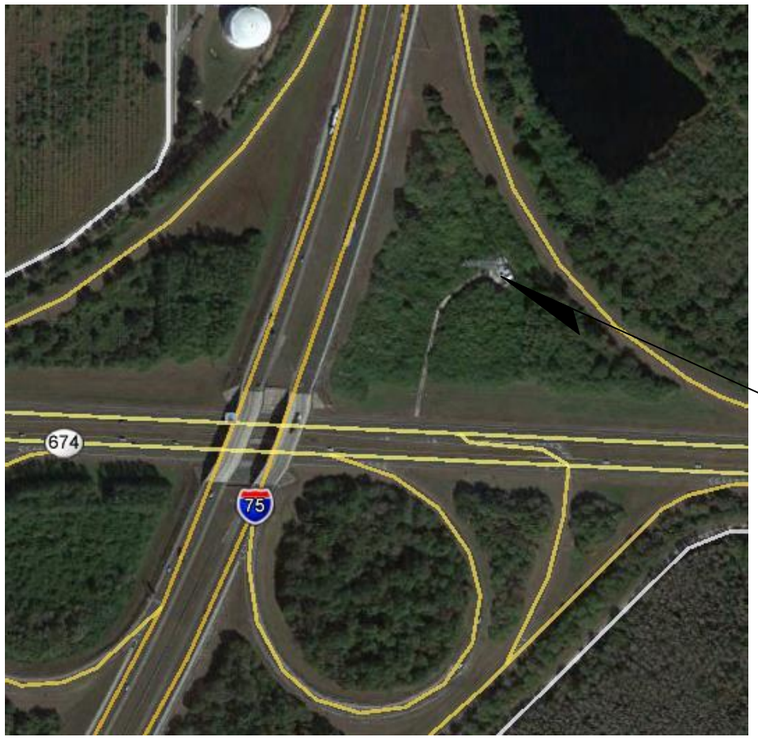
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

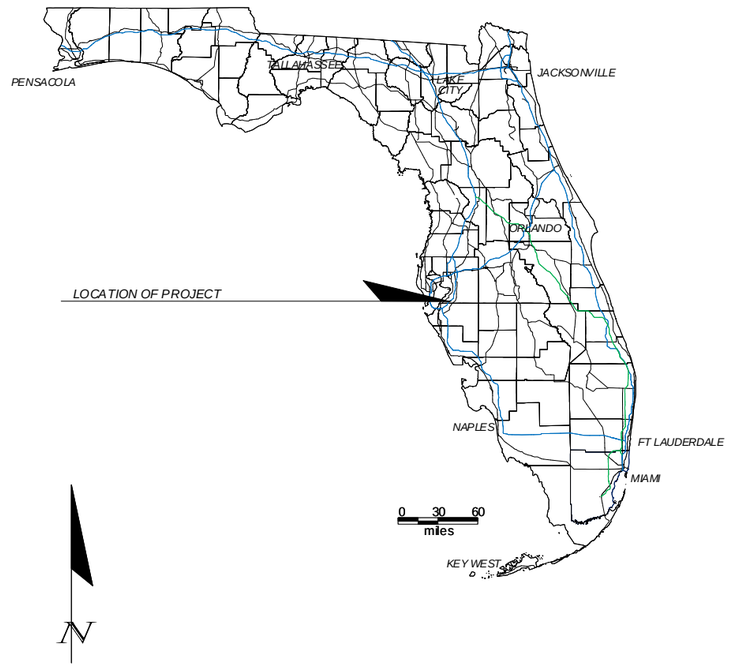
APPENDIX P

FINANCIAL PROJECT ID 424401-1-52-01
HILLSBOROUGH COUNTY
RUSKIN (7-7341) LED TOWER OBSTRUCTION LIGHTING UPGRADE

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

INDEX OF PLANS





TOWER SITE ADDRESS:

RUSKIN

3520 SUN CITY CENTER BLVD.
RUSKIN, FL 33573

LATITUDE: 27-42-50.6 N (NAD 83)
LONGITUDE: 82-22-57.4 W

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS (CURRENT EDITION),
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION (CURRENT EDITION),
AS AMENDED BY CONTRACT DOCUMENTS.

FLORIDA DEPARTMENT OF TRANSPORTATION LED TOWER OBSTRUCTION LIGHTING UPGRADE PROJECT

FDOT PROJECT MANAGER: RANDY PIERCE

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
RUSKIN	HILLSBOROUGH	424401-1-52-01

RUSKIN KEY SHEET

SHEET NO. P-1

https://atkins-my.sharepoint.com/personal/sean_kane_atkinsglobal_com/Documents/Desktop/Multiple Tower Light Upgrade Plans 20190329.vsdx

REMOVAL NOTES:

1. THE VENDOR SHALL REMOVE THE OLD OBSTRUCTION LIGHTING SYSTEM, INCLUDING BUT NOT LIMITED TO, POWER SUPPLIES, CONTROLLERS, SPDS, CONDUITS, TOWER LIGHT PHOTOCELL, AND ALL ASSOCIATED ELECTRICAL AND GROUNDING CONDUCTORS. THE VENDOR SHALL LEAVE THE CIRCUIT BREAKER IN PLACE AND SWITCH IT TO THE "OFF" POSITION. THE VENDOR SHALL DELIVER THE OLD TOWER LIGHT CONTROLLER AND STROBE TO THE MAINTENANCE CONTRACTOR ON SITE, AND PROPERLY DISPOSE OF THE REMAINING MATERIALS.

   THE VENDOR SHALL PATCH ALL WALL PENETRATIONS WITH AN APPROPRIATE MORTAR MIX AND SHALL APPROPRIATELY PLUG ALL OPENINGS TO ELECTRICAL BOXES THAT ARE A RESULT OF CONDUIT REMOVAL WITH METALLIC PLUGS.

2. THE VENDOR SHALL DISCONNECT AND PROPERLY REMOVE AND DISPOSE OF THE DB-230 ANTENNAS LABELED "K" THROUGH "M" AND THE ASSOCIATED TRANSMISSION LINES AND ANTENNA MOUNTS ON THE EXISTING TOWER LOADING DETAIL ON SHEET P-4. THE VENDOR SHALL REMOVE AND PROPERLY DISPOSE OF THE TRANSMISSION LINE SPDS LOCATED INSIDE THE COMMUNICATIONS SHELTER UPON THE TRANSMISSION LINES ENTERING THE SHELTER, AND RETURN TO THE FDOT. THE VENDOR SHALL INSTALL NEW ENTRY PORT BOOTS ON THE BULKHEAD.

ESTERO INSTALLATION NOTES:

1. THE VENDOR SHALL FURNISH AND INSTALL A NEW -48 VDC LED DUAL DAYTIME/NIGHT-TIME TOWER OBSTRUCTION LIGHTING SYSTEM IN ACCORDANCE WITH THESE PLANS. THE TOWER OBSTRUCTION LIGHTING SYSTEM SHALL BE TECHNOSTROBE E1-LED-B-HYBRID-48VDC-SNMP-2M-C-APT-DS-G5 DUAL LED FLASH HEAD. TOWER LIGHTS TO BE INSTALLED ARE LABELED "A" AND "J" ON THE PROPOSED TOWER LOADING DETAIL ON SHEET P-4.

   THE TOWER OBSTRUCTION LIGHTING SYSTEM AND CONDUIT SHALL BE MOUNTED TO THE TOWER AND HORIZONTAL TRANSMISSION LINE BRIDGE WITH GALVANIZED OR STAINLESS STEEL BOLT-ON HARDWARE. SNAP-ON HANGERS ARE NOT PERMITTED. ALL EXTERIOR TOWER LIGHTING CABLES SHALL BE INSTALLED IN APPROPRIATELY SIZED RIGID GALVANIZED STEEL (RGS) CONDUIT.

   THE TOWER LIGHT CONTROLLER SHALL BE MOUNTED INSIDE THE COMMUNICATIONS SHELTER. SEE SHEET P-3.

2. THE VENDOR SHALL FURNISH AND INSTALL NEW ELECTRICAL METALLIC TUBING (EMT) CONDUIT INSIDE THE COMMUNICATIONS SHELTER BETWEEN THE TOWER LIGHT CONTROLLER AND THE -48VDC DISTRIBUTION RACK. THE VENDOR SHALL FURNISH AND INSTALL NEW EMT CONDUIT FOR THE PHOTOCELL AND CONTROL WIRING BETWEEN THE TOWER LIGHT CONTROLLER AND ENTRY PORT INSIDE THE SHELTER, AND IT SHALL BE LOCATED SO AS NOT TO OBSCURE ANY PORTION OF AN ELECTRICAL OUTLET OR JUNCTION BOX, PER NEC, ITEM 11, 'APPLICABLE PUBLICATIONS AND STANDARDS' OR OBSTRUCT ANY EMPTY ENTRY PORTS. THE VENDOR SHALL REUSE THE EXISTING EXTERIOR PHOTOCELL METALLIC CONDUIT. THE VENDOR SHALL TERMINATE THE EXTERIOR EMT CONDUIT AT BOTH ENDS WITH AN END BUSHING.

3. THE VENDOR SHALL INSTALL THE LOAD CONDUCTORS BETWEEN THE TOWER LIGHTING SYSTEM, AND THE -48VDC DISTRIBUTION PANEL, IN ACCORDANCE WITH SHEET A-4. THE 10A BREAKER MODEL SHALL BE:

   AIRPAX
   MODEL: LML1-1RLS4R-29954-10

4. THE VENDOR SHALL CONFIGURE THE TECHNOSTROBE TOWER LIGHT CONTROLLER WITH THE FOLLOWING NETWORK INFORMATION:

   IP ADDRESS: 172.16.104.14
   SUBNET MASK: 255.255.254.0
   DEFAULT GATEWAY: 172.16.104.19

5. THE VENDOR SHALL CONFIGURE THE TECHNOSTROBE TOWER LIGHT CONTROLLER WITH THE FOLLOWING SNMP INFORMATION:

   STATE: RUSKIN
   READ COMMUNITY: PUBLIC
   WRITE COMMUNITY: PUBLIC
   SYSTEM NAME: RUSKIN TECHNOSTROBE
   SYSTEM DESCRIPTION: RUSKIN TECHNOSTROBE TOWER LIGHTS
   SYSTEM LOCATION: RUSKIN
   TRAP STATE: ENABLED
   TRAPS PRIMARY DESTINATION: 172.16.2.21
   TRAPS SECONDARY DESTINATION: 172.16.16.21

6. THE VENDOR SHALL NOTIFY THE FDOT UPON COMPLETION OF ALL TOWER OBSTRUCTION LIGHTING SYSTEM INSTALLATION WORK.
7. THE FDOT WILL INSPECT THE TOWER OBSTRUCTION LIGHTING SYSTEM INSTALLATION FOR COMPLIANCE WITH THESE SPECIFICATIONS.
8. THE FDOT WILL WITNESS COMMISSIONING AND TESTING OF THE NEW TOWER OBSTRUCTION LIGHTING SYSTEM AND NOTIFY THE VENDOR OF FINAL ACCEPTANCE.

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

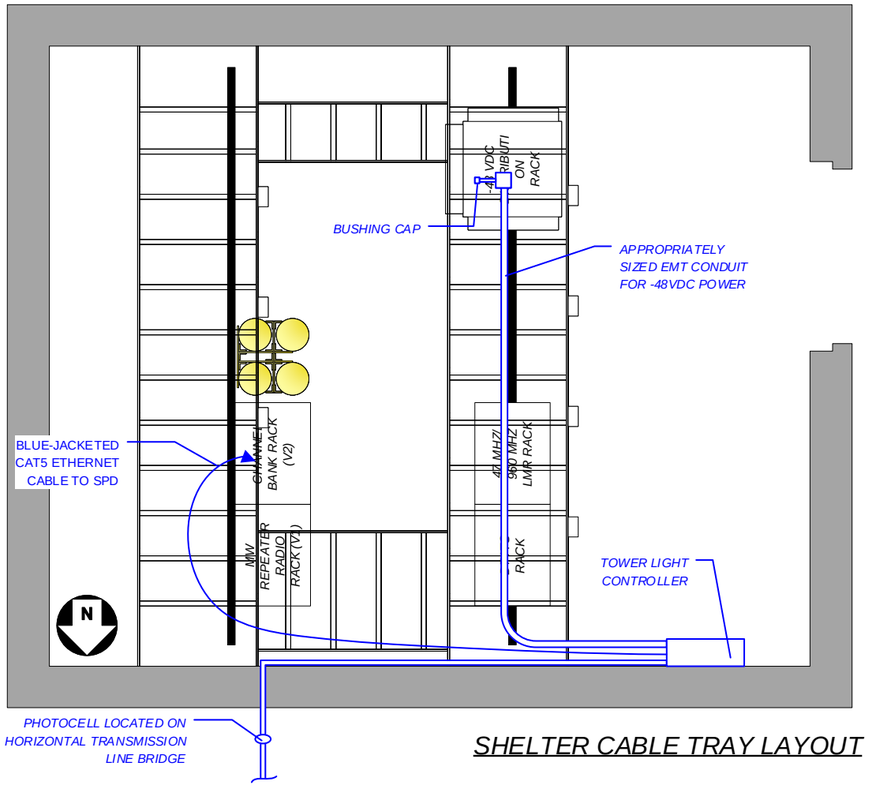
FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

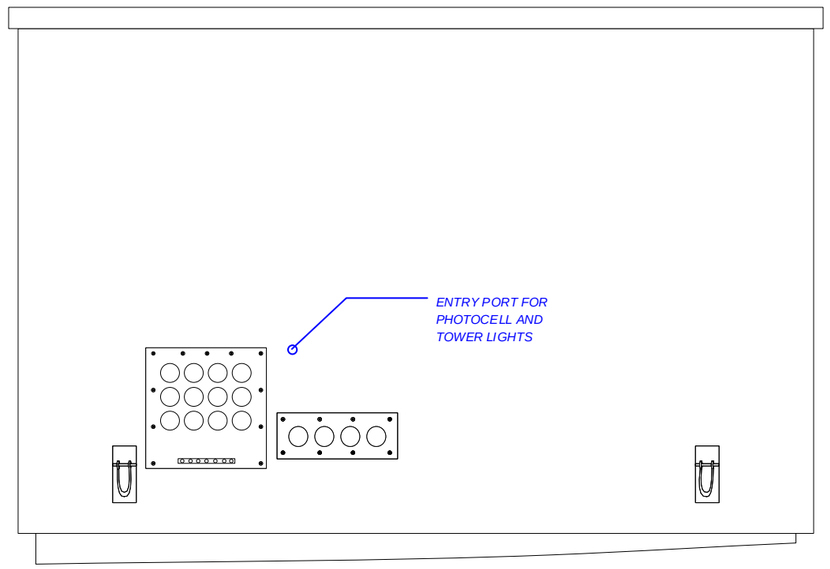
SITE NAME	COUNTY	FINANCIAL PROJECT ID
RUSKIN	HILLSBOROUGH	424401-1-52-01

RUSKIN
REMOVAL AND
INSTALLATION NOTES

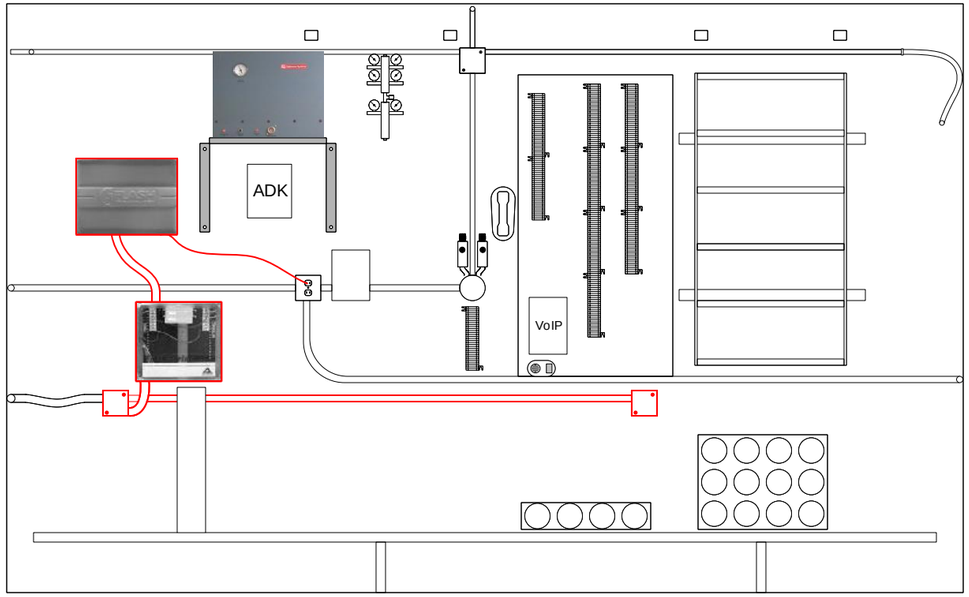
SHEET NO.
P-2



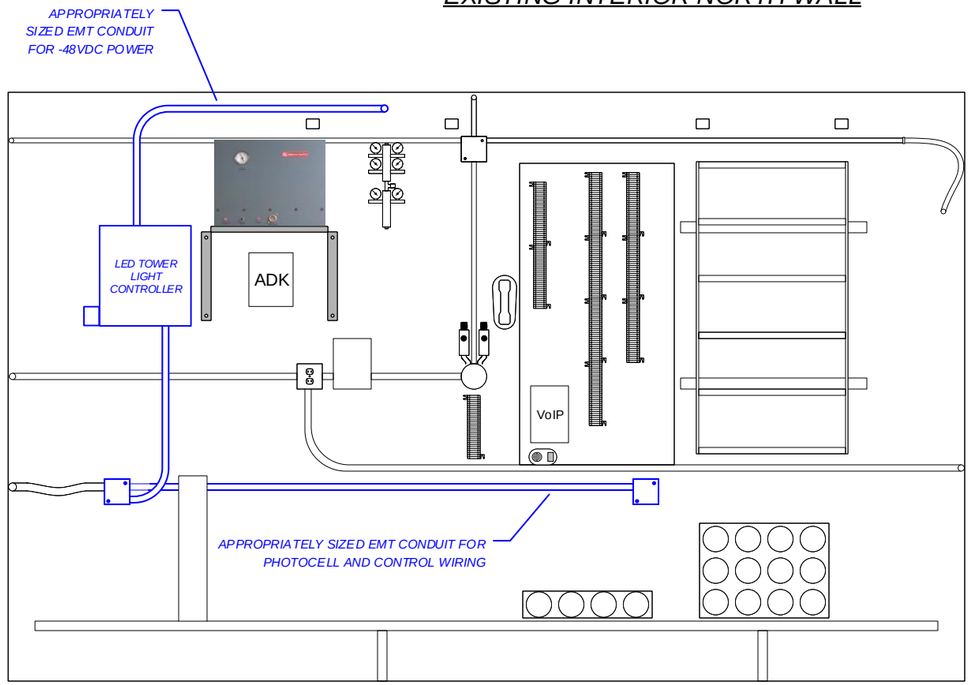
SHELTER CABLE TRAY LAYOUT



EXTERIOR NORTH WALL



EXISTING INTERIOR NORTH WALL



PROPOSED INTERIOR NORTH WALL

NOTES

1. *THE APPROXIMATE LOCATION OF THE EQUIPMENT IS FOR DIAGRAMMATICAL PURPOSES ONLY. THE VENDOR IS RESPONSIBLE FOR DETERMINING THE BEST LOCATIONS FOR EQUIPMENT AND ALL ASSOCIATED CONDUITS AND MOUNTING AND GROUNDING HARDWARE. THE VENDOR SHALL SUBMIT DETAILED PLANS FOR APPROVAL BY THE FDOT.*
2. *THE VENDOR SHALL PATCH ALL WALL PENETRATIONS WITH AN APPROPRIATE MORTAR MIX AND SHALL APPROPRIATELY PLUG ALL OPENINGS TO ELECTRICAL BOXES THAT ARE A RESULT OF CONDUIT REMOVAL WITH METALLIC PLUGS.*
3. *THE VENDOR SHALL INSTALL THE NEW TECHNOSTROBE -48 VDC TOWER OBSTRUCTION LIGHTING SYSTEM MODEL E1-LED-B-HYBRID-48VDC-SNMP-2M-C-APT-DS-G5 DUAL LED FLASH HEAD WITH ASSOCIATED PHOTOCELL, SURGE PROTECTION, GROUNDING, AND CONDUIT.*
4. *THE VENDOR SHALL FURNISH AND INSTALL ONE (1) ETHERNET SURGE PROTECTIVE DEVICE (SPD), MTL-SURGE MODEL NUMBER ZB24540. THIS SPD SHALL BE MOUNTED ON THE DIN RAIL IN THE CHANNEL BANK RACK.*
5. *THE VENDOR SHALL INSTALL CUSTOM LENGTH BLUE-JACKETED CAT 5 CABLE FROM THE TECHNOSTROBE ETHERNET PORT TO THE NEWLY INSTALLED ETHERNET SPD IN THE CHANNEL BANK RACK, AND FROM THE SPD TO THE BPS 2000, PORT #22.*

   THE VENDOR SHALL ROUTE THE NEW BLUE-JACKETED CAT 5 ETHERNET CABLE ALONG THE OVERHEAD CABLE TRAYS, PARALLEL TO EXISTING ETHERNET CABLES TO THE CHANNEL BANK RACK. THE VENDOR SHALL INDEPENDENTLY SECURE THE ETHERNET CABLE TO THE OVERHEAD CABLE TRAYS WITH ZIP TIES OR LACING STRING, AT 36 IN. INTERVALS, MAXIMUM.
6. *THE VENDOR SHALL MECHANICALLY GROUND THE TECHNOSTROBE TOWER LIGHT CONTROLLER TO THE GROUND HALO USING #6 AWG GREEN JACKETED CONDUCTOR. THE GROUND SHALL BE DOWNWARD COURSING, AND AS STRAIGHT AND SHORT AS POSSIBLE.*

   THE VENDOR SHALL CLEAN AND PREPARE ALL GROUND CONDUCTORS AND SURFACES PRIOR TO BONDS. ALL NON-CONDUCTING SURFACE COATINGS SHALL BE REMOVED BEFORE EACH CONNECTION IS MADE.

EXISTING

VENDOR FURNISHED AND INSTALLED

TO BE REMOVED BY VENDOR

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FDOT
FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

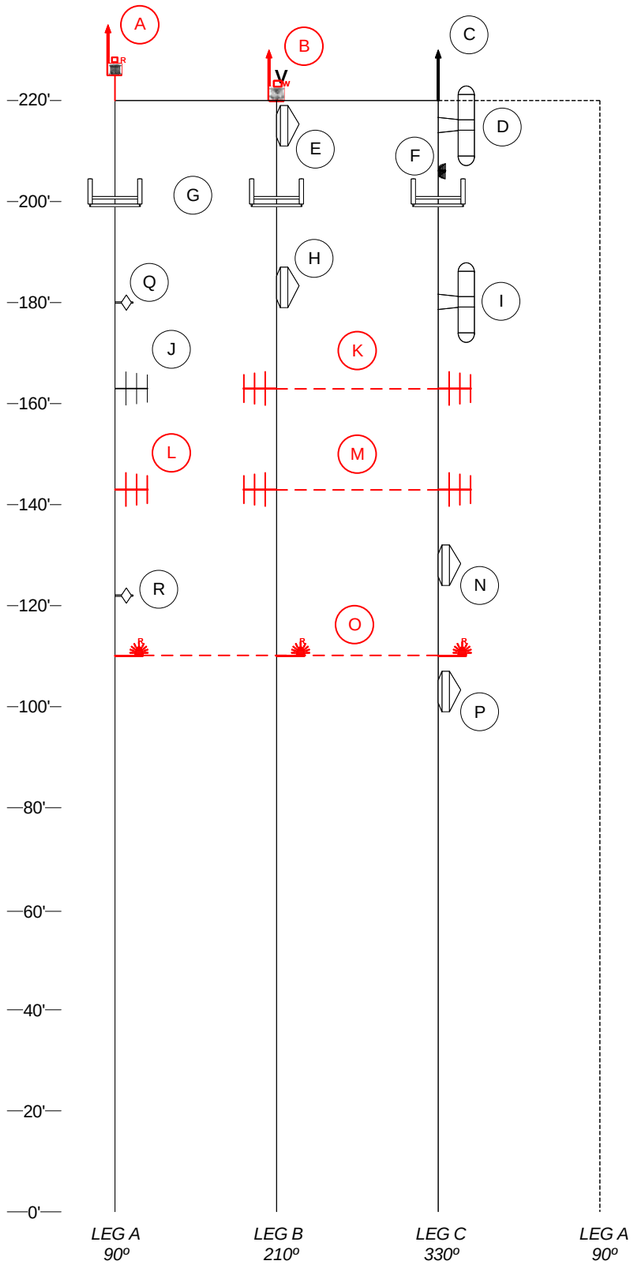
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
RUSKIN	HILLSBOROUGH	424401-1-52-01

RUSKIN COMM BLDG PLANS

SHEET NO. P-3

https://atkins-my.sharepoint.com/personal/sean_kane_atkinsglobal_com/Documents/Desktop/Multiple Tower Light Upgrade Plans 20190329.vsdx

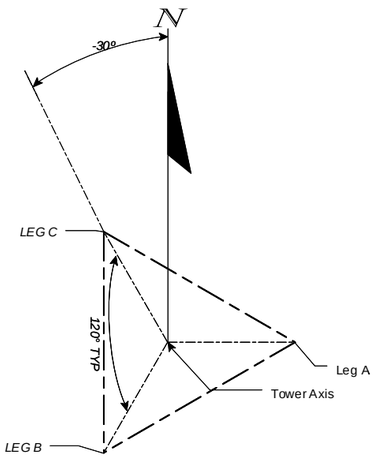


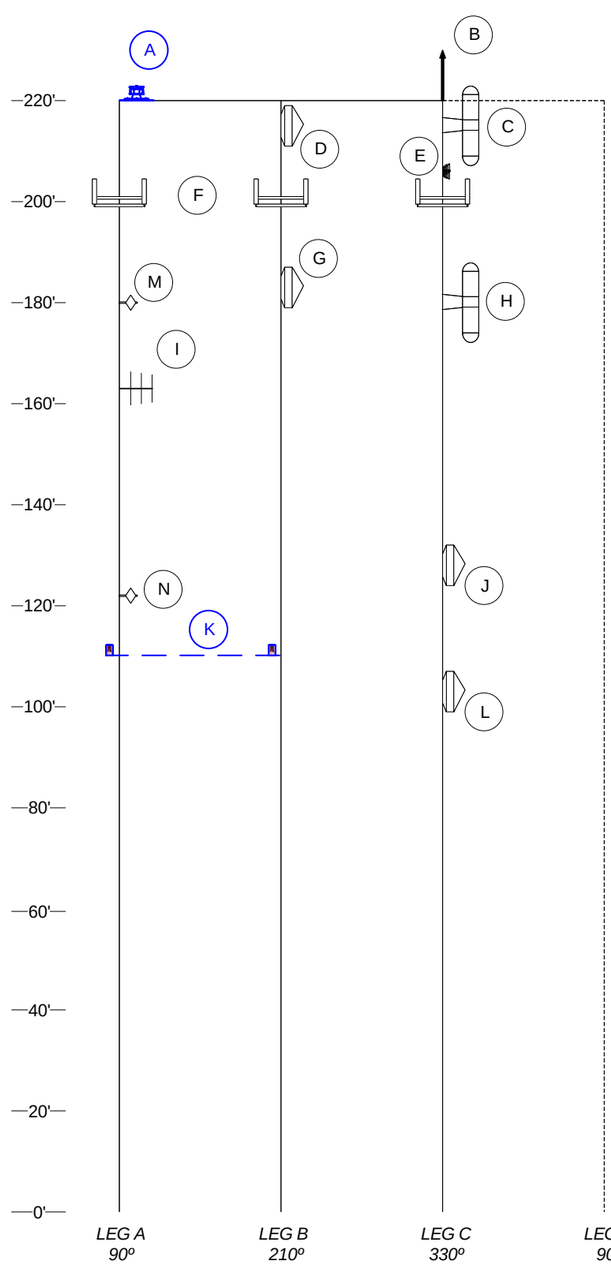
EXISTING TOWER LOADING DIAGRAM

ID	MODEL	LEG/ FACE	MNT. HGT.	TX LINE	AZIM.	NOTES
A	RED BEACON WITH AIR TERMINAL	A	225' BASE	-	-	1
B	WHITE STROBE WITH AIR TERMINAL	B	220' BASE	-	-	1
C	AIR TERMINAL	C	220' BASE	-	-	-
D	531-70 HDB	C	215' (C.L.)	7/8"	270°	RX/2
E	PA8-65	B	215' (C.L.)	WE-65	188.7°	-
F	MF-950B	C	206' (C.L.)	7/8"	293°	2
G	(6) KWN HB-X-AW-23-33-T	A,B,C	199' BASE	(12) 1-5/8"	0°,120°, 240°	-
H	PA8-65	B	183' BASE	WE-65	188.7°	-
I	531-70 HDB	C	180' (C.L.)	7/8"	270°	TX
J	DB230	A	163' (C.L.)	1/2"	45°	-
K	DB-230-2	B,C	163' (C.L.)	1/2"	233°	2
L	DB230	A	143' (C.L.)	1/2"	233°	2
M	DB-230-2	B,C	143' (C.L.)	1/2"	233°	2
N	PA8-65	C	128' (C.L.)	WE-65	3.7°	-
O	SIDE MARKERS	A,B,C	110' BASE	-	-	1
P	PA8-65	C	103' (C.L.)	WE-65	3.7°	-
Q	4.9 GHZ RADIO W/ 14" PANEL ANT	A	180' (C.L.)	CAT6	-	-
R	4.9 GHZ RADIO W/ 14" PANEL ANT	A	120' (C.L.)	CAT6	-	-

NOTES:

1. REMOVE AND PROPERLY DISPOSE OF THE TOWER OBSTRUCTION LIGHTING SYSTEM, CONDUIT, AND ASSOCIATED MOUNTING HARDWARE PER THESE PLANS. THE STROBE SHALL BE PRESERVED AND DELIVERED TO THE MAINTENANCE CONTRACTOR IN ACCORDANCE WITH SHEET P-2 REMOVAL NOTE 1.
2. VENDOR SHALL REMOVE AND PROPERLY DISPOSE OF THE ANTENNAS, MOUNTING HARDWARE, AND TRANSMISSION LINES
3. RESTORE SITE COMPOUND PER THESE PLANS.





PROPOSED TOWER LOADING DIAGRAM

ID	MODEL	LEG/ FACE	MNT. HGT.	TX LINE	AZIM.	NOTES
A	TECHNOSTROBE DUAL LED FLASH HEAD	A	225' BASE	CONDUIT	-	1
B	AIR TERMINAL	C	220' BASE	-	-	-
C	531-70 HDB	C	215' (C.L.)	7/8"	270°	RX/2
D	PA8-65	B	215' (C.L.)	WE-65	188.7°	-
E	MF-950B	C	206' (C.L.)	7/8"	293°	2
F	(6) KWN HB-X-AW-23-33-T	A,B,C	199' BASE	(12) 1-5/8"	0°,120°,240°	-
G	PA8-65	B	183' BASE	WE-65	188.7°	-
H	531-70 HDB	C	180' (C.L.)	7/8"	270°	TX
I	DB230	A	163' (C.L.)	1/2"	45°	-
J	PA8-65	C	128' (C.L.)	WE-65	3.7°	-
K	(2) LED SIDE MARKERS	A, B	110' BASE	SAME CONDUIT	-	1
L	PA8-65	C	103' (C.L.)	WE-65	3.7°	-
M	4.9 GHZ RADIO W/14" PANEL ANT	A	180' (C.L.)	CAT6	-	-
N	4.9 GHZ RADIO W/14" PANEL ANT	A	120' (C.L.)	CAT6	-	-

NOTES:

1. THE VENDOR SHALL INSTALL THE NEW TECHNOSTROBE E1-LED-B-HYBRID-48VDC-SNMP-2M-C-APT-DS-G5 TOWER LIGHTING SYSTEM IN ACCORDANCE WITH SHEET A-3.

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
RUSKIN	HILLSBOROUGH	424401-1-52-01

RUSKIN TOWER LOADING DIAGRAM

SHEET NO.
P-4

https://atkins-my.sharepoint.com/personal/sean_kane_atkinsglobal_com/Documents/Desktop/Multiple Tower Light Upgrade Plans 20190329.vsdx

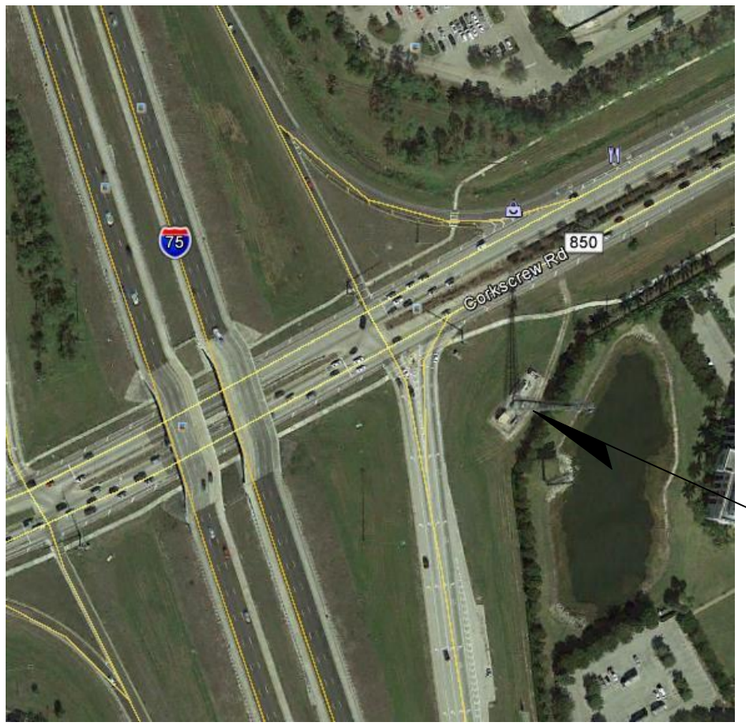
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

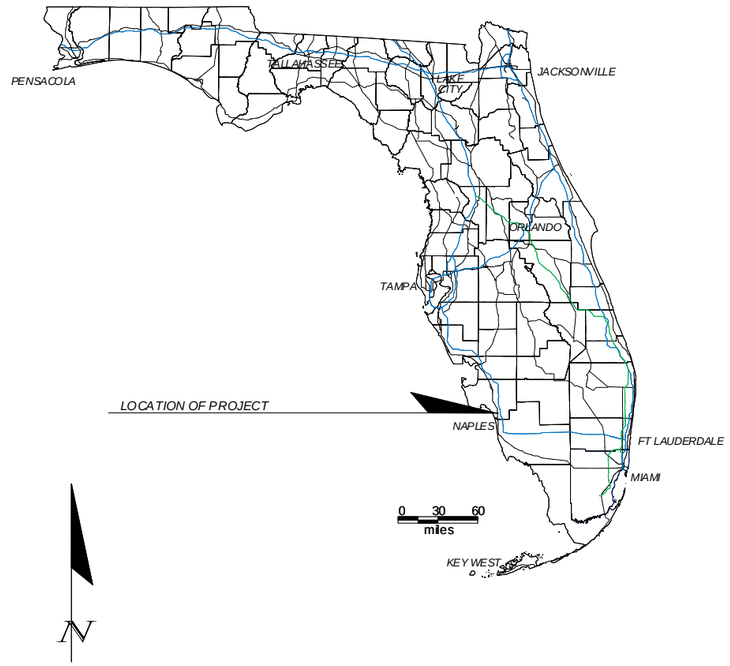
APPENDIX Q

FINANCIAL PROJECT ID 424401-1-52-01
LEE COUNTY
ESTERO (7-7341) LED TOWER OBSTRUCTION LIGHTING UPGRADE

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

INDEX OF PLANS





TOWER SITE ADDRESS:

ESTERO

10800 CORKSCREW RD.
ESTERO, FL 33928

LATITUDE: 26-25-56.7 N (NAD 83)
LONGITUDE: 81-46-35.1 W

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS (CURRENT EDITION),
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION (CURRENT EDITION),
AS AMENDED BY CONTRACT DOCUMENTS.

FLORIDA DEPARTMENT OF TRANSPORTATION
LED TOWER OBSTRUCTION LIGHTING UPGRADE PROJECT

FDOT PROJECT MANAGER: RANDY PIERCE

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
ESTERO	LEE	424401-1-52-01

ESTERO KEY SHEET

SHEET NO. Q-1

https://atkins-my.sharepoint.com/personal/sean_kane_atkinsglobal_com/Documents/Desktop/Multiple Tower Light Upgrade Plans 20190329.vsdx

REMOVAL NOTES:

1. *THE VENDOR SHALL REMOVE THE OLD OBSTRUCTION LIGHTING SYSTEM, INCLUDING BUT NOT LIMITED TO, POWER SUPPLIES, CONTROLLERS, SPDS, CONDUITS, TOWER LIGHT PHOTOCELL, AND ALL ASSOCIATED ELECTRICAL AND GROUNDING CONDUCTORS. THE VENDOR SHALL LEAVE THE CIRCUIT BREAKER IN PLACE AND SWITCH IT TO THE "OFF" POSITION. THE VENDOR SHALL DELIVER THE OLD TOWER LIGHT CONTROLLER AND STROBE TO THE MAINTENANCE CONTRACTOR ON SITE, AND PROPERLY DISPOSE OF THE REMAINING MATERIALS.*

   THE VENDOR SHALL PATCH ALL WALL PENETRATIONS WITH AN APPROPRIATE MORTAR MIX AND SHALL APPROPRIATELY PLUG ALL OPENINGS TO ELECTRICAL BOXES THAT ARE A RESULT OF CONDUIT REMOVAL WITH METALLIC PLUGS.

ESTERO INSTALLATION NOTES:

1. *THE VENDOR SHALL FURNISH AND INSTALL A NEW -48 VDC LED WHITE DAYTIME/NIGHT-TIME TOWER OBSTRUCTION LIGHTING SYSTEM IN ACCORDANCE WITH THESE PLANS. THE TOWER OBSTRUCTION LIGHTING SYSTEM SHALL BE TECHNOSTROBE D1-LED-B-WHITE-48VDC-SNMP-C-APT-DS-G5 WHITE LED FLASH HEAD. TOWER LIGHT TO BE INSTALLED IS LABELED "A" ON THE PROPOSED TOWER LOADING DETAIL ON SHEET Q-4.*

   THE TOWER OBSTRUCTION LIGHTING SYSTEM AND CONDUIT SHALL BE MOUNTED TO THE TOWER AND HORIZONTAL TRANSMISSION LINE BRIDGE WITH GALVANIZED OR STAINLESS STEEL BOLT-ON HARDWARE. SNAP-ON HANGERS ARE NOT PERMITTED. ALL EXTERIOR TOWER LIGHTING CABLES SHALL BE INSTALLED IN APPROPRIATELY SIZED RIGID GALVANIZED STEEL (RGS) CONDUIT.

   THE TOWER LIGHT CONTROLLER SHALL BE MOUNTED INSIDE THE COMMUNICATIONS SHELTER. SEE SHEET Q-3.

2. *THE VENDOR SHALL FURNISH AND INSTALL NEW ELECTRICAL METALLIC TUBING (EMT) CONDUIT INSIDE THE COMMUNICATIONS SHELTER BETWEEN THE TOWER LIGHT CONTROLLER AND THE -48VDC DISTRIBUTION RACK. THE VENDOR SHALL FURNISH AND INSTALL NEW EMT CONDUIT FOR THE PHOTOCELL AND CONTROL WIRING BETWEEN THE TOWER LIGHT CONTROLLER AND ENTRY PORT INSIDE THE SHELTER, AND IT SHALL BE LOCATED SO AS NOT TO OBSCURE ANY PORTION OF AN ELECTRICAL OUTLET OR JUNCTION BOX, PER NEC, ITEM 11, 'APPLICABLE PUBLICATIONS AND STANDARDS' OR OBSTRUCT ANY EMPTY ENTRY PORTS. THE VENDOR SHALL REUSE THE EXISTING EXTERIOR PHOTOCELL METALLIC CONDUIT. THE VENDOR SHALL TERMINATE THE EXTERIOR EMT CONDUIT AT BOTH ENDS WITH AN END BUSHING.*

3. *THE VENDOR SHALL INSTALL THE LOAD CONDUCTORS BETWEEN THE TOWER LIGHTING SYSTEM, AND THE -48VDC DISTRIBUTION PANEL, IN ACCORDANCE WITH SHEET A-4. THE 10A BREAKER MODEL SHALL BE:*

   EATON HEINEMANN
   AM1-2774-2
   AM1-B3-A
   AMPERAGE: 10 AMPS
   VOLTAGE: 65VDC
   DELAY: 3

4. *THE VENDOR SHALL CONFIGURE THE TECHNOSTROBE TOWER LIGHT CONTROLLER WITH THE FOLLOWING NETWORK INFORMATION:*

   IP ADDRESS: 172.16.112.14
   SUBNET MASK: 255.255.254.0
   DEFAULT GATEWAY: 172.16.112.19

5. *THE VENDOR SHALL CONFIGURE THE TECHNOSTROBE TOWER LIGHT CONTROLLER WITH THE FOLLOWING SNMP INFORMATION:*

   STATE: ENABLED
   READ COMMUNITY: PUBLIC
   WRITE COMMUNITY: PUBLIC
   SYSTEM NAME: ESTERO TECHNOSTROBE
   SYSTEM DESCRIPTION: ESTERO TECHNOSTROBE TOWER LIGHTS
   SYSTEM LOCATION: ESTERO
   TRAP STATE: ENABLED
   TRAPS PRIMARY DESTINATION: 172.16.2.21
   TRAPS SECONDARY DESTINATION: 172.16.16.21

6. *THE VENDOR SHALL NOTIFY THE FDOT UPON COMPLETION OF ALL TOWER OBSTRUCTION LIGHTING SYSTEM INSTALLATION WORK.*
7. *THE FDOT WILL INSPECT THE TOWER OBSTRUCTION LIGHTING SYSTEM INSTALLATION FOR COMPLIANCE WITH THESE SPECIFICATIONS.*
8. *THE FDOT WILL WITNESS COMMISSIONING AND TESTING OF THE NEW TOWER OBSTRUCTION LIGHTING SYSTEM AND NOTIFY THE VENDOR OF FINAL ACCEPTANCE.*

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

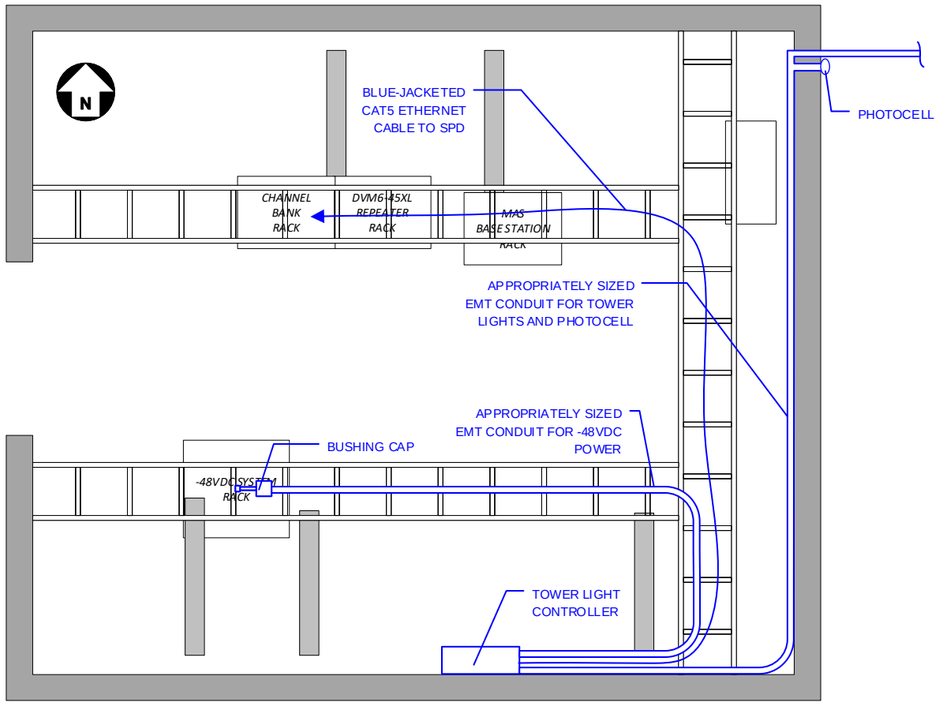
FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

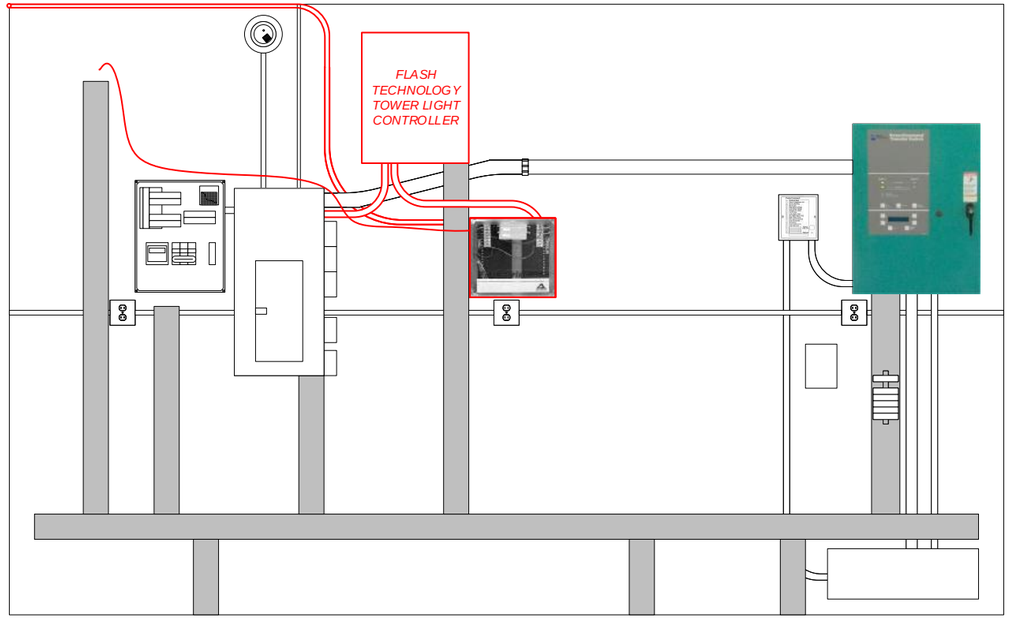
SITE NAME	COUNTY	FINANCIAL PROJECT ID
ESTERO	LEE	424401-1-52-01

ESTERO
REMOVAL AND
INSTALLATION NOTES

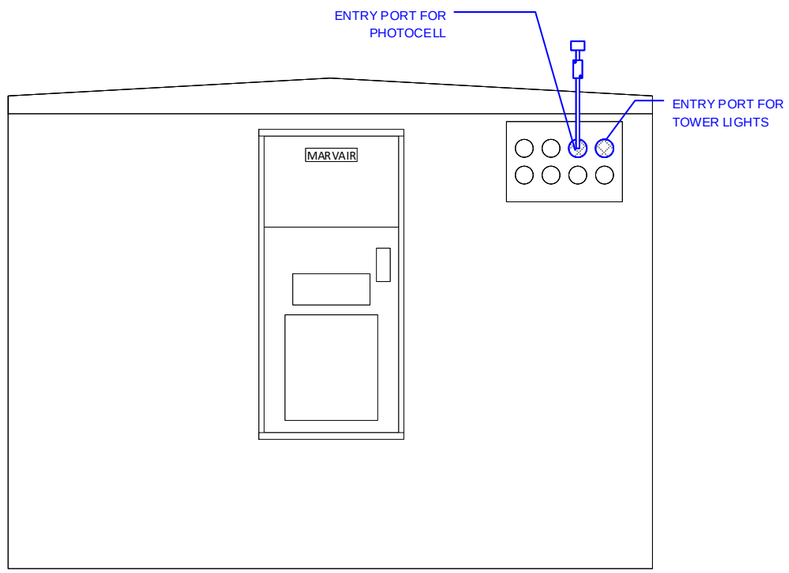
SHEET NO.
Q-2



SHELTER CABLE TRAY PLAN



EXISTING INTERIOR SOUTH WALL



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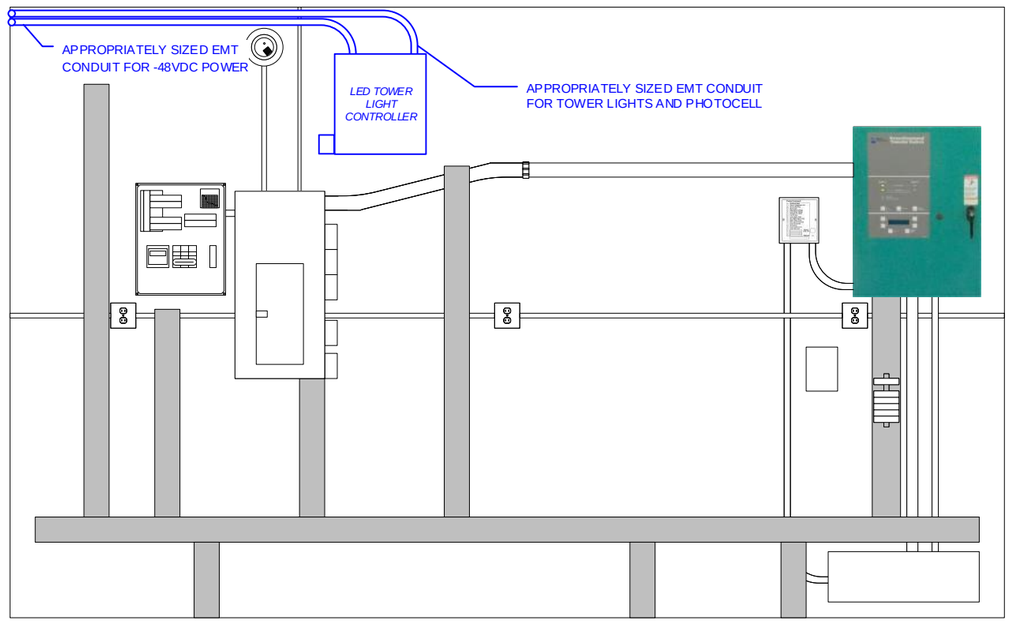


PROPOSED INTERIOR SOUTH WALL

NOTES

1. THE APPROXIMATE LOCATION OF THE EQUIPMENT IS FOR DIAGRAMMATICAL PURPOSES ONLY. THE VENDOR IS RESPONSIBLE FOR DETERMINING THE BEST LOCATIONS FOR EQUIPMENT AND ALL ASSOCIATED CONDUITS AND MOUNTING AND GROUNDING HARDWARE. THE VENDOR SHALL SUBMIT DETAILED PLANS FOR APPROVAL BY THE FDOT.
2. THE VENDOR SHALL PATCH ALL WALL PENETRATIONS WITH AN APPROPRIATE MORTAR MIX AND SHALL APPROPRIATELY PLUG ALL OPENINGS TO ELECTRICAL BOXES THAT ARE A RESULT OF CONDUIT REMOVAL WITH METALLIC PLUGS.
3. THE VENDOR SHALL INSTALL THE NEW TECHNOSTROBE -48 VDC TOWER OBSTRUCTION LIGHTING SYSTEM MODEL D1-LED-B-WHITE-48VDC-SNMP-C-APT-DS-G5 WHITE LED FLASH HEAD WITH ASSOCIATED PHOTOCELL, SURGE PROTECTION, GROUNDING, AND CONDUIT.
4. THE VENDOR SHALL FURNISH AND INSTALL ONE (1) ETHERNET SURGE PROTECTIVE DEVICE (SPD), MTL-SURGE MODEL NUMBER ZB24540. THIS SPD SHALL BE MOUNTED ON THE DIN RAIL IN THE CHANNEL BANK RACK.
5. THE VENDOR SHALL INSTALL CUSTOM LENGTH BLUE-JACKETED CAT 5 CABLE FROM THE TECHNOSTROBE ETHERNET PORT TO THE NEWLY INSTALLED ETHERNET SPD IN THE CHANNEL BANK RACK, AND FROM THE SPD TO THE BPS 2000, PORT #22.

   THE VENDOR SHALL ROUTE THE NEW BLUE-JACKETED CAT 5 ETHERNET CABLE ALONG THE OVERHEAD CABLE TRAYS, PARALLEL TO EXISTING ETHERNET CABLES TO THE CHANNEL BANK RACK. THE VENDOR SHALL INDEPENDENTLY SECURE THE ETHERNET CABLE TO THE OVERHEAD CABLE TRAYS WITH ZIP TIES OR LACING STRING, AT 36 IN. INTERVALS, MAXIMUM.
6. THE VENDOR SHALL MECHANICALLY GROUND THE TECHNOSTROBE TOWER LIGHT CONTROLLER TO THE GROUND HALO USING #6 AWG GREEN JACKETED CONDUCTOR. THE GROUND SHALL BE DOWNWARD COURSING, AND AS STRAIGHT AND SHORT AS POSSIBLE.

   THE VENDOR SHALL CLEAN AND PREPARE ALL GROUND CONDUCTORS AND SURFACES PRIOR TO BONDS. ALL NON-CONDUCTING SURFACE COATINGS SHALL BE REMOVED BEFORE EACH CONNECTION IS MADE.

LEGEND

- EXISTING
- VENDOR FURNISHED AND INSTALLED
- TO BE REMOVED BY VENDOR

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

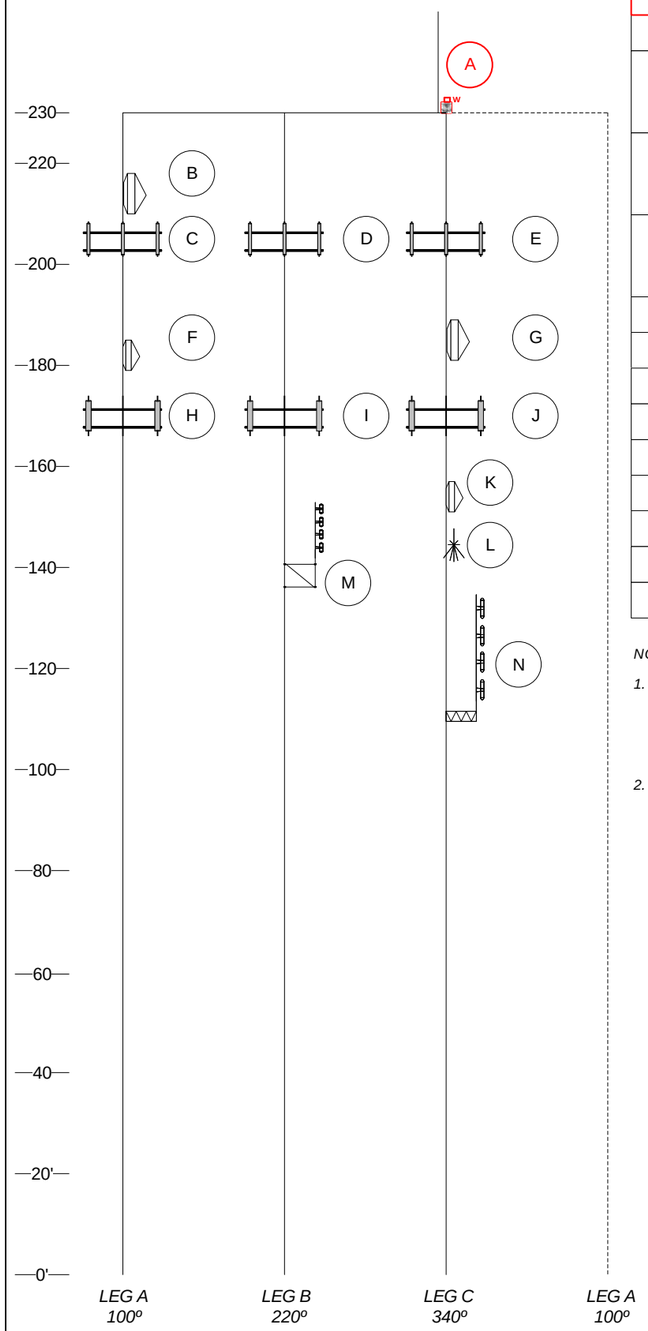
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
ESTERO	LEE	424401-1-52-01

ESTERO COMM BLDG PLANS

SHEET NO. Q-3

https://atkins-my.sharepoint.com/personal/sean_kane_atkinsglobal_com/Documents/Desktop/Multiple Tower Light Upgrade Plans 20190329.vsdx

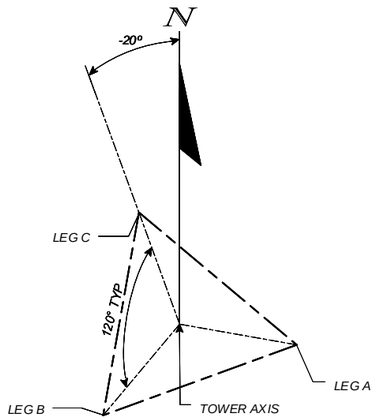


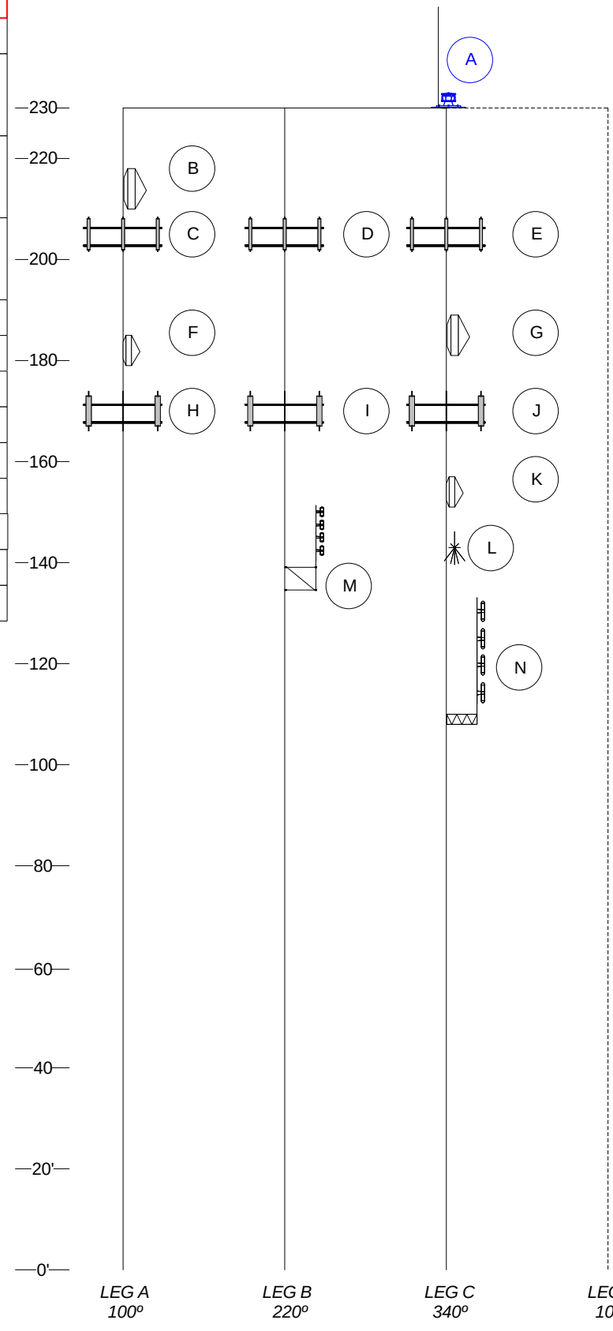
EXISTING TOWER LOADING DIAGRAM

ID	MODEL	LEG/ FACE	MNT. HGT.	TX LINE	DEG.	NOTES
A	WHITE STROBE	C	230' BASE	-	-	1
B	P8-65D	A	214' (C.L.)	WE-65	161	-
C	(1) APXV18-206517S-C-A2 (2) ERICSON KRY 112 71 (2) ANDREW UMWD-06517-XDH (1) ATMAP1412D-1A20	A	205' (C.L.)	-	-	-
D	(1) APXV18-206517S-C-A2 (2) ERICSON KRY 112 71 (2) ANDREW UMWD-06517-XDH (1) ATMAP1412D-1A20	B	205' (C.L.)	-	-	-
E	(1) APXV18-206517S-C-A2 (2) ERICSON KRY 112 71 (2) ANDREW UMWD-06517-XDH (1) ATMAP1412D-1A20	C	205' (C.L.)	-	-	-
F	P6-65D	A	182' (C.L.)	WE-65	161	-
G	P8-65D	C	185' (C.L.)	WE-65	353	-
H	(2) CSS X7CAP-665-20I-BOT-J3	A	170' (C.L.)	-	-	-
I	(2) CSS X7CAP-665-20I-BOT-J3	B	170' (C.L.)	-	-	-
J	(2) CSS X7CAP-665-20I-BOT-J3	C	170' (C.L.)	-	-	-
K	P6-65D	C	154' (C.L.)	WE-65	353	-
L	DIAMOND DISCONE D130NJ	C	145' (C.L.)	7/8"	-	-
M	DB-408	B	136' BASE	1/2"	-	-
N	DB-224	C	110' (BASE.)	7/8"	353.5	-

NOTES:

1. REMOVE AND PROPERLY DISPOSE OF THE TOWER OBSTRUCTION LIGHTING SYSTEM, CONDUIT, AND ASSOCIATED MOUNTING HARDWARE PER THESE PLANS. THE STROBE SHALL BE PRESERVED AND DELIVERED TO THE MAINTENANCE CONTRACTOR IN ACCORDANCE WITH SHEET Q-2 REMOVAL NOTE 1.
2. RESTORE SITE COMPOUND PER THESE PLANS.





PROPOSED TOWER LOADING DIAGRAM

ID	MODEL	LEG/ FACE	MNT. HGT.	TX LINE	DEG.	NOTES
A	TECHNOSTROBE WHITE LED FLASH HEAD	C	230' BASE	CONDUIT	-	1
B	P8-65D	A	214' (C.L.)	WE-65	161	-
C	(1) APXV18-206517S-C-A2 (2) ERICSON KRY 112 71 (2) ANDREW UMWD-06517-XDH (1) ATMAP1412D-1A20	A	205' (C.L.)	-	-	-
D	(1) APXV18-206517S-C-A2 (2) ERICSON KRY 112 71 (2) ANDREW UMWD-06517-XDH (1) ATMAP1412D-1A20	B	205' (C.L.)	-	-	-
E	(1) APXV18-206517S-C-A2 (2) ERICSON KRY 112 71 (2) ANDREW UMWD-06517-XDH (1) ATMAP1412D-1A20	C	205' (C.L.)	-	-	-
F	P6-65D	A	182' (C.L.)	WE-65	161	-
G	P8-65D	C	185' (C.L.)	WE-65	353	-
H	(2) CSS X7CAP-665-20I-BOT-J3	A	170' (C.L.)	-	-	-
I	(2) CSS X7CAP-665-20I-BOT-J3	B	170' (C.L.)	-	-	-
J	(2) CSS X7CAP-665-20I-BOT-J3	C	170' (C.L.)	-	-	-
K	P6-65D	C	154' (C.L.)	WE-65	353	-
L	DIAMOND DISCONE D130NJ	C	145' (C.L.)	7/8"	-	-
M	DB-408	B	136' BASE	1/2"	-	-
N	DB-224	C	110' (BASE.)	7/8"	353.5	-

NOTES:

1. THE VENDOR SHALL INSTALL THE NEW TECHNOSTROBE D1-LED-B-WHITE-48V-SNMP-DS-G5 WHITE LED FLASH HEAD AND RGS CONDUIT IN ACCORDANCE WITH SHEET A-3

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
ESTERO	LEE	424401-1-52-01

ESTERO TOWER LOADING DIAGRAM

SHEET NO. Q-4

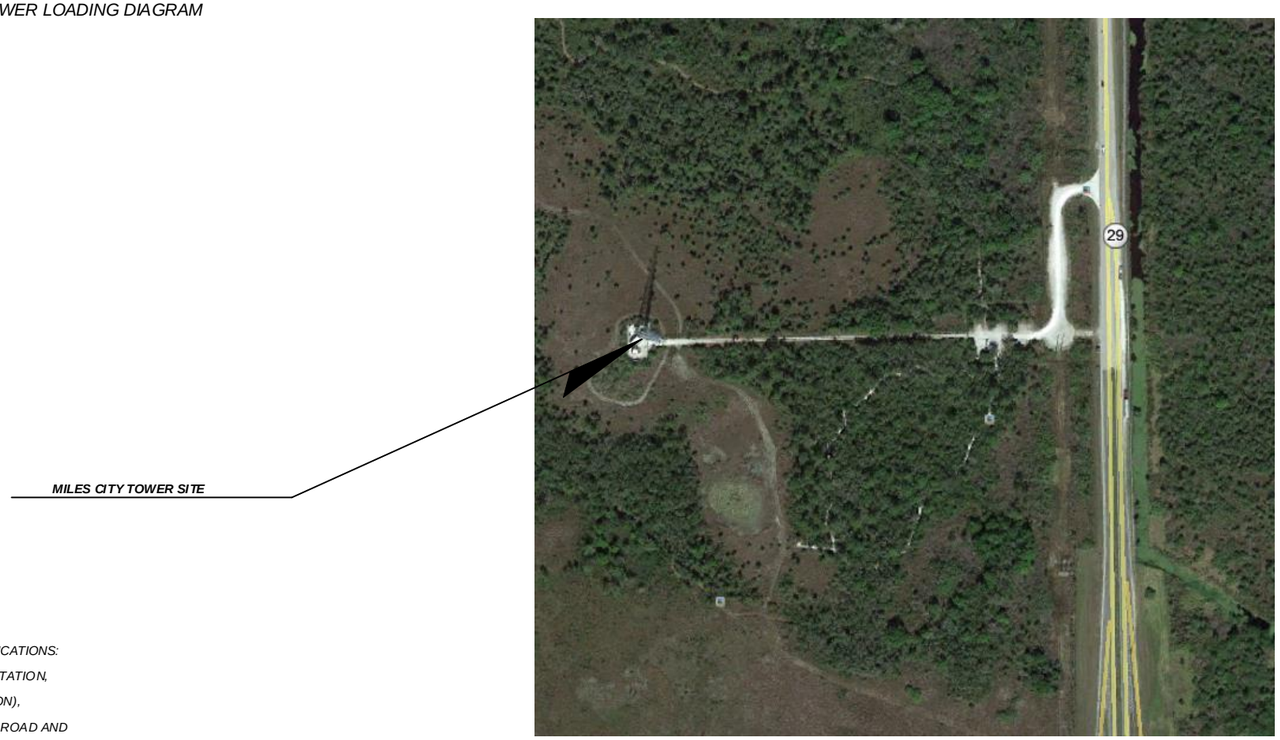
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

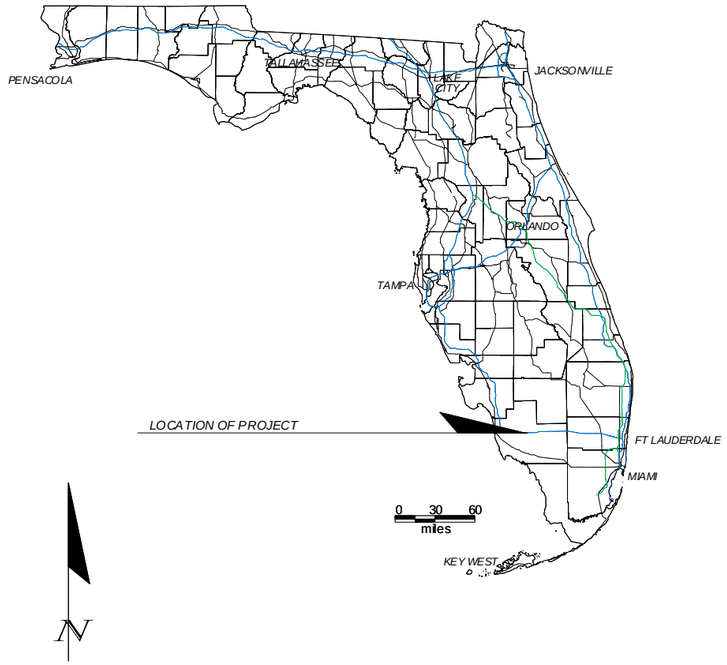
APPENDIX R

FINANCIAL PROJECT ID 424401-1-52-01
COLLIER COUNTY
MILES CITY (1-1505) LED TOWER OBSTRUCTION LIGHTING UPGRADE

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

INDEX OF PLANS





TOWER SITE ADDRESS:

MILES CITY

14041 SR-29
MILES CITY, FL 34142

LATITUDE: 26-09-42.1 N (NAD 83)
LONGITUDE: 81-20-56.8 W

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS (CURRENT EDITION),
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION (CURRENT EDITION),
AS AMENDED BY CONTRACT DOCUMENTS.

FLORIDA DEPARTMENT OF TRANSPORTATION LED TOWER OBSTRUCTION LIGHTING UPGRADE PROJECT

FDOT PROJECT MANAGER: RANDY PIERCE

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
MILES CITY	COLLIER	424401-1-52-01

MILES CITY KEY SHEET

SHEET NO. R-1

https://atkins-my.sharepoint.com/personal/sean_kane_atkinsglobal_com/Documents/Desktop/Multiple Tower Light Upgrade Plans 20190329.vsdx

MILES CITY REMOVAL NOTES:

1. THE VENDOR SHALL REMOVE THE OLD OBSTRUCTION LIGHTING SYSTEM, INCLUDING BUT NOT LIMITED TO, POWER SUPPLIES, CONTROLLERS, SPDS, CONDUITS, TOWER LIGHT PHOTOCELL, AND ALL ASSOCIATED ELECTRICAL AND GROUNDING CONDUCTORS. THE VENDOR SHALL LEAVE THE CIRCUIT BREAKER IN PLACE AND SWITCH IT TO THE "OFF" POSITION. THE VENDOR SHALL DELIVER THE OLD TOWER LIGHT CONTROLLER, BEACON AND STROBE TO THE MAINTENANCE CONTRACTOR ON SITE, AND PROPERLY DISPOSE OF THE REMAINING MATERIALS.

   THE VENDOR SHALL PATCH ALL WALL PENETRATIONS WITH AN APPROPRIATE MORTAR MIX AND SHALL APPROPRIATELY PLUG ALL OPENINGS TO ELECTRICAL BOXES THAT ARE A RESULT OF CONDUIT REMOVAL WITH METALLIC PLUGS.

2. THE VENDOR SHALL DISCONNECT AND PROPERLY REMOVE AND DISPOSE OF THE DB-230 ANTENNAS LABELED "Q" AND "U" AND THE ASSOCIATED TRANSMISSION LINES AND ANTENNA MOUNTS ON THE EXISTING TOWER LOADING DETAIL ON SHEET R-4. THE VENDOR SHALL REMOVE AND PROPERLY DISPOSE OF THE TRANSMISSION LINE SPDS LOCATED INSIDE THE COMMUNICATIONS SHELTER UPON THE TRANSMISSION LINES ENTERING THE SHELTER, AND RETURN TO THE FDOT. THE VENDOR SHALL INSTALL NEW ENTRY PORT BOOTS ON THE BULKHEAD.

MILES CITY INSTALLATION NOTES:

1. THE VENDOR SHALL FURNISH AND INSTALL A NEW -48 VDC LED DUAL DAYTIME/NIGHT-TIME TOWER OBSTRUCTION LIGHTING SYSTEM IN ACCORDANCE WITH THESE PLANS. THE TOWER OBSTRUCTION LIGHTING SYSTEM SHALL BE TECHNOSTROBE E1-LED-B-HYBRID-48VDC-SNMP-2M-C-APT-DS-G5 DUAL LED FLASH HEAD. TOWER LIGHTS TO BE INSTALLED ARE LABELED "B" AND "S" ON THE PROPOSED TOWER LOADING DETAIL ON SHEET R-4.

   THE TOWER OBSTRUCTION LIGHTING SYSTEM AND CONDUIT SHALL BE MOUNTED TO THE TOWER AND HORIZONTAL TRANSMISSION LINE BRIDGE WITH GALVANIZED OR STAINLESS STEEL BOLT-ON HARDWARE. SNAP-ON HANGERS ARE NOT PERMITTED. ALL EXTERIOR TOWER LIGHTING CABLES SHALL BE INSTALLED IN APPROPRIATELY SIZED RIGID GALVANIZED STEEL (RGS) CONDUIT.

   THE TOWER LIGHT CONTROLLER SHALL BE MOUNTED INSIDE THE COMMUNICATIONS SHELTER. SEE SHEET R-3.

2. THE VENDOR SHALL FURNISH AND INSTALL NEW ELECTRICAL METALLIC TUBING (EMT) CONDUIT INSIDE THE COMMUNICATIONS SHELTER BETWEEN THE TOWER LIGHT CONTROLLER AND THE -48VDC DISTRIBUTION RACK. THE VENDOR SHALL FURNISH AND INSTALL NEW EMT CONDUIT FOR THE PHOTOCELL AND CONTROL WIRING BETWEEN THE TOWER LIGHT CONTROLLER AND ENTRY PORT INSIDE THE SHELTER, AND IT SHALL BE LOCATED SO AS NOT TO OBSCURE ANY PORTION OF AN ELECTRICAL OUTLET OR JUNCTION BOX, PER NEC, ITEM 11, 'APPLICABLE PUBLICATIONS AND STANDARDS' OR OBSTRUCT ANY EMPTY ENTRY PORTS. THE VENDOR SHALL REUSE THE EXISTING EXTERIOR PHOTOCELL METALLIC CONDUIT. THE VENDOR SHALL TERMINATE THE EXTERIOR EMT CONDUIT AT BOTH ENDS WITH AN END BUSHING.

3. THE VENDOR SHALL INSTALL THE LOAD CONDUCTORS BETWEEN THE TOWER LIGHTING SYSTEM, AND THE -48VDC DISTRIBUTION PANEL, IN ACCORDANCE WITH SHEET A-4. THE 10A BREAKER MODEL SHALL BE:

   EATON HEINEMANN
   AM1-2774-2
   AM1-B3-A
   AMPERAGE: 10 AMPS
   VOLTAGE: 65VDC
   DELAY: 3

4. THE VENDOR SHALL CONFIGURE THE TECHNOSTROBE TOWER LIGHT CONTROLLER WITH THE FOLLOWING NETWORK INFORMATION:

   IP ADDRESS: 172.16.114.14
   SUBNET MASK: 255.255.254.0
   DEFAULT GATEWAY: 172.16.114.19

5. THE VENDOR SHALL CONFIGURE THE TECHNOSTROBE TOWER LIGHT CONTROLLER WITH THE FOLLOWING SNMP INFORMATION:

   STATE: ENABLED
   READ COMMUNITY: PUBLIC
   WRITE COMMUNITY: PUBLIC
   SYSTEM NAME: MILES CITY TECHNOSTROBE
   SYSTEM DESCRIPTION: MILES CITY TECHNOSTROBE TOWER LIGHTS
   SYSTEM LOCATION: MILES CITY
   TRAP STATE: ENABLED
   TRAPS PRIMARY DESTINATION: 172.16.2.21
   TRAPS SECONDARY DESTINATION: 172.16.16.21

6. THE VENDOR SHALL NOTIFY THE FDOT UPON COMPLETION OF ALL TOWER OBSTRUCTION LIGHTING SYSTEM INSTALLATION WORK.
7. THE FDOT WILL INSPECT THE TOWER OBSTRUCTION LIGHTING SYSTEM INSTALLATION FOR COMPLIANCE WITH THESE SPECIFICATIONS.
8. THE FDOT WILL WITNESS COMMISSIONING AND TESTING OF THE NEW TOWER OBSTRUCTION LIGHTING SYSTEM AND NOTIFY THE VENDOR OF FINAL ACCEPTANCE.

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

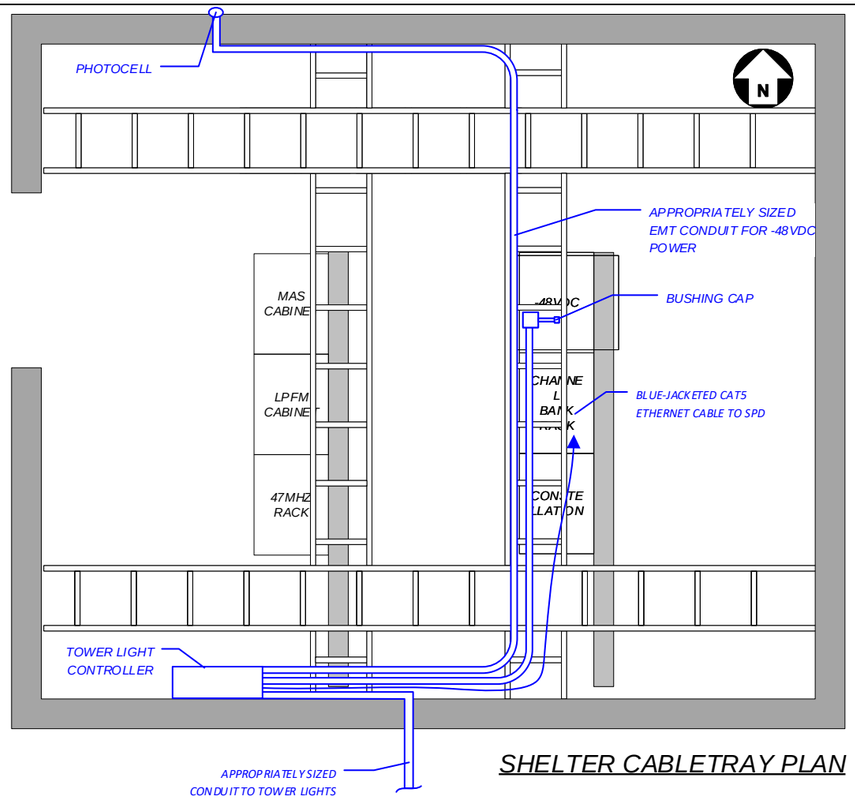
FDOT
FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

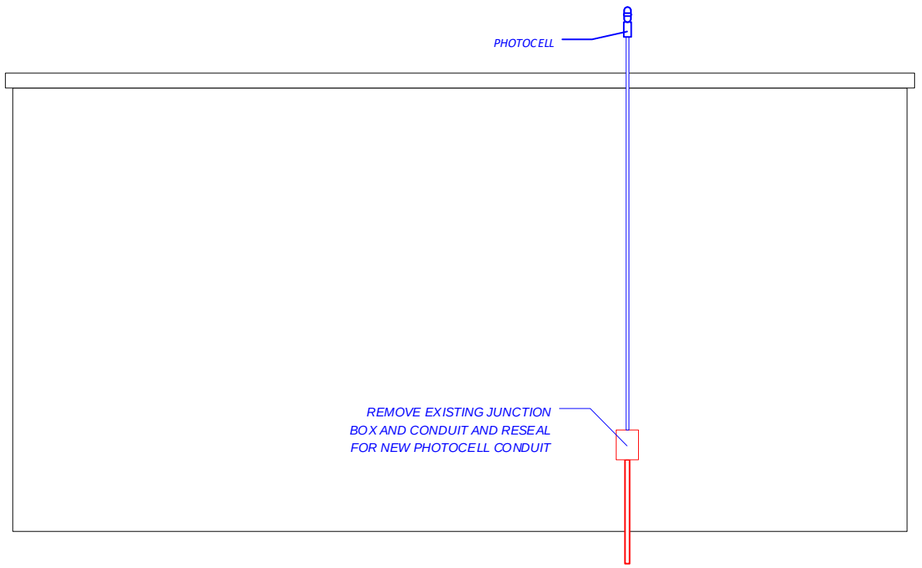
SITE NAME	COUNTY	FINANCIAL PROJECT ID
MILES CITY	COLLIER	424401-1-52-01

MILES CITY REMOVAL AND INSTALLATION NOTES

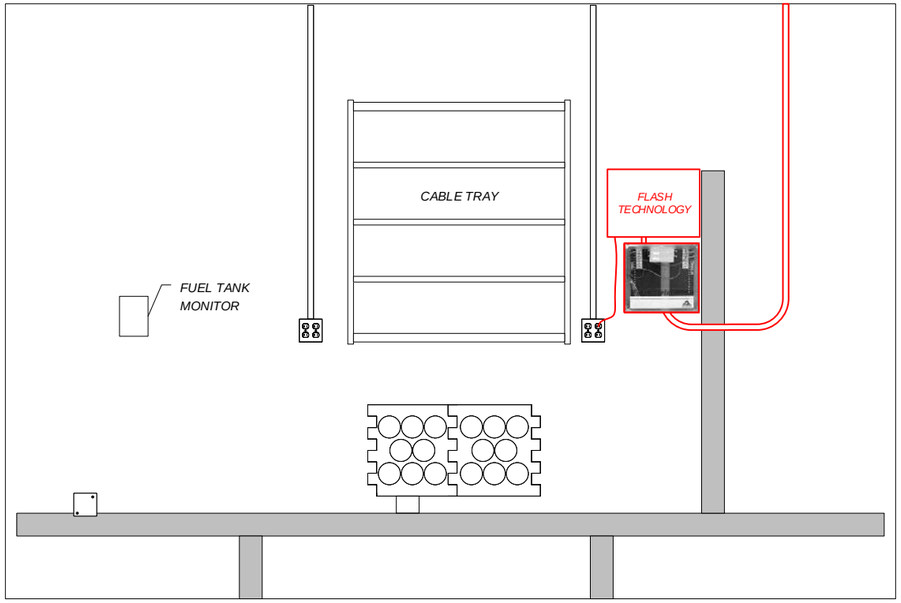
SHEET NO.
R-2



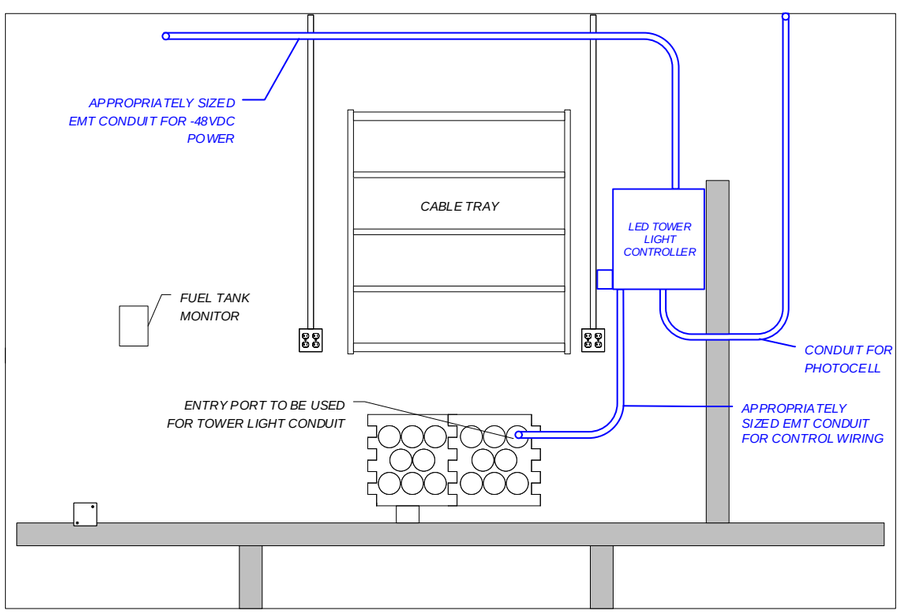
SHELTER CABLETRAY PLAN



EXTERIOR NORTH WALL



EXISTING INTERIOR SOUTH WALL



PROPOSED INTERIOR SOUTH WALL

NOTES

1. THE APPROXIMATE LOCATION OF THE EQUIPMENT IS FOR DIAGRAMMATICAL PURPOSES ONLY. THE VENDOR IS RESPONSIBLE FOR DETERMINING THE BEST LOCATIONS FOR EQUIPMENT AND ALL ASSOCIATED CONDUITS AND MOUNTING AND GROUNDING HARDWARE. THE VENDOR SHALL SUBMIT DETAILED PLANS FOR APPROVAL BY THE FDOT.
2. THE VENDOR SHALL PATCH ALL WALL PENETRATIONS WITH AN APPROPRIATE MORTAR MIX AND SHALL APPROPRIATELY PLUG ALL OPENINGS TO ELECTRICAL BOXES THAT ARE A RESULT OF CONDUIT REMOVAL WITH METALLIC PLUGS.
3. THE VENDOR SHALL INSTALL THE NEW TECHNOSTROBE -48 VDC TOWER OBSTRUCTION LIGHTING SYSTEM MODEL E1-LED-B-HYBRID-48VDC-SNMP-2M-C-APT-DS-G5 DUAL LED FLASH HEAD WITH ASSOCIATED PHOTOCELL, SURGE PROTECTION, GROUNDING, AND CONDUIT.
4. THE VENDOR SHALL FURNISH AND INSTALL ONE (1) ETHERNET SURGE PROTECTIVE DEVICE (SPD), MTL-SURGE MODEL NUMBER ZB24540. THIS SPD SHALL BE MOUNTED ON THE DIN RAIL IN THE CHANNEL BANK RACK.
5. THE VENDOR SHALL INSTALL CUSTOM LENGTH BLUE-JACKETED CAT 5 CABLE FROM THE TECHNOSTROBE ETHERNET PORT TO THE NEWLY INSTALLED ETHERNET SPD IN THE CHANNEL BANK RACK, AND FROM THE SPD TO THE BPS 2000, PORT #22.

   THE VENDOR SHALL ROUTE THE NEW BLUE-JACKETED CAT 5 ETHERNET CABLE ALONG THE OVERHEAD CABLE TRAYS, PARALLEL TO EXISTING ETHERNET CABLES TO THE CHANNEL BANK RACK. THE VENDOR SHALL INDEPENDENTLY SECURE THE ETHERNET CABLE TO THE OVERHEAD CABLE TRAYS WITH ZIP TIES OR LACING STRING, AT 36 IN. INTERVALS, MAXIMUM.
6. THE VENDOR SHALL MECHANICALLY GROUND THE TECHNOSTROBE TOWER LIGHT CONTROLLER TO THE GROUND HALO USING #6 AWG GREEN JACKETED CONDUCTOR. THE GROUND SHALL BE DOWNWARD COURSING, AND AS STRAIGHT AND SHORT AS POSSIBLE.

   THE VENDOR SHALL CLEAN AND PREPARE ALL GROUND CONDUCTORS AND SURFACES PRIOR TO BONDS. ALL NON-CONDUCTING SURFACE COATINGS SHALL BE REMOVED BEFORE EACH CONNECTION IS MADE.

LEGEND

- EXISTING
- VENDOR FURNISHED AND INSTALLED
- TO BE REMOVED BY VENDOR

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

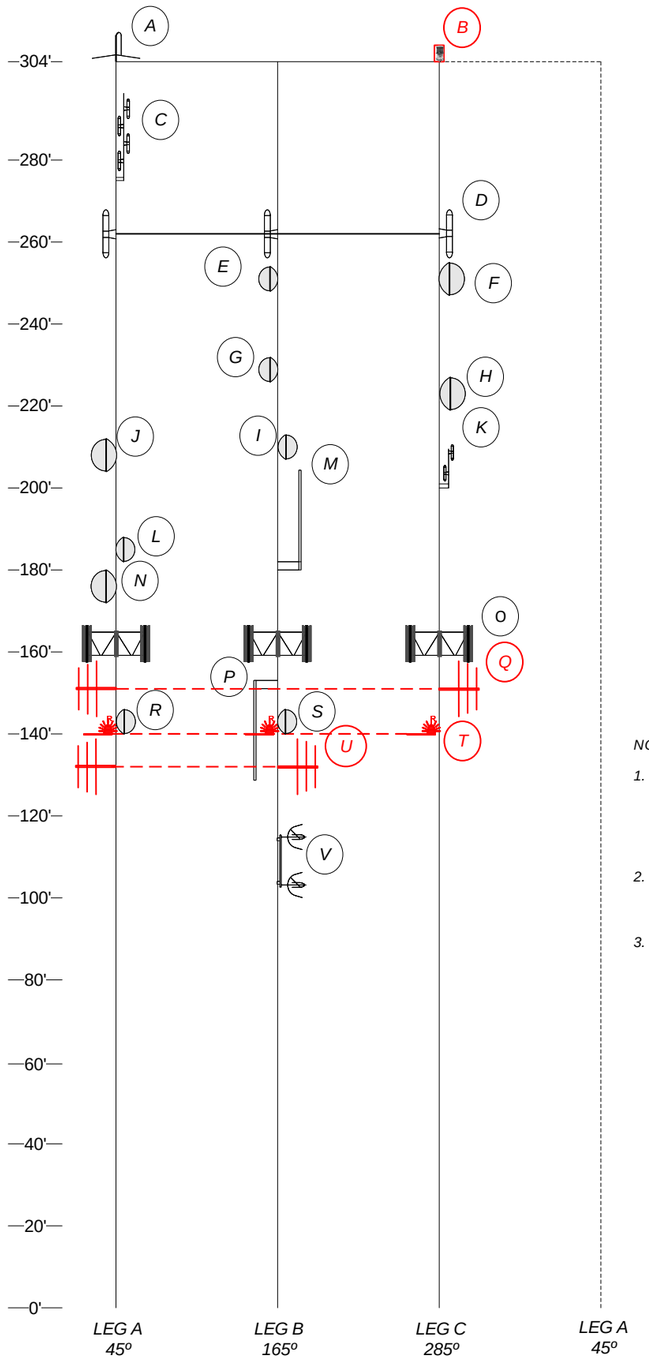
FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
MILES CITY	COLLIER	424401-1-52-01

MILES CITY COMM BLDG PLANS

SHEET NO. R-3

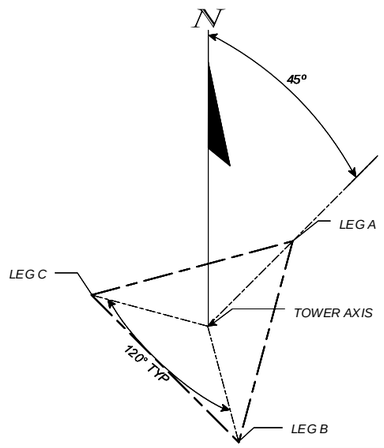


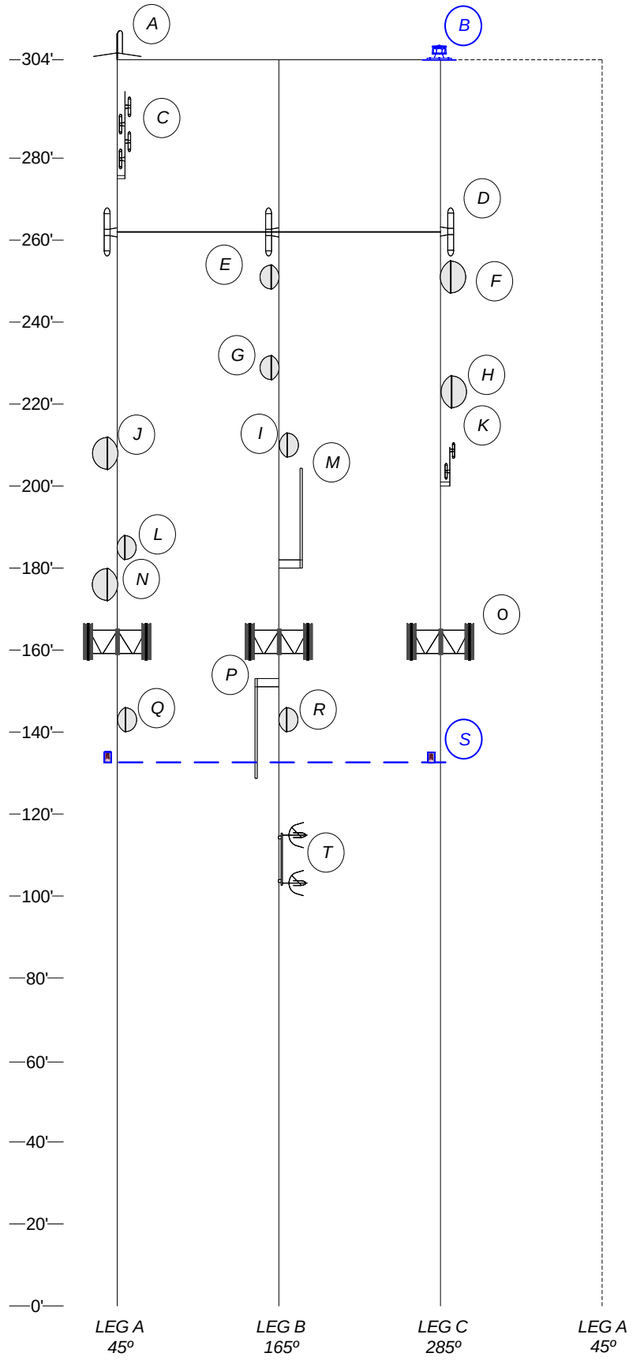
EXISTING TOWER LOADING DIAGRAM

I.D.	MODEL	LEG/ FACE	MNT. HGT.	TX. LINE	DEG.	NOTE
A	DB201	A	304' (BASE)	7/8"	-	-
B	DUAL BEACON/ STROBE	C	304' (BASE)	-	-	1
C	DB224	A	275' (BASE)	7/8"	-	-
D	DB212-3	A,B,C	262' (C.L.)	7/8"	-	-
E	PAR6-65A W/ RADOME	B	251' (C.L.)	EW-63	-	-
F	PAR8-65A W/ RADOME	C	251' (C.L.)	EW-63	-	-
G	PL4-65D W/ RADOME	B	229' (C.L.)	EW-63	-	-
H	PAR8-65A W/ RADOME	C	223' (BASE)	EW-63	-	-
I	PAR6-65A W/ RADOME	B	210' (BASE)	EW-63	-	-
J	PAR8-65A W/ RADOME	A	208' (C.L.)	EW-63	-	-
K	DB222 (F.L.)	C	200' (BASE)	7/8"	-	-
L	PAR6-65A W/ RADOME	A	185' (C.L.)	EW-63	-	-
M	DB812 W/ 6' SIDEARM	B	180' (BASE)	1-5/8"	-	-
N	PAR8-65A W/ RADOME	A	176' (C.L.)	EW-63	-	-
O	978G30T2E-M	A,B,C	162' (C.L.)	1-5/8"	-	-
P	DB812 W/ 6' SIDEARM	B	153' (TOP)	1-5/8"	-	-
Q	DB230-2	A,C	151' (C.L.)	7/8"	-	2
R	PL4-65D W/ RADOME	A	143' (C.L.)	EW-63	-	-
S	PL4-65D W/ RADOME	B	143' (C.L.)	EW-63	-	-
T	SIDE MARKERS	A,B,C	142' (BASE)	-	-	1
U	DB230-2	A, B	132' (C.L.)	7/8"	-	2
V	ERI 100-2	B	109' (C.L.)	7/8"	-	-

NOTES:

1. REMOVE AND PROPERLY DISPOSE OF THE TOWER OBSTRUCTION LIGHTING SYSTEM, CONDUIT, AND ASSOCIATED MOUNTING HARDWARE PER THESE PLANS. THE STROBE SHALL BE PRESERVED AND DELIVERED TO THE MAINTENANCE CONTRACTOR IN ACCORDANCE WITH SHEET R-2 REMOVAL NOTE 1.
2. VENDOR SHALL REMOVE AND PROPERLY DISPOSE OF THE ANTENNAS, ASSOCIATED COAXIAL TRANSMISSION LINES, MOUNTING HARDWARE, AND SPDS.
3. RESTORE SITE COMPOUND PER THESE PLANS.





PROPOSED TOWER LOADING DIAGRAM

I.D.	MODEL	LEG/ FACE	MNT. HGT.	TX. LINE	DEG.	NOTE
A	DB201	A	304' (BASE)	7/8"	-	-
B	TECHNOSTROBE DUAL LED FLASH HEAD	C	304' (BASE)	CONDUIT	-	1
C	DB224	A	275' (BASE)	7/8"	-	-
D	DB212-3	A,B,C	262' (C.L.)	7/8"	-	1
E	PAR6-65A W/ RADOME	B	251' (C.L.)	EW-63	-	-
F	PAR8-65A W/ RADOME	C	251' (C.L.)	EW-63	-	-
G	PL4-65D W/ RADOME	B	229' (C.L.)	EW-63	-	-
H	PAR8-65A W/ RADOME	C	223' (BASE)	EW-63	-	-
I	PAR6-65A W/ RADOME	B	210' (BASE)	EW-63	-	-
J	PAR8-65A W/ RADOME	A	208' (C.L.)	EW-63	-	-
K	DB222 (F.L.)	C	200' (BASE)	7/8"	-	-
L	PAR6-65A W/ RADOME	A	185' (C.L.)	EW-63	-	-
M	DB812 W/ 6' SIDEARM	B	180' (BASE)	1-5/8"	-	-
N	PAR8-65A W/ RADOME	A	176' (C.L.)	EW-63	-	-
O	978G30T2E-M	A,B,C	162' (C.L.)	1-5/8"	-	-
P	DB812 W/ 6' SIDEARM	B	153' (TOP)	1-5/8"	-	-
Q	PL4-65D W/ RADOME	A	143' (C.L.)	EW-63	-	-
R	PL4-65D W/ RADOME	B	143' (C.L.)	EW-63	-	-
S	(2) LED SIDE MARKERS	A, C	142' (BASE)	SAME CONDUIT	-	1
T	ERI 100-2	B	109' (C.L.)	7/8"	-	-

NOTES:

1. THE VENDOR SHALL INSTALL THE NEW TECHNOSTROBE E1-LED-B-HYBRID-48VDC-SNMP-2M-C-APT-DS-G5 TOWER LIGHTING SYSTEM IN ACCORDANCE WITH SHEET A-3.

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
MILES CITY	COLLIER	424401-1-52-01

MILES CITY TOWER LOADING DIAGRAM

SHEET NO.
R-4

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

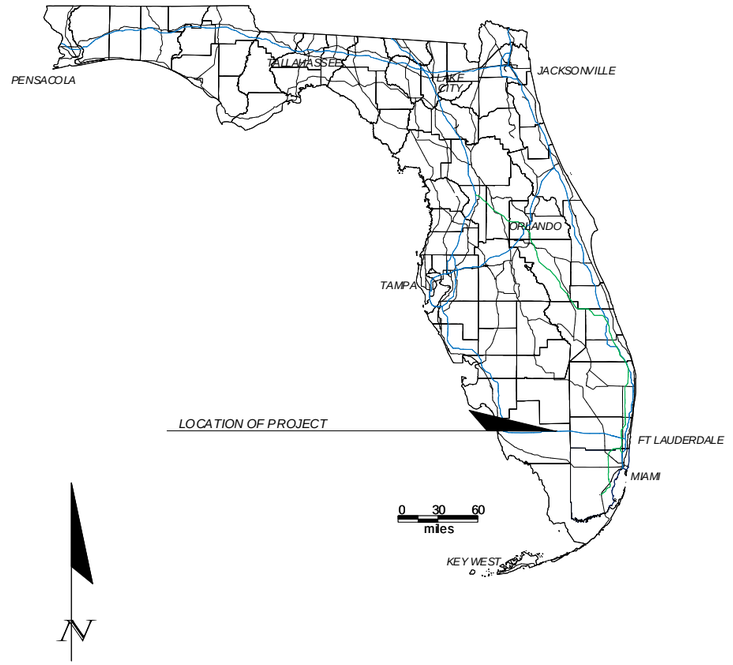
APPENDIX S

FINANCIAL PROJECT ID 424401-1-52-01
COLLIER COUNTY
COLLIER COUNTY REST AREA (1-1501) LED TOWER OBSTRUCTION LIGHTING UPGRADE

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

INDEX OF PLANS

COLLIER COUNTY REST AREA TOWER SITE



TOWER SITE ADDRESS:

COLLIER COUNTY REST AREA

MP 63.3 ON I-75
WAGON WHEEL, FL 34117

LATITUDE: 26-10-02.5 N (NAD 83)
LONGITUDE: 81-04-39.7 W

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS (CURRENT EDITION),
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION (CURRENT EDITION),
AS AMENDED BY CONTRACT DOCUMENTS.

FLORIDA DEPARTMENT OF TRANSPORTATION LED TOWER OBSTRUCTION LIGHTING UPGRADE PROJECT

FDOT PROJECT MANAGER: RANDY PIERCE

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
COLLIER COUNTY RA	COLLIER	424401-1-52-01

COLLIER COUNTY RA
KEY SHEET

SHEET NO.
S-1

https://atkins-my.sharepoint.com/personal/sean_kane_atkinsglobal_com/Documents/Desktop/Multiple Tower Light Upgrade Plans 20190329.vsdx

COLLIER COUNTY REST AREA REMOVAL NOTES:

1. THE VENDOR SHALL REMOVE THE OLD OBSTRUCTION LIGHTING SYSTEM, INCLUDING BUT NOT LIMITED TO, POWER SUPPLIES, CONTROLLERS, SPDS, CONDUITS, TOWER LIGHT PHOTOCELL, AND ALL ASSOCIATED ELECTRICAL AND GROUNDING CONDUCTORS. THE VENDOR SHALL LEAVE THE CIRCUIT BREAKER IN PLACE AND SWITCH IT TO THE "OFF" POSITION. THE VENDOR SHALL DELIVER THE OLD TOWER LIGHT CONTROLLER AND STROBE TO THE MAINTENANCE CONTRACTOR ON SITE, AND PROPERLY DISPOSE OF THE REMAINING MATERIALS.

   THE VENDOR SHALL PATCH ALL WALL PENETRATIONS WITH AN APPROPRIATE MORTAR MIX AND SHALL APPROPRIATELY PLUG ALL OPENINGS TO ELECTRICAL BOXES THAT ARE A RESULT OF CONDUIT REMOVAL WITH METALLIC PLUGS.

2. THE VENDOR SHALL DISCONNECT AND PROPERLY REMOVE AND DISPOSE OF THE DB-230 ANTENNAS LABELED "M" AND "R" AND THE ASSOCIATED TRANSMISSION LINES AND ANTENNA MOUNTS ON THE EXISTING TOWER LOADING DETAIL ON SHEET S-4. THE VENDOR SHALL REMOVE AND PROPERLY DISPOSE OF THE TRANSMISSION LINE SPDS LOCATED INSIDE THE COMMUNICATIONS SHELTER UPON THE TRANSMISSION LINES ENTERING THE SHELTER, AND RETURN TO THE FDOT. THE VENDOR SHALL INSTALL NEW ENTRY PORT BOOTS ON THE BULKHEAD.

COLLIER COUNTY REST AREA INSTALLATION NOTES:

1. THE VENDOR SHALL FURNISH AND INSTALL A NEW -48 VDC LED WHITE DAYTIME/NIGHT-TIME TOWER OBSTRUCTION LIGHTING SYSTEM IN ACCORDANCE WITH THESE PLANS. THE TOWER OBSTRUCTION LIGHTING SYSTEM SHALL BE TECHNOSTROBE D1-LED-B-WHITE-48V-SNMP-DS-G5 WHITE LED FLASH HEAD. TOWER LIGHT TO BE INSTALLED IS LABELED "A" ON THE PROPOSED TOWER LOADING DETAIL ON SHEET S-4.

   THE TOWER OBSTRUCTION LIGHTING SYSTEM AND CONDUIT SHALL BE MOUNTED TO THE TOWER AND HORIZONTAL TRANSMISSION LINE BRIDGE WITH GALVANIZED OR STAINLESS STEEL BOLT-ON HARDWARE. SNAP-ON HANGERS ARE NOT PERMITTED. ALL EXTERIOR TOWER LIGHTING CABLES SHALL BE INSTALLED IN APPROPRIATELY SIZED RIGID GALVANIZED STEEL (RGS) CONDUIT.

   THE TOWER LIGHT CONTROLLER SHALL BE MOUNTED INSIDE THE COMMUNICATIONS SHELTER. SEE SHEET S-3.

2. THE VENDOR SHALL FURNISH AND INSTALL NEW ELECTRICAL METALLIC TUBING (EMT) CONDUIT INSIDE THE COMMUNICATIONS SHELTER BETWEEN THE TOWER LIGHT CONTROLLER AND THE -48VDC DISTRIBUTION RACK. THE VENDOR SHALL FURNISH AND INSTALL NEW EMT CONDUIT FOR THE PHOTOCELL AND CONTROL WIRING BETWEEN THE TOWER LIGHT CONTROLLER AND ENTRY PORT INSIDE THE SHELTER, AND IT SHALL BE LOCATED SO AS NOT TO OBSCURE ANY PORTION OF AN ELECTRICAL OUTLET OR JUNCTION BOX, PER NEC, ITEM 11, 'APPLICABLE PUBLICATIONS AND STANDARDS' OR OBSTRUCT ANY EMPTY ENTRY PORTS. THE VENDOR SHALL REUSE THE EXISTING EXTERIOR PHOTOCELL METALLIC CONDUIT. THE VENDOR SHALL TERMINATE THE EXTERIOR EMT CONDUIT AT BOTH ENDS WITH AN END BUSHING.

3. THE VENDOR SHALL INSTALL THE LOAD CONDUCTORS BETWEEN THE TOWER LIGHTING SYSTEM, AND THE -48VDC DISTRIBUTION PANEL, IN ACCORDANCE WITH SHEET A-4. THE 10A BREAKER MODEL SHALL BE:

   EATON HEINEMANN
   AM1-2774-2
   AM1-B3-A
   AMPERAGE: 10 AMPS
   VOLTAGE: 65VDC
   DELAY: 3

4. THE VENDOR SHALL CONFIGURE THE TECHNOSTROBE TOWER LIGHT CONTROLLER WITH THE FOLLOWING NETWORK INFORMATION:

   IP ADDRESS: 172.16.116.14
   SUBNET MASK: 255.255.254.0
   DEFAULT GATEWAY: 172.16.116.19

5. THE VENDOR SHALL CONFIGURE THE TECHNOSTROBE TOWER LIGHT CONTROLLER WITH THE FOLLOWING SNMP INFORMATION:

   STATE: ENABLED
   READ COMMUNITY: PUBLIC
   WRITE COMMUNITY: PUBLIC
   SYSTEM NAME: COLLIER COUNTY RA TECHNOSTROBE
   SYSTEM DESCRIPTION: COLLIER COUNTY RA TECHNOSTROBE TOWER LIGHTS
   SYSTEM LOCATION: COLLIER COUNTY RA
   TRAP STATE: ENABLED
   TRAPS PRIMARY DESTINATION: 172.16.2.21
   TRAPS SECONDARY DESTINATION: 172.16.16.21

6. THE VENDOR SHALL NOTIFY THE FDOT UPON COMPLETION OF ALL TOWER OBSTRUCTION LIGHTING SYSTEM INSTALLATION WORK.
7. THE FDOT WILL INSPECT THE TOWER OBSTRUCTION LIGHTING SYSTEM INSTALLATION FOR COMPLIANCE WITH THESE SPECIFICATIONS.
8. THE FDOT WILL WITNESS COMMISSIONING AND TESTING OF THE NEW TOWER OBSTRUCTION LIGHTING SYSTEM AND NOTIFY THE VENDOR OF FINAL ACCEPTANCE.

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

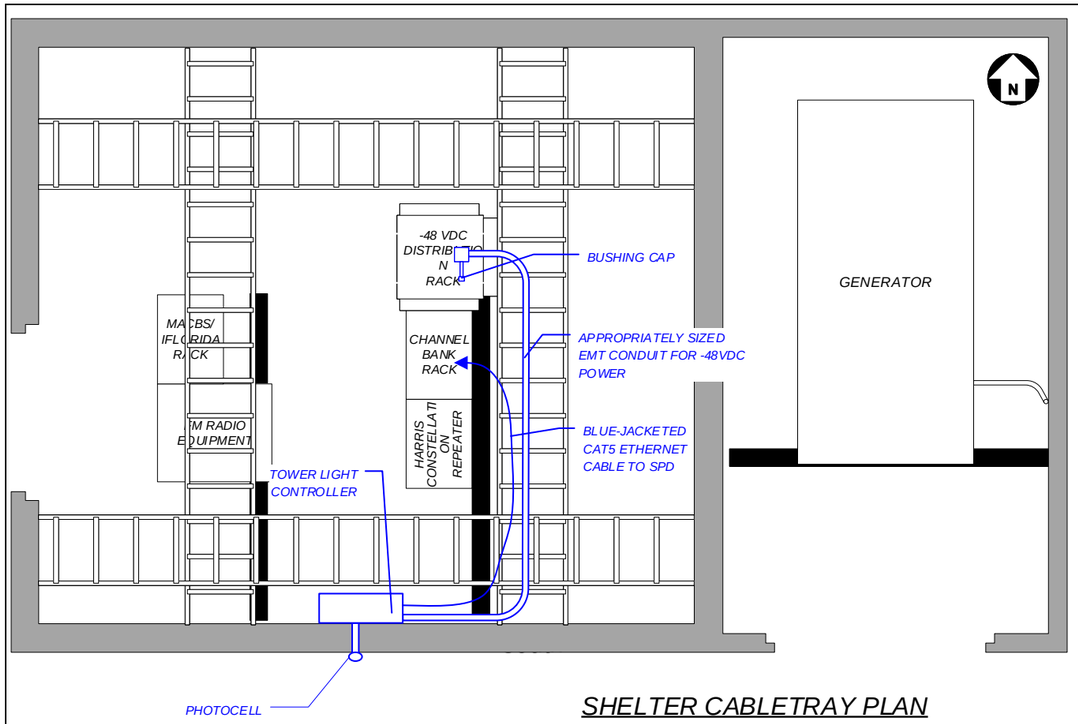
FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

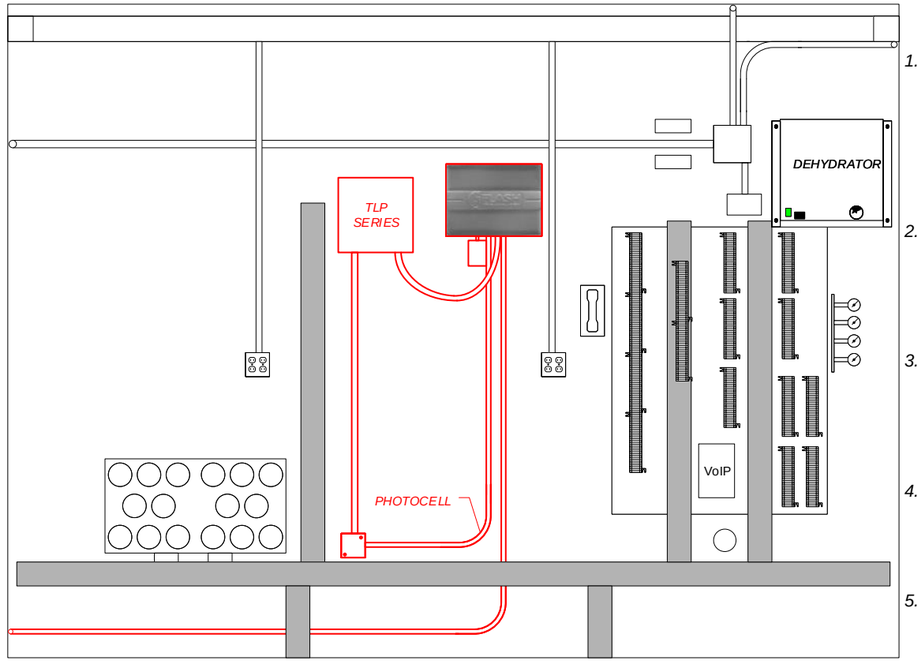
SITE NAME	COUNTY	FINANCIAL PROJECT ID
COLLIER COUNTY RA	COLLIER	424401-1-52-01

COLLIER COUNTY RA REMOVAL AND INSTALLATION NOTES

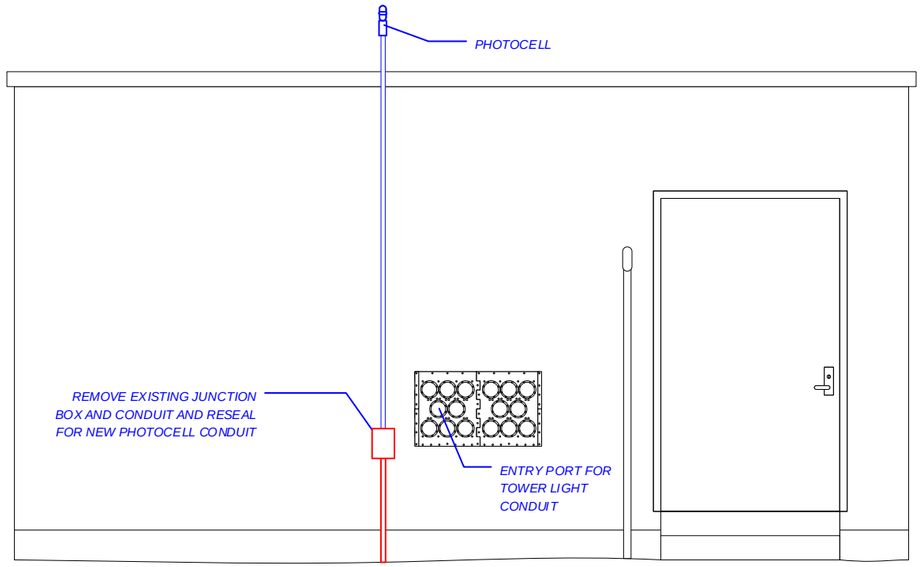
SHEET NO. S-2



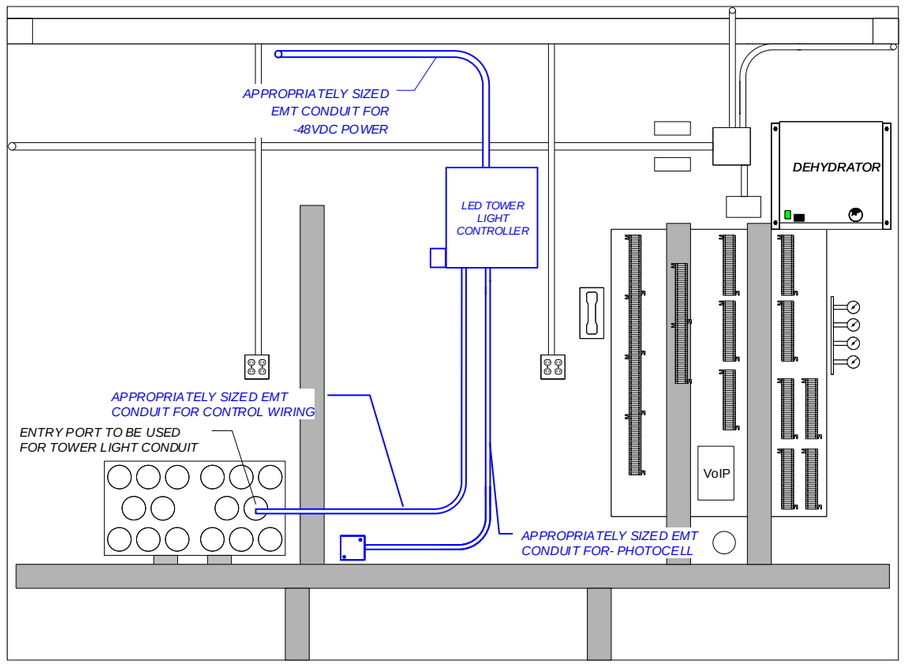
SHELTER CABLETRAY PLAN



EXISTING INTERIOR SOUTH WALL



EXTERIOR SOUTH WALL



PROPOSED INTERIOR SOUTH WALL

NOTES

1. *THE APPROXIMATE LOCATION OF THE EQUIPMENT IS FOR DIAGRAMMATICAL PURPOSES ONLY. THE VENDOR IS RESPONSIBLE FOR DETERMINING THE BEST LOCATIONS FOR EQUIPMENT AND ALL ASSOCIATED CONDUITS AND MOUNTING AND GROUNDING HARDWARE. THE VENDOR SHALL SUBMIT DETAILED PLANS FOR APPROVAL BY THE FDOT.*
2. *THE VENDOR SHALL PATCH ALL WALL PENETRATIONS WITH AN APPROPRIATE MORTAR MIX AND SHALL APPROPRIATELY PLUG ALL OPENINGS TO ELECTRICAL BOXES THAT ARE A RESULT OF CONDUIT REMOVAL WITH METALLIC PLUGS.*
3. *THE VENDOR SHALL INSTALL THE NEW TECHNOSTROBE -48 VDC TOWER OBSTRUCTION LIGHTING SYSTEM MODEL D1-LED-B-WHITE-48V-SNMP-DS-G5 WHITE LED FLASH HEAD WITH ASSOCIATED PHOTOCELL, SURGE PROTECTION, GROUNDING, AND CONDUIT.*
4. *THE VENDOR SHALL FURNISH AND INSTALL ONE (1) ETHERNET SURGE PROTECTIVE DEVICE (SPD), MTL-SURGE MODEL NUMBER ZB24540. THIS SPD SHALL BE MOUNTED ON THE DIN RAIL IN THE CHANNEL BANK RACK.*
5. *THE VENDOR SHALL INSTALL CUSTOM LENGTH BLUE-JACKETED CAT 5 CABLE FROM THE TECHNOSTROBE ETHERNET PORT TO THE NEWLY INSTALLED ETHERNET SPD IN THE CHANNEL BANK RACK, AND FROM THE SPD TO THE BPS 2000, PORT #22.*

   THE VENDOR SHALL ROUTE THE NEW BLUE-JACKETED CAT 5 ETHERNET CABLE ALONG THE OVERHEAD CABLE TRAYS, PARALLEL TO EXISTING ETHERNET CABLES TO THE CHANNEL BANK RACK. THE VENDOR SHALL INDEPENDENTLY SECURE THE ETHERNET CABLE TO THE OVERHEAD CABLE TRAYS WITH ZIP TIES OR LACING STRING, AT 36 IN. INTERVALS, MAXIMUM.
6. *THE VENDOR SHALL MECHANICALLY GROUND THE TECHNOSTROBE TOWER LIGHT CONTROLLER TO THE GROUND HALO USING #6 AWG GREEN JACKETED CONDUCTOR. THE GROUND SHALL BE DOWNWARD COURSING, AND AS STRAIGHT AND SHORT AS POSSIBLE.*

   THE VENDOR SHALL CLEAN AND PREPARE ALL GROUND CONDUCTORS AND SURFACES PRIOR TO BONDS. ALL NON-CONDUCTING SURFACE COATINGS SHALL BE REMOVED BEFORE EACH CONNECTION IS MADE.

LEGEND

- EXISTING
- VENDOR FURNISHED AND INSTALLED
- TO BE REMOVED BY VENDOR

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

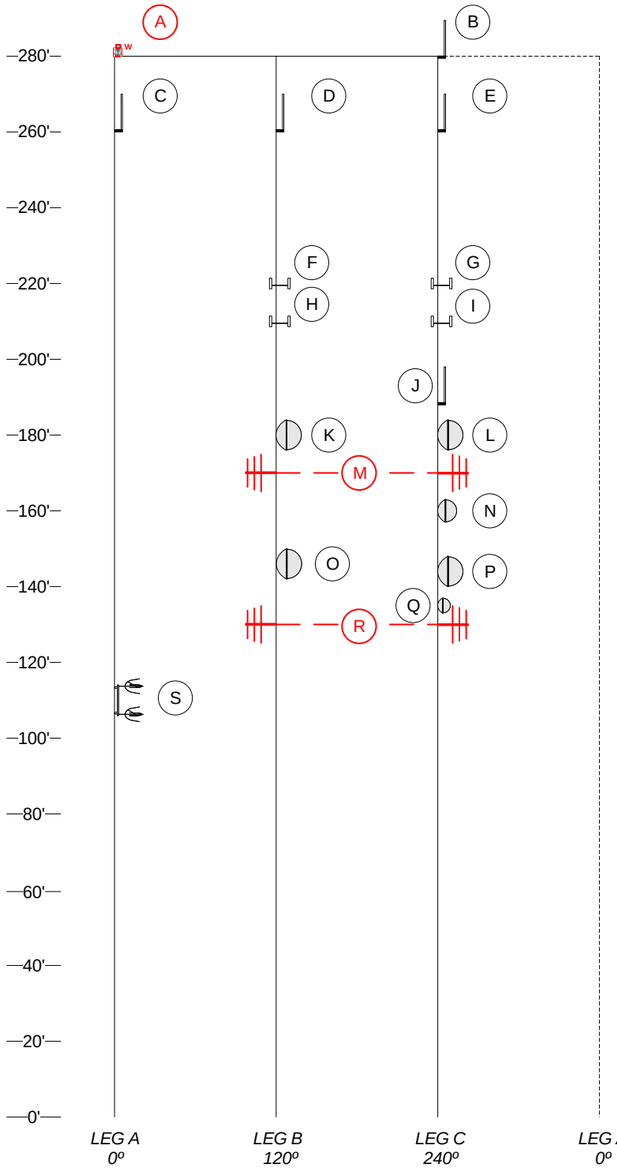
FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
COLLIER COUNTY RA	COLLIER	424401-1-52-01

COLLIER COUNTY RA COMM BLDG PLANS

SHEET NO. S-3

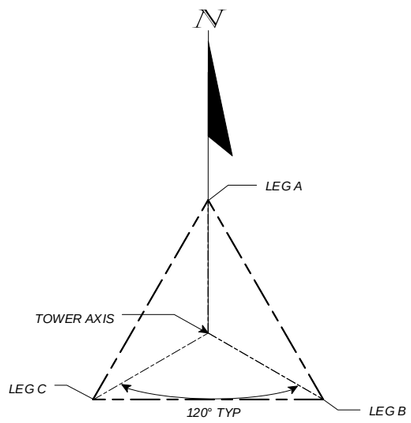


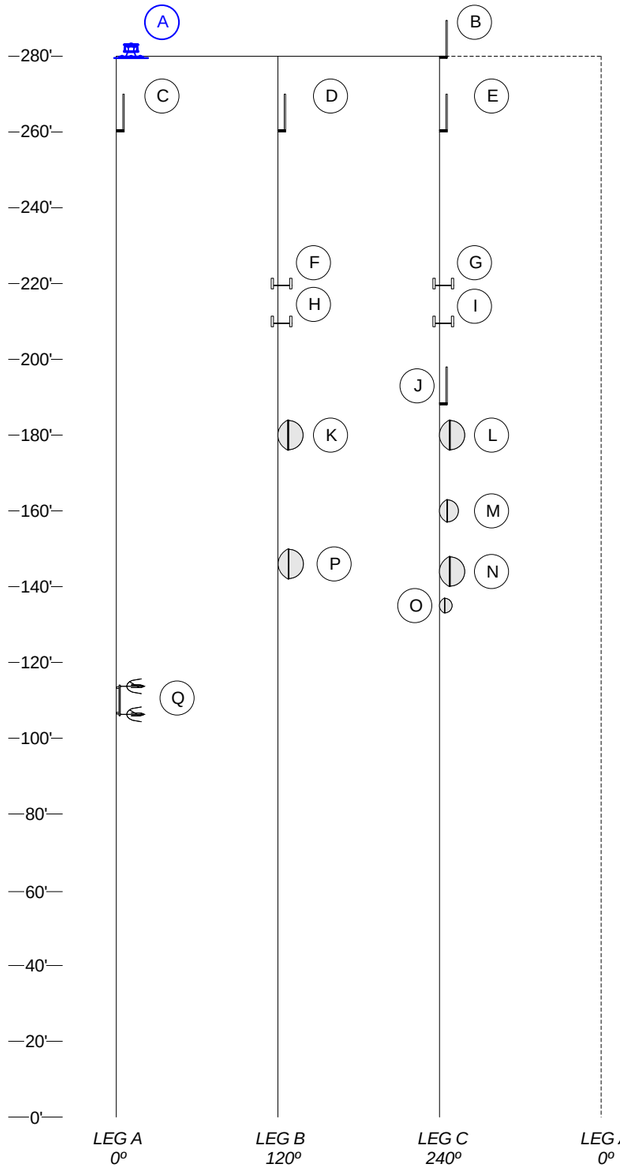
EXISTING TOWER LOADING DIAGRAM

ID	MODEL	LEG/ FACE	MNT. HGT.	TX LINE	AZIM.	NOTES
A	WHITE STROBE	A	280' BASE	-	-	1
B	DB810	C	280' BASE	-	-	-
C	DB810	A	260' BASE	-	-	-
D	DB810	B	260' BASE	-	-	-
E	DB810	C	260' BASE	-	-	-
F	2 ELEMENT PANEL	B	220' (C.L.)	-	-	-
G	2 ELEMENT PANEL	C	220' (C.L.)	-	-	-
H	2 ELEMENT PANEL	B	210' (C.L.)	-	-	-
I	2 ELEMENT PANEL	C	210' (C.L.)	-	-	-
J	DB812	C	193' BASE	7/8"	-	-
K	PAR8-65	B	180' (C.L.)	EW-63	-	-
L	PAR8-65	C	180' (C.L.)	EW-63	-	-
M	DB230-2	B,C	170' (C.L.)	7/8"	-	2
N	PAR8-65	C	160' (C.L.)	EW-63	-	-
O	PAR8-65	B	146' (C.L.)	EW-63	-	-
P	PAR8-65	C	144' (C.L.)	EW-63	-	-
Q	PL4-65	C	135' (C.L.)	EW-63	-	-
R	DB230-2	B,C	130' (C.L.)	7/8"	-	2
S	ERI-100-2	A	110' (C.L.)	7/8"	-	-

NOTES:

1. REMOVE AND PROPERLY DISPOSE OF THE TOWER OBSTRUCTION LIGHTING SYSTEM, CONDUIT, AND ASSOCIATED MOUNTING HARDWARE PER THESE PLANS. THE STROBE SHALL BE PRESERVED AND DELIVERED TO THE MAINTENANCE CONTRACTOR IN ACCORDANCE WITH SHEET S-2 REMOVAL NOTE 1.
2. VENDOR SHALL REMOVE AND PROPERLY DISPOSE OF THE ANTENNAS, ASSOCIATED COAXIAL TRANSMISSION LINES, MOUNTING HARDWARE, AND SPDS.
3. RESTORE SITE COMPOUND PER THESE PLANS.





PROPOSED TOWER LOADING DIAGRAM

ID	MODEL	LEG/ FACE	MNT. HGT.	TX LINE	AZIM.	NOTES
A	TECHNOSTROBE WHITE LED FLASH HEAD	A	280' BASE	CONDUIT	-	1
B	DB810	C	280' BASE	-	-	-
C	DB810	A	260' BASE	-	-	-
D	DB810	B	260' BASE	-	-	-
E	DB810	C	260' BASE	-	-	-
F	2 ELEMENT PANEL	B	220' (C.L.)	-	-	-
G	2 ELEMENT PANEL	C	220' (C.L.)	-	-	-
H	2 ELEMENT PANEL	B	210' (C.L.)	-	-	-
I	2 ELEMENT PANEL	C	210' (C.L.)	-	-	-
J	DB812	C	193' BASE	7/8"	-	-
K	PAR8-65	B	180' (C.L.)	EW-63	-	-
L	PAR8-65	C	180' (C.L.)	EW-63	-	-
M	PAR8-65	C	160' (C.L.)	EW-63	-	-
N	PAR8-65	B	146' (C.L.)	EW-63	-	-
O	PAR8-65	C	144' (C.L.)	EW-63	-	-
P	PL4-65	C	135' (C.L.)	EW-63	-	-
Q	ERI-100-2	A	110' (C.L.)	7/8"	-	-

NOTES:

1. THE VENDOR SHALL INSTALL THE NEW TECHNOSTROBE D1-LED-B-WHITE-48VDC-SNMP-C-APT-DS-G5 TOWER LIGHTING SYSTEM IN ACCORDANCE WITH SHEET A-3.

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
COLLIER COUNTY RA	COLLIER	424401-1-52-01

COLLIER COUNTY RA TOWER LOADING DIAGRAM

SHEET NO. S-4

https://atkins-my.sharepoint.com/personal/sean_kane_atkinsglobal_com/Documents/Desktop/Multiple Tower Light Upgrade Plans 20190329.vsdx

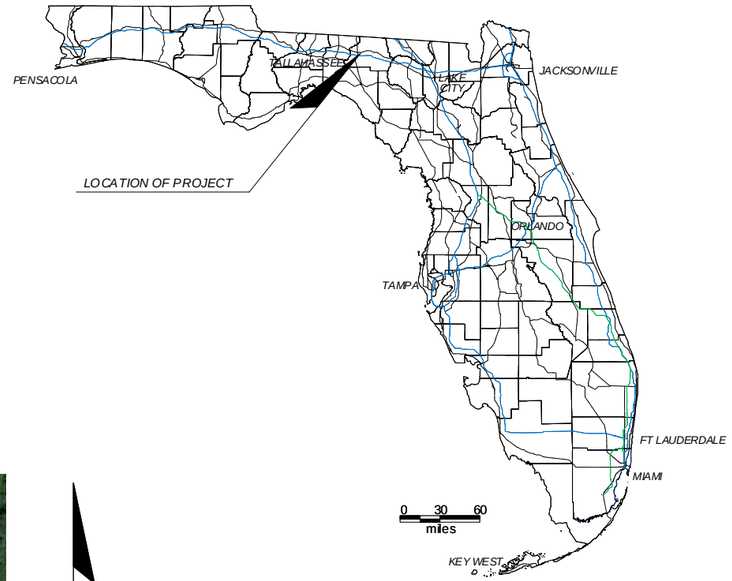
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

APPENDIX T

FINANCIAL PROJECT ID 424401-1-52-01
MADISON COUNTY
GREENVILLE (2-2514) LED TOWER OBSTRUCTION LIGHTING UPGRADE

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

INDEX OF PLANS



TOWER SITE ADDRESS:

GREENVILLE

5042 INTERSTATE 10
GREENVILLE, FL 32331

LATITUDE: 30-26-08.16 N (NAD 83)
LONGITUDE: 83-38-20.76 W

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS (CURRENT EDITION),
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION (CURRENT EDITION),
AS AMENDED BY CONTRACT DOCUMENTS.

FLORIDA DEPARTMENT OF TRANSPORTATION
LED TOWER OBSTRUCTION LIGHTING UPGRADE PROJECT

FDOT PROJECT MANAGER: RANDY PIERCE

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
SITE NAME	COUNTY	FINANCIAL PROJECT ID
GREENVILLE	MADISON	424401-1-52-01

GREENVILLE KEY SHEET

SHEET NO. T-1

https://atkins-my.sharepoint.com/personal/sean_kane_atkinsglobal_com/Documents/Desktop/Multiple Tower Light Upgrade Plans 20190329.vsdx

GREENVILLE REMOVAL NOTES:

1. THE VENDOR SHALL REMOVE THE OLD OBSTRUCTION LIGHTING SYSTEM, INCLUDING BUT NOT LIMITED TO, POWER SUPPLIES, CONTROLLERS, SPDS, CONDUITS, TOWER LIGHT PHOTOCELL, AND ALL ASSOCIATED ELECTRICAL AND GROUNDING CONDUCTORS. THE VENDOR SHALL LEAVE THE CIRCUIT BREAKER IN PLACE AND SWITCH IT TO THE "OFF" POSITION. THE VENDOR SHALL DELIVER THE OLD TOWER LIGHT CONTROLLER AND BEACONS TO THE MAINTENANCE CONTRACTOR ON SITE, AND PROPERLY DISPOSE OF THE REMAINING MATERIALS.

   THE VENDOR SHALL PATCH ALL WALL PENETRATIONS WITH AN APPROPRIATE MORTAR MIX AND SHALL APPROPRIATELY PLUG ALL OPENINGS TO ELECTRICAL BOXES THAT ARE A RESULT OF CONDUIT REMOVAL WITH METALLIC PLUGS.

2. THE VENDOR SHALL DISCONNECT AND PROPERLY REMOVE AND DISPOSE OF THE DB-230 ANTENNAS LABELED "H", "I" AND "K" AND THE ASSOCIATED TRANSMISSION LINES AND ANTENNA MOUNTS ON THE EXISTING TOWER LOADING DETAIL ON SHEET T-4. THE VENDOR SHALL REMOVE AND PROPERLY DISPOSE OF THE TRANSMISSION LINE SPDS LOCATED INSIDE THE COMMUNICATIONS SHELTER UPON THE TRANSMISSION LINES ENTERING THE SHELTER, AND RETURN TO THE FDOT. THE VENDOR SHALL INSTALL NEW ENTRY PORT BOOTS ON THE BULKHEAD.

GREENVILLE INSTALLATION NOTES:

1. THE VENDOR SHALL FURNISH AND INSTALL A NEW -48 VDC LED DUAL DAYTIME/NIGHT-TIME TOWER OBSTRUCTION LIGHTING SYSTEM IN ACCORDANCE WITH THESE PLANS. THE TOWER OBSTRUCTION LIGHTING SYSTEM SHALL BE TECHNOSTROBE E1-LED-B-HYBRID-48VDC-SNMP-2M-C-APT-DS-G5 DUAL LED FLASH HEAD. TOWER LIGHTS TO BE INSTALLED ARE LABELED "A" AND "J" ON THE PROPOSED TOWER LOADING DETAIL ON SHEET T-4.

   THE TOWER OBSTRUCTION LIGHTING SYSTEM AND CONDUIT SHALL BE MOUNTED TO THE TOWER AND HORIZONTAL TRANSMISSION LINE BRIDGE WITH GALVANIZED OR STAINLESS STEEL BOLT-ON HARDWARE. SNAP-ON HANGERS ARE NOT PERMITTED. ALL EXTERIOR TOWER LIGHTING CABLES SHALL BE INSTALLED IN APPROPRIATELY SIZED RIGID GALVANIZED STEEL (RGS) CONDUIT.

   THE TOWER LIGHT CONTROLLER SHALL BE MOUNTED INSIDE THE COMMUNICATIONS SHELTER. SEE SHEET T-3.

2. THE VENDOR SHALL FURNISH AND INSTALL NEW ELECTRICAL METALLIC TUBING (EMT) CONDUIT INSIDE THE COMMUNICATIONS SHELTER BETWEEN THE TOWER LIGHT CONTROLLER AND THE -48VDC DISTRIBUTION RACK. THE VENDOR SHALL FURNISH AND INSTALL NEW EMT CONDUIT FOR THE PHOTOCELL AND CONTROL WIRING BETWEEN THE TOWER LIGHT CONTROLLER AND ENTRY PORT INSIDE THE SHELTER, AND IT SHALL BE LOCATED SO AS NOT TO OBSCURE ANY PORTION OF AN ELECTRICAL OUTLET OR JUNCTION BOX, PER NEC, ITEM 11, 'APPLICABLE PUBLICATIONS AND STANDARDS' OR OBSTRUCT ANY EMPTY ENTRY PORTS. THE VENDOR SHALL REUSE THE EXISTING EXTERIOR PHOTOCELL METALLIC CONDUIT. THE VENDOR SHALL TERMINATE THE EXTERIOR EMT CONDUIT AT BOTH ENDS WITH AN END BUSHING.

3. THE VENDOR SHALL INSTALL THE LOAD CONDUCTORS BETWEEN THE TOWER LIGHTING SYSTEM, AND THE -48VDC DISTRIBUTION PANEL, IN ACCORDANCE WITH SHEET A-4. THE 10A BREAKER MODEL SHALL BE AIRPAX MODEL LML1-1RLS4R-29954-10.

4. THE VENDOR SHALL CONFIGURE THE TECHNOSTROBE TOWER LIGHT CONTROLLER WITH THE FOLLOWING NETWORK INFORMATION:

   IP ADDRESS: 172.16.66.14
   SUBNET MASK: 255.255.254.0
   DEFAULT GATEWAY: 172.16.66.19

5. THE VENDOR SHALL CONFIGURE THE TECHNOSTROBE TOWER LIGHT CONTROLLER WITH THE FOLLOWING SNMP INFORMATION:

   STATE: ENABLED
   READ COMMUNITY: PUBLIC
   WRITE COMMUNITY: PUBLIC
   SYSTEM NAME: GREENVILLE TECHNOSTROBE
   SYSTEM DESCRIPTION: GREENVILLE TECHNOSTROBE TOWER LIGHTS
   SYSTEM LOCATION: GREENVILLE
   TRAP STATE: ENABLED
   TRAPS PRIMARY DESTINATION: 172.16.2.21
   TRAPS SECONDARY DESTINATION: 172.16.16.21

6. THE VENDOR SHALL NOTIFY THE FDOT UPON COMPLETION OF ALL TOWER OBSTRUCTION LIGHTING SYSTEM INSTALLATION WORK.
7. THE FDOT WILL INSPECT THE TOWER OBSTRUCTION LIGHTING SYSTEM INSTALLATION FOR COMPLIANCE WITH THESE SPECIFICATIONS.
8. THE FDOT WILL WITNESS COMMISSIONING AND TESTING OF THE NEW TOWER OBSTRUCTION LIGHTING SYSTEM AND NOTIFY THE VENDOR OF FINAL ACCEPTANCE.

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

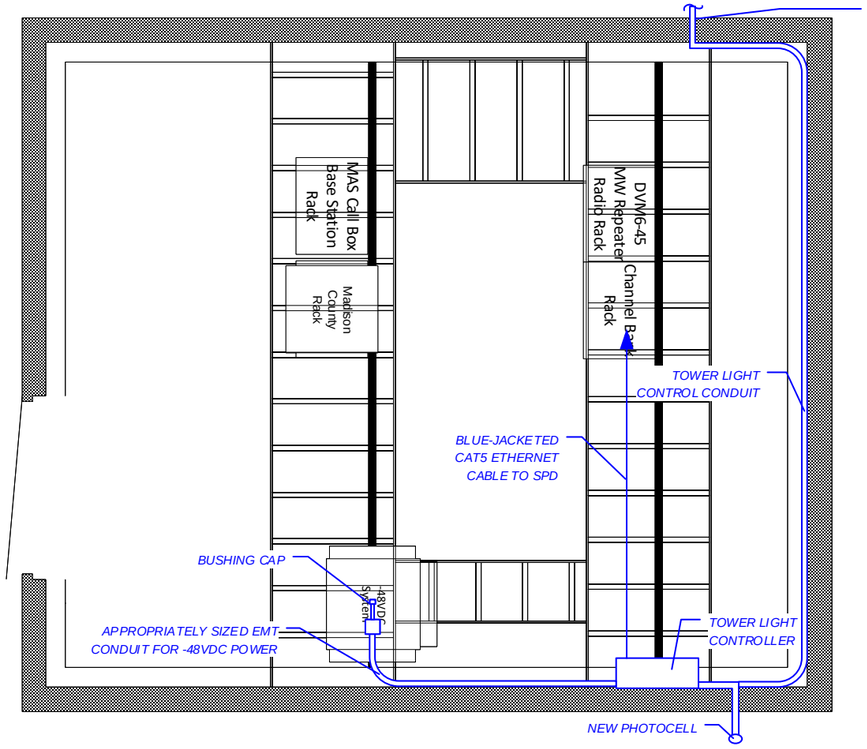
FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

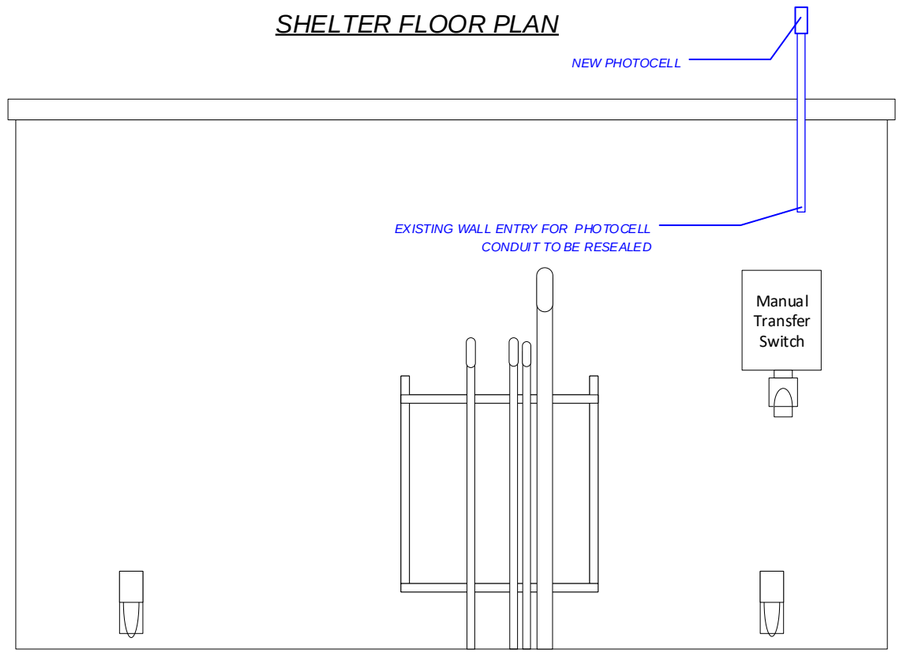
SITE NAME	COUNTY	FINANCIAL PROJECT ID
GREENVILLE	MADISON	424401-1-52-01

GREENVILLE REMOVAL AND INSTALLATION NOTES

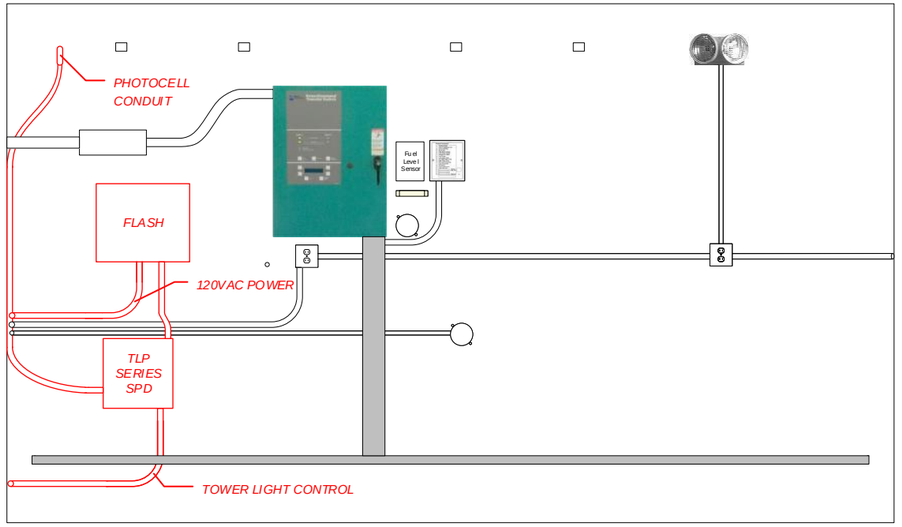
SHEET NO. T-2



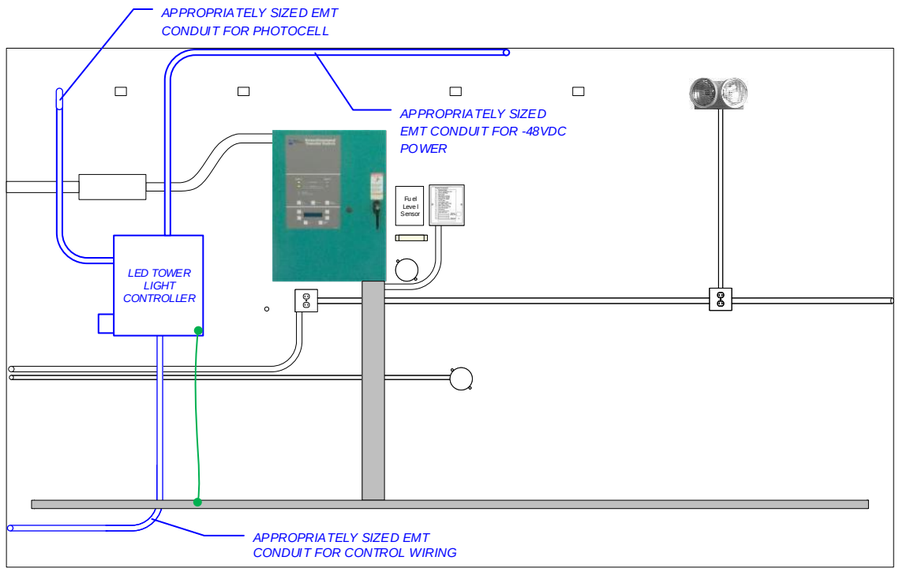
SHELTER FLOOR PLAN



PROPOSED EXTERIOR EAST WALL



EXISTING INTERIOR EAST WALL



PROPOSED INTERIOR EAST WALL

NOTES

1. THE APPROXIMATE LOCATION OF THE EQUIPMENT IS FOR DIAGRAMMATICAL PURPOSES ONLY. THE VENDOR IS RESPONSIBLE FOR DETERMINING THE BEST LOCATIONS FOR EQUIPMENT AND ALL ASSOCIATED CONDUITS AND MOUNTING AND GROUNDING HARDWARE. THE VENDOR SHALL SUBMIT DETAILED PLANS FOR APPROVAL BY THE FDOT.
2. THE VENDOR SHALL PATCH ALL WALL PENETRATIONS WITH AN APPROPRIATE MORTAR MIX AND SHALL APPROPRIATELY PLUG ALL OPENINGS TO ELECTRICAL BOXES THAT ARE A RESULT OF CONDUIT REMOVAL WITH METALLIC PLUGS.
3. THE VENDOR SHALL INSTALL THE NEW TECHNOSTROBE -48 VDC TOWER OBSTRUCTION LIGHTING SYSTEM MODEL E1-LED-B-HYBRID-48VDC-SNMP-2M-C-APT-DS-G5 DUAL LED FLASH HEAD WITH ASSOCIATED PHOTOCELL, SURGE PROTECTION, GROUNDING, AND CONDUIT.
4. THE VENDOR SHALL FURNISH AND INSTALL ONE (1) ETHERNET SURGE PROTECTIVE DEVICE (SPD), MTL-SURGE MODEL NUMBER ZB24540. THIS SPD SHALL BE MOUNTED ON THE DIN RAIL IN THE NMS RACK.
5. THE VENDOR SHALL INSTALL A CUSTOM LENGTH BLUE-JACKETED CAT 5 ETHERNET CABLE FROM THE TECHNOSTROBE ETHERNET PORT TO THE NEWLY INSTALLED ETHERNET SPD IN THE CHANNEL BANK RACK, AND FROM THE ETHERNET SPD TO THE BPS 2000, PORT #20.

   THE VENDOR SHALL ROUTE THE NEW BLUE-JACKETED CAT 5 ETHERNET CABLE ALONG THE OVERHEAD CABLE TRAYS, PARALLEL TO EXISTING ETHERNET CABLES TO THE NMS RACK. THE VENDOR SHALL INDEPENDENTLY SECURE THE ETHERNET CABLE TO THE OVERHEAD CABLE TRAYS WITH ZIP TIES OR LACING STRING, AT 36 IN. INTERVALS, MAXIMUM.
6. THE VENDOR SHALL MECHANICALLY GROUND THE TECHNOSTROBE TOWER LIGHT CONTROLLER TO THE GROUND HALO USING #6 AWG GREEN JACKETED CONDUCTOR. THE GROUND SHALL BE DOWNWARD COURSING, AND AS STRAIGHT AND SHORT AS POSSIBLE.

   THE VENDOR SHALL CLEAN AND PREPARE ALL GROUND CONDUCTORS AND SURFACES PRIOR TO BONDS. ALL NON-CONDUCTING SURFACE COATINGS SHALL BE REMOVED BEFORE EACH CONNECTION IS MADE.

LEGEND

- EXISTING
- VENDOR FURNISHED AND INSTALLED
- TO BE REMOVED BY VENDOR

CONTRACT PLANS RECORD

DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FDOT
FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
FAX.(850)-410-5501

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
GREENVILLE	MADISON	424401-1-52-01

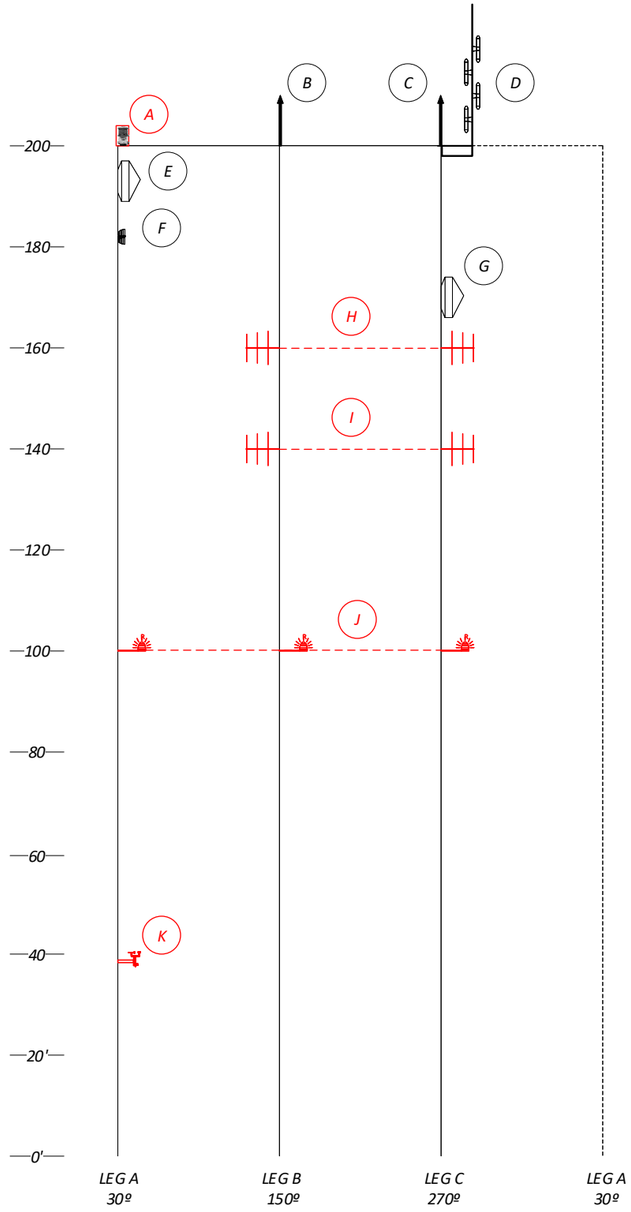
GREENVILLE COMM BLDG PLANS

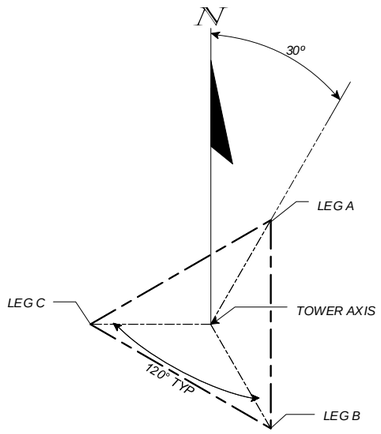
SHEET NO. T-3

I.D.	MODEL	LEG/ FACE	MNT. HGT.	TX. LINE	DEG.	NOTE
A	WHITE/RED BEACON	A	200' (BASE)	-	-	1
B	AIR TERMINAL	B	200' (BASE)	-	-	-
C	AIR TERMINAL	C	200' (BASE)	-	-	-
D	DB-224	C	200' (BASE)	7/8"	-	-
E	PA8-65D	A	193' (C.L.)	EW-63	74.1	-
F	KATHREIN SCALA PR-950	A	182' (C.L.)	7/8"	-	-
G	PA8-65D	C	170' (C.L.)	EW-63	295	-
H	DB-230	B, C	160' (C.L.)	1/2"	-	2
I	DB-230	B, C	140' (C.L.)	1/2"	-	2
J	SIDE MARKERS	A, B, C	100' (BASE)	-	-	1
K	WEATHER STATION	A	39' (BASE)	RS-232	-	2

NOTES:

1. REMOVE AND PROPERLY DISPOSE OF THE TOWER OBSTRUCTION LIGHTING SYSTEM, CONDUIT, AND ASSOCIATED MOUNTING HARDWARE PER THESE PLANS. THE STROBE SHALL BE PRESERVED AND DELIVERED TO THE MAINTENANCE CONTRACTOR IN ACCORDANCE WITH SHEET T-2 REMOVAL NOTE 1.
2. VENDOR SHALL REMOVE AND PROPERLY DISPOSE OF THE ANTENNAS, ASSOCIATED COAXIAL TRANSMISSION LINES, MOUNTING HARDWARE, AND SPDS.
3. RESTORE SITE COMPOUND PER THESE PLANS.



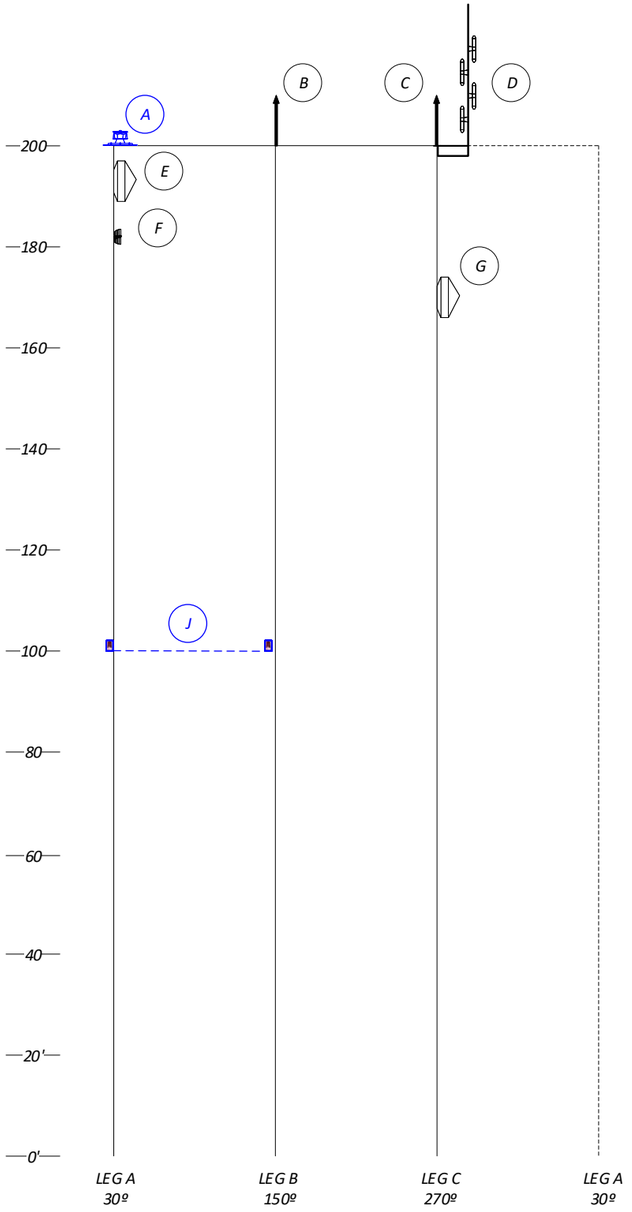


EXISTING TOWER LOADING DIAGRAM

I.D.	MODEL	LEG/ FACE	MNT. HGT.	TX. LINE	DEG.	NOTE
A	TECHNOSTROBE DUAL LED FLASH HEAD	A	200' (BASE)	-	-	1
B	AIR TERMINAL	B	200' (BASE)	-	-	-
C	AIR TERMINAL	C	200' (BASE)	-	-	-
D	DB-224	C	200' (BASE)	7/8"	-	-
E	PA8-65D	A	193' (C.L.)	EW-63	74.1	-
F	KATHREIN SCALA PR-950	A	182' (C.L.)	7/8"	-	-
G	PA8-65D	C	170' (C.L.)	EW-63	295	-
J	(2) LED SIDE MARKERS	A, B	100' (BASE)	-	-	1

NOTES:

1. THE VENDOR SHALL INSTALL THE NEW TECHNOSTROBE E1-LED-B-HYBRID-48VDC-SNMP-2M-C-APT-DS-G5 TOWER LIGHTING SYSTEM IN ACCORDANCE WITH SHEET A-3.



PROPOSED TOWER LOADING DIAGRAM

CONTRACT PLANS RECORD					
DATE	REV.	DESCRIPTION	DATE	REV.	DESCRIPTION

FLORIDA DEPARTMENT OF TRANSPORTATION
605 SUWANNEE ST. MS 90
TALLAHASSEE, FL 32399-0450
PH.(850)-410-5600
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

SITE NAME	COUNTY	FINANCIAL PROJECT ID
GREENVILLE	MADISON	424401-1-52-01

GREENVILLE TOWER LOADING DIAGRAM

SHEET NO. T-4

https://atkins-my.sharepoint.com/personal/sean_kane_atkinsglobal_com/Documents/Desktop/Multiple Tower Light Upgrade Plans 20190329.vsdx