Intent and Scope.

The Improvements under this Contract consist of Wrong Way Driving Countermeasures to be installed on off ramps and at ramp gates along the East Portion of Selmon Expressway. Work includes installing wrong way detection systems, in pavement light assemblies, and necessary power and communication connections.

SUBARTICLE 4-3.1 is deleted and the following substituted:

4-3.1 General: The Engineer reserves the right to make, at any time prior to or during the progress of the work, alterations or changes, whether a significant change or not, and such alterations in the details of construction, whether a substantial change or not, including but not limited to alterations in the grade or alignment of the road or structure or both, as may be found necessary or desirable by the Engineer. Such alterations or changes shall not constitute a breach of Contract, shall not invalidate the Contract, nor release the Surety from any liability arising out of this Contract or the Surety bond. The Contractor agrees to perform the work, as altered or changed, the same as if it had been a part of the original Contract.

The term “significant change” applies only when the Engineer determines that the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction. The allowance due to the Contractor will be in accordance with 4-3.2, below.

In the instance of an alleged “significant change”, the determination by the Engineer shall be conclusive and shall not be subject to challenge by the Contractor in any forum, except upon the Contractor establishing by clear and convincing proof that the determination by the Engineer was without any reasonable and good-faith basis.

SUBARTICLE 4-3.4 is deleted and the following substituted:

4-3.4 Conditions Requiring a Supplemental Agreement or Unilateral Payment: A Supplemental Agreement or Unilateral Payment will be used to clarify the Plans and Specifications of the Contract; to provide for Unforeseen Work, grade changes, or alterations in Plans which could not reasonably have been contemplated or foreseen in the Original Plans and Specifications; to change the limits of construction to meet field conditions; to provide a safe and functional connection to an existing pavement; to settle documented Contract claims; to make the project functionally operational in accordance with the intent of the original Contract and subsequent amendments thereto.

SUBARTICLE 4-3.9.4 is deleted and the following substituted:

4-3.9.4 Processing Procedures: Submit Proposals to the Engineer or his duly authorized representative. The Authority will process Proposals expeditiously; however, the Authority is not liable for any delay in acting upon a Proposal submitted pursuant to this Subarticle. The Contractor may withdraw, in whole or in part, a Proposal not accepted by the Authority within the period specified in the Proposal. The Authority is not liable for any Proposal development cost in the case where the Authority rejects or the Contractor withdraws a Proposal.

The Engineer is the sole judge of the acceptability of a Proposal and of the estimated net savings in construction costs from the adoption of all or any part of such Proposal.

Prior to approval, the Engineer may modify a Proposal, with the concurrence of the Contractor, to make it acceptable. If any modification increases or decreases the net savings resulting from the Proposal, the Authority will determine the Contractor's fair share upon the basis of the Proposal as modified. The Authority will compute the net savings by subtracting the revised total cost affected by the Proposal from the total cost as represented in the original Contract.

Prior to approval of the Proposal that initiates the supplemental agreement, submit acceptable Contract-quality plan sheets revised to show all details consistent with the Proposal design.

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – PRESERVATION OF EXISTING PROPERTY (TOLL FACILITIES).
(REV 7-22-14) (FA 10-15-14) (7-22)

SUBARTICLE 7-11.1 is expanded by the following:

Due to the unique technological nature and complexity of the Authority's toll collection system at the Authority's owned or operated toll facilities, the Authority will utilize one of its toll collection system vendors to perform removals, repairs, replacements and installations of toll collection components damaged by the Contractor. The currently contracted rates of the Authority's contract with its tolling vendors will apply towards any removals, repairs, replacements and installations performed by one of the Authority's toll collection system vendors. The Authority will deduct the cost of the removals, repairs, replacements and installations from any monies due or which may become due to the Contractor under the Contract. Toll collection system components include, but are not limited to the following: automatic vehicle identification system antennae and readers; toll revenue collection and violation enforcement system cameras and illuminators; vehicle detection and classification system devices; vehicle classification and detection roadway loops; roadway treadles; light curtains; patron fare displays; closed circuit television cameras; electronics inside toll buildings or toll booths; automatic coin machines ; automatic ticket issuing machines ;

toll lane traffic signals and illuminators; and all directly associated supporting infrastructure including, but not limited to, cabling, connectors, and specialty bracketing, mounts, poles.

SUBARTICLE 7-11.2 is expanded by the following:

When the actions of the Contractor result in the loss of toll revenue, the Contractor shall be responsible for the revenue loss based on the total number of hours during the days in which toll revenues remain uncollected. The amount of uncollected toll revenue will be calculated by adding the hourly toll revenue for a representative weekday or weekend day over all the days in which tolls are not collected. Days showing unusually high or low traffic patterns will be replaced with revenue corresponding to normal traffic days within the last month. Hourly revenues for a representative weekday are calculated by averaging the revenues in the same hour during the previous 10 consecutive weekdays prior to the damage. Hourly revenues for a representative weekend day are calculated by averaging the revenues in the same hour during the previous 4 consecutive weekend days prior to the damage. For partial days of interrupted service, uncollected toll revenues will be limited to those hours in the representative weekday or weekend day that correspond to the specific hours when the Authority's toll infrastructure is not fully operational due to damages sustained. For the purpose of this estimate, partial hours will be rounded to the nearest full hour.

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – PRESERVATION OF EXISTING PROPERTY – UTILITIES - UTILITY ADJUSTMENTS (NO UTILITY WORK SCHEDULE).
(REV 2-10-94) (7-22)

SUBARTICLE 7-11.5.3 is expanded by the following:

For this project, no utility work involving facilities owned by other agencies is anticipated.

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC - EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS.
(REV 4-25-02) (FA 7-17-02) (7-22)

SECTION 7 is expanded by the following:

7-27 Equal Employment Opportunity Requirements.

7-27.1 Equal Employment Opportunity Policy: Accept as the operating policy, the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their age, race, color, religion, national origin, sex, or disability and to promote the full realization of equal employment opportunity through a positive continuing program:

“It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their age, race, religion, color, national origin, sex, or disability. Such action must include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training.”

7-27.2 Equal Employment Opportunity Officer: Designate and make known to the Authority’s contracting officers an equal employment opportunity officer (hereinafter referred to as the EEO Officer) who must be capable of effectively administering and promoting an active Contractor program employment opportunity and who must be assigned adequate authority and responsibility to do so.

7-27.3 Dissemination of Policy: All members of the Contractor’s staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor’s equal employment opportunity policy and contractual responsibilities.

7-27.4 Recruitment: When advertising for employees, include in all advertisements for employees the notation “An Equal Opportunity Employer”.

7-27.5 Personnel Actions: Establish and administer wages, working conditions, employee benefits, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination without regard to age, race, color, religion, national origin, sex, or disability.

Follow the following procedures:

1. Conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
2. Periodically evaluate the spread of wages paid with each classification to determine any evidence of discriminatory wage practices.
3. Periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action must include all affected persons.
4. Investigate all complaints of alleged discrimination made in connection with obligations under this Contract, attempt to resolve such complaints, and take appropriate corrective action. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action must include such other persons. Upon completion of each investigation inform every complainant of all of the avenues of appeal.

7-27.6 Subcontracting: Use the best efforts to ensure subcontractor compliance with their equal employment opportunity policy.

7-27.7 Records and Reports: Keep such records as are necessary to determine compliance with the equal employment opportunity obligations. The records kept will be designed to indicate the following:

1. The number of minority and nonminority group members employed in each work classification on the project.
2. The progress and efforts being made in cooperation with unions to increase minority group employment opportunities (applicable only to Contractors who rely in whole or in part on unions as a source of their work force).
3. The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority group employees as deemed appropriate to comply with their Equal Employment Opportunity Policy.
4. The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority group representation among their employees as deemed appropriate to comply with their Equal Employment Opportunity Policy.

All such records must be retained for a period of three years following completion of the contract work and be available at reasonable times and places for inspection by authorized representatives to the Authority.

Upon request, submit to the Authority a report of the number of minority and nonminority group employees currently engaged in each work classification required by the Contract work.

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC - TRUCK HAUL ROUTES.
(REV 04-06-00) (7-22)

SECTION 7 is expanded by the following new Article:

7-27 Truck Haul Routes.

City of Tampa, Citrus, Hernando, Hillsborough, Pasco, and Pinellas Counties located within District Seven have established Truck Haul Route Ordinances restricting the use of certain roadways for hauling materials, equipment and supplies. Conform to these ordinances.

All state roadways are exempt from these ordinances and may be used for Truck Haul Routes.

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – PREFERENCE TO STATE RESIDENTS.
(REV 1-13-12) (7-22)

SECTION 7 is expanded by the following new Article:

7-28 Preference to State Residents.

Florida Statutes 255.099 (Chapter 2010-147, Section 50, Laws of Florida), providing for preference to residents of the State of Florida, is hereby made a part of this Contract:

Each contract that is funded by state funds must contain a provision requiring the Contractor to give preference to the employment of state residents in the performance of the work on the project if state residents have substantially equal qualifications to those of nonresidents.

As used in this Section, the term “substantially equal qualifications” means the qualification of two or more persons among whom the employer cannot make a reasonable determination that the qualifications held by one person are better suited for the position than the qualifications held by the other person or persons.

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – E-VERIFY.
(REV 6-13-11) (FA 6-16-11) (7-22)

SECTION 7 is expanded by the following new Article:

7-29 E-Verify.

The Contractor shall utilize the U.S. Department of Homeland Security’s E-Verify system to verify the employment eligibility of all new employees hired by the Contractor during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland Security’s E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the Contract term.

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – SCRUTINIZED COMPANIES.
(REV 3-22-18) (7-22)

SECTION 7 is expanded by the following new Article:

7-30 Scrutinized Companies.

For Contracts of any amount, if the Authority determines the Contractor submitted a false certification under Section 287.135(5) of the Florida Statutes, or if the Contractor has been placed on the Scrutinized Companies that Boycott Israel List, or is engaged in a boycott of Israel, the Authority shall either terminate the Contract after it has given the Contractor notice and an opportunity to demonstrate the Authority’s determination of false certification was in error pursuant to Section 287.135(5)(a) of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135(4) of the Florida Statutes are met.

For Contracts \$1,000,000 and greater, if the Authority determines the Contractor submitted a false certification under Section 287.135(5) of the Florida Statutes, or if the Contractor has been placed on the Scrutinized Companies with Activities in the Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, the Authority shall either terminate the Contract after it has given the Contractor notice and an opportunity to demonstrate the Authority’s determination of false certification was in error pursuant to Section 287.135(5)(a) of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135(4) of the Florida Statutes are met.

PROSECUTION AND PROGRESS - PROSECUTION OF WORK - GENERAL
(SUBMISSION OF WORKING SCHEDULE).
(REV 5-20-21) (FA 7-7-21) (7-22)

SUBARTICLE 8-3.2 is deleted and the following substituted:

8-3.2 General: For this Contract, submit the following schedules and reports.

8-3.2.1 Contract Schedule: Submit to the Engineer for acceptance a Critical Path Method (CPM) Contract Schedule for the project within 30 calendar days after execution of the Contract or at the preconstruction conference, whichever is earlier.

The Contract Schedule shall include detailed schedule diagrams and schedule data as described below that shows how the Contractor intends to complete the work within the Contract Time. Any weather days that affect the Critical Path will be added as they occur. When the project includes a Maintenance of Traffic plan, the work breakdown structure (WBS) or project activity codes for the Contract Schedule shall be consistent with the Contract Maintenance of Traffic plan, showing activities for each discrete Contract activity to be accomplished within each Maintenance of Traffic phase. When the project does not include a Maintenance of Traffic plan, the WBS or project activity codes shall be consistent with the phasing shown in the Contract Documents. Include activities for deliverables and reviews in the schedule. Sufficient liaison shall be conducted and information provided to indicate coordination with utility owners having facilities within the project limits. The schedule must incorporate the utility work schedules included in the Contract Documents, unless changed by mutual agreement of the utility company, the Contractor and the Authority. Show the interdependence (logic) of the utility work schedule activities with other schedule activities in the Contract Schedule for acceptance by the Authority, unless otherwise approved by the Engineer.

Failure to include any element of work or any activity relating to utility work

will not relieve the Contractor from completing all work within the Contract Time at no additional time or cost to the Authority, notwithstanding the acceptance of the schedule by the Authority.

The Contract Schedule may indicate a completion date in advance of the expiration of Contract Time. However, the Authority will not be liable in any way for the Contractor's failure to complete the project prior to expiration of Contract Time. Any additional costs, including extended overhead incurred between the Contractor's scheduled completion date and the expiration of Contract Time, shall be the responsibility of the Contractor. The Contractor shall not be entitled to claim or recover any such costs from the Authority.

Acceptance by the Engineer of the Contract Schedule or any updates shall not be construed as approval of any particular construction methods or sequence of construction or to relieve the Contractor of its responsibility to provide sufficient materials, equipment and labor to guarantee the completion of the contract in accordance with the Contract Documents.

8-3.2.2 Schedule Submissions: Develop the schedule in Precedence Diagram Method (PDM) format.

Each schedule submission and monthly update shall include a minimum of the following six items:

1. Submit the files electronically in the current Authority version of Oracle Primavera P6 format by exporting the full schedule to an .xer file format.

2. A Gantt chart grouped by WBS, then phase, sorted by early start then total float. The chart shall include the following columns:

- a. Activity ID
- b. Activity Name
- c. Calendar
- d. Activity Type
- e. Original Duration
- f. Remaining Duration
- g. Duration % Complete
- h. Early Start
- i. Early Finish
- j. Late Start
- k. Late Finish
- l. Total Float

The chart shall also include activity bars using the Oracle Primavera P6 default color coding for the bars. The chart shall be submitted as a Portable Document Format (.pdf) file and formatted on 11 inch by 17 inch landscape oriented sheets, with the activity table and bars.

3. A Gantt chart with the same columns and bars listed in 8-3.2.2(2), but filtered for the longest path, not grouped but sorted by early start, then early finish. The chart shall be submitted as a.pdf file and formatted on 11 inch by 17 inch landscape oriented sheets, with the activity table and bars.

4. The Schedule log for the calculated schedule, submitted as a.pdf file and formatted on 8-1/2 inch by 11 inch portrait oriented sheets.

5. A schedule narrative report with the following information:

- a. Current project schedule status and identify potential delays
- b. A description of the progress made since the previous

schedule submission

- c. Objectives for the upcoming 30 calendar days
- d. Indicate if the project is on schedule, ahead of schedule or behind schedule.

1. If ahead or behind schedule, indicate the specific number of calendar days.

2. If behind schedule, include a detailed recovery plan that will put the schedule back on track or identify the alleged delay event for which a preliminary request for an extension of Contract Time has been submitted, which if granted by the Authority, will account for the amount of time the project is behind schedule, or provide a fully supported request for a Contract Time extension, which if granted by the Authority, will account for the amount of time the project is behind schedule.

e. Description of the current critical path and indicate if the critical path has changed in the last 30 calendar days.

f. Discussion of current successes or problems that have affected either the critical path's length or have caused a shift in the critical path within the last 30 calendar days.

g. Identify specific activities, progress, or events that may reasonably be anticipated to impact the critical path within the next 30 calendar days, either to affect its length or to shift it to an alternate path.

h. List all changes to schedule logic, calendars, calendar assignments, activity types, activity names, changes to constraints, added activities or duration changes (original and remaining) that have been made to the schedule since the previous submission.

For each change, describe the basis for the change and specifically identify the affected activities by activity ID.

i. Identify any and all activities, either in progress or scheduled to occur within the following 30 days that require Authority participation, review, approval, etc.

6. A detailed logic report that provides a list of activities in the schedule sorted by activity ID, no grouping and submitted as a .pdf file and formatted on 8-1/2 inch by 11 inch portrait oriented sheets. For each activity listed, the report shall include the activity's predecessors and successors, including the relationship type and lag.

For each submission of the Contract Schedule and monthly update, the Engineer will have 21 days to accept the Contract Schedule or monthly update or to schedule a meeting, if needed, within that time, with the Contractor to resolve any problems that prevent acceptance of the schedule. Attend the meeting scheduled by the Engineer, and submit a corrected schedule to the Engineer within seven days after the meeting. The process will be continued until a Contract Schedule or monthly update is accepted or accepted as noted by the Engineer.

Upon the Engineer's acceptance of the Contract Schedule, submit monthly updates of the Contract Schedule, including all months prior to the start of construction, reflecting progress through the monthly estimate cut-off date within 8 calendar days after the monthly estimate cut-off date.

The Engineer may withhold monthly payments due for failure of the Contractor to submit an acceptable schedule or monthly updates within the time frame described herein.

8-3.2.3 Schedule Content: All schedule submissions shall comply with the following content guidelines as appropriate to the specific submission:

The schedules shall include the sequence, order, and interdependence of major construction milestones and activities. Include procurement of project specific materials and equipment that require submittals and are not readily available, long-lead time items, and key milestones identified by the Contract.

Show the sequence, order, and interdependence of activities in which the work is to be accomplished. Include allowance for Authority review, acceptance and return of submittals, samples and shop drawings where Authority acceptance is specifically required (in accordance with 5-1.4.6 of the standard specifications). In addition to construction activities, schedule activities shall include the submittals, procurement, and Authority or Utility activities:

1. Submittal activities shall include submittal preparation, Authority review, and acceptance of submittals. If the Authority's action on any submittal is "Not Accepted" or "Revise and Resubmit", a new series of submittal preparation activities shall be inserted into the schedule. Predecessor for the new submittal preparation activity will be the original acceptance activity and the successor of the new acceptance activity will be the fabrication/delivery activity for the equipment or material.

2. Procurement activities shall include all project specific materials and equipment that require submittals and are not readily available, fabrication of special material and equipment, and their installation and testing.

3. Show activities of the Authority or Utilities that affect progress and contract-required dates for completion of all or parts of the work.

Detailed schedule data: shall conform to the following:

1. All activities shall be assigned to a specific project calendar within the software. Specific project calendars will be defined within the software to include planned work days and planned non-work days. These project calendars will include both Contractor and Contract defined holidays and suspension days as non-workdays. The use of global calendars is not permitted. Project calendars shall not inherit holidays from global calendars. Work shifts identified for each project calendar shall be consistent with the Contractor's planned workdays. Actual start and finish date times shall be consistent with the work shift hours on the calendar assigned to the activities.

2. A cost account drawdown schedule depicting amount earned by month through project completion. The sum total of the cost accounts shall be equal to the current contract value.

3. At a minimum, each schedule activity shall contain codes by:
 a. Responsibility: for items of work that are not in control of the Contractor including, but not be limited to, Authority, Utility, etc.
 b. Phasing: identify the appropriate Maintenance of Traffic phase or subphase.

The required coding can be accomplished by WBS codes or project activity codes.

4. Key milestones as identified by Contract. At a minimum, the start and finish of each Maintenance of Traffic phase or subphase shall be represented by a milestone activity. Milestone activities shall be start or finish milestone type activities, as appropriate.

5. All non-procurement activities must be less than or equal to 20 workdays unless approved by the Engineer. Sufficient explanation for activities over 20 days shall be provided for the Engineers review and approval.

6. All activities must include adequate detailed activity descriptions to describe the work that is included. In each activity, provide sufficient detail so that the amount of work the activity involves is clearly communicated.

7. Only two open-ended activities (the first and the last) are allowed.

8. Constraints shall only be used for "project start," and "project completion." Constraints shall not override logic. The project start constraint shall be the Contract execution date. The project completion date shall be the Contract completion date plus any Contract defined holidays and suspension days included on the longest path. The use of any other imposed

constraints is not allowed without specific approval by the Engineer. Any other desired constraints must be submitted to the Engineer with the rationale for the use of each desired additional constraint. If allowed by the Engineer, the rationale should be recorded in the activity's notebook field. Mandatory constraints (start and finish) violate network logic and shall not be used.

9. Out of sequence progress shall be corrected on each monthly update by modifying the schedule logic so that the logic accurately depicts the actual sequence of the work. The Retained Logic setting shall be used when calculating the schedule.

10. All changes to activities shall be recorded with a note in the activity notebook field. The notebook entry shall include, as a minimum, the date and reason for the change, as well as reference to a document wherein the Engineer acknowledges and accepts the change.

11. The use of resource leveling, either manual or automatic, is prohibited.

12. Activities shall not be deleted from the schedule. If an activity is not required, then upon approval from the Engineer, the Contractor shall provide actual start and finish dates equal to the date of the Engineer's approval, shall add the word "Removed" to the activity name and shall make a notebook entry explaining the reason for removing the activity from the planned work.

13. Activities shall be added to the schedule upon notifying the Engineer when it is determined that a Contract work element was omitted from the previous accepted Contract schedule or update or if work is added to the Contract, or to reflect a time extension in accordance with 8-7.3.2.

14. Activity names shall only be changed to reflect changes to the scope of the work element represented by the activity, not as a way to remove and replace activities. Changes to activity names shall be approved by the Engineer.

15. Unless otherwise approved by the Engineer, activity types shall be defined as milestones, level-of-effort, WBS summary or task dependent. Resource dependent type shall not be used. All activities shall have percent complete type set to duration and duration type set to either fixed duration and unit/time or fixed duration and units.

8-3.2.4 Weekly Meetings: Attend weekly meetings scheduled by the Engineer to discuss Contract progress, near term scheduled activities, including utility relocations, problems and their proposed solutions. Submit a Three-Week Planning Schedule at each weekly meeting, showing the Contract schedule activities completed in the previous week and planned for the next two weeks. Develop the Three-Week Planning Schedule in Gantt chart format from the updated Contract schedule, identifying completed, current and planned activities. Designate all activities that are controlling work items as determined by the currently accepted Contract Schedule

8-3.2.5 Float: Float is defined as the amount of time the finish of an activity can be delayed. Two kinds of float are possible: Total float is how much an activity can be delayed without affecting the finish date of the project or an intermediate deadline (constraint); it is the difference between the late finish date and the early finish date. Free float is how much an activity can be delayed without affecting its earliest successor.

Float is not for the exclusive use or benefit of either the Authority or the Contractor.

Use of float suppression techniques, such as preferential sequencing (arranging critical path through activities more susceptible to Authority caused delay), special lead/lag logic restraints, zero total or free float constraints, extended activity times, positive relationship lags, or imposing constraint dates other than as required by the contract, shall be cause for rejection of the project schedule or its updates. The use of finish-to-start lags greater than zero days, start-to-start lags that exceed the duration of the predecessors, or finish-to-finish lags that

exceed the duration of the successor, shall not be used without the expressed approval of the Engineer. The use of Resource Leveling, or similar software features, for the purpose of artificially adjusting activity durations to consume float and influence the critical path is expressly prohibited.

Negative float shall not be a basis for requesting time extensions. Any extension of time shall be addressed in accordance with 8-3.2. 7. Scheduled completion dates that extend beyond the Contract completion date, evidenced by negative float, may be used in computations for assessment of payment withholdings. The use of this computation is not to be construed as a means of acceleration.

8-3.2.6 Critical Path: The critical path shall be defined as the longest path and is represented by the longest logical path through the remaining activities, resulting in the earliest calculated completion date. There may be more than one longest path in the schedule. However, the use of float suppression techniques as described in 8-3.2.5 shall not be used to force the schedule to have more than one longest path.

8-3.2.7 Time Extensions: The Contractor is responsible for submitting a request for Contract Time extension in accordance with 8-7.3.2. An extension of time shall be considered only to the extent that an event impacts the completion date of the schedule such that the impacted completion date is later than the Contract completion date as adjusted previously. The Pre-event Schedule is defined as the latest accepted update of the Contract schedule, statused (actual start dates added, actual finish dates added, remaining durations adjusted) to the end of the day before the start of the event. The Post-event Schedule is defined as the accepted update of the Contract Schedule just after the end of the event and destatused (actual start dates removed, actual finish dates removed, remaining durations adjusted) to the end of the last day of the event.

As a minimum, time extension requests shall contain:

1. A descriptive summary of the event
2. A written analysis supported by a:
 - a. Pre-event Schedule
 - b. Post-event Schedule
3. Schedule submittal items 1, 2, 3 and 4 required in 8-3.2.2 shall be provided for the Pre-event and Post-event schedules

Time extensions shall not be considered for proposals that do not include full documentation described above. Once a time extension has been approved by the Engineer, the Contract completion date shall be changed accordingly.

8-3.2.7 Performance of Work: By submitting a schedule, the Contractor is making a positive assertion that the project has been and will be constructed in the order indicated in the schedule. Prosecute the work in accordance with the latest accepted Contract Schedule or update. Any costs associated with meeting milestones and completing the project within the authorized Contract Time will be borne solely by the Contractor.

8-3.2.8 As-Built Schedule: Submit an as-built schedule along with the Qualified Acceptance Letter if the Contactor elects the use of the Qualified Acceptance Letter as described in 9-8.1. The as-built schedule shall describe the actual order and start and stop times for all activities by the Contractor.

**PROSECUTION AND PROGRESS - LIMITATIONS OF OPERATIONS – FENCING.
(REV 6-17-04) (FA 7-13-04) (7-22)**

SUBARTICLE 8-4.8 is deleted and the following substituted:

8-4.8 Fencing: Erect permanent fence as a first order of business on all projects that include fencing where the Engineer determines that the fencing is necessary to maintain the security of

livestock and other animals on adjacent property, or for protection of pedestrians who are likely to gain access to the project from adjacent property. Secure the right of way on Limited Access Facilities at all times by a fence, either temporary or permanent, that meets the height of the existing fence or the height required in the Contract.

PROSECUTION AND PROGRESS - SUSPENSION OF CONTRACTOR'S OPERATIONS-SPECIAL EVENTS.
(REV 5-21-21) (FA 1-3-22) (7-22)

ARTICLE 8-6.4 is expanded by the following:

8-6.4 Suspension of Contractor's Operations - Holidays and Special Events: For this Contract, Special event days for this project include:

Tampa Bay Lightning Home Games
Macdill Air Fest
Gasparilla Parade
Gasparilla Children's Parade
Gasparilla Distance Classic
Riverfest

In addition to the limitations on lane closures, detours, and non-working days, the Authority may direct up to ten (10) days per calendar year when no lane closures and detours will be permitted. The contractor will be provided no less than 24-hour notice of these events and shall be at no additional cost or time to the Authority.

SUPPLEMENTAL SPECIFICATIONS

MAINTENANCE OF TRAFFIC.
(REV 7-24-23) (8-14-23) (10-23)

SUBARTICLE 102-3.3 is deleted and the following substituted:

102-3.3 Lane Closures: Approval for all lane closures, mobile operations, and traffic pacing operations is required. Submit routine requests to the Engineer 14 calendar days in advance of planned lane closures, mobile operations, and traffic pacing operations. Requests for planned lane closures are to be submitted through the Authority's One.network Platform and the Department's Lane Closure Notification System (LCNS). For unforeseen events that require cancelling or rescheduling lane closures, mobile operations, and traffic pacing operations, revise the lane closure request as soon as possible.

Record information for lane closures, including but not limited to begin and end lane closure times and locations, into the Authority's One.network Platform and the Department's LCNS. Lane closures are to be activated in the One.network and LCNS within five minutes of placing the first channelizing device and deactivated within 5 minutes removing the last channelizing device associated with the closure.

At the preconstruction conference, submit a request for access to the Authority's One.network Platform and the Department's lane closure notification system to the Engineer. Include the name, email address, level of access required, and a copy of the individual's certification of training for Contractor personnel requiring access to the Authority's One.network Platform and the Department's LCNS. For change of access requests, submit a request to the Engineer at least ten calendar days in advance of when the change is needed.

102-3.3.1 Traffic Pacing: In addition to dates and locations, include a pacing plan outlining the expected equipment and number of traffic control officers required, the proposed traffic pacing lengths and durations, the available existing egresses in the event of an emergency, and a contingency plan in the event of an equipment failure.

CONTRACTOR QUALITY CONTROL GENERAL REQUIREMENTS.
(REV 7-24-23) (8-14-23) (10-23)

SUBARTICLE 105-8.3 is deleted and the following substituted:

105-8.3 Temporary Traffic Control (Maintenance of Traffic) Personnel: Worksite Traffic Supervisors, flaggers, and other personnel responsible for work zone related transportation management and traffic control must obtain training and certification in accordance with the Department's Temporary Traffic Control (Maintenance of Traffic) Training Handbook located at the following URL address:

<https://www.fdot.gov/roadway/TTC/Default.shtm>.

Worksite Traffic Supervisors (or designees) and other personnel responsible for the planning and implementation of lane closures must obtain training and certification for the Department's Lane Closure Notification System (LCNS) available at the following URL address:

<https://info.one.network/fdot-live-link-resources>.

APPENDICES

TECHNICAL SPECIAL PROVISIONS.

The following Technical Special Provisions are individually signed and sealed but are included as part of this Specifications Package.

TECHNICAL SPECIAL
PROVISION FOR
WRONG WAY VEHICLE DETECTION SYSTEM
(WWVDS) FIELD ACCEPTANCE TESTING

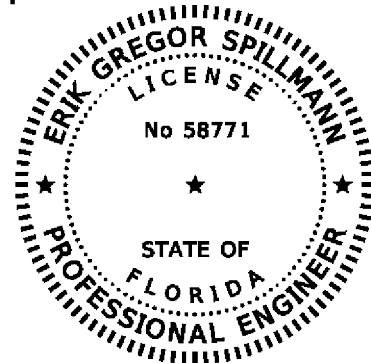
PROJECT ID: HI-0172

HILLSBOROUGH COUNTY

The official record of this Technical Special Provision has been electronically signed and sealed using a Digital Signature as required by Rule 61G 15-23.004, F.A.C.

Signature and Seal: Erik Spillmann, PE
Date: December 20, 2023
State of Florida, Professional Engineer, License No.: 58771
Firm/Agency Name: BCC Engineering, LLC
Firm/Agency Address: 160 N. Westmonte Drive, Suite #2000
City, State, Zip Code: Altamonte Springs, FL 32714
Page(s): 2

Erik Date:
Spillmann 2024.01.08
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T612 – WRONG WAY VEHICLE DETECTION SYSTEM (WWVDS) FIELD ACCEPTANCE TESTING

T612-1 General.

The Contractor shall conduct a field acceptance test for each ramp being monitored by a WWVDS. The field acceptance test shall test all local system functions and must demonstrate that:

1. All wiring and local configurations are correct.
2. The WWVDS is detecting vehicles driving the wrong way, in all ramp travel lanes and any paved shoulders 8 feet or wider, while ignoring vehicles traveling in the correct direction. A true positive rate of 95% or greater must be achieved using the methodology described in the FDOT Standard Specifications for Road and Bridge Construction, Section 660-4.4.1. A false positive rate of 1% or less must be achieved using the methodology described in 660-4.4.2.
3. The WWVDS is activating all wrong way highlighted signs on the ramp upon detection of a vehicle traveling in the wrong direction.

T612-2 ITS Device Testing.

The field acceptance test shall also include True Positive Testing and False Positive Testing as identified below.

True Positive Testing: Conduct this test on a closed ramp using Contractor-provided test vehicles. Test each lane and paved shoulder 8 feet or wider by driving two types of test vehicles traveling at two travel speed ranges the wrong direction. For this testing, the small vehicle shall be a FHWA Class Group 2 (passenger car) vehicle and the large vehicle shall be a FHWA Class Group 3 (pick-ups and vans) or Class Group 5 (two-axle truck) vehicle. Each ramp lane shall be subjected to the following test vehicle runs; each ramp paved shoulder 8 feet or wider must only undergo test runs described in #1 and #2.

1. Five runs of a small vehicle traveling between 10 and 15 miles per hour.
2. Five runs of a large vehicle traveling between 10 and 15 miles per hour.
3. Five runs of a small vehicle traveling 35 miles per hour or greater.
4. Five runs of a large vehicle traveling 35 miles per hour or greater.

Calculate the true positive rate using the following formula:

$$TPR = TP/N * 100$$

Where TPR = True positive rate %.

TP = Cumulatively for all test runs, the total number of times the WWVDS correctly detected the wrong way vehicle and activated the highlighted signs.

N = Total number of test vehicle runs.

False Positive Testing: Conduct this test on a ramp open to the traveling public. Test the WWVDS by monitoring a minimum of 300 total vehicles traveling in the correct direction of travel passing through the WWVDS detection zones. At least 150 vehicles shall be monitored during daylight hours and at least 150 vehicles shall be monitored at night.

Calculate the false positive rate using the following formula:

$$FPR = FP/N * 100$$

Where FPR = False positive rate %.

FP = Total number of times the WWVDS activated for a vehicle traveling in the correct direction.

N = Total number of vehicles traveling in the correct direction.

If any WWVDS fails to pass its field acceptance test, correct the unit or substitute another unit in its place, then repeat the test.

If a unit has been modified due to a field acceptance test failure, prepare a report describing the nature of the failure and the corrective action taken and submit to THEA prior to re-testing. If a failure pattern develops, THEA may direct that design and construction modification be made to all units without additional cost to THEA or extension of the Contract Time.

TECHNICAL SPECIAL
PROVISION FOR
SECTION 654 - IN-ROADWAY LIGHT ASSEMBLY

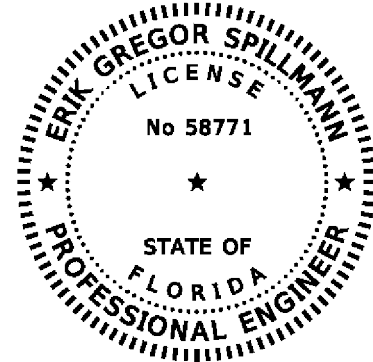
PROJECT ID: HI-0172

HILLSBOROUGH COUNTY

The official record of this Technical Special Provision has been electronically signed and sealed using a Digital Signature as required by Rule 61G 15-23.004, F.A.C.

Signature and Seal: Erik Spillmann, PE
Date: December 20, 2023
State of Florida, Professional Engineer, License No.: 58771
Firm/Agency Name: BCC Engineering, LLC
Firm/Agency Address: 160 N. Westmonte Drive, Suite #2000
City, State, Zip Code: Altamonte Springs, FL 32714
Page(s): 2

Erik
Spillmann
Date: 2024.01.08
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SECTION 654 IN-ROADWAY LIGHT ASSEMBLY

SECTION 654 is deleted and the following substituted.

654-1 Description.

Furnish and install in-roadway light assembly.

654-2 Materials.

Use In-roadway light assemblies that meet the requirements of Section 995 and are listed on the Department's Approved Product List (APL).

The cabinet equipment, wiring, and other devices used to create an in-roadway light assembly must be listed on the APL.

654-3 Installation Requirements.

Restore any areas impacted by the installation of the in-roadway light assembly to original condition unless otherwise shown in the Plans.

If installed with highlighted signs or flashing yellow beacons, in-roadway light assemblies shall operate in unison and with an identical flash rate as the signs or beacons.

654-4 Warranty.

Ensure the in-roadway light assembly has a manufacturer's warranty covering defects for two years from the date of final acceptance in accordance with 5-11 and Section 608. Ensure the warranty includes providing replacements within 10 calendar days of notification for defective parts and equipment during the warranty period at no cost to the Authority or the maintaining agency.

654-5 Method of Measurement.

654-5.1 General: All in-roadway light assembly will include all materials (in-roadway lights, wiring and electronics), equipment, and labor necessary for a complete and accepted installation.

654-5.2 In-Roadway Light Assembly: The in-roadway light assembly includes in-roadway lights, cabinet equipment, wiring, and other devices for a complete crossing of lanes shown on plans. Solar panels are included in the cost of the assembly, when shown in the Plans.

654-6 Basis of Payment.

Price and Payment will be full compensation for all work specified in this Section. Payment will be made under:

Item No. 654- 1 In-Roadway Light Assembly - per assembly.

**THIS COMPLETES
THIS
SPECIFICATIONS
PACKAGE**

Los Angeles, 8/18/2020

Ref #:

Project: THEA Lighting

To whom it may concern,

Below is our report detailing our site visit to THEA in Tampa, Florida, Aug 2nd-4th, our assessment of 8 fixtures returned for repair, our recommended action moving forward with pending repairs, and recommended action for grounding of the fixtures on site to straddle bends.

In summary, our findings on the 8 fixtures assessed indicate a short on location 117A. Fixtures connected in the dmx line, as a result, received a short to the dmx PCB. We believe the first fixture on pier 117 received the highest impact. For this reason, we suggest all fixtures sent in for repair be sent in groups to be evaluated by piers. Connections at junction boxes prior to the fixtures must be reviewed. For all fixtures that come in for repair/review, a high voltage test will be conducted for reassurance. All units tested in this report had properly working internal components after repairs were made. Acclaim lighting will assess all fixtures returned for repair/review in the same manner and report to THEA with suggestions on any additional findings.

We appreciate your support and patience.

Thank you,

Jerry Estrada

Acclaim Lighting

Service Manager

jerry@acclaimlighting.com

Visual assessment of short circuit

Overview

A visual assessment aims to narrow down the damages observed from a short circuit by identifying what specific components failed. Then we determined whether or not the failures were isolated issues. Isolated failures typically do not affect units nearby. Isolated failures such as open circuits in the PCB will usually cause the fixture to stop operating but will not leave any clues that can visually be observed. At the same time, larger shorts can pop or burn components and affect working fixtures connected to the same line.

Hardware affected

During the visual assessment, it was noted that most component failures happened on the main PCB, specifically components associated with the Dmx line. Our focus, in this case, was to identify any significant shorts, such as overheating damage, burnt components, or smoke residue, as evident signs of high current due to a short circuit.

External factors we must consider

After identifying the hardware (main PCB) and specific components that failed (resistors, capacitors, diodes on dmx circuit), we referenced the problem fixtures to the physical location of the structure. Of the 8 fixtures inspected, one single fixture was flagged as “highest impact of component failure”, SN4598115. Failure was determined to be a non-isolated failure. Pier 117 must be reviewed. Units nearby were evaluated; details are noted on pages 3-7.

Conclusion of Visual assessment

From the 8 fixtures, we can observe that those close to physical location 117A, fixture ending in serial number 115, experience high currents, causing a direct short on the main PCB. In comparison, fixtures on pier 61 have minimal component failures. See the last 2 images for observations on pier 61; fixtures observed end in serial numbers 975 and 364.

Visual assessment of short circuit

Assessment of Fixture 1.

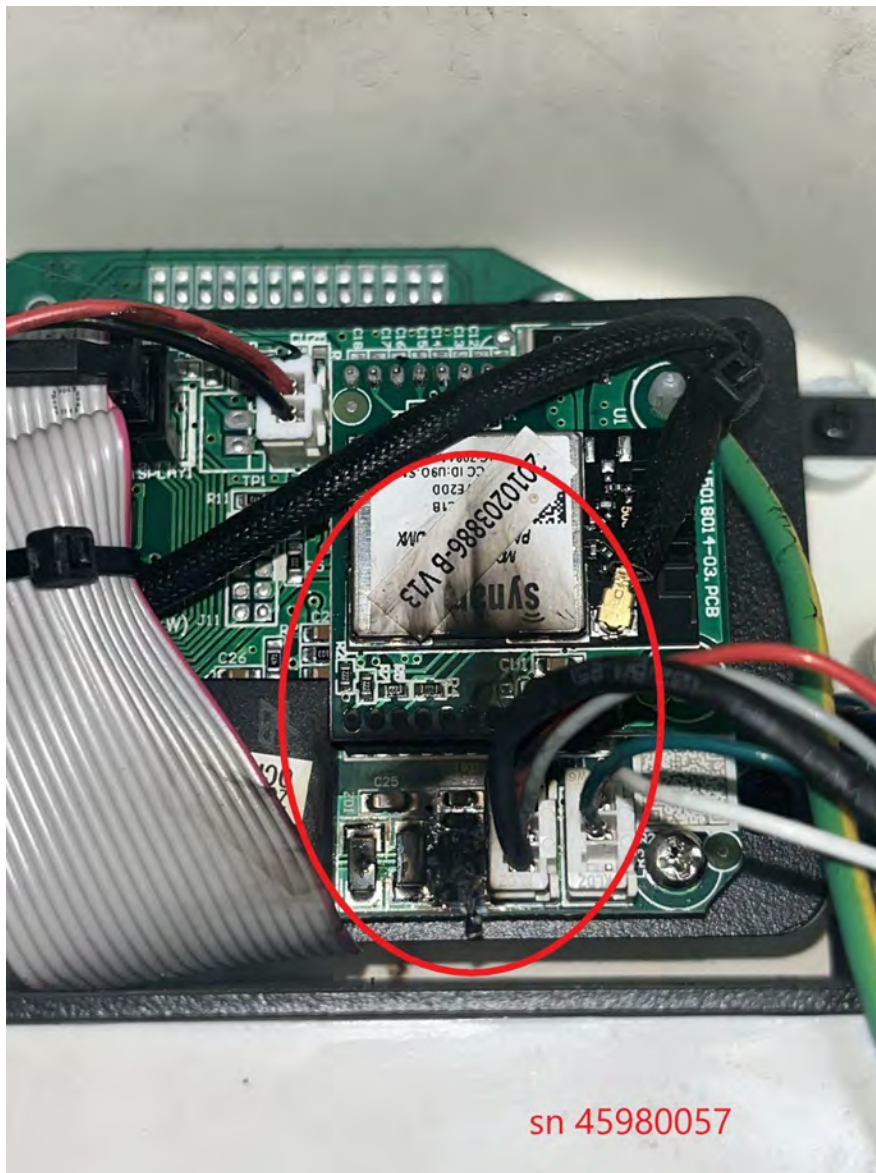


Location 117A, SN4598115

- Heavy smoke residue on fixture body, power supply, main PCB, and wireless board.
- Melted Dmx cable connection
- Short: 2 capacitors, 2 resistors, 2 diodes.
- Evident signs of overheating in components and PCB

Recommended action: Detailed review of physical location, cables, and conduit boxes (AJBOX). Review connector seal and pins for corrosion. Grounding of the unit to the physical structure using a serrated washer. *

Assessment of Fixture 2.



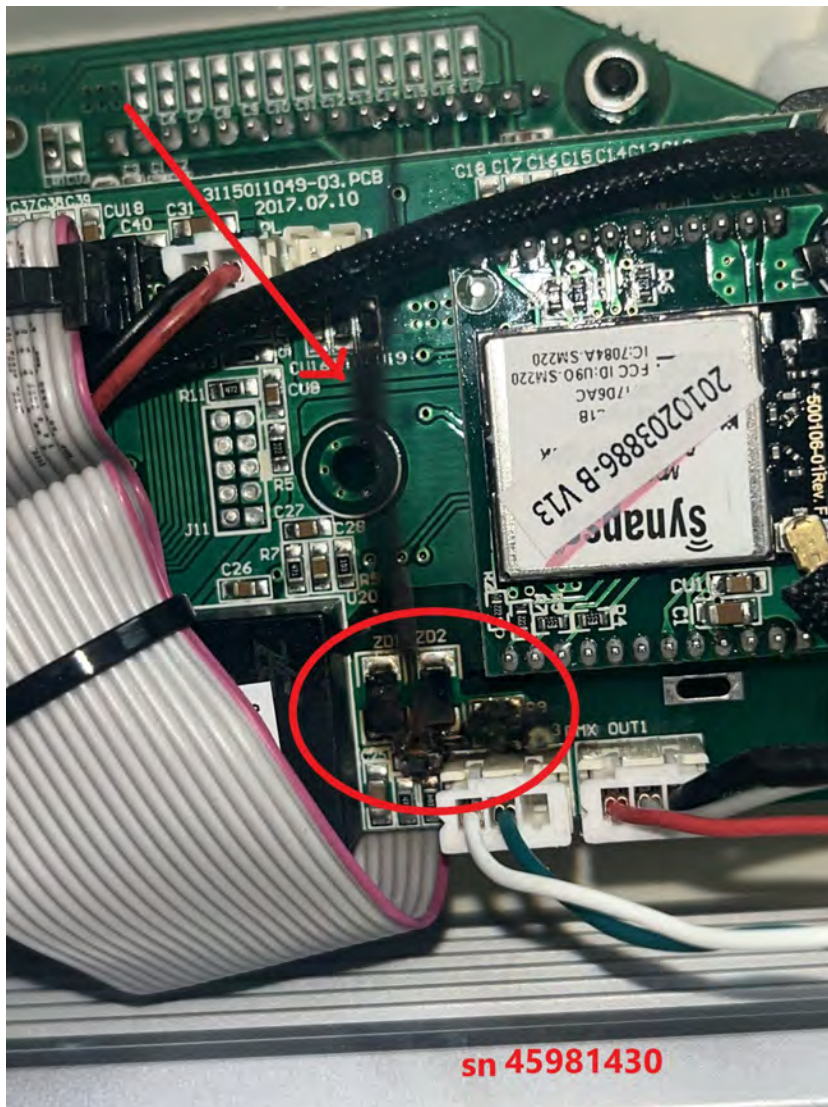
Location 117B

- Medium/Heavy smoke residue to main PCB and wireless board.
- Short: 2 capacitors, 2 resistors, 2 diodes.
- Evident signs of overheating in components.

Recommended action: Detailed review of physical location, cables, and AJ box. Review connector, seal on connector, and pins for corrosion.

Grounding of the unit to the physical structure using a serrated washer. *

Assessment of fixture 3.



Location 117H

- Medium/Heavy smoke residue to main PCB.
- Short: 2 capacitors, 2 resistors, 2 diodes.
- Evident signs of overheating in components.

Recommended action: Detailed review of physical location, cables, and conduit boxes. Review connector, seal on connector, and pins for corrosion. Grounding of the unit to the physical structure using a serrated washer. *

Assessment of fixture 4.



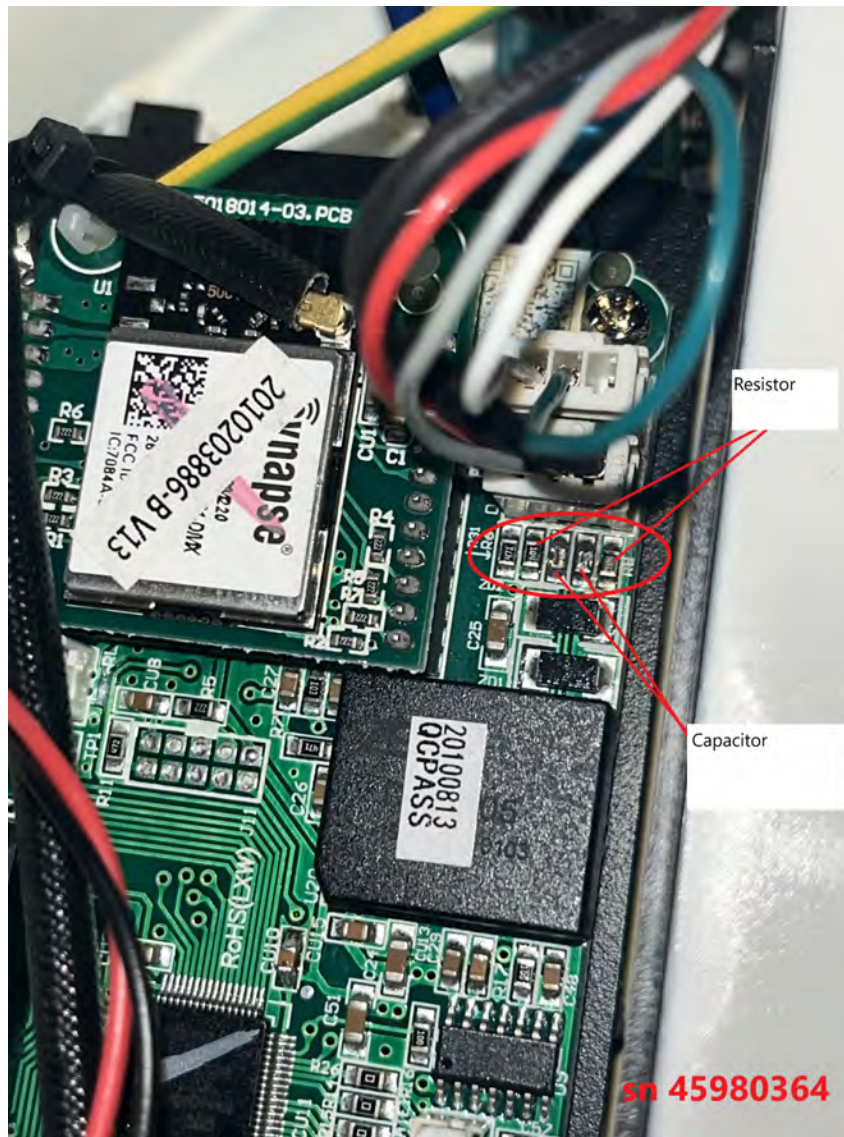
Location was not provided*

- Medium smoke residue to main PCB.
- Short: 2 capacitors, 2 resistors, 2 diodes.
- Evident signs of overheating in components.

Recommended action: Review seal on connector and pins for corrosion.
Grounding of the unit to the physical structure using a serrated washer.

Any fixtures directly wired via dmx, shared power, or close proximity must be sent in for review. The physical location of the structure must be clearly marked on the fixture.

Assessment of fixture 5.



Location Pier 61

- Short: 2 capacitors.

Recommended action: Review the connector, the seal on the connector, and the pins for corrosion. Grounding of the unit to the physical structure using a serrated washer.

Any fixtures directly wired via dmX, shared power, or close proximity must be sent in for review. Physical location on the structure must be clearly marked*

Assessment of fixture 6.



Location was not provided*

- Short: 2 capacitors.

Recommended action: Review connector, seal on connectors and pins for corrosion. Grounding of the unit to the physical structure using a serrated washer.

Any fixtures directly wired via dmx, shared power, or proximity must be sent in for review. Physical location on the structure must be clearly marked*

Assessment of fixture 7.



Location was not provided*

- Short: 2 capacitors.

Recommended action: Review connector, seal on connector and pins for corrosion. Grounding of the unit to the physical structure using a serrated washer.

Any fixtures directly wired via dmx, shared power, or close proximity must be sent in for review. Physical location on the structure must be clearly marked*

High Voltage Stress Test

Overview

A high voltage stress test is a reevaluation of power input and dmx specifications listed for the product in question. The test focuses on voltage and temperature parameters. Any failures in components due to the operating voltage, or failures on surface mount components/wires due to overheating/overpowering during this test are flagged for review. A properly specked product will outperform the required parameters noted on the specification guide. Specs indicated on the user guide are needed for normal operation.

The operating voltage for the job site was noted as 240v; the target value used in the stress test was 300v @ 60hz (25% over normal operational power parameters). Fixtures in question were evaluated on their performance.

A high voltage test will be performed on all fixtures returned for review/repair. Internal temperature readings will be randomly sampled.

Conclusion

The fixtures reviewed in this report (SN, 45980241, 45980241) all outperformed normal operating parameters by 25%. No component failures were noted during this test. Our test indicates all components employed in this fixture meet the required parameters for normal operations.

High Voltage Stress Test

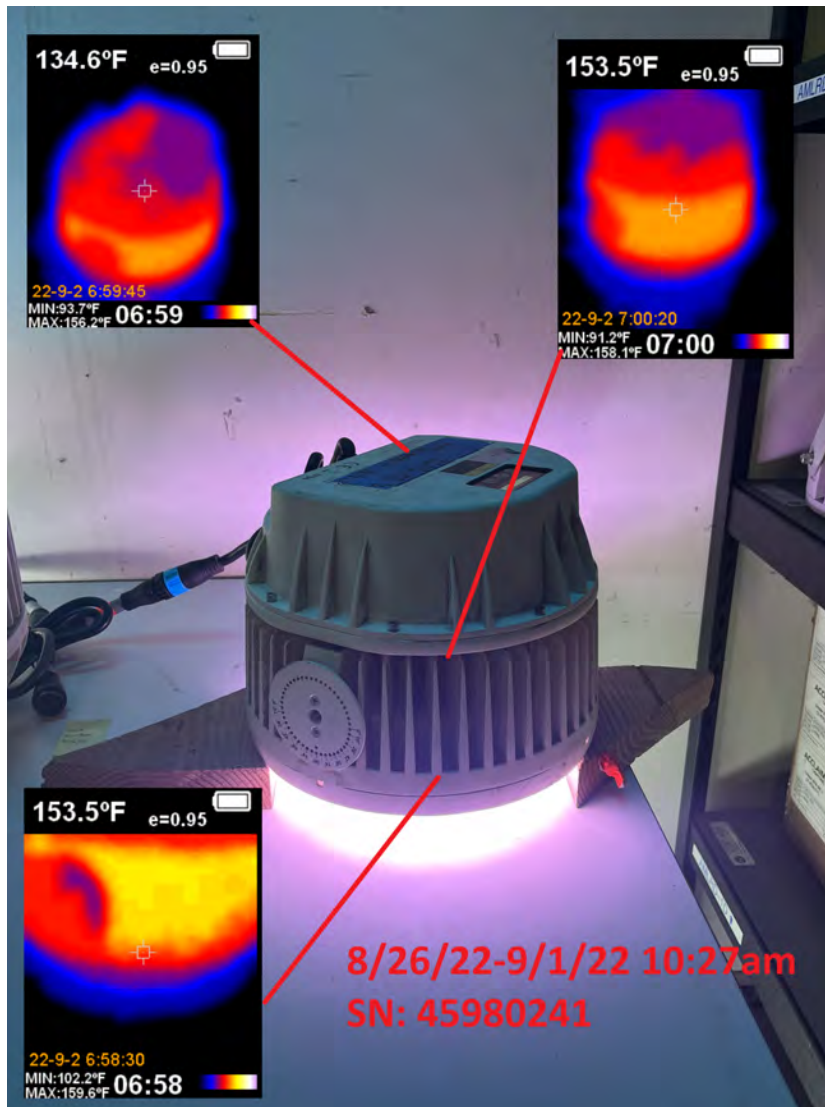


Power cable, dmx line, and OLS cable were spooled to simulate the conditions noted on the job site.

- 301.2V @ 60Hz.
- Controlled via Acclaim Canvas DMX controller
- 50ft dmx cable
- 50 power to 50ft OLS to fixture.

The voltage measured on the dmx line was noted 2.3v. No failures were noted during the test conducted from 8/26/22-9/1/22.

High Voltage Stress Test

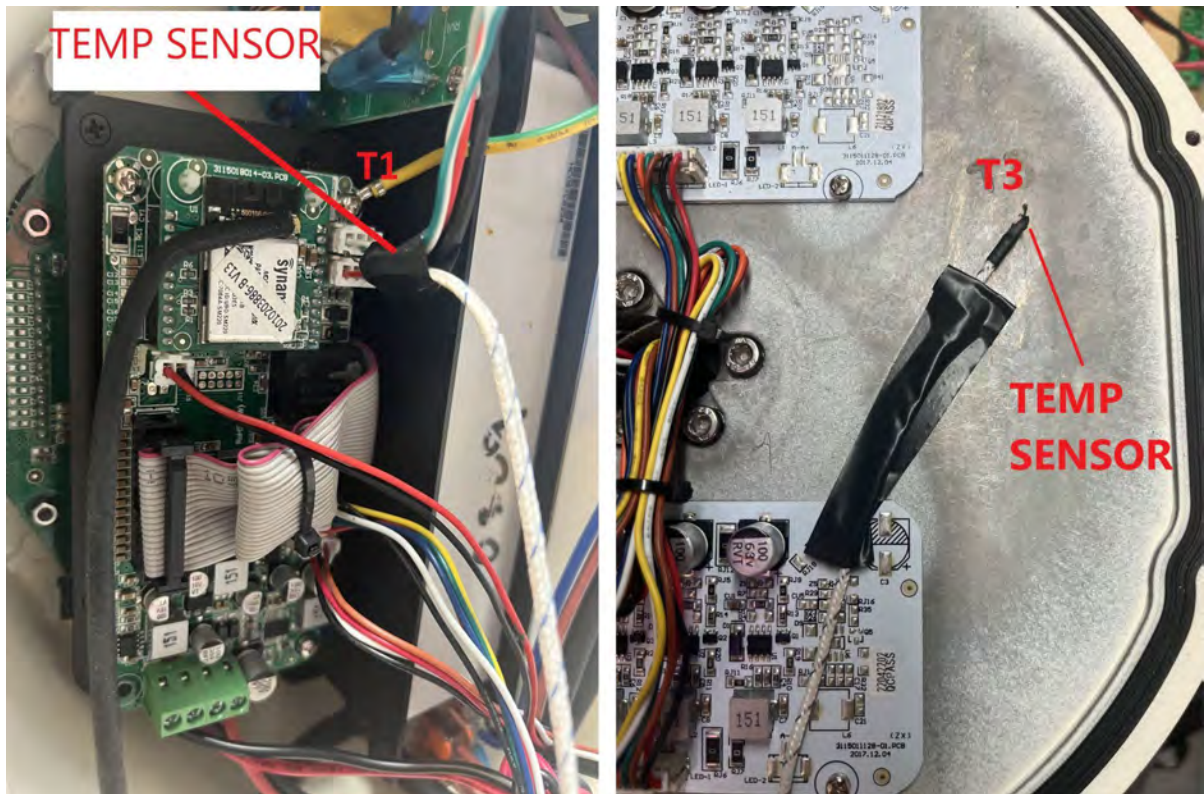


External Surface temperature

The fixture ending in serial number 241 was tested with 301.1V @ 60hz for 4 days. The fixture did not show any signs of component failure.

The test using 50ft of power cable, 50ft dmx cable output to 25ft OLS.

High Voltage Stress Test



Internal temperature

The fixtures on the job site showed signs of overheating to the dmx line and PCB. Two sensors were placed inside the fixture to measure temperature in the surrounding areas where we noted short circuits.

High Voltage Stress Test



The T3 sensor measures the heat dissipation from the fixture body to the driver boards. T1 sensor measures temperature on the dmx line and main PCB.

Conclusion

Temperatures measured on 300v 60z remained relatively constant to temperatures measured on a fixture running on 120v 60hz. Our test rules out overheating of components due to heat dissipation or high voltage as a cause for failure on the 8 fixtures reviewed.

Onsite Review



OLS Connectors

Corrosion on electrical contacts can cause resistance. Higher resistance on connection can generate heat.

Recommended action.

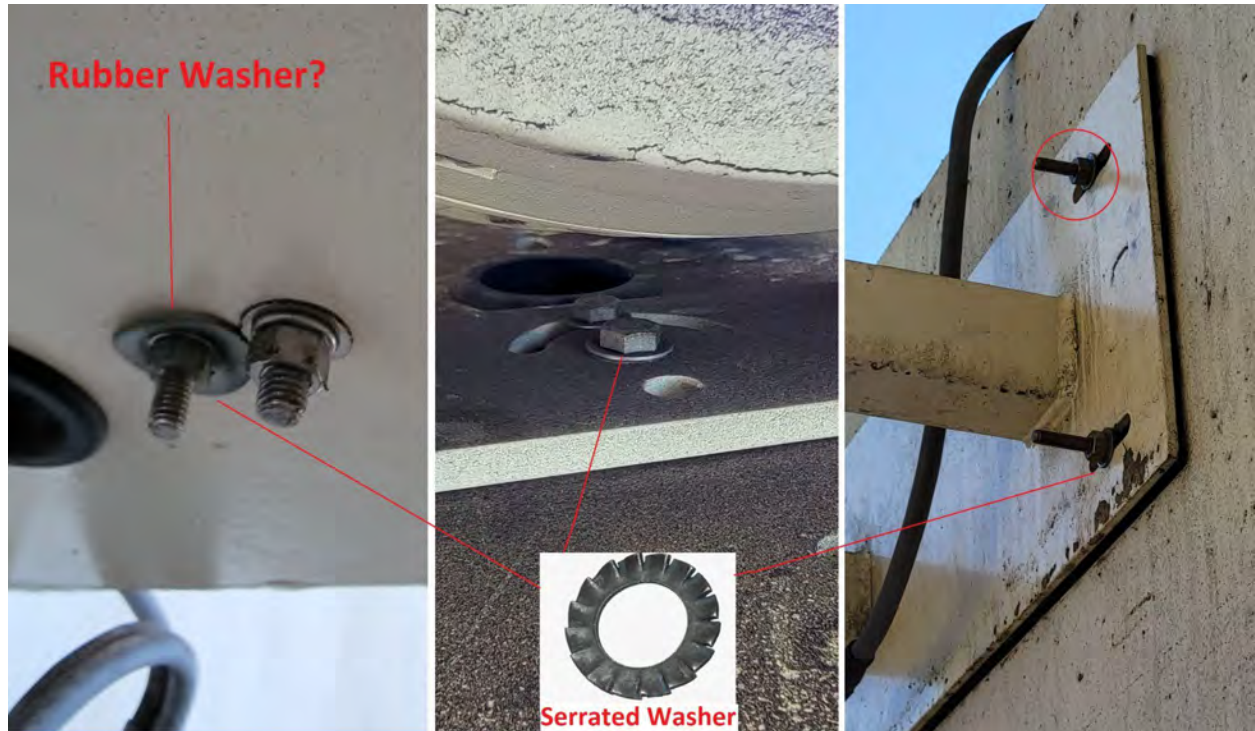
*Connection points must be capped during servicing/removal of fixtures—dielectric grease as an insulator to help corrosion and arcing.

Onsite Review



Straddle Bend Grounding

It is recommended serrated washers be used for all straddle bends that sit on top of rubber vibration pads. The concern here is that all parts of the straddle bend have a powder coating over them; this does not allow the flat washer to ground the bolt to the structure properly. Sanding of the area where the washer meets the straddle bend or the use of a serrated washer will help to ground the straddle bend to the structure properly.



Fixture mounted on straddle bend.

A serrated washer will help properly ground the fixture to the straddle bend. The teeth on the serrated washer will break through the powder coating, properly grounding the fixture to the structure.