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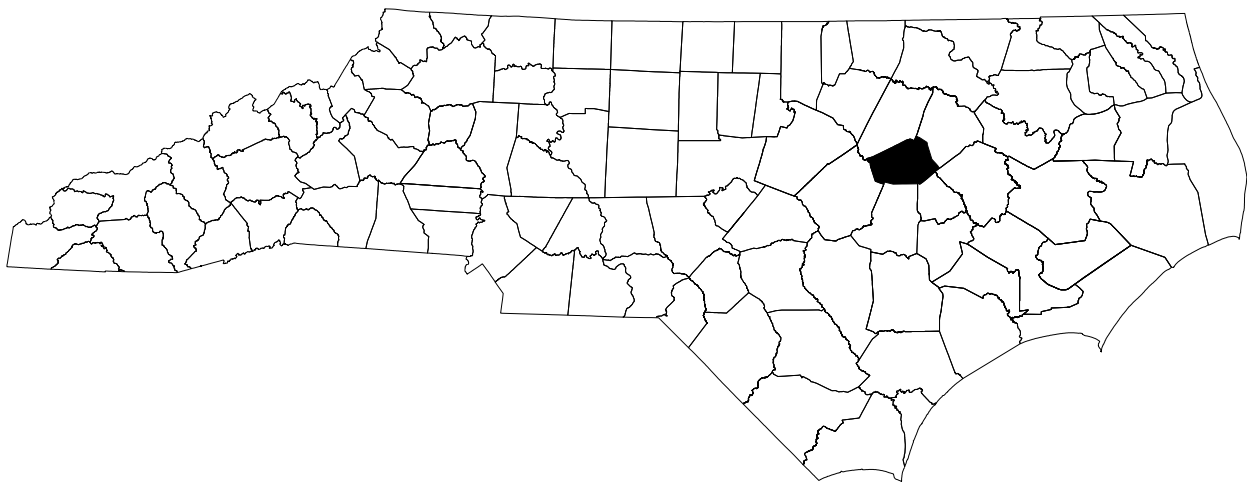
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

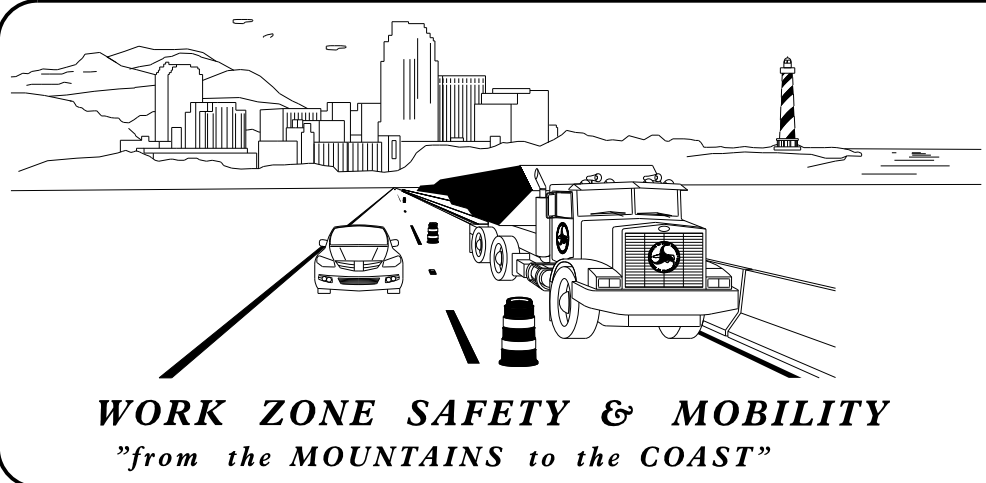
WILSON COUNTY



ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY DRUMS



PLANS PREPARED BY:

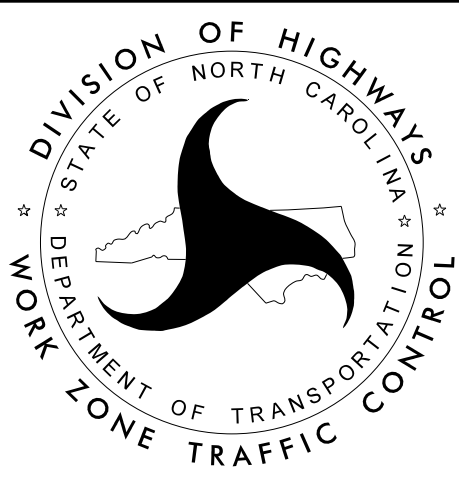
PAMELA L. ALEXANDER, PE
PROJECT ENGINEER

MILTON R. ACEVEDO, PE
PROJECT DESIGN ENGINEER

NCDOT CONTACTS:

ALEX D. STEWART, PE
PROJECT ENGINEER

WILLIAM B. HAIRSTON, III
PROJECT DESIGN ENGINEER



INDEX OF SHEETS

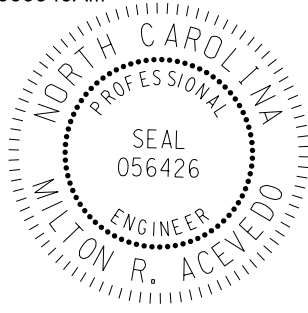
SHEET NO.	TITLE
TMP-1.0	TITLE SHEET, LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND INDEX OF SHEETS
TMP-2.0 - TMP-2.1	GENERAL TRAFFIC CONTROL NOTES
TMP-3.0	TRAFFIC CONTROL NARRATIVE
TMP-4.0	TYPICAL SIDEWALK CLOSURE AND PEDESTRIAN DETOUR

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APPROVED:

DocuSigned by:
Milton Acevedo
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DATE: 3/14/2025



TIP PROJECT: U-5945

SHEET NO.
TMP-1.0

GENERAL TRAFFIC CONTROL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIREED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC ON ALL ROADS IN ACCORDANCE WITH DIVISIONS 10, 11 AND 12 OF THE 2024 STANDARDS SPECIFICATIONS AND THE GENERAL NOTES PROVIDED ON THESE PLANS.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) A TRAVEL LANE CLOSURE OR NARROWING CAN BE PUT IN PLACE AT ANY DAY/TIME ON ANY ROAD, EXCEPT FOR HOLIDAYS, SPECIAL EVENTS, OR ANY OTHER TIME WHEN TRAFFIC IS UNUSUALLY HEAVY.

B) DO NOT CLOSE OR NARROW TRAVEL LANES FOR SCHOOL DAYS BETWEEN THE HOURS OF 7:00AM UNTIL 9:00AM AND 2:30PM UNTIL 6:00PM AT THE FOLLOWING SIGNALIZED INTERSECTIONS:

INTERSECTION NAME	SIGNAL ID
1) SR 1377 (NASH ST) AT KINCAID AVE	04-0292
2) US 264 ALT (WARD BLVD) AT SR 1163 (DOWNING ST)	04-0299
3) NC 42-58 (WARD BLVD) AT NC 42/SR 1253 (HERRING AVE)	04-0308
4) NC 42 (HERRING AVE) AT SAMUEL ST/SALLIE B HOWARD PL	04-0309
5) NC 42 (TARBORO ST) AT WILSON MEDICAL CENTER/MEDICAL CUTTHROUGH	04-0452
6) NC 42-58 (WARD BLVD) AT SR 1323 (TILGHMAN RD)	04-0488
7) NC 42 (TARBORO ST) AT BYNUM SCHOOL DR AND PARKWOOD BLVD	04-0602
8) NC 42-58 (WARD BLVD) AT SR 1326 (CORBETT AVE)	04-0637
9) US 301 AT SR 1516 (MARLOW ST)/FIKEWOOD SHOPPING CENTER	04-0686
10) SR 1136 (OLD RALEIGH RD) AT SR 1006 (LAMM RD)	04-0688
11) NC 58 (NASH ST) AT SR 1382 (PACKHOUSE RD)/ST ANDREWS RD	04-0699
12) NC 42-58 (WARD BLVD) AT BRENTWOOD DR	04-0791
13) NC 42 AT SR 1158 (WILSON CHRISTIAN RD)	04-0792
14) NC 42 AT SR 1001 (LAMM RD)/SR 1162 (QUAKER RD)	04-0895
15) US 264 ALT/NC 58 (MLK JR. PKWY) AT SR 1515 (LIPSCOMB RD)	04-0966
16) SR 1165 (FOREST HILLS RD) AT NORTH ENTRANCE TO HOBBY LOBBY/FOREST HILLS MIDDLE SCHOOL	04-1031
17) SR 1158 (AIRPORT BLVD) AT SR 1157 (MERCK RD)	04-1143

C) DO NOT CLOSE OR NARROW TRAVEL LANES FOR THE DURATION OF THE WHIRLIGIG FESTIVAL AT THE FOLLOWING SIGNALIZED INTERSECTIONS:

INTERSECTION NAME	SIGNAL ID
1) SR 1192 (HINES ST) AT PARK AVE	04-0301
2) SR 1192 (HINES ST) AT SR 1184 (TARBORO ST)	04-0332
3) SR 1192 (HINES ST) AT LODGE ST	04-0334
4) GOLDSBORO ST AT BARNES ST	COW-01
5) GOLDSBORO ST AT GREEN ST	COW-02
6) GOLDSBORO ST AT NASH ST	COW-04
7) TARBORO ST AT NASH ST	COW-05
8) PINE ST AT NASH ST	COW-06
9) NASH ST AT LODGE ST	COW-07
10) DOUGLAS ST AT NASH ST	COW-08

D) DO NOT CLOSE OR NARROW TRAVEL LANES FOR THE DURATION OF THE WILSON CHRISTMAS PARADE AT THE FOLLOWING SIGNALIZED INTERSECTIONS:

INTERSECTION NAME	SIGNAL ID
1) SR 1192 (HINES ST) AT LODGE ST	04-0334
2) SR 1377 (NASH ST) AT ATLANTIC CHRISTIAN COLLEGE DR	04-0336
3) GOLDSBORO ST AT NASH ST	COW-04
4) TARBORO ST AT NASH ST	COW-05
5) PINE ST AT NASH ST	COW-06
6) DOUGLAS ST AT NASH ST	COW-08

E) DO NOT CLOSE OR NARROW TRAVEL LANES FOR THE DURATION OF BARTON COLLEGE MOVE IN/OUT DAYS AT THE FOLLOWING SIGNALIZED INTERSECTIONS:

INTERSECTION NAME	SIGNAL ID
1) SR 1377 (NASH ST) AT RALEIGH ROAD PKWY	04-0294
2) SR 1377 (NASH ST) AT ATLANTIC CHRISTIAN COLLEGE DR	04-0336
3) ATLANTIC CHRISTIAN COLLEGE DR AT BROAD ST	COW-13

F) DO NOT CLOSE OR NARROW A LANE OF TRAFFIC ON ANY ROAD, DETAIN AND/OR ALTER THE TRAFFIC FLOW ON OR DURING HOLIDAYS, HOLIDAY WEEKENDS, SPECIAL EVENTS, OR ANY OTHER TIME WHEN TRAFFIC IS UNUSUALLY HEAVY, INCLUDING:

HOLIDAY

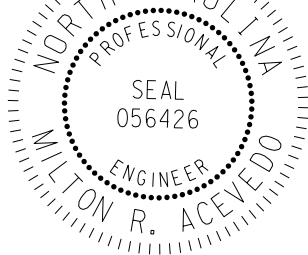
- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S DAY, BETWEEN THE HOURS OF 6:30AM DECEMBER 31st AND 8:00PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00PM THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:30AM THURSDAY AND 8:00PM MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:30AM FRIDAY TO 8:00PM TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:30AM THE DAY BEFORE INDEPENDENCE DAY AND 8:00PM THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:30AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 8:00PM THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:30AM FRIDAY AND 8:00PM TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:30AM TUESDAY AND 8:00PM MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:30AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS DAY.

(CONTINUES ON TMP-2.1)

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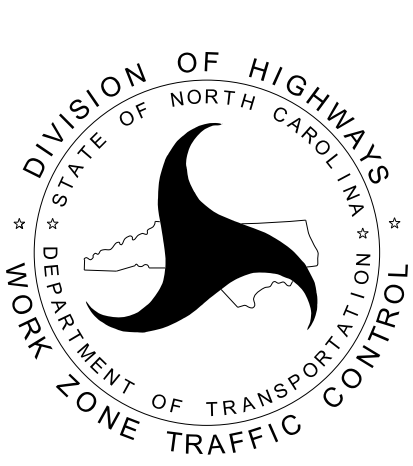
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Milton Acevedo

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TRANSPORTATION
OPERATIONS
PLAN

GENERAL TRAFFIC CONTROL NOTES

(CONTINUED FROM TMP-2.0)

LANE AND SHOULDER CLOSURE REQUIREMENTS

- G) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 FT OF AN OPEN TRAVEL LANE ON AN UNDIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 10 FT OF AN OPEN TRAVEL LANE ON A DIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- J) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- K) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- L) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON ANY ROADWAY.

TRAFFIC PATTERN ALTERATIONS

- M) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.
- N) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

SIGNING

- O) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- P) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.
- COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- Q) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- R) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

- S) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- T) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- U) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 100 TO 500 FT CENTERS, AS DIRECTED BY THE ENGINEER, WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

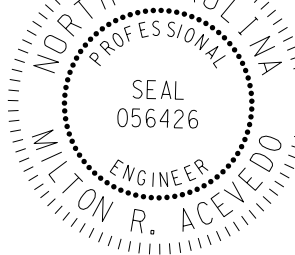
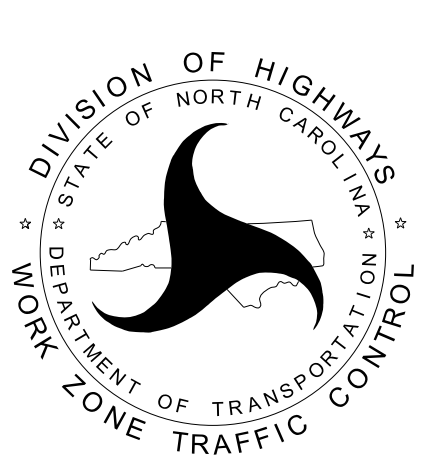
PEDESTRIANS

- V) CONTRACTOR SHALL MAINTAIN PEDESTRIAN MOBILITY WITHIN CONSTRUCTION AREAS AT ALL TIMES. AT LOCATIONS WHERE A PORTION OF SIDEWALK MUST BE REMOVED TEMPORARILY FOR CONSTRUCTION OPERATIONS, CLOSE THE AFFECTED SECTION OF SIDEWALK AND DETOUR PEDESTRIANS TO THE OTHER SIDE OF THE STREET AS SHOWN ON TMP-4.0. WHERE A PEDESTRIAN DETOUR IS NOT FEASIBLE, PROVIDE A TEMPORARY FOOTPATH CONSTRUCTED OF SUITABLE MATERIALS FOR PEDESTRIANS TO WALK AROUND THE WORK AREA AS DIRECTED AND APPROVED BY THE ENGINEER. REPLACE THE REMOVED SIDEWALK WITH LIKE MATERIALS AND REOPEN TO PEDESTRIAN TRAFFIC WITHIN 5 CALENDAR DAYS OF INITIAL REMOVAL.
- W) MAINTAIN REASONABLE AND SAFE PEDESTRIAN ACCESS TO ALL BUSINESSES, SCHOOLS AND DWELLINGS IN AREAS AFFECTED BY CONSTRUCTION AT ALL TIMES.
- X) REFER TO MUTCD SECTION 6C.02, "PEDESTRIAN CONSIDERATIONS" AND SECTION 6C.03, "ACCESSIBILITY CONSIDERATIONS" FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS FOR MAINTAINING PEDESTRIAN MOBILITY THROUGH THE WORK AREA.

- Y) WHEN CONSTRUCTION ACTIVITIES WILL BLOCK PEDESTRIAN ACCESS TO PEDESTRIAN SIGNAL PUSHBUTTONS, NOTIFY THE ENGINEER AT LEAST 24 HOURS IN ADVANCE OF SUCH WORK TO HAVE THE TRAFFIC SIGNAL PLACED ON PEDESTRIAN RECALL.

MISCELLANEOUS

- Z) USE UNIFORMED LAW ENFORCEMENT OFFICERS TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS WHEN THE TEMPORARY TRAFFIC PATTERN CANNOT BE CONTROLLED BY THE SIGNAL'S NORMAL OPERATION.

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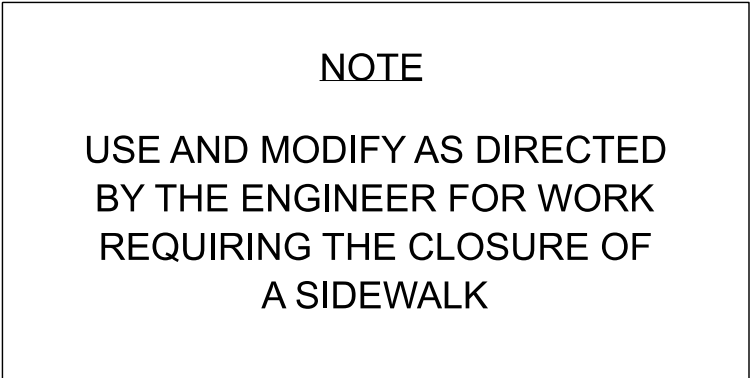
TRAFFIC CONTROL NARRATIVE

- STEP 1: PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT A WRITTEN CONSTRUCTION SEQUENCE FOR TRAFFIC CONTROL AND CONSTRUCTION LIGHTING TO THE ENGINEER AT THE FIRST PRE-CONSTRUCTION MEETING. THE SEQUENCE MUST BE APPROVED BEFORE CLOSING A LANE OF TRAFFIC.
- NOTE: OBTAIN WRITTEN APPROVAL OF THE ENGINEER BEFORE WORKING IN MORE THAN ONE LOCATION OR SETTING UP ADDITIONAL LANE CLOSURES. THE MAXIMUM LENGTH OF ANY ONE LANE CLOSURE IS 1 MILE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- NOTE: ON THIS AND ANY ADJACENT PROJECTS, THE CONTRACTOR OR SUBCONTRACTORS SHALL COORDINATE LANE CLOSURE LOCATION, TYPE, AND DIRECTION WITH THE ENGINEER TO BEST MAINTAIN LANE CONTINUITY THROUGH THE LIMITS OF THIS AND ADJACENT PROJECTS.
- STEP 2: PERFORM ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE PROPOSED SIGNALS AND TRAFFIC MANAGEMENT SYSTEM AS SHOWN IN THE CONTRACT, CONSTRUCTION PLANS AND/OR SPECIAL PROVISIONS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JANUARY 2024".
- NOTE: ADDRESS ANY SAFETY HAZARDS CONCERNING MOTORISTS AND PEDESTRIANS BEFORE REMOVING TEMPORARY TRAFFIC CONTROL DEVICES AND WORK ZONE WARNING SIGNS. RETURN TRAFFIC TO ITS EXISTING TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD.
- NOTE: INSTALL CHANGEABLE MESSAGE SIGNS IN ADVANCE OF THE WORK ZONE AS DIRECTED BY THE ENGINEER.
- NOTE: REMOVE ALL TEMPORARY TRAFFIC CONTROL LANE CLOSURE DEVICES AND RETURN TRAFFIC TO ITS EXISTING TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD.
- NOTE: WHEN CHANGING OUT CONTROLLER CABINETS, USE LAW ENFORCEMENT TO DIRECT TRAFFIC THROUGH THE INTERSECTION WHILE TRAFFIC SIGNAL IS NOT IN OPERATION. DO NOT TAKE TRAFFIC SIGNAL OUT OF OPERATION FOR MORE THAN 3 HOURS AT A GIVEN INTERSECTION. DO NOT TAKE ANY TRAFFIC SIGNAL OUT OF OPERATION TO PERFORM CONTROLLER CABINET CHANGEOUT BETWEEN THE HOURS OF 3:00PM AND 9:00AM THE FOLLOWING MORNING.
- NOTE: CONSTRUCT NEW CONDUIT ENTRANCES INTO EXISTING CONTROLLER CABINET FOUNDATIONS WHILE MAINTAINING THE OPERATIONS OF THE EXISTING TRAFFIC SIGNAL WHEREVER POSSIBLE. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF OPERATION TO CONSTRUCT A CONDUIT ENTRANCE INTO AN EXISTING CONTROLLER CABINET FOUNDATION AND SUBJECT TO THE ENGINEER'S APPROVAL, USE LAW ENFORCEMENT TO DIRECT TRAFFIC THROUGH THE INTERSECTION WHILE THE TRAFFIC SIGNAL IS NOT IN OPERATION. DO NOT TAKE A TRAFFIC SIGNAL OUT OF OPERATION WITHOUT THE PRIOR APPROVAL OF THE ENGINEER AND DO NOT TAKE THE TRAFFIC SIGNAL OUT OF OPERATION FOR MORE THAN ONE HOUR AT A GIVEN INTERSECTION.
- NOTE: USE RSD 1101.03, SHEET 8 OF 9 (FLAGGER), TO TEMPORARILY STOP TRAFFIC WHEN INSTALLING MESSENGER AND CABLE OR REMOVING EXISTING MESSENGER AND CABLE OVER A TWO-LANE, TWO-WAY ROAD. USE RSD 1101.03, SHEET 9 OF 9 (ROLLING ROADBLOCK), TO TEMPORARILY STOP TRAFFIC WHEN INSTALLING MESSENGER AND CABLE OR REMOVING EXISTING MESSENGER AND CABLE OVER A MULTI-LANE ROADWAY.
- NOTE: CONTRACTOR SHALL CONDUCT OPERATIONS IN AN ORDER SUCH THAT WATER DOES NOT ACCUMULATE.

- NOTE: OPERATE PAVING EQUIPMENT AND CONDUCT PAVING OPERATIONS IN THE SAME DIRECTION AS THE FLOW OF TRAFFIC UNLESS THE OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER. MAINTAIN VEHICULAR ACCESS IN ACCORDANCE WITH SECTION 1101-5 OF THE 2024 STANDARD SPECIFICATIONS.
- NOTE: PROVIDE APPROPRIATE CONSTRUCTION LIGHTING IN ACCORDANCE WITH SECTION 1413 OF THE 2024 STANDARD SPECIFICATIONS.
- STEP 3: UPON COMPLETION OF THE PROJECT, REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

3/13/2025
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LEGEND

 - TYPE III BARRICADE

DocuSigned by: APPROVED: <i>Milton Acevedo</i> DATE: 3/14/2025 1183FB84556346A SEAL 			TYPICAL SIDEWALK CLOSURE AND PEDESTRIAN DETOUR
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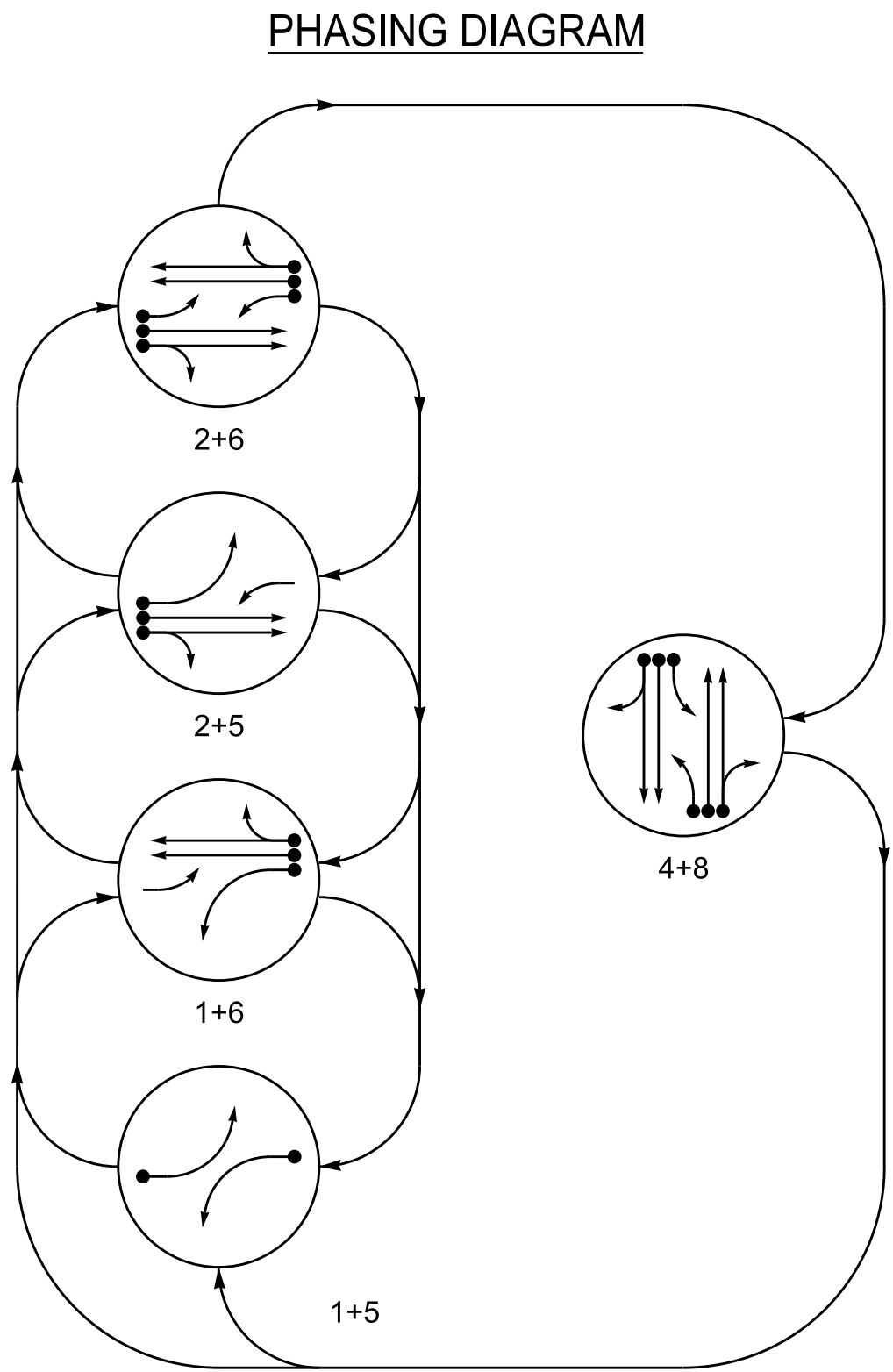


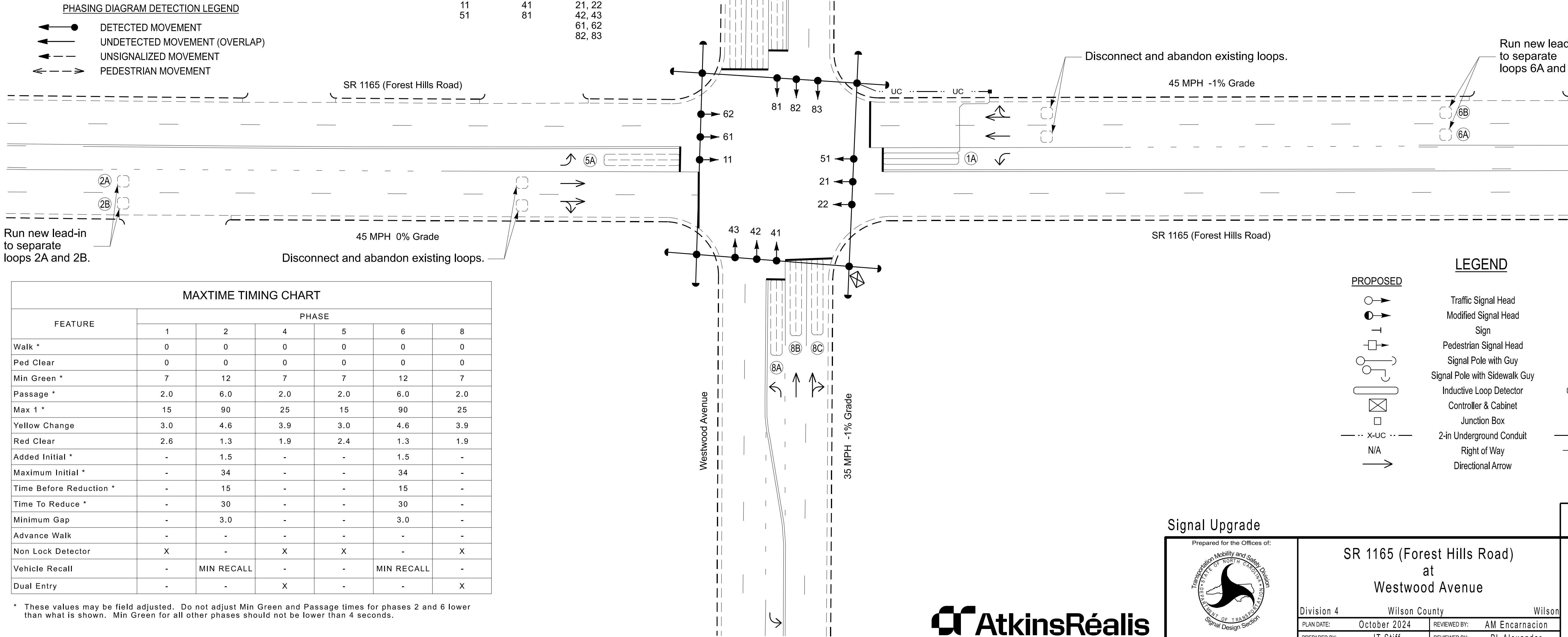
TABLE OF OPERATION						
SIGNAL FACE	PHASE					
	1 + 5	1 + 6	2 + 5	2 + 6	4 + 8	FLASH
11	←	←	↖	↖	↗	↗
21, 22	R	R	G	G	R	R
41	↗	↗	↖	↖	↗	↗
42, 43	R	R	R	R	G	R
51	←	↖	←	↖	↗	↗
61, 62	R	G	R	G	R	R
81	↗	↗	↖	↖	↗	↗
82, 83	R	R	R	R	G	R

MAXTIME DETECTOR INSTALLATION CHART										
DETECTOR					PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURN	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN
1A	6X40	0	2-4-2	X	1	15.0	-	X	-	X
2A	6X6	300	5	-	2	3.0	-	X	X	X
2B	6X6	300	5	-	2	-	-	X	X	X
4A	6X40	0	2-4-2	-	4	3.0	-	X	-	X
4B	6X40	0	2-4-2	-	4	-	-	X	-	X
4C	6X40	0	2-4-2	-	4	10.0	-	X	-	X
5A	6X40	0	2-4-2	-	5	15.0	-	X	-	X
6A	6X6	300	5	-	6	-	-	X	X	X
6B	6X6	300	5	-	6	-	-	X	X	X
8A	6X40	0	2-4-2	-	8	3.0	-	X	-	X
8B	6X40	0	2-4-2	-	8	-	-	X	-	X
8C	6X40	0	2-4-2	-	8	10.0	-	X	-	X

5 Phase
Fully Actuated
Wilson Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



LEGEND

- PROPOSED
- Traffic Signal Head
 - Modified Signal Head
 - Sign
 - Pedestrian Signal Head
 - Signal Pole with Guy
 - Signal Pole with Sidewalk Guy
 - Inductive Loop Detector
 - Controller & Cabinet
 - Junction Box
 - 2-in Underground Conduit
 - Right of Way
 - Directional Arrow
- EXISTING
- N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A

Signal Upgrade

Prepared for the Offices of:

Transportation Mobility and Safety Division

STATE OF NORTH CAROLINA

Signal Design Section

750 N. Greenfield Pkwy, Garner, NC 27529

SR 1165 (Forest Hills Road)
at
Westwood Avenue

Division 4 Wilson County Wilson

PLAN DATE: October 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Stiff REVIEWED BY: PL Alexander

REVISIONS

INIT. DATE

2/28/2025

DATE

SIG. INVENTORY NO. 04-1066

SEAL

ANTHONY ENCARNACION

PROFESSIONAL ENGINEER

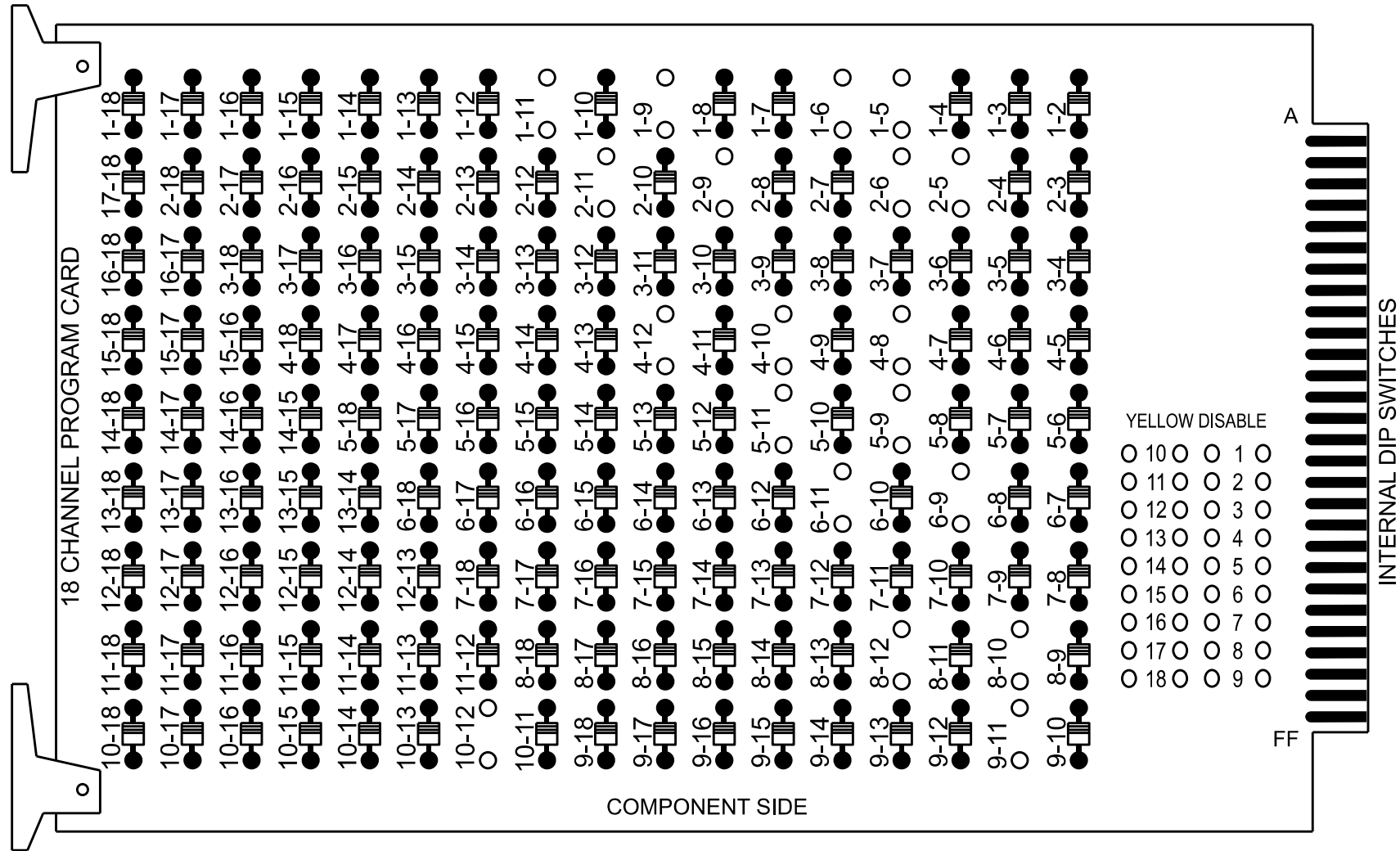
SEAL 044476

ENCARNACION

18 CHANNEL IP CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 2-5, 2-6, 2-9, 2-11, 4-8, 4-10, 4-12, 5-9, 5-11, 6-9, 6-11, 8-10, 8-12, 9-11 and 10-12.



REMOVE JUMPERS AS SHOWN

NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that the Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
- Program phases 4 and 8 for Dual Entry.
- Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
- The cabinet and controller are part of the Wilson Signal System.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S1, S2, S5, S7, S8, S11, AUX S1, AUX S2, AUX S4, AUX S5
Phases Used.....1, 2, 4, 5, 6, 8
Overlap "1".....*
Overlap "2".....*
Overlap "3".....*
Overlap "4".....*

*See overlap programming detail on sheet 2

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 71.1

SIGNAL HEAD HOOK-UP CHART

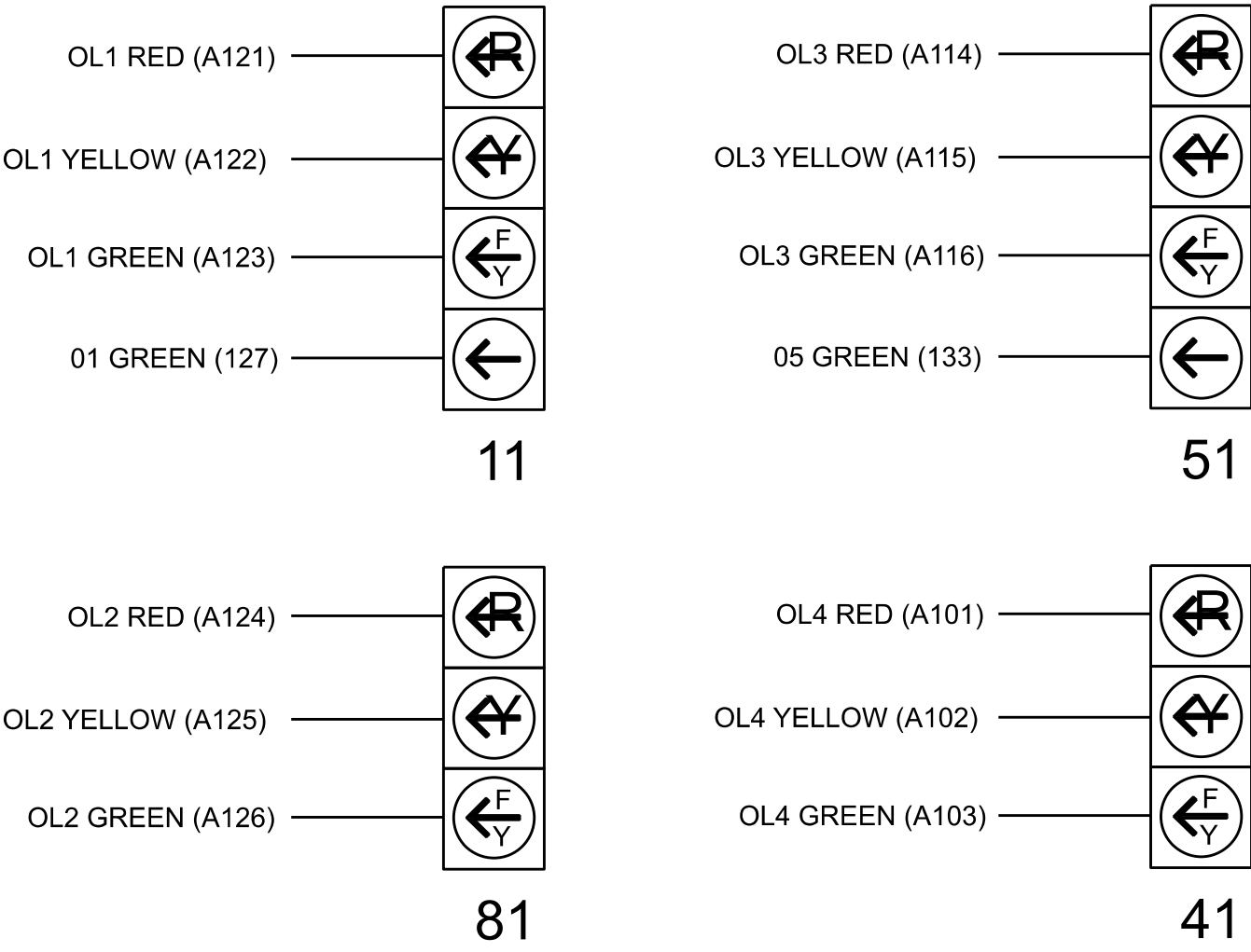
LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	11	21,22	NU	NU	42,43	NU	51	61,62	NU	NU	82,83	NU	11	81	NU	51	41	NU
RED		128			101			134			107							
YELLOW	*	129			102		*	135			108							
GREEN		130			103			136			109							
RED ARROW													A121	A124		A114	A101	
YELLOW ARROW													A122	A125		A115	A102	
FLASHING YELLOW ARROW													A123	A126		A116	A103	
GREEN ARROW	127						133											

NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.
* See pictorial of head wiring in detail this sheet.

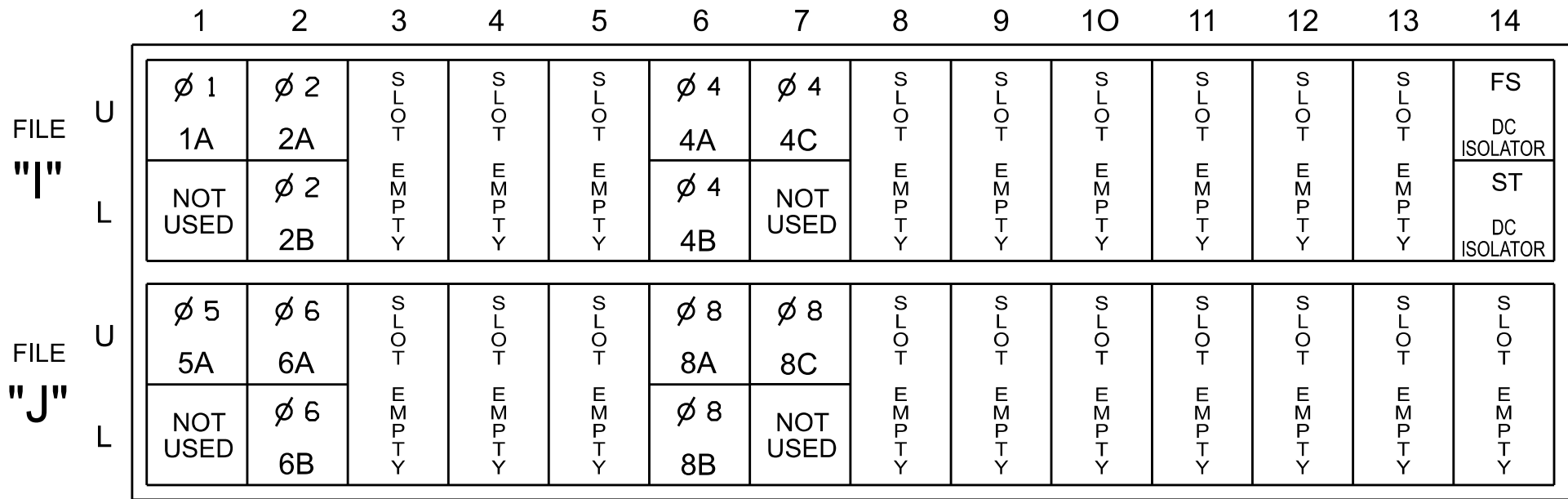
FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



INPUT FILE POSITION LAYOUT

(front view)

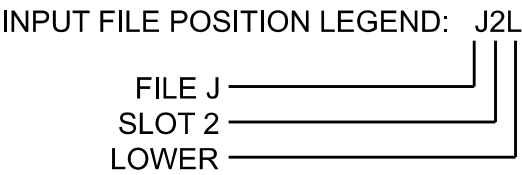


EX. : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

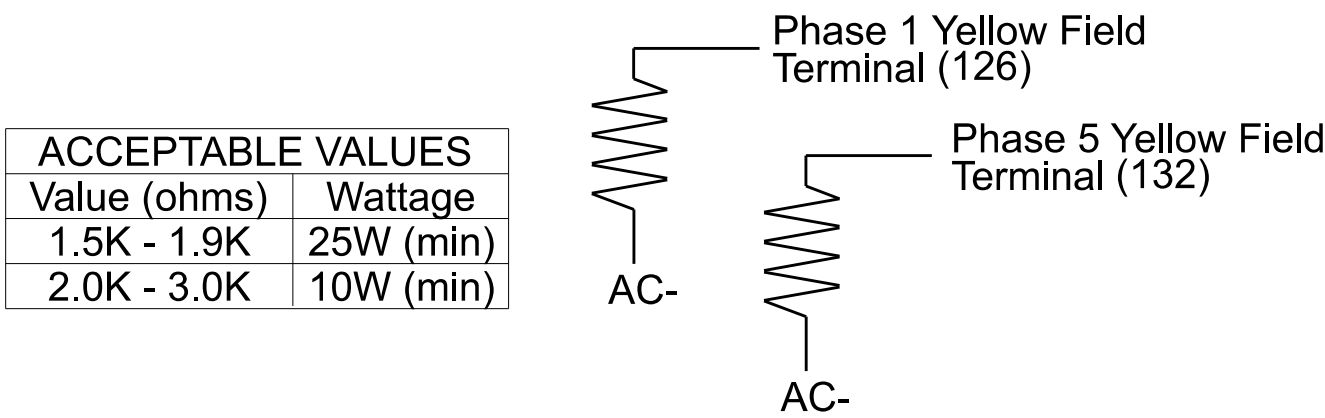
INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1	1	15.0		X		X	
2A	TB2-5,6	I2U	39	1	2	2	3.0		X	X	X	X
2B	TB2-7,8	I2L	43	5	3	2			X	X	X	
4A	TB4-9,10	I6U	41	3	8	4	3.0		X		X	
4B	TB4-11,12	I6L	45	7	9	4			X		X	
4C	TB6-1,2	I7U	65	31	10	4	10.0		X		X	
5A	TB3-1,2	J1U	55	17	15	5	15.0		X		X	
6A	TB3-5,6	J2U	40	2	16	6			X	X	X	X
6B	TB3-7,8	J2L	44	6	17	6			X	X	X	
8A	TB5-9,10	J6U	42	4	22	8	3.0		X		X	
8B	TB5-11,12	J6L	46	8	23	8			X		X	
8C	TB7-1,2	J7U	66	32	24	8	10.0		X		X	



LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown)



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1066
DESIGNED: OCTOBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 1 of 2

Electrical and Programming Details For:	SR 1165 (Forest Hills Road) at Westwood Avenue	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
Prepared for the Offices of:	Wilson County	SEAL
PLAN DATE: January 2025	REVIEWED BY: AM Encarnacion	SEAL 044476
PREPARED BY: JT Stiff	REVIEWED BY: PL Alexander	ENCARNACION
REVISIONS	INIT.	DATE
750 N. Greenfield Pkwy, Garner, NC 27529		2/28/2025
		DATE
		SIG. INVENTORY NO. 04-1066

AtkinsRéal
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

MAXTIME STARTUP AND SOFTWARE FLASH PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters	Unit Flash Parameters
StartUp Clearance Hold	All Red Flash Exit Time
6	6

OVERLAP PROGRAMMING

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps

Overlap Plan 1

Overlap	1	2	3	4
Type	FYA 4 - Section	FYA 4 - Section	FYA 4 - Section	FYA 4 - Section
Included Phases	2	4	6	8
Modifier Phases	1	-	5	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

- 1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
- 2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
- 3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1066
DESIGNED: OCTOBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Electrical and Programming
Details For:

Prepared for the Offices of:


750 N. Greenfield Pkwy, Garner, NC 27529

SR 1165 (Forest Hills Road)
at
Westwood Avenue

Division 4Wilson CountyWilson

PLAN DATE: January 2025REVIEWED BY: AM Encarnacion

PREPARED BY: JT StiffREVIEWED BY: PL Alexander

REVISIONS

INIT. DATE

SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
THOMAS M. ENCARNACION

Seal 044476

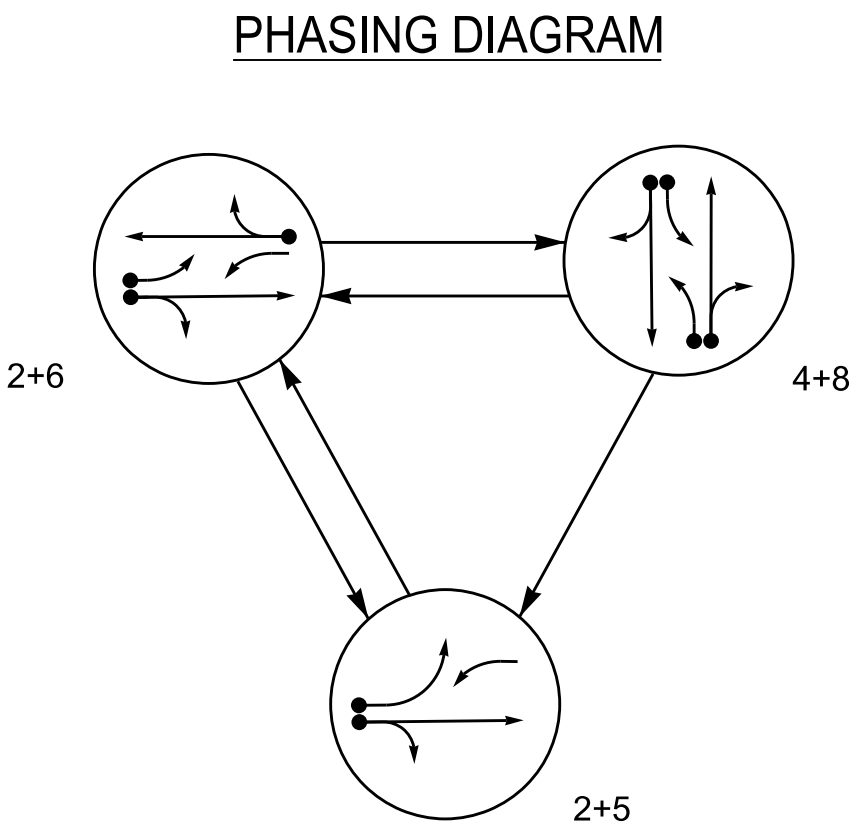
Document signed by: *Anthony Encarnacion* 2/28/2025
DATE

SIG. INVENTORY NO. 04-1066

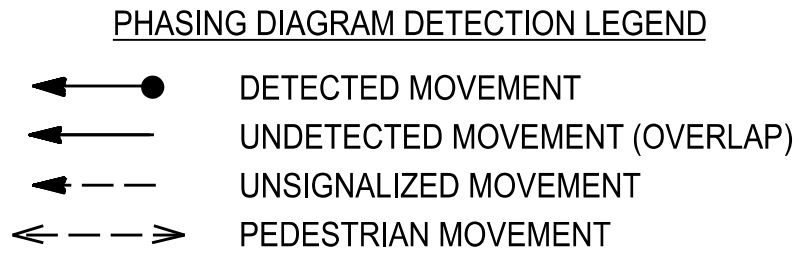


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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

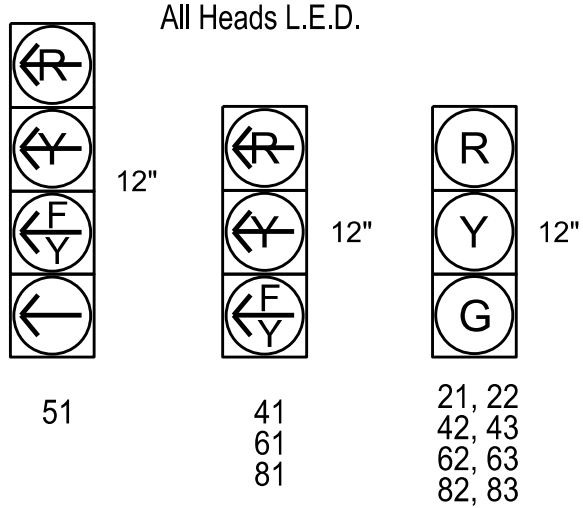
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DAYM6467



SIGNAL FACE	PHASE			
	2+6	2+8	4+8	FLA
21, 22	G	G	R	R
41	←	←	←	←
42, 43	R	R	G	R
51	←	←	←	←
61	←	←	←	←
62, 63	R	G	R	R
81	←	←	←	←
82, 83	R	R	G	R



SIGNAL FACE I.D.

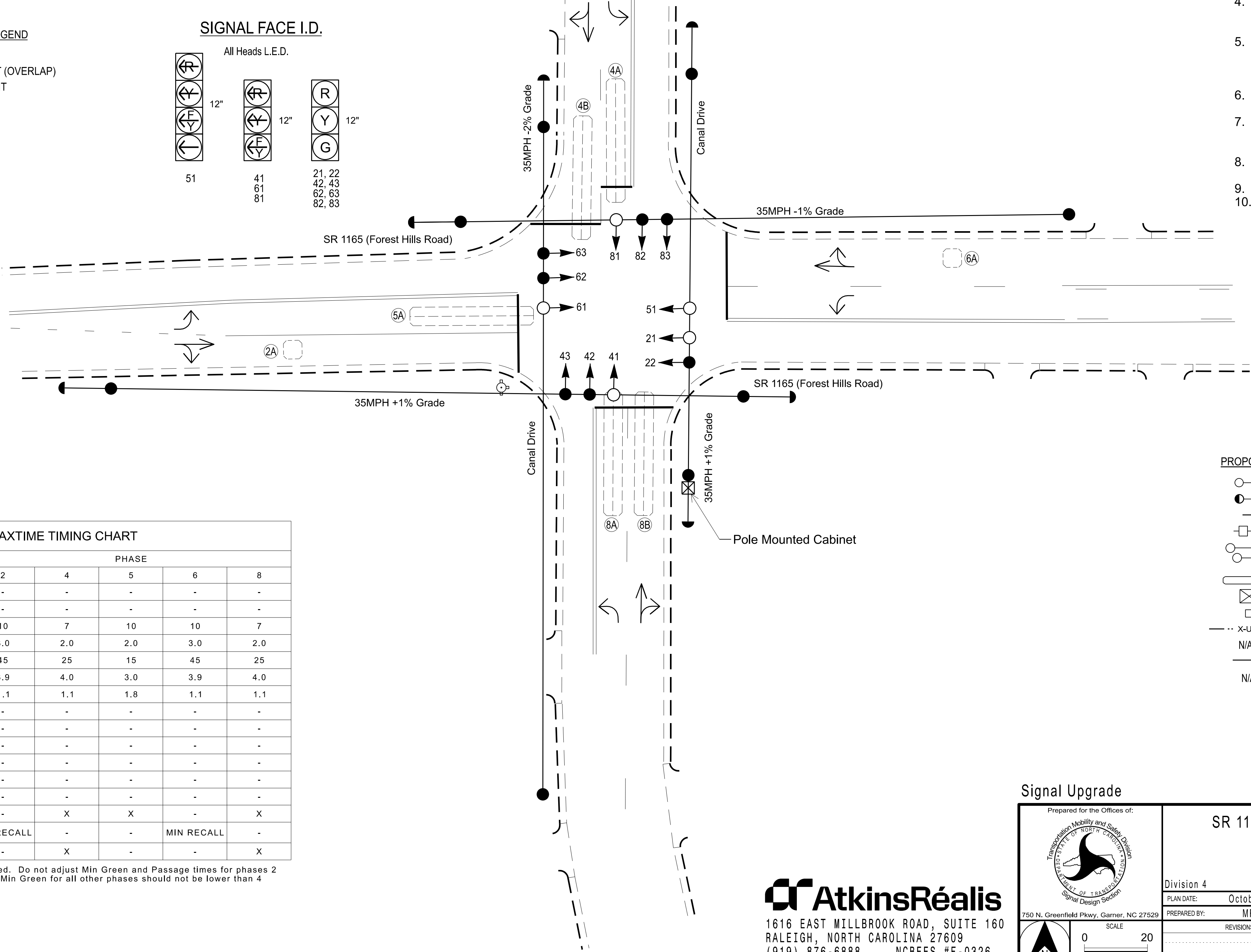


MAXTIME DETECTOR INSTALLATION CHART										
DETECTOR					PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURN	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN
2A	6X6	70	5	-	2	-	-	X	-	X
4A	6X40	+5	2-4-2	-	4	3.0	-	X	-	X
4B	6X40	+5	2-4-2	-	4	10.0	-	X	-	X
5A	6X40	+5	2-4-2	-	5	15.0	-	X	-	X
6A	6X6	70	5	-	6	-	-	X	-	X
8A	6X40	+5	2-4-2	-	8	3.0	-	X	-	X
8B	6X40	+5	2-4-2	-	8	10.0	-	X	-	X

3 Phase
Fully Actuated
Wilson Signal System

NOTES

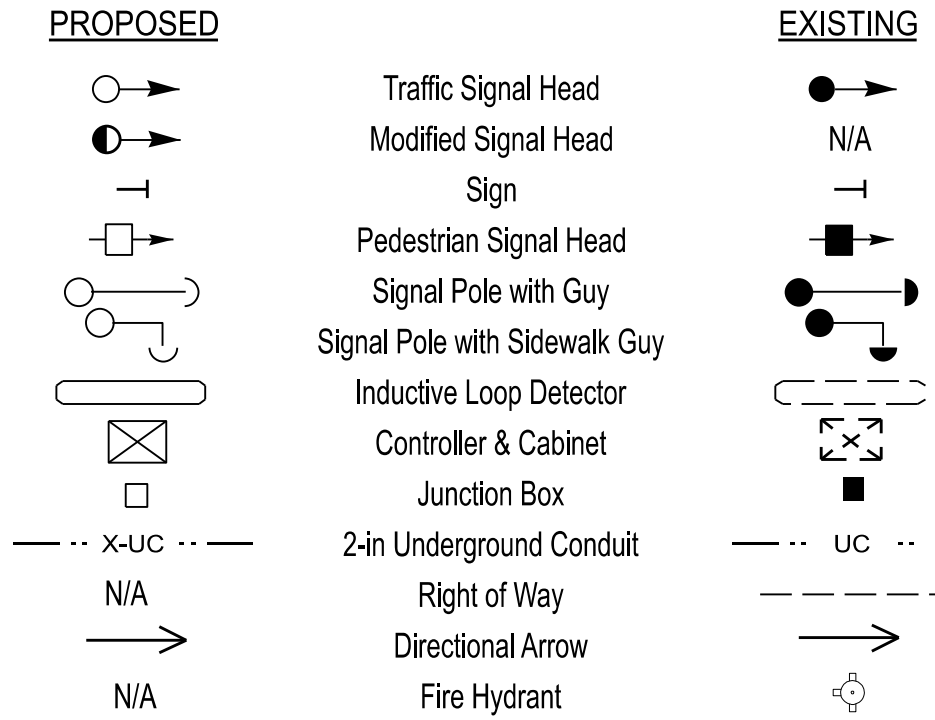
- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 5 may be lagged.
- Reposition existing signal heads numbered 22, 41, 42, 61, 62, 81, and 82.
- Renumber existing signal heads numbered 41, 42, 61, 62, 81, and 82 to 42, 43, 62, 63, 82, and 83, respectively.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Program controller to operate using FYA compact mode.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



MAXTIME TIMING CHART					
FEATURE	PHASE				
	2	4	5	6	8
Walk *	-	-	-	-	-
Ped Clear	-	-	-	-	-
Min Green *	10	7	10	10	7
Passage *	3.0	2.0	2.0	3.0	2.0
Max 1 *	45	25	15	45	25
Yellow Change	3.9	4.0	3.0	3.9	4.0
Red Clear	1.1	1.1	1.8	1.1	1.1
Added Initial *	-	-	-	-	-
Maximum Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Advance Walk	-	-	-	-	-
Non Lock Detector	-	X	X	-	X
Vehicle Recall	MIN RECALL	-	-	MIN RECALL	-
Dual Entry	-	X	-	-	X

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND



Signal Upgrade

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

AtkinsRéalis

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

SR 1165 (Forest Hills Road)
at
Canal Drive

Division 4 Wilson County Wilson

PLAN DATE: October 2024 REVIEWED BY: JT Stiff

PREPARED BY: MR Day REVIEWED BY: PL Alexander

REVISIONS	INIT.	DATE

SCALE: 0 20 1"=20'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

Signed by: James T. Stiff DATE: 2/28/2025

SIG. INVENTORY NO. 04-1073

FYA SIGNAL OUTPUT REMAPPING ASSIGNMENT

PROGRAMMING DETAIL FOR SIGNAL HEAD 51

Front Panel
Main Menu >Controller >More >Advanced IO >Output Points

Web Interface
Home >Controller >Advanced IO >Cabinet Configuration >Output Points

Plan 1

NOTICE OUTPUT POINTS 34
CONTROL TYPE & INDEX
REASSIGNMENT ➡

Output Point	Description	Output Control Type	Index
34	C1-36	Phase Green	5

MAXTIME STARTUP AND SOFTWARE FLASH PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home > Controller > Unit

Modify parameters as shown below and save changes.

Start Up Parameters	Unit Flash Parameters
StartUp Clearance Hold	All Red Flash Exit Time
6	6

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Overlap Plan 1

Overlap	1	2	3	4
Type	FYA 4 - Section	FYA 4 - Section	FYA 4 - Section	FYA 4 - Section
Included Phases	2	4	6	8
Modifier Phases	-	-	5	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1073
DESIGNED: OCTOBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

1 - 2PY	-----	1- CMU-13
2 - 4PY	-----	2- CMU-16
3 - 6PY	-----	3- CMU-R
4 - 8PY	-----	4- CMU-U

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Electrical and Programming
Details For:

Prepared for the Offices of:



The seal of the North Carolina Department of Transportation is circular. It features a stylized black and white graphic of a road or path curving through a landscape. The text "TRANSPORTATION" is written in a circle around the graphic. Above the graphic, it says "STATE OF NORTH CAROLINA". Below the graphic, it says "DEPARTMENT OF TRANSPORTATION".

50 N. Greenfield Pkwy, Garner, NC 27529

SR 1165 (Forest Hills Road)
at
Canal Drive

Division 4 Wilson County Wilson

PLAN DATE: January 2025	REVIEWED BY: JI Stiff
PREPARED BY: MB Day	REVIEWED BY: DI Alexander

PREPARED BY: MTR Day		REVIEWED BY: FL Alexander	
REVISIONS		INIT.	DATE

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SIGNATURES COMPLETED



SEAL

NORTH CAROLINA

PROFESSIONAL

SEAL

056276

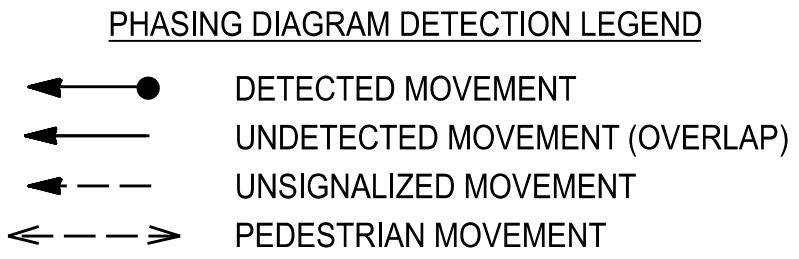
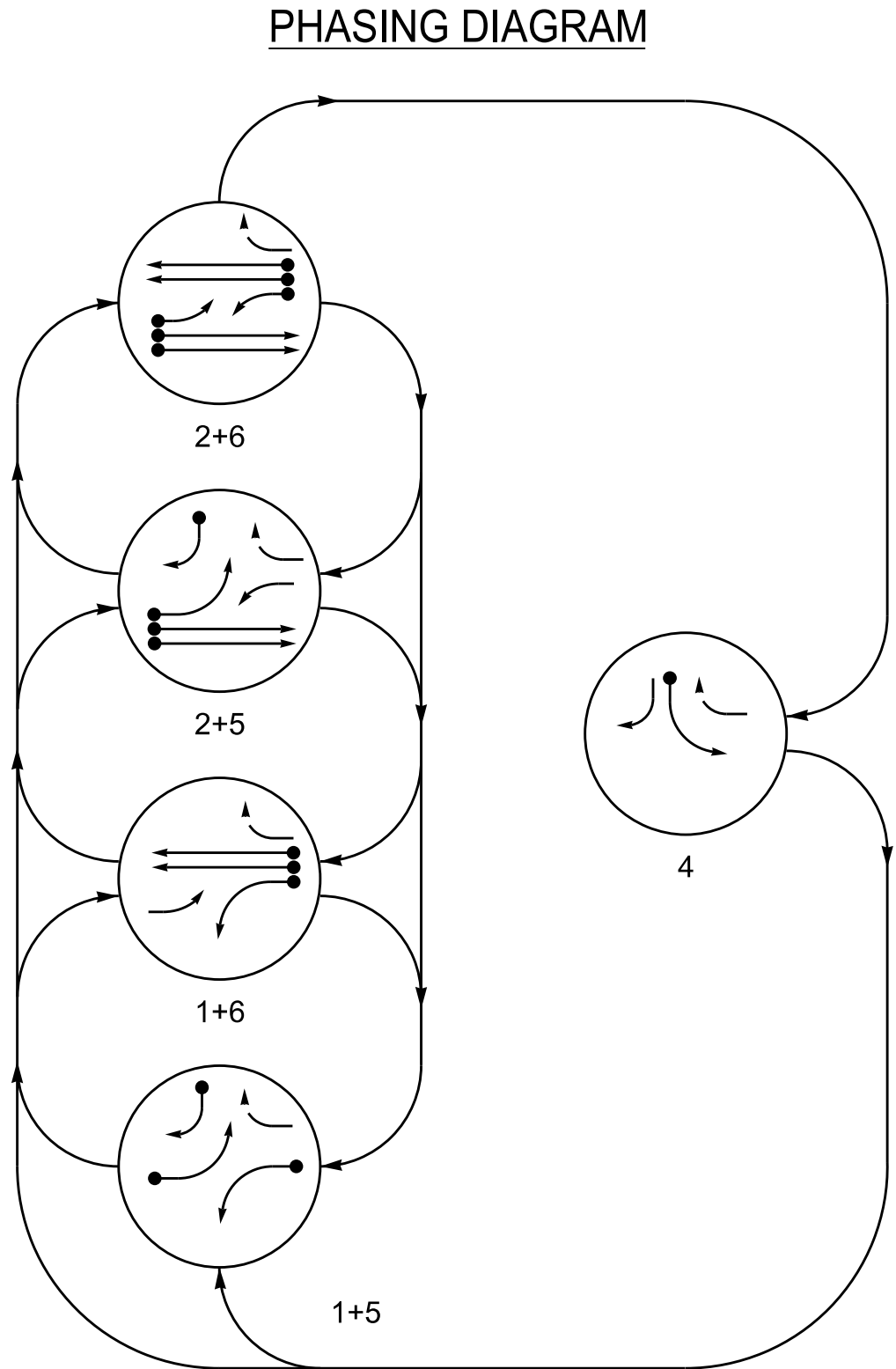
ENGINEER

JAMES T. STIFF

red by:
res Stiff 2/28/2025

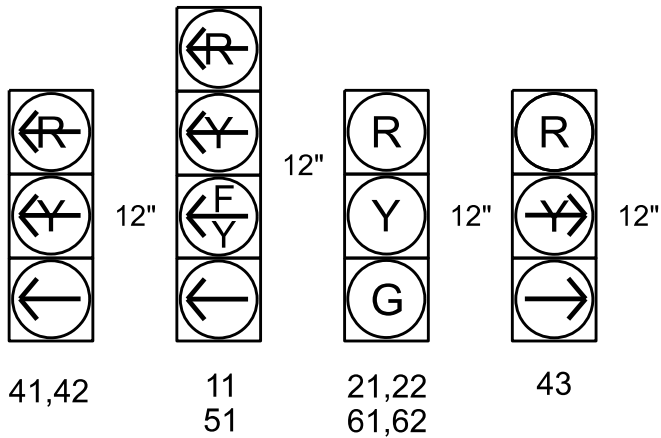
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PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 73.0



SIGNAL FACE I.D.

All Heads L.E.D.



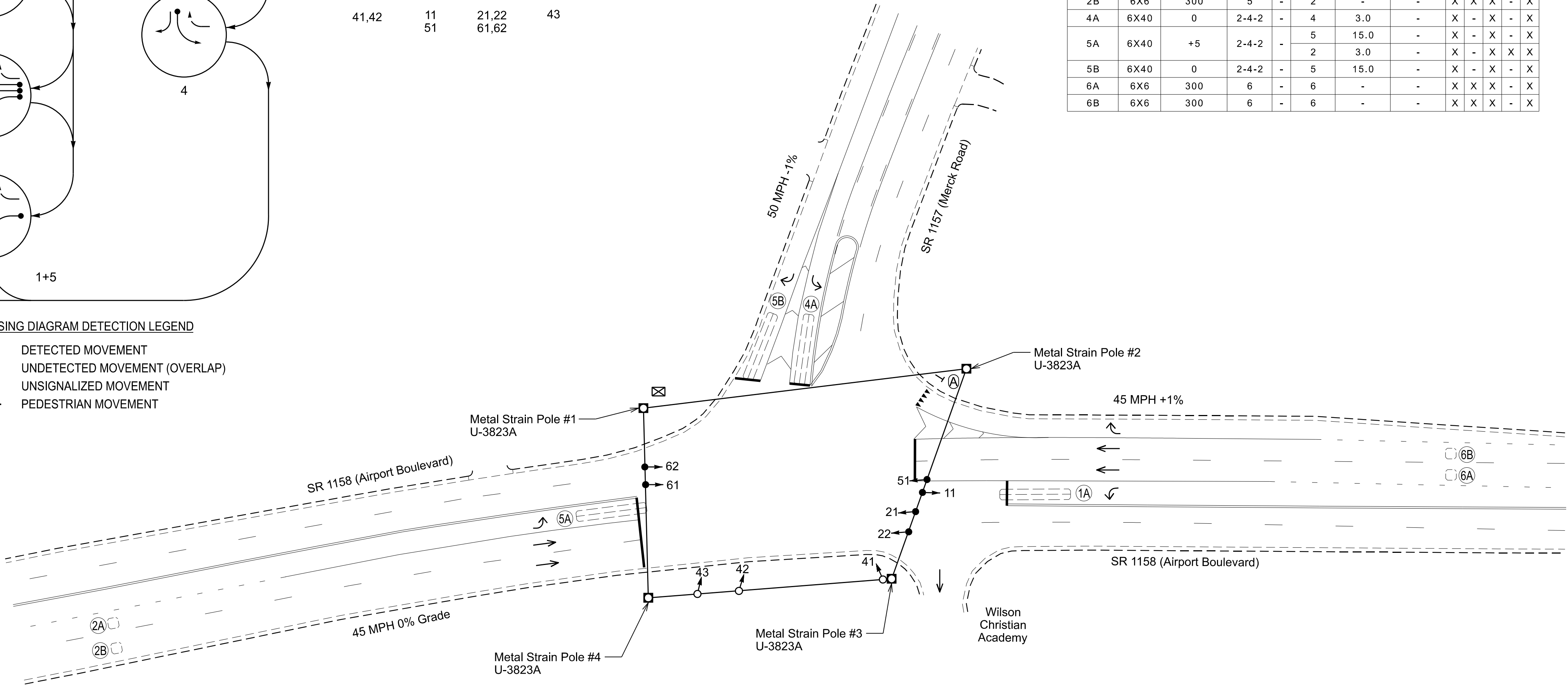
SIGNAL FACE	PHASE					
	1 + 5	1 + 6	2 + 5	2 + 6	4	5
11	←	←	←	←	←	←
21,22	R	R	G	G	R	R
41,42	←	←	←	←	←	←
43	←	←	←	←	←	←
51	←	←	←	←	←	←
61,62	R	G	R	G	R	R

MAXTIME DETECTOR INSTALLATION CHART										
DETECTOR					PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN
1A	6X40	+5	2-4-2	-	1	10.0	-	X	-	X
2A	6X6	300	5	-	2	3.0	-	X	-	X
2B	6X6	300	5	-	2	-	-	X	X	X
4A	6X40	0	2-4-2	-	4	3.0	-	X	-	X
5A	6X40	+5	2-4-2	-	5	15.0	-	X	-	X
5B	6X40	0	2-4-2	-	2	3.0	-	X	-	X
6A	6X6	300	6	-	6	-	-	X	X	X
6B	6X6	300	6	-	6	-	-	X	X	X

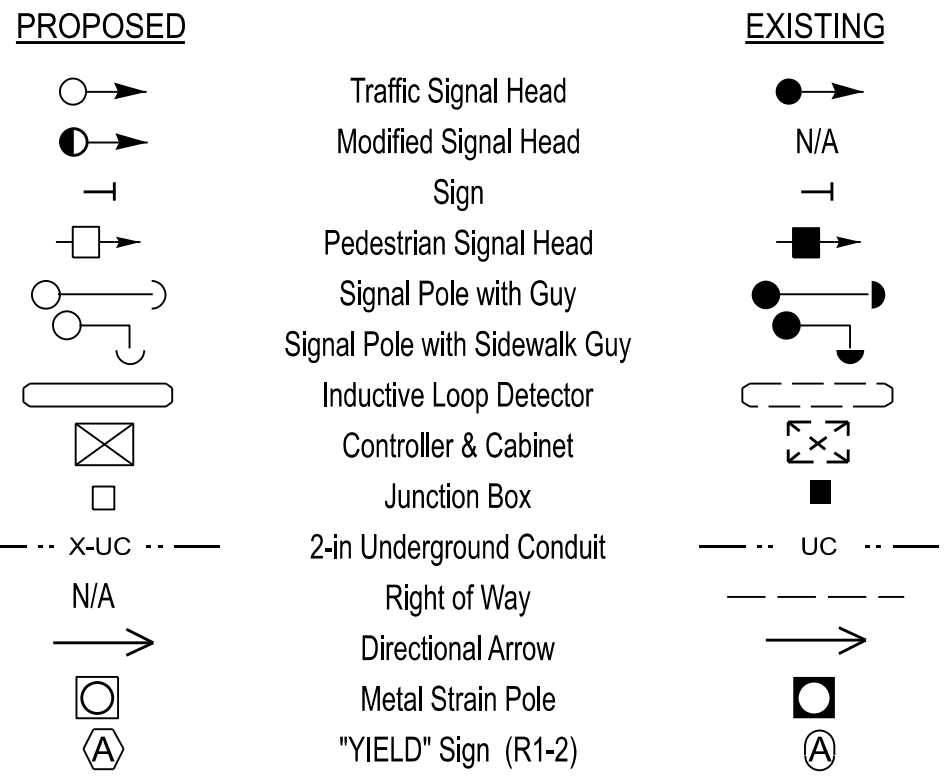
5 Phase
Fully Actuated
Wilson Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



LEGEND



MAXTIME TIMING CHART					
FEATURE	PHASE				
	1	2	4	5	6
Walk *	0	0	0	0	0
Ped Clear	0	0	0	0	0
Min Green *	7	12	7	7	12
Passage *	2.0	6.0	2.0	2.0	6.0
Max 1 *	25	90	25	25	90
Yellow Change	3.0	4.5	3.0	3.0	4.5
Red Clear	2.1	2.9	3.7	3.6	2.9
Added Initial *	-	1.5	-	-	1.5
Maximum Initial *	-	34	-	-	34
Time Before Reduction *	-	15	-	-	15
Time To Reduce *	-	45	-	-	45
Minimum Gap	-	3.0	-	-	3.0
Advance Walk	-	-	-	-	-
Non Lock Detector	X	-	X	X	-
Vehicle Recall	-	MIN RECALL	-	-	MIN RECALL
Dual Entry	-	-	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade

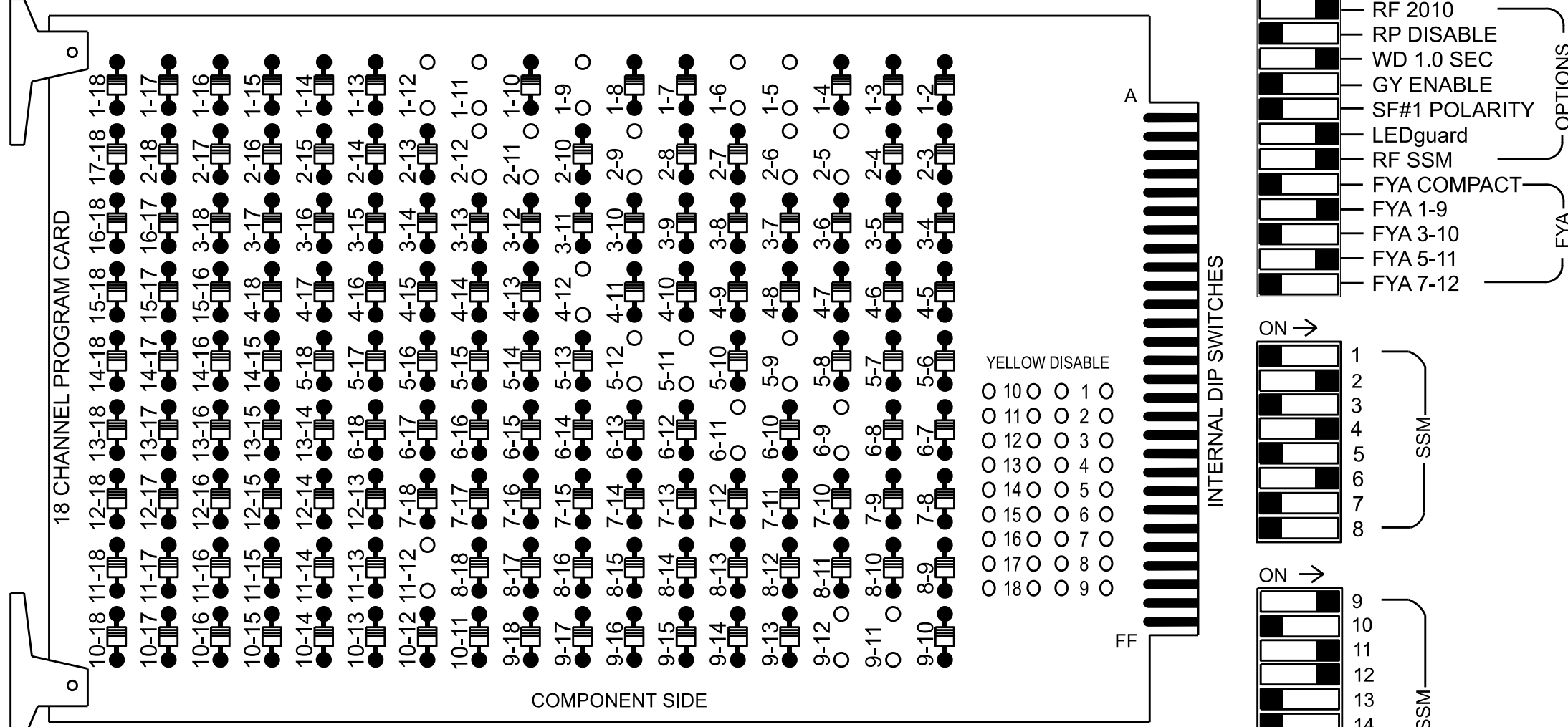
AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529	SR 1158 (Airport Boulevard) at SR 1157 (Merck Road) Division 4 Wilson County Wilson PLAN DATE: September 2024 REVIEWED BY: TJ Williams PREPARED BY: KG Sasaki REVIEWED BY: PL Alexander	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024393 TIMOTHY J. WILLIAMS Signed by: J. Williams 2/28/2025 DATE SIG. INVENTORY NO. 04-1143
--	---	--

18 CHANNEL IP CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 1-12, 2-5, 2-6, 2-9, 2-11, 2-12, 4-12, 5-9, 5-11, 5-12, 6-9, 6-11, 9-11, 9-12, and 11-12.



REMOVE JUMPERS AS SHOWN

NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that the Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
- Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
- The cabinet and controller are part of the Wilson Signal System.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S1, S2, S5, S7, S8, AUX S1, AUX S4, AUX S5
Phases Used.....1, 2, 4, 5, 6
Overlap "1".....*
Overlap "2".....NOT USED
Overlap "3".....*
Overlap "4".....*

*See overlap programming detail on sheet 2

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 73.1

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	11	21,22	NU	NU	41,42	NU	51	61,62	NU	NU	NU	NU	11	NU	NU	51	43	NU
RED		128						134									A101	
YELLOW	*	129					*	135										
GREEN		130						136										
RED ARROW					101								A121			A114		
YELLOW ARROW					102								A122			A115	A102	
FLASHING YELLOW ARROW													A123			A116		
GREEN ARROW	127				103		133										A103	

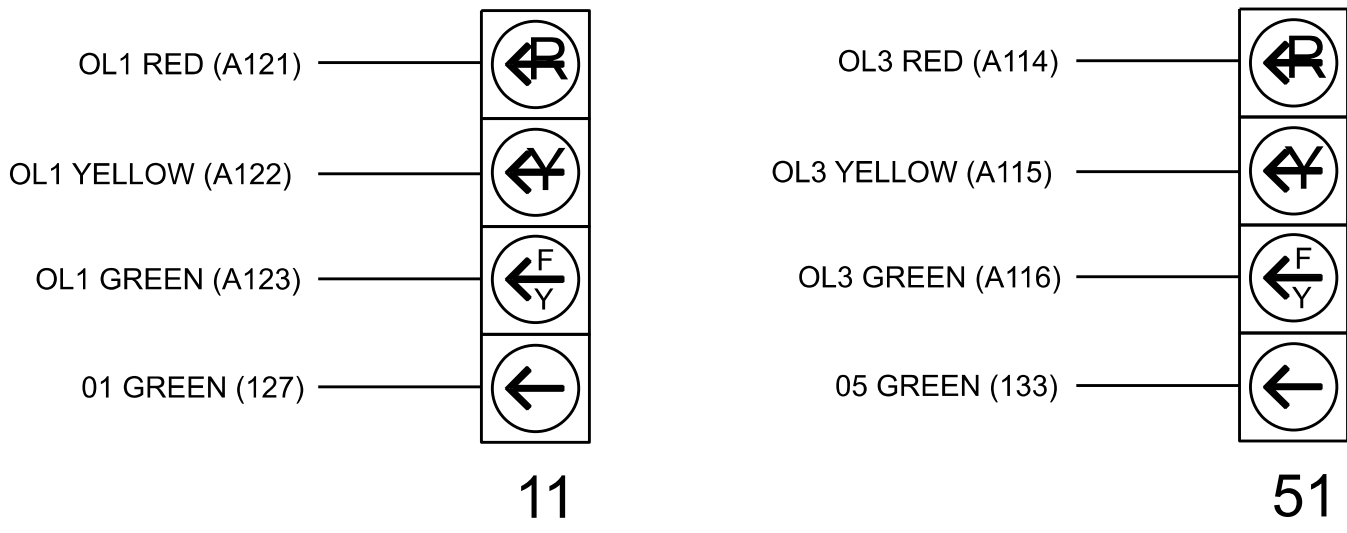
NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.

* See pictorial of head wiring in detail this sheet.

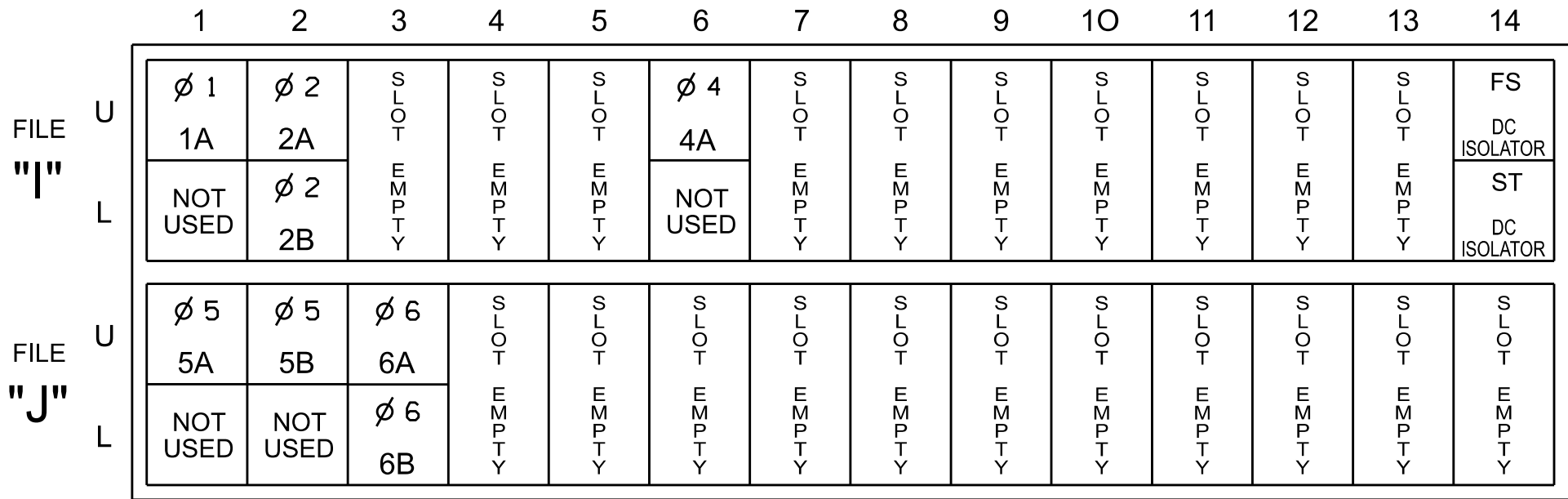
FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



INPUT FILE POSITION LAYOUT

(front view)



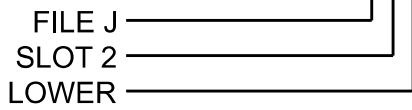
EX. : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

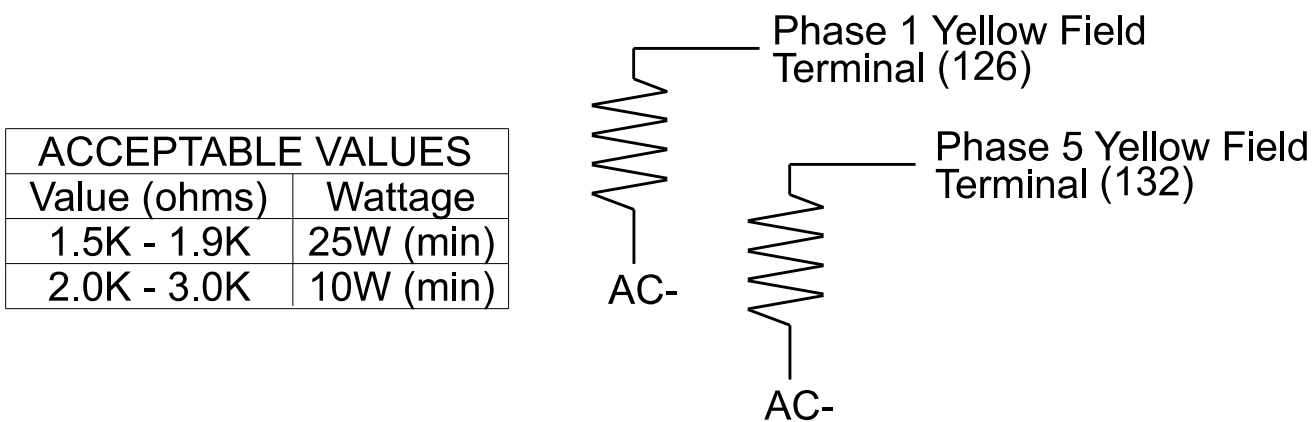
LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1	1	15.0		X		X	
2A	TB2-5,6	I2U	39	1	2	2	3.0		X	X	X	X
2B	TB2-7,8	I2L	43	5	3	2			X	X	X	
4A	TB4-9,10	I6U	41	3	8	4	3.0		X		X	
5A	TB3-1,2	J1U	55	17	15	5	15.0		X		X	
5B	TB3-5,6	J2U	40	2	16	5	15.0		X		X	X
6A	TB3-9,10	J3U	64	30	18	6			X	X	X	
6B	TB3-11,12	J3L	77	43	19	6			X	X	X	

INPUT FILE POSITION LEGEND: J2L



LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown)



ACCEPTABLE VALUES	
Value (ohms)	Wattage
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)

AtkinsRéal
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Electrical Detail - Sheet 1 of 2

Electrical and Programming Details For:		SR 1158 (Airport Boulevard) at SR 1157 (Merck Road)		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared for the Offices of:		Division 4 Wilson County Wilson		SEAL	
PLAN DATE: December 2024		REVIEWED BY: T.J. Williams		SEAL 024393	
PREPARED BY: JT Stiff		REVIEWED BY: PL Alexander		ENGINEER	
REVISIONS		INIT.		DATE	
750 N. Greenfield Pkwy, Garner, NC 27529		Signed by: J. Williams		2/28/2025	
				DATE	
				SIG. INVENTORY NO. 04-1143	

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

MAXTIME STARTUP AND SOFTWARE FLASH
PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters	Unit Flash Parameters
StartUp Clearance Hold	All Red Flash Exit Time
6	6

OVERLAP PROGRAMMING

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps

Overlap Plan 1

Overlap	1	2	3	4
Type	FYA 4 - Section	Off	FYA 4 - Section	Normal
Included Phases	2	-	6	4,5
Modifier Phases	1	-	5	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1143
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Electrical and Programming
Details For:

Prepared for the Offices of:



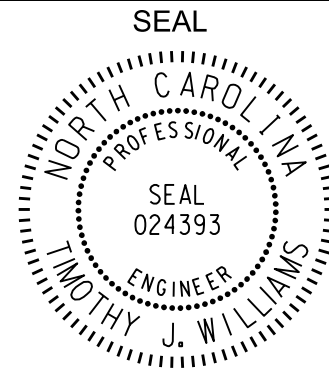
750 N. Greenfield Pkwy, Garner, NC 27529

SR 1158 (Airport Boulevard)
at
SR 1157 (Merck Road)

Division 4 Wilson County Wilson

PLAN DATE:	December 2024	REVIEWED BY:	TJ Williams
PREPARED BY:	JT Stiff	REVIEWED BY:	PL Alexander
REVISIONS		INIT.	DATE

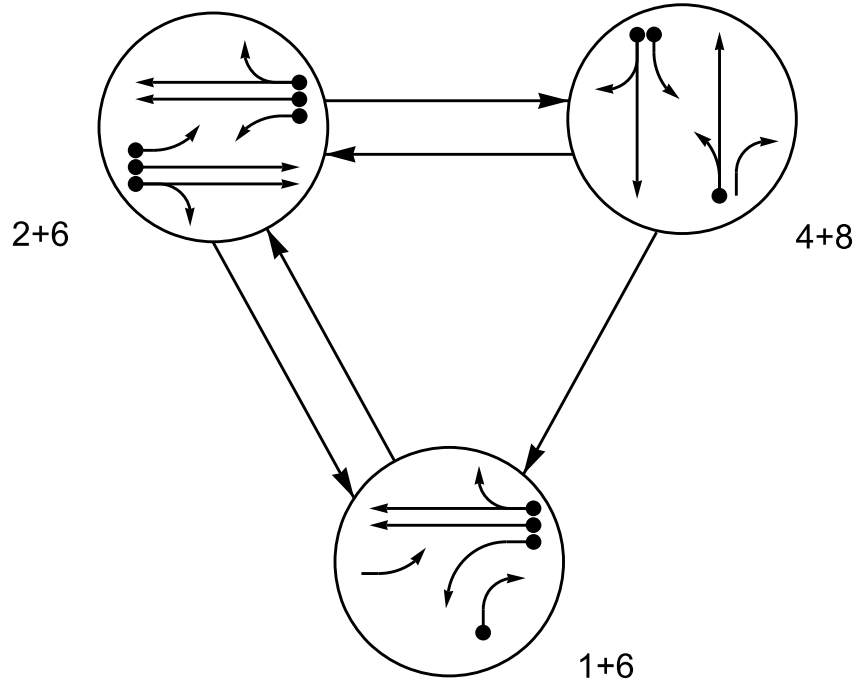
SEAL



Signed by: *T. J. Williams* 2/28/2025
DATE

SIG. INVENTORY NO. 04-1143

PHASING DIAGRAM



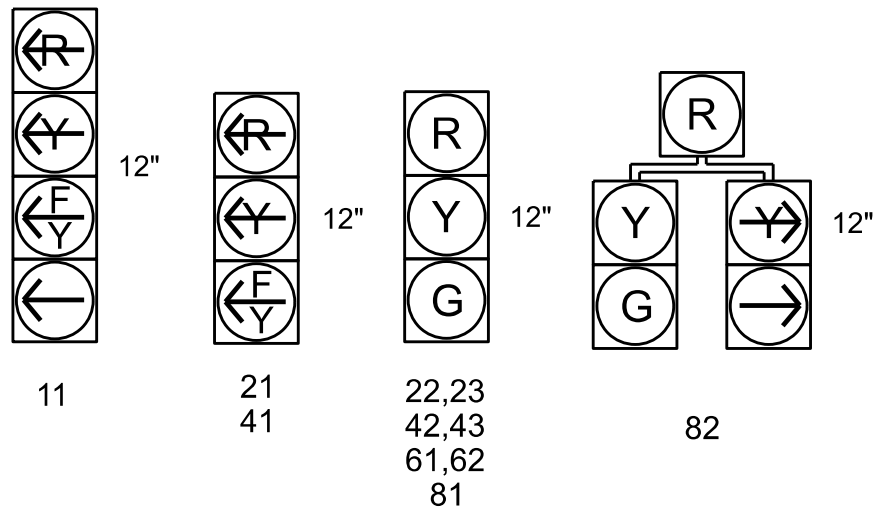
SIGNAL FACE	PHASE			
	1 6+1	2 8+2	4 8+4	8 10+8
11	←	↙	↘	→
21	↙	↘	→	←
22,23	R	G	R	R
41	↘	↙	↘	→
42,43	R	R	G	R
61,62	G	G	R	R
81	↘	R	G	R
82	↙	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.

PHASING DIAGRAM DETECTION LEGEND

- ←● DETECTED MOVEMENT
- ← UNDETECTED MOVEMENT (OVERLAP)
- ←-- UNSIGNALIZED MOVEMENT
- ←--→ PEDESTRIAN MOVEMENT



MAXTIME DETECTOR INSTALLATION CHART										
DETECTOR					PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	INITIAL	CALL DELAY DURING GREEN
1A	6X40	+5	2-4-2	-	1	15.0	-	X	-	X
1B	6X40	+5	2-4-2	-	6	3.0	-	X	-	X
2A	6X6	300	4	-	2	-	-	X	X	X
2B	6X6	300	4	-	2	-	-	X	X	X
2C	6X40	+5	2-4-2	-	2	3.0	-	X	-	X
4A	6X40	+5	2-4-2	-	4	3.0	-	X	-	X
4B	6X40	+5	2-4-2	-	4	10.0	-	X	-	X
6A	6X6	300	6	-	6	-	-	X	X	X
6B	6X6	300	6	-	6	-	-	X	X	X
8A	6X40	+5	2-4-2	-	8	-	-	X	-	X

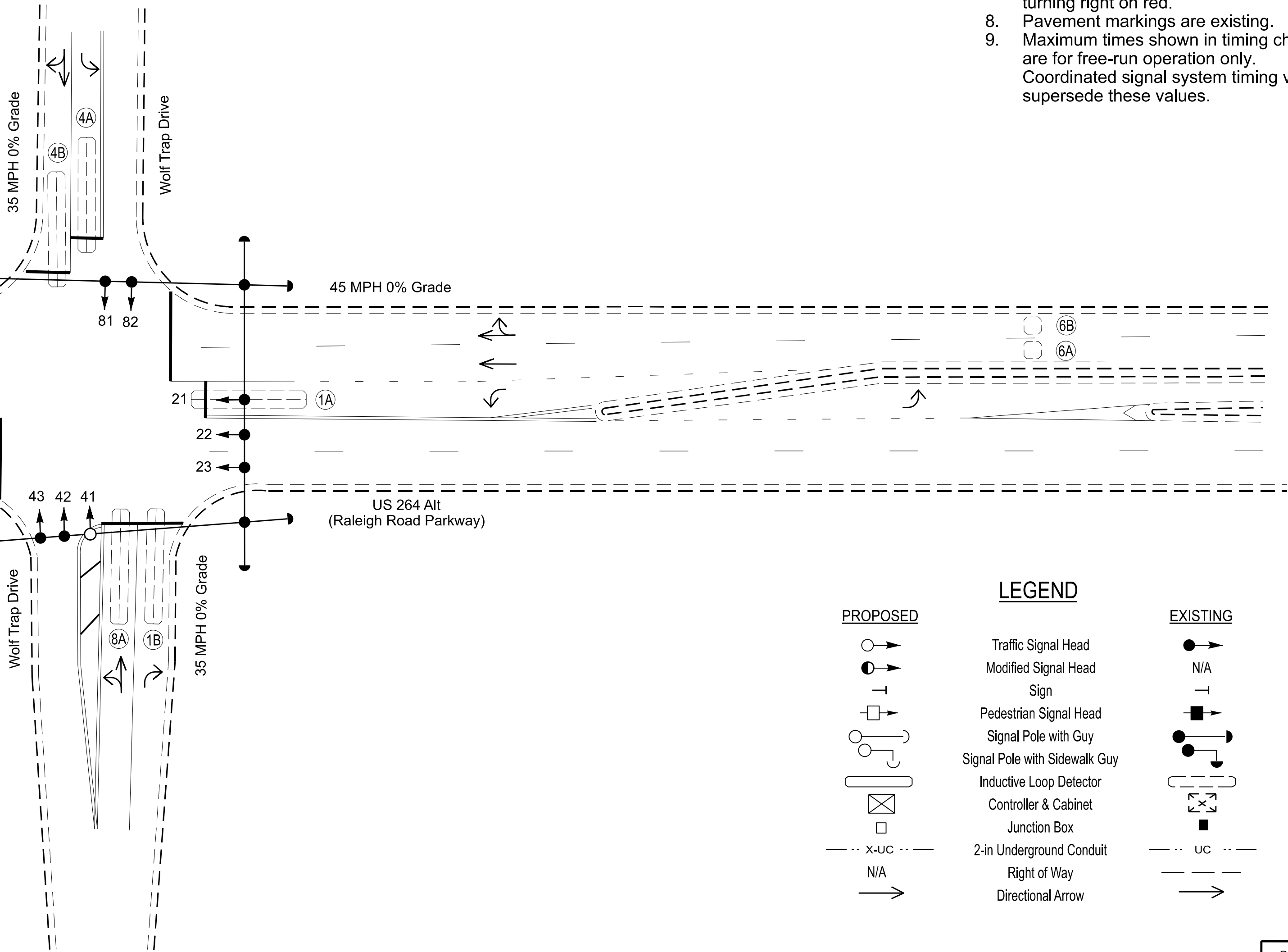
3 Phase
Fully Actuated
Wilson Signal System

NOTES

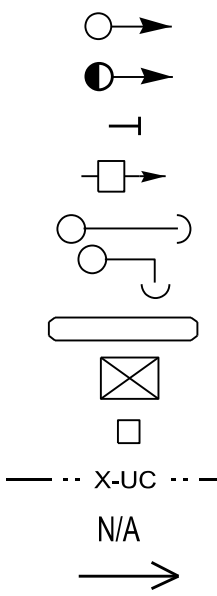
- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 may be lagged.
- Set all detector units to presence mode.
- Reposition existing signal heads numbered 41 and 42.
- Renumber existing signal heads 41 and 42 to 42 and 43 respectively.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

MAXTIME TIMING CHART					
FEATURE	PHASE				
	1	2	4	6	8
Walk *	0	0	0	0	0
Ped Clear	0	0	0	0	0
Min Green *	7	12	7	12	7
Passage *	2.0	6.0	2.0	6.0	2.0
Max 1 *	15	90	20	90	20
Yellow Change	3.0	4.6	3.8	4.6	3.8
Red Clear	1.9	1.0	1.8	1.0	1.8
Added Initial *	-	1.5	-	1.5	-
Maximum Initial *	-	34	-	34	-
Time Before Reduction *	-	15	-	15	-
Time To Reduce *	-	30	-	30	-
Minimum Gap	-	3.0	-	3.0	-
Advance Walk	-	-	-	-	-
Non Lock Detector	X	-	X	-	X
Vehicle Recall	-	MIN RECALL	-	MIN RECALL	-
Dual Entry	-	-	X	-	X

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

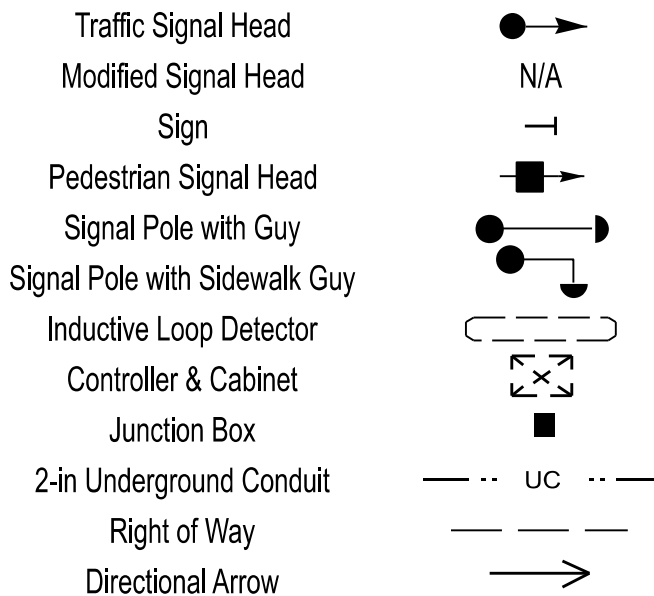


PROPOSED



LEGEND

EXISTING

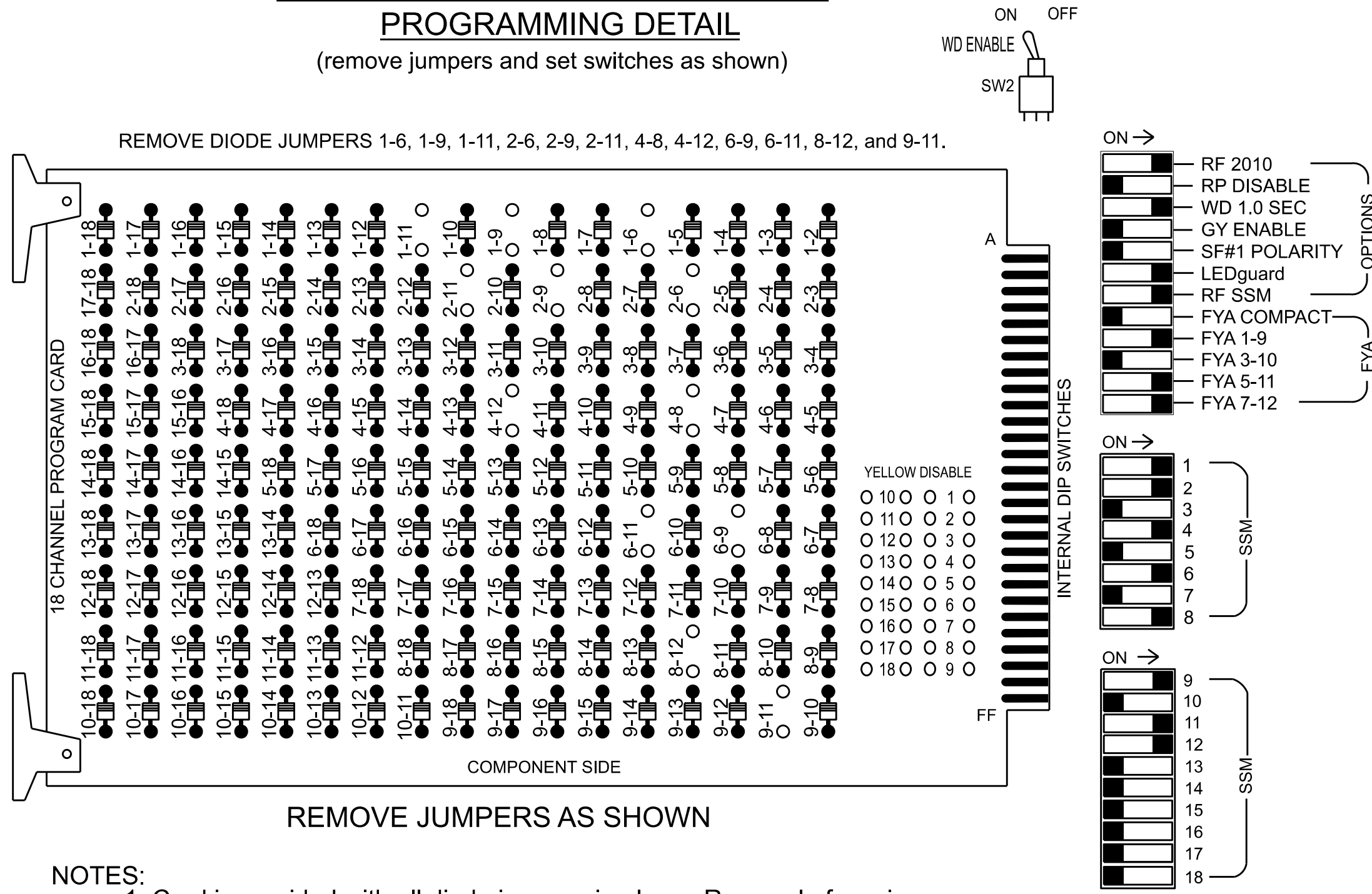


Signal Upgrade

Prepared for the Offices of: Transportation Mobility and Safety Division STATE OF NORTH CAROLINA Signal Design Section 750 N. Greenfield Pkwy, Garner, NC 27529		US 264 Alt (Raleigh Road Parkway) at Wolf Trap Drive		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Division 4		Wilson County		SEAL	
PLAN DATE: September 2024		REVIEWED BY: TJ Williams		SEAL 024393 ENGINEER TIMOTHY J. WILLIAMS	
PREPARED BY: JT Sutton		REVIEWED BY: PL Alexander			
REVISIONS		INIT. DATE			
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SIGNED BY: J. J. Williams					

18 CHANNEL IP CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that the Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
- Program phases 4 and 8 for Dual Entry.
- Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
- The cabinet and controller are part of the Wilson Signal System.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S1, S2, S5, S8, S11, AUX S1, AUX S4, AUX S5
Phases Used.....1, 2, 4, 6, 8
Overlap "1".....*
Overlap "2".....NOT USED
Overlap "3".....*
Overlap "4".....*

*See overlap programming detail on sheet 2

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	11★	82	22,23	NU	NU	42,43	NU	NU	61,62	NU	NU	81,82	NU	11★	NU	NU	21★	41★
RED		★	128			101			134			107						
YELLOW			129			102			135			108						
GREEN			130			103			136			109						
RED ARROW													A121			A114	A101	
YELLOW ARROW			126										A122			A115	A102	
FLASHING YELLOW ARROW													A123			A116	A103	
GREEN ARROW	127	127																

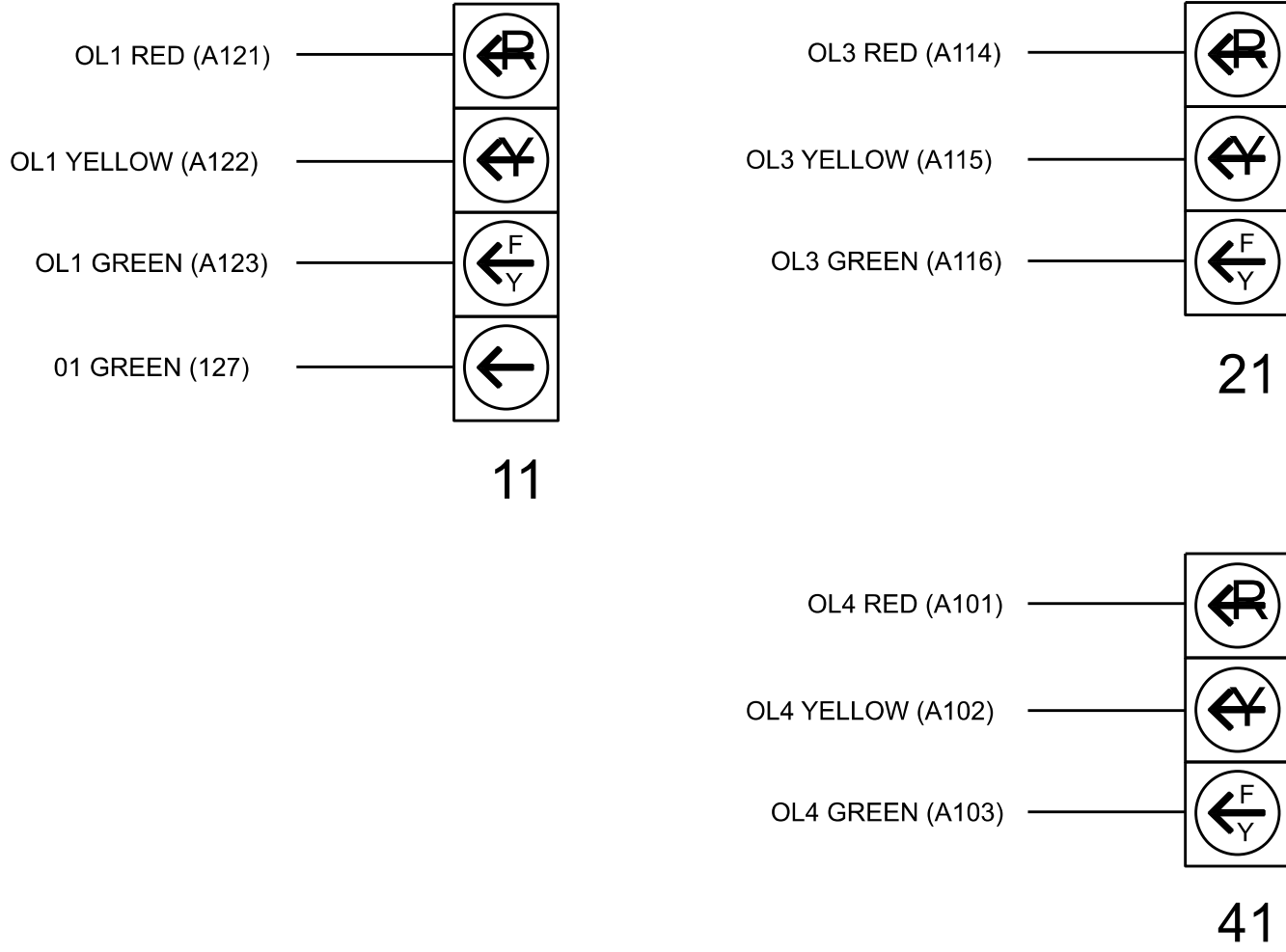
NU = Not Used

★ Denotes install load resistor. See load resistor installation detail this sheet.

★ See pictorial of head wiring in detail this sheet.

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



INPUT FILE POSITION LAYOUT

(front view)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I"	∅ 1 1A	∅ 1 1B	∅ 2 2A	∅ 2 2C	S O T	∅ 4 4A	S O T	S O T	S O T	S O T	S O T	S O T	S O T	FS DC ISOLATOR ST
	NOT USED	NOT USED	∅ 2 2B	NOT USED	∅ 2 2C	∅ 4 4B	∅ 2 2C	∅ 2 2C	∅ 2 2C	∅ 2 2C	∅ 2 2C	∅ 2 2C	∅ 2 2C	DC ISOLATOR
FILE "J"	S O T	∅ 6 6A	S O T	S O T	S O T	∅ 8 8A	S O T	S O T	S O T	S O T	S O T	S O T	S O T	S O T
	∅ 6 6B	∅ 6 6B	∅ 6 6B	∅ 6 6B	∅ 6 6B	NOT USED	∅ 6 6B	∅ 6 6B	∅ 6 6B	∅ 6 6B	∅ 6 6B	∅ 6 6B	∅ 6 6B	∅ 6 6B

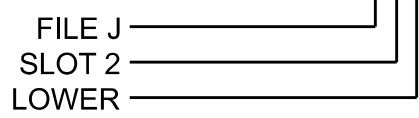
EX. : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

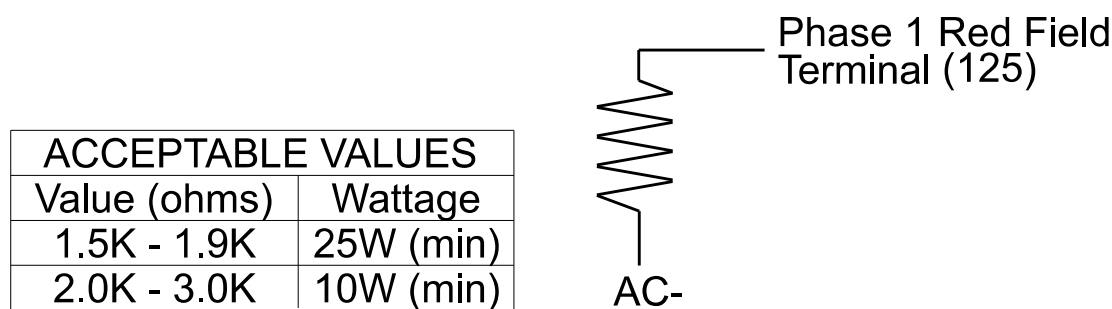
LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1	1	15.0	-	X	-	X	-
				-	29	6	3.0	-	X	-	X	X
1B	TB2-5,6	I2U	39	1	2	1	15.0	-	X	-	X	-
2A	TB2-9,10	I3U	63	29	4	2	-	-	X	X	X	-
2B	TB2-11,12	I3L	76	42	5	2	-	-	X	X	X	-
2C	TB4-1,2	I4U	47	9	6	2	3.0	-	X	-	X	X
4A	TB4-9,10	I6U	41	3	8	4	3.0	-	X	-	X	-
4B	TB4-11,12	I6L	45	7	9	4	10.0	-	X	-	X	-
6A	TB3-5,6	J2U	40	2	16	6	-	-	X	X	X	-
6B	TB3-7,8	J2L	44	6	17	6	-	-	X	X	X	-
8A	TB5-9,10	J6U	42	4	22	8	-	-	X	-	X	-

INPUT FILE POSITION LEGEND: J2L



LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown)



1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1183
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 1 of 2

Electrical and Programming Details For:		US 264 Alt (Raleigh Road Parkway) at Wolf Trap Drive		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared for the Offices of:		Division 4		Wilson County	
PLAN DATE: December 2024		REVIEWED BY: TJ Williams		Wilson	
PREPARED BY: MR Day		REVIEWED BY: PL Alexander		SEAL 024393	
REVISIONS		INIT.		DATE	
750 N. Greenfield Pkwy, Garner, NC 27529		Signed by: S. J. Williams		2/28/2025	
				DATE	
				SIG. INVENTORY NO. 04-1183	

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

MAXTIME STARTUP AND SOFTWARE FLASH PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters

StartUp Clearance Hold
6

Unit Flash Parameters

All Red Flash Exit Time
6

OVERLAP PROGRAMMING

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps

Overlap Plan 1

Overlap	1	2	3	4
Type	FYA 4 - Section	Off	FYA 4 - Section	FYA 4 - Section
Included Phases	2	-	6	8
Modifier Phases	1	-	-	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1183
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Electrical and Programming
Details For:

Prepared for the Offices of:

Seal of the State of North Carolina

Department of Transportation

Division of Traffic and Signal Management

750 N. Greenfield Pkwy, Garner, NC 27529

US 264 Alt (Raleigh Road Parkway)
at
Wolf Trap Drive

Division 4Wilson CountyWilson

PLAN DATE: December 2024

REVIEWED BY: TJ Williams

PREPARED BY: MR Day

REVIEWED BY: PL Alexander

REVISIONS

INIT.

DATE

Seal of the State of North Carolina

Professional Engineer
TIMOTHY J. WILLIAMS
SEAL 024393

Signed by: T.J. Williams

2/28/2025

SIG. INVENTORY NO.

04-1183

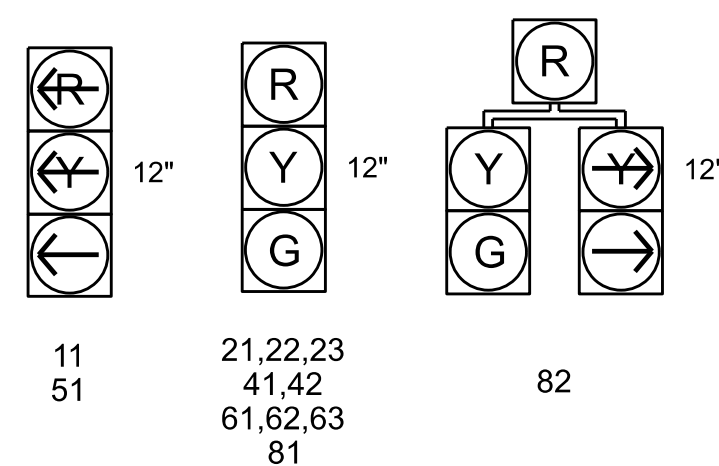
AtkinsRéal
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

28-EEB-2025_09-22
D:\c:\root-pa-bentley.com\ncdot-pw-01\Documents\01\vision_04\U-5945\TSMO\SIGNAL Management\041183_sm.eia.20250228.dgn
DAYM6467

The diagram illustrates a network of five circular nodes, each containing a specific configuration of horizontal lines and dots. The nodes are labeled with mathematical expressions: $2+6$, $2+5$, $1+6$, $1+5$, and $4+8$. Arrows indicate a complex flow between the nodes, including a large loop on the right side.

SIGNAL FACE	PHASE					
	1 + 5	1 + 6	2 + 5	2 + 6	F A S H	
11	←	←	→	→	→	→
21,22,23	R	R	G	G	R	R
41,42			R	R	G	R
51	←	→	←	→	→	→
61,62,63	R	G	R	G	R	R
81	R	R	R	R	G	R
82	$\begin{smallmatrix} R & \diagdown \\ \diagup & R \end{smallmatrix}$		R	R	G	R

All Heads L.E.D.



	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

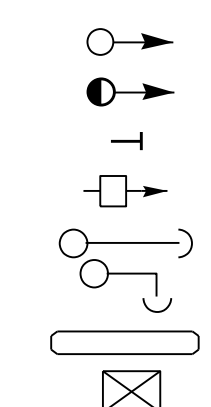
MAXTIME TIMING CHART						
FEATURE	PHASE					
	1	2	4	5	6	8
Walk *	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Min Green *	7	14	7	7	14	7
Passage *	2.0	6.0	2.0	2.0	6.0	2.0
Max 1 *	40	100	30	15	100	30
Yellow Change	3.0	5.3	4.6	3.0	5.3	4.6
Red Clear	3.1	1.3	1.9	2.8	1.3	1.9
Added Initial *	-	1.5	-	-	1.5	-
Maximum Initial *	-	46	-	-	46	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	50	-	-	50	-
Minimum Gap	-	3.4	-	-	3.4	-
Advance Walk	-	-	-	-	-	-
Non Lock Detector	X	-	X	X	-	X
Vehicle Recall	-	MIN RECALL	-	-	MIN RECALL	-
Dual Entry	-	-	X	-	-	X

MAXTIME DETECTOR INSTALLATION CHART												
DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DURING GREEN	NEW CAPD	
1A	6X40	0	2-4-2	-	1	-	-	X	-	X	-	
1B	6X40	0	2-4-2	-	1	15.0	-	X	-	X	-	
2A	6X6	420	6	-	2	-	-	X	X	X	-	
2B	6X6	420	6	-	2	-	-	X	X	X	-	
2C	6X6	420	6	-	2	-	-	X	X	X	-	
4A	6X40	0	2-4-2	-	4	10.0	-	X	-	X	-	
5A	6X40	0	2-4-2	-	5	-	-	X	-	X	-	
6A	6X6	420	6	-	6	-	-	X	X	X	-	
6B	6X6	420	6	-	6	-	-	X	X	X	-	
6C	6X6	420	6	-	6	-	-	X	X	X	-	
8A	6X40	+5	2-4-2	-	8	3.0	-	X	-	X	-	

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. Reposition existing signal heads numbered 21,22, 61 and 62.
5. Set all detector units to presence mode.
6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. The cabinet should be designed to include an Auxiliary Output file for future use
8. Pavement markings are existing
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PROPOSED

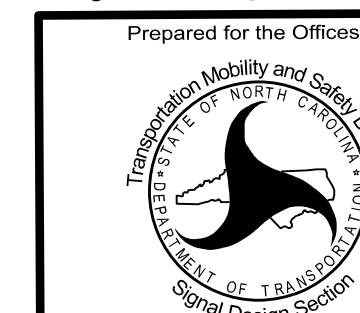


 N/A

 A
 B
 C

 UC

Signal Upgrade



750 N. Greenfield Pkwy, Garner, NC 27529



SCALE

0 40

1" = 40'

US 301
at
US 117 /
SR 1100 (St. Mary's Church Road)
Division 4 Wilson County Wilson

PLAN DATE:	September 2024	REVIEWED BY:	TJ Williams
PREPARED BY:	JT Sutton	REVIEWED BY:	PL Alexander

[illegible]

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Seal of the Professional Engineer for the State of North Carolina. The seal is circular with a dashed outer border. Inside the border, the words "NORTH CAROLINA" are at the top, "PROFESSIONAL" is on the left, "ENGINEER" is on the right, and "TIMOTHY J. WILLIAMS" is at the bottom. In the center, it says "SEAL" and "024393".

Signed by: Timothy J. Williams 2/28/2025

DATE

SIG. INVENTORY NO. 04-1185



(remove jumpers and set switches as shown)

(remove jumpers and set switches as shown)



REMOVE JUMPERS AS SHOWN

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.

1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.

3. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.

4. The cabinet and controller are part of the Wilson Signal System.

4. The cabinet and controller are part of the Wilson Signal System.

Controller.....	2070LX
Cabinet.....	332 w/ Aux
Software.....	Q-Free MAXTIME
Cabinet Mount.....	Base
Output File Positions.....	18 With Aux. Output File
Load Switches Used.....	S1, S2, S5, S7, S8, S11
Phases Used.....	1, 2, 4, 5, 6, 8
Overlap "1".....	NOT USED
Overlap "2".....	NOT USED
Overlap "3".....	NOT USED
Overlap "4".....	NOT USED

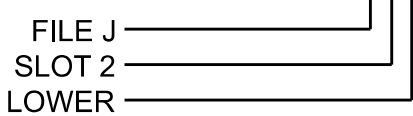
(front view)

EX. : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1	1	-	-	X	-	X	-
1B	TB2-5,6	I2U	39	1	2	1	15.0	-	X	-	X	-
2A	TB2-9,10	I3U	63	29	4	2	-	-	X	X	X	-
2B	TB2-11,12	I3L	76	42	5	2	-	-	X	X	X	-
2C	TB4-1,2	I4U	47	9	6	2	-	-	X	X	X	-
4A	TB4-9,10	I6U	41	3	8	4	10.0	-	X	-	X	-
5A	TB3-1,2	J1U	55	17	15	5	-	-	X	-	X	-
6A	TB3-5,6	J2U	40	2	16	6	-	-	X	X	X	-
6B	TB3-7,8	J2L	44	6	17	6	-	-	X	X	X	-
6C	TB3-9,10	J3U	64	30	18	6	-	-	X	X	X	-
8A	TB5-9,10	J6U	42	4	22	8	3.0	-	X	-	X	-

INPUT FILE POSITION LEGEND: J2L



Front Panel
Main Menu >Controller >Unit

Web Interface
Home > Controller > Unit

Modify parameters as shown below and save changes.

StartUp Clearance Hold
6

All Red Flash Exit Time
6

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1185
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 1 of 2

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Electrical and Programming Details For:	US 301 at US 117 / SR 1100 (St. Mary's Church Road)	SEAL 						
Prepared for the Offices of: 	Division 4 Wilson County Wilson	Signed by: <u>S. J. Williams</u> 2/28/2025						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">PLAN DATE: <u>December 2024</u></td> <td style="width: 50%;">REVIEWED BY: <u>TJ Williams</u></td> </tr> <tr> <td>PREPARED BY: <u>MR Day</u></td> <td>REVIEWED BY: <u>PL Alexander</u></td> </tr> </table>	PLAN DATE: <u>December 2024</u>	REVIEWED BY: <u>TJ Williams</u>	PREPARED BY: <u>MR Day</u>	REVIEWED BY: <u>PL Alexander</u>	DATE		
PLAN DATE: <u>December 2024</u>	REVIEWED BY: <u>TJ Williams</u>							
PREPARED BY: <u>MR Day</u>	REVIEWED BY: <u>PL Alexander</u>							
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">REVISIONS</td> <td style="width: 50%;">INIT.</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS	INIT.					DATE
REVISIONS	INIT.							
750 N. Greenfield Pkwy. Garner, NC 27529	750 N. Greenfield Pkwy. Garner, NC 27529	SIG. INVENTORY NO. <u>04-1185</u>						

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1185
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

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DAYM6467



1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Electrical and Programming
Details For:

Prepared for the Offices of:



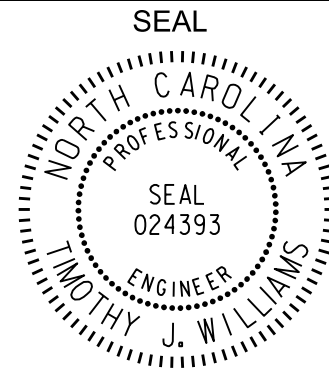
750 N. Greenfield Pkwy, Garner, NC 27529

US 301
at
US 117 /
SR 1100 (St. Mary's Church Road)

Division 4 Wilson County Wilson

PLAN DATE: December 2024	REVIEWED BY: TJ Williams
PREPARED BY: MR Day	REVIEWED BY: PL Alexander
REVISIONS	INIT. DATE

SEAL

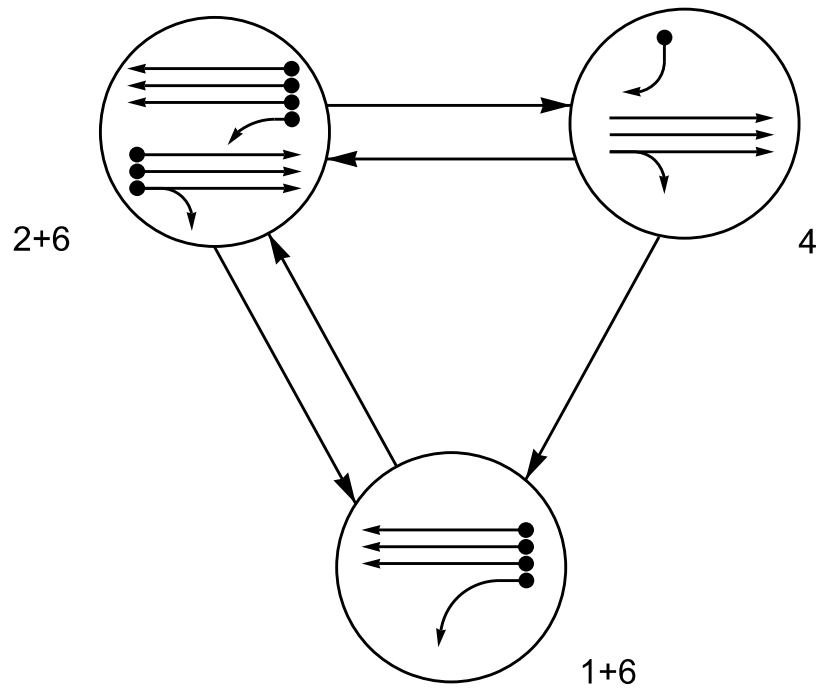


Signed by: *T.J. Williams* 2/28/2025
DATE

SIG. INVENTORY NO. 04-1185

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 76.0

PHASING DIAGRAM



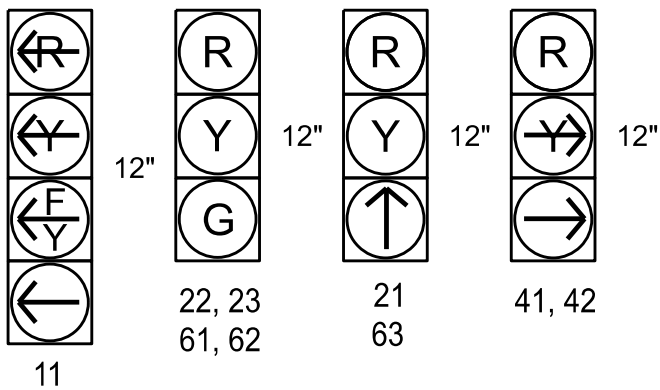
PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION				
SIGNAL FACE	1 + 6	2 + 6	4	FLASH
	11	21	22, 23	41, 42
11	←	←	←	←
21	←	←	←	←
22, 23	←	←	←	←
41, 42	←	←	←	←
61, 62	←	←	←	←
63	←	←	←	←

SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME DETECTOR INSTALLATION CHART

DETECTOR				PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN
1A	6X40	0	2-4-2	-	1	15.0	-	X	-	X
2A	6X6	420	6	-	2	-	-	X	X	X
2B	6X6	420	6	-	2	-	-	X	X	X
2C	6X6	420	6	-	2	-	-	X	X	X
4A	6X40	+5	2-4-2	-	4	15.0	-	X	-	X
6A	6X6	420	6	-	6	-	-	X	X	X
6B	6X6	420	6	-	6	-	-	X	X	X
6C	6X6	420	6	-	6	-	-	X	X	X
S1	6X6	+150	EXISTING	-	-	-	-	-	-	-
S2	6X6	+150	EXISTING	-	-	-	-	-	-	-
S3	6X6	+150	EXISTING	-	-	-	-	-	-	-
S4	6X6	+150	EXISTING	-	-	-	-	-	-	-
S5	6X6	+150	EXISTING	-	-	-	-	-	-	-
S6	6X6	+150	EXISTING	-	-	-	-	-	-	-

3 Phase Signal
Fully Actuated
Wilson Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 may be lagged.
- Reposition existing signal heads numbered 21, 22, 62, and 63.
- Renumber existing signal heads numbered 21, 22, 62, and 63 to 22, 23, 61, and 62, respectively.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

LEGEND

- | PROPOSED | EXISTING |
|----------|----------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

MAXTIME TIMING CHART				
FEATURE	PHASE			
	1	2	4	6
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Min Green *	7	14	7	14
Passage *	2.0	6.0	2.0	6.0
Max 1 *	25	100	25	100
Yellow Change	3.0	5.4	3.9	5.4
Red Clear	2.4	1.4	1.0	1.4
Added Initial *	-	1.5	-	1.5
Maximum Initial *	-	46	-	46
Time Before Reduction *	-	25	-	25
Time To Reduce *	-	30	-	30
Minimum Gap	-	3.4	-	3.4
Advance Walk	-	-	-	-
Non Lock Detector	X	-	X	-
Vehicle Recall	-	MIN RECALL	-	MIN RECALL
Dual Entry	-	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Signal Upgrade

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529		US 301 at I-587/ US 264 (Wilson Bypass) Eastbound Ramps		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Division 4		Wilson County		Wilson	
PLAN DATE: September 2024		REVIEWED BY: AM Encarnacion		SEAL 044476 ANTHONY M. ENCARNACION ENGINEER	
PREPARED BY: MF Evans		REVIEWED BY: PL Alexander		DocuSigned by: Anthony Encarnacion 2/28/2025	
REVISIONS		INIT.		DATE	
0		SCALE		DATE	
1"=40'		DATE		DATE	
SIG. INVENTORY NO.		04-1186		04-1186	

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Overlap	7		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

NOTICE OVERLAP 7
ASSIGNED TO CHANNEL 2 ➡

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

StartUp Clearance Hold
6

All Red Flash Exit Time
6

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 76.2

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1186
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Electrical and Programming
Details For:

Prepared for the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529

US 301
at
64 (Wilson Bypass)
bound Ramps

Division 4 Wilson County Wilson

PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion
--------------------------	-----------------------------

PREPARED BY: MF Evans	REVIEWED BY: PL Alexander
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REVISIONS	INIT.	DATE
-----------	-------	------

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																																																																																																																																																																																																																																	
Population	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.9	13.1	13.3	13.5	13.7	13.9	14.1	14.3	14.5	14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.5	16.7	16.9	17.1	17.3	17.5	17.7	17.9	18.1	18.3	18.5	18.7	18.9	19.1	19.3	19.5	19.7	19.9	20.1	20.3	20.5	20.7	20.9	21.1	21.3	21.5	21.7	21.9	22.1	22.3	22.5	22.7	22.9	23.1	23.3	23.5	23.7	23.9	24.1	24.3	24.5	24.7	24.9	25.1	25.3	25.5	25.7	25.9	26.1	26.3	26.5	26.7	26.9	27.1	27.3	27.5	27.7	27.9	28.1	28.3	28.5	28.7	28.9	29.1	29.3	29.5	29.7	29.9	30.1	30.3	30.5	30.7	30.9	31.1	31.3	31.5	31.7	31.9	32.1	32.3	32.5	32.7	32.9	33.1	33.3	33.5	33.7	33.9	34.1	34.3	34.5	34.7	34.9	35.1	35.3	35.5	35.7	35.9	36.1	36.3	36.5	36.7	36.9	37.1	37.3	37.5	37.7	37.9	38.1	38.3	38.5	38.7	38.9	39.1	39.3	39.5	39.7	39.9	40.1	40.3	40.5	40.7	40.9	41.1	41.3	41.5	41.7	41.9	42.1	42.3	42.5	42.7	42.9	43.1	43.3	43.5	43.7	43.9	44.1	44.3	44.5	44.7	44.9	45.1	45.3	45.5	45.7	45.9	46.1	46.3	46.5	46.7	46.9	47.1	47.3	47.5	47.7	47.9	48.1	48.3	48.5	48.7	48.9	49.1	49.3	49.5	49.7	49.9	50.1	50.3	50.5	50.7	50.9	51.1	51.3	51.5	51.7	51.9	52.1	52.3	52.5	52.7	52.9	53.1	53.3	53.5	53.7	53.9	54.1	54.3	54.5	54.7	54.9	55.1	55.3	55.5	55.7	55.9	56.1	56.3	56.5	56.7	56.9	57.1	57.3	57.5	57.7	57.9	58.1	58.3	58.5	58.7	58.9	59.1	59.3	59.5	59.7	59.9	60.1	60.3	60.5	60.7	60.9	61.1	61.3	61.5	61.7	61.9	62.1	62.3	62.5	62.7	62.9	63.1	63.3	63.5	63.7	63.9	64.1	64.3	64.5	64.7	64.9	65.1	65.3	65.5	65.7	65.9	66.1	66.3	66.5	66.7	66.9	67.1	67.3	67.5	67.7	67.9	68.1	68.3	68.5	68.7	68.9	69.1	69.3	69.5	69.7	69.9	70.1	70.3	70.5	70.7	70.9</

[illegible]

DocuSigned by: 2/28/201

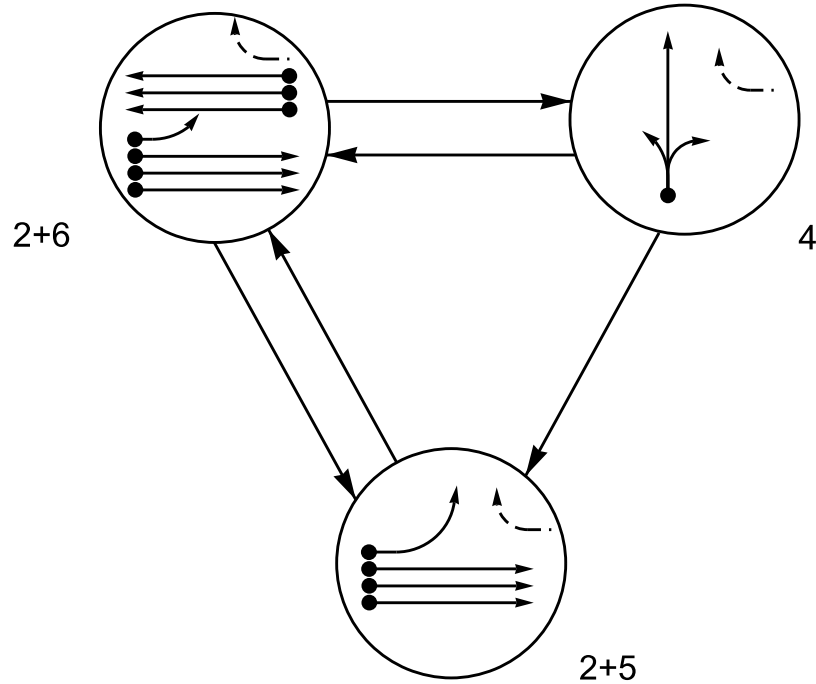
Anthony Encarnacion DES/ESA
746604MD39E34DB DA

SIG. INVENTORY NO. 04-118



1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

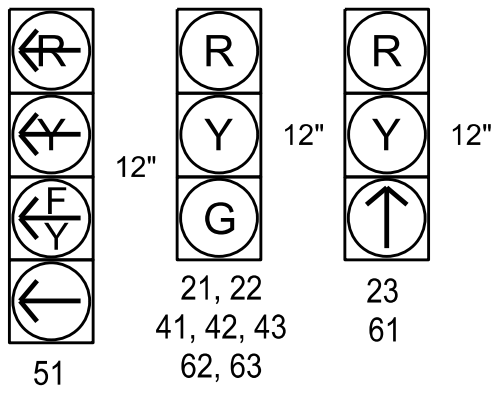
PHASING DIAGRAM



SIGNAL FACE	PHASE			
	2+5	2+6	4	F L A S H
21, 22	G	G	R	R
23	↑	↑	R	R
41, 42, 43	R	R	G	R
51	←	←	R	R
61	R	↑	R	R
62, 63	R	G	R	R

SIGNAL FACE I.D.

All Heads L.E.D.



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

MAXTIME DETECTOR INSTALLATION CHART											
DETECTOR						PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DURING GREEN	NEW CARD
2A	6X6	420	6	-	2	-	-	X	X	X	- X
2B	6X6	420	6	-	2	-	-	X	X	X	- X
2C	6X6	420	6	-	2	-	-	X	X	X	- X
4A	6X40	0	*	-	4	-	-	X	-	X	- *
5A	6X40	0	2-4-2	-	5	15.0	-	X	-	X	- X
6A	6X6	420	6	-	6	-	-	X	X	X	- X
6B	6X6	420	6	-	6	-	-	X	X	X	- X
6C	6X6	420	6	-	6	-	-	X	X	X	- X
S1	6X6	+150	EXISTING	-	-	-	-	-	-	-	- X
S2	6X6	+150	EXISTING	-	-	-	-	-	-	-	- X
S3	6X6	+150	EXISTING	-	-	-	-	-	-	-	- X

* Microwave Detection

3 Phase Signal
Fully Actuated
Wilson Signal System

NOTES

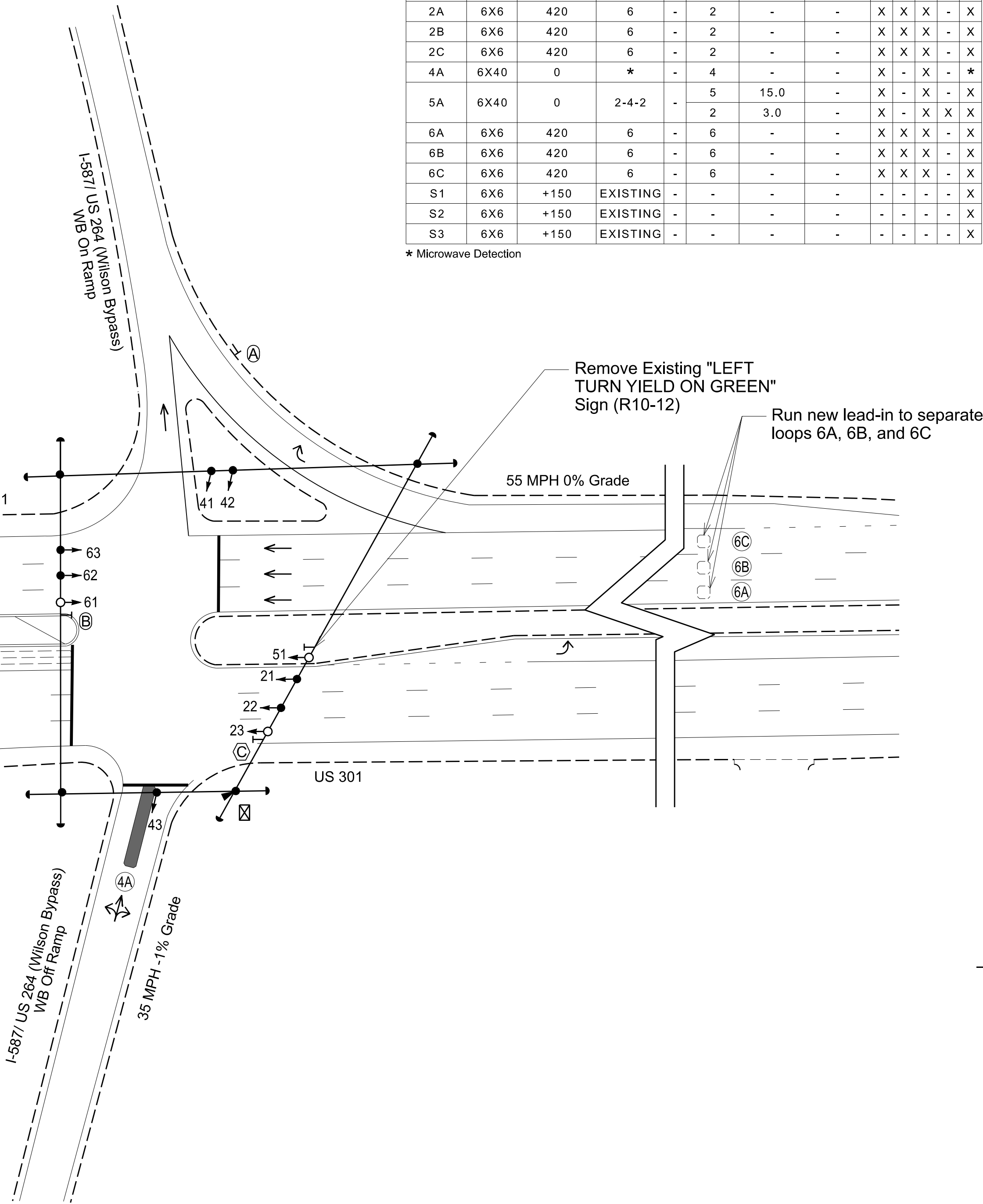
- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 5 may be lagged.
- Reposition existing signal heads numbered 22, 23, 61, and 62.
- Renumber existing signal heads numbered 22, 23, 61, and 62 to 21, 22, 62, and 63, respectively.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

LEGEND

- | PROPOSED | EXISTING |
|-------------------------------|----------|
| Traffic Signal Head | N/A |
| Modified Signal Head | N/A |
| Sign | N/A |
| Pedestrian Signal Head | N/A |
| Signal Pole with Guy | N/A |
| Signal Pole with Sidewalk Guy | N/A |
| Inductive Loop Detector | N/A |
| Controller & Cabinet | N/A |
| Junction Box | N/A |
| 2-in Underground Conduit | N/A |
| Right of Way | N/A |
| Directional Arrow | N/A |
| Microwave Detection Zone | N/A |
| Microwave Detector Unit | N/A |
| "YIELD" Sign (R1-2) | N/A |
| No Left Turn Sign (R3-2) | N/A |
| No Right Turn Sign (R3-1) | N/A |

MAXTIME TIMING CHART				
FEATURE	PHASE			
	2	4	5	6
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Min Green *	14	7	7	14
Passage *	6.0	2.0	2.0	6.0
Max 1 *	100	25	25	100
Yellow Change	5.4	3.9	3.0	5.4
Red Clear	1.0	2.4	2.6	1.0
Added Initial *	1.5	-	-	1.5
Maximum Initial *	46	-	-	46
Time Before Reduction *	15	-	-	15
Time To Reduce *	30	-	-	30
Minimum Gap	3.4	-	-	3.4
Advance Walk	-	-	-	-
Non Lock Detector	-	X	X	-
Vehicle Recall	MIN RECALL	-	-	MIN RECALL
Dual Entry	-	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.



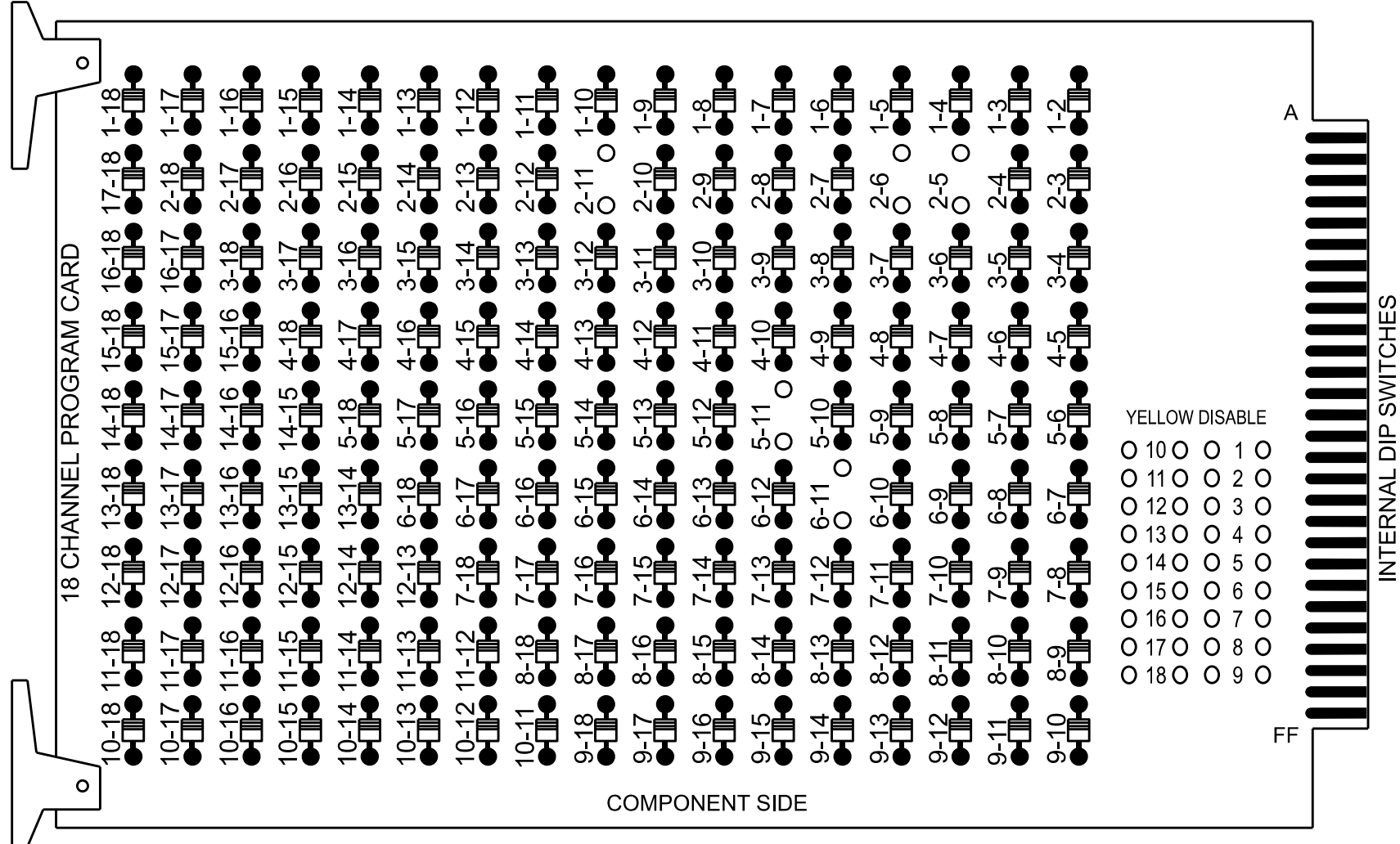
Signal Upgrade

 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326	Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529	US 301 at I-587 WB/ US 264 (Wilson Bypass) Westbound Ramps Division 4 Wilson County Wilson PLAN DATE: September 2024 REVIEWED BY: AM Encarnacion PREPARED BY: MF Evans REVIEWED BY: PL Alexander REVISIONS INIT. DATE	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SEAL Anthony Encarnacion 2/28/2025 DATE SIG. INVENTORY NO. 04-1187
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18 CHANNEL IP CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

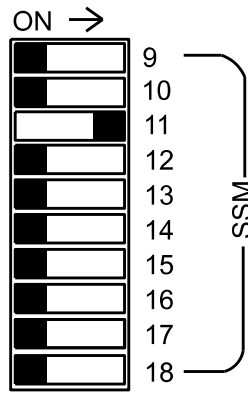
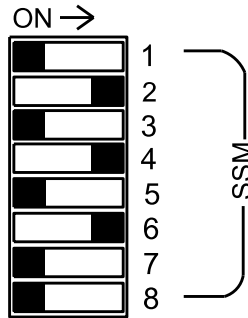
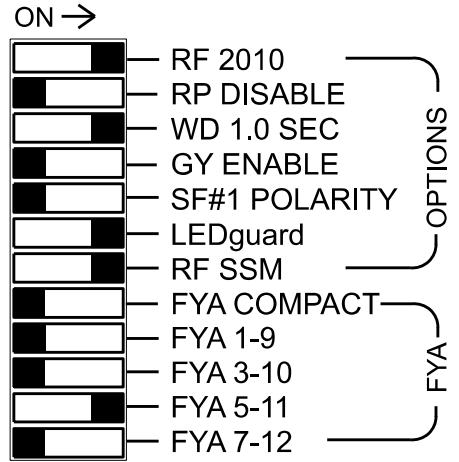
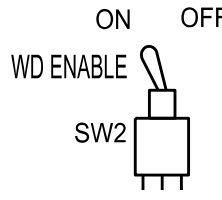
REMOVE DIODE JUMPERS 2-5, 2-6, 2-11, 5-11, and 6-11.



REMOVE JUMPERS AS SHOWN

NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that the Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.



■ = DENOTES POSITION OF SWITCH

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
- Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
- The cabinet and controller are part of the Wilson Signal System.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S2, S5, S7, S8, AUX S4
Phases Used.....2, 4, 5, 6
Overlap "1".....NOT USED
Overlap "2".....NOT USED
Overlap "3".....*
Overlap "4".....NOT USED

*See overlap programming detail this sheet

SIGNAL HEAD HOOK-UP CHART

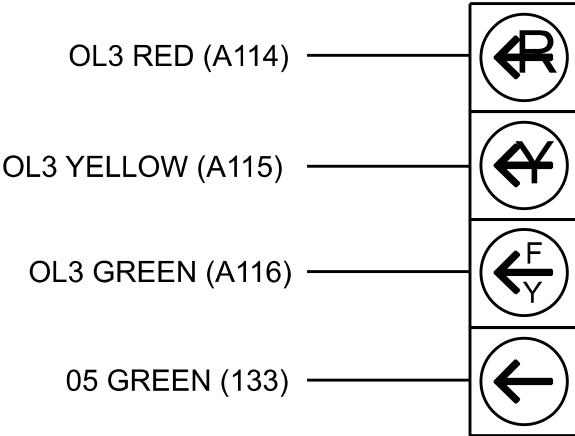
LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	NU	21,22	23	NU	41,42, 43	NU	51	61	62,63	NU	NU	NU	NU	NU	NU	51	NU	NU
RED		128	128		101			134	134									
YELLOW		129	129		102		*	135	135									
GREEN		130			103				136									
RED ARROW																A114		
YELLOW ARROW																A115		
FLASHING YELLOW ARROW																A116		
GREEN ARROW			130				133	136										

NU = Not Used

- * Denotes install load resistor. See load resistor installation detail this sheet.
* See pictorial of head wiring in detail this sheet.

FYA SIGNAL WIRING DETAIL

(wire signal head as shown)



51

INPUT FILE POSITION LAYOUT

(front view)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I"	U	SLOT	Ø 2	Ø 2	SLOT	SLOT	SLOT	SLOT	SLOT	SYS. DET. S1	SLOT	SLOT	SLOT	SLOT	FS
	L	EMPTY	2A	2C	SLOT	EMPTY	EMPTY	EMPTY	EMPTY	SYS. DET. S2	EMPTY	EMPTY	EMPTY	EMPTY	DC ISOLATOR
			Ø 2	NOT USED	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY		EMPTY	EMPTY	EMPTY	EMPTY	ST
			2B												DC ISOLATOR
FILE "J"	U	Ø 5	Ø 6	Ø 6	SLOT	SLOT	SLOT	SLOT	SLOT	SYS. DET. S3	SLOT	SLOT	SLOT	SLOT	SLOT
	L	5A	6A	6C	SLOT	EMPTY	EMPTY	EMPTY	EMPTY		EMPTY	EMPTY	EMPTY	EMPTY	EMPTY
		NOT USED	Ø 6	NOT USED	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	NOT USED	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY
			6B												

EX. : 1A, 2A, ETC. = LOOP NO.'S

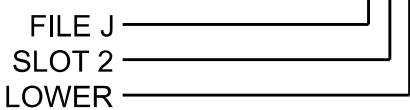
FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
2A	TB2-5,6	I2U	39	1	2	2	-	-	X	X	X	-
2B	TB2-7,8	I2L	43	5	3	2	-	-	X	X	X	-
2C	TB2-9,10	I3U	63	29	4	2	-	-	X	X	X	-
*S1	TB6-9,10	I9U	60	22	13	SYS	-	-	-	-	-	-
*S2	TB6-11,12	I9L	62	24	14	SYS	-	-	-	-	-	-
5A	TB3-1,2	J1U	55	17	15	5	15.0	-	X	-	X	-
				-	31	2	3.0	-	X	-	X	X
6A	TB3-5,6	J2U	40	2	16	6	-	-	X	X	X	-
6B	TB3-7,8	J2L	44	6	17	6	-	-	X	X	X	-
6C	TB3-9,10	J3U	64	30	18	6	-	-	X	X	X	-
*S3	TB7-9,10	J9U	59	21	27	SYS	-	-	-	-	-	-

* System detector only. Remove any assigned vehicle phase.

INPUT FILE POSITION LEGEND: J2L



OVERLAP PROGRAMMING

Front Panel

Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface

Home >Controller >Overlap Configuration >Overlaps

Overlap Plan 1

Overlap	1	2	3	4
Type	Off	Off	FYA 4 - Section	Off
Included Phases	-	-	6	-
Modifier Phases	-	-	5	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

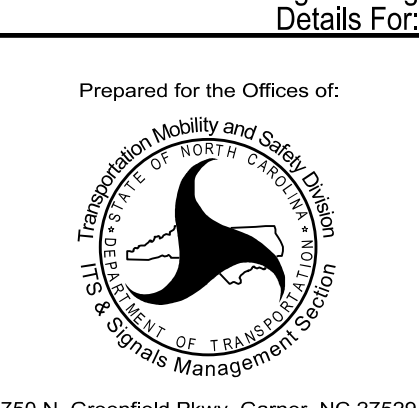
SPECIAL DETECTOR NOTE

Maintain existing radar detection system for vehicle detection for zone 4A. Perform installation according to manufacturer's directions and NCDOT engineer -approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Electrical Detail - Sheet 1 of 2

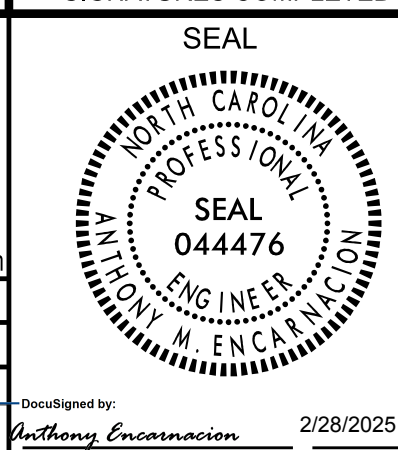
Electrical and Programming Details For:



750 N. Greenfield Pkwy, Garner, NC 27529

US 301
at
I-587 WB/ US 264 (Wilson Bypass)
Westbound Ramps

Division 4	Wilson County	Wilson
PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion	
PREPARED BY: MF Evans	REVIEWED BY: PL Alexander	
REVISIONS	INIT.	DATE



Decisigned by: 2/28/2025
Signature: M. Encarnacion
DATE: 2/28/2025
SIG. INVENTORY NO. 04-1187

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

StartUp Clearance Hold
6

All Red Flash Exit Time
6

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1187
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

ECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 77.2

U-5945

Sig. 77.2

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Electrical and Programming
Details For:

Prepared for the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529

US 301
at
I-587 WB/ US 264 (Wilson Bypass)
Westbound Ramps

[illegible]

SEAL

NORTH CAROLINA
PROFESSIONAL
ENGINEER
ANTHONY M. ENCARNACION
SEAL
044476

DocuSigned by:
Anthony Encarnacion
74260240992308

2/28/2023
DATE

SIG. INVENTORY NO. 04-1187

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 78.0

PHASING DIAGRAM

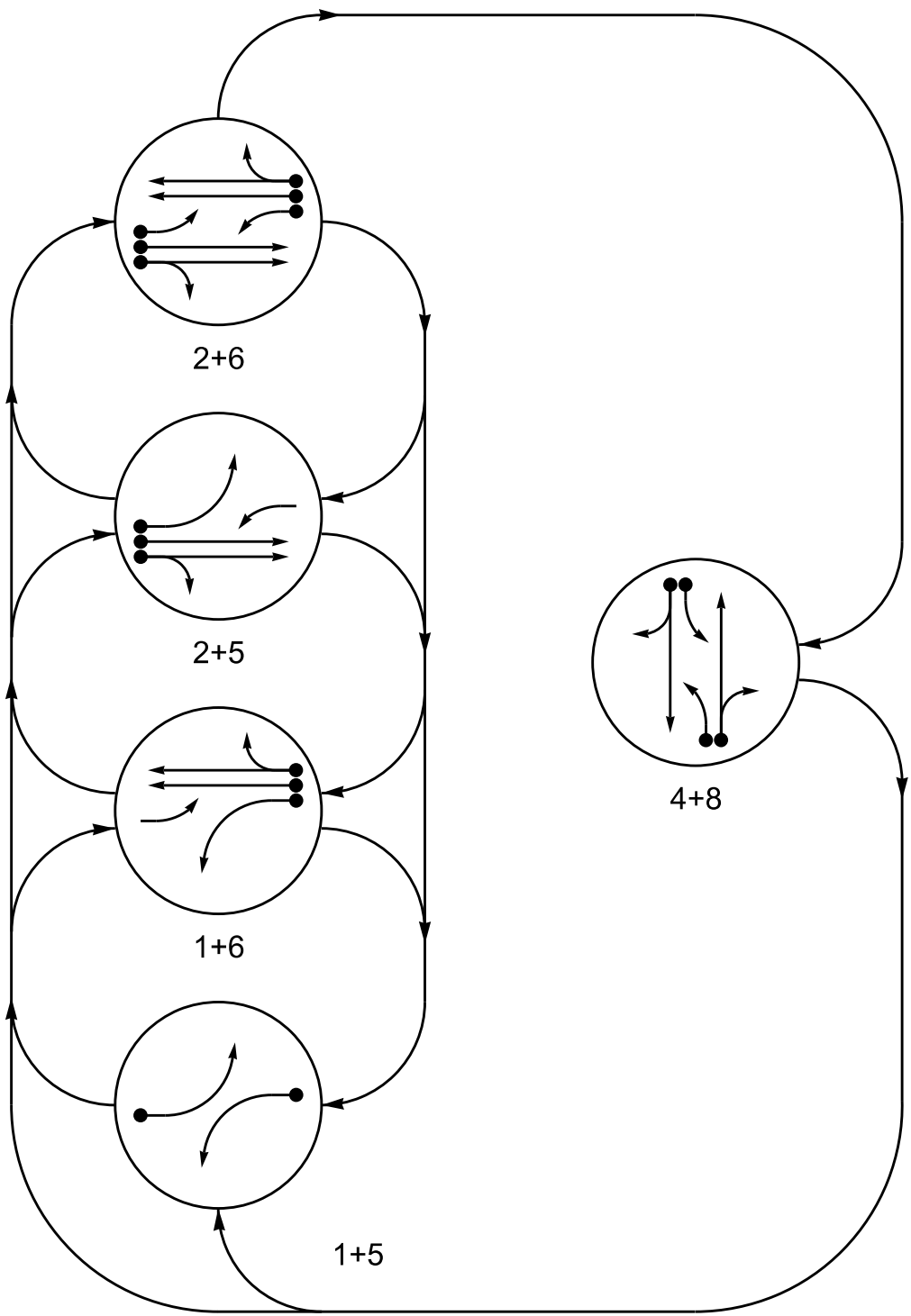


TABLE OF OPERATION						
SIGNAL FACE	PHASE					
	1 + 5	1 + 6	2 + 5	2 + 6	4 + 8	FLASH
11	←	←	←	←	←	←
21, 22	R	R	G	G	R	R
41	←	←	←	←	←	←
42, 43	R	R	R	R	G	R
51	←	←	←	←	←	←
61, 62	R	G	R	G	R	R
81	←	←	←	←	←	←
82, 83	R	R	R	R	G	R

MAXTIME DETECTOR INSTALLATION CHART										
DETECTOR					PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN
1A	6X40	0	2-4-2	-	1	15.0	-	X	-	X
2A	6X6	300	5	-	2	3.0	-	X	X	X
2B	6X6	300	5	-	2	-	-	X	X	X
4A	6X60	0	2-4-2	-	4	3.0	-	X	-	X
4B	6X60	+10	2-4-2	-	4	10.0	-	X	-	X
5A	6X40	0	2-4-2	-	5	15.0	-	X	-	X
6A	6X6	300	5	-	6	3.0	-	X	-	X
6B	6X6	300	5	-	6	-	-	X	X	X
8A	6X40	0	2-4-2	-	8	3.0	-	X	-	X
8B	6X40	0	2-4-2	-	8	10.0	-	X	-	X
8C	6X6	+5	EXIST	-	8	10.0	-	X	-	X

5 Phase
Fully Actuated
Wilson Signal System

NOTES

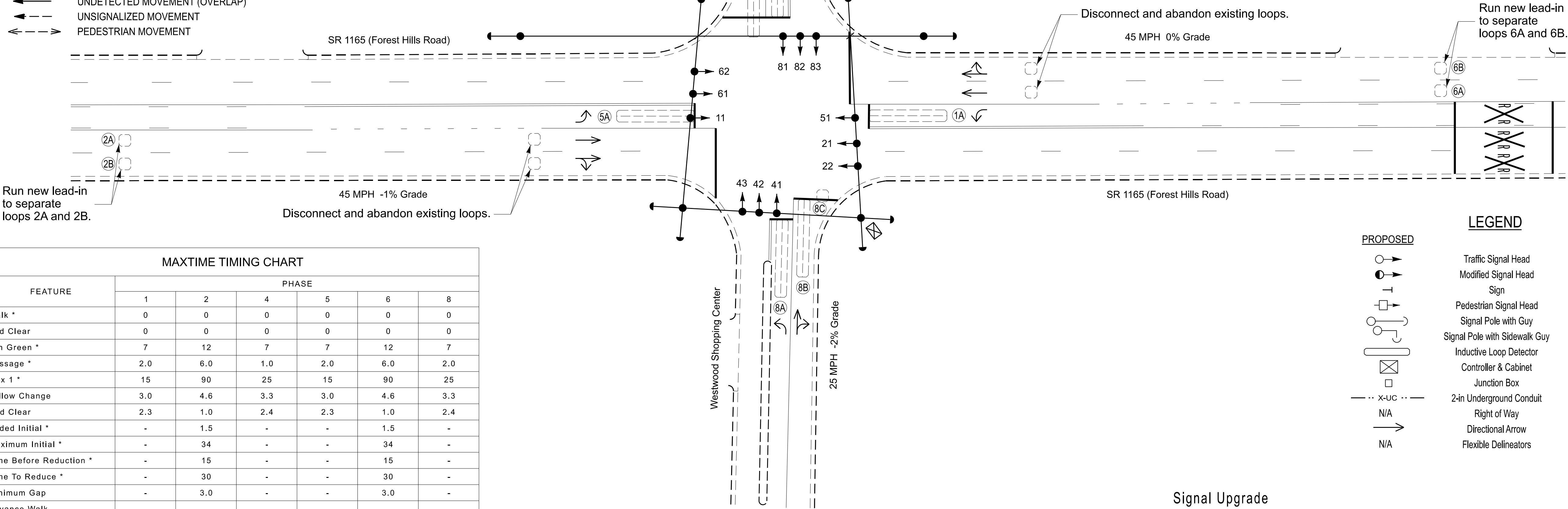
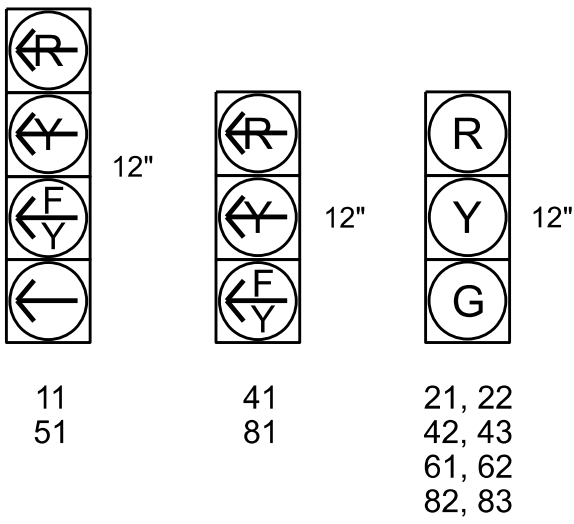
- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Set all detector units to presence mode.
- In the event of loop replacement, refer to the current TSMO Design Manual and submit a Plan of Record to the Signal Design Section.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME TIMING CHART						
FEATURE	PHASE					
	1	2	4	5	6	8
Walk *	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Min Green *	7	12	7	7	12	7
Passage *	2.0	6.0	1.0	2.0	6.0	2.0
Max 1 *	15	90	25	15	90	25
Yellow Change	3.0	4.6	3.3	3.0	4.6	3.3
Red Clear	2.3	1.0	2.4	2.3	1.0	2.4
Added Initial *	-	1.5	-	-	1.5	-
Maximum Initial *	-	34	-	-	34	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	30	-	-	30	-
Minimum Gap	-	3.0	-	-	3.0	-
Advance Walk	-	-	-	-	-	-
Non Lock Detector	X	-	X	X	-	X
Vehicle Recall	-	MIN RECALL	-	-	MIN RECALL	-
Dual Entry	-	-	X	-	-	X

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

- PROPOSED: Traffic Signal Head, Modified Signal Head, Sign, Pedestrian Signal Head, Signal Pole with Guy, Signal Pole with Sidewalk Guy, Inductive Loop Detector, Controller & Cabinet, Junction Box, 2-in Underground Conduit, Right of Way, Directional Arrow, Flexible Delineators.
- EXISTING: Traffic Signal Head, Modified Signal Head, Sign, Pedestrian Signal Head, Signal Pole with Guy, Signal Pole with Sidewalk Guy, Inductive Loop Detector, Controller & Cabinet, Junction Box, 2-in Underground Conduit, Right of Way, Directional Arrow, Flexible Delineators.

Signal Upgrade

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

SR 1165 (Forest Hills Road)
at
Entrance to Lowe's/
Westwood Shopping Center

Division 4 Wilson County Wilson

PLAN DATE: October 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Stiff REVIEWED BY: PL Alexander

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

DocuSigned by: Anthony Encarnacion 2/28/2025

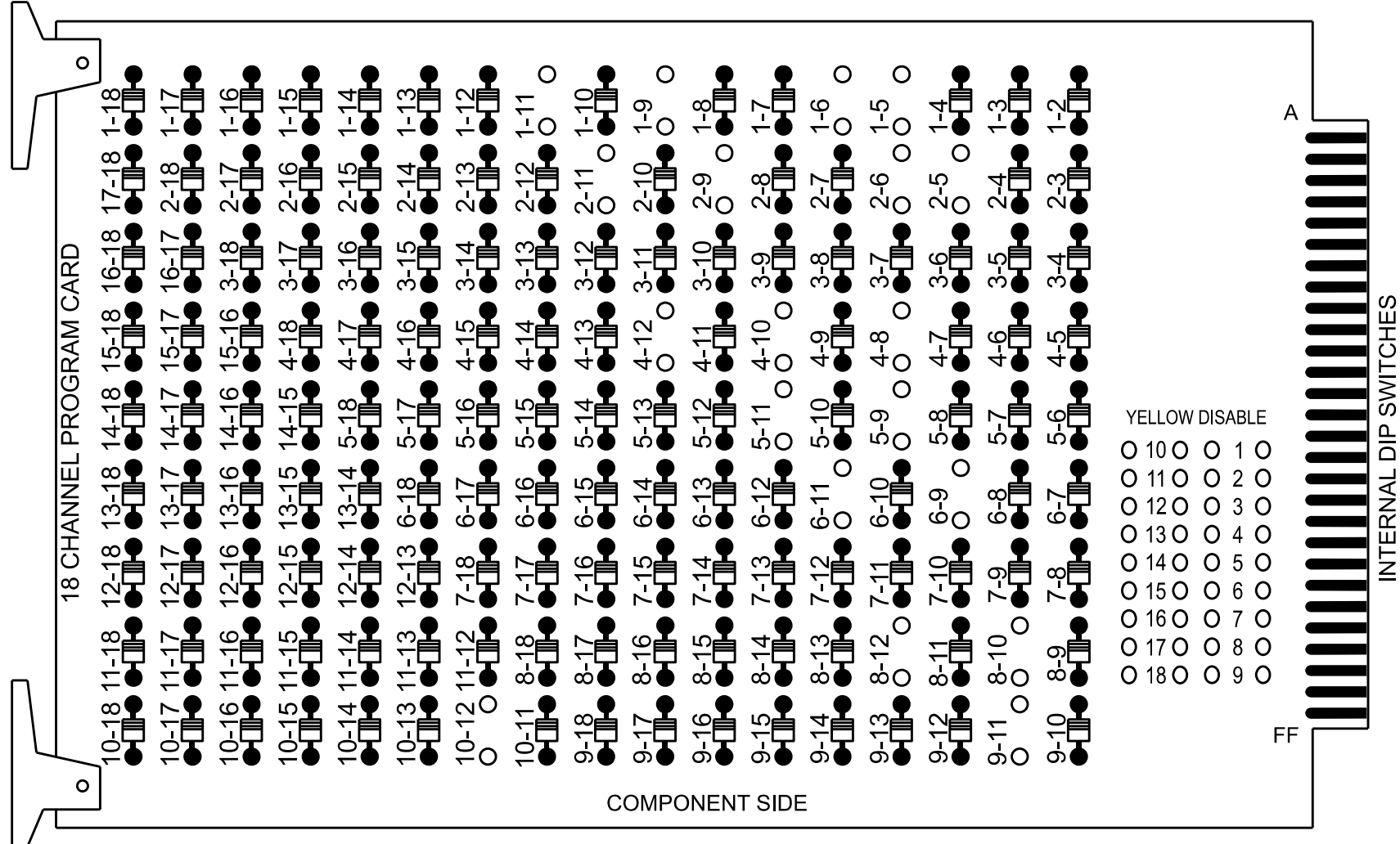
SIG. INVENTORY NO. 04-1213

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

18 CHANNEL IP CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 2-5, 2-6, 2-9, 2-11, 4-8, 4-10, 4-12, 5-9, 5-11, 6-9, 6-11, 8-10, 8-12, 9-11, and 10-12.



REMOVE JUMPERS AS SHOWN

NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that the Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
- Program phases 4 and 8 for Dual Entry.
- Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
- The cabinet and controller are part of the Wilson Signal System.

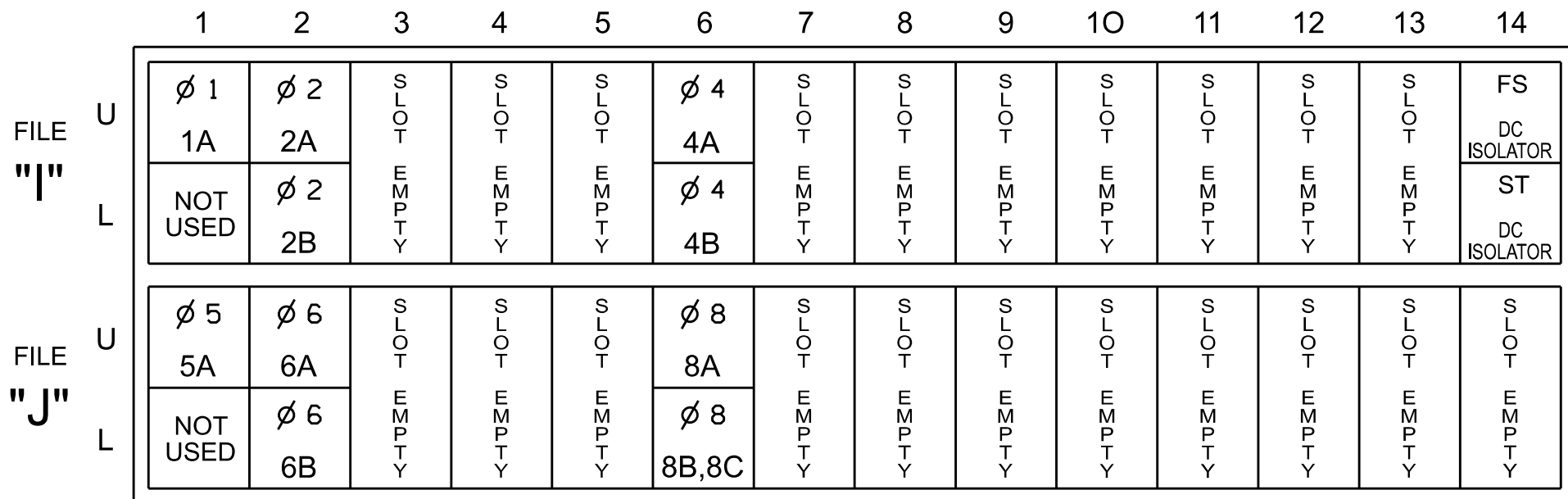
EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S1, S2, S5, S7, S8, S11, AUX S1
AUX S2, AUX S4, AUX S5
Phases Used.....1, 2, 4, 5, 6, 8
Overlap "1".....*
Overlap "2".....*
Overlap "3".....*
Overlap "4".....*

*See overlap programming detail on sheet 2

INPUT FILE POSITION LAYOUT

(front view)



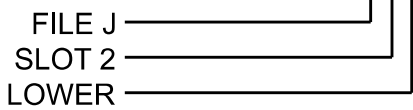
EX. : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

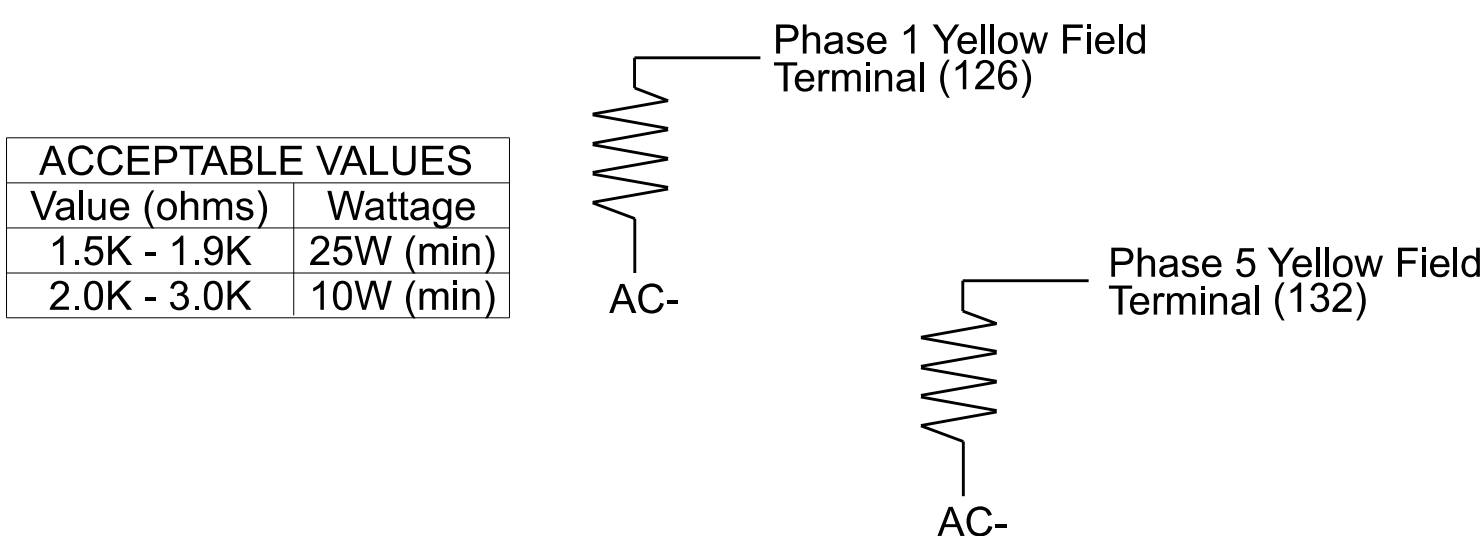
LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1	1	15.0	-	X	-	X	-
2A	TB2-5,6	I2U	39	1	2	2	3.0	-	X	-	X	X
2B	TB2-7,8	I2L	43	5	3	2	-	-	X	X	X	-
4A	TB4-9,10	I6U	41	3	8	4	3.0	-	X	-	X	-
4B	TB4-11,12	I6L	45	7	9	4	10.0	-	X	-	X	-
5A	TB3-1,2	J1U	55	17	15	5	15.0	-	X	-	X	-
6A	TB3-5,6	J2U	40	2	16	6	-	-	X	X	X	-
6B	TB3-7,8	J2L	44	6	17	6	-	-	X	X	X	-
8A	TB5-9,10	J6U	42	4	22	8	3.0	-	X	-	X	-
8B,8C	TB5-11,12	J6L	46	8	23	8	10.0	-	X	-	X	-

INPUT FILE POSITION LEGEND: J2L



LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown)



SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	11	21,22	NU	NU	42,43	NU	51	61,62	NU	NU	82,83	NU	11	81	NU	51	41	NU
RED		128			101			134			107							
YELLOW	*	129			102		*	135			108							
GREEN		130			103			136			109							
RED ARROW													A121	A124		A114	A101	
YELLOW ARROW													A122	A125		A115	A102	
FLASHING YELLOW ARROW													A123	A126		A116	A103	
GREEN ARROW	127						133											

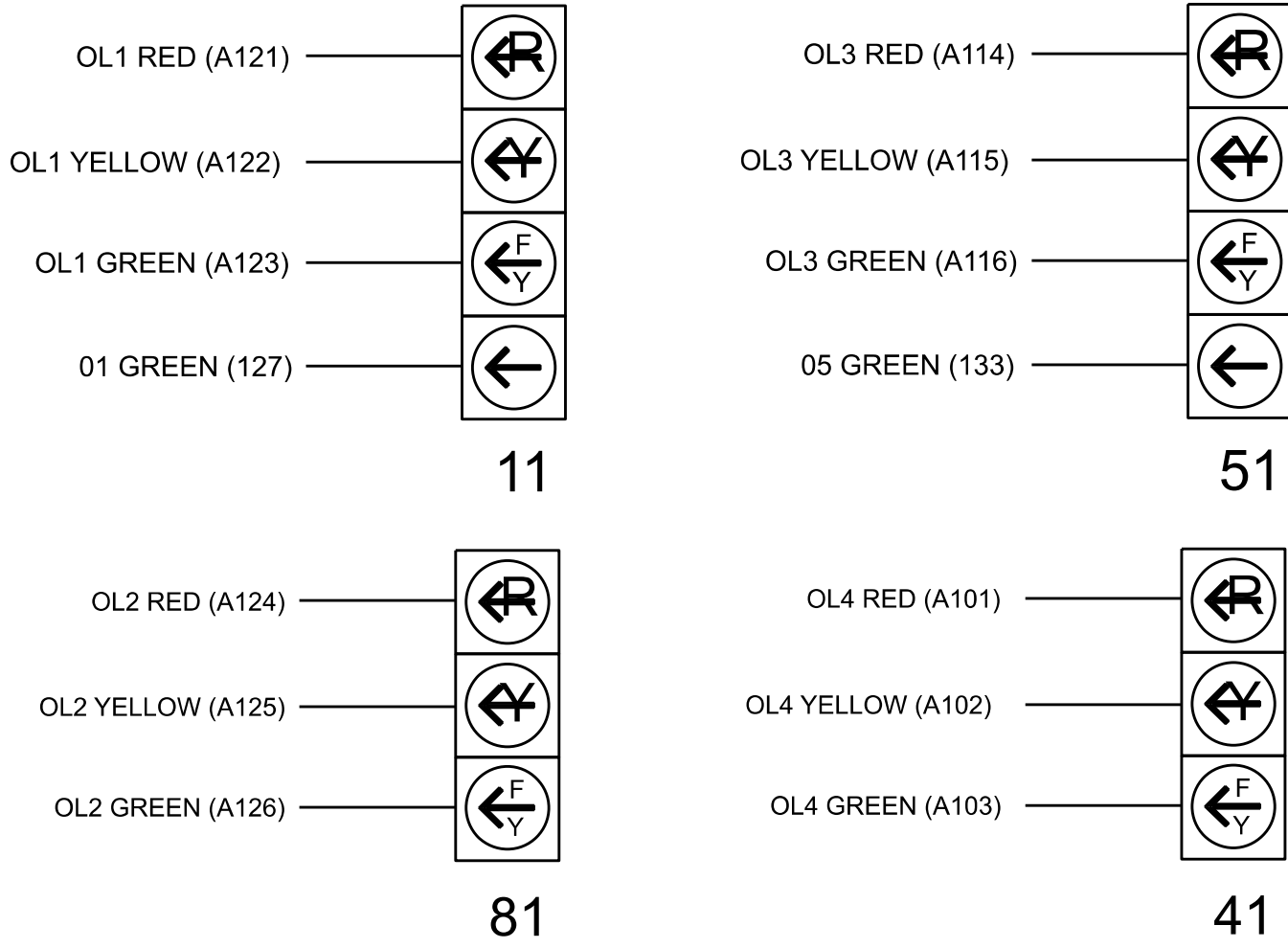
NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.

* See pictorial of head wiring in detail this sheet.

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1213
DESIGNED: OCTOBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 1 of 2

Electrical and Programming Details For:	SR 1165 (Forest Hills Road) at Entrance to Lowe's / Westwood Shopping Center	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
Prepared for the Offices of:	Wilson County Wilson	SEAL NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER M. ENCARNACION
PLAN DATE: January 2025	REVIEWED BY: AM Encarnacion	Decisigned by: 2/28/2025
PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	DATE
REVISIONS	INIT.	DATE
750 N. Greenfield Pkwy, Garner, NC 27529		SIG. INVENTORY NO. 04-1213

AtkinsRéal
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

Overlap	1	2	3	4
Type	FYA 4 - Section	FYA 4 - Section	FYA 4 - Section	FYA 4 - Section
Included Phases	2	4	6	8
Modifier Phases	1	-	5	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

StartUp Clearance Hold
6

All Red Flash Exit Time
6

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
3. REMOVE FLASHER UNIT 2.

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Electrical and Programming
Details For:

Division 4 Wilson County Wilson

PLAN DATE: January 2025	REVIEWED BY: AM Encarnacion
-------------------------	-----------------------------

PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander
------------------------	---------------------------

REVISIONS	INIT.	DATE

[illegible]

SEAL



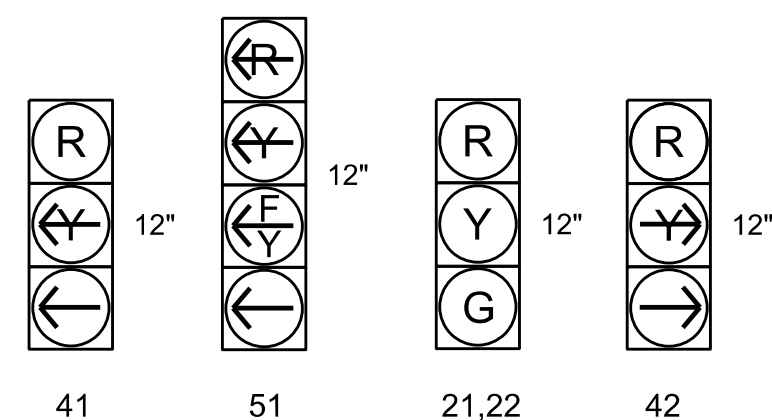
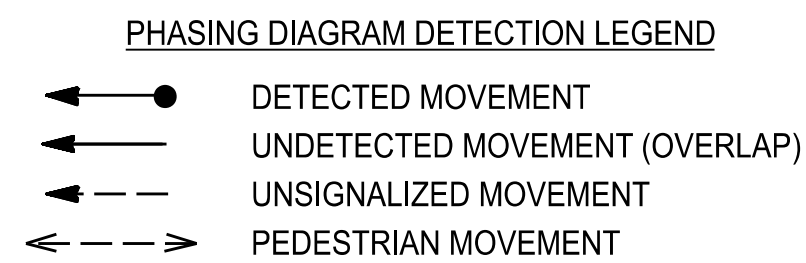
DocuSigned by:
3/28/2025

SIG. INVENTORY NO. 04-1213

Figure 1 shows a directed graph with three nodes. The top-left node is labeled '2+6' and contains a diagram of a 2+6 configuration. The top-right node is labeled '2+5' and contains a diagram of a 2+5 configuration. The bottom node is labeled '2+6' and contains a diagram of a 2+6 configuration. Arrows indicate transitions between these configurations.

TABLE OF OPERATION				
SIGNAL FACE	PHASE			
	2 5	2 6	4	F L S H
21,22	G	G	R	R
41	R	R	←	R
42	R	R	→	R
51	←	$\frac{F}{Y}$	R	R
61,62	R	G	R	R

All Heads L.E.D.

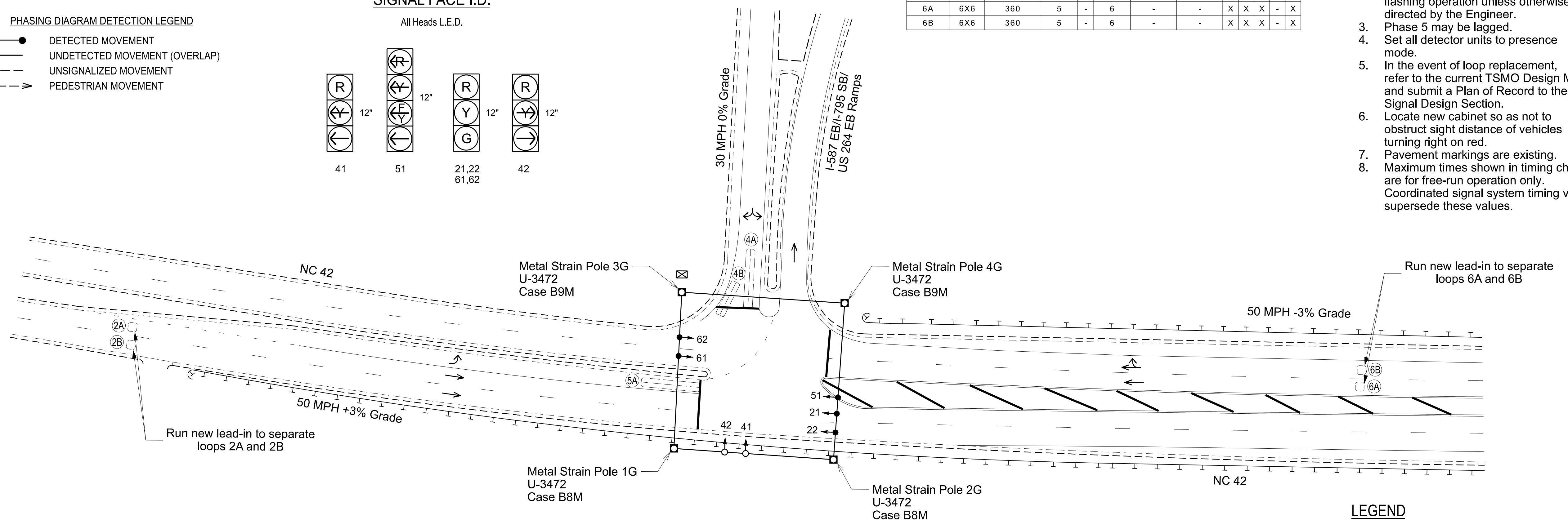


MAXTIME DETECTOR INSTALLATION CHART												
DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN	START
2A	6X6	385	5	-	2	-	-	X	X	X	-	X
2B	6X6	385	5	-	2	-	-	X	X	X	-	X
4A	6X40	0	2-4-2	-	4	10.0	-	X	-	X	-	X
4B	6X25	+5	2-4-2	-	4	15.0	-	X	-	X	-	X
5A	6X40	0	2-4-2	-	5	15.0	-	X	-	X	-	X
				-	2	3.0	-	X	-	X	X	X
6A	6X6	360	5	-	6	-	-	X	X	X	-	X
6B	6X6	360	5	-	6	-	-	X	X	X	-	X

3 Phase
Fully Actuated
Wilson Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 5 may be lagged.
4. Set all detector units to presence mode.
5. In the event of loop replacement, refer to the current TSMO Design Manual and submit a Plan of Record to the Signal Design Section.
6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. Pavement markings are existing.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



MAXTIME TIMING CHART				
FEATURE	PHASE			
	2	4	5	6
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Min Green *	14	7	7	14
Passage *	6.0	2.0	2.0	6.0
Max 1 *	90	20	15	90
Yellow Change	5.1	3.0	3.0	5.1
Red Clear	1.5	3.2	2.3	1.5
Added Initial *	2.0	-	-	2.0
Maximum Initial *	43	-	-	40
Time Before Reduction *	15	-	-	15
Time To Reduce *	45	-	-	45
Minimum Gap	3.0	-	-	3.0
Advance Walk	-	-	-	-
Non Lock Detector	-	X	X	-
Vehicle Recall	MIN RECALL	-	-	MIN RECALL
Dual Entry	-	-	-	-

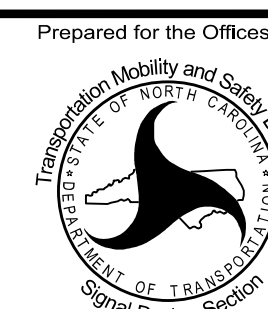
* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

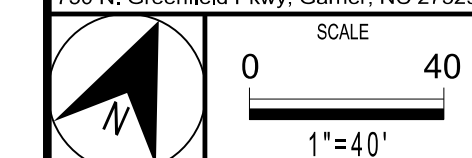
PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Metal Strain Pole	

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Signal Upgrade



750 N. Greenfield Pkwy. Garner, NC 27524



NC 42
at
I-587 EB/I-795 SB/US 264 EB Ramps

Division 4	Wilson County	Wilson
PLAN DATE: September 2024	REVIEWED BY: AM Encarnacion	
PREPARED BY: JT Sutton	REVIEWED BY: PI Alexander	

SEAL

NORTH CAROLINA
PROFESSIONAL
ENGINEER
SEAL
044476
ANTHONY M. ENCARNACION

DocuSigned by:
Anthony Encarnacion 2/28/2025
7A660AMD39E34DB... DATE
SIG. INVENTORY NO. 04-1256



OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

MAXTIME STARTUP AND SOFTWARE FLASH
PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters

StartUp Clearance Hold
6

Unit Flash Parameters

All Red Flash Exit Time
6

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1256
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Electrical and Programming
Details For:

Prepared for the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529

NC 42
at
I-587 EB/I-795 SB/US 264 EB Ramps

Division 4Wilson CountyWilson

PLAN DATE: December 2024REVIEWED BY: AM Encarnacion

PREPARED BY: MR DayREVIEWED BY: PL Alexander

REVISIONS

INIT. DATE

SEAL



Seal of the State of North Carolina
Professional Engineer
Anthony Encarnacion
License No. 044476

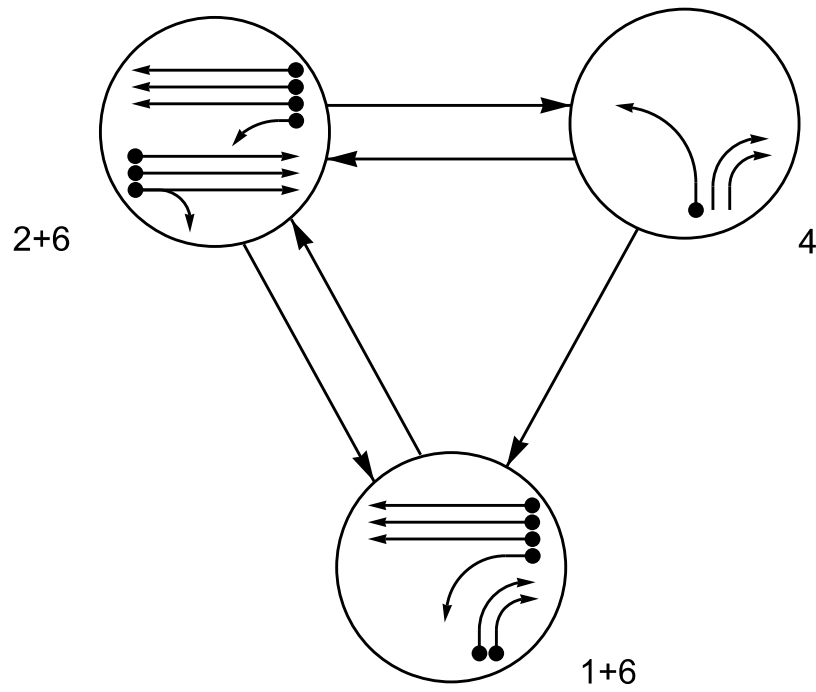
DocuSigned by:
Anthony Encarnacion
2/28/2025 2:28PM

DATE

SIG. INVENTORY NO. 04-1256

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 80.0

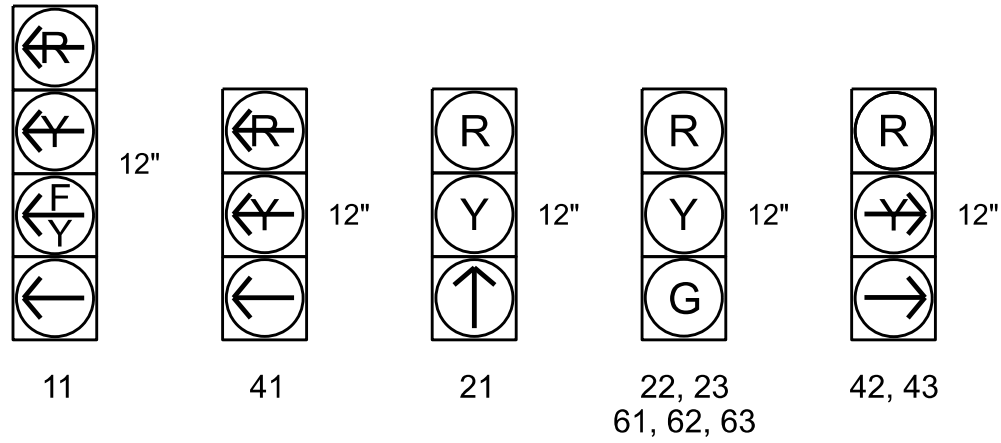
PHASING DIAGRAM



SIGNAL FACE	PHASE			
	1 6	2 6	4	F L A S H
11	← F	← R	← R	
21	R	↑	R	R
22, 23	R	G	R	R
41	← R	← R	← R	
42, 43	→ R	→ R	→ R	
61, 62, 63	G	G	R	R

SIGNAL FACE I.D.

All Heads L.E.D.



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

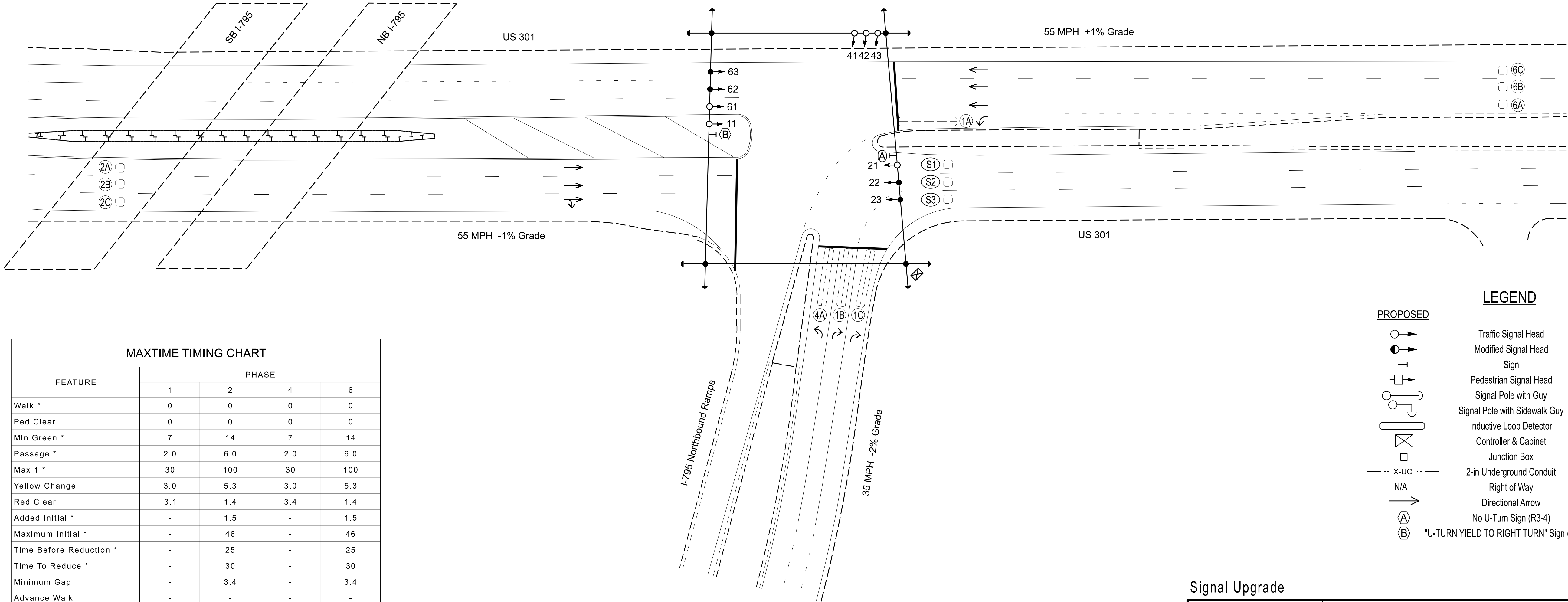
MAXTIME DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN	NEW CARD
1A	6X40	0	2-4-2	-	1	15.0	-	X	-	X	-
					6	3.0	-	X	-	X	X
1B	6X40	0	2-4-2	-	1	10.0	-	X	-	X	X
1C	6X40	0	2-4-2	-	1	15.0	-	X	-	X	X
2A	6X6	420	5	-	2	-	-	X	X	X	-
2B	6X6	420	5	-	2	-	-	X	X	X	-
2C	6X6	420	5	-	2	-	-	X	X	X	-
4A	6X40	0	2-4-2	-	4	-	-	X	-	X	-
6A	6X6	420	5	-	6	-	-	X	X	X	-
6B	6X6	420	5	-	6	-	-	X	X	X	-
6C	6X6	420	5	-	6	-	-	X	X	X	-
S1	6X6	+145	5	-	SYS	-	-	-	-	-	X
S2	6X6	+145	5	-	SYS	-	-	-	-	-	X
S3	6X6	+145	5	-	SYS	-	-	-	-	-	X

3 Phase
Fully Actuated
Wilson Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 may be lagged.
- Reposition existing signal heads numbered 21, 22, 62 and 63.
- Renumber existing signal heads 21 and 22 as 22 and 23 respectively.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



MAXTIME TIMING CHART

FEATURE	PHASE			
	1	2	4	6
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Min Green *	7	14	7	14
Passage *	2.0	6.0	2.0	6.0
Max 1 *	30	100	30	100
Yellow Change	3.0	5.3	3.0	5.3
Red Clear	3.1	1.4	3.4	1.4
Added Initial *	-	1.5	-	1.5
Maximum Initial *	-	46	-	46
Time Before Reduction *	-	25	-	25
Time To Reduce *	-	30	-	30
Minimum Gap	-	3.4	-	3.4
Advance Walk	-	-	-	-
Non Lock Detector	X	-	X	-
Vehicle Recall	-	MIN RECALL	-	MIN RECALL
Dual Entry	-	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

- | PROPOSED | EXISTING |
|--|----------|
| Traffic Signal Head | N/A |
| Modified Signal Head | N/A |
| Sign | N/A |
| Pedestrian Signal Head | N/A |
| Signal Pole with Guy | N/A |
| Signal Pole with Sidewalk Guy | N/A |
| Inductive Loop Detector | N/A |
| Controller & Cabinet | N/A |
| Junction Box | N/A |
| 2-in Underground Conduit | N/A |
| Right of Way | N/A |
| Directional Arrow | N/A |
| No U-Turn Sign (R3-4) | N/A |
| "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) | N/A |

Signal Upgrade

Prepared for the Offices of:

Transportation Mobility and Safety Division

750 N. Greenfield Pkwy, Garner, NC 27529

US 301
at
I-795 Northbound Ramps

Division 4 Wilson County Wilson

PLAN DATE: September 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Stiff REVIEWED BY: PL Alexander

REVISIONS INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

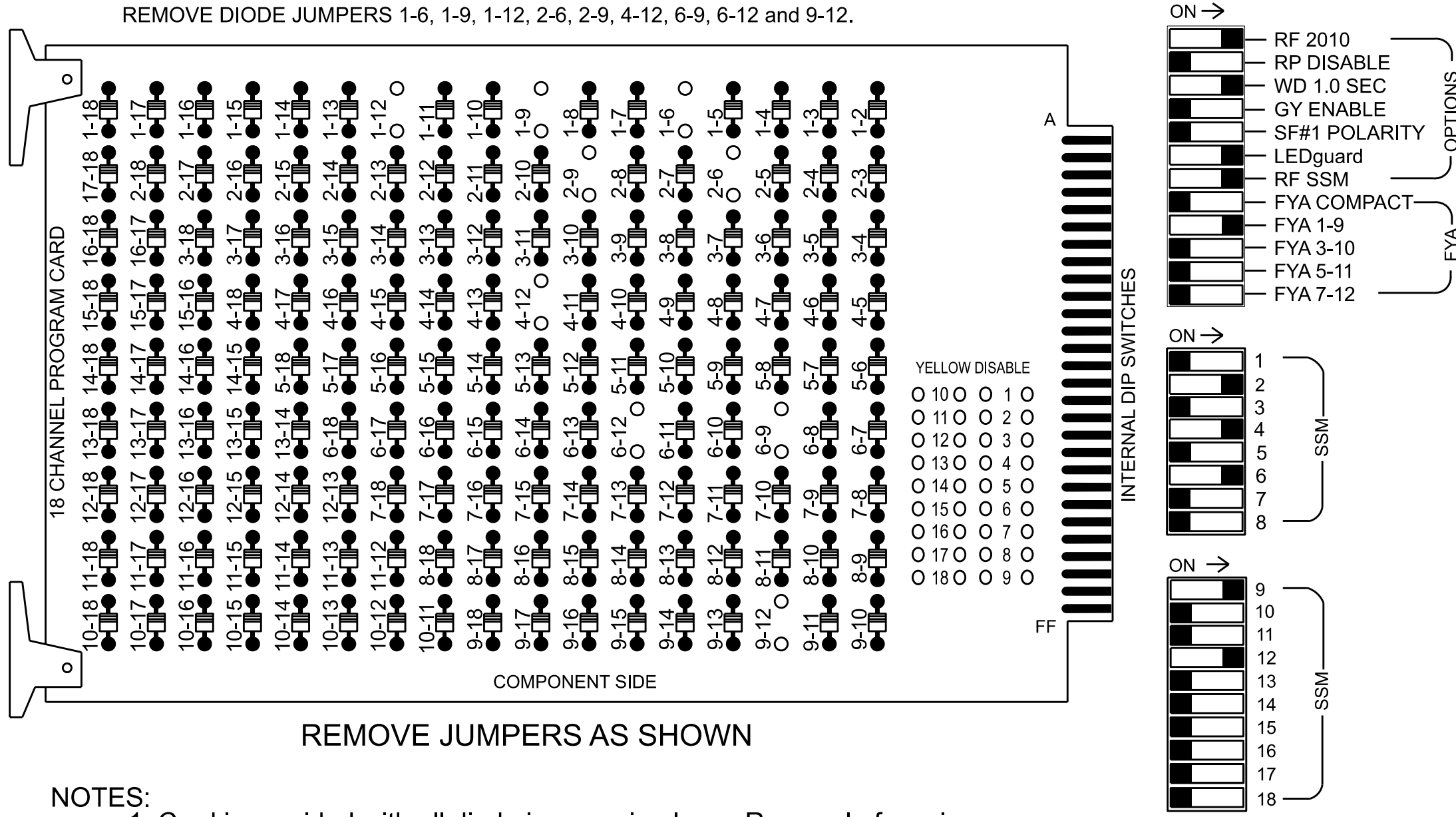
ANTHONY ENCARNACION

2/28/2025

SIG. INVENTORY NO. 04-1282

18 CHANNEL IP CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.

2. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.

3. The cabinet and controller are part of the Wilson Signal System.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S1, S2, S5, S8, AUX S1, AUX S5
Phases Used.....1, 2, 4, 6
Overlap "1".....*
Overlap "2".....NOT USED
Overlap "3".....NOT USED
Overlap "4".....*

*See overlap programming detail on this sheet

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	11★	21	22,23	NU	NU	41	NU	NU	61,62,63	NU	NU	NU	11★	NU	NU	NU	42,43	NU
RED		128	128						134								A101	
YELLOW	★	129	129						135									
GREEN			130						136									
RED ARROW						101							A121					
YELLOW ARROW						102							A122				A102	
FLASHING YELLOW ARROW													A123					
GREEN ARROW	127	130				103											A103	

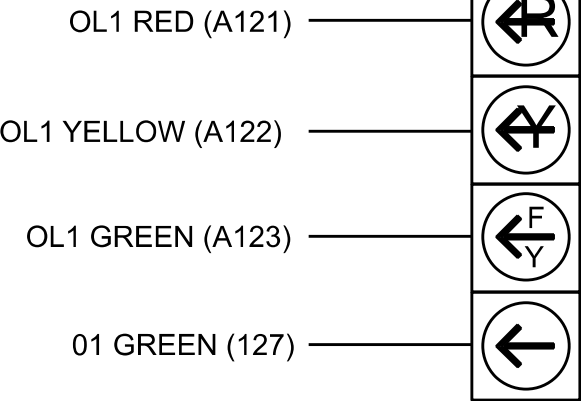
NU = Not Used

★ Denotes install load resistor. See load resistor installation detail this sheet.

★ See pictorial of head wiring in detail this sheet.

FYA SIGNAL WIRING DETAIL

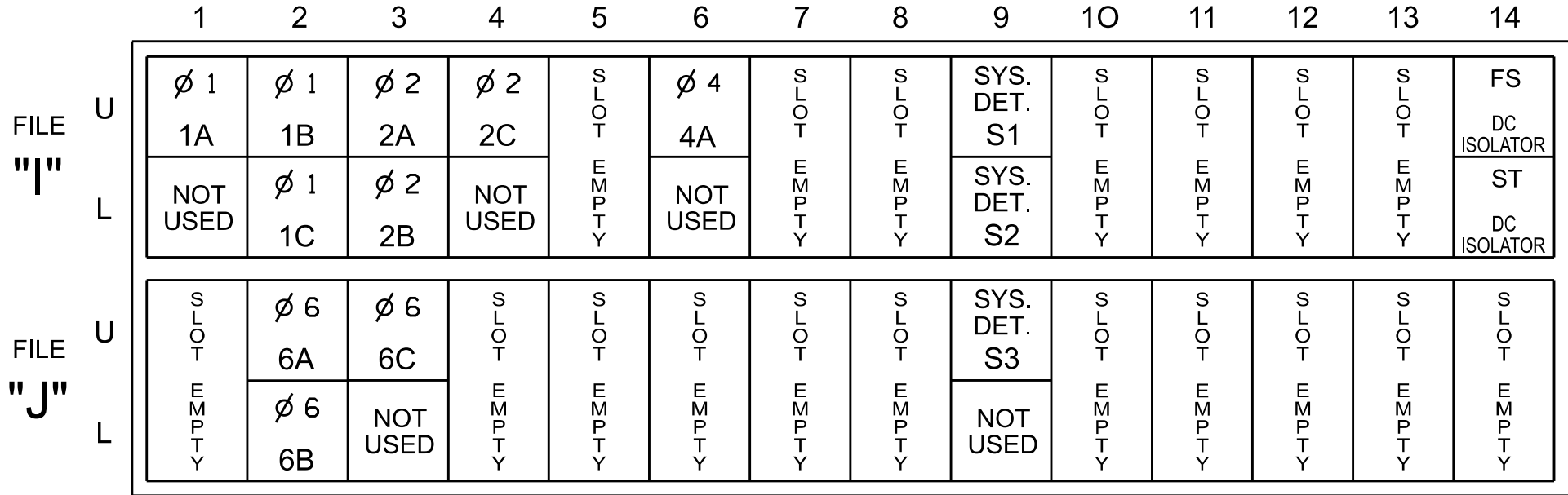
(wire signal head as shown)



11

INPUT FILE POSITION LAYOUT

(front view)

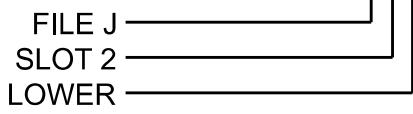


INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1	1	15.0		X		X	
1B	TB2-5,6	I2U	39	1	2	6	3.0		X		X	X
1C	TB2-7,8	I2L	43	5	3	1	15.0		X		X	
2A	TB2-9,10	I3U	63	29	4	2			X	X	X	
2B	TB2-11,12	I3L	76	42	5	2			X	X	X	
2C	TB4-1,2	I4U	47	9	6	2			X	X	X	
4A	TB4-9,10	I6U	41	3	8	4			X		X	
*S1	TB6-9,10	I9U	60	22	13	SYS						
*S2	TB6-11,12	I9L	62	24	14	SYS						
6A	TB3-5,6	J2U	40	2	16	6			X	X	X	
6B	TB3-7,8	J2L	44	6	17	6			X	X	X	
6C	TB3-9,10	J3U	64	30	18	6			X	X	X	
*S3	TB7-9,10	J9U	59	21	27	SYS						

*System detector only. Remove any assigned vehicle phase.

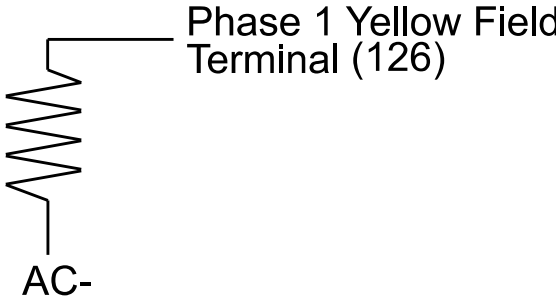
INPUT FILE POSITION LEGEND: J2L



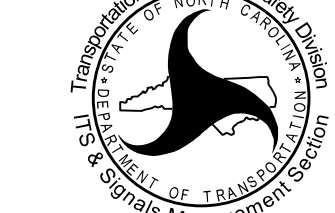
LOAD RESISTOR INSTALLATION DETAIL

(install resistor as shown)

ACCEPTABLE VALUES	
Value (ohms)	Wattage
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326



750 N. Greenfield Pkwy, Garner, NC 27529

Electrical Detail - Sheet 1 of 2

Electrical and Programming Details For:		US 301 at I-795 Northbound Ramps		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared for the Offices of:		Wilson County		Wilson	
PLAN DATE: December 2024		REVIEWED BY: AM Encarnacion		DATE	
PREPARED BY: JT Stiff		REVIEWED BY: PL Alexander		DATE	
REVISIONS		INIT.		DATE	
750 N. Greenfield Pkwy, Garner, NC 27529		750 N. Greenfield Pkwy, Garner, NC 27529		750 N. Greenfield Pkwy, Garner, NC 27529	
THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 04-1282 DESIGNED: SEPTEMBER 2024 SEALED: 02-28-2025 REVISED: N/A		Seal of North Carolina Professional Engineer M. Encarnacion		Seal of North Carolina Professional Engineer M. Encarnacion	
SIGNED by: Anthony Encarnacion		SIGNED by: Anthony Encarnacion		SIGNED by: Anthony Encarnacion	
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OUTPUT CHANNEL CONFIGURATION

Front Panel

Main Menu >Controller >More>Channels>Channels Config

Web Interface

Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

MAXTIME STARTUP AND SOFTWARE FLASH PROGRAMMING DETAIL

Front Panel

Main Menu >Controller >Unit

Web Interface

Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters

StartUp Clearance Hold
6

Unit Flash Parameters

All Red Flash Exit Time
6

FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1282
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Electrical and Programming Details For:

Prepared for the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529

US 301
at
I-795 Northbound Ramps

Division 4 Wilson County Wilson

PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion
--------------------------	-----------------------------

PREPARED BY: JT Stiff	REVIEWED BY: PL Alexander
-----------------------	---------------------------

REVISIONS	INIT.	DATE
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SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

DocuSigned by:
2/28/2025

Anthony Encarnacion DATE
7/6/2014 10:39:40

SIG. INVENTORY NO. 04-1282



1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

The diagram illustrates a sequence of four circular nodes, each containing a different arrangement of horizontal and vertical lines and dots. The nodes are labeled with mathematical expressions: $2+6$, $2+5$, $1+6$, and $1+5$. Arrows indicate a flow from the top node to the bottom node, and a separate path from the bottom node to a node on the right labeled $4+8$.

TABLE OF OPERATION						
SIGNAL FACE	PHASE					
	1 + 5	1 + 6	2 + 5	2 + 6	4 + 8	F A S H
11	←	←	←	←	←	←
21, 22	R	R	G	G	R	R
41	R	R	R	R	G	R
42	R	R	R	R	G	R
51	←	←	←	←	←	←
61, 62, 63	R	G	R	G	R	R
81	R	R	R	R	G	R
82	R	R	R	R	G	R

MAXTIME DETECTOR INSTALLATION CHART											
DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DURING GREEN	NEW CARD
1A	6X40	0	2-4-2	-	1	-	-	X	-	X	-
1B	6x40	+5	2-4-2	-	1	15.0	-	X	-	X	-
2A	6X6	300	5	-	2	-	-	X	X	X	-
2B	6X6	300	5	-	2	-	-	X	X	X	-
4A	6x40	+5	2-4-2	-	4	-	-	X	-	X	-
5A	6x40	0	2-4-2	-	5	-	-	X	-	X	-
5B	6x40	+5	2-4-2	-	5	15.0	-	X	-	X	-
6A	6x6	300	5	-	6	-	-	X	X	X	-
6B	6x6	300	5	-	6	-	-	X	X	X	-
8A	6X40	+5	2-4-2	-	8	-	-	X	-	X	-

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. Reposition existing signal heads numbered 61 and 62.
5. Set all detector units to presence mode.
6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. The cabinet must be designed to include an Auxiliary Output file for future use.
8. Pavement markings are existing.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

All Heads L.E.D.

11
51

21, 22
41
61, 62, 63
81

42
82

	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

MAXTIME TIMING CHART						
FEATURE	PHASE					
	1	2	4	5	6	8
Walk *	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Min Green *	7	12	7	7	12	7
Passage *	2.0	6.0	2.0	2.0	6.0	2.0
Max 1 *	15	90	20	15	90	20
Yellow Change	3.0	4.6	3.1	3.0	4.6	3.1
Red Clear	2.4	1.5	3.0	2.6	1.5	3.0
Added Initial *	-	1.5	-	-	1.5	-
Maximum Initial *	-	34	-	-	34	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	30	-	-	30	-
Minimum Gap	-	3.0	-	-	3.0	-
Advance Walk	-	-	-	-	-	-
Non Lock Detector	X	-	X	X	-	X
Vehicle Recall	-	MIN RECALL	-	-	MIN RECALL	-
Dual Entry	-	-	X	-	-	X

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Division 4 Wilson County Wilson

PLAN DATE:	September 2024	REVIEWED BY:	JT Stiff
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PREPARED BY:	MF Evans	REVIEWED BY:	PL Alexander
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REVISIONS	INIT.	DATE
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SEAL

NORTH CAROLINA

PROFESSIONAL

SEAL
056276

ENGINEER

JAMES T. STIFF

by: *Stiff*

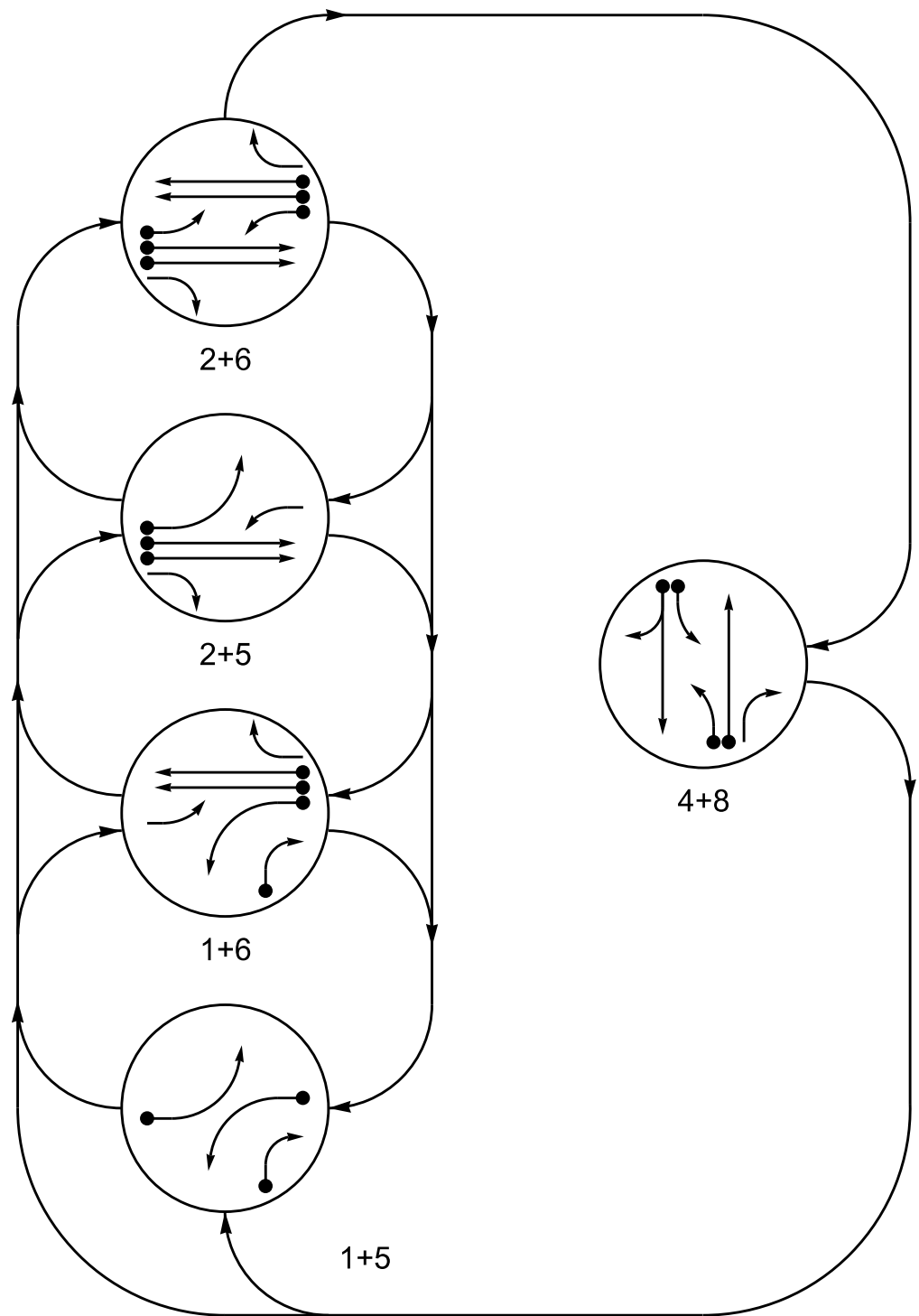
2/28/2025

DATE

INVENTORY NO. 04-1304

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 82.0

PHASING DIAGRAM



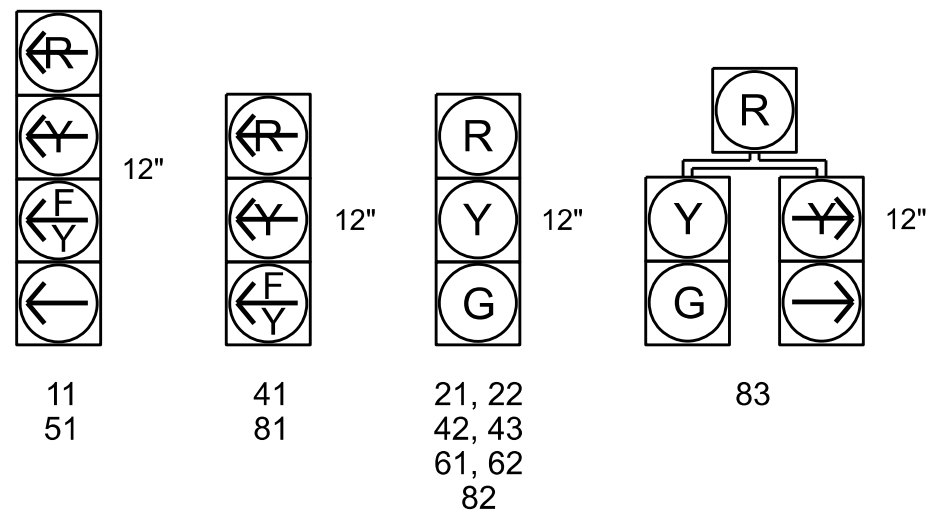
PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE					
	1 + 5	1 + 6	2 + 5	2 + 6	4 + 8	FLASH
11	←	←	↖	↖	↗	↗
21, 22	R	R	G	G	R	R
41	↗	↗	↖	↖	↗	↗
42, 43	R	R	R	R	G	R
51	←	↖	←	↖	↗	↗
61, 62	R	G	R	G	R	R
81	↗	↗	↖	↖	↗	↗
82	↗	↗	R	R	G	R
83	↗	↗	R	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME DETECTOR INSTALLATION CHART										
DETECTOR					PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN
1A	6X40	0	2-4-2	-	1	15.0	-	X	-	X
					6	3.0	-	X	-	X
1B	6X40	0	2-4-2	-	1	15.0	-	X	-	X
2A	6X6	300	4	-	2	-	-	X	X	X
2B	6X6	300	4	-	2	-	-	X	X	X
4A	6X40	0	2-4-2	-	4	-	-	X	-	X
4B	6X40	0	2-4-2	-	4	10.0	-	X	-	X
5A	6X40	0	2-4-2	-	5	15.0	-	X	-	X
					2	3.0	-	X	-	X
6A	6X6	300	6	-	6	-	-	X	X	X
6B	6X6	300	6	-	6	-	-	X	X	X
8A	6X40	0	2-4-2	-	8	-	-	X	-	X
8B	6X40	0	2-4-2	-	8	-	-	X	-	X

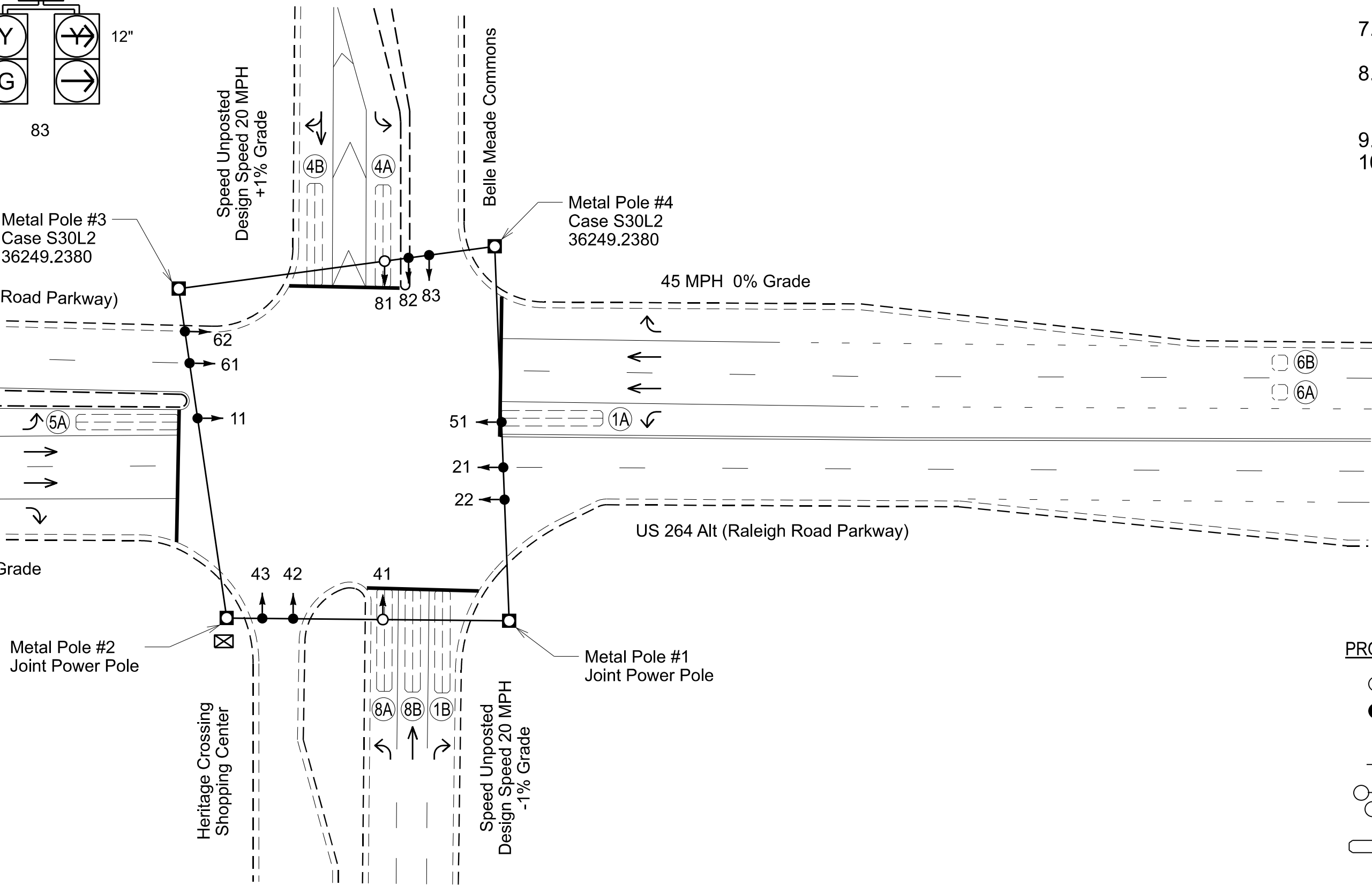
5 Phase
Fully Actuated
Wilson Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Reposition existing signal heads numbered 41, 42, 81 and 82.
- Renumber signal heads 11, 21, 22, 41, 42, 51, 61, 62, 81 and 82 as 51, 61, 62, 82, 83, 11, 21, 22, 42 and 43 respectively.
- Renumber loops 1A, 2A, 2B, 4A, 4B, 5A, 5B, 6A, 6B, 8A and 8B as 5A, 6A, 6B, 8A, 8B, 1A, 1B, 2A, 2B, 4A and 4B respectively.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

MAXTIME TIMING CHART						
FEATURE	PHASE					
	1	2	4	5	6	8
Walk *	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Min Green *	7	12	7	7	12	7
Passage *	2.0	6.0	2.0	2.0	6.0	2.0
Max 1 *	30	90	30	30	90	30
Yellow Change	3.0	4.5	3.0	3.0	4.5	3.0
Red Clear	3.2	1.8	3.5	3.3	1.8	3.5
Added Initial *	-	1.5	-	-	1.5	-
Maximum Initial *	-	34	-	-	34	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	45	-	-	45	-
Minimum Gap	-	3.0	-	-	3.0	-
Advance Walk	-	-	-	-	-	-
Non Lock Detector	X	-	X	X	-	X
Vehicle Recall	-	MIN RECALL	-	-	MIN RECALL	-
Dual Entry	-	-	X	-	-	X

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.



LEGEND

- | PROPOSED | | EXISTING |
|----------|-------------------------------|----------|
| | Traffic Signal Head | |
| | Modified Signal Head | |
| | Sign | |
| | Pedestrian Signal Head | |
| | Signal Pole with Guy | |
| | Signal Pole with Sidewalk Guy | |
| | Inductive Loop Detector | |
| | Controller & Cabinet | |
| | Junction Box | |
| | 2-in Underground Conduit | |
| | Right of Way | |
| | Directional Arrow | |
| | Metal Strain Pole | |

Signal Upgrade

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

US 264 Alt (Raleigh Road Parkway)
at
Heritage Crossing/
Belle Meade Commons

Division 4 Wilson County Wilson

PLAN DATE: September 2024 REVIEWED BY: TJ Williams

PREPARED BY: JT Stiff REVIEWED BY: PL Alexander

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

Anthony Encinas 2/28/2025

SIG. INVENTORY NO. 04-1328

(remove jumpers and set switches as shown)

(remove jumpers and set switches as shown)

18 CHANNEL PROGRAM CARD

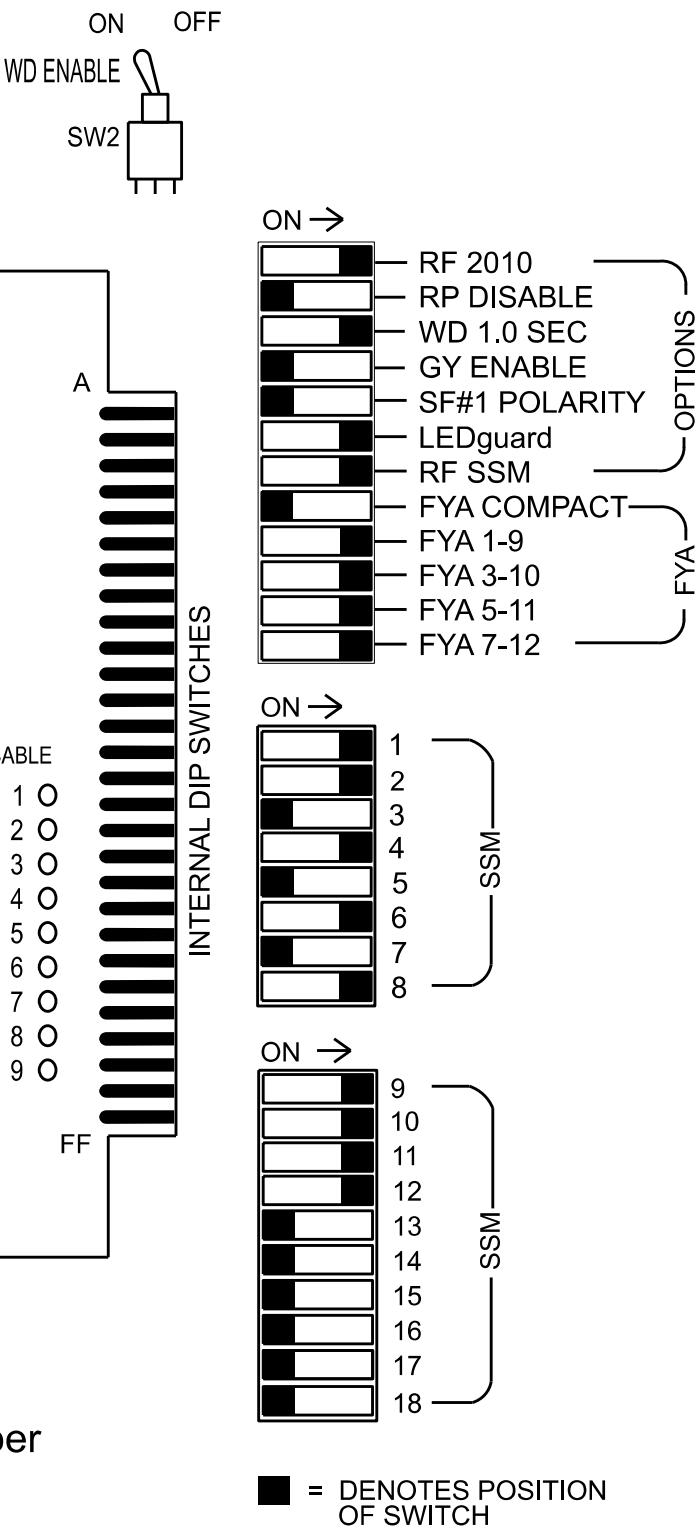
COMPONENT SIDE

YELLOW DISABLE

☐ 10	☐ 10	☐ 1	☐ 0
☐ 11	☐ 10	☐ 2	☐ 0
☐ 12	☐ 10	☐ 3	☐ 0
☐ 13	☐ 10	☐ 4	☐ 0
☐ 14	☐ 10	☐ 5	☐ 0
☐ 15	☐ 10	☐ 6	☐ 0
☐ 16	☐ 10	☐ 7	☐ 0
☐ 17	☐ 10	☐ 8	☐ 0
☐ 18	☐ 10	☐ 9	☐ 0

TABLE 1

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.



1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.

3. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.

Controller.....	2070LX
Cabinet.....	332 w/ Aux
Software.....	Q-Free MAXTIME
Cabinet Mount.....	Base
Output File Positions.....	18 With Aux. Output File
Load Switches Used.....	S1, S2, S5, S7, S8, S11, AUX S1, AUX S2, AUX S4, AUX S5
Phases Used.....	1, 2, 4, 5, 6, 8
Overlap "1".....	*
Overlap "2".....	*
Overlap "3".....	*
Overlap "4".....	*

[illegible]

* Denotes install load resistor. See load resistor installation detail this sheet.
 ★ See pictorial of head wiring in detail this sheet.

(front view)

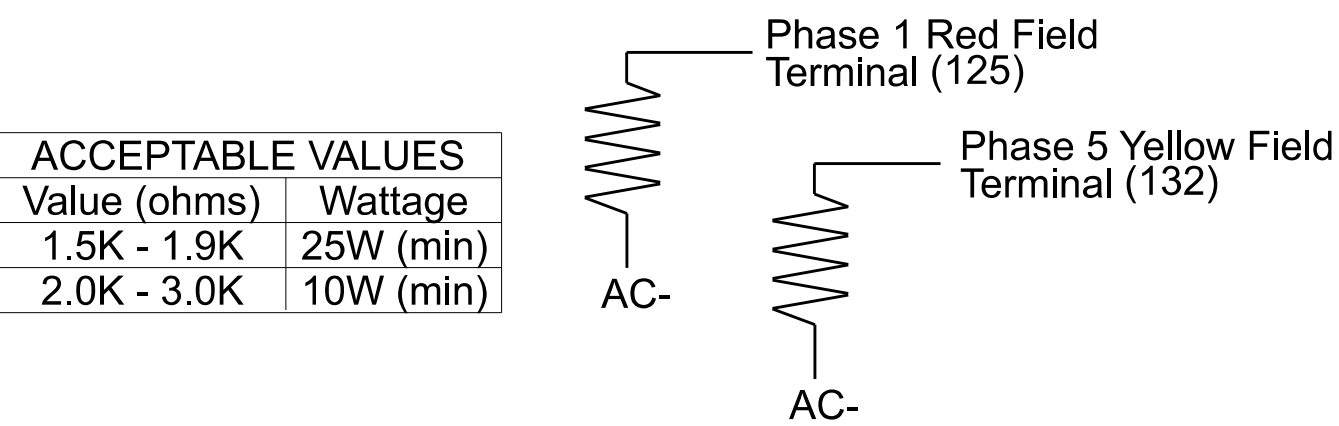
EX. : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

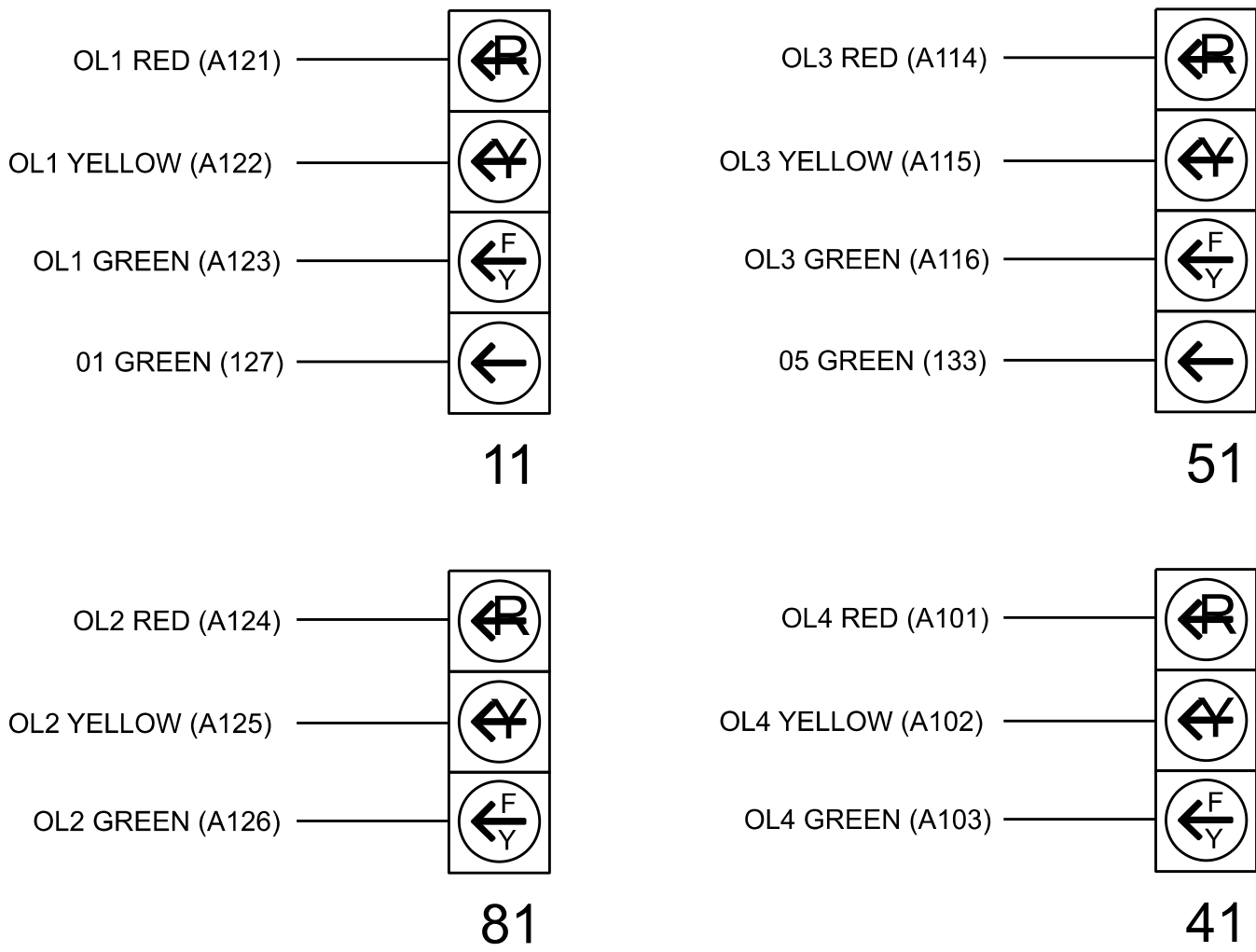
LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1	1	15.0		X		X	X
				-	29	6	3.0		X		X	
1B	TB2-5,6	I2U	39	1	2	1	15.0		X		X	
2A	TB2-9,10	I3U	63	29	4	2			X	X	X	
2B	TB2-11,12	I3L	76	42	5	2			X	X	X	
4A	TB4-9,10	I6U	41	3	8	4			X		X	
4B	TB4-11,12	I6L	45	7	9	4	10.0		X		X	
5A	TB3-1,2	J1U	55	17	15	5	15.0		X		X	X
				-	31	2	3.0		X		X	
6A	TB3-5,6	J2U	40	2	16	6			X	X	X	
6B	TB3-7,8	J2L	44	6	17	6			X	X	X	
8A	TB5-9,10	J6U	42	4	22	8			X		X	
8B	TB5-11,12	J6L	46	8	23	8			X		X	

FILE J _____
SLOT 2 _____
LOWER _____

(install resistors as shown)



(wire signal heads as shown)



THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1328
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 1 of 2

Electrical and Programming
Details For:

Prepared for the Offices of:

Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Traffic & Signals Management Section

750 N. Greenfield Pkwy, Garner, NC 27529

Wilson County

Division 4 Wilson County

PLAN DATE:	December 2024
------------	---------------

PREPARED BY: JT Stiff

REVISIONS

.....

.....

.....

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEA

A circular professional engineer seal for the State of North Carolina. The outer ring contains the text "NORTH CAROLINA" at the top and "ANTHONY M. ENCARNACION" at the bottom. Inside this ring, the word "PROFESSIONAL" is at the top and "ENGINEER" is at the bottom. In the center of the seal, the word "SEAL" is positioned above the license number "044476".

Declassified by

Anthony Encarnacion

77A90A4D39E34D8...

SIG. INVENTORY NO.

OVERLAP PROGRAMMING

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps
Overlap Plan 1

Overlap	1	2	3	4
Type	FYA 4 - Section	FYA 4 - Section	FYA 4 - Section	FYA 4 - Section
Included Phases	2	4	6	8
Modifier Phases	1	-	5	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

MAXTIME STARTUP AND SOFTWARE FLASH PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters

StartUp Clearance Hold
6

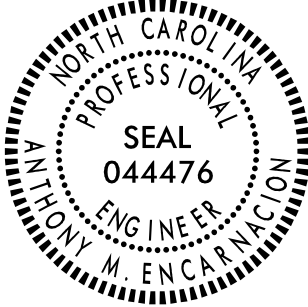
Unit Flash Parameters

All Red Flash Exit Time
6

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1328
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Electrical and Programming Details For: Prepared for the Offices of:  750 N. Greenfield Pkwy, Garner, NC 27529	US 264 Alt (Raleigh Road Parkway) at Heritage Crossing/ Belle Meade Commons			SEAL 
	Division 4Wilson CountyWilson			
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion		
	PREPARED BY: JT Stiff	REVIEWED BY: PL Alexander		
	REVISIONS		INIT.	


1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

DocuSigned by: <i>Anthony Encarnacion</i>	2/28/2025
SIG. INVENTORY NO.	DATE
04-1328	

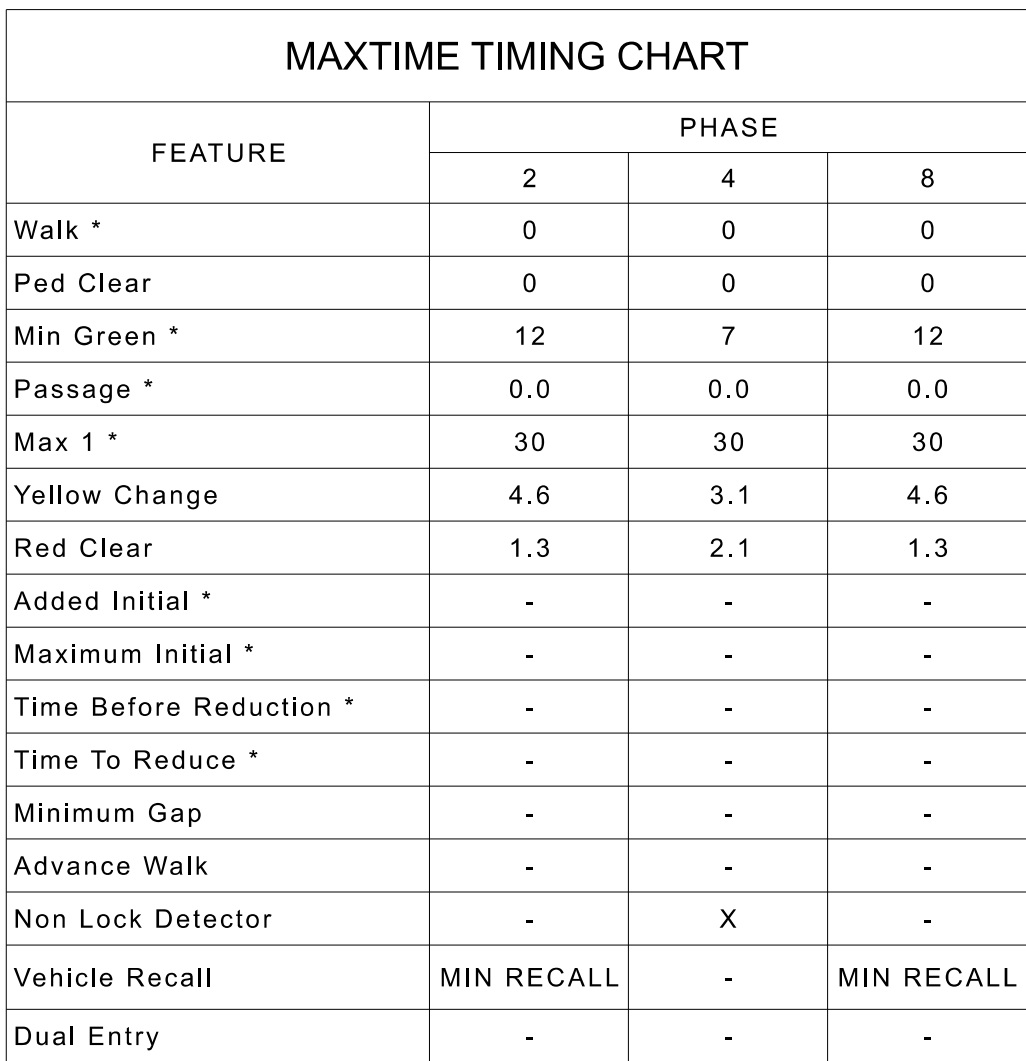
Diagram illustrating the relationship between two sets of parallel lines. The left circle contains two sets of three parallel lines, labeled $2+6$. The right circle contains a single line with a dot at its end, labeled 4 (Preempt 2). Arrows indicate a flow from the left circle to the right circle and back.

	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.

21, 22
61, 62

41, 42



MAXTIME PREEMPTION CHART	
FUNCTION	PRE 2
Type	EMERG VEH
Exit Phases	2, 6
Delay	**
Max Presence	0
Enter Min Green	1
Enter Walk	0
Enter Ped Clear	255*
Enter Yellow Change	25.5*
Enter Red Clear	25.5*
Track Green	0
Track Yellow Change	25.5*
Track Red Clear	25.5*
Dwell Green	**
Exit Min Green	255*
Exit Yellow Change	25.5*
Exit Red Clear	25.5*
Call Extend Time	0.0
Exit Type	EXIT PHASES
Ped Clear Through Yellow	-
Require All Red Entry	N

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
4. Pavement markings are existing.
5. Emergency vehicle preemption switch is located in the fire station.
6. The Division Traffic Engineer will determine the Delay Time and Preempt Dwell Green Time for the emergency vehicle preemption timing.
7. Clear signal heads 21, 22, 61 and 62 from flashing 8" yellow to steady 12" yellow during interval 1 and steady red during interval 2.
8. Signal heads 41 and 42 are dark during normal operation, steady red during clear before preemption dwell time, then clear to yellow and red.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Metal Strain Pole	
(A)	"STOP HERE ON RED" Sign (R10-6)	(A)
(B)	"EMERGENCY SIGNAL" Sign (R10-13)	(B)

Prepared for the Offices of: 	SR 1165 (Forest Hills Road) at City of Wilson Fire Station 2	SEAL 									
750 N. Greenfield Pkwy, Garner, NC 27529											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Division 4</td> <td style="width: 33%;">Wilson County</td> <td style="width: 33%;">Wilson</td> </tr> <tr> <td>PLAN DATE: October 2024</td> <td colspan="2">REVIEWED BY: AM Encarnacion</td> </tr> <tr> <td>PREPARED BY: JT Stiff</td> <td colspan="2">REVIEWED BY: PL Alexander</td> </tr> </table>			Division 4	Wilson County	Wilson	PLAN DATE: October 2024	REVIEWED BY: AM Encarnacion		PREPARED BY: JT Stiff	REVIEWED BY: PL Alexander	
Division 4	Wilson County	Wilson									
PLAN DATE: October 2024	REVIEWED BY: AM Encarnacion										
PREPARED BY: JT Stiff	REVIEWED BY: PL Alexander										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">REVISIONS</td> <td style="width: 20%;">INIT.</td> <td style="width: 20%;">DATE</td> </tr> <tr> <td style="height: 40px;"> </td> <td> </td> <td> </td> </tr> </table>			REVISIONS	INIT.	DATE						
REVISIONS	INIT.	DATE									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"> </td> <td style="width: 40%;"> Designed by: Anthony Encarnacion TRANSPORTATION ENGINEER 2/28/2025 DATE </td> </tr> <tr> <td style="text-align: center;"> SCALE 0 40 1"=40' </td> <td style="text-align: center;"> SIG. INVENTORY NO. 04-1357 </td> </tr> </table>				Designed by: Anthony Encarnacion TRANSPORTATION ENGINEER 2/28/2025 DATE	SCALE 0 40 1"=40'	SIG. INVENTORY NO. 04-1357					
	Designed by: Anthony Encarnacion TRANSPORTATION ENGINEER 2/28/2025 DATE										
SCALE 0 40 1"=40'	SIG. INVENTORY NO. 04-1357										

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

NOTE OVERLAP 7
AND YELLOW FLASH →

NOTE OVERLAP 9 →

NOTE OVERLAP 8
AND YELLOW FLASH →

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Overlap	7	X			2
3	Phase Vehicle	3		X	X	3
4	Overlap	9		X		4
5	Phase Vehicle	5		X		5
6	Overlap	8	X		X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

Front Panel
Main Menu >Controller >Preemption >Preempt Phasing/Preempt Parameters

Web Interface
Home >Controller >Preempt Configuration >Preempts

Preempt	2
Enabled	Enabled
Type	Emerg Veh
Track Phases	-
Track Overlaps	-
Dwell Phases	4
Dwell Peds	-
Dwell Overlaps	9
Cycling Phases	-
Cycling Peds	-
Cycling Overlaps	-
Exit Phases	2,6
Exit Overlaps	7,8
Delay	**
Call Ext Time	1.0
Max Presence	0
Max Pres Act	Terminate
Enter Min Green	1
Enter Walk	0
Enter Ped Clear	255
Enter Yellow Change	25.5
Enter Red Clear	25.5
Track Green	0
Track Yellow Clr	25.5
Track Red Clear	25.5
Dwell Green	**
Exit Min Green	255
Exit Yellow Change	25.5
Exit Red Clear	25.5
Exit Type	Exit Phases
Non Locking Memory	-
Not Ovrd Flash	X
Not Ovrd Nxt Pre	-
Require All Red Entry	-
Track Clear Ovrd	X
Ped Clear During Yellow	-
Entry Omit OLTG	-
Track Reserve	-

** Denotes to be determined in the field

Front Panel
Main Menu >Controller >More >Advance IO >Output Points

Web Interface
Home >Advanced IO >Cabinet Configuration >Output Points

IO Module 1

Output Point	Description	Output Control Type	Index
33	C1-35	Channel Green Walk Driver	33

Front Panel
Main Menu >Controller >Overlap >Custom Overlap Rules

Web Interface
Home >Controller >Overlap Configuration >Custom Overlap Rules

Rule	Custom Overlap	Included Phase State	Modifier Phase State	Modifier Overlap State	Negative Phase State	Output	Flash
1	Custom 1	Green	Any	Any	Any	Green	Not Set
2	Custom 1	Yellow	Any	Any	Any	Yellow	Not Set
3	Custom 1	Any	Green	Any	Any	Blank	Not Set

Front Panel
Main Menu >Controller >More >User Programs >Definition

Web Interface
Home >Controller >User Programs Configuration >User Programs Definition

Statement	Result	Index	Operation	Parameter A	Index	Parameter B	Index	Delay	Ext
1	Phase Phase Omit	4	Result=IA	Preempt Input	2	-	-	0.0	0.0
2	Global Variable	33	Result=(A OR B)	Preempt Input	2	Preempt Status	2	0.0	0.0

Statement 1 Description: Omits phase 4 while not in Preempt 2
Statement 2 Description: Turn pilot lamp on during preemption

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1357
DESIGNED: OCTOBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 3

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Electrical and Programming
Details For:

Prepared for the Offices of:

The seal of the North Carolina Department of Transportation is circular. It features a stylized black and white graphic of a road or path leading towards a horizon. The text "TRANSPORTATION MOBILITY AND SAFETY DIVISION" is written in a circle around the top, and "NORTH CAROLINA" is written around the bottom. Below the seal, the text "U.S. DEPARTMENT OF TRANSPORTATION" is visible.

ITS & Signals Management Section

750 N. Greenfield Pkwy, Garner, NC 27529

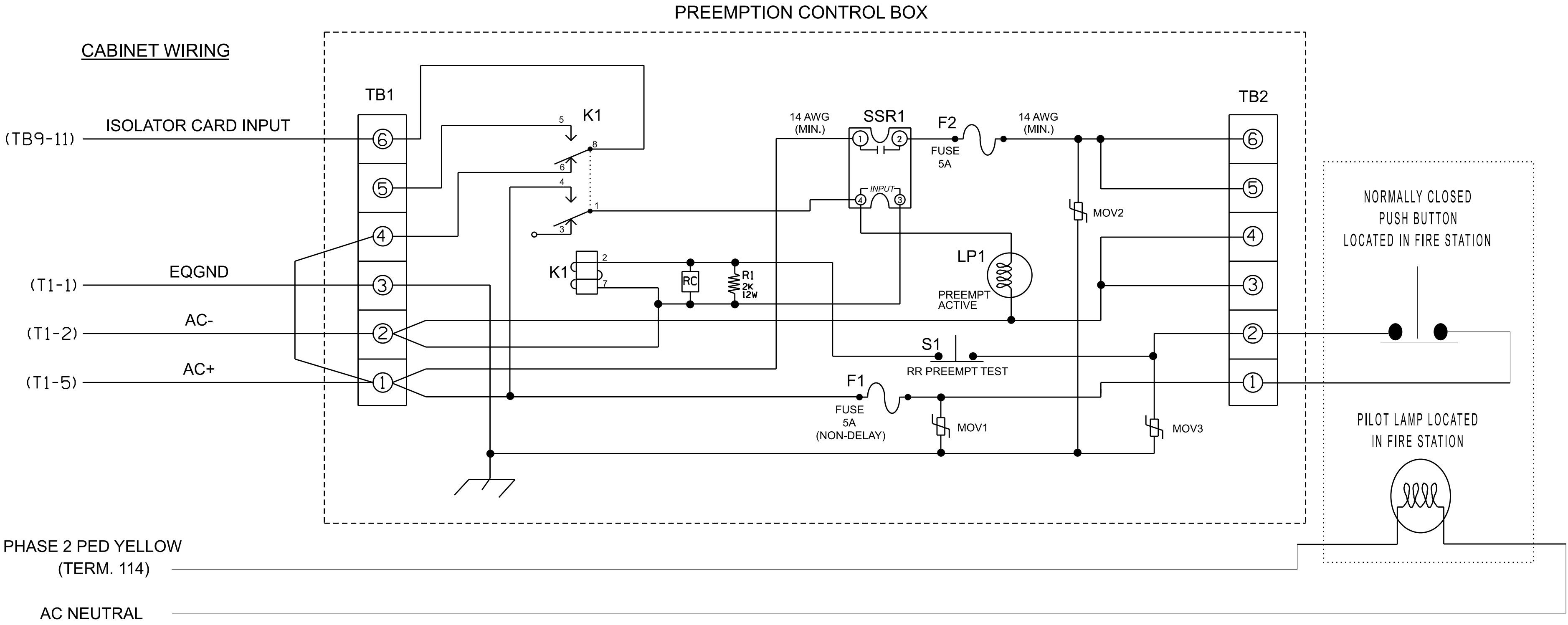
[illegible]

Seal of the Professional Engineer, North Carolina. The seal is circular with a double-lined border. The outer ring contains the text "NORTH CAROLINA" at the top and "ANTHONY M. ENCARNACION" at the bottom. The inner circle contains the text "PROFESSIONAL ENGINEER" around the perimeter, "SEAL" in the center, and the license number "044476" below it. Below the seal, the text "DocuSigned by: Anthony Encarnacion" is visible, along with the date "2/28/2025" and a signature line.

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 83.3

EV Preemption Control Box Wiring Detail

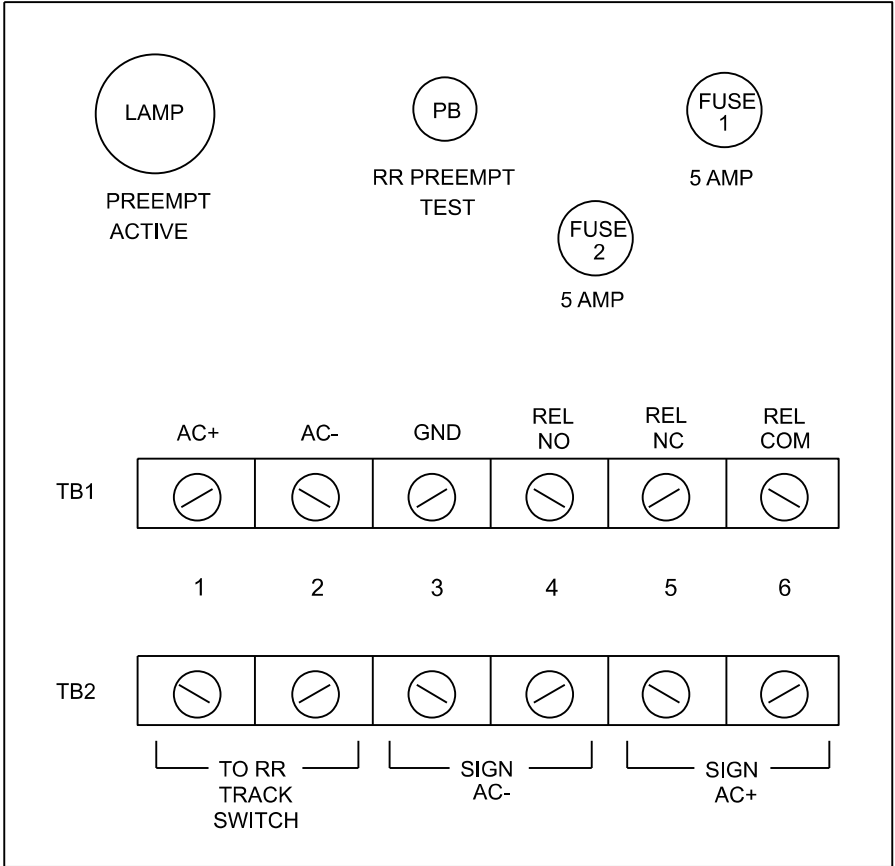
(wire as shown below)



NOTES

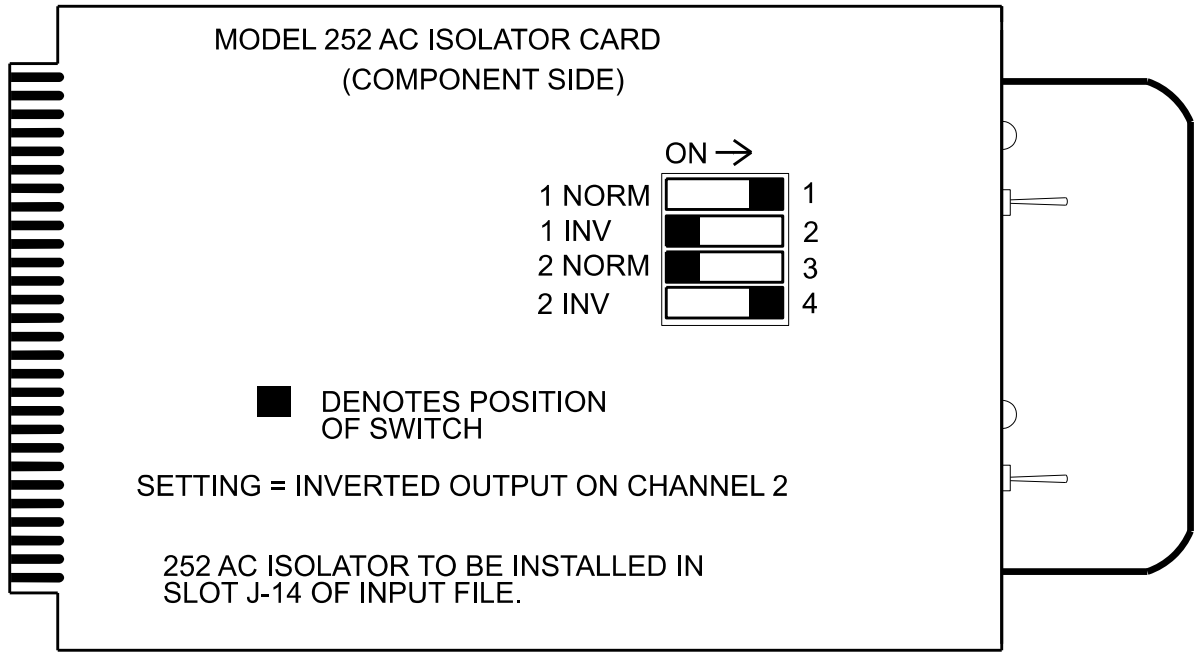
- Relay K1 is shown in the energized (Preempt not active) normal operation state.
- Relay 'K1' is an enclosed DPDT general purpose relay with a 120VAC coil, 10A contacts, and octal-style plug.
- Relay SSR1 is a SPST (normally open) Solid State Relay with AC input and AC (25 amp) output.
- AC Isolator Card shall activate preemption upon removal of AC+ from the input (as shown above). To accomplish this, set invert dip switch on AC Isolator Card.
- IMPORTANT!! Terminal TB9-12 (on input panel) shall be connected to AC neutral (jumper may have to be added).

FRONT VIEW



PREEMPT 2 AC ISOLATOR (MODEL 252) OUTPUT PROGRAMMING DETAIL

(set DIP switches as shown below)



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 04-1357
DESIGNED: OCTOBER 2024
SEALED: 02-28-2025
REVISED: N/A

AtkinsRéal
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Electrical Detail - Sheet 3 of 3

Electrical and Programming Details For:

Prepared for the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529

SR 1165 (Forest Hills Road) at
City of Wilson Fire Station 2

Division 4Wilson CountyWilson

PLAN DATE: January 2025REVIEWED BY: AM Encarnacion

PREPARED BY: JT StiffREVIEWED BY: PL Alexander

REVISIONSINIT. DATE

DocuSigned by:
Anthony Encarnacion
27880403024628

2/28/2025

DATE

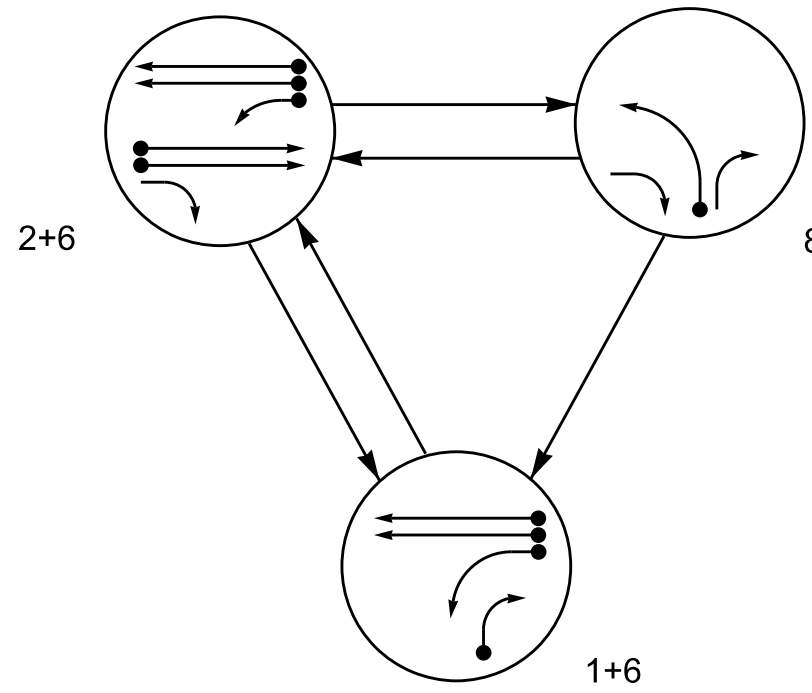
SIG. INVENTORY NO. 04-1357

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 84.0

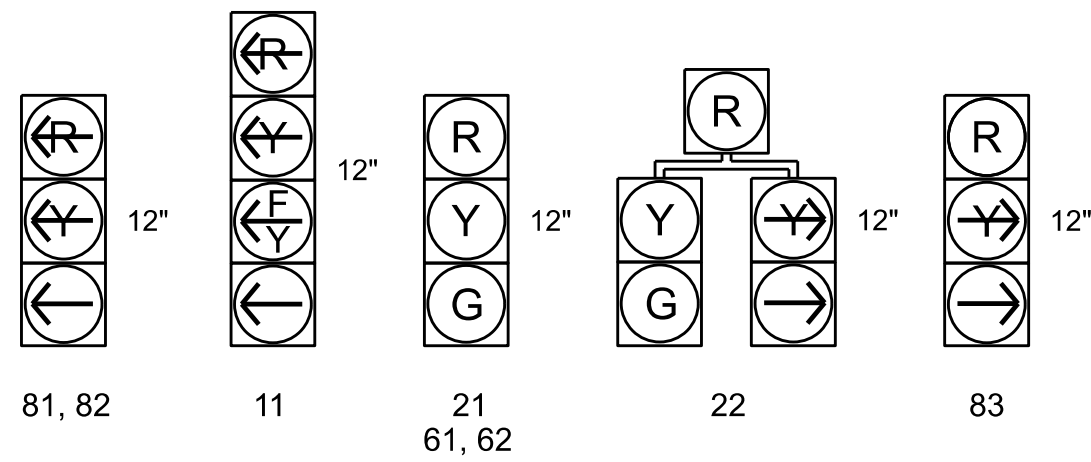
PHASING DIAGRAM



SIGNAL FACE	PHASE			
	1 + 6	2 + 6	8	F A C E S
11	←	←	←	←
21	R	G	R	R
22	R	G	R	R
61, 62	G	G	R	R
81, 82	←	←	←	←
83	→	R	→	R

SIGNAL FACE I.D.

All Heads L.E.D.



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

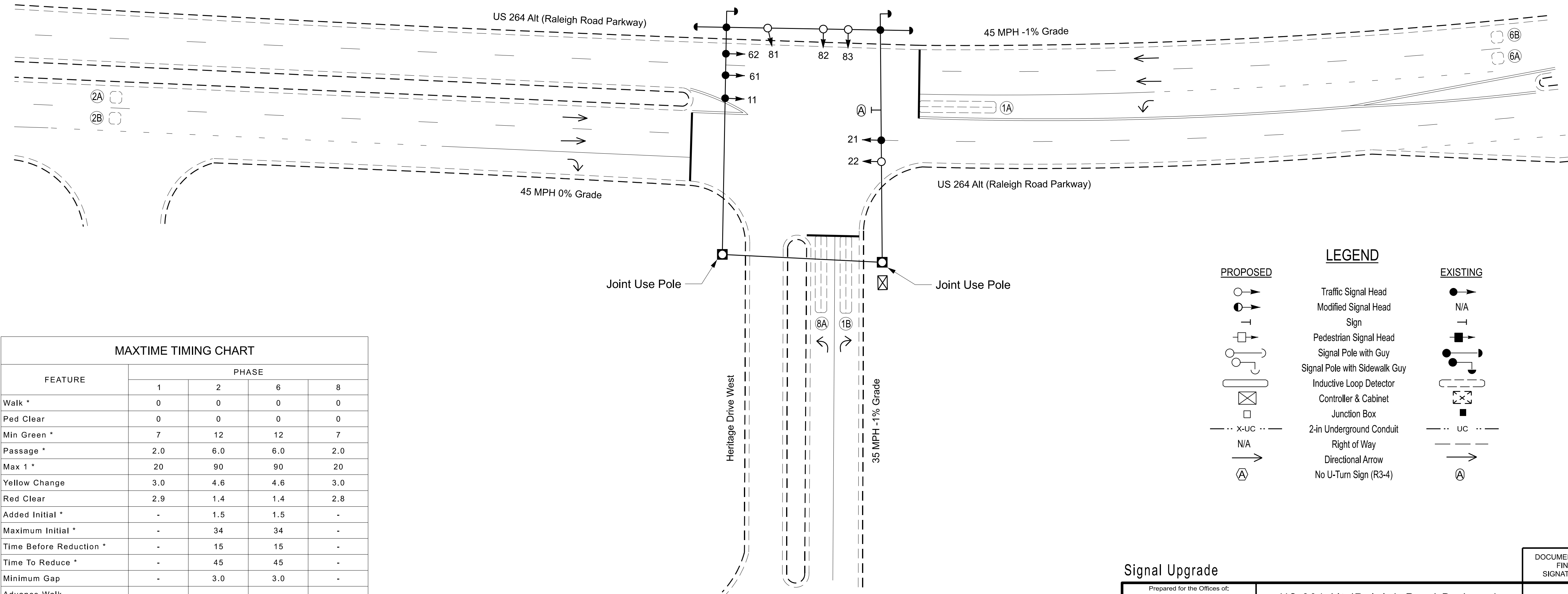
MAXTIME DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN	NEW CARD
1A	6X40	0	2-4-2	-	1	15.0	-	X	-	X	-
					6	3.0	-	X	-	X	X
1B	6X40	0	2-4-2	-	1	15.0	-	X	-	X	-
2A	6X6	300	5	-	2	-	-	X	X	X	-
2B	6X6	300	5	-	2	-	-	X	X	X	-
6A	6X6	300	5	-	6	-	-	X	X	X	-
6B	6X6	300	5	-	6	-	-	X	X	X	-
8A	6X40	0	2-4-2	-	8	-	-	X	-	X	-

3 Phase
Fully Actuated
Wilson Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 may be lagged.
- Reposition existing signal head numbered 21.
- Renumber loop 8B as 1B.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



MAXTIME TIMING CHART				
FEATURE	PHASE			
	1	2	6	8
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Min Green *	7	12	12	7
Passage *	2.0	6.0	6.0	2.0
Max 1 *	20	90	90	20
Yellow Change	3.0	4.6	4.6	3.0
Red Clear	2.9	1.4	1.4	2.8
Added Initial *	-	1.5	1.5	-
Maximum Initial *	-	34	34	-
Time Before Reduction *	-	15	15	-
Time To Reduce *	-	45	45	-
Minimum Gap	-	3.0	3.0	-
Advance Walk	-	-	-	-
Non Lock Detector	X	-	-	X
Vehicle Recall	-	MIN RECALL	MIN RECALL	-
Dual Entry	-	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

PROPOSED	EXISTING
Traffic Signal Head	Traffic Signal Head
Modified Signal Head	N/A
Sign	Sign
Pedestrian Signal Head	Pedestrian Signal Head
Signal Pole with Guy	Signal Pole with Guy
Signal Pole with Sidewalk Guy	Signal Pole with Sidewalk Guy
Inductive Loop Detector	Inductive Loop Detector
Controller & Cabinet	Controller & Cabinet
Junction Box	Junction Box
2-in Underground Conduit	2-in Underground Conduit
Right of Way	Right of Way
Directional Arrow	Directional Arrow
No U-Turn Sign (R3-4)	No U-Turn Sign (R3-4)

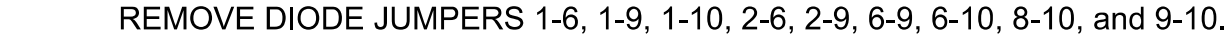
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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Signal Upgrade

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529	US 264 Alt (Raleigh Road Parkway) at Heritage Drive West Division 4 Wilson County Wilson PLAN DATE: September 2024 REVIEWED BY: TJ Williams PREPARED BY: JT Sutton REVIEWED BY: PL Alexander	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024393 MORTY J. WILLIAMS Signed by: DATE: 2/28/2025 SIG. INVENTORY NO. 04-1372
--	--	---

(remove jumpers and set switches as shown)

(remove jumpers and set switches as shown)



REMOVE JUMPERS AS SHOWN

NOTES:

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.

(front view)

EX. : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps
Overlap Plan 1

Overlap	1	2	3	4
Type	FYA 4 - Section	Normal	Off	Off
Included Phases	2	1, 8	-	-
Modifier Phases	1	-	-	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.

2. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.

3. The cabinet and controller are part of the Wilson Signal System.

Controller.....	2070LX
Cabinet.....	332 w/ Aux
Software.....	Q-Free MAXTIME
Cabinet Mount.....	Base
Output File Positions.....	18 With Aux. Output File
Load Switches Used.....	S1, S2, S8, S11, AUX S1, AUX S2
Phases Used.....	1, 2, 6, 8
Overlap "1".....	*
Overlap "2".....	*
Overlap "3".....	NOT USED
Overlap "4".....	NOT USED

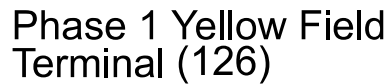
*See overlap programming detail on this sheet

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18 -	1 29	1 6	15.0 3.0	- -	X X	- -	X X	- X
1B	TB2-5,6	I2U	39	1	2	1	15.0	-	X	-	X	-
2A	TB2-9,10	I3U	63	29	4	2	-	-	X	X	X	-
2B	TB2-11,12	I3L	76	42	5	2	-	-	X	X	X	-
6A	TB3-5,6	J2U	40	2	16	6	-	-	X	X	X	-
6B	TB3-7,8	J2L	44	6	17	6	-	-	X	X	X	-
8A	TB5-9,10	J6U	42	4	22	8	-	-	X	-	X	-

INPUT FILE POSITION LEGEND: J2L

FILE J _____
SLOT 2 _____
LOWER _____

(install resistors as shown)



ACCEPTABLE VALUES	
Value (ohms)	Wattage
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



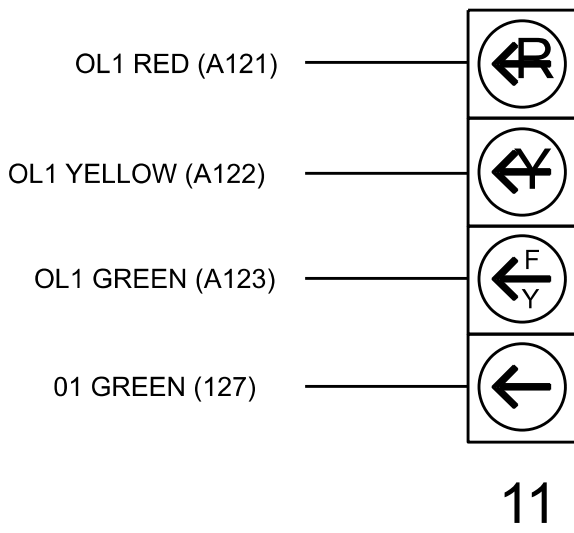
LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	11★	21,22	NU	NU	NU	NU	NU	61,62	NU	NU	81,82	22	NU	11★	83	NU	NU	NU
RED		128						134							A124			
YELLOW	★	129						135										
GREEN		130						136										
RED ARROW											107		A121					
YELLOW ARROW											108	108	A122	A125				
FLASHING YELLOW ARROW													A123					
GREEN ARROW	127										109	109			A126			

NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.

★ See pictorial of head wiring in detail this sheet.

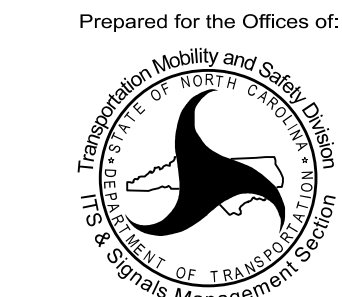
(wire signal heads as shown)



11

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1372
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 1 of 2

Electrical and Programming
Details For:

750 N. Greenfield Pkwy, Garner, NC 27529

US 264 Alt (Raleigh Road Parkway)
at
Heritage Drive West

Division 4 Wilson County Wilson

PLAN DATE: December 2024	REVIEWED BY: TJ Williams
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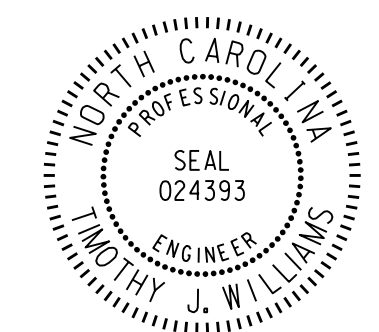
PREPARED BY: MR Day	REVIEWED BY: PL Alexander
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REVISIONS	INIT.	DATE
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DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEA



Signed by: _____ 2/28/2025

J. J. Williams 2/28/2023
FREC571CD880451 DATE

SIG. INVENTORY NO. 04-1372

FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

- 1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
- 2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
- 3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

MAXTIME STARTUP AND SOFTWARE FLASH PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters	Unit Flash Parameters
StartUp Clearance Hold	All Red Flash Exit Time
6	6

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 04-1372
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

DOCUMENT NOT CONSIDERED
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SIGNATURES COMPLETED

Electrical and Programming Details For:	US 264 Alt (Raleigh Road Parkway) at Heritage Drive West	SEAL NORTH CAROLINA PROFESSIONAL ENGINEER TIMOTHY J. WILLIAMS SEAL 024393
Prepared for the Offices of:	Division 4 Wilson County Wilson	
Seal of the State of North Carolina Department of Transportation Division of Traffic Management	PLAN DATE: December 2024 REVIEWED BY: TJ Williams	
	PREPARED BY: MR Day REVIEWED BY: PL Alexander	
	REVISIONS INIT. DATE	
750 N. Greenfield Pkwy, Garner, NC 27529		Signed by: <i>TJ Williams</i> 2/28/2025 DATE
		SIG. INVENTORY NO. 04-1372

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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

TABLE OF OPERATION			
SIGNAL FACE	PHASE		
	2 + 6	4 + 8	FLASH
21,22	G	R	R
41,42	R	G	R
61,62	G	R	R
81,82	R	G	R

8"

35 MPH 0% Grade

[illegible]

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
5. Pavement markings are existing.
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

FEATURE	PHASE			
	2	4	6	8
Walk *	0	0	0	0
Ped Clear *	0	0	0	0
Min Green *	10	7	10	7
Passage *	0.0	1.0	0.0	1.0
Max 1 *	45	25	45	25
Yellow Change	4.0	3.9	4.0	3.9
Red Clear	1.3	1.2	1.3	1.2
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	-	-	-	-
Non Lock Detector	-	-	-	-
Vehicle Recall	MAX RECALL	MAX RECALL	MAX RECALL	MAX RECALL
Dual Entry	-	-	-	-

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Prepared for the Offices of:



SCALE

0 20

1"=20'

Division 4 Wilson County Wilson

PLAN DATE:	August 2024	REVIEWED BY:	JT Stiff
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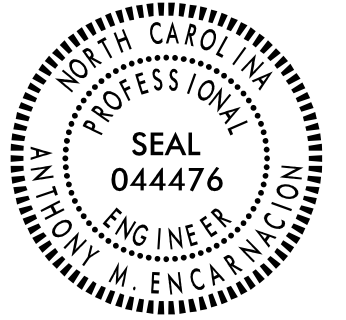
PREPARED BY:	JT Sutton	REVIEWED BY:	PL Alexander
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REVISIONS	INIT.	DATE
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SIGNATURES COMPLETED

SEAL



signed by: _____ 2/28/2025

AD39E34DB.. DATE

INVENTORY NO. COW-01

	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2 + 6	4 + 8	F L A S H
2 1, 2 2	G	R	R
4 1, 4 2	R	G	R
6 1, 6 2	G	R	R
8 1, 8 2	R	G	R

All Heads L.E.D.

8"

21, 22
41, 42
61, 62
81, 82

DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN	NEW CARD	
4 A	6 X 40	+5	2-4-2	-	4	5.0	-	X	-	X	-	X
8 A	6 X 40	+5	2-4-2	-	8	5.0	-	X	-	X	-	X

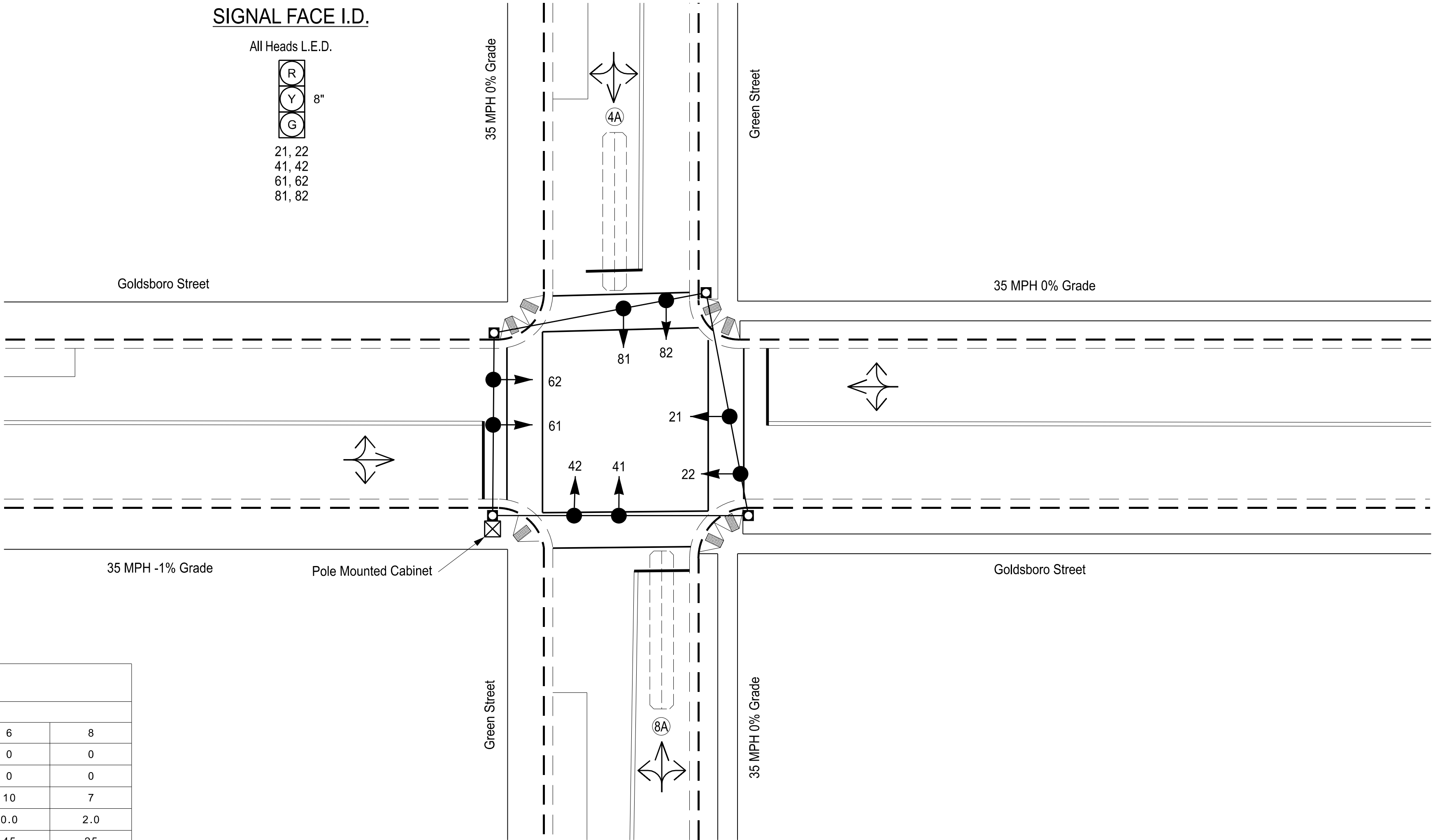
NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
5. Pavement markings are existing.
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Metal Strain Pole	
N/A	Curb Ramp	

FEATURE	PHASE			
	2	4	6	8
Walk *	0	0	0	0
Ped Clear *	0	0	0	0
Min Green *	10	7	10	7
Passage *	0.0	2.0	0.0	2.0
Max 1 *	45	25	45	25
Yellow Change	3.9	3.8	3.9	3.8
Red Clear	1.2	1.3	1.2	1.3
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	-	-	-	-
Non Lock Detector	-	X	-	X
Vehicle Recall	MAX RECALL	-	MAX RECALL	-
Dual Entry	-	X	-	X

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

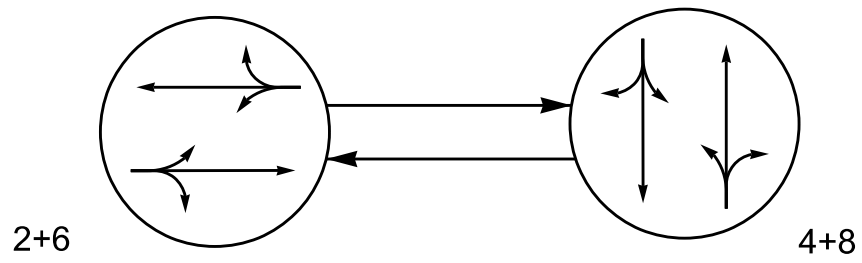


Prepared for the Offices of:		Goldsboro Street at Green Street		SEAL ANTHONY W. ENCARNACION PROFESSIONAL ENGINEER NORTH CAROLINA SEAL 044476																																		
		Division 4 Wilson County Wilson		PLAN DATE: August 2024 PREPARED BY: WL Larson REVIEWED BY: AM Encarnacion REVIEWED BY: PL Alexander																																		
		SCALE 1" = 20'		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">REVISIONS</th> <th style="width: 10%;">INIT.</th> <th style="width: 40%;">DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		REVISIONS	INIT.	DATE																														
REVISIONS	INIT.	DATE																																				
		REVISIONS 1" = 20'		Drawn by: <u>Anthony Encarnacion</u> TAGS/AD/RES/DOB: _____ 2/28/2025 DATE: _____ SIG. INVENTORY NO. COW-02																																		

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig 87.0

PHASING DIAGRAM



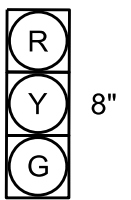
PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2+6	4+8	FLASH
21,22	G	R	R
41,42	R	G	R
61,62	G	R	R
81,82	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



21,22
41,42
61,62
81,82

MAXTIME DETECTOR INSTALLATION CHART											
DETECTOR						PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	URNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN	NEW CARD
S1	6X6	+100	EXIST	-	-	-	-	-	-	-	X
S2	6X6	+100	EXIST	-	-	-	-	-	-	-	X

2 Phase
Pre-Timed
Wilson Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

LEGEND

- PROPOSED

 - Traffic Signal Head
 - Modified Signal Head
 - Sign
 - Pedestrian Signal Head
 - Signal Pole with Guy
 - Signal Pole with Sidewalk Guy
 - Inductive Loop Detector
 - Controller & Cabinet
 - Junction Box
 - 2-in Underground Conduit
 - Right of Way
 - Directional Arrow
- EXISTING

 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A
 - N/A

MAXTIME TIMING CHART				
FEATURE	PHASE			
	2	4	6	8
Walk *	0	0	0	0
Ped Clear *	0	0	0	0
Min Green *	10	7	10	7
Passage *	0.0	0.0	0.0	0.0
Max 1 *	45	25	45	25
Yellow Change	3.8	3.8	3.8	3.8
Red Clear	1.3	1.3	1.3	1.3
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	-	-	-	-
Non Lock Detector	-	-	-	-
Vehicle Recall	MAX RECALL	MAX RECALL	MAX RECALL	MAX RECALL
Dual Entry	-	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Signal Upgrade

Division 4 Wilson County Wilson

PLAN DATE: August 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton REVIEWED BY: PL Alexander

REVISIONS INIT. DATE

Goldsboro Street at Vance Street

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

SEAL 044476

Anthony Encarnacion

2/28/2025

SIG. INVENTORY NO. COW-03

	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2 + 6	4 + 8	F L A S H
21, 22	G	R	R
41, 42	R	G	R
61, 62	G	R	R
81, 82	R	G	R
P21, P22	W	DW	DRK
P41, P42	DW	W	DRK
P61, P62	W	DW	DRK
P81, P82	DW	W	DRK

 8
 21, 22
 41, 42
 61, 62
 81, 82

16'

[illegible]

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. In the event of loop replacement, refer to the current TSMO Design Manual and submit a Plan of Record to the Signal Design Section.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. The cabinet should be designed to include an Auxiliary Output file for future use.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
9. Pavement markings are existing.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

 N/A

 .. UC ..

FEATURE	PHASE			
	2	4	6	8
Walk *	14	14	13	14
Ped Clear *	10	8	10	8
Min Green *	10	7	10	7
Passage *	0.0	2.0	0.0	2.0
Max 1 *	45	25	45	25
Yellow Change	3.8	3.9	3.8	3.9
Red Clear	1.4	1.4	1.4	1.4
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	7	7	7	7
Non Lock Detector	-	X	-	X
Vehicle Recall	MAX RECALL	-	MAX RECALL	-
Dual Entry	-	X	-	X

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Prepared for the Offices of



SCALE

0 20

1"=20'

Goldsboro Street
at
Nash Street

Division 4 Wilson County Wilson

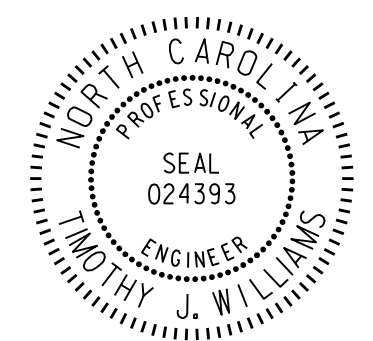
PLAN DATE:	August 2024	REVIEWED BY:	TJ Williams
------------	-------------	--------------	-------------

PREPARED BY:	WL Larson	REVIEWED BY:	PL Alexander
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REVISIONS	INIT.	DATE
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DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL



ated by: O Williams 2/28/2025

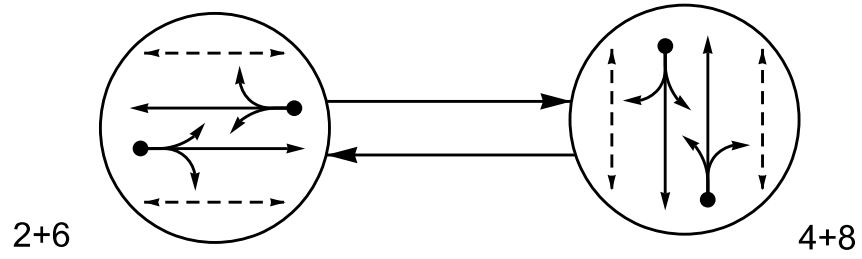
E4832DCFB4452... DATE

SIG. INVENTORY NO. COW-04



1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

PHASING DIAGRAM



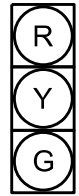
PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

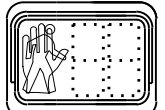
SIGNAL FACE	PHASE		
	2+6	4+8	FLASH
21, 22	G	R	R
41, 42	R	G	R
61, 62	G	R	R
81, 82	R	G	R
P21, P22	W	DW	DRK
P41, P42	DW	W	DRK
P61, P62	W	DW	DRK
P81, P82	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



8"



21,22
41,42
61,62
81,82

P21, P22
P41, P42
P61, P62
P81, P82

MAXTIME DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURN	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DURING GREEN	NEW CARD
2A	6X6	70	4	-	2	-	-	X	-	X	-
4A	6X40	0	2-4-2	-	4	3.0	-	X	-	X	-
6A	6X6	70	4	-	6	-	-	X	-	X	-
8A	6X40	0	2-4-2	-	8	3.0	-	X	-	X	-
S1	6X6	+90	4	-	-	-	-	-	-	-	X
S2	6X6	+90	4	-	-	-	-	-	-	-	X
S3	6X6	+75	4	-	-	-	-	-	-	-	X

2 Phase
Fully Actuated
Wilson Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- The cabinet should be designed to include an Auxiliary Output file for future use.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

LEGEND

PROPOSED

- Traffic Signal Head
- Modified Signal Head
- Sign
- Pedestrian Signal Head
- Inductive Loop Detector
- Controller & Cabinet
- Junction Box
- 2-in Underground Conduit
- Right of Way
- Directional Arrow
- Curb Ramp
- Metal Pole with Mastarm
- Metal Strain Pole

EXISTING

- N/A
- N/A
- N/A
- UC
- UC
- UC
- UC
- UC
- UC
- UC
- UC
- UC

MAXTIME TIMING CHART

FEATURE	PHASE			
	2	4	6	8
Walk *	14	14	14	13
Ped Clear *	10	9	9	8
Min Green *	10	7	10	7
Passage *	3.0	2.0	3.0	2.0
Max 1 *	40	25	40	25
Yellow Change	3.8	3.8	3.8	3.8
Red Clear	1.4	1.3	1.4	1.3
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	7	7	7	7
Non Lock Detector	-	X	-	X
Vehicle Recall	MIN RECALL	-	MIN RECALL	-
Dual Entry	-	X	-	X

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade

Prepared for the Offices of:	Tarboro Street at Nash Street		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
	Division 4	Wilson County	Wilson
	PLAN DATE:	August 2024	REVIEWED BY: AM Encarnacion
	PREPARED BY:	MF Evans	REVIEWED BY: PL Alexander
	REVISIONS	INIT.	DATE
1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326		Seal of the Professional Engineer Anthony Encarnacion 2/28/2025 DATE SIG. INVENTORY NO. COW-05	

(remove jumpers and set switches as shown)

(remove jumpers and set switches as shown)



1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.

- ## EQUIPMENT INFORMATION

SIGNAL HEAD HOOK-UP CHART

NU = Not Used

Front Panel

Main Menu >Controller >More>Channels>Channels Config

Web Interface

Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

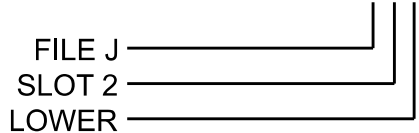
(front view)



LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
2A	TB2-5,6	I2U	39	1	2	2			X		X	
4A	TB4-9,10	I6U	41	3	8	4	3.0		X		X	
6A	TB3-5,6	J2U	40	2	16	6			X		X	
8A	TB5-9,10	J6U	42	4	22	8	3.0		X		X	
* S1	TB6-9,10	I9U	60	22	13	SYS						
* S2	TB6-11,12	I9L	62	24	14	SYS						
* S3	TB7-9,10	J9U	59	21	27	SYS						
PED PUSH BUTTONS												
P21,P22	TB8-4,6	I12U	67	33	2	PED 2	NOTE: INSTALL DC ISOLATORS IN INPUT FILE SLOTS I12 AND I13.					
P41,P42	TB8-5,6	I12L	68	35	4	PED 4						
P61,P62	TB8-7,9	I13U	68	34	6	PED 6						
P81,P82	TB8-8,9	I13L	70	36	8	PED 8						

*System detector only. Remove any assigned vehicle phase.

INPUT FILE POSITION LEGEND: J2L



Front Panel
Main Menu >Controller >Unit

Web Interface
Home > Controller > Unit

Modify parameters as shown below and save changes.

Start Up Parameters	Unit Flash Parameters
StartUp Clearance Hold	All Red Flash Exit Time
6	6

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

Electrical Detail

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Tarboro Street
at
Nash Street

Division 4 Wilson County Wilson

PLAN DATE: October 2024	REVIEWED BY: JT Stiff
PREPARED BY: MF Evans	REVIEWED BY: PL Alexander

REVISIONS	INIT.	DATE

Signed by: James Stiff 2/28/2025

SIG. INVENTORY NO. COW-05

	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2 + 6	4 + 8	FLASH
21, 22	G	R	R
41, 42	R	G	R
61, 62	G	R	R
81, 82	R	G	R
P21, P22	W	DW	DRK
P41, P42	DW	W	DRK
P61, P62	W	DW	DRK
P81, P82	DW	W	DRK

RYG 8

21, 22
41, 42
61, 62
81, 82



P21, P22
P41, P42
P61, P62
P81, P82

[illegible]

1. NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
5. The cabinet should be designed to include an Auxiliary Output file for future use.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. Pavement markings are existing.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

FEATURE	PHASE			
	2	4	6	8
Walk *	13	14	13	13
Ped Clear *	9	8	10	8
Min Green *	10	7	10	7
Passage *	3.0	2.0	3.0	2.0
Max 1 *	30	35	30	35
Yellow Change	3.8	3.9	3.8	3.9
Red Clear	1.3	1.3	1.3	1.3
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	6	7	6	7
Non Lock Detector	-	X	-	X
Vehicle Recall	MIN RECALL	-	MIN RECALL	-
Dual Entry	-	X	-	X

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

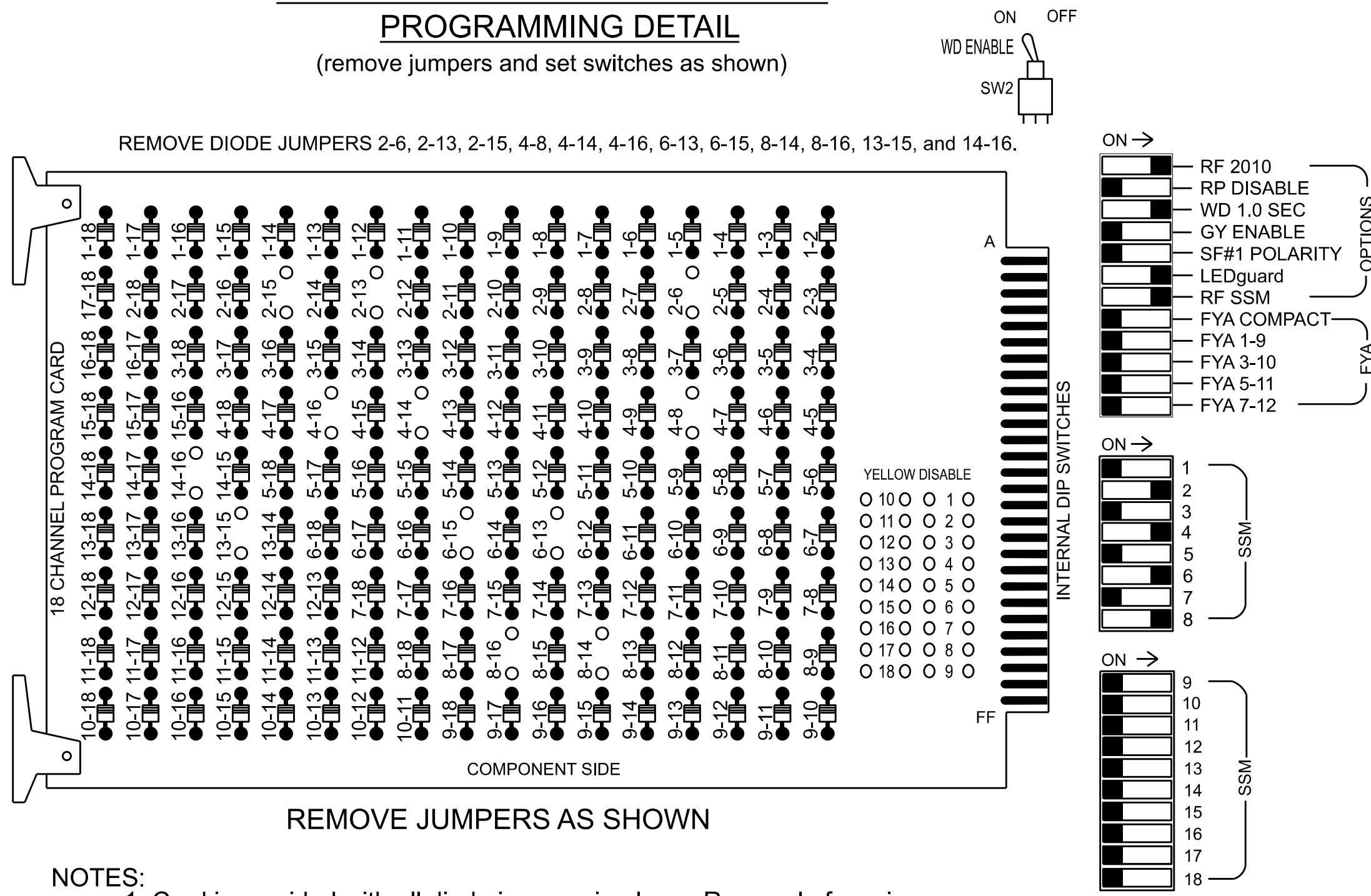
PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Metal Pole with Mastarm	
N/A	Curb Ramp	

Prepared for The Offices of:		Pine Street at Nash Street		SEAL 			
 NORTH CAROLINA		Division 4 Wilson County Wilson					
PLAN DATE: August 2024		REVIEWED BY: AM Encarnacion					
PREPARED BY: WL Larson		REVIEWED BY: PL Alexander					
SCALE 0 ————— 20 1"=20'		REVISIONS <table border="1" style="width: 100%; height: 100px; border-collapse: collapse;"> <tr><td> </td></tr> </table>			INIT. DATE <table border="1" style="width: 100%; height: 100px; border-collapse: collapse;"> <tr><td> </td></tr> </table>		
		Disc Signed by: <u>Anthony Encarnacion</u> 2/28/2025		DATE			
		T:\AD\0303\0303.DWG		DATE			
		SIG. INVENTORY NO.		COW-06			

28-EPB-2025_09x59
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DAYM6467

18 CHANNEL IP CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



REMOVE JUMPERS AS SHOWN

NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that the Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.

NOTES

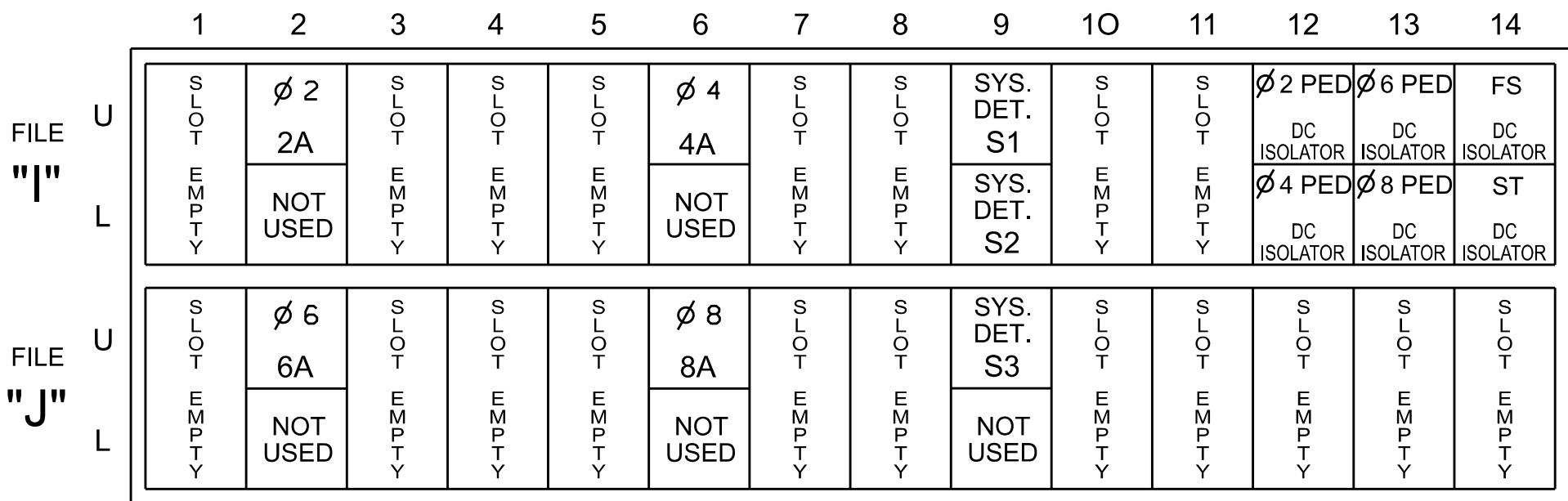
- To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
- Program phases 4 and 8 for Dual Entry.
- Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
- Program phases 2, 4, 6 and 8 for simultaneous start.
- The cabinet and controller are part of the Wilson Signal System.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S2, S3, S5, S6, S8, S9, S11, S12
Phases Used.....2, 2PED, 4, 4PED, 6, 6PED, 8, 8PED
Overlap "1".....NOT USED
Overlap "2".....NOT USED
Overlap "3".....NOT USED
Overlap "4".....NOT USED

INPUT FILE POSITION LAYOUT

(front view)



EX. : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

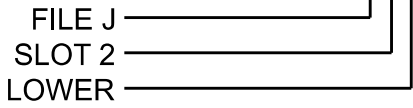
INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
2A	TB2-5,6	I2U	39	1	2	2			X		X	
4A	TB4-9,10	I6U	41	3	8	4	5.0		X		X	
*S1	TB6-9,10	I9U	60	22	13	SYS						
*S2	TB6-11,12	I9L	62	24	14	SYS						
6A	TB3-5,6	J2U	40	2	16	6			X		X	
8A	TB5-9,10	J6U	42	4	22	8	5.0		X		X	
*S3	TB7-9,10	J9U	59	21	27	SYS						
PED PUSH BUTTONS												
P21,P22	TB8-4,6	I12U	67	33	2	PED 2						
P41,P42	TB8-5,6	I12L	69	35	4	PED 4						
P61,P62	TB8-7,9	I13U	68	34	6	PED 6						
P81,P82	TB8-8,9	I13L	70	36	8	PED 8						

NOTE:
INSTALL DC ISOLATORS
IN INPUT FILE SLOTS
I12 AND I13.

*System detector only. Remove any assigned vehicle phase.

INPUT FILE POSITION LEGEND: J2L



MAXTIME STARTUP AND SOFTWARE FLASH
PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters
StartUp Clearance Hold
6

Unit Flash Parameters
All Red Flash Exit Time
6

COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: COW-06
DESIGNED: AUGUST 2024
SEALED: 02-28-2025
REVISED: N/A

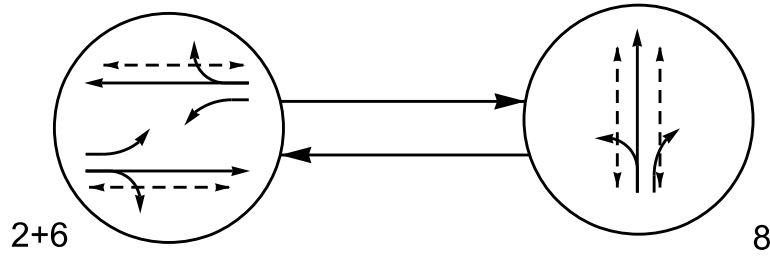
Electrical Detail

Electrical and Programming Details For:	Pine Street at Nash Street	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
Prepared for the Offices of:	Division 4 Wilson County Wilson	SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044476 ANTHONY M. ENCARNACION
	PLAN DATE: November 2024 REVIEWED BY: AM Encarnacion PREPARED BY: KG Sasaki REVIEWED BY: PL Alexander	REVISIONS INIT. DATE
		Decisigned by: Anthony Encarnacion 2/28/2025 DATE
		SIG. INVENTORY NO. COW-06

AtkinsRéalisis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 91.0

PHASING DIAGRAM



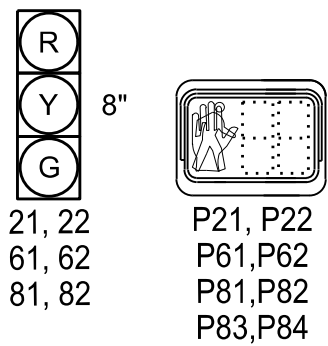
PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2+6	8	FLASH
21, 22	G	R	R
61, 62	G	R	R
81, 82	R	G	R
P21, P22	W	DW	DRK
P61, P62	W	DW	DRK
P81, P82, P83, P84	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



2 Phase
Pre-timed
Wilson Signal System

NOTES

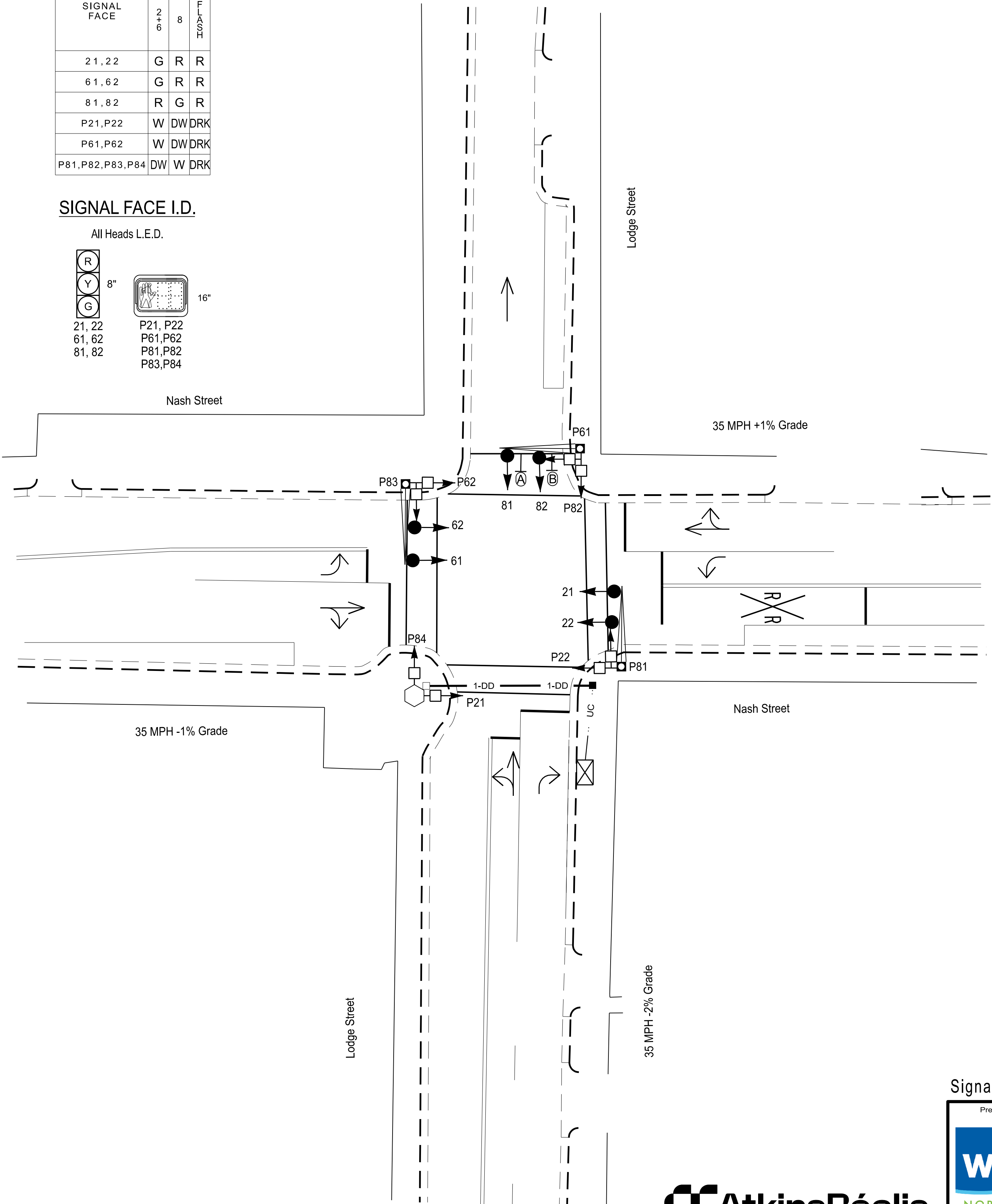
- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Replace existing 2-section pedestrian signal heads with new 1-section pedestrian signal heads.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	N/A
	Modified Signal Head	N/A
	Sign	N/A
	Pedestrian Signal Head	N/A
	Inductive Loop Detector	N/A
	Controller & Cabinet	N/A
	Junction Box	N/A
	2-in Underground Conduit	N/A
	Right of Way	N/A
	Directional Arrow	N/A
	Type II Signal Pedestal	N/A
	Metal Pole with Mastarm	N/A
	Directional Drill	N/A
	Combined Through and Left Arrow Sign (R3-6L)	N/A
	Right Arrow "ONLY" Sign (R3-5R)	N/A

MAXTIME TIMING CHART			
FEATURE	PHASE		
	2	6	8
Walk *	13	12	13
Ped Clear *	8	6	10
Min Green *	10	10	7
Passage *	0.0	0.0	0.0
Max 1 *	45	45	25
Yellow Change	3.9	3.9	4.0
Red Clear	1.3	1.3	1.3
Added Initial *	-	-	-
Maximum Initial *	-	-	-
Time Before Reduction *	-	-	-
Time To Reduce *	-	-	-
Minimum Gap	-	-	-
Advance Walk	6	6	6
Non Lock Detector	-	-	-
Vehicle Recall	MAX/PED RECALL	MAX/PED RECALL	MAX/PED RECALL
Dual Entry	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.



Signal Upgrade

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Division 4

Nash Street
at
Lodge Street

Wilson County

Wilson

PLAN DATE: August 2024

REVIEWED BY: AM Encarnacion

PREPARED BY: WL Larson

REVIEWED BY: PL Alexander

REVISIONS

INIT.

DATE

SCALE

0 20

1"=20'

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

SEAL 044476

Anthony Encarnacion

2/28/2025

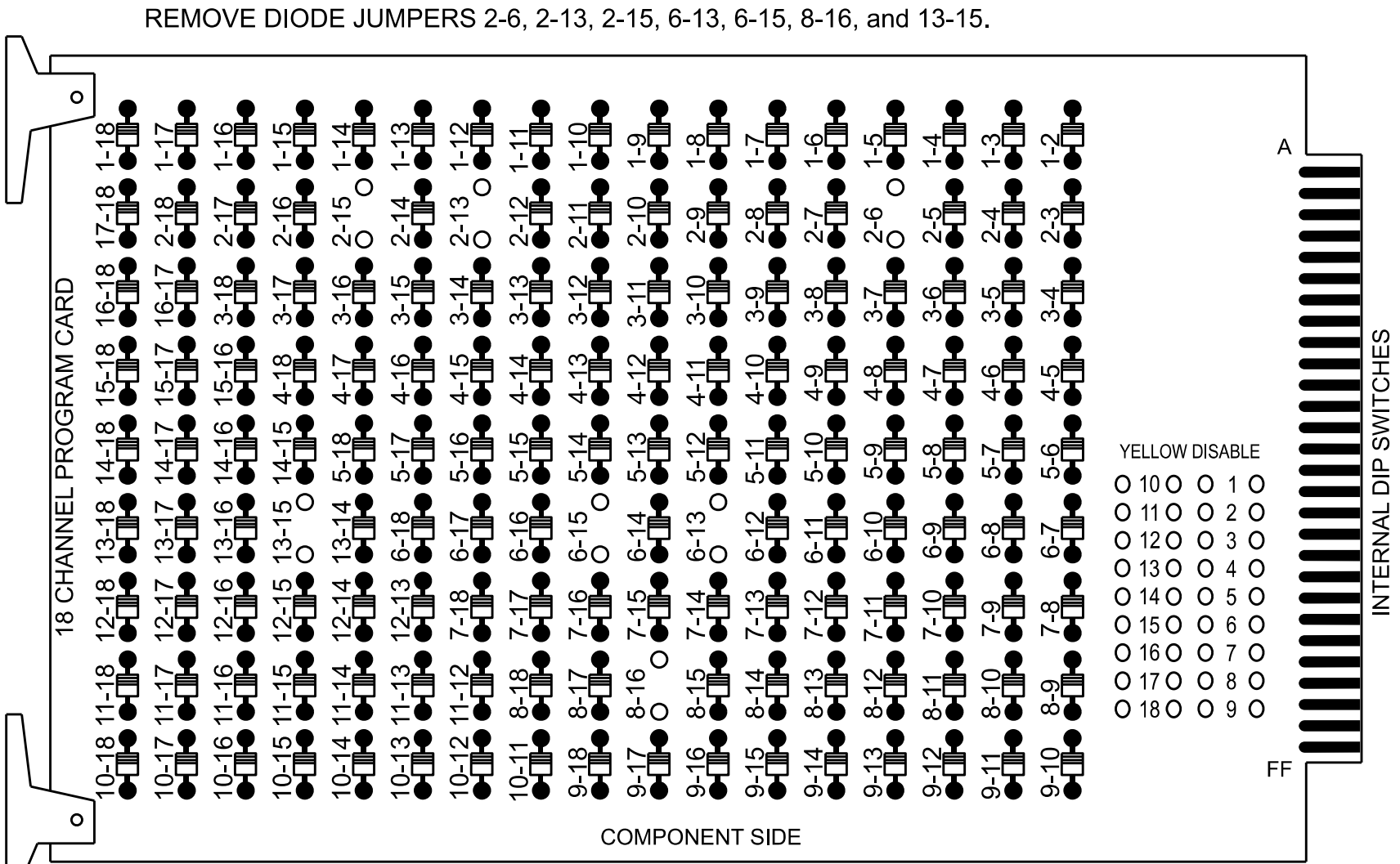
SIG. INVENTORY NO. COW-07

28 FEB 2025 10:00
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28-EEB-2025, 10/01
D:\c:\p\cdot-pw\ben\ey.com\cdot-pw\01\Documents\01\vision_04\U-5945\TSMU\SIGNAL Management\CDW-07_sm.ele.20250228.dgn
DAYM6467

18 CHANNEL IP CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



REMOVE JUMPERS AS SHOWN

- NOTES:
- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
 - Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
 - Ensure that the Red Enable is active at all times during normal operation.
 - Integrate monitor with Ethernet network in cabinet.

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
- Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
- The cabinet and controller are part of the Wilson Signal System.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S2, S3, S8, S9, S11, S12
Phases Used.....2, 2PED, 6, 6PED, 8, 8PED
Overlap "1".....NOT USED
Overlap "2".....NOT USED
Overlap "3".....NOT USED
Overlap "4".....NOT USED

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	NU	21,22	P21, P22	NU	NU	NU	NU	61,62	P61, P62	NU	81,82	P81,P82 P83,P84	NU	NU	NU	NU	NU	NU
RED		128						134			107							
YELLOW		129						135			108							
GREEN		130						136			109							
RED ARROW																		
YELLOW ARROW																		
GREEN ARROW																		
			113						119		110							
			115						121		112							

NU = Not Used

COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

MAXTIME STARTUP AND SOFTWARE FLASH
PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters	Unit Flash Parameters
StartUp Clearance Hold	All Red Flash Exit Time
6	6

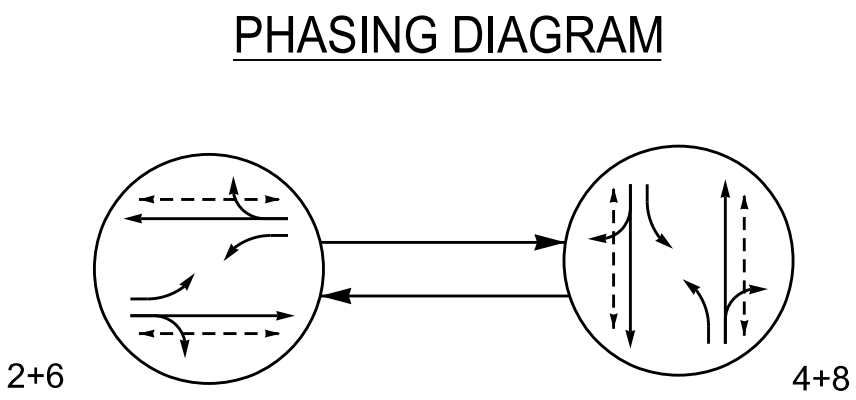
THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: COW-07
DESIGNED: AUGUST 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail

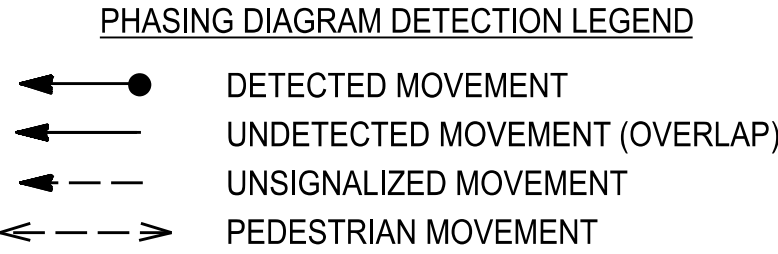
Electrical and Programming Details For:		Nash Street at Lodge Street		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared for the Offices of:		Division 4 Wilson County Wilson		SEAL	
		PLAN DATE: November 2024 REVIEWED BY: AM Encarnacion			
		PREPARED BY: MR Day REVIEWED BY: PL Alexander			
		REVISIONS			
		INIT. DATE			
				Decisigned by: 2/28/2025	
				DATE	
				SIG. INVENTORY NO. COW-07	

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

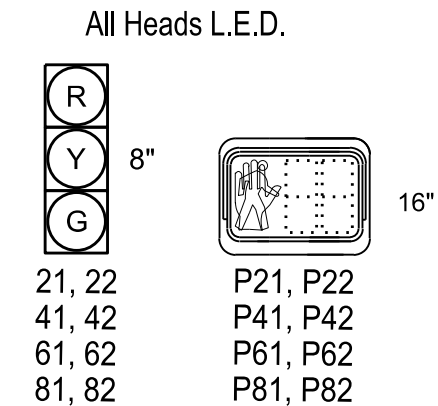
PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 92.0



SIGNAL FACE	PHASE		
	2 6	4 8	F L S H
21, 22	G	R	R
41, 42	R	G	R
61, 62	G	R	R
81, 82	R	G	R
P21, P22	W	DWDRK	
P41, P42	DW	W DRK	
P61, P62	W	DWDRK	
P81, P82	DW	W DRK	



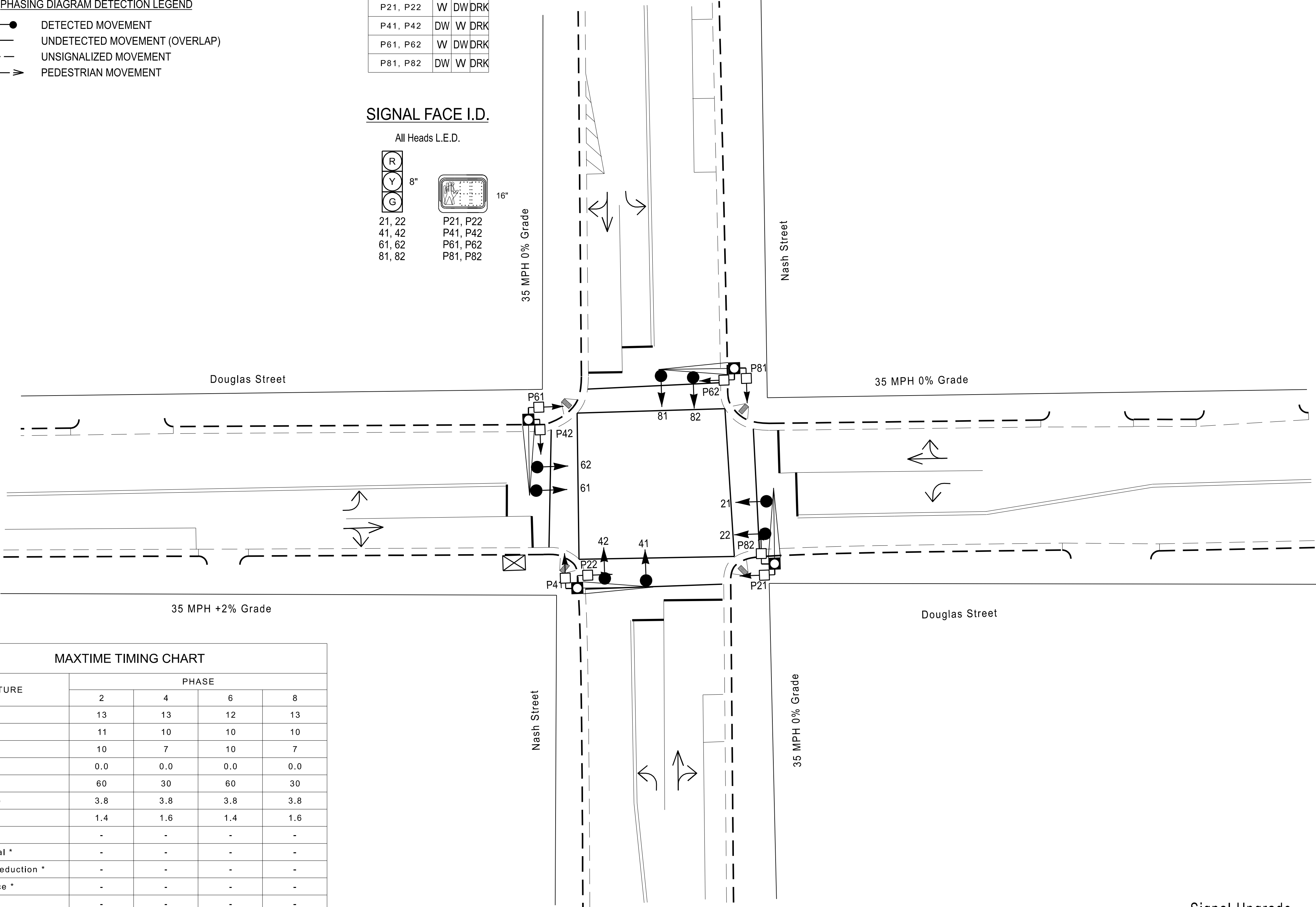
SIGNAL FACE I.D.



2 Phase
Pre-Timed
Wilson Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- The cabinet should be designed to include an Auxiliary Output file for future use.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Replace existing 2-section pedestrian signal heads with new 1-section pedestrian signal heads.



MAXTIME TIMING CHART				
FEATURE	PHASE			
	2	4	6	8
Walk *	13	13	12	13
Ped Clear *	11	10	10	10
Min Green *	10	7	10	7
Passage *	0.0	0.0	0.0	0.0
Max 1 *	60	30	60	30
Yellow Change	3.8	3.8	3.8	3.8
Red Clear	1.4	1.6	1.4	1.6
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	6	6	6	6
Non Lock Detector	-	-	-	-
Vehicle Recall	MAX/PED RECALL	MAX/PED RECALL	MAX/PED RECALL	MAX/PED RECALL
Dual Entry	-	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	
	Sign	
	Pedestrian Signal Head	
	Metal Pole with Mastarm	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
	Right of Way	
	Directional Arrow	
	Curb Ramp	

Signal Upgrade

Prepared for the Offices of: 	Douglas Street at Nash Street	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
Division 4 Wilson County Wilson	Division 4 Wilson County Wilson	SEAL ANTHONY ENCARNACION PROFESSIONAL ENGINEER SEAL 044476 HOWARD M. ENCARNACION
PLAN DATE: August 2024 REVIEWED BY: AM Encarnacion PREPARED BY: WL Larson REVIEWED BY: PL Alexander	REVISIONS INIT. DATE	Discussed by: Anthony Encarnacion 2/28/2025 DATE SIG. INVENTORY NO. COW-08

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

(remove jumpers and set switches as shown)

(remove jumpers and set switches as shown)



1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration						
Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.

2. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
3. The cabinet and controller are part of the Wilson Signal System.

Controller.....	2070LX
Cabinet.....	332 w/ Aux
Software.....	Q-Free MAXTIME
Cabinet Mount.....	Base
Output File Positions.....	18 With Aux. Output File
Load Switches Used.....	S2, S3, S5, S6, S8, S9, S11, S12
Phases Used.....	2, 2PED, 4, 4PED, 6, 6PED, 8, 8PED
Overlap "1".....	NOT USED
Overlap "2".....	NOT USED
Overlap "3".....	NOT USED
Overlap "4".....	NOT USED

Modify parameters as shown below and save changes.

Start Up Parameters	Unit Flash Parameters
StartUp Clearance Hold	All Red Flash Exit Time
6	6

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	NU	21,22	P21, P22	NU	41,42	P41, P42	NU	61,62	P61, P62	NU	81,82	P81, P82	NU	NU	NU	NU	NU	NU
RED		128			101			134			107							
YELLOW		129			102			135			108							
GREEN		130			103			136			109							
RED ARROW																		
YELLOW ARROW																		
GREEN ARROW																		
			113			104			119			110						
			115			106			121			112						

NU = Not Used

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: COW-08
DESIGNED: AUGUST 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Electrical and Programming

Prepared for the Offices of:



WILSON
NORTH CAROLINA

Douglas Street
at
Nash Street

Division 4 Wilson County Wilson

PLAN DATE: November 2024	REVIEWED BY: AM Encarnacion
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PREPARED BY: MR Day	REVIEWED BY: PL Alexander
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REVISIONS	INIT.	DATE
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.....		
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[illegible]

SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

Signed by:

Anthony Encarnacion 2/28/20
44604403003400 DA

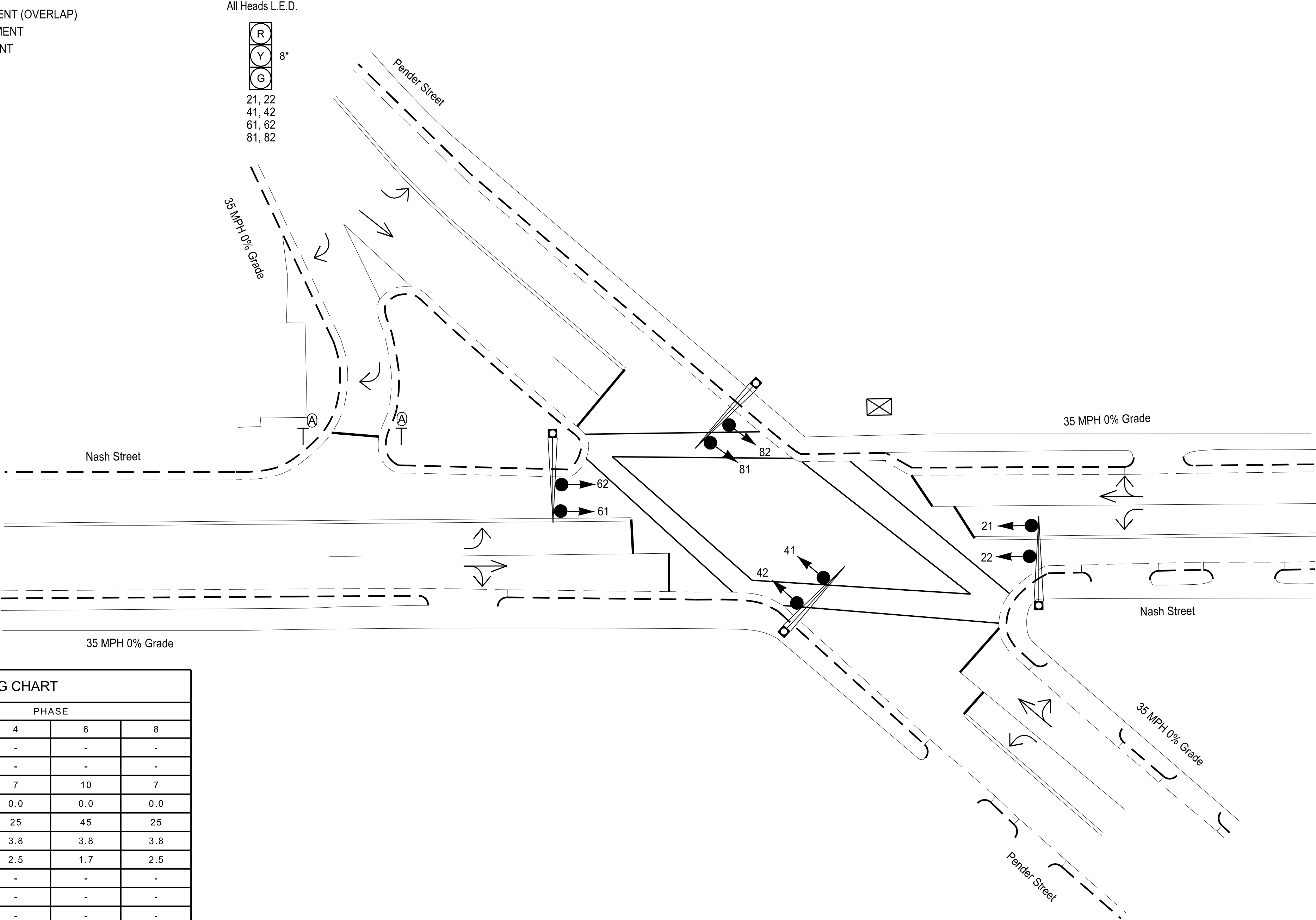
SIG INVENTORY NO COW-0

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

SIGNAL FACE I.D.

	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

All Heads L.E.D.



1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
4. The cabinet should be designed to include an Auxiliary Output file for future use.
5. Pavement markings are existing.
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Metal Pole with Mastarm	
N/A	Curb Ramp	
	"STOP" Sign (R1-1)	

MAXTIME TIMING CHART				
FEATURE	PHASE			
	2	4	6	8
Walk *	-	-	-	-
Ped Clear *	-	-	-	-
Min Green *	10	7	10	7
Passage *	0.0	0.0	0.0	0.0
Max 1 *	45	25	45	25
Yellow Change	3.8	3.8	3.8	3.8
Red Clear	1.7	2.5	1.7	2.5
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	-	-	-	-
Non Lock Detector	-	-	-	-
Vehicle Recall	MAX RECALL	MAX RECALL	MAX RECALL	MAX RECALL
Dual Entry	-	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Prepared for the Offices of:		Nash Street at Pender Street			
		Division 4 Wilson County Wilson			
PLAN DATE: August 2024		REVIEWED BY: AM Encarnacion			
PREPARED BY: WL Larson		REVIEWED BY: PL Alexander			
REVISIONS		INIT. DATE			
		SCALE  1"=20'		Designed by <i>Anthony Encarnacion</i> —TAD/DA/MS/MS— 2/28/2025 DATE	
				SIG. INVENTORY NO. COW-10	

(remove jumpers and set switches as shown)

(remove jumpers and set switches as shown)



1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

Controller.....	2070LX
Cabinet.....	332 w/ Aux
Software.....	Q-Free MAXTIME
Cabinet Mount.....	Base
Output File Positions.....	18 With Aux. Output File
Load Switches Used.....	S2, S5, S8, S11
Phases Used.....	2, 4, 6, 8
Overlap "1".....	NOT USED
Overlap "2".....	NOT USED
Overlap "3".....	NOT USED
Overlap "4".....	NOT USED

All Red Flash Exit Time
6

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: COW-10
DESIGNED: AUGUST 2024
SEALED: 02-28-2025
REVISED: N/A

The logo for Wilson, North Carolina, features the word "WILSON" in large, white, bold, sans-serif capital letters on a blue rectangular background. A small green leaf icon is positioned above the letter "I". Below the blue rectangle, the words "NORTH CAROLINA" are written in a smaller, green, sans-serif font.

Anthony Encarnacion 2/28/20
7A660A4D39E34DB... DA

SIG. INVENTORY NO. COW-1

Figure 1 illustrates a directed graph with four nodes, each representing a configuration of two particles (black dots) and their possible movements (arrows). The nodes are labeled with their respective configurations: $2+6$, $2+5$, $4+7$, and $4+8$.

- Node $2+6$:** Two particles are positioned horizontally. Arrows indicate possible movements: one particle can move left or right, and the other can move left or right.
- Node $2+5$:** Two particles are positioned horizontally. Arrows indicate possible movements: one particle can move left or right, and the other can move left or right.
- Node $4+7$:** Two particles are positioned vertically. Arrows indicate possible movements: one particle can move up or down, and the other can move up or down.
- Node $4+8$:** Two particles are positioned vertically. Arrows indicate possible movements: one particle can move up or down, and the other can move up or down.

The directed edges (arrows) represent transitions between these configurations, forming a complex network of paths.

	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE				
	2 + 5	2 + 6	4 + 7	4 + 8	FLASH
21		G	R	R	R
22	G	G	R	R	R
41	R	R		G	R
42	R	R	G	G	R
61,62	R	G	R	G	R
81,82	R	R	R	G	R

Diagram 21 shows a tree structure with a root node 'R' in a square box. Below 'R' are two circular nodes: the left one contains a crossed-out 'Y' and the right one contains 'Y'. Below the crossed-out 'Y' is a circular node with a left-pointing arrow. Below 'Y' is a circular node 'G'. A vertical dimension line to the right of the 'Y' and 'G' nodes is labeled '12"'. Below the diagram are the numbers 21 and 41.

Diagram 22 shows a vertical stack of three circular nodes: 'R' at the top, 'Y' in the middle, and 'G' at the bottom. A vertical dimension line to the right of the stack is labeled '12"'. Below the diagram are the numbers 22, 42, 61, 62, 81, and 82.

DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN	NEW CARD
2A	6X40	0	2-4-2	-	2	-	-	X	-	X	-
4A	6X60	0	2-4-2	-	4	10.0	-	X	-	X	-
5A	6X40	0	2-4-2	-	5	15.0	-	X	-	X	-
					2	-	-	X	-	X	-
6A	6X60	0	2-4-2	-	6	-	-	X	-	X	-
6B	6X60	0	2-4-2	-	6	-	-	X	-	X	-
7A	6X60	0	2-4-2	-	7	15.0	-	X	-	X	-
					4	3.0	-	X	-	X	-
8A	6X40	0	2-4-2	-	8	3.0	-	X	-	X	-
8B	6X40	0	2-4-2	-	8	10.0	-	X	-	X	-

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
 2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
 3. Enable Backup Prevent to allow the controller to clear from phase 2+6 to phase 2+5 by progressing through an all red display.
 4. Set all detector units to presence mode.
 5. In the event of loop replacement, refer to the current TSMO Design Manual and submit a Plan of Record to the Signal Design Section.
 6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
 7. The cabinet should be designed to include an Auxiliary Output file for future use.
 8. Pavement markings are existing.
 9. Maximum times shown in timing chart are for free-run operation only.
- Coordinated signal system timing values supersede these values.

	Traffic Signal Head
	Modified Signal Head
	Sign
	Pedestrian Signal Head
	Signal Pole with Guy
	Signal Pole with Sidewalk Guy
	Inductive Loop Detector
	Controller & Cabinet
	Junction Box
	2-in Underground Conduit
	N/A
	Right of Way
	Directional Arrow

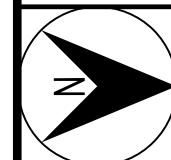
Legend for the diagram symbols:

- → N/A
- T
- →
- — ●
- — ●
- U
- x □
-
- ... UC ...
-
-
-

MAXTIME TIMING CHART						
FEATURE	PHASE					
	2	4	5	6	7	8
Walk *	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Min Green *	10	7	7	10	7	7
Passage *	3.0	2.0	2.0	2.0	1.0	3.0
Max 1 *	30	20	15	30	15	20
Yellow Change	3.9	3.8	3.0	3.9	3.0	3.8
Red Clear	1.3	1.5	2.1	1.3	2.3	1.5
Red Revert	5.0	2.0	2.0	2.0	2.0	2.0
Added Initial *	-	-	-	-	-	-
Maximum Initial *	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Advance Walk	-	-	-	-	-	-
Non Lock Detector	-	X	X	-	X	X
Vehicle Recall	MIN RECALL	-	-	MIN RECALL	-	-
Dual Entry	-	X	-	-	-	X

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Prepared for the Offices of:



SCALE

0 20

1"=20'

Division 4 Wilson County Wilson

PLAN DATE: September 2024	REVIEWED BY: TJ Williams
---------------------------	--------------------------

PREPARED BY:	JT Sutton	REVIEWED BY:	PL Alexander
	REVISIONS	DATE	DATE

[illegible][illegible]

DOCUMENT NOT CONSIDERED
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SIGNATURES COMPLETED

SEAL

NORTH CAROLINA

PROFESSIONAL

SEAL
024393

ENGINEER

TIMOTHY J. WILLIAMS

and by: Timothy J. Williams

671C000451

2/28/2025

DATE

G. INVENTORY NO. COW-11

(remove jumpers and set switches as shown)

(remove jumpers and set switches as shown)



REMOVE JUMPERS AS SHOWN

NOTES:

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Integrate monitor with Ethernet network in cabinet.

1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.

2. Program phases 4 and 8 for Dual Entry.
3. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
4. The cabinet and controller are part of the Wilson Signal System.

Controller.....	2070LX
Cabinet.....	332 w/ Aux
Software.....	Q-Free MAXTIME
Cabinet Mount.....	Base
Output File Positions.....	18 With Aux. Output File
Load Switches Used.....	S2, S5, S7, S8, S10, S11
Phases Used.....	2, 4, 5, 6, 7, 8
Overlap "1".....	NOT USED
Overlap "2".....	NOT USED
Overlap "3".....	NOT USED
Overlap "4".....	NOT USED

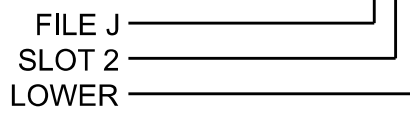
(front view)

EX. : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
2A	TB2-5,6	I2U	39	1	2	2	-	-	X	-	X	-
4A	TB4-9,10	I6U	41	3	8	4	10.0	-	X	-	X	-
5A	TB3-1,2	J1U	55	17	15	5	15.0	-	X	-	X	-
				-	31	2	-	-	X	-	X	-
6A	TB3-5,6	J2U	40	2	16	6	-	-	X	-	X	-
6B	TB3-7,8	J2L	44	6	17	6	-	-	X	-	X	-
				19	21	7	15.0	-	X	-	X	-
7A	TB5-5,6	J5U	57	-	32	4	3.0	-	X	-	X	-
				4	22	8	3.0	-	X	-	X	-
8B	TB5-11,12	J6L	46	8	23	8	10.0	-	X	-	X	-

INPUT FILE POSITION LEGEND: J2L



(install resistors as shown)

Diagram showing the connection of Phase 5 Red Field Terminal (131) and Phase 7 Red Field Terminal (122) to AC- terminals.

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	NU	21,22	NU	NU	41,42	NU	21	61,62	NU	41	81,82	NU	NU	NU	NU	NU	NU	NU
RED		128			101		★	134		★	107							
YELLOW		129			102			135			108							
GREEN		130			103			136			109							
RED ARROW																		
YELLOW ARROW							132			123								
GREEN ARROW							133			124								

NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.

MAXTIME STARTUP AND SOFTWARE FLASH PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters

StartUp Clearance Hold
6

Unit Flash Parameters

All Red Flash Exit Time
6

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: COW-11
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 1 of 2

Electrical and Programming
Details For:

Prepared for the Offices of:



WILSON
NORTH CAROLINA

Glendale Drive
at
Westwood Avenue

Division 4 Wilson County Wilson

PLAN DATE: January 2025	REVIEWED BY: TJ Williams
-------------------------	--------------------------

PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander
------------------------	---------------------------

REVISIONS	INIT.	DATE

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DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

Signed by: J. J. Williams 2/28/2025
DATE

SIG. INVENTORY NO. COW-11

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: COW-11
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

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SIGNATURES COMPLETED

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D:\477\ncdot-pw\bart ley.com\ncdot-pw\01\Documents\01\vision_04\U-5945\TSMC\SIGNAL Management\COW-11.sm.e (a.2025mmdl.dgn
DAYM6467



1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Electrical and Programming
Details For:

Prepared for the Offices of:

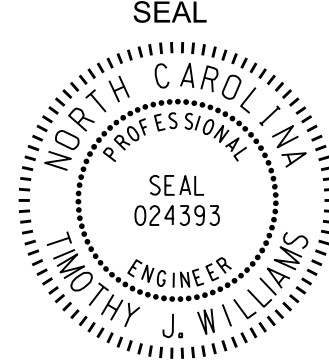


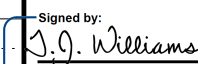
Glendale Drive
at
Westwood Avenue

Division 4 Wilson County Wilson

PLAN DATE: January 2025	REVIEWED BY: TJ Williams
PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander
REVISIONS	INIT. DATE

SEAL



Signed by:  2/28/2025
DATE
SIG. INVENTORY NO. COW-11

	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2 + 6	4 + 8	F L A S H
21,22	G	R	R
41,42	R	G	R
61,62	G	R	R
81	R	F Y	R
82,83	R	G	R

12"
 12"

81
 21,22
 41,42
 61,62
 82,83

DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DURING GREEN	NEW CARD
4A	6X60	+5	2-4-2	-	4	3.0	-	X	-	X	-
4B	6X60	+5	2-4-2	-	4	15.0	-	X	-	X	-
8A	6X40	0	2-4-2	-	8	3.0	-	X	-	X	-
8B	6X40	0	2-4-2	-	8	10.0	-	X	-	X	-

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Reposition existing signal heads numbered 81 and 82.
4. Renumber existing signal heads 81 and 82 to 82 and 83 respectively.
5. Set all detector units to presence mode.
6. In the event of loop replacement, refer to the current TSMO Design Manual and submit a Plan of Record to the Signal Design Section.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Pavement markings are existing.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

FEATURE	PHASE			
	2	4	6	8
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Min Green *	10	7	10	7
Passage *	0.0	1.0	0.0	2.0
Max 1 *	30	15	30	15
Yellow Change	3.9	3.9	3.9	3.9
Red Clear	1.5	1.3	1.5	1.3
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	-	-	-	-
Non Lock Detector	-	X	-	X
Vehicle Recall	MAX RECALL	-	MAX RECALL	-
Dual Entry	-	X	-	X

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
(A)	Combined Through and Left Arrow (R3-6L)	(A)
(B)	Right Arrow "ONLY" Sign (R3-5R)	(B)

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

WILSON
NORTH CAROLINA

Division 4	Wilson County	Wilson
PLAN DATE: September 2024	REVIEWED BY: TJ Williams	
PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	

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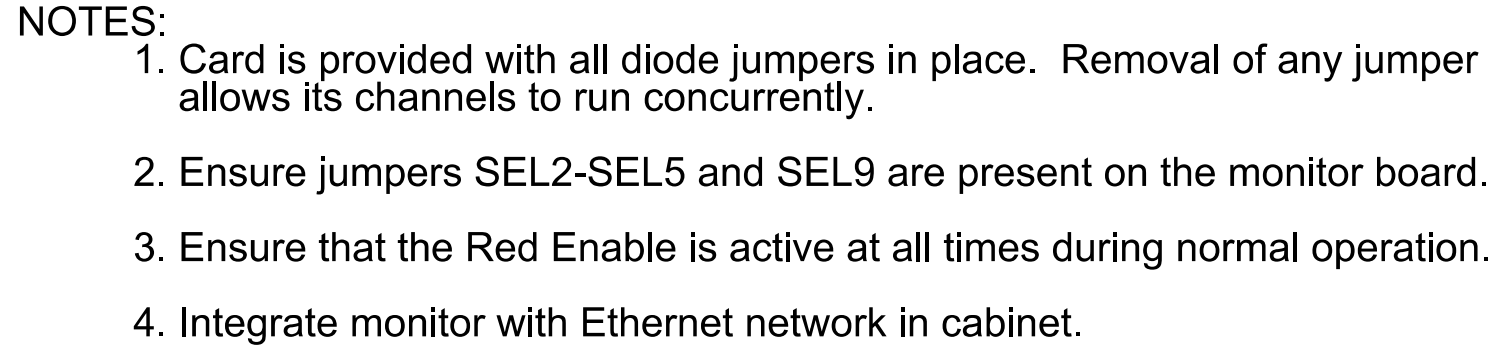
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FINAL UNLESS ALL
SIGNATURES COMPLETED



Seal of Timothy J. Williams, Professional Engineer, State of North Carolina, License No. 024393.

(remove jumpers and set switches as shown)

(remove jumpers and set switches as shown)



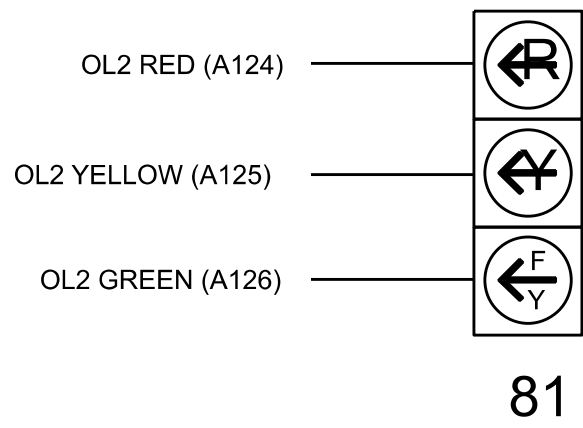
1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
2. Program phases 4 and 8 for Dual Entry.
3. Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
4. The cabinet and controller are part of the Wilson Signal System.

Controller.....	2070LX
Cabinet.....	332 w/ Aux
Software.....	Q-Free MAXTIME
Cabinet Mount.....	Base
Output File Positions.....	18 With Aux. Output File
Load Switches Used.....	S2, S5, S8, S11, AUX S2
Phases Used.....	2, 4, 6, 8
Overlap "1".....	NOT USED
Overlap "2".....	*
Overlap "3".....	NOT USED
Overlap "4".....	NOT USED

*See overlap programming detail on sheet 2

★ See pictorial of head wiring in detail this sheet.

(wire signal heads as shown)



(front view)

FS = FLASH SENSE
ST = STOP TIME

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
4A	TB4-9,10	I6U	41	3	8	4	3.0	-	X	-	X	-
4B	TB4-11,12	I6L	45	7	9	4	15.0	-	X	-	X	-
8A	TB5-9,10	J6U	42	4	22	8	3.0	-	X	-	X	-
8B	TB5-11,12	J6L	46	8	23	8	10.0	-	X	-	X	-

FILE J _____
SLOT 2 _____
LOWER _____

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: COW-12
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 1 of 2

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SIGNATURES COMPLETED

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Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

Overlap	1	2	3	4
Type	Off	FYA 4 - Section	Off	Off
Included Phases	-	4	-	-
Modifier Phases	-	-	-	-
Modifier Overlaps	-	-	-	-
Trail Green	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0

All Red Flash Exit Time
6

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: COW-12
DESIGNED: SEPTEMBER 2024
SEALED: 02-28-2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

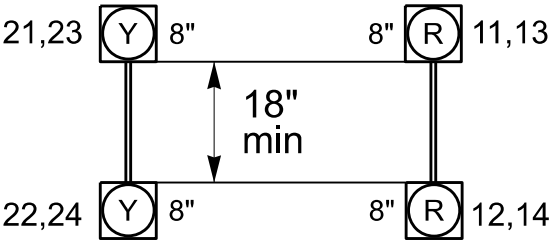
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SIGNATURES COMPLETED

Electrical and Programming Details For:	Glendale Drive at Wooten Boulevard / Wilson Medical Center	SEAL 
Prepared for the Offices of:		
 <b style="font-size: 1.5em;">WILSON NORTH CAROLINA	Division 4 Wilson County Wilson	
	PLAN DATE: January 2025	REVIEWED BY: T.J Williams
	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander
	REVIEWS	INIT. DATE
Signed by: <u>T.J. Williams</u> 2/28/2025 (TYPE OR STAMP NAME) DATE		SEAL 
SIG. INVENTORY NO.		COW-12

AtkinsRéalis
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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

PROJECT REFERENCE NO.	SHEET NO.
U-5945	Sig. 97.0

SIGNAL FACE I.D.

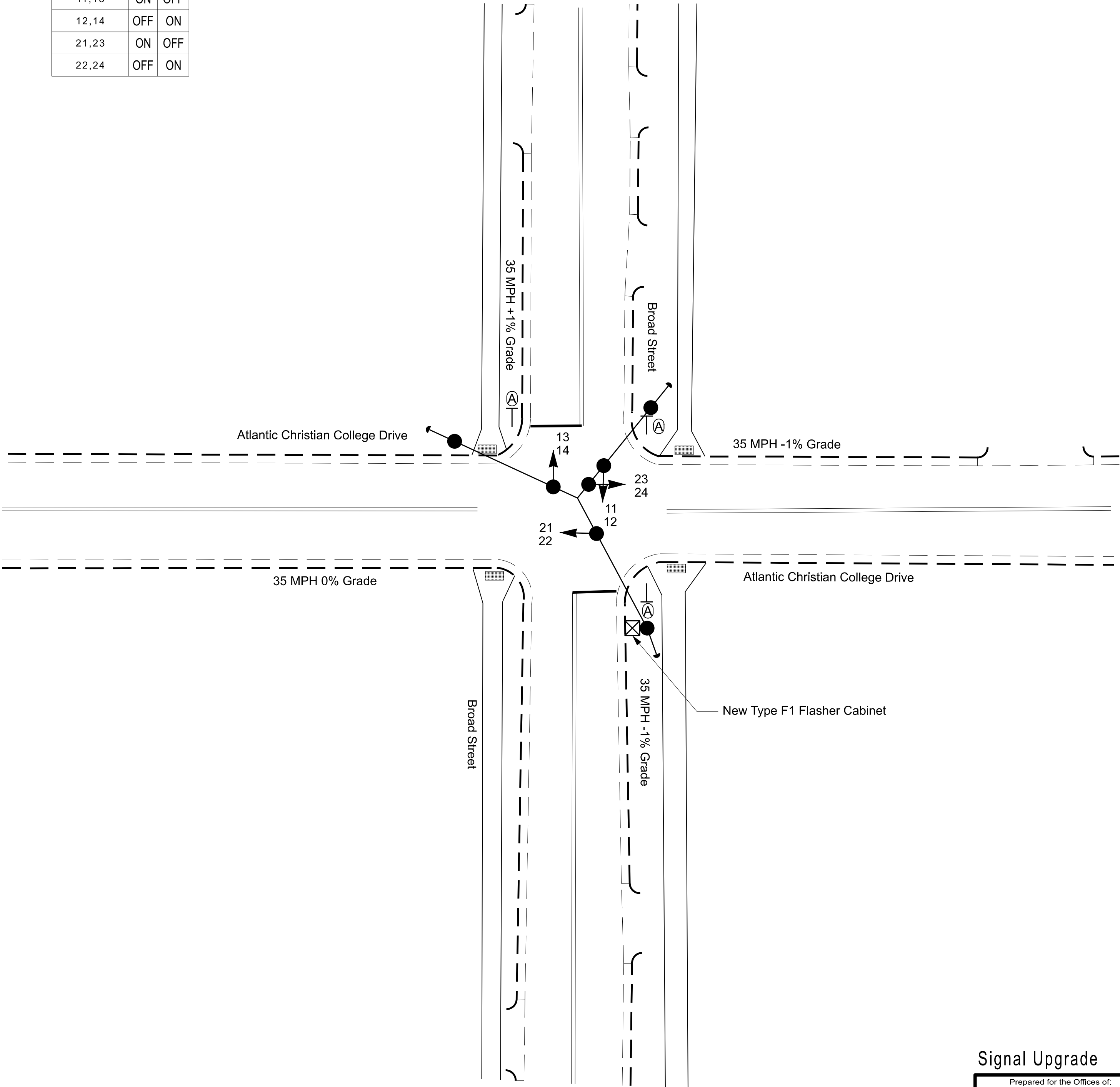


SIGNAL FACE	INTERVAL	
	1	2
11,13	ON	OFF
12,14	OFF	ON
21,23	ON	OFF
22,24	OFF	ON

Two Circuit
Flasher

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Pavement markings are existing.
3. Flash all beacons continuously.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
	Right of Way	
	Directional Arrow	
	Curb Ramp	
	"STOP" Sign (R1-1)	

Signal Upgrade

Prepared for the Offices of:

Atlantic Christian College Drive
at
Broad Street

Division 4Wilson CountyWilson

PLAN DATE:	October 2024	REVIEWED BY:	TJ Williams
PREPARED BY:	KG Sasaki	REVIEWED BY:	PL Alexander
REVISIONS		INIT.	DATE

SCALE
0 20
1"=20'

DOCUMENT NOT CONSIDERED
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SIGNATURES COMPLETED

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Signed by: 2/28/2025
DATE

SIG. INVENTORY NO. COW-13

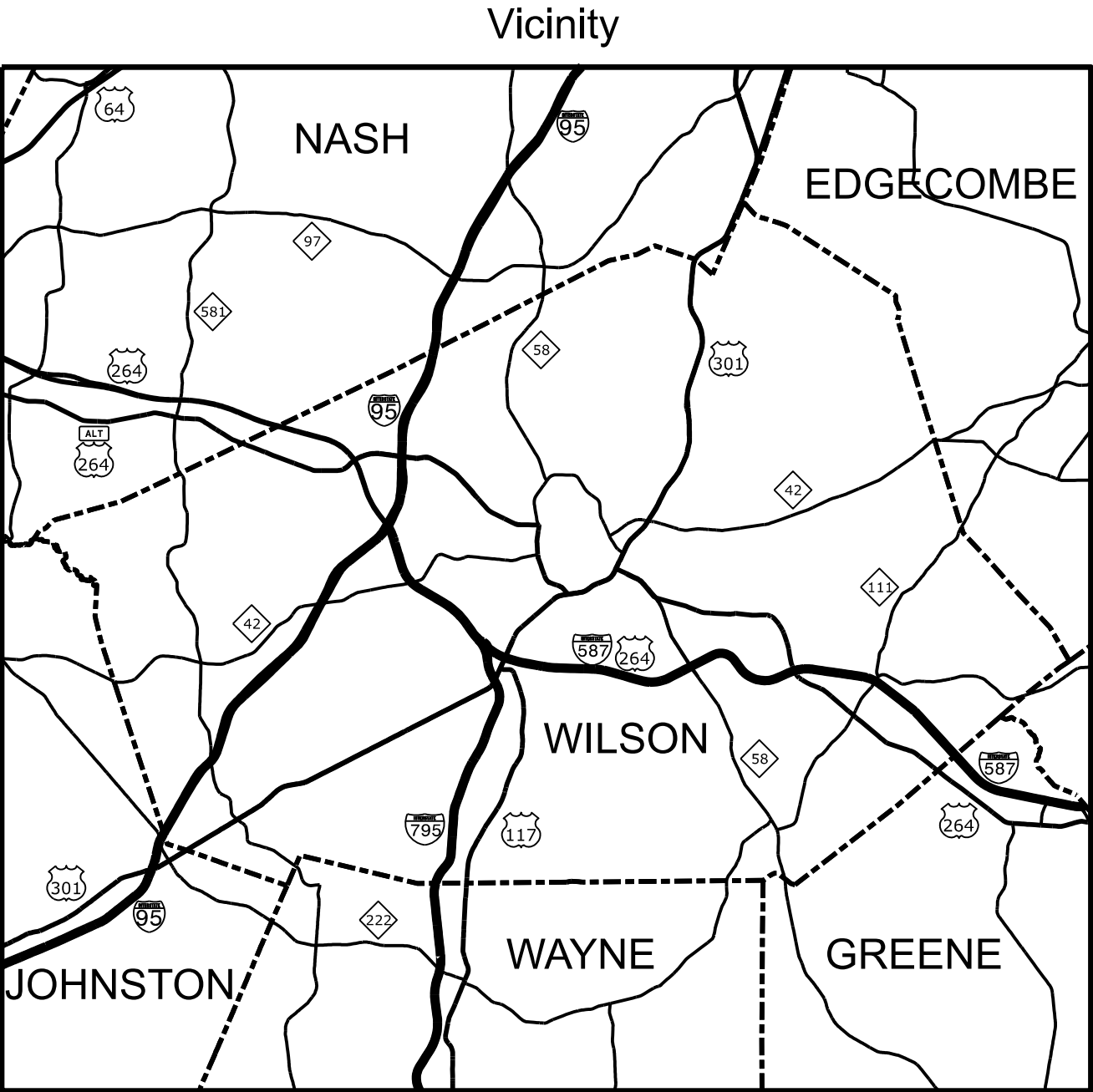
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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

WILSON COUNTY

LOCATION: CITY OF WILSON
TYPE OF WORK: SIGNAL COMMUNICATIONS



INDEX OF SHEETS

SCP-1.0	TITLE SHEET – COMMUNICATIONS & CCTV FIELD INFRASTRUCTURE AND TRAFFIC SIGNAL DESIGNS
SCP-1.1	INDEX OF SHEETS/ROADWAY STANDARD DRAWINGS/ABBREVIATIONS
SCP-1.2	CABLE ROUTING PLANS INDEX SHEET
SCP-1.3 THRU SCP-1.4	CABLE ROUTING PLANS KEY SHEET
SCP-1.5	LEGEND/CONSTRUCTION NOTES
SCP-1.6 THRU SCP-1.9	CABLE ROUTING QUANTITIES
SCP-2.0 THRU SCP-98.0	CABLE ROUTING PLANS
SCP-99.0 THRU SCP-102.0	COMMUNICATIONS CABLE SCHEMATICS
SCP-103.0	WIRELESS COMMUNICATIONS SHEET
SCP-103.0 THRU SCP-107.0	FIBER OPTIC SPLICING DETAILS
TMP-1.0 THRU TMP-4.0	TRANSPORTATION MANAGEMENT PLAN

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" CONTRACT SERVICES UNIT – N.C. DEPARTMENT OF TRANSPORTATION – RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE ARE HEREBY CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
848.01	CONCRETE SIDEWALK
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY DRUMS
1700.02	ELECTRICAL SERVICE GROUNDING
1705.01	SIGNAL HEADS – SIGNAL HEADS
1705.03	SIGNAL HEADS – WIRE COLOR CONVENTIONS
1715.01	UNDERGROUND CONDUIT – TRENCHING
1716.01	JUNCTION BOXES
1720.01	WOOD POLES
1721.01	GUY ASSEMBLIES
1725.01	INDUCTIVE DETECTION LOOPS
1730.01	FIBER–OPTIC CABLE – SPARE CABLE STORAGE
1751.01	CONTROLLERS AND CABINETS – CABINET COMPONENT LAYOUT
1751.02	CONTROLLERS AND CABINETS – POWER, GROUND AND AUXILIARY

ABBREVIATIONS

COMM	Communications Cable
COW	City of Wilson
DRP	Drop
FOC / FO	Fiber Optic Cable
NCDOT	North Carolina Department of Transportation
OH	Overhead
PWR	Power
RSR	Riser
SGRSR	Signal Riser
SIG	Signal Span
SP	Signal Pole
TOP	Top of Pole or Top Attachment
UG	Underground

GENERAL NOTES

1. THESE PLANS WERE PREPARED FROM INVENTORIES AND FIELD DATA COLLECTED DURING JUNE 2024 THRU DECEMBER 2024. ACTUAL CONDITIONS IN THE FIELD AT THE TIME OF CONSTRUCTION MAY BE DIFFERENT FROM THOSE SHOWN IN THE PLANS.

2. THE FIELD LOCATION OF ANY ITEM TO BE INSTALLED AS PART OF THIS PROJECT SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

3. NEW TRAFFIC SIGNAL CONTROLLER CABINETS ARE SPECIFIED ON THE SIGNAL PLANS.

4. BURIED UTILITIES AND STRUCTURES: PIPELINES, STORM SEWERS, POWER CABLES, UTILITY CABLES, BASEMENTS, AND OTHER PUBLICLY AND PRIVATELY OWNED UNDERGROUND OBSTRUCTIONS EXIST ADJACENT TO AND WITHIN THE STREET RIGHT-OF-WAY WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT. INVESTIGATE THE LOCATION OF SUCH BURIED UTILITIES AND STRUCTURES WITH PUBLIC AND PRIVATE UTILITIES.

5. THE PLAN SHEETS HAVE BEEN DEVELOPED AS CLOSE TO SCALE AS PRACTICAL. HOWEVER, ACTUAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR APPLYING THE WORK SHOWN.

6. THE ROADWAY STANDARD DRAWINGS AND THE DETAILS PROVIDED IN THIS PLAN SET SHALL ALL APPLY TO ALL WORK REQUIRED IN THIS PROJECT, WHETHER A PARTICULAR DETAIL IS SPECIFICALLY REFERENCED TO A WORK ITEM OR NOT. IN THE EVENT OF A CONFLICT, THE ORDER OF PRECEDENCE SHALL BE: THE PROJECT SPECIAL PROVISIONS, THE PLAN SET – INCLUDING DETAILS – SUPPLEMENTAL SPECIFICATIONS, THE STANDARD SPECIFICATIONS, AND THEN THE ROADWAY STANDARD DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING THE PROPER DETAILS.
7. ANY OF THE CONTRACTOR'S WORK ACTIVITIES WHICH IMPACT ANY UTILITY FACILITY SHALL BE COORDINATED WITH THE OWNER OF THE AFFECTED UTILITIES. THE CONTRACTOR SHALL FOLLOW ANY AND ALL WORK PROCEDURES THE UTILITY OWNERS MAY REQUIRE.

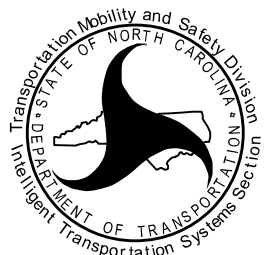
8. ALL WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED TO BE PERFORMED BY OTHERS.

9. AREAS WITHIN THIS PROJECT HAVE BEEN DETERMINED TO CONTAIN PROPERTIES WITH DOCUMENTED HISTORICAL SIGNIFICANCE. IF IT IS NECESSARY TO DEVIATE FROM THE PLANS IN AN AREA IDENTIFIED TO CONTAIN PROPERTIES WITH HISTORIC SIGNIFICANCE, ALERT THE ENGINEER TO CONTACT ENVIRONMENTAL ANALYSIS UNIT – HISTORIC ARCHITECTURE GROUP OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR AN EFFECTS DETERMINATION BEFORE PROCEEDING.

Cable Routing

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of:



750 N. Greenfield Pkwy., Garner, NC 27529

Wilson Signal System
Index of Sheets and General Notes

Division 4Wilson CountyWilson

PLAN DATE: January 2025REVIEWED BY: BJ Slocum

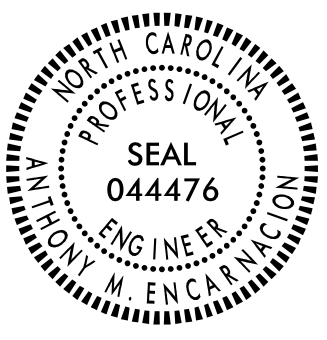
PREPARED BY: JT SuttonREVIEWED BY: PL Alexander

REVISIONS

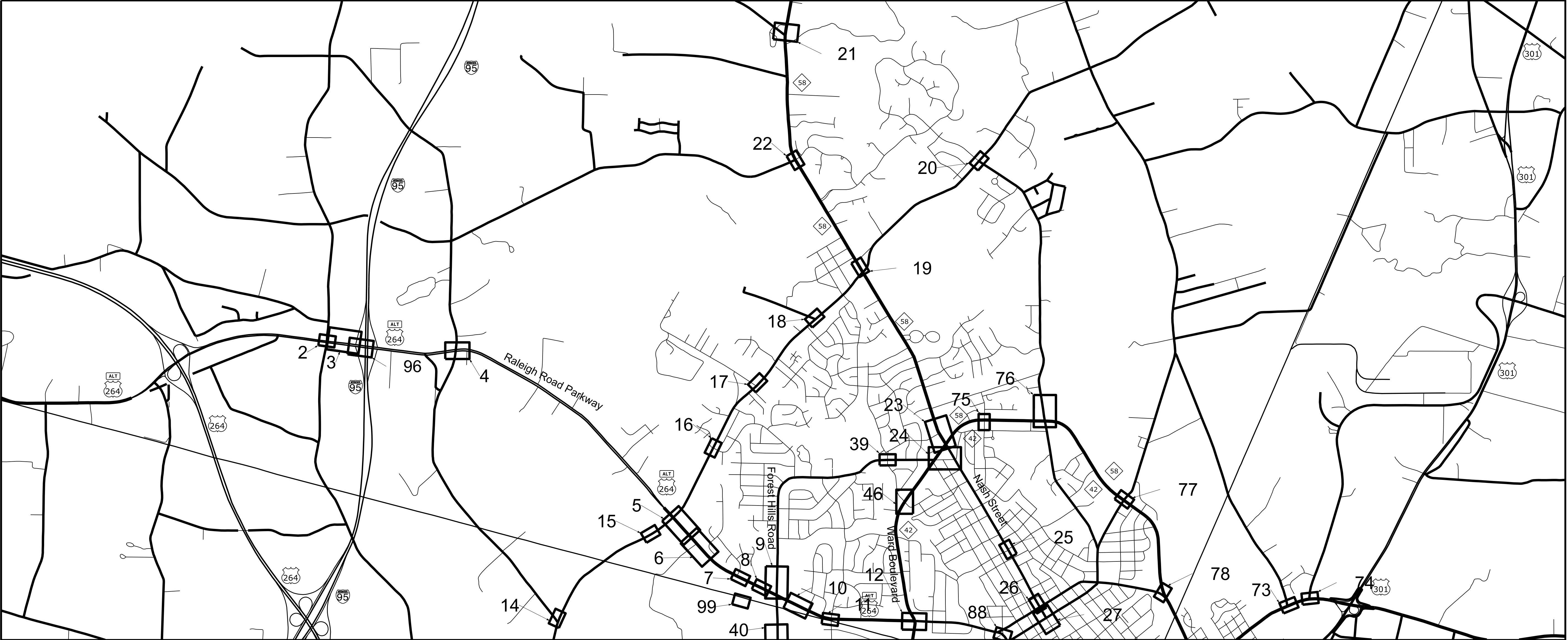
INIT.

DATE

SEAL



Anthony Encarnacion
7480DA03F5340B
DATE: 3/10/2025



MATCHLINE - COMMS KEY SHEET (SCP 1.4)

Cable Routing

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

 750 N. Greenfield Pkwy., Garner, NC 27529	Wilson Signal System Cable Routing Plans Key Sheet 1 of 2		SEAL 		
					Division 4 Wilson County Wilson
	PLAN DATE: January 2025	REVIEWED BY: BJ Slocum	INIT.		DATE
	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	INIT.		DATE
	REVISIONS		INIT.		DATE

MATCHLINE - COMMS KEY SHEET (SCP 1.3)



Cable Routing

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

 750 N. Greenfield Pkwy., Garner, NC 27529	Wilson Signal System Cable Routing Plans Key Sheet 2 of 2				 Anthony Encarnacion DATE: 3/10/2025
	Division 4 Wilson County Wilson				
	PLAN DATE: January 2025	REVIEWED BY: BJ Slocum			
	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander			
	REVISIONS		INIT.	DATE	

- 1

INSTALL COAX CABLE
- 2

INSTALL ETHERNET CABLE
- 3

EXISTING ETHERNET (OR COAX) CABLE
- 4

INSTALL SMFO CABLE
- 5

EXISTING SMFO CABLE
- 6

INSTALL FIBER OPTIC DROP CABLE
- 7

INSTALL TRACER WIRE
- 8

TRENCH
- 9

INSTALL PVC CONDUIT
- 10

INSTALL RIGID, GALVANIZED STEEL CONDUIT
- 11

INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- 12

INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL
- 13

INSTALL OUTER-DUCT POLYETHYLENE CONDUIT
- 14

INSTALL POLYETHYLENE CONDUIT
- 15

DIRECTIONAL DRILL CONDUIT
- 16

BORE AND JACK CONDUIT
- 17

INSTALL CABLE(S) IN EXISTING CONDUIT
- 18

INSTALL CABLE(S) IN NEW CONDUIT
- 19

INSTALL CABLE(S) IN EXISTING RISER
- 20

INSTALL CABLE(S) IN NEW RISER
- 21

INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS
- 22

INSTALL NEW CONDUIT INTO EXISTING CABINET BASE
(USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)
- 23

INSTALL NEW RISER INTO EXISTING CABINET BASE
(USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)
- 24

INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET
- 25

INSTALL NEW RISER INTO POLE MOUNTED CABINET
- 26

INSTALL NEW ETHERNET EDGE SWITCH
- 27

INSTALL NEW FIBER OPTIC TRANSCEIVER
- 28

INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS
AND FUSION SPLICE CABLE IN CABINET
- 29

INSTALL UNDERGROUND SPLICE ENCLOSURE
- 30

INSTALL AERIAL SPLICE ENCLOSURE
- 31

MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE
- 32

INSTALL POLE MOUNTED SPLICE CABINET
- 33

INSTALL BASE MOUNTED SPLICE CABINET
- 34

INSTALL CABINET FOUNDATION

- 35

INSTALL CCTV CAMERA POLE MOUNTED CABINET
- 36

INSTALL CCTV CAMERA ASSEMBLY
- 37

INSTALL CCTV CAMERA WOOD POLE
- 38

INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 39

INSTALL JUNCTION BOX
- 40A

INSTALL OVERSIZED JUNCTION BOX
- 40B

INSTALL SPECIAL OVERSIZED JUNCTION BOX (36" x 24" x 24")
- 41

REMOVE EXISTING JUNCTION BOX
- 42

INSTALL WOOD POLE
- 43

REMOVE EXISTING WOOD POLE
- 44

INSTALL AERIAL GUY ASSEMBLY
- 45

INSTALL STANDARD GUY ASSEMBLY
- 46

INSTALL SIDEWALK GUY ASSEMBLY
- 47

INSTALL MESSENGER CABLE
- 48A

REMOVE EXISTING COMMUNICATIONS AND MESSENGER CABLE
- 48B

REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT
- 49

BACK PULL EXISTING COMMUNICATIONS CABLE
- 50

INSTALL ANTENNA AND MOUNTING BRACKET
- 51

INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE
100 FEET OF CABLE
- 52A

INSTALL DELINEATOR MARKER
- 52B

INSTALL JUNCTION BOX MARKER
- 53A

STORE 20 FEET OF COMMUNICATIONS CABLE
- 53B

STORE 50 FEET OF EACH COMMUNICATIONS CABLE
- 54

LASH CABLE(S) TO EXISTING COMMUNICATIONS CABLE
- 55

LASH CABLE(S) TO EXISTING MESSENGER CABLE
- 56

LASH CABLE(S) TO NEW MESSENGER CABLE
- 57

MODIFY EXISTING ELECTRICAL SERVICE
- 58

INSTALL NEW ELECTRICAL SERVICE
- 59

INSTALL NEW EQUIPMENT CABINET DISCONNECT
- 60

BOND TRACER WIRE TO EQUIPMENT
GROUND BUS
- 61

DO NOT BOND TRACER WIRE TO
EQUIPMENT GROUND BUS
- 62

BOND RISER AND MESSENGER CABLE
TO POLE GROUND
- 63

BOND RISER TO POLE GROUND
- 64

BOND MESSENGER CABLE TO POLE GROUND
- 65

INSTALL HEAT SHRINK TUBING RETROFIT KIT
- 66

INSTALL MOLDABLE DUCT SEAL
- 67

SLACK SPAN
- 68

INTERCEPT AND REROUTE EXISTING CONDUITS
- 69

DRILL/CORE DRILL EXISTING FOUNDATION
- 70

INSTALL SERVICE CONDUCTORS

LEGEND

FO

NEW FIBER OPTIC COMMUNICATIONS CABLE

EXI

EXISTING COMMUNICATIONS CABLE

REM

EXISTING COMMUNICATIONS CABLE TO BE REMOVED

NEW AERIAL GUY ASSEMBLY

NEW CONDUIT

EXISTING CONDUIT

DD

NEW DIRECTIONAL DRILLED CONDUIT

NEW

STANDARD JUNCTION BOX

OVERSIZED JUNCTION BOX

WOOD POLE

S

AERIAL SPLICE ENCLOSURE

S

UNDERGROUND SPLICE ENCLOSURE

METAL POLE

CCTV ASSEMBLY

STANDARD GUY ASSEMBLY

SIDEWALK GUY ASSEMBLY

CABLE STORAGE RACKS (SNOW SHOES)

SIGNAL/EQUIPMENT CABINET

S

SPLICE CABINET

FLAT PANEL ANTENNA (SINGLE)

YAGI ANTENNA (DOUBLE) FOR
REPEATER OPERATION

YAGI ANTENNA (SINGLE)

OMNI ANTENNA

SP

SIGNAL POLE

XX-XXXX

SIGNAL INVENTORY NUMBER

EXISTING

STANDARD JUNCTION BOX

OVERSIZED JUNCTION BOX

WOOD POLE

S

AERIAL SPLICE ENCLOSURE

S

UNDERGROUND SPLICE ENCLOSURE

METAL POLE

CCTV ASSEMBLY

STANDARD GUY ASSEMBLY

SIDEWALK GUY ASSEMBLY

CABLE STORAGE RACKS (SNOW SHOES)

SIGNAL/EQUIPMENT CABINET

S

SPLICE CABINET

FLAT PANEL ANTENNA (SINGLE)

YAGI ANTENNA (DOUBLE) FOR
REPEATER OPERATION

YAGI ANTENNA (SINGLE)

OMNI ANTENNA

SP

SIGNAL POLE

XX-XXXX

SIGNAL INVENTORY NUMBER

CONSTRUCTION NOTE SYMBOLOGY KEY

XX

INDICATES NUMBER OF CABLES, LOOPS, ETC.

XX

INDICATES NUMBER OF FIBERS PER CABLE,
TWISTED PAIRS PER CABLE, ETC.

<XX

INDICATES NUMBER OF RISER(S) / CONDUIT(S)

XX

INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)

NUMBER
OF
CABLE(S)

XX

△

XX

XX

XX

XX

NUMBER
OF
FIBERS/TWISTED PAIRS

NUMBER
OF
RISER(S)/CONDUIT(S)

DIAMETER
OF
RISER(S)/CONDUIT(S) (INCH)

NEW/ EXISTING CABLE

REMOVE/ MODIFY CABLE

CONDUIT/ RISER

ATTACHMENT POINT:

XX"/SS
YYY

DISTANCE ABOVE (IN)/ATTACHMENT POINT
REFERENCE POINT

YYY
XX"/SS

REFERENCE POINT
DISTANCE BELOW (IN)/ATTACHMENT POINT

"SS" REFERENCE LOCATION
FS = FRONT SIDE OF POLE
BS = BACK SIDE OF POLE

Cable Routing

Prepared for the Offices of:

Seal of the State of North Carolina
Department of Transportation
Division of Transportation Systems

750 N. Greenfield Pkwy., Garner, NC 27529

CONSTRUCTION NOTES

Division 4

Wilson County

Wilson

PLAN DATE: December 2024

REVIEWED BY: PL Alexander

PREPARED BY: JT Sutton

REVISIONS

INIT.

DATE

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UNLESS ALL SIGNATURES COMPLETED

SEAL

Seal of the State of North Carolina
Professional Engineer
044476
Anthony M. Encarnacion

Designed by:
Anthony Encarnacion

SIGNATURE: _____
DATE: 3/10/2025

*See Summary of Work by Intersections

[illegible]

*See Summary of Work by Intersections

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Prepared in the Offices of: 	Wilson Signal System Summary of Work by Cable Routing Plans Sheet 1 of 4	SEAL 				
750 N. Greenfield Pkwy., Garner, NC 27529	Division 4 Wilson County Wilson <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">PLAN DATE: March 2025</td> <td style="width: 50%;">REVIEWED BY: AM Encarnacion</td> </tr> <tr> <td>PREPARED BY: JT Sutton</td> <td>REVIEWED BY: PL Alexander</td> </tr> </table>	PLAN DATE: March 2025	REVIEWED BY: AM Encarnacion	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	Decalsigned by:  SIGNATURE: Anthony Encarnacion DATE: 3/11/2025
PLAN DATE: March 2025	REVIEWED BY: AM Encarnacion					
PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander					

SUMMARY OF WORK BY CABLE ROUTING PLANS

[illegible]

*See Summary of Work by Intersections

Cable Routing

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Prepared in the Offices of: 	Wilson Signal System Summary of Work by Cable Routing Plans Sheet 2 of 4	SEAL 
Division 4 Wilson County Wilson		
PLAN DATE: March 2025		REVIEWED BY: AM Encarnacion
PREPARED BY: JT Sutton		REVIEWED BY: PL Alexander
REVISIONS		INT. DATE
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.....		
.....		

SUMMARY OF WORK BY CABLE ROUTING PLANS

[illegible]

*See Summary of Work by Intersections

Cable Routing

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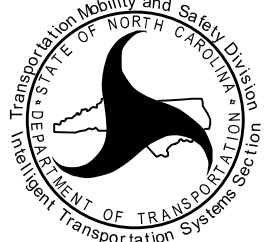
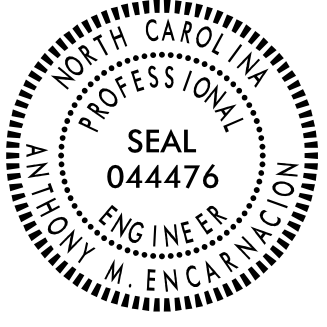
SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	TRACER WIRE	UNPAVED TRENCHING (1 CONDUIT, 2 INCH)	JUNCTION BOX (STANDARD SIZE)	JUNCTION BOX (OVER-SIZED)	HEAT SHRINK TUBING KIT	2" RISER WITH FIBER OPTIC CABLE SEAL	MODIFY EXISTING SPLICE OR INTERCONNECT CENTER	INTERCONNECT CENTER	FURNISH INTERCONNECT CENTER	ETHERNET EDGE SWITCH	FURNISH ETHERNET EDGE SWITCH	REMOVE EXISTING COMMUNICATIONS CABLE	INSTALL ANTENNA AND MOUNTING BRACKET	MODIFY EXISTING ELECTRICAL SERVICE	INSTALL TYPE 332 HUB CABINET	INSTALL CABINET FOUNDATION	CABINET BASE EXTENDERS	DRILL/CORE DRILL EXISTING FOUNDATION	SERVICE CONDUCTOR	ETHERNET CABLE
	LF	LF	EA	EA	EA	EA	EA	EA		EA		LF	EA	EA	EA	EA		EA		LF
SCP-96																				
SCP-97	100	100		2		1	1													
SCP-98									1		1									

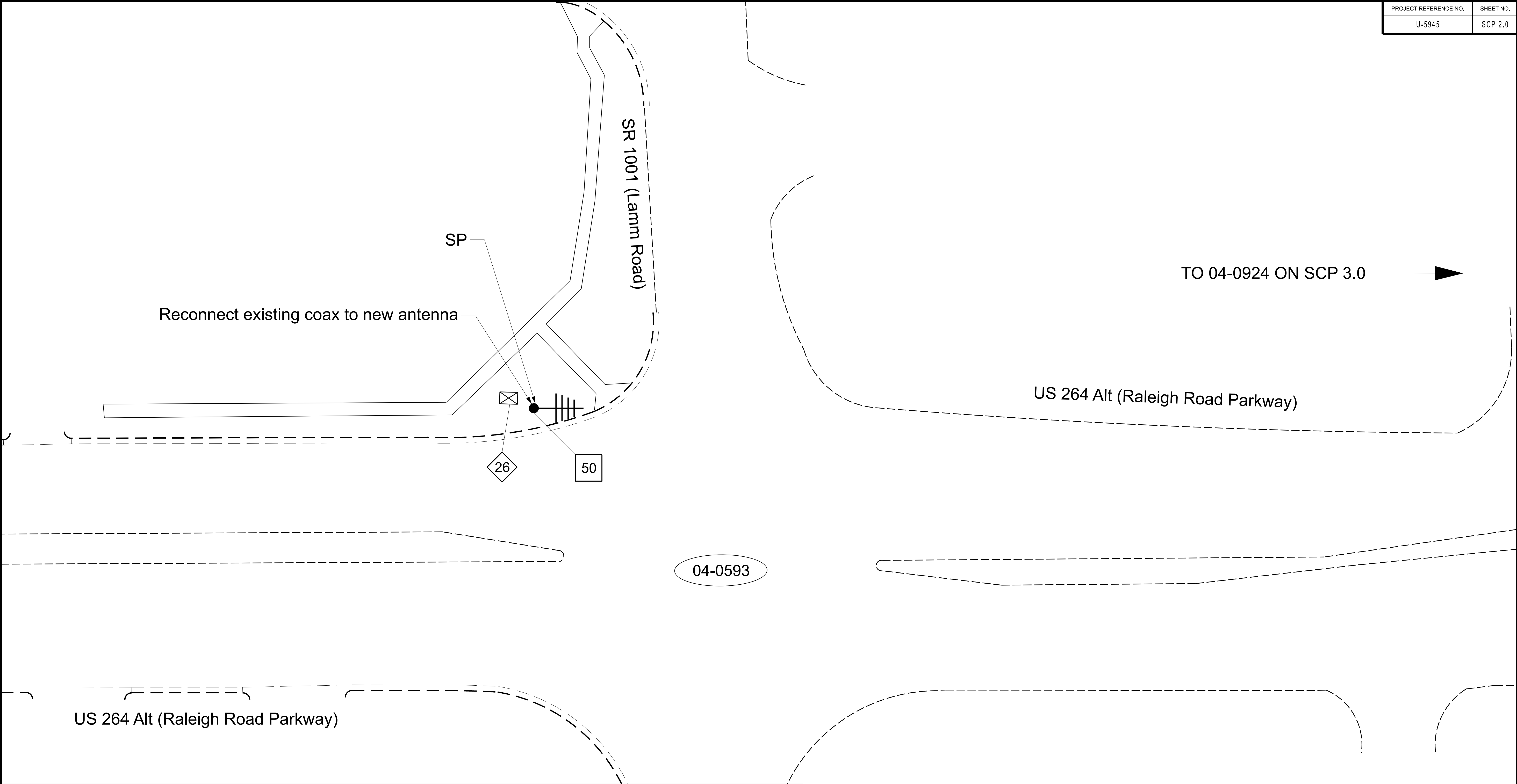
*See Summary of Work by Intersections

Cable Routing

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UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of:  750 N. Greenfield Pkwy., Garner, NC 27529	Wilson Signal System Summary of Work by Cable Routing Plans Sheet 4 of 4		SEAL 	
	Division 4 Wilson County Wilson			
	PLAN DATE: March 2025	REVIEWED BY: AM Encarnacion		
	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander		
	REVISIONS			INIT.

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 2.0



- | | | | |
|----|--|-----|--|
| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 2 | INSTALL ETHERNET CABLE | 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
| 4 | INSTALL SMFO CABLE | 26 | INSTALL NEW ETHERNET EDGE SWITCH |
| 6 | INSTALL FIBER OPTIC DROP CABLE | 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET |
| 7 | INSTALL TRACER WIRE | 31 | MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE |
| 8 | TRENCH | 34 | INSTALL CABINET FOUNDATION |
| 9 | INSTALL PVC CONDUIT | 39 | INSTALL JUNCTION BOX |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT | 40A | INSTALL OVERSIZED JUNCTION BOX |
| 12 | INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL | 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT |
| 14 | INSTALL POLYETHYLENE CONDUIT | 50 | INSTALL ANTENNA AND MOUNTING BRACKET |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT | 53A | STORE 20 FEET OF COMMUNICATIONS CABLE |
| 19 | INSTALL CABLE(S) IN EXISTING RISER | 53B | STORE 50 FEET OF COMMUNICATIONS CABLE |
| 20 | INSTALL CABLE(S) IN NEW RISER | 57 | MODIFY EXISTING ELECTRICAL SERVICE |
| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS | 58 | INSTALL NEW ELECTRICAL SERVICE |
| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | | |

- | | |
|----|--|
| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |
- CONSTRUCTION NOTE SYMBOLOGY KEY**
- | | | | |
|----|---|----|--|
| XX | INDICATES NUMBER OF CABLES, LOOPS, ETC. | XX | INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH) |
| XX | INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC. | XX | NUMBER OF RISER(S)/CONDUIT(S) |
| XX | INDICATES NUMBER OF RISER(S) / CONDUIT(S) | XX | NUMBER OF FIBERS/TWISTED PAIRS |
- NEW/EXISTING CABLE
REMOVE/ MODIFY CABLE
CONDUIT/ RISER
DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

SR 1001 (Lamm Road)

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529 SCALE 0 20 1"=20'	U-5945 Wilson Signal System		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	Division 4 Wilson County Wilson		SEAL PROFESSIONAL ENGINEER ANTHONY M. ENCARNACION	
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion	REVISIONS	
	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	INIT.	DATE

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 4.0



TO 04-0924 ON SCP 3.0

US 264 Alt (Raleigh Road Parkway)

SR 1309 (Bloomery Road)

04-1032

Reconnect existing coax to new antenna

SP

US 264 Alt (Raleigh Road Parkway)

50

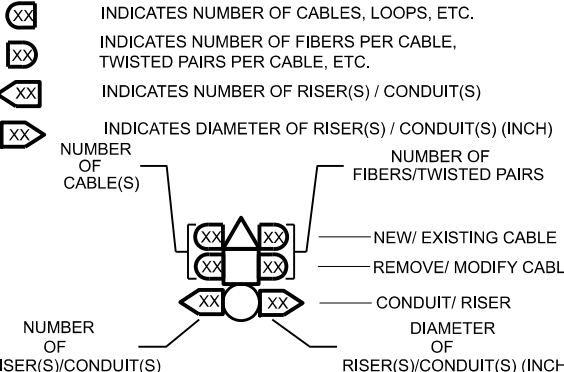
26

SR 1157
(Merck Road)

- | | | | |
|----|--|-----|--|
| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 2 | INSTALL ETHERNET CABLE | 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
| 4 | INSTALL SMFO CABLE | 26 | INSTALL NEW ETHERNET EDGE SWITCH |
| 6 | INSTALL FIBER OPTIC DROP CABLE | 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET |
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| 8 | TRENCH | 34 | INSTALL CABINET FOUNDATION |
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| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS | 58 | INSTALL NEW ELECTRICAL SERVICE |
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- | | |
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| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |

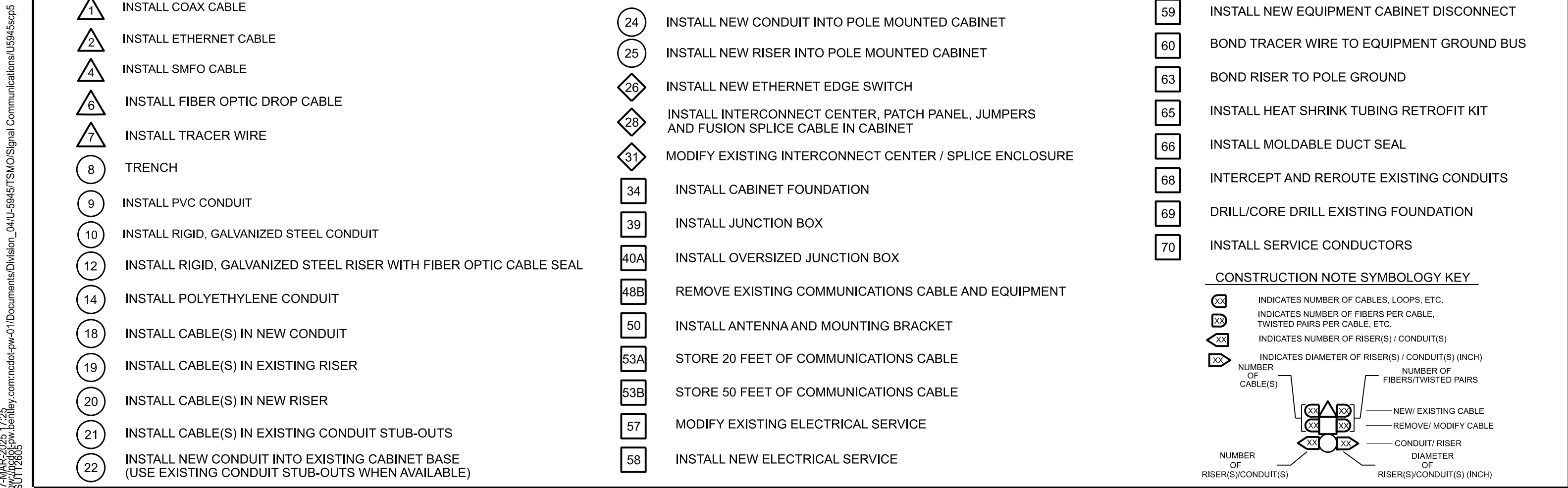
CONSTRUCTION NOTE SYMBOLOGY KEY



AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529 TRANSPORTATION MOBILITY AND SAFETY DIVISION NORTH CAROLINA DEPARTMENT OF TRANSPORTATION Signal Management Section SCALE 0 30 1"=30'	U-5945 Wilson Signal System		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	Division 4 Wilson County Wilson		SEAL PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION	
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion	SIGNATURE: Anthony Encarnacion DATE: 3/10/2025	
	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander		
	REVISIONS	INIT.	DATE	

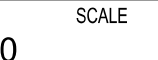


DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Prepared for The Offices of: 	U-5945 Wilson Signal System																						
750 N. Greenfield Pkwy, Garner, NC 27529	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Division 4</th> <th style="text-align: left;">Wilson County</th> <th style="text-align: left;">Wilson</th> </tr> <tr> <td style="padding: 5px;">PLAN DATE: December 2024</td> <td colspan="2" style="padding: 5px;">REVIEWED BY: AM Encarnacion</td> </tr> <tr> <td style="padding: 5px;">PREPARED BY: JT Sutton</td> <td colspan="2" style="padding: 5px;">REVIEWED BY: PL Alexander</td> </tr> <tr> <td style="padding: 5px;">REVISONS</td> <td style="padding: 5px;">INIT.</td> <td style="padding: 5px;">DATE</td> </tr> <tr><td style="height: 20px;"></td><td></td><td></td></tr> <tr><td style="height: 20px;"></td><td></td><td></td></tr> <tr><td style="height: 20px;"></td><td></td><td></td></tr> </table>		Division 4	Wilson County	Wilson	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion		PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander		REVISONS	INIT.	DATE									
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REVISONS	INIT.	DATE																					
 SCALE 0 40 1"=40'	Designed by: <i>Anthony Encarnacion</i> SIGNATURE: [Signature] AND RES ID#: DATE: 3/10/2025																						



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

Prepared for The Offices of:	
	
U-5945 Wilson Signal System	
Division 4	Wilson County
<u>PLAN DATE:</u> December 2024	<u>REVIEWED BY:</u> AM Encarnacion
<u>PREPARED BY:</u> JT Sutton	<u>REVIEWED BY:</u> PL Alexander
<u>REVISONS</u>	<u>INT.</u> <u>DATE</u>


SCALE
0 40

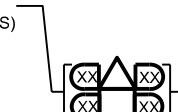
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Decisigned by:
(Signature)
SIGNATURE UNIT: Anthony Encarnacion
 ID#AAGC09S340B.
DATE: 3/10/2025

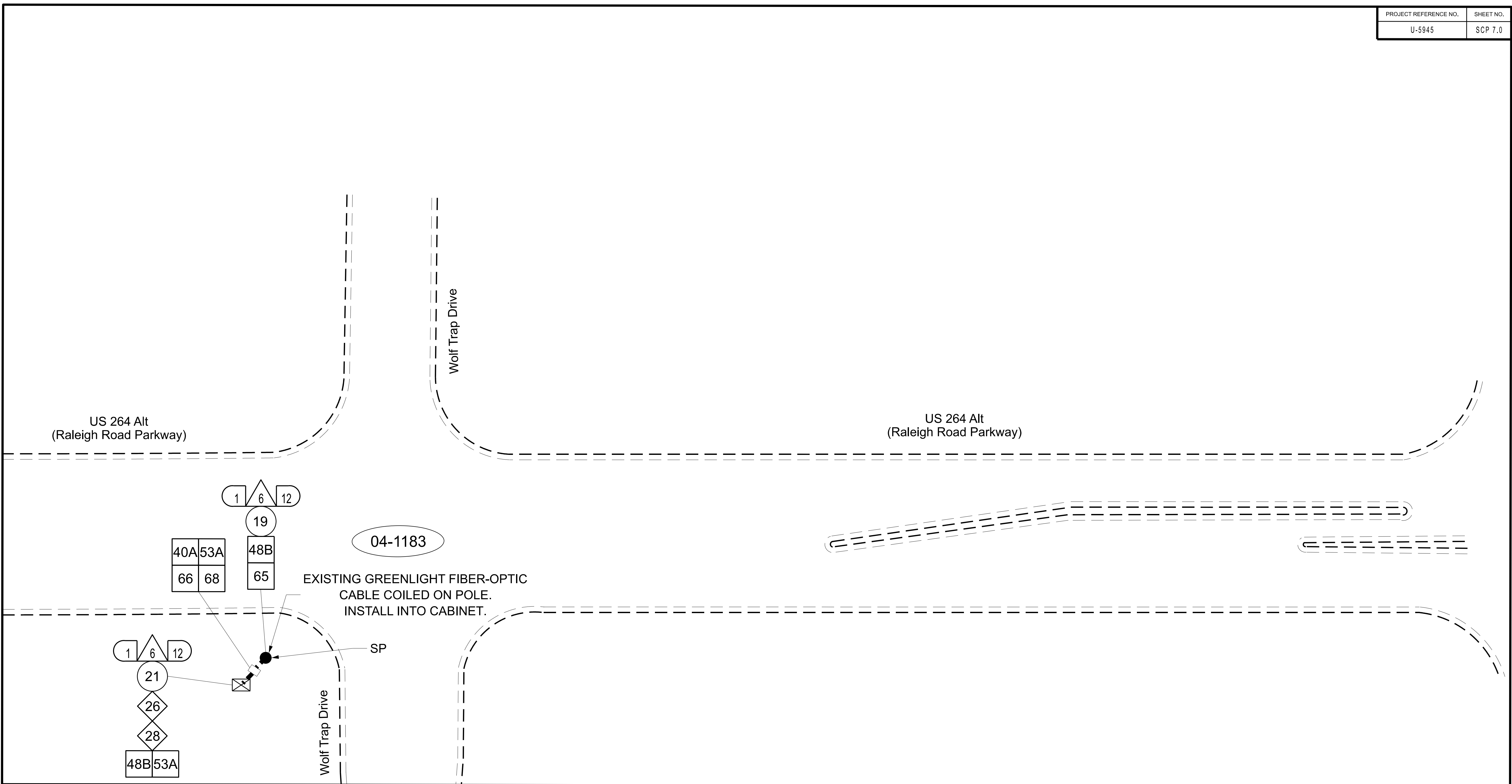
AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

- | | | | | | |
|----|--|-----|--|----|--|
| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET | 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 2 | INSTALL ETHERNET CABLE | 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET | 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 3 | INSTALL SMFO CABLE | 26 | INSTALL NEW ETHERNET EDGE SWITCH | 63 | BOND RISER TO POLE GROUND |
| 6 | INSTALL FIBER OPTIC DROP CABLE | 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET | 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 7 | INSTALL TRACER WIRE | 31 | MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE | 66 | INSTALL MOLDABLE DUCT SEAL |
| 8 | TRENCH | 34 | INSTALL CABINET FOUNDATION | 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 9 | INSTALL PVC CONDUIT | 39 | INSTALL JUNCTION BOX | 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT | 40A | INSTALL OVERSIZED JUNCTION BOX | 70 | INSTALL SERVICE CONDUCTORS |
| 12 | INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL | 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT | | |
| 14 | INSTALL POLYETHYLENE CONDUIT | 50 | INSTALL ANTENNA AND MOUNTING BRACKET | | |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT | 53A | STORE 20 FEET OF COMMUNICATIONS CABLE | | |
| 19 | INSTALL CABLE(S) IN EXISTING RISER | 53B | STORE 50 FEET OF COMMUNICATIONS CABLE | | |
| 20 | INSTALL CABLE(S) IN NEW RISER | 57 | MODIFY EXISTING ELECTRICAL SERVICE | | |
| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS | 58 | INSTALL NEW ELECTRICAL SERVICE | | |
| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | | | | |
- CONSTRUCTION NOTE SYMBOLOLOGY KEY**

 INDICATES NUMBER OF CABLES, LOOPS, ETC.
 INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.
 INDICATES NUMBER OF RISER(S) / CONDUIT(S)
 INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)



NUMBER OF RISER(S)/CONDUIT(S) NUMBER OF FIBERS/TWISTED PAIRS
 — NEW/ EXISTING CABLE
 - - - REMOVE/ MODIFY CABLE
 — CONDUIT/ RISER
 DIAMETER OF RISER(S)/CONDUIT(S) (INCH)



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SUT17289

1 INSTALL COAX CABLE 2 INSTALL ETHERNET CABLE 4 INSTALL SMFO CABLE 6 INSTALL FIBER OPTIC DROP CABLE 7 INSTALL TRACER WIRE 8 TRENCH 9 INSTALL PVC CONDUIT 10 INSTALL RIGID, GALVANIZED STEEL CONDUIT 12 INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL 14 INSTALL POLYETHYLENE CONDUIT 18 INSTALL CABLE(S) IN NEW CONDUIT 19 INSTALL CABLE(S) IN EXISTING RISER 20 INSTALL CABLE(S) IN NEW RISER 21 INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS 22 INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)	24 INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET 25 INSTALL NEW RISER INTO POLE MOUNTED CABINET 26 INSTALL NEW ETHERNET EDGE SWITCH 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET 31 MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE 34 INSTALL CABINET FOUNDATION 39 INSTALL JUNCTION BOX 40A INSTALL OVERSIZED JUNCTION BOX 48B REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT 50 INSTALL ANTENNA AND MOUNTING BRACKET 53A STORE 20 FEET OF COMMUNICATIONS CABLE 53B STORE 50 FEET OF COMMUNICATIONS CABLE 57 MODIFY EXISTING ELECTRICAL SERVICE 58 INSTALL NEW ELECTRICAL SERVICE	59 INSTALL NEW EQUIPMENT CABINET DISCONNECT 60 BOND TRACER WIRE TO EQUIPMENT GROUND BUS 63 BOND RISER TO POLE GROUND 65 INSTALL HEAT SHRINK TUBING RETROFIT KIT 66 INSTALL MOLDABLE DUCT SEAL 68 INTERCEPT AND REROUTE EXISTING CONDUITS 69 DRILL/CORE DRILL EXISTING FOUNDATION 70 INSTALL SERVICE CONDUCTORS
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CONSTRUCTION NOTE SYMBOLOGY KEY

INDICATES NUMBER OF CABLES, LOOPS, ETC.

3

3

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3

3

INDICATES NUMBER OF RISER(S) / CONDUIT(S)

3

3

INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)

3

3

NUMBER OF CABLE(S)

3

3

NUMBER OF FIBERS/TWISTED PAIRS

3

3

NEW/ EXISTING CABLE

3

3

REMOVE/ MODIFY CABLE

3

3

CONDUIT/ RISER

3

3

DIAMETER

3

3

NUMBER OF RISER(S)/CONDUIT(S)

3

3

NUMBER OF RISER(S)/CONDUIT(S) (INCH)

3

3

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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

North Carolina
Department of Transportation
Division 4

Division 4

Wilson County

Wilson

PLAN DATE: December 2024

REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton

REVIEWED BY: PL Alexander

REVISIONS

INT.

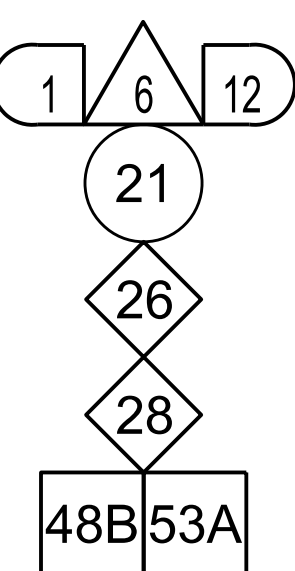
DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

NORTH CAROLINA
PROFESSIONAL
ENGINEER
SEAL
044476
ANTHONY M. ENCARNACION

Designed by
Anthony Encarnacion
SIGNATURE: [Signature]
DATE: 3/10/2025



SP

Westpoint Shopping Center Entrance

Gateway Plaza Shopping

US 264 Alt
(Raleigh Road Parkway)

04-1304

SP

40A
53A
66
68

48B|53A

Cable Routing

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE:	December 2024	REVIEWED BY:	AM Encarnacion
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PREPARED BY:	JT Sutton	REVIEWED BY:	PL Alexander
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REVISIONS	INIT.	DATE
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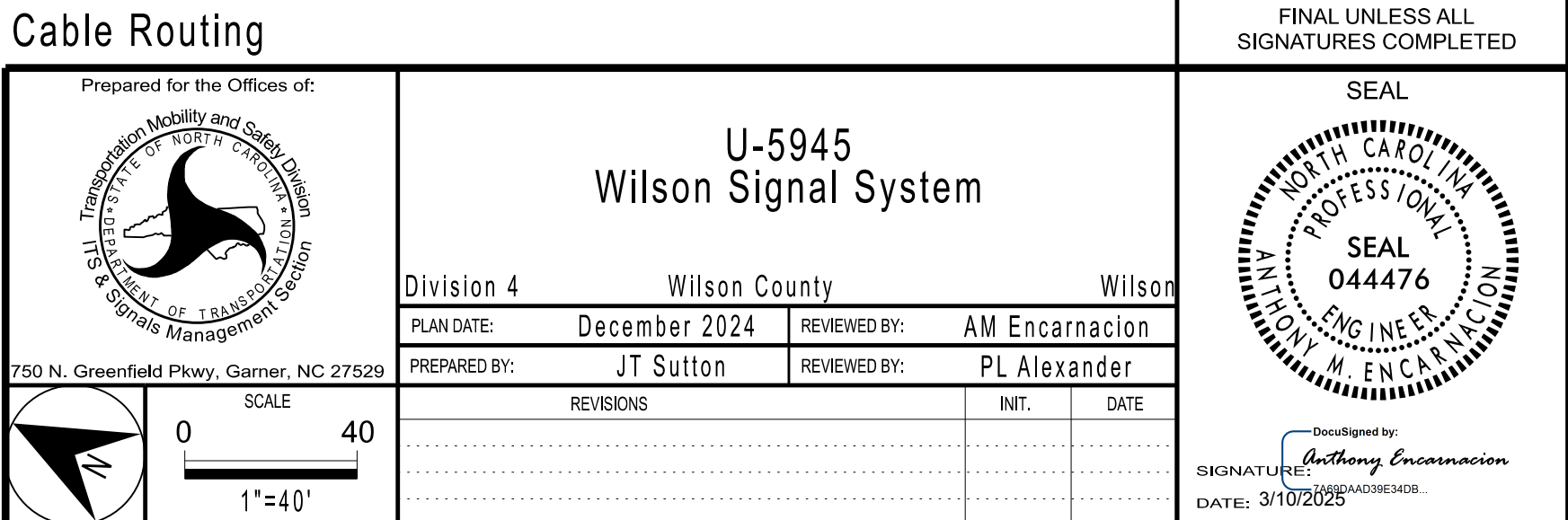
SEAL



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Anthony Encarnacion
IGNATURE: /s/AN044476SE340B..
DATE: 3/10/2025

DocuSigned by:
Anthony Encarnacion
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DATE: 3/10/2025

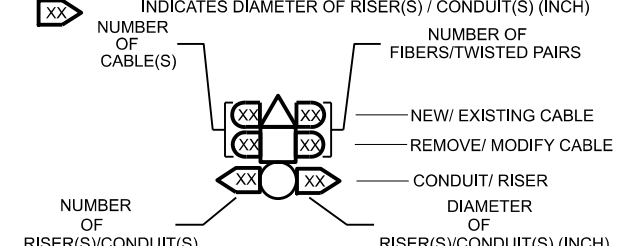
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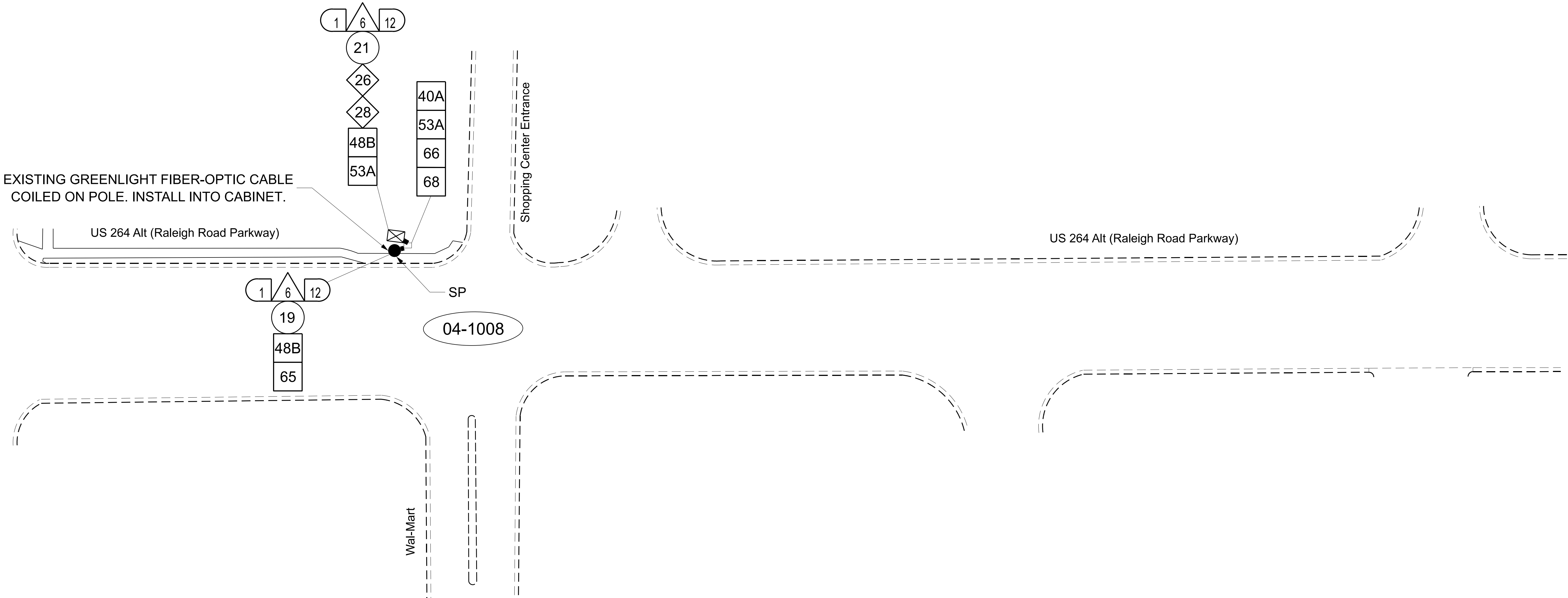
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8	TRENCH	34	INSTALL CABINET FOUNDATION	68	INTERCEPT AND REROUTE EXISTING CONDUITS
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10	INSTALL RIGID, GALVANIZED STEEL CONDUIT	40A	INSTALL OVERSIZED JUNCTION BOX	70	INSTALL SERVICE CONDUCTORS
12	INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL	48B	REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT		
14	INSTALL POLYETHYLENE CONDUIT	50	INSTALL ANTENNA AND MOUNTING BRACKET		
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1

INSTALL COAX CABLE

2

INSTALL ETHERNET CABLE

4

INSTALL SMFO CABLE

6

INSTALL FIBER OPTIC DROP CABLE

8

INSTALL TRACER WIRE

8

TRENCH

9

INSTALL PVC CONDUIT

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INSTALL RIGID, GALVANIZED STEEL CONDUIT

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INSTALL POLYETHYLENE CONDUIT

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INSTALL CABLE(S) IN NEW CONDUIT

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INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)

24

INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET

25

INSTALL NEW RISER INTO POLE MOUNTED CABINET

26

INSTALL NEW ETHERNET EDGE SWITCH

28

INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET

31

MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE

34

INSTALL CABINET FOUNDATION

39

INSTALL JUNCTION BOX

40A

INSTALL OVERSIZED JUNCTION BOX

48B

REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT

50

INSTALL ANTENNA AND MOUNTING BRACKET

53A

STORE 20 FEET OF COMMUNICATIONS CABLE

53B

STORE 50 FEET OF COMMUNICATIONS CABLE

57

MODIFY EXISTING ELECTRICAL SERVICE

58

INSTALL NEW ELECTRICAL SERVICE

59

INSTALL NEW EQUIPMENT CABINET DISCONNECT

60

BOND TRACER WIRE TO EQUIPMENT GROUND BUS

63

BOND RISER TO POLE GROUND

65

INSTALL HEAT SHRINK TUBING RETROFIT KIT

66

INSTALL MOLDABLE DUCT SEAL

68

INTERCEPT AND REROUTE EXISTING CONDUITS

69

DRILL/CORE DRILL EXISTING FOUNDATION

70

INSTALL SERVICE CONDUCTORS

CONSTRUCTION NOTE SYMBOLOGY KEY

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NUMBER OF CABLE(S)

NUMBER OF RISER(S) / CONDUIT(S)

NUMBER OF FIBERS/TWISTED PAIRS

NEW/ EXISTING CABLE

REMOVE/ MODIFY CABLE

CONDUIT/ RISER

DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

Cable Routing

AtkinsRéal

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888

NCBEES #F-0326

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

North Carolina

Division 4

Wilson County

Wilson

U-5945

Wilson Signal System

Division 4

Wilson County

Wilson

PLAN DATE: December 2024

REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton

REVIEWED BY: PL Alexander

REVISIONS

INIT.

DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

PROFESSIONAL ENGINEER

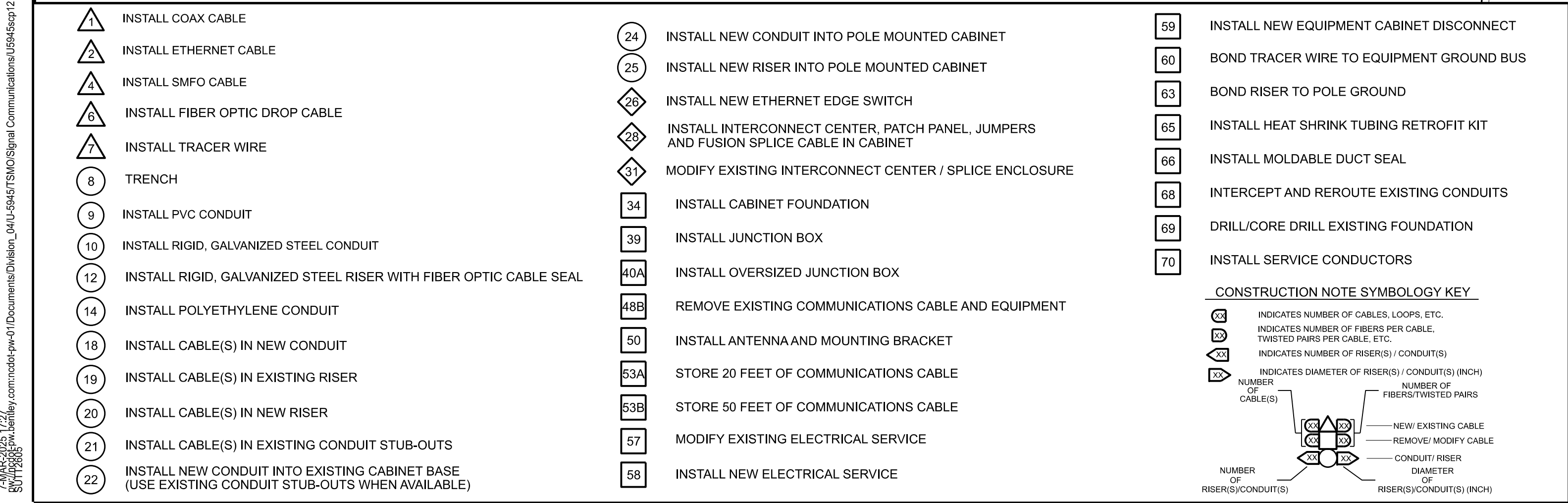
SEAL 044476

ANTHONY M. ENCARNACION

SIGNATURE: Anthony Encarnacion

DATE: 3/10/2025



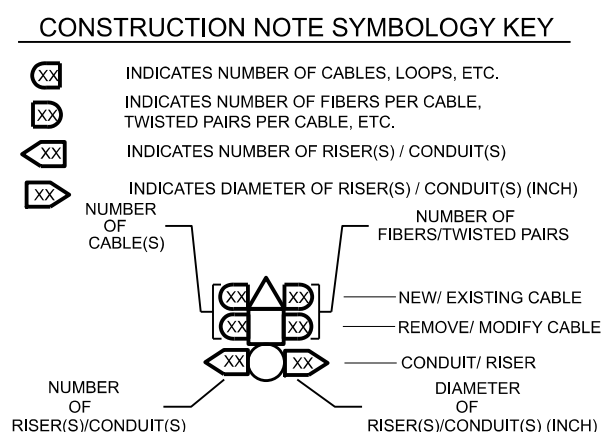


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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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- | | |
|----|--|
| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |



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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Prepared for the Offices of:

The seal of the North Carolina Department of Transportation is circular. It features a stylized black and white map of North Carolina in the center. The text "U.S. Department of Transportation" is written in a circle around the map. Below the map, the text "NORTH CAROLINA" is written. At the bottom of the seal, the text "Department of Transportation" is written.

Signal Management Section

750 N. Greenfield Pkwy, Garner, NC

A circular north arrow pointing upwards and slightly to the right. The letter "N" is written inside the circle.

SCALE

0 A horizontal scale bar with a vertical tick mark at the left end.

1"=30'

[illegible]

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
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SEAL



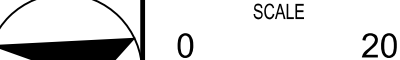
A circular professional seal for the State of North Carolina. The outer ring contains the text "NORTH CAROLINA" at the top and "STATE OF" at the bottom. Inside the ring, the words "PROFESSIONAL" and "ENGINEER" are written in a larger font, separated by "M. ENCARNACION" at the bottom. In the center, the word "SEAL" is at the top, followed by the license number "044476".

SEAL
044476
ENGINEER
M. ENCARNACION

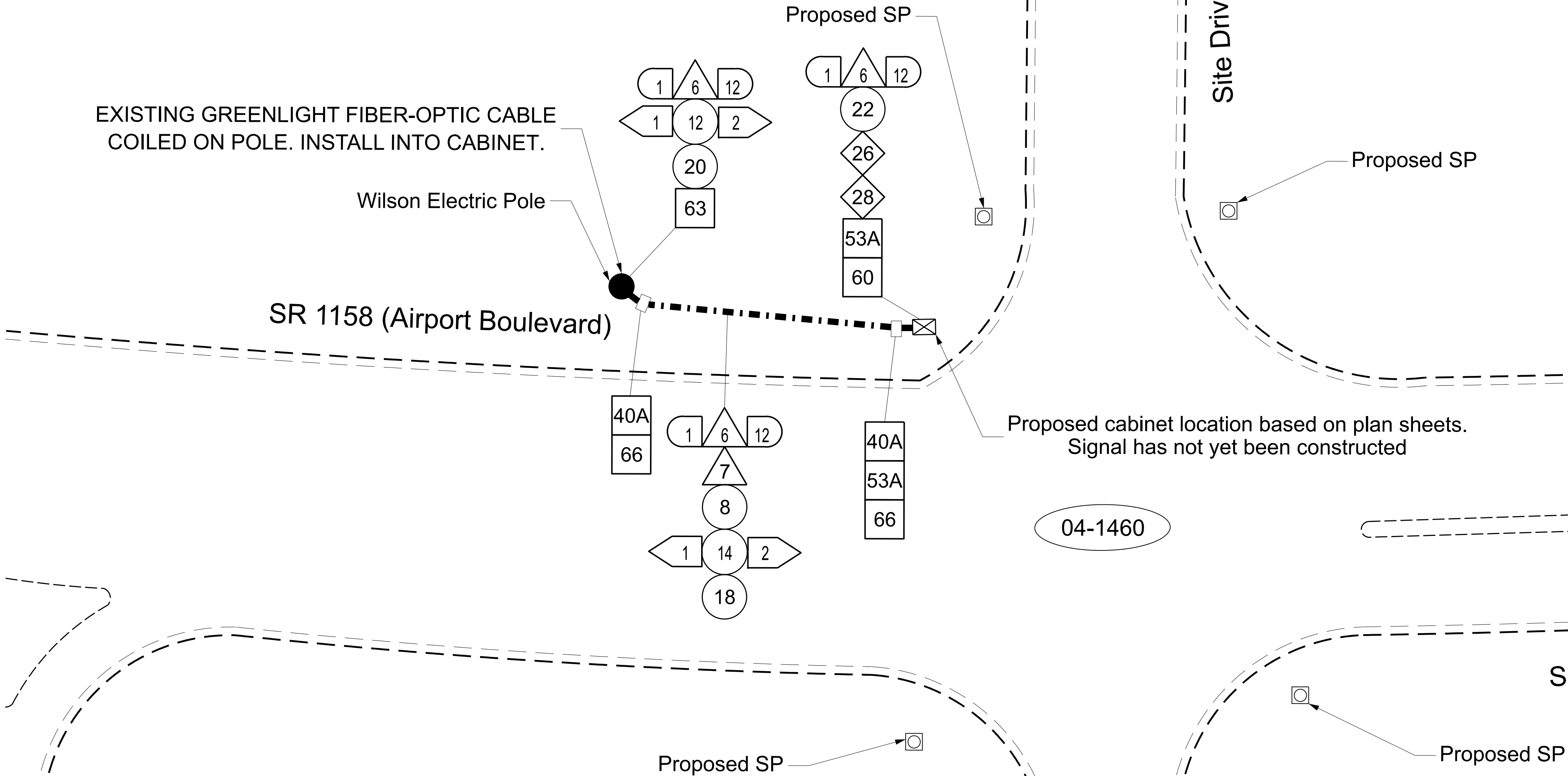
DocuSigned by:
Anthony Encarnacion
ANTHONY.ENCARNACION@GMAIL.COM

SIGNATURE
DATE: 3/10/2025



Cable Routing		FINAL UNLESS ALL SIGNATURES COMPLETED																									
Prepared for the Offices of:		SEAL 																									
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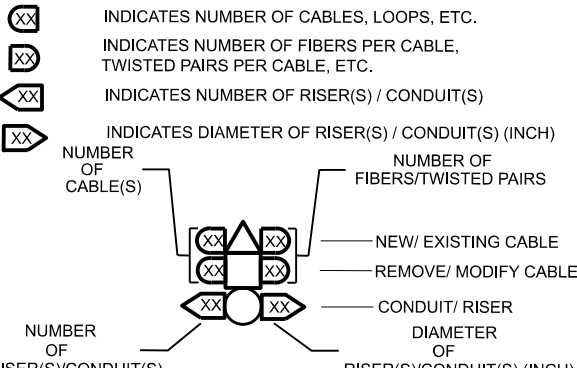
PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 15.0



7:45:25 PM 10/10/2025
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BSCA1226

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CONSTRUCTION NOTE SYMBOLOGY KEY



AtkinsRéal

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Cable Routing

Prepared for the Offices of:

Transportation Mobility and Safety Division
DEPARTMENT OF NORTH CAROLINA
TRANSPORTATION & Signal Management Section

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE
0 20
1"=20'

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton REVIEWED BY: PL Alexander

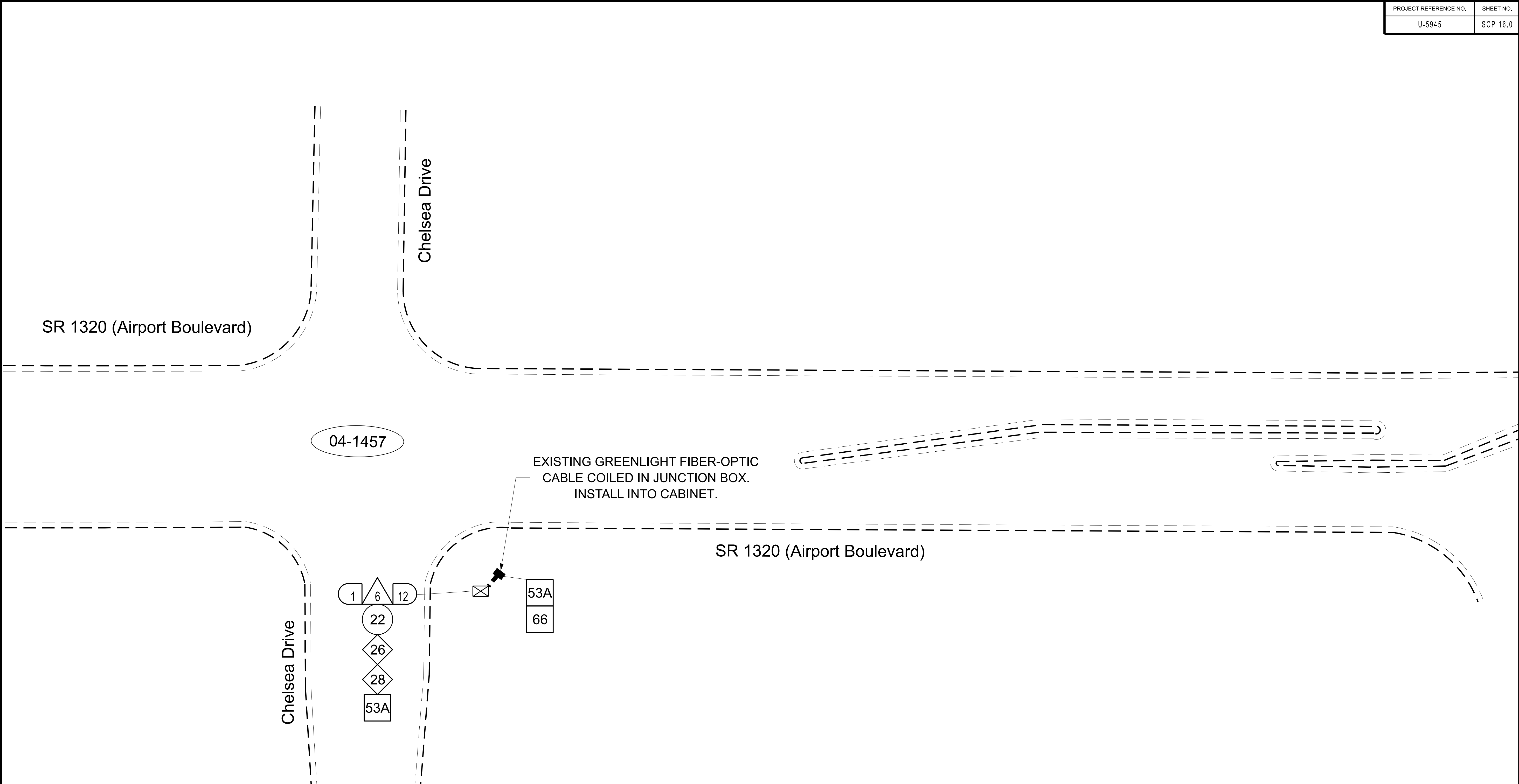
REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY W. ENCARNACION

DocuSigned by:
Anthony Encarnacion
SIGNATURE ID: 388A29E3408...
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 16.0



1

INSTALL COAX CABLE

2

INSTALL ETHERNET CABLE

4

INSTALL SMFO CABLE

6

INSTALL FIBER OPTIC DROP CABLE

7

INSTALL TRACER WIRE

8

TRENCH

9

INSTALL PVC CONDUIT

10

INSTALL RIGID, GALVANIZED STEEL CONDUIT

12

INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL

14

INSTALL POLYETHYLENE CONDUIT

18

INSTALL CABLE(S) IN NEW CONDUIT

19

INSTALL CABLE(S) IN EXISTING RISER

20

INSTALL CABLE(S) IN NEW RISER

21

INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS

22

INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)

24

INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET

25

INSTALL NEW RISER INTO POLE MOUNTED CABINET

26

INSTALL NEW ETHERNET EDGE SWITCH

28

INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET

31

MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE

34

INSTALL CABINET FOUNDATION

39

INSTALL JUNCTION BOX

40A

INSTALL OVERSIZED JUNCTION BOX

48B

REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT

50

INSTALL ANTENNA AND MOUNTING BRACKET

53A

STORE 20 FEET OF COMMUNICATIONS CABLE

53B

STORE 50 FEET OF COMMUNICATIONS CABLE

57

MODIFY EXISTING ELECTRICAL SERVICE

58

INSTALL NEW ELECTRICAL SERVICE

59

INSTALL NEW EQUIPMENT CABINET DISCONNECT

60

BOND TRACER WIRE TO EQUIPMENT GROUND BUS

63

BOND RISER TO POLE GROUND

65

INSTALL HEAT SHRINK TUBING RETROFIT KIT

66

INSTALL MOLDABLE DUCT SEAL

68

INTERCEPT AND REROUTE EXISTING CONDUITS

69

DRILL/CORE DRILL EXISTING FOUNDATION

70

INSTALL SERVICE CONDUCTORS

CONSTRUCTION NOTE SYMBOLOGY KEY

XX

INDICATES NUMBER OF CABLES, LOOPS, ETC.

XX

INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.

XX

INDICATES NUMBER OF RISER(S) / CONDUIT(S)

XX

INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)

XX

NUMBER OF CABLE(S)

XX

NUMBER OF RISER(S)/CONDUIT(S) (INCH)

XX

NEW/ EXISTING CABLE

XX

REMOVE/ MODIFY CABLE

XX

CONDUIT/ RISER

XX

DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

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AtkinsRéal

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

7

SCALE

0

20

1"=20'

U-5945
Wilson Signal System

Division 4

Wilson County

Wilson

PLAN DATE: December 2024

REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton

REVIEWED BY: PL Alexander

REVISIONS

INIT.

DATE

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SEAL

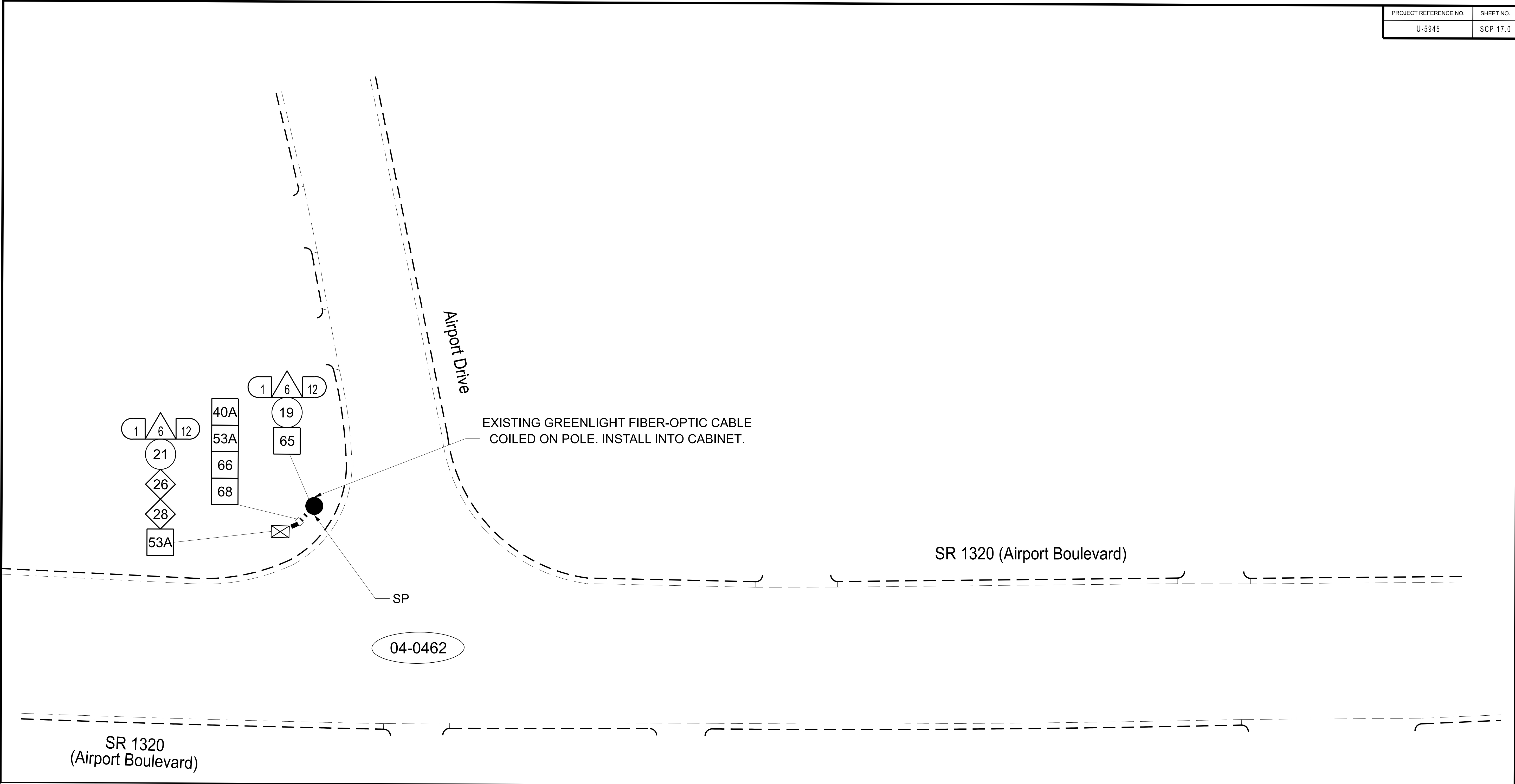
PROFESSIONAL
ENGINEER
044476

ANTHONY M. ENCARNACION

Signed by:
Anthony Encarnacion

SIGNATURE: [Signature]
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 17.0



T:\MAR2025\1721\Wilson County\mod\k-pw-01\Documents\Division_04\U-5945\SCMOSignal Communications\U5945scp17

▲ INSTALL COAX CABLE ▲ INSTALL ETHERNET CABLE ▲ INSTALL SMFO CABLE ▲ INSTALL FIBER OPTIC DROP CABLE ▲ INSTALL TRACER WIRE 8 TRENCH 9 INSTALL PVC CONDUIT 10 INSTALL RIGID, GALVANIZED STEEL CONDUIT 12 INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL 14 INSTALL POLYETHYLENE CONDUIT 18 INSTALL CABLE(S) IN NEW CONDUIT 19 INSTALL CABLE(S) IN EXISTING RISER 20 INSTALL CABLE(S) IN NEW RISER 21 INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS 22 INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)	24 INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET 25 INSTALL NEW RISER INTO POLE MOUNTED CABINET 26 INSTALL NEW ETHERNET EDGE SWITCH 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET 31 MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE 34 INSTALL CABINET FOUNDATION 39 INSTALL JUNCTION BOX 40A INSTALL OVERSIZED JUNCTION BOX 48B REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT 50 INSTALL ANTENNA AND MOUNTING BRACKET 53A STORE 20 FEET OF COMMUNICATIONS CABLE 53B STORE 50 FEET OF COMMUNICATIONS CABLE 57 MODIFY EXISTING ELECTRICAL SERVICE 58 INSTALL NEW ELECTRICAL SERVICE	59 INSTALL NEW EQUIPMENT CABINET DISCONNECT 60 BOND TRACER WIRE TO EQUIPMENT GROUND BUS 63 BOND RISER TO POLE GROUND 65 INSTALL HEAT SHRINK TUBING RETROFIT KIT 66 INSTALL MOLDABLE DUCT SEAL 68 INTERCEPT AND REROUTE EXISTING CONDUITS 69 DRILL/CORE DRILL EXISTING FOUNDATION 70 INSTALL SERVICE CONDUCTORS
CONSTRUCTION NOTE SYMBOLOGY KEY 24 INDICATES NUMBER OF CABLES, LOOPS, ETC. 25 INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC. 26 INDICATES NUMBER OF RISER(S) / CONDUIT(S) 28 INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH) 31 NUMBER OF RISER(S) / CONDUIT(S) 34 NUMBER OF RISER(S) / CONDUIT(S) 39 NUMBER OF RISER(S) / CONDUIT(S) 40A NUMBER OF RISER(S) / CONDUIT(S) 48B NUMBER OF RISER(S) / CONDUIT(S) 50 NUMBER OF RISER(S) / CONDUIT(S) 53A NUMBER OF RISER(S) / CONDUIT(S) 53B NUMBER OF RISER(S) / CONDUIT(S) 57 NUMBER OF RISER(S) / CONDUIT(S) 58 NUMBER OF RISER(S) / CONDUIT(S) NEW EXISTING CABLE REMOVE/ MODIFY CABLE CONDUIT/ RISER DIMETER OF RISER(S)/CONDUIT(S) (INCH)		

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of:

Seal of Wilson County

Seal of Wilson County

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE

0 20

1"=20'

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton REVIEWED BY: PL Alexander

REVISIONS

INIT. DATE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

Seal of North Carolina

Seal of North Carolina

044476

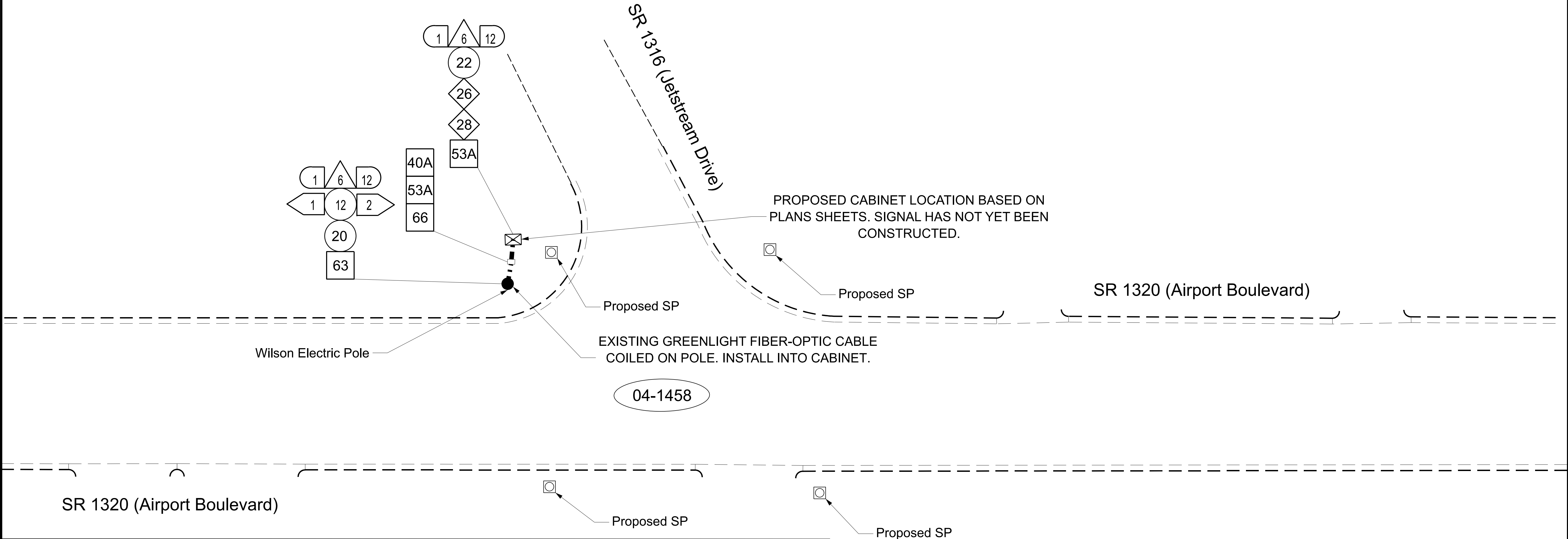
PROFESSIONAL ENGINEER

ANTHONY M. ENCARNACION

Designed by: Anthony Encarnacion

SIGNATURE: DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 18.0



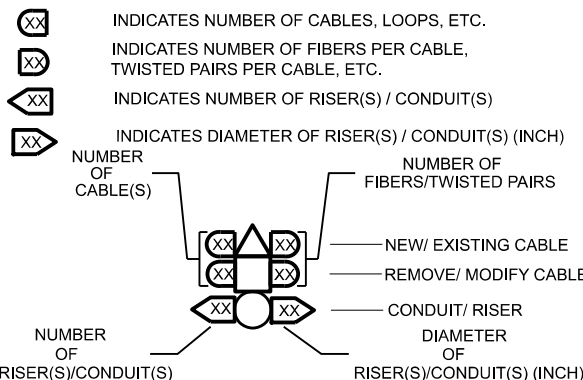
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SUT12685

- | | |
|----|--|
| 1 | INSTALL COAX CABLE |
| 2 | INSTALL ETHERNET CABLE |
| 4 | INSTALL SMFO CABLE |
| 6 | INSTALL FIBER OPTIC DROP CABLE |
| 7 | INSTALL TRACER WIRE |
| 8 | TRENCH |
| 9 | INSTALL PVC CONDUIT |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT |
| 12 | INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL |
| 14 | INSTALL POLYETHYLENE CONDUIT |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT |
| 19 | INSTALL CABLE(S) IN EXISTING RISER |
| 20 | INSTALL CABLE(S) IN NEW RISER |
| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS |
| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) |

- | | |
|-----|--|
| 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
| 26 | INSTALL NEW ETHERNET EDGE SWITCH |
| 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET |
| 31 | MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE |
| 34 | INSTALL CABINET FOUNDATION |
| 39 | INSTALL JUNCTION BOX |
| 40A | INSTALL OVERSIZED JUNCTION BOX |
| 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT |
| 50 | INSTALL ANTENNA AND MOUNTING BRACKET |
| 53A | STORE 20 FEET OF COMMUNICATIONS CABLE |
| 53B | STORE 50 FEET OF COMMUNICATIONS CABLE |
| 57 | MODIFY EXISTING ELECTRICAL SERVICE |
| 58 | INSTALL NEW ELECTRICAL SERVICE |

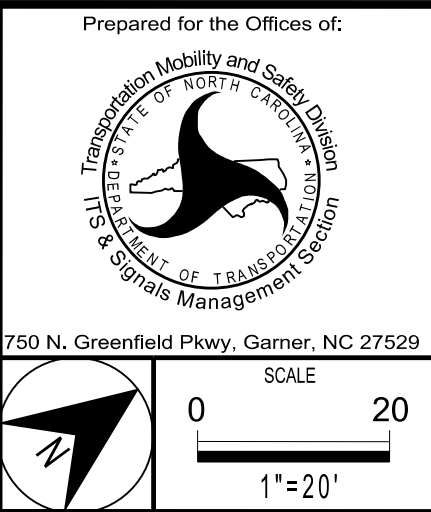
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| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |

CONSTRUCTION NOTE SYMBOLOLOGY KEY



AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

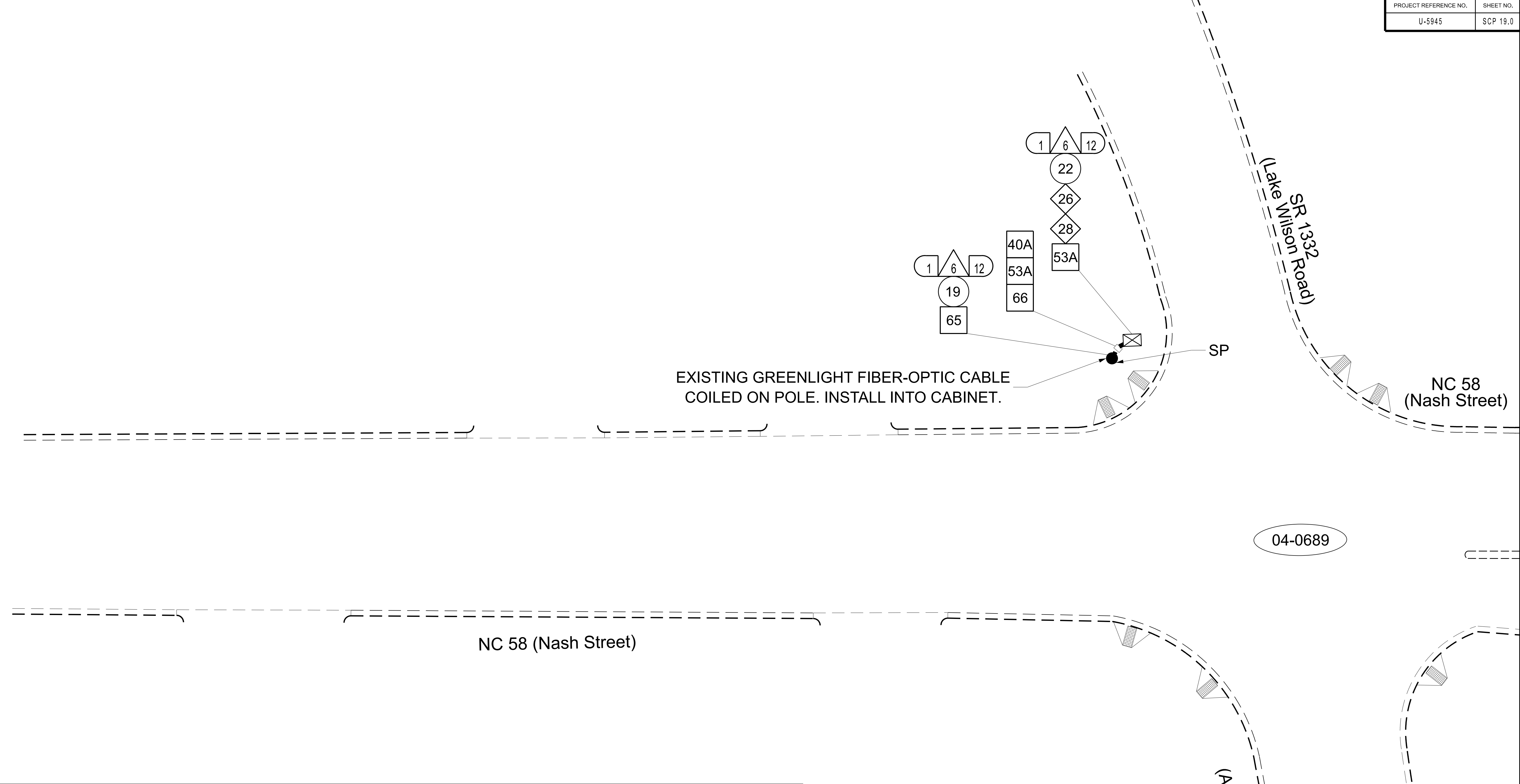
Cable Routing



U-5945 Wilson Signal System		Wilson	
Division 4	Wilson County	Wilson	
PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion		
PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander		
REVISIONS		INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
SEAL ANTHONY M. ENCARNACION PROFESSIONAL ENGINEER SEAL 044476 NORTH CAROLINA
Authorized by Signature: Anthony Encarnacion DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 19.0



04-0689

NC 58 (Nash Street)

SR 1320
(Airport Road)

Cable Routing

Prepared for the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton REVIEWED BY: PL Alexander

REVISIONS	INIT.	DATE

SCALE
0 20
1"=20'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

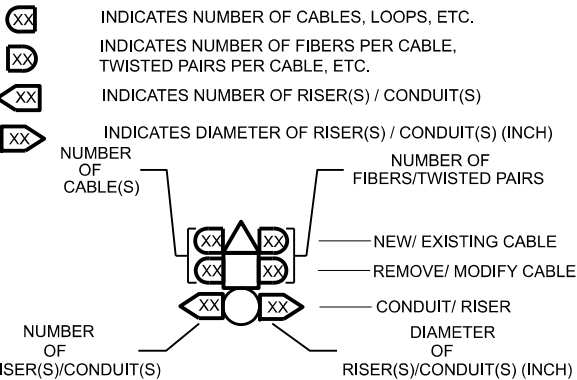
SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

Designed by:
Signature: *Anthony Encarnacion*
SIGNATURE: ANTHONY M. ENCARNACION
DATE: 3/10/2025

- | | | | |
|----|--|-----|--|
| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 2 | INSTALL ETHERNET CABLE | 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
| 4 | INSTALL SMFO CABLE | 26 | INSTALL NEW ETHERNET EDGE SWITCH |
| 6 | INSTALL FIBER OPTIC DROP CABLE | 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET |
| 7 | INSTALL TRACER WIRE | 31 | MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE |
| 8 | TRENCH | 34 | INSTALL CABINET FOUNDATION |
| 9 | INSTALL PVC CONDUIT | 39 | INSTALL JUNCTION BOX |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT | 40A | INSTALL OVERSIZED JUNCTION BOX |
| 12 | INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL | 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT |
| 14 | INSTALL POLYETHYLENE CONDUIT | 50 | INSTALL ANTENNA AND MOUNTING BRACKET |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT | 53A | STORE 20 FEET OF COMMUNICATIONS CABLE |
| 19 | INSTALL CABLE(S) IN EXISTING RISER | 53B | STORE 50 FEET OF COMMUNICATIONS CABLE |
| 20 | INSTALL CABLE(S) IN NEW RISER | 57 | MODIFY EXISTING ELECTRICAL SERVICE |
| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS | 58 | INSTALL NEW ELECTRICAL SERVICE |
| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | | |

- | | |
|----|--|
| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |

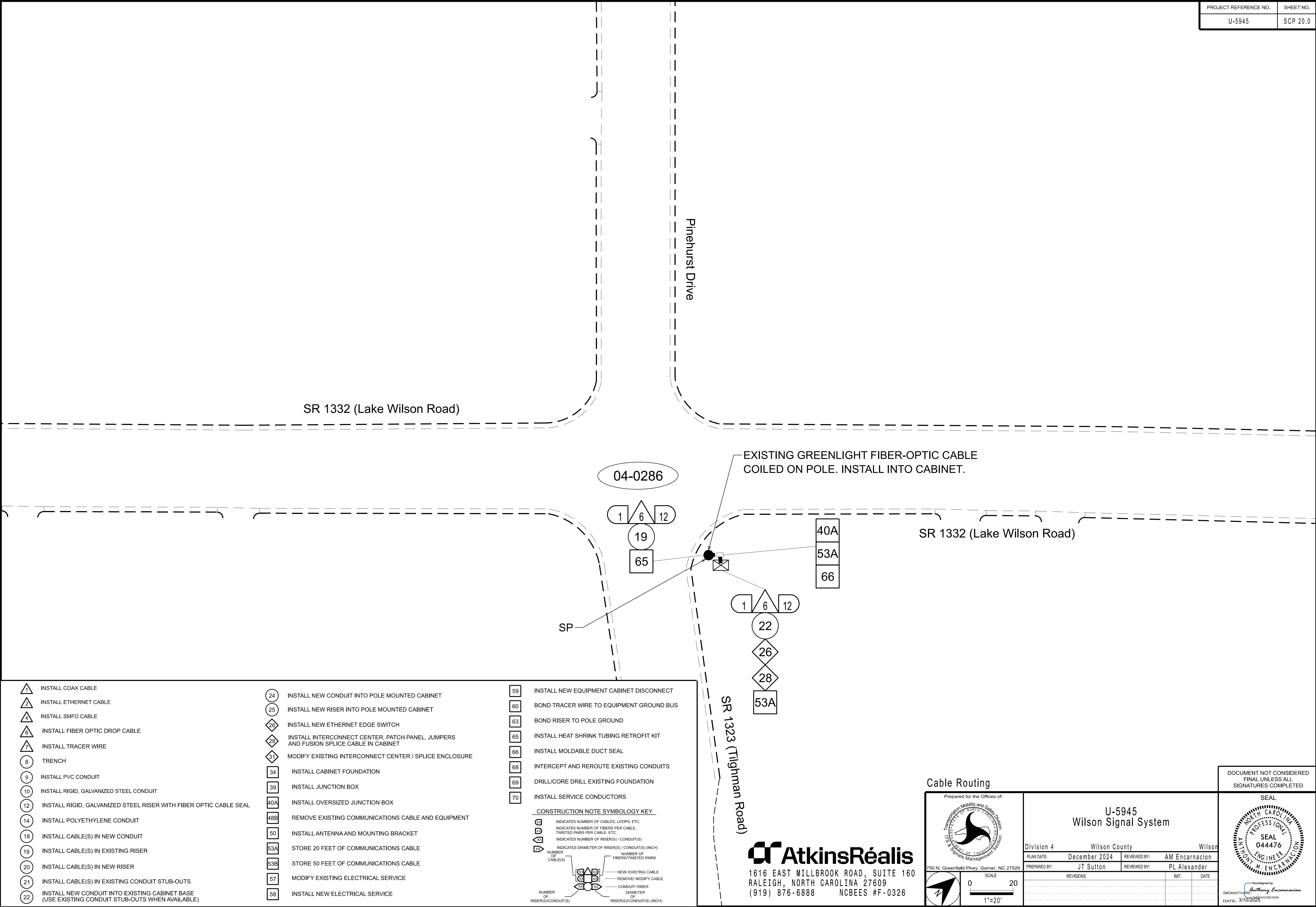
CONSTRUCTION NOTE SYMBOLOGY KEY





1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 20.0

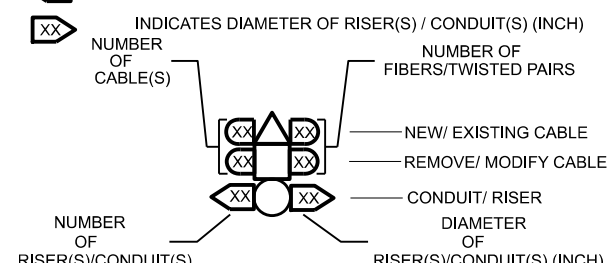


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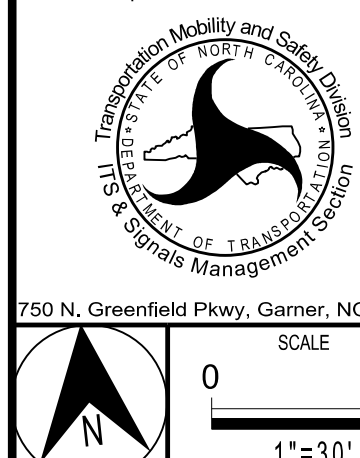
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|----|--|
| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |

	INDICATES NUMBER OF CABLES, LOOPS, ETC.
	INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.
	INDICATES NUMBER OF RISER(S) / CONDUIT(S)



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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Prepared for the Offices of:



Division 4 Wilson County Wilson

PLAN DATE:	December 2024	REVIEWED BY:	AM Encarnacion
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PREPARED BY:	JT Sutton	REVIEWED BY:	PL Alexander
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REVISIONS	INIT.	DATE
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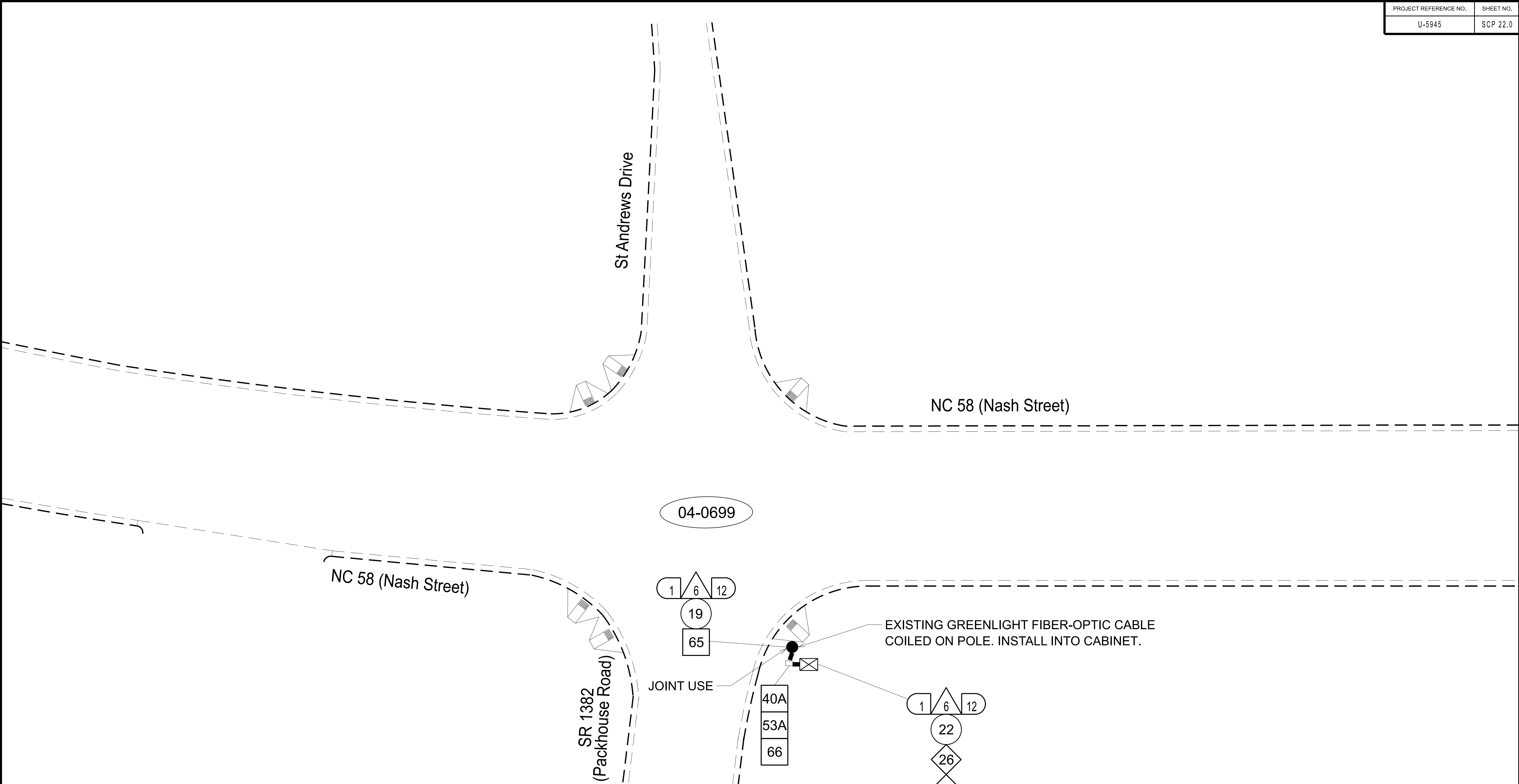
SEAL

NORTH CAROLINA
PROFESSIONAL
ENGINEER
ANTHONY M. ENCARNACION

SEAL
044476
EXPIRATION DATE: 12/31/2015

DocuSigned by:
Anthony Encarnacion
SIGNATURE: [Redacted]
DATE: 3/10/2015 10:40:06 AM
ID: 310282

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 22.0



1

INSTALL COAX CABLE

2

INSTALL ETHERNET CABLE

4

INSTALL SMFO CABLE

6

INSTALL FIBER OPTIC DROP CABLE

7

INSTALL TRACER WIRE

8

TRENCH

9

INSTALL PVC CONDUIT

10

INSTALL RIGID, GALVANIZED STEEL CONDUIT

12

INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL

14

INSTALL POLYETHYLENE CONDUIT

18

INSTALL CABLE(S) IN NEW CONDUIT

19

INSTALL CABLE(S) IN EXISTING RISER

20

INSTALL CABLE(S) IN NEW RISER

21

INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS

22

INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)

24

INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET

25

INSTALL NEW RISER INTO POLE MOUNTED CABINET

26

INSTALL NEW ETHERNET EDGE SWITCH

28

INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET

31

MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE

34

INSTALL CABINET FOUNDATION

39

INSTALL JUNCTION BOX

40A

INSTALL OVERSIZED JUNCTION BOX

48B

REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT

50

INSTALL ANTENNA AND MOUNTING BRACKET

53A

STORE 20 FEET OF COMMUNICATIONS CABLE

53B

STORE 50 FEET OF COMMUNICATIONS CABLE

57

MODIFY EXISTING ELECTRICAL SERVICE

58

INSTALL NEW ELECTRICAL SERVICE

59

INSTALL NEW EQUIPMENT CABINET DISCONNECT

60

BOND TRACER WIRE TO EQUIPMENT GROUND BUS

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BOND RISER TO POLE GROUND

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INSTALL HEAT SHRINK TUBING RETROFIT KIT

66

INSTALL MOLDABLE DUCT SEAL

68

INTERCEPT AND REROUTE EXISTING CONDUITS

69

DRILL/CORE DRILL EXISTING FOUNDATION

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INSTALL SERVICE CONDUCTORS

CONSTRUCTION NOTE SYMBOLOGY KEY

XX

INDICATES NUMBER OF CABLES, LOOPS, ETC.

XX

INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.

XX

INDICATES NUMBER OF RISER(S) / CONDUIT(S)

XX

INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)

XX

NUMBER OF FIBERS/TWISTED PAIRS

XX

NUMBER OF RISER(S)/CONDUIT(S)

XX

RISER(S)/CONDUIT(S) (INCH)

NEW/ EXISTING CABLE

REMOVE/ MODIFY CABLE

CONDUIT/ RISER

DIAMETER

AtkinsRéal

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

Seal of the State of North Carolina

Department of Transportation

Division of Transportation Mobility and Safety

U-5945
Wilson Signal System

Division 4

Wilson County

Wilson

PLAN DATE: December 2024

REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton

REVIEWED BY: PL Alexander

REVISIONS

INIT.

DATE

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FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

Seal of the State of North Carolina

Professional Engineer

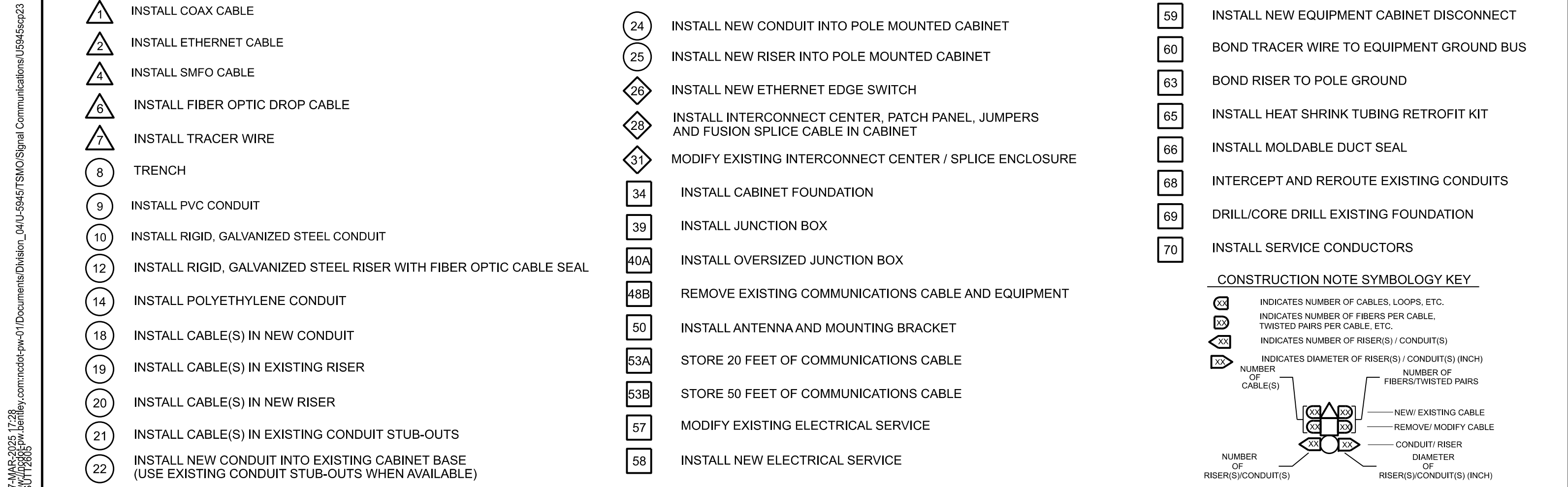
044476

ANTHONY M. ENCARNACION

Designed by:

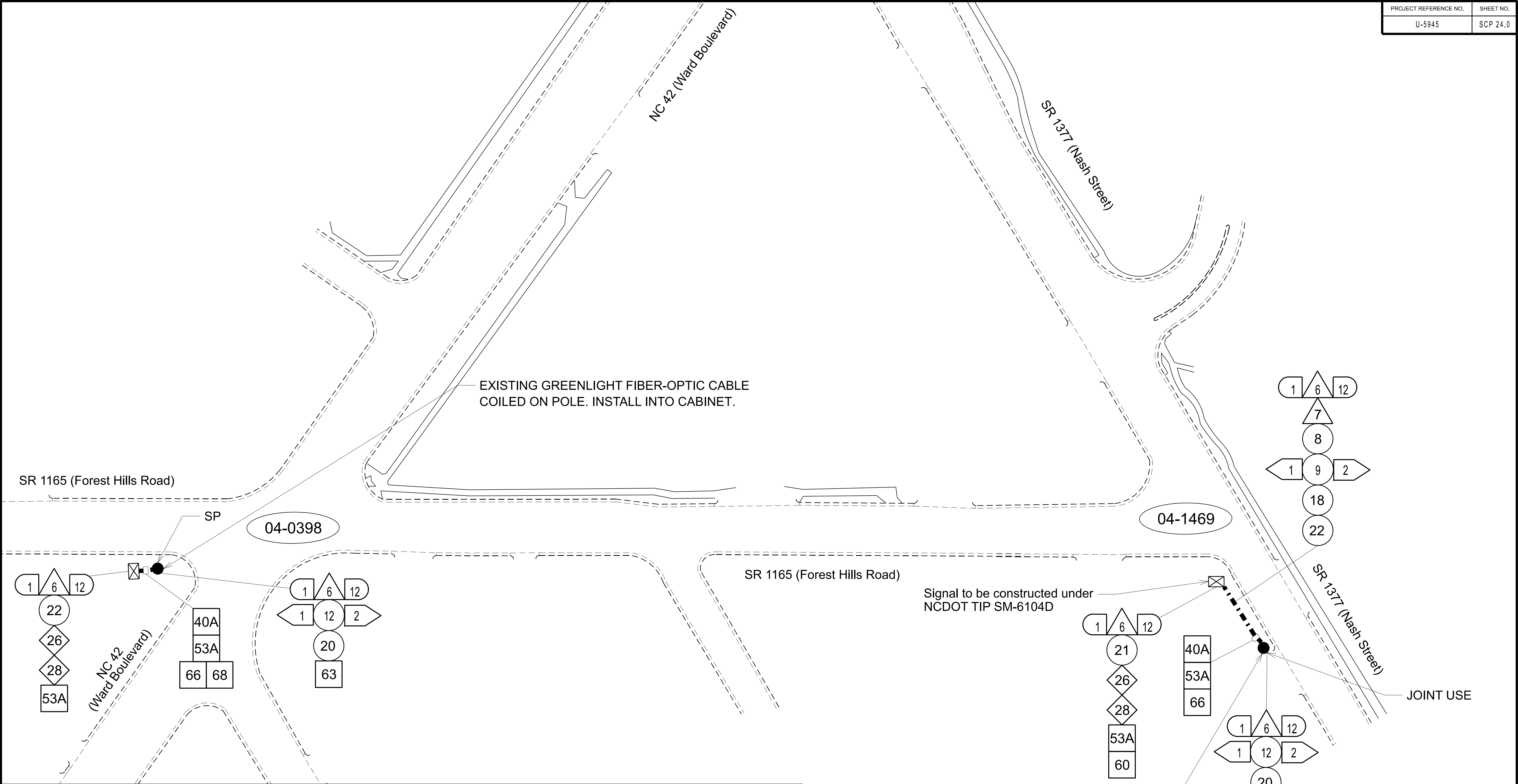
Signature of Anthony Encarnacion

DATE: 3/10/2025



AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Prepared for the Offices of: 	U-5945 Wilson Signal System	SEAL 																														
750 N. Greenfield Pkwy, Garner, NC 27529																																
Division 4 Wilson County Wilson																																
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PLAN DATE:	December 2024	REVIEWED BY:	AM Encarnacion																													
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REVISIONS	INIT.	DATE																														
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Designed by:  SIGNATURE: Anthony Encarnacion DATE: 3/10/2025 State of North Carolina PROFESSIONAL ENGINEER License No. 044476																																



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|----|--|-----|--|
| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 2 | INSTALL ETHERNET CABLE | 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
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| 7 | INSTALL TRACER WIRE | 31 | MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE |
| 8 | TRENCH | 34 | INSTALL CABINET FOUNDATION |
| 9 | INSTALL PVC CONDUIT | 39 | INSTALL JUNCTION BOX |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT | 40A | INSTALL OVERSIZED JUNCTION BOX |
| 12 | INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL | 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT |
| 14 | INSTALL POLYETHYLENE CONDUIT | 50 | INSTALL ANTENNA AND MOUNTING BRACKET |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT | 53A | STORE 20 FEET OF COMMUNICATIONS CABLE |
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| 20 | INSTALL CABLE(S) IN NEW RISER | 57 | MODIFY EXISTING ELECTRICAL SERVICE |
| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS | 58 | INSTALL NEW ELECTRICAL SERVICE |
| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | | |

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| 66 | INSTALL MOLDABLE DUCT SEAL |
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| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
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- CONSTRUCTION NOTE SYMBOLOGY KEY**
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REMOVE/ MODIFY CABLE
CONDUIT/ RISER
DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

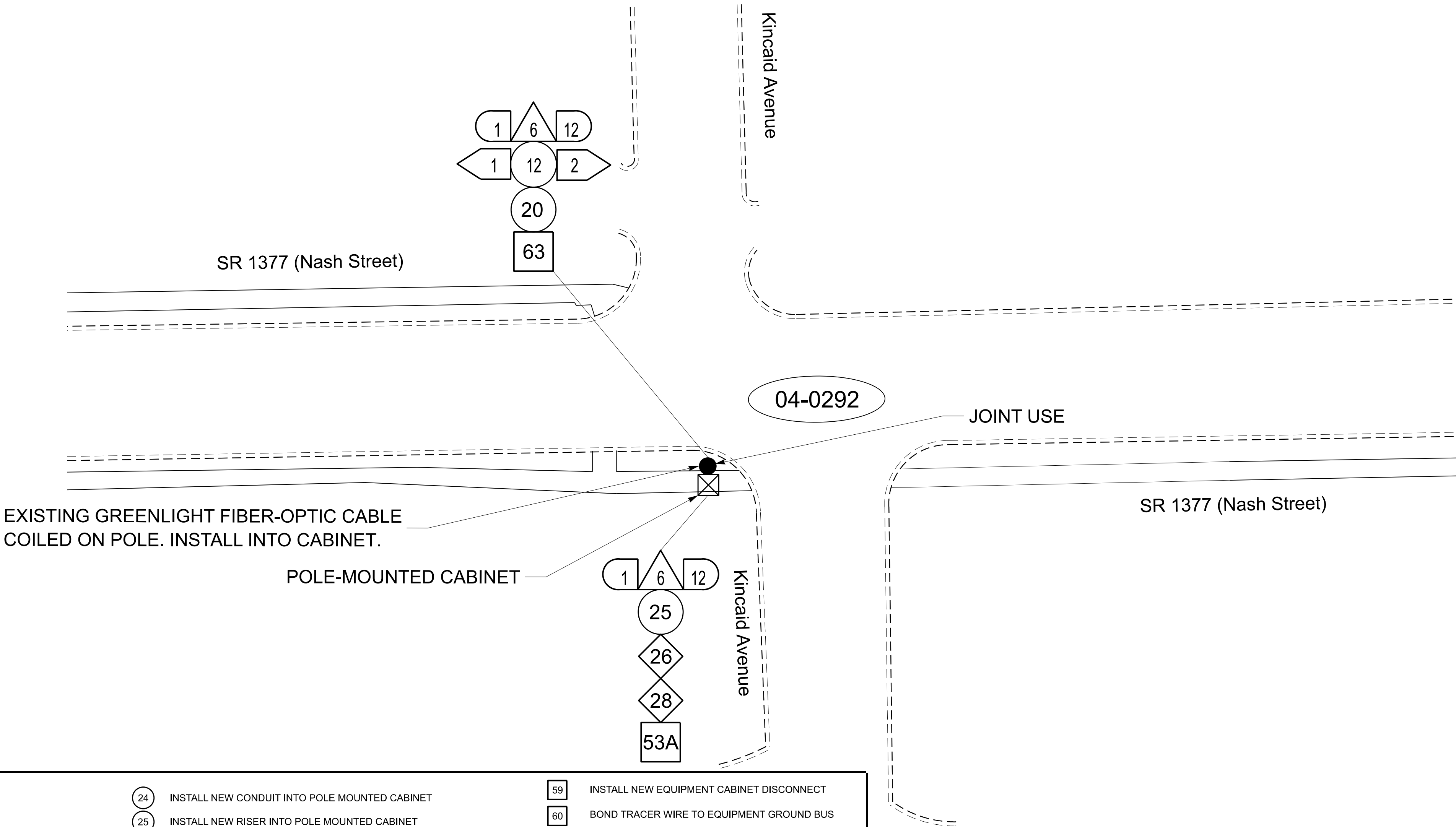
EXISTING GREENLIGHT FIBER-OPTIC CABLE
COILED ON POLE. INSTALL INTO CABINET.

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Cable Routing

Prepared for the Offices of:  750 N. Greenfield Pkwy, Garner, NC 27529	U-5945 Wilson Signal System Division 4 Wilson County Wilson PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion PREPARED BY: JT Sutton REVIEWED BY: PL Alexander <table><tr><th>REVISIONS</th><th>INIT.</th><th>DATE</th></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>	REVISIONS	INIT.	DATE										DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SEAL  Signed by: Anthony Encarnacion SIGNATURE: [Signature] DATE: 3/10/2025
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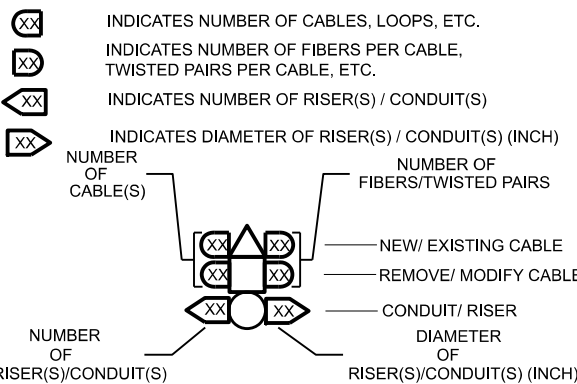


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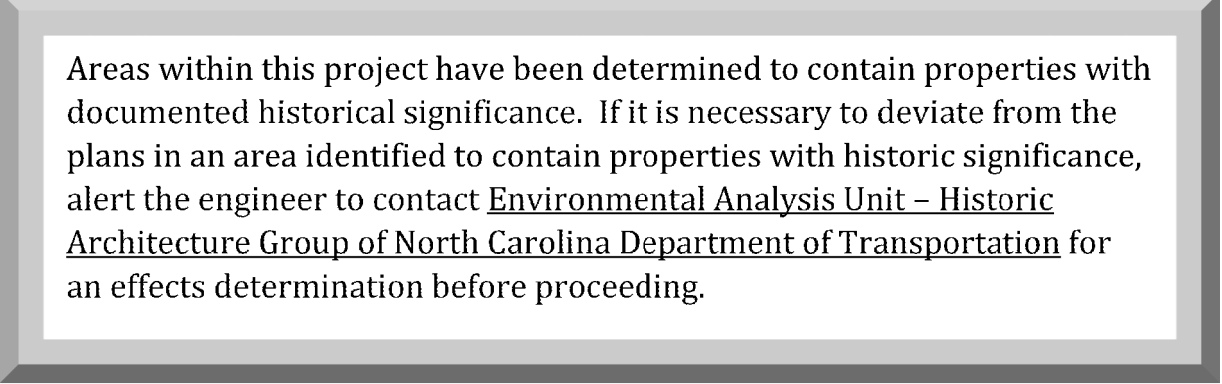
CONSTRUCTION NOTE SYMBOLOLOGY KEY



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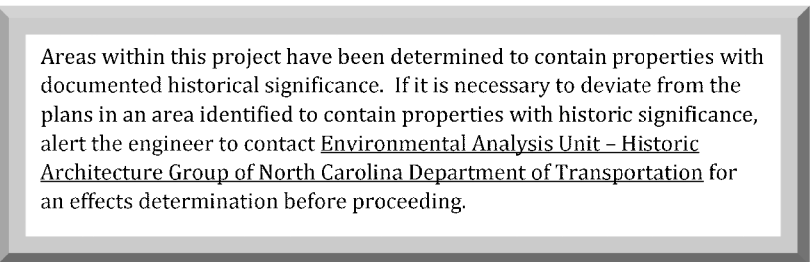
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- Diagram illustrating the application of the symbols:
- NUMBER OF CABLE(S)
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 - CONDUIT/ RISER

SEAL



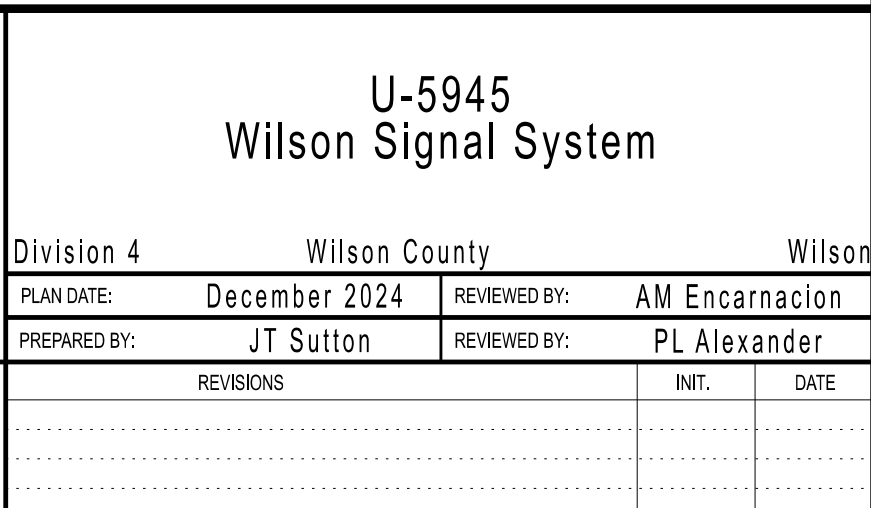
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SIGNATURE: 24600A029E340B...
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|--------------------|--------------------------------|---------------------|----------------------|----------------|----------|-------------------------------|--------------------------------------|
| | | | | | | | |

Prepared for the Offices of:



SEAL

NORTH CAROLINA
PROFESSIONAL
ENGINEER
ANTHONY M. ENCARNACION
044476

DocuSigned by:
Anthony Encarnacion

SIGNATURE: 24990A029E340B...
DATE: 3/13/2025

The diagram illustrates the intersection of Nash Street and Pine Street. A Wilson Electric Pole is located at the corner, with a note indicating that existing Greenlight fiber-optic cable should be installed into a cabinet. Traffic signals are shown for both streets, with signal heads labeled with numbers (1, 6, 12, 20, 22, 26, 28, 40A, 53A, 66) and colors (red, yellow, green). A Cow-06 sign is also present. The plan includes dashed lines for street boundaries and solid lines for building footprints.

- | | | | | | |
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NUMBER OF RISER(S)/CONDUIT(S)

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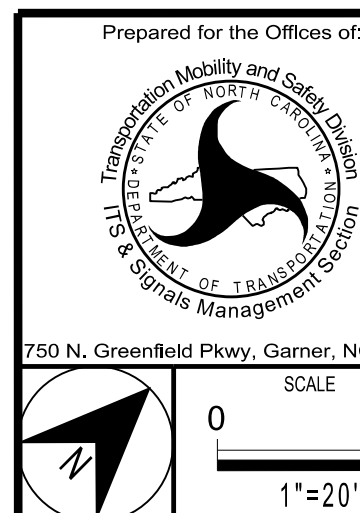
REMOVE/ MODIFY CABLE

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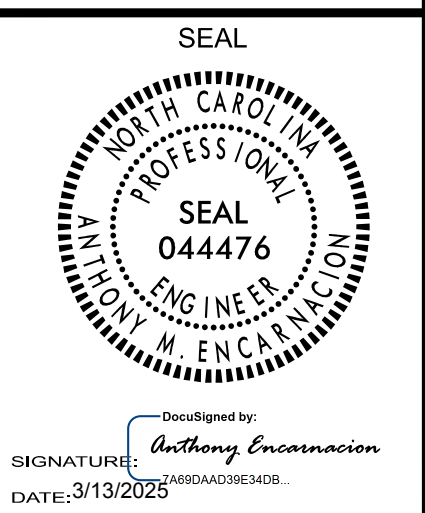
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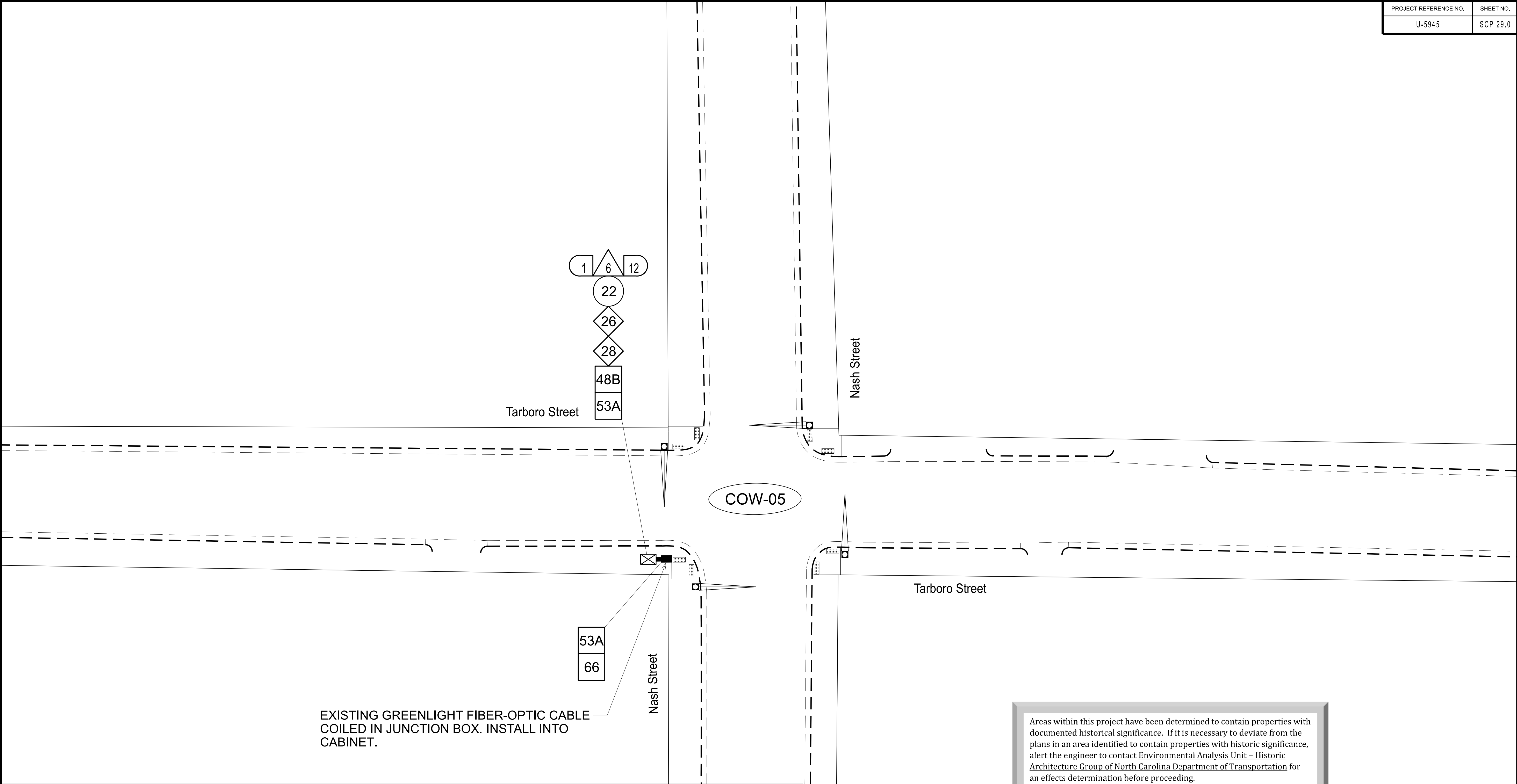


U-5945
Wilson Signal System

[illegible]

DOCUMENT NOT CONSIDERED
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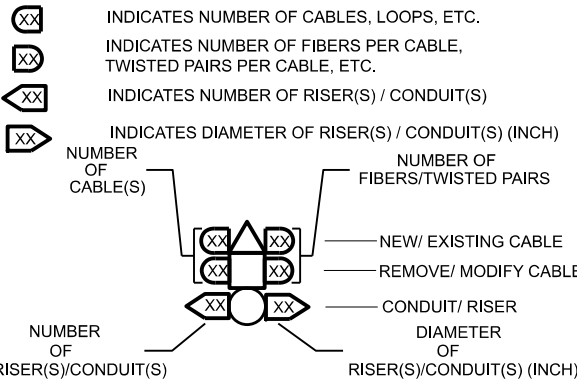
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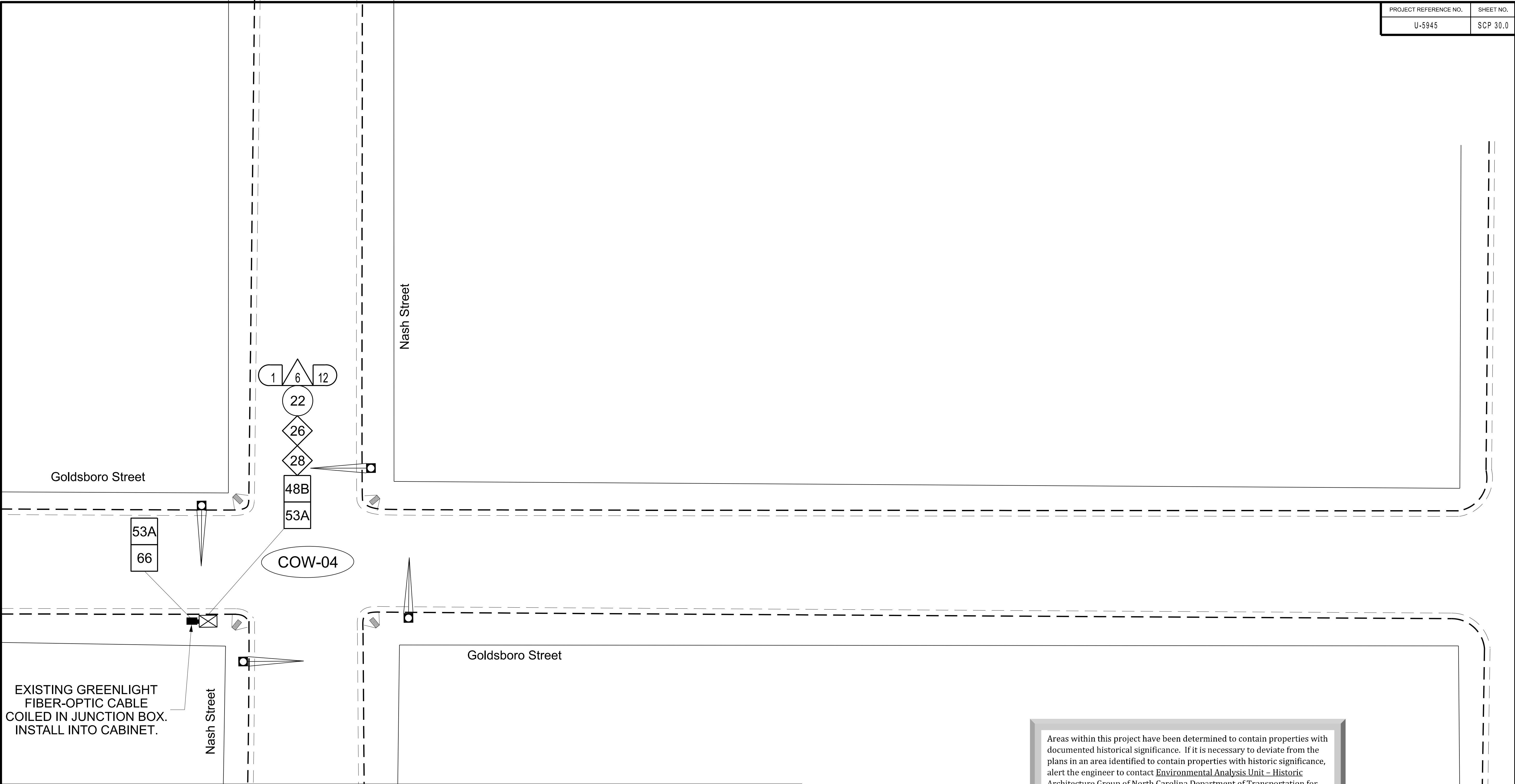
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 750 N. Greenfield Pkwy, Garner, NC 27529	Prepared for the Offices of: U-5945 Wilson Signal System		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
	Division 4 Wilson County Wilson				
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion			
	PREPARED BY: KG Sasaki	REVIEWED BY: PL Alexander	REVISIONS		INIT.
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NCBEES #F-0326

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U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: KG Sasaki REVIEWED BY: PL Alexander

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SCALE
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SEAL
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

Drawn by: *Anthony Encarnacion*
SIGNATURE: *Anthony Encarnacion*
DATE: 3/13/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 31.0

Nash Street

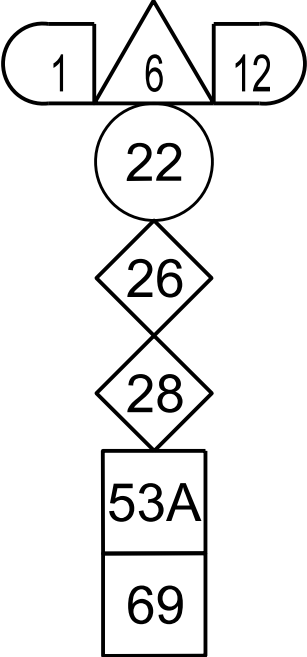
Douglas Street

COW-08

Douglas Street

EXISTING GREENLIGHT FIBER-OPTIC CABLE
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Nash Street

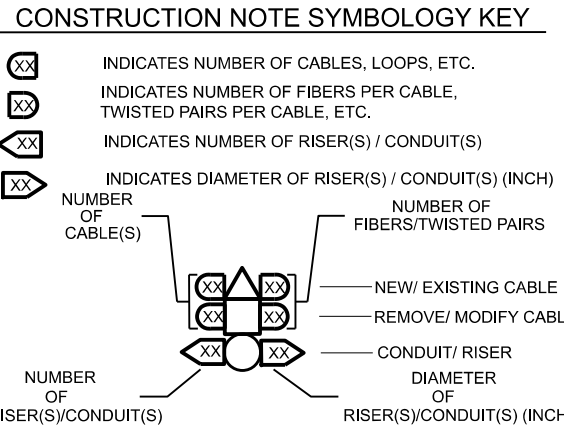


53A
66

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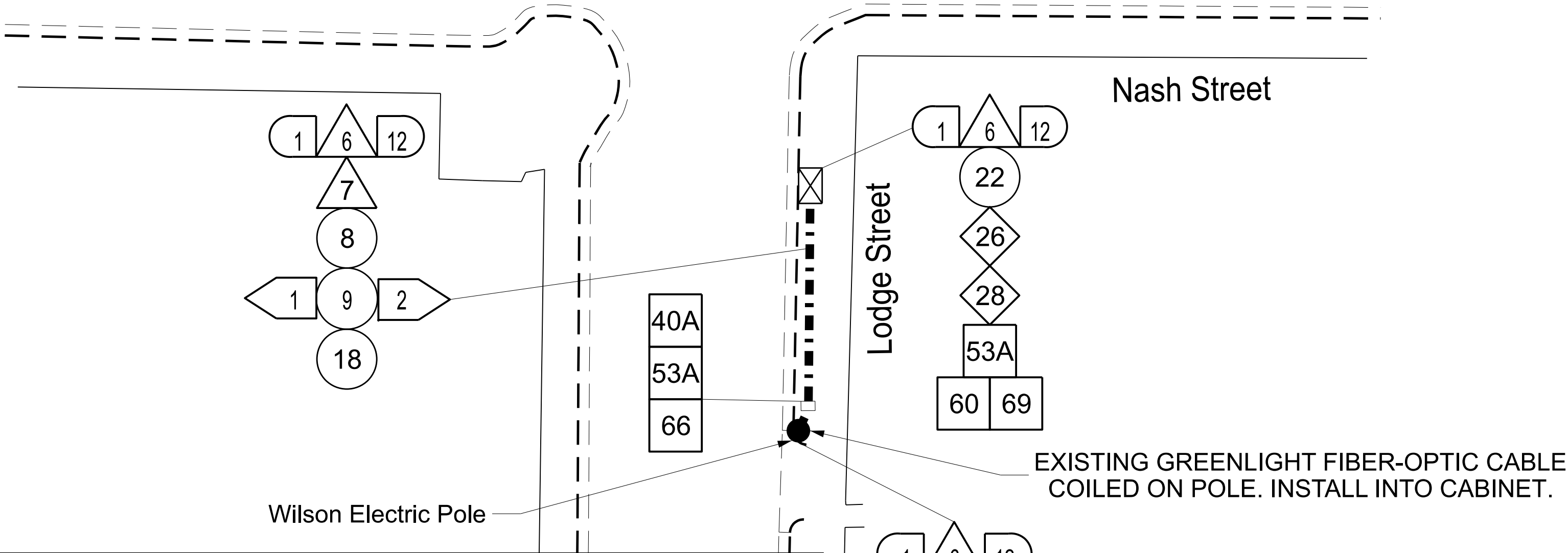
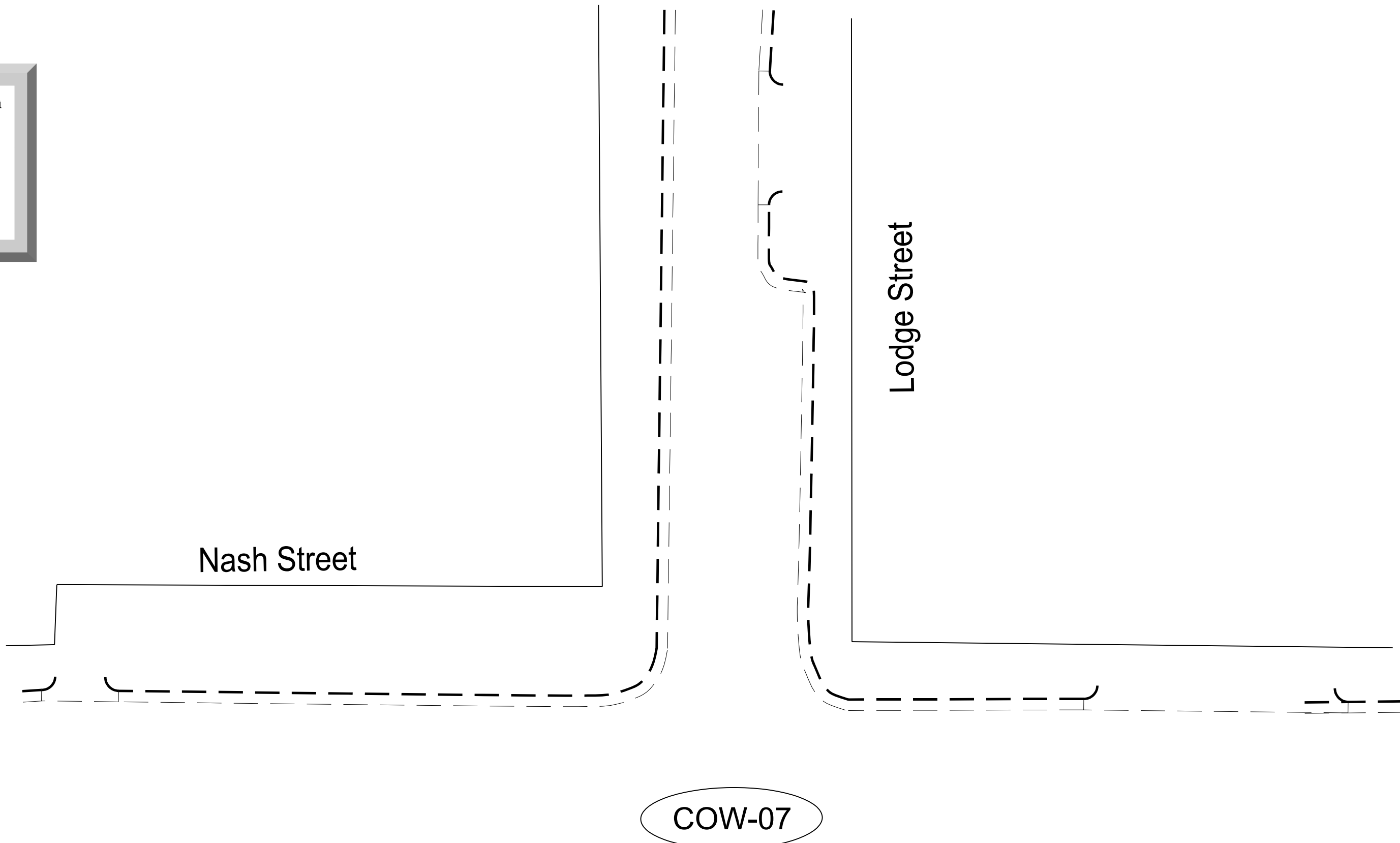
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|  | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | | |

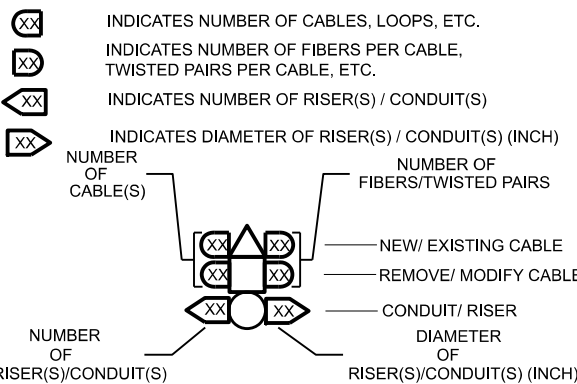
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- | | | | |
|----|--|-----|--|
| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 2 | INSTALL ETHERNET CABLE | 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
| 4 | INSTALL SMFO CABLE | 26 | INSTALL NEW ETHERNET EDGE SWITCH |
| 6 | INSTALL FIBER OPTIC DROP CABLE | 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET |
| 7 | INSTALL TRACER WIRE | 31 | MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE |
| 8 | TRENCH | 34 | INSTALL CABINET FOUNDATION |
| 9 | INSTALL PVC CONDUIT | 39 | INSTALL JUNCTION BOX |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT | 40A | INSTALL OVERSIZED JUNCTION BOX |
| 12 | INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL | 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT |
| 14 | INSTALL POLYETHYLENE CONDUIT | 50 | INSTALL ANTENNA AND MOUNTING BRACKET |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT | 53A | STORE 20 FEET OF COMMUNICATIONS CABLE |
| 19 | INSTALL CABLE(S) IN EXISTING RISER | 53B | STORE 50 FEET OF COMMUNICATIONS CABLE |
| 20 | INSTALL CABLE(S) IN NEW RISER | 57 | MODIFY EXISTING ELECTRICAL SERVICE |
| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS | 58 | INSTALL NEW ELECTRICAL SERVICE |
| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | | |

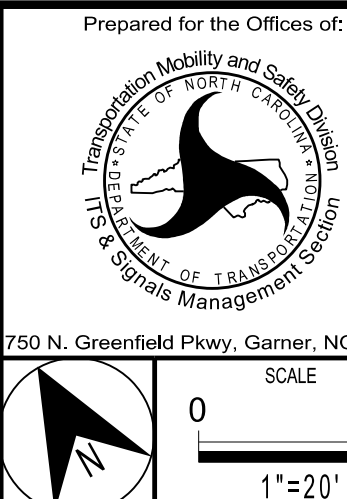
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| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |

CONSTRUCTION NOTE SYMBOLOGY KEY



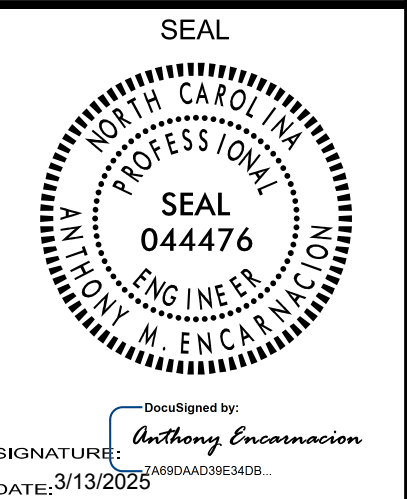
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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing



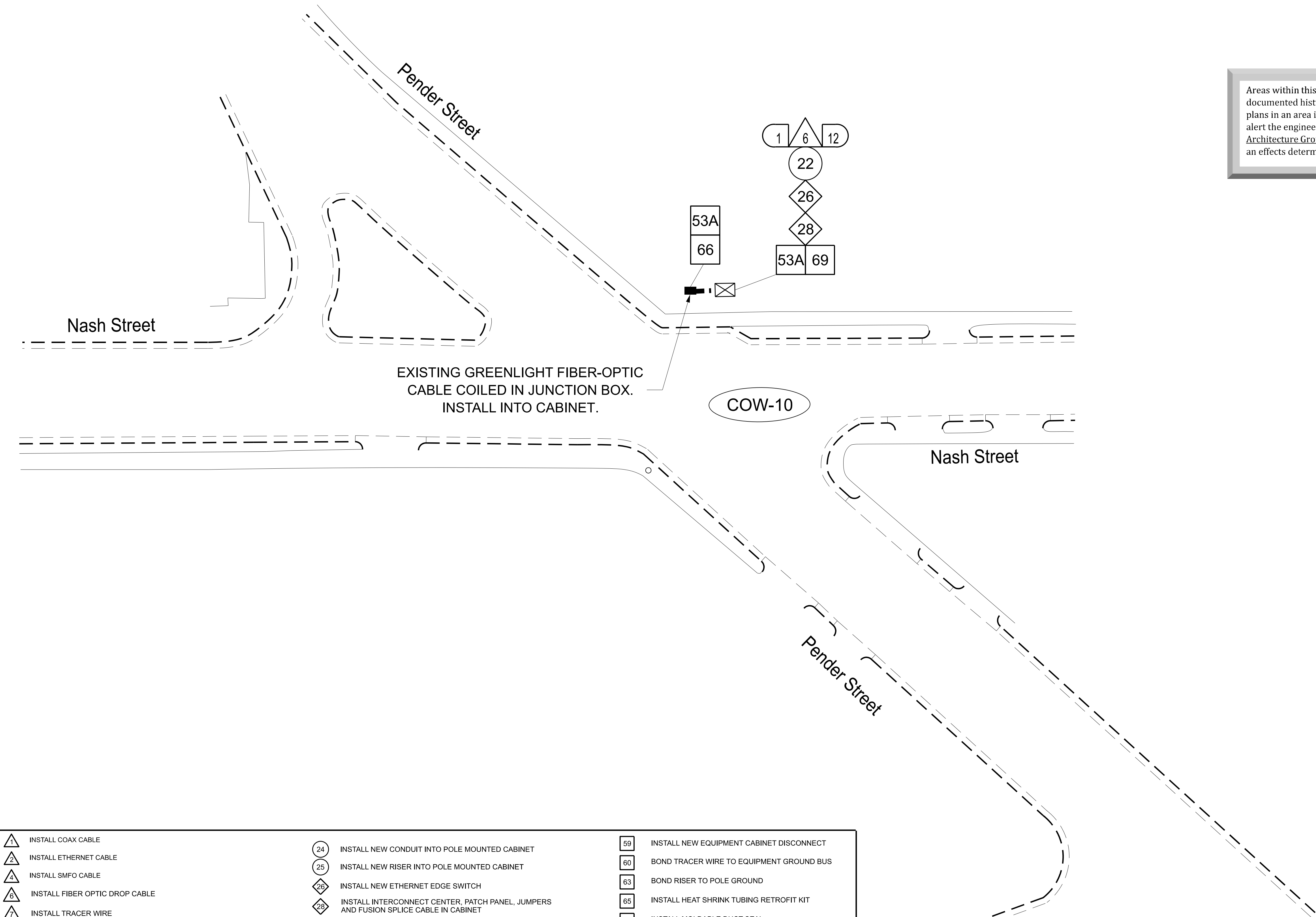
U-5945 Wilson Signal System		Wilson	
Division 4	Wilson County	Wilson	
PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion		
PREPARED BY: KG Sasaki	REVIEWED BY: PL Alexander		
REVISIONS	INIT.	DATE	

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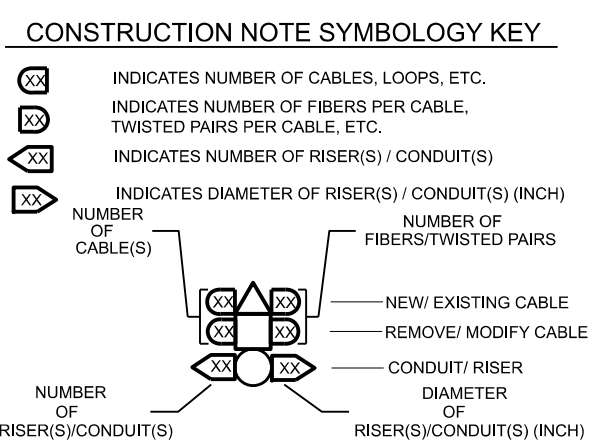


Designed by: *Anthony Encarnacion*
SIGNATURE: *Anthony Encarnacion*
DATE: 3/13/2025

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(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

0

SCALE

20

1"=20'

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton REVIEWED BY: PL Alexander

REVISIONS

INIT. DATE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

Seal 044476

ENGINEER

ANTHONY M. ENCARNACION

Drawn by: Anthony Encarnacion

SIGNATURE: DATE: 3/13/2025

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Legend:

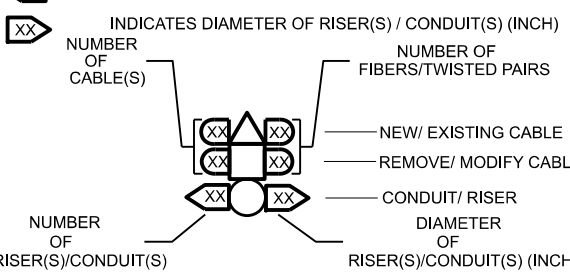
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8	TRENCH			69	INTERCEPT AND REROUTE EXISTING CONDUITS

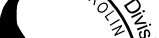
Notes:

- EXISTING GREENLIGHT FIBER-OPTIC CABLE COILED ON POLE. INSTALL INTO CABINET.
- POLE-MOUNTED CABINET
- SP
- 04-0351
- Nash Street
- SR 1192 (Hines Street)
- SR 1192 (Nash Street)

- | | |
|----|--|
| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
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| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |

	INDICATES NUMBER OF CABLES, LOOPS, ETC.
	INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.
	INDICATES NUMBER OF RISER(S) / CONDUIT(S)



Prepared for the Offices of:  750 N. Greenfield Pkwy, Garner, NC 27529 	U-5945 Wilson Signal System	SEAL 								
Division 4 Wilson County Wilson										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">PLAN DATE:</td> <td style="width: 33%;">December 2024</td> <td style="width: 33%;">REVIEWED BY:</td> <td style="width: 33%;">AM Encarnacion</td> </tr> <tr> <td>PREPARED BY:</td> <td>KG Sasaki</td> <td>REVIEWED BY:</td> <td>PL Alexander</td> </tr> </table>			PLAN DATE:	December 2024	REVIEWED BY:	AM Encarnacion	PREPARED BY:	KG Sasaki	REVIEWED BY:	PL Alexander
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SEAL

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE:	December 2024	REVIEWED BY:	AM Encarnacion
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PREPARED BY:	KG Sasaki	REVIEWED BY:	PL Alexander
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REVISIONS	INIT.	DATE
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SIGNATURE: *Anthony Encarnacion*
DATE: 3/13/2025

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SR 1192
(Nash Street)

NC 58 - US 301 (Ward Boulevard)

US 264 Alt - US 301 (Ward Boulevard)

04-0317

EXISTING GREENLIGHT FIBER-OPTIC CABLE
COILED ON POLE. INSTALL INTO CABINET.

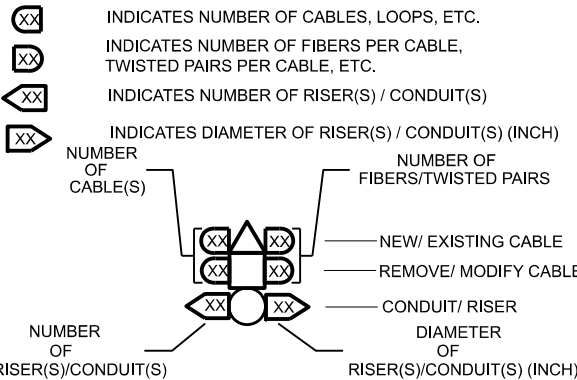
Wilson Electric Pole

- | | |
|----|---|
| 1 | INSTALL COAX CABLE |
| 2 | INSTALL ETHERNET CABLE |
| 4 | INSTALL SMFO CABLE |
| 6 | INSTALL FIBER OPTIC DROP CABLE |
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- | | |
|-----|---|
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- | | |
|----|--|
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CONSTRUCTION NOTE SYMBOLOGY KEY

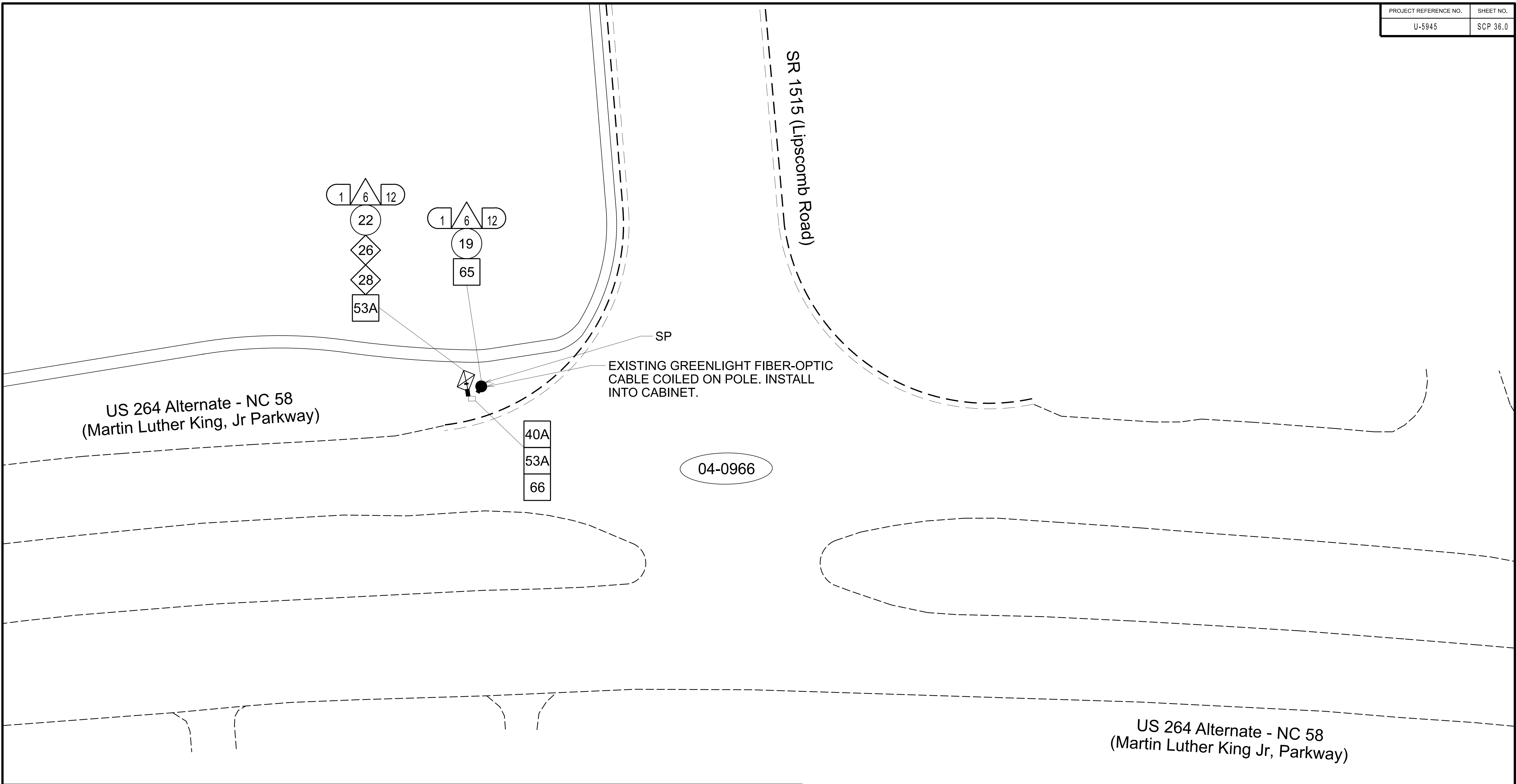


US 264 Alt - NC 58
(Martin Luther King Jr Parkway)

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Cable Routing

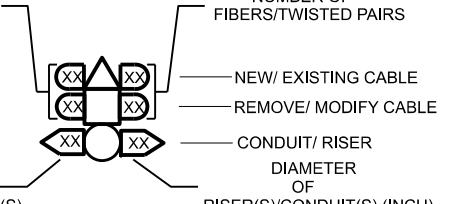
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CONSTRUCTION NOTE SYMBOLOLOGY KEY

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NUMBER OF CABLE(S)
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 DIAMETER OF RISER(S)/CONDUIT(S) (INCH)
 FIBERS/TWISTED PAIRS
 NEW/ EXISTING CABLE
 REMOVE/ MODIFY CABLE
 CONDUIT/ RISER

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Cable Routing		FINAL UNLESS ALL SIGNATURES COMPLETED																									
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Diagram illustrating the construction note symbolology key applied to a cable assembly:

- NUMBER OF CABLE(S)
- NUMBER OF RISER(S)/CONDUIT(S)
- NEW/ EXISTING CABLE
- REMOVE/ MODIFY CABLE
- CONDUIT/ RISER
- DIAMETER OF RISER(S)/CONDUIT(S) (INCHES)
- NUMBER OF RISER(S)/CONDUIT(S)

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SF

EXISTING GREENLIGHT FIBER-OPTIC
CABLE COILED ON POLE.
INSTALL INTO CABINET.

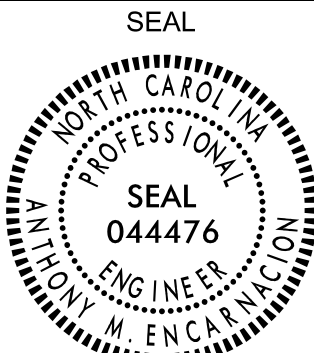
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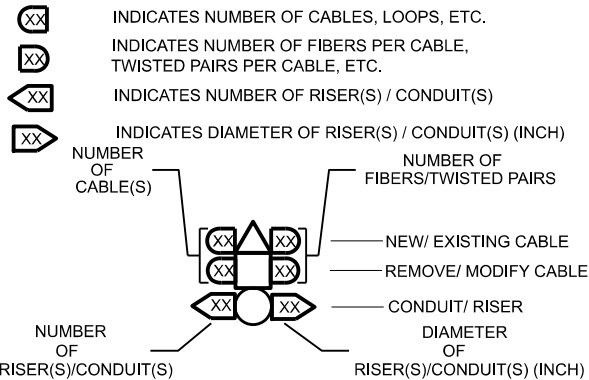
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Anthony Encarnacion
SIGNATURE: 7A50DAAD59E34DB...
DATE: 3/10/2025



NC 58

- | | |
|-----|---|
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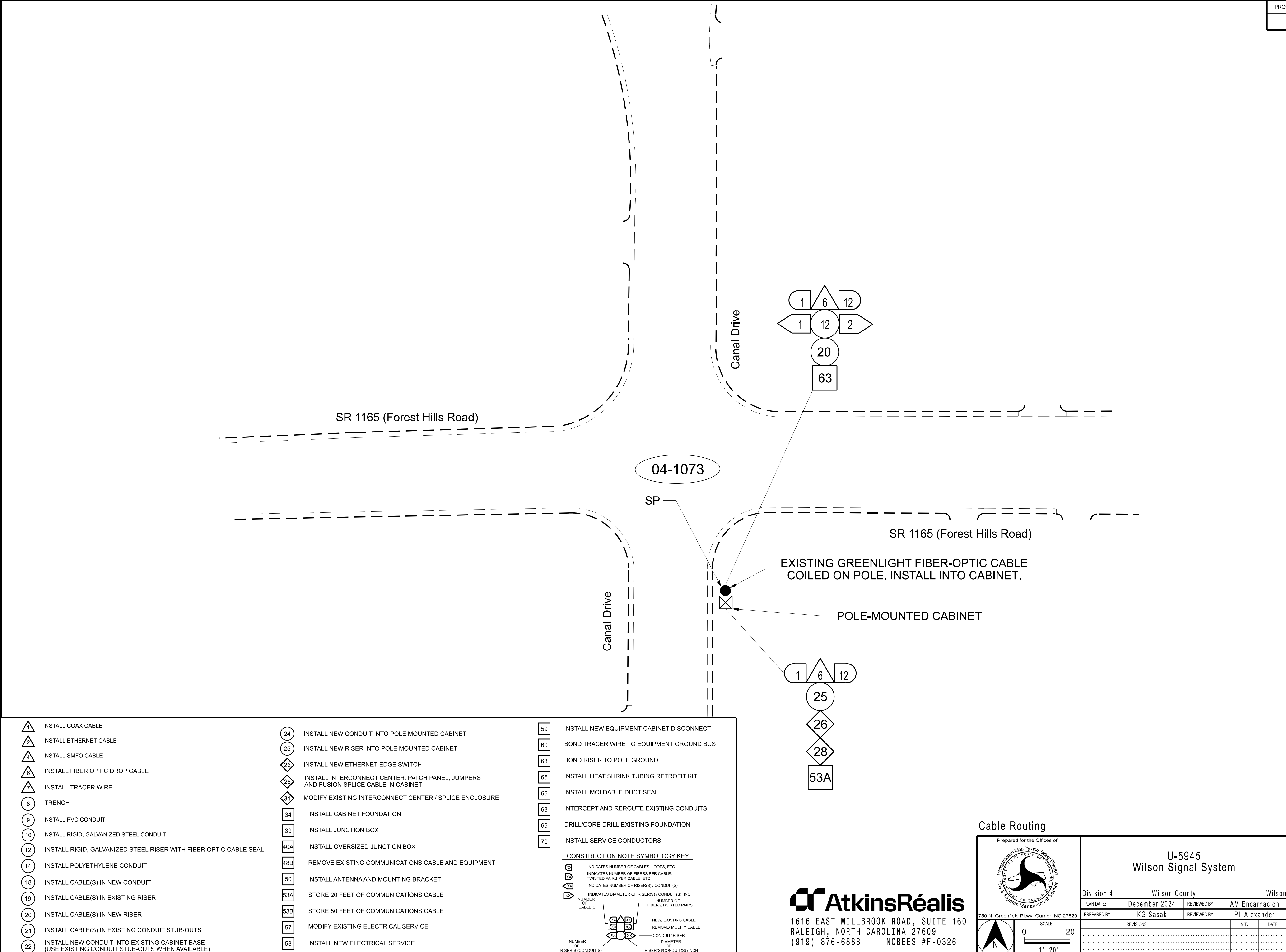


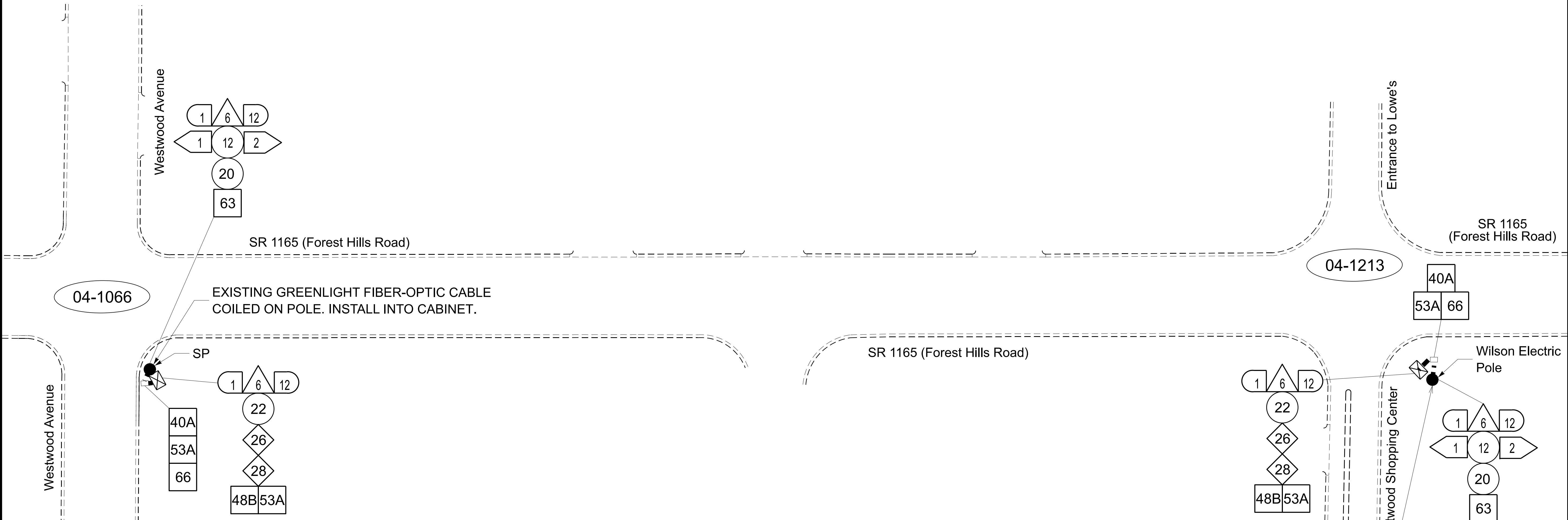
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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Prepared for the Offices of: 	U-5945 Wilson Signal System	SEAL 
750 N. Greenfield Pkwy, Garner, NC 27529	Division 4 Wilson County Wilson	
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion
	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander
	REVISIONS	INT. DATE
SCALE  0 20 1"=20'		
Drawn by: Anthony Encarnacion SIGNATURE: _____ DATE: 3/10/2025		

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SEAL	
	
Wilson	
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DATE	
DocuSign by: <i>Anthony Encarnacion</i> SIGNATURE: _____ DATE: 3/10/2025	





1

INSTALL COAX CABLE

2

INSTALL ETHERNET CABLE

4

INSTALL SMFO CABLE

6

INSTALL FIBER OPTIC DROP CABLE

7

INSTALL TRACER WIRE

8

TRENCH

9

INSTALL PVC CONDUIT

10

INSTALL RIGID, GALVANIZED STEEL CONDUIT

12

INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL

14

INSTALL POLYETHYLENE CONDUIT

18

INSTALL CABLE(S) IN NEW CONDUIT

19

INSTALL CABLE(S) IN EXISTING RISER

20

INSTALL CABLE(S) IN NEW RISER

21

INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS

22

INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)

24

INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET

25

INSTALL NEW RISER INTO POLE MOUNTED CABINET

26

INSTALL NEW ETHERNET EDGE SWITCH

28

INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET

31

MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE

34

INSTALL CABINET FOUNDATION

39

INSTALL JUNCTION BOX

40A

INSTALL OVERSIZED JUNCTION BOX

48B

REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT

50

INSTALL ANTENNA AND MOUNTING BRACKET

53A

STORE 20 FEET OF COMMUNICATIONS CABLE

53B

STORE 50 FEET OF COMMUNICATIONS CABLE

57

MODIFY EXISTING ELECTRICAL SERVICE

58

INSTALL NEW ELECTRICAL SERVICE

59

INSTALL NEW EQUIPMENT CABINET DISCONNECT

60

BOND TRACER WIRE TO EQUIPMENT GROUND BUS

63

BOND RISER TO POLE GROUND

65

INSTALL HEAT SHRINK TUBING RETROFIT KIT

66

INSTALL MOLDABLE DUCT SEAL

68

INTERCEPT AND REROUTE EXISTING CONDUITS

69

DRILL/CORE DRILL EXISTING FOUNDATION

70

INSTALL SERVICE CONDUCTORS

CONSTRUCTION NOTE SYMBOLOGY KEY

XX

INDICATES NUMBER OF CABLES, LOOPS, ETC.

XX

INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.

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INDICATES NUMBER OF RISER(S) / CONDUIT(S)

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INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)

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NEW/EXISTING CABLE

REMOVE/ MODIFY CABLE

CONDUIT/ RISER

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(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of:

Seal of Wilson County

750 N. Greenfield Pkwy, Garner, NC 27529

U-5945
Wilson Signal System

Division 4

Wilson County

Wilson

PLAN DATE: December 2024

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SEAL

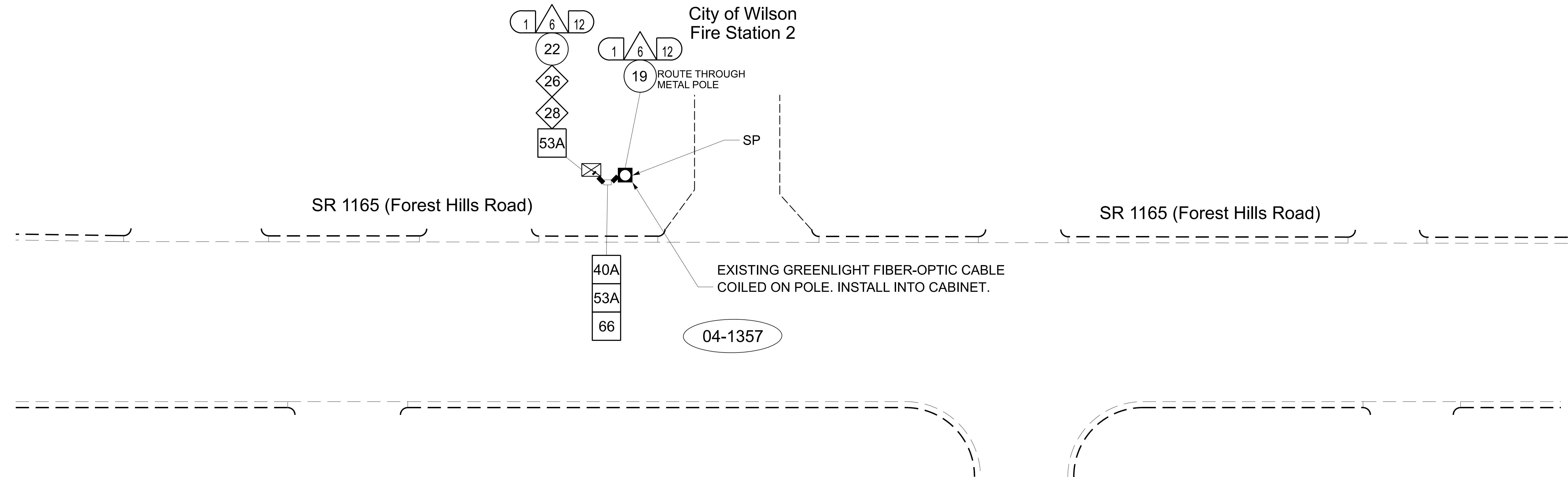
Seal of North Carolina

PROFESSIONAL
SEAL
044476
ENGINEER

ANTHONY M. ENCARNACION

Designed by:
Signature: *Anthony Encarnacion*
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 41.0



1 INSTALL COAX CABLE	24 INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	59 INSTALL NEW EQUIPMENT CABINET DISCONNECT
2 INSTALL ETHERNET CABLE	25 INSTALL NEW RISER INTO POLE MOUNTED CABINET	60 BOND TRACER WIRE TO EQUIPMENT GROUND BUS
4 INSTALL SMFO CABLE	26 INSTALL NEW ETHERNET EDGE SWITCH	63 BOND RISER TO POLE GROUND
6 INSTALL FIBER OPTIC DROP CABLE	28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET	65 INSTALL HEAT SHRINK TUBING RETROFIT KIT
7 INSTALL TRACER WIRE	31 MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE	66 INSTALL MOLDABLE DUCT SEAL
8 TRENCH	34 INSTALL CABINET FOUNDATION	68 INTERCEPT AND REROUTE EXISTING CONDUITS
9 INSTALL PVC CONDUIT	39 INSTALL JUNCTION BOX	69 DRILL/CORE DRILL EXISTING FOUNDATION
10 INSTALL RIGID, GALVANIZED STEEL CONDUIT	40A INSTALL OVERSIZED JUNCTION BOX	70 INSTALL SERVICE CONDUCTORS
12 INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL	48B REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT	
14 INSTALL POLYETHYLENE CONDUIT	50 INSTALL ANTENNA AND MOUNTING BRACKET	
18 INSTALL CABLE(S) IN NEW CONDUIT	53A STORE 20 FEET OF COMMUNICATIONS CABLE	
19 INSTALL CABLE(S) IN EXISTING RISER	53B STORE 50 FEET OF COMMUNICATIONS CABLE	
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CONSTRUCTION NOTE SYMBOLOGY KEY

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Prepared for the Offices of:

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SCALE

0 20
1"=20'

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton REVIEWED BY: PL Alexander

REVISIONS INIT. DATE

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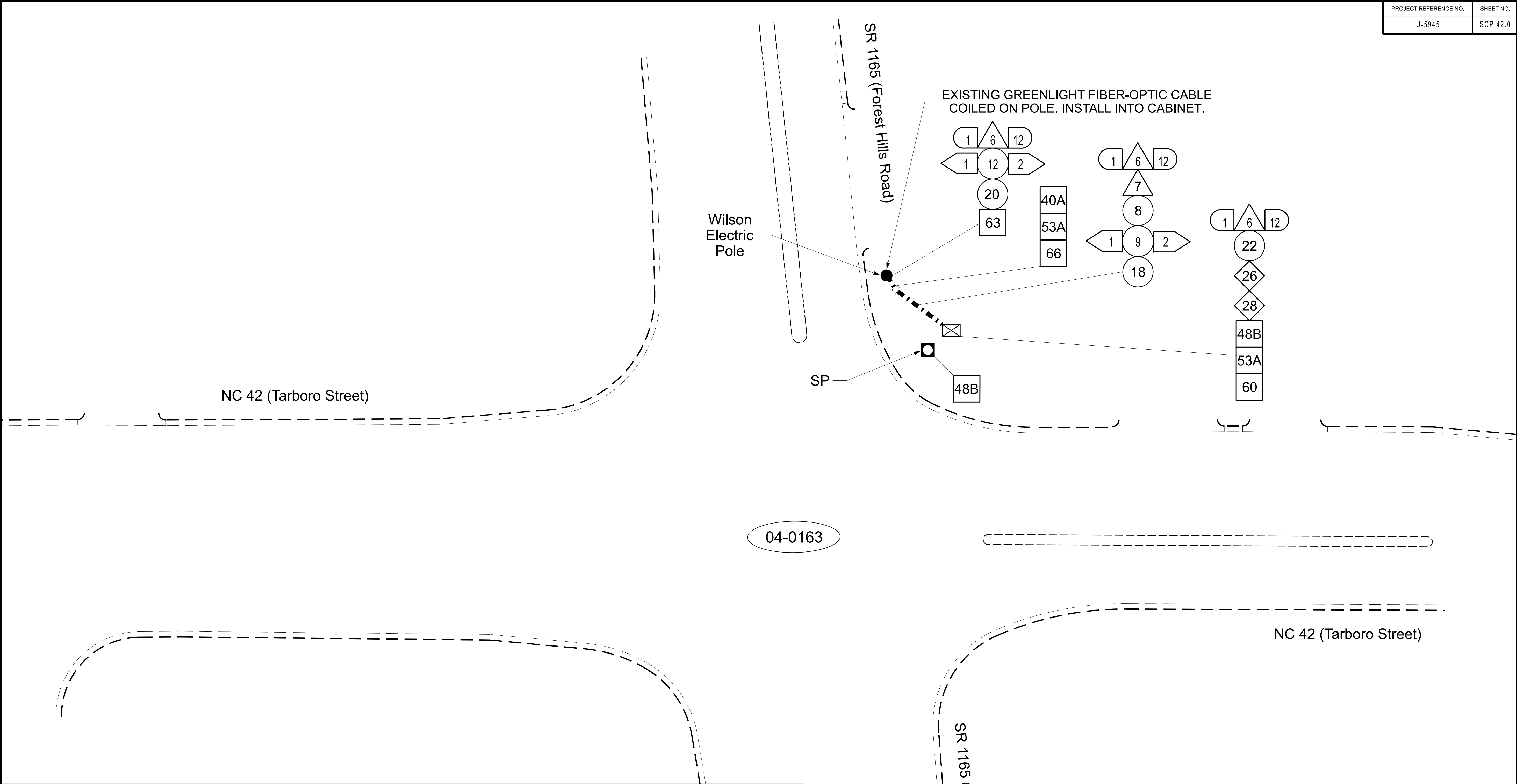
SEAL

044476

ENGINEER

Seal designed by
Signature: *Anthony M. Encarnacion*
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 42.0



- | | | | |
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| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
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- CONSTRUCTION NOTE SYMBOLOGY KEY**
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| XX | INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC. | REMOVE/ MODIFY CABLE |
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1616 EAST MILLBROOK ROAD, SUITE 160
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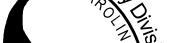
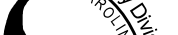
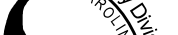
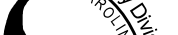
Cable Routing

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529 Seal of the State of North Carolina Department of Transportation Signal Management Section	U-5945 Wilson Signal System		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	Division 4 Wilson County Wilson		Seal of the State of North Carolina Professional Engineer Anthony M. Encarnacion	
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion	Signature: Anthony Encarnacion DATE: 3/10/2025	
	PREPARED BY: KG Sasaki	REVIEWED BY: PL Alexander	Revisions table with columns: REVISIONS, INIT., DATE	



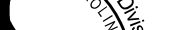
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- Diagram Labels:**
- NUMBER OF CABLE(S)
 - NUMBER OF FIBERS/TWISTED PAIRS
 - NEW/ EXISTING CABLE
 - REMOVE/ MODIFY CABLE
 - CONDUIT/ RISER
 - DIAMETER OF RISER(S)/CONDUIT(S) (INCH)
 - NUMBER OF RISER(S)/CONDUIT(S)

Cable Routing

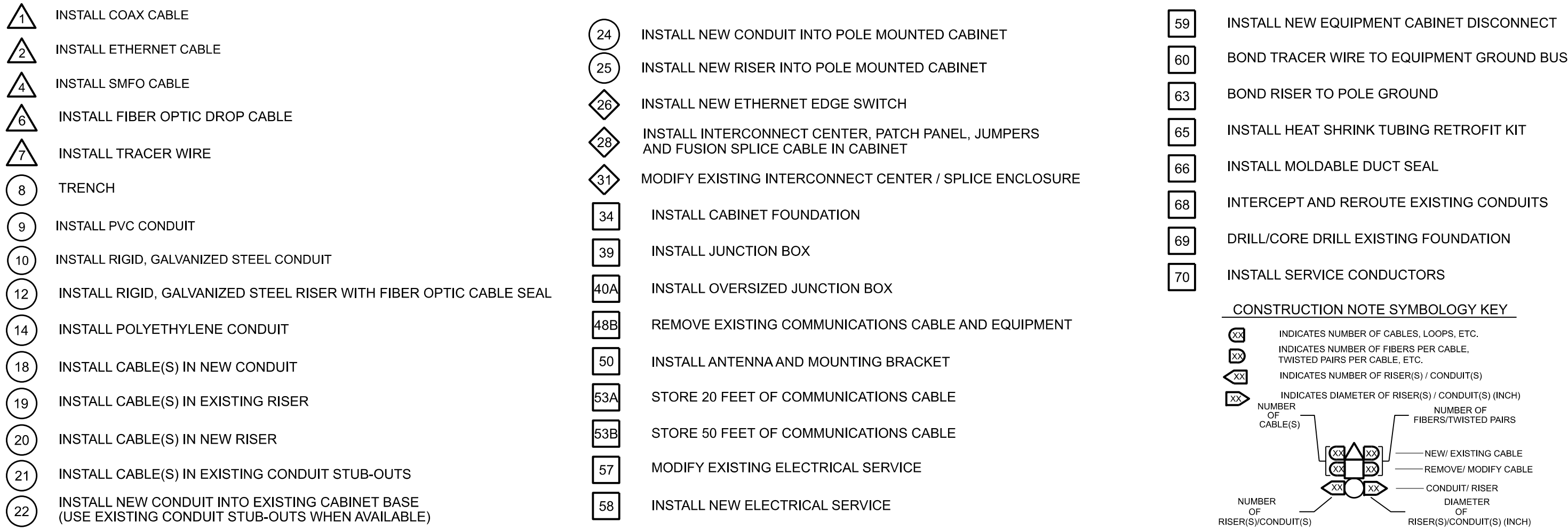
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Division 4 Wilson County Wilson		
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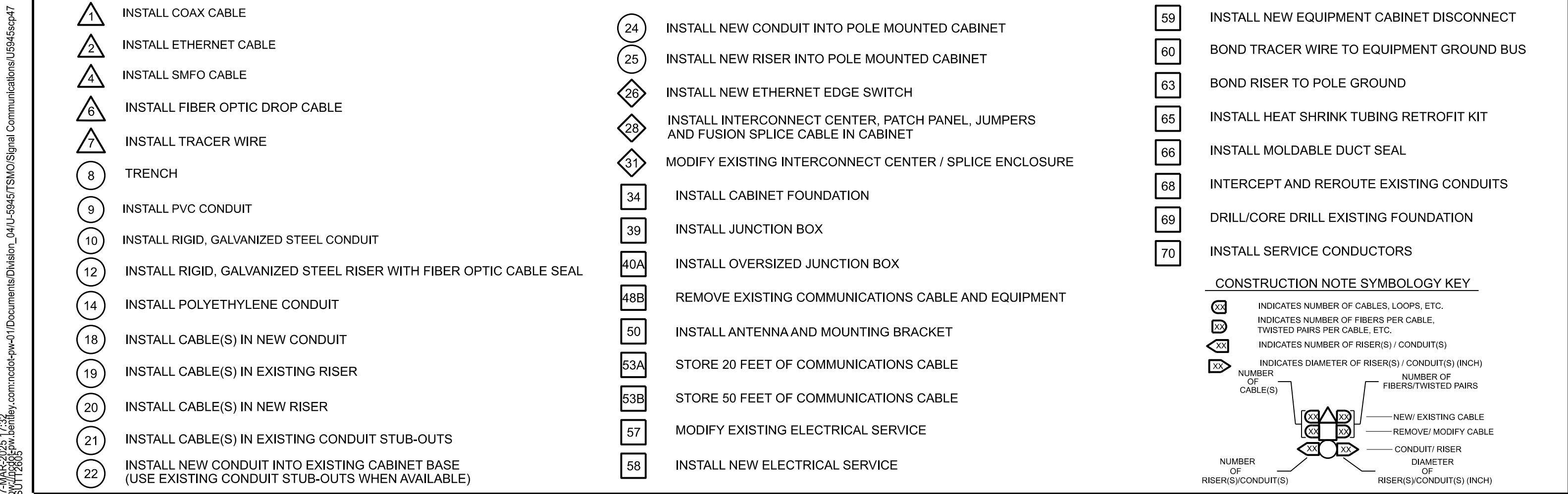
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1" = 30'

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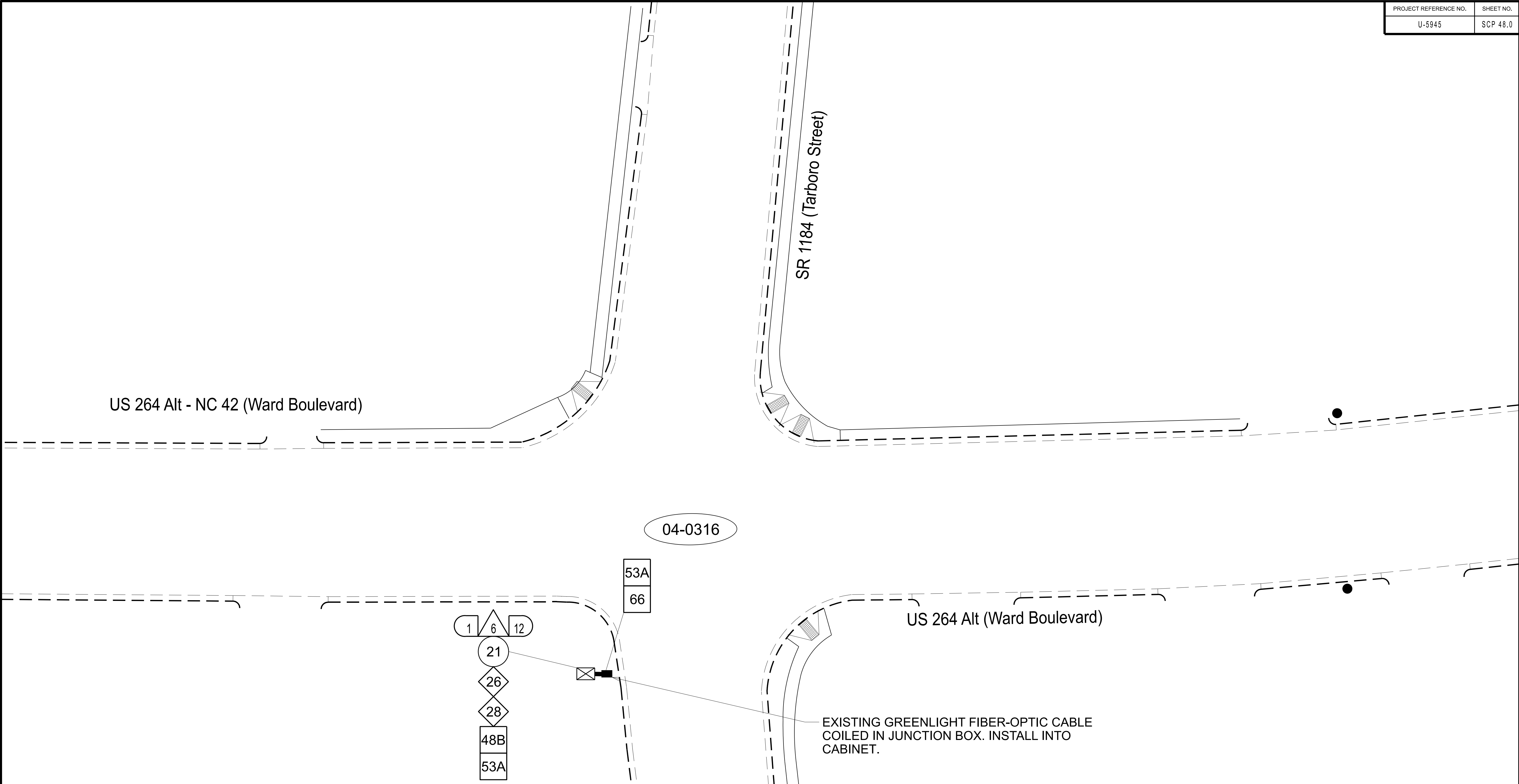
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Cable Routing Prepared for the Offices of:  750 N. Greenfield Pkwy, Garner, NC 27529		U-5945 Wilson Signal System		SEAL 																																											
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PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 48.0

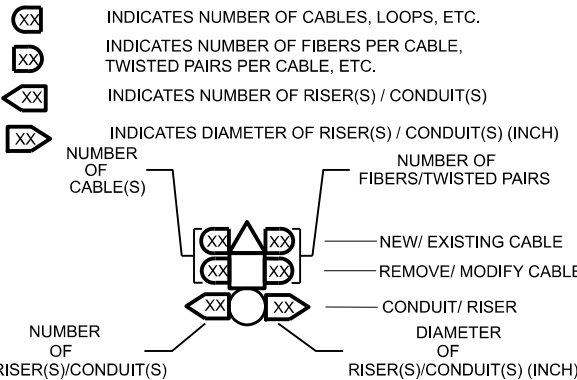


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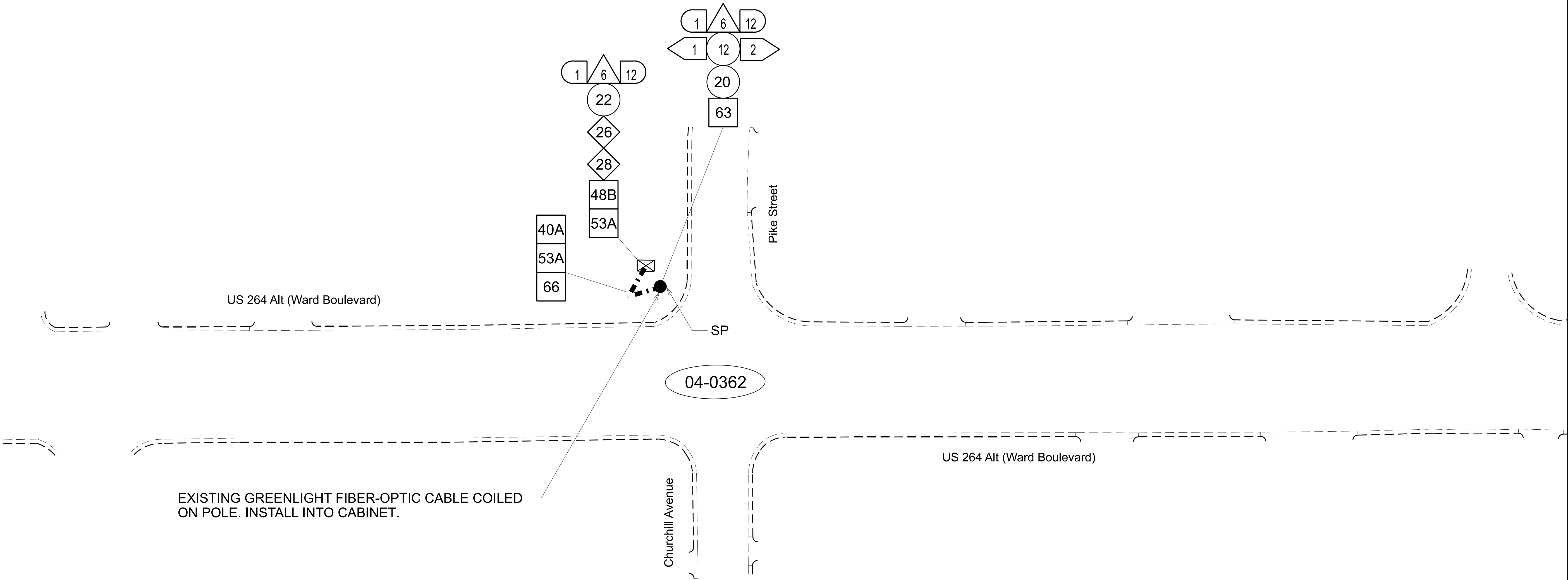


NC 42
(Tarboro Street)

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Cable Routing

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18 INSTALL CABLE(S) IN NEW CONDUIT	53A STORE 20 FEET OF COMMUNICATIONS CABLE	
19 INSTALL CABLE(S) IN EXISTING RISER	53B STORE 50 FEET OF COMMUNICATIONS CABLE	
20 INSTALL CABLE(S) IN NEW RISER	57 MODIFY EXISTING ELECTRICAL SERVICE	
21 INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS	58 INSTALL NEW ELECTRICAL SERVICE	
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CONSTRUCTION NOTE SYMBOLOGY KEY

XX

INDICATES NUMBER OF CABLES, LOOPS, ETC.

XX

INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.

XX

INDICATES NUMBER OF RISER(S) / CONDUIT(S)

XX

INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)

XX

NUMBER OF CABLE(S)

XX

NUMBER OF FIBERS/TWISTED PAIRS

XX

NUMBER OF RISER(S)/CONDUIT(S) (INCH)

NEW/EXISTING CABLE

REMOVE/ MODIFY CABLE

CONDUIT/ RISER

DIAMETER

AtkinsRéal

1616 EAST MILLBROOK ROAD, SUITE 160

RALEIGH, NORTH CAROLINA 27609

(919) 876-6888

NCBEES #F-0326

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

North Carolina Department of Transportation

Signal Management Section

U-5945

Wilson Signal System

Division 4

Wilson County

Wilson

PLAN DATE: December 2024

REVIEWED BY: AM Encarnacion

PREPARED BY: KG Sasaki

REVIEWED BY: PL Alexander

REVISIONS

INIT.

DATE

Seal of the State of North Carolina

Professional Engineer

SEAL 044476

ANTHONY M. ENCARNACION

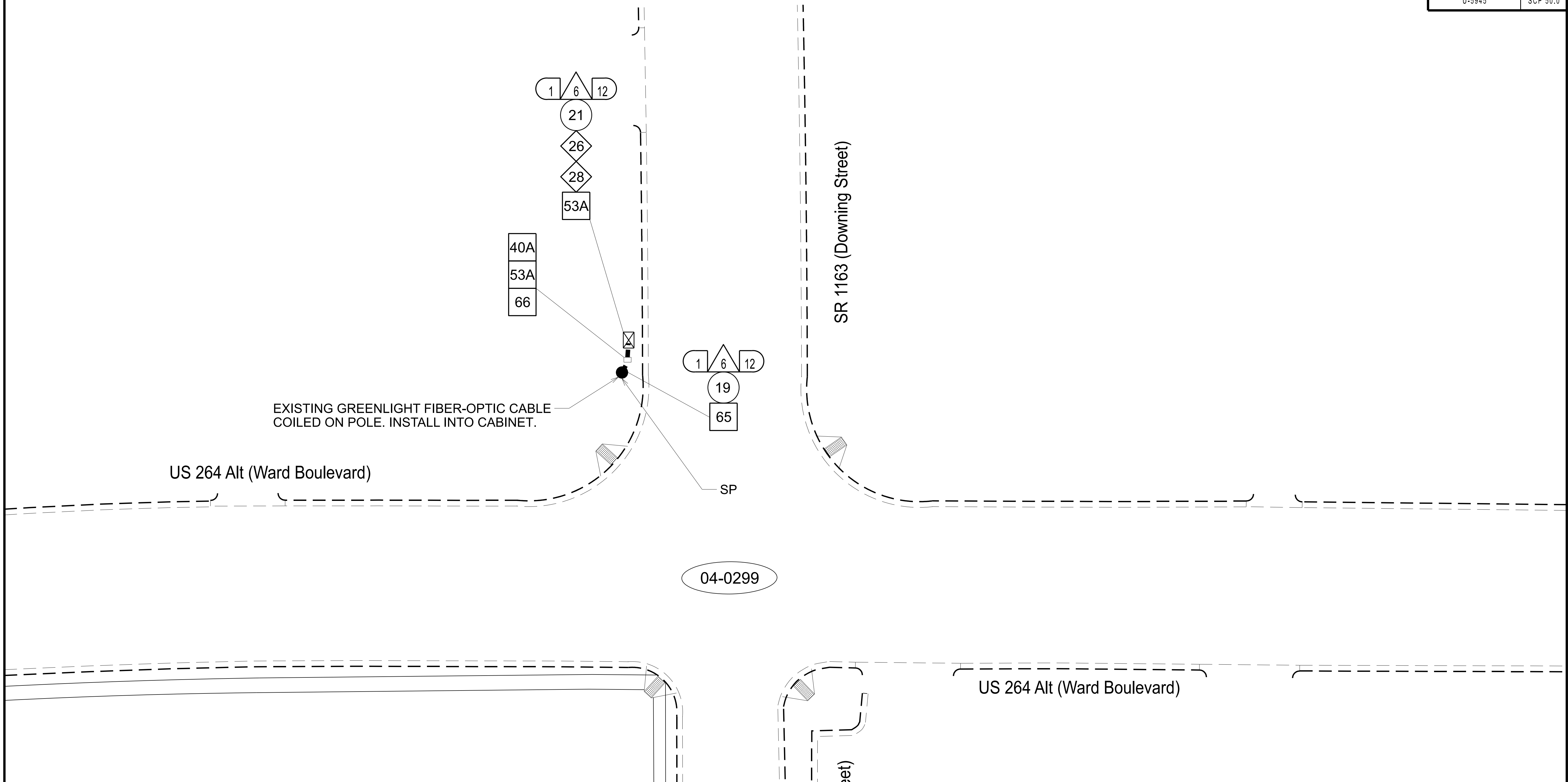
Designed by: Anthony Encarnacion

SIGNATURE: [Signature]

DATE: 3/10/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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|----|--|-----|--|----|--|
| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET | 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
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NUMBER OF FIBERS/TWISTED PAIRS

DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

NEW EXISTING CABLE

REMOVE/ MODIFY CABLE

CONDUIT/ RISER

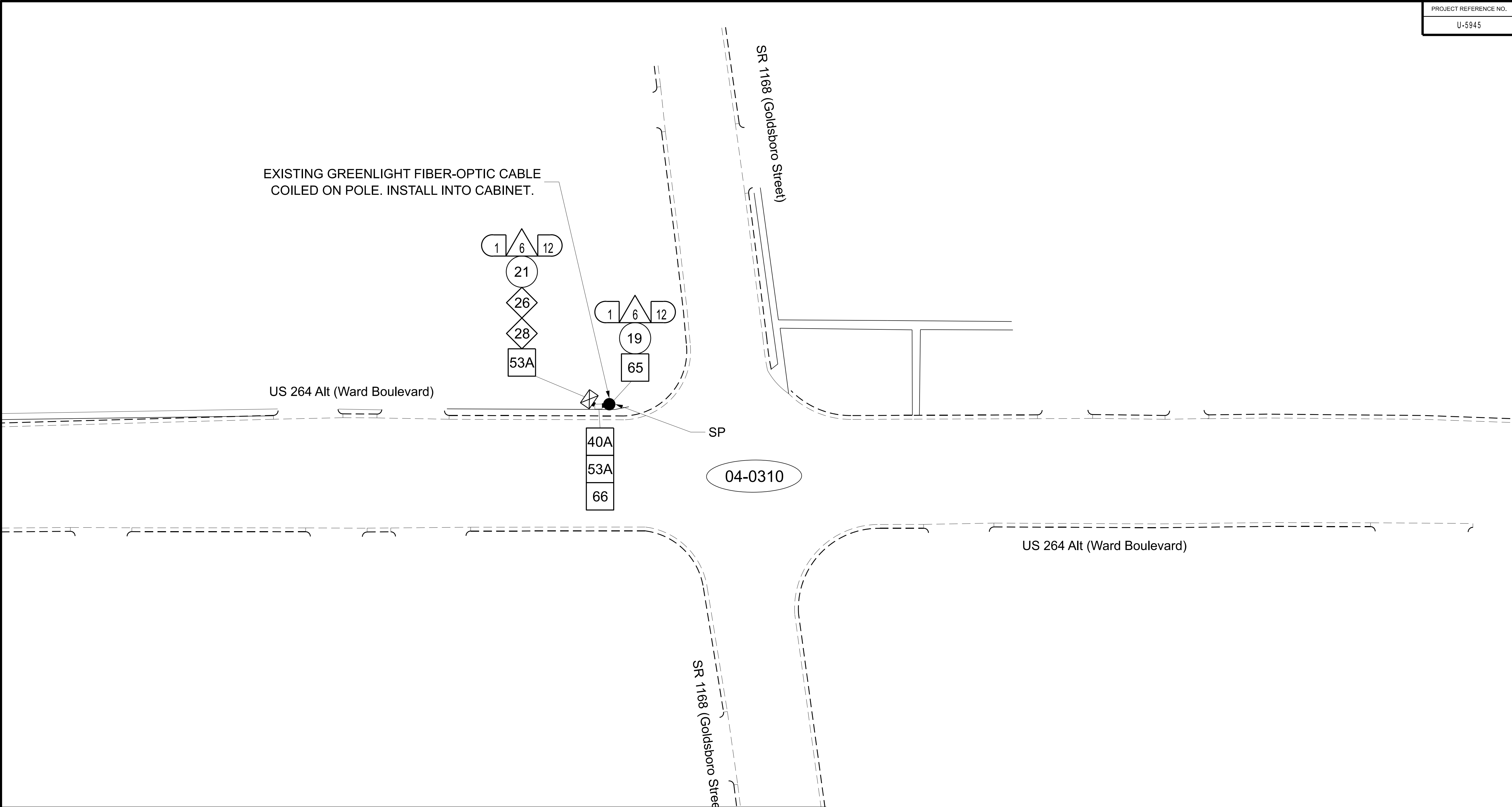
SR 1163 (Downing Street)

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of: 	U-5945 Wilson Signal System	SEAL 
Division 4 Wilson County Wilson		
PLAN DATE: December 2024		REVIEWED BY: AM Encarnacion
PREPARED BY: KG Sasaki		REVIEWED BY: PL Alexander
REVISIONS _____ _____ _____		INT. DATE _____ _____
SCALE 		
_____ _____ _____		
_____ _____ _____		

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 51.0



1 INSTALL COAX CABLE 2 INSTALL ETHERNET CABLE 4 INSTALL SMFO CABLE 6 INSTALL FIBER OPTIC DROP CABLE 7 INSTALL TRACER WIRE 8 TRENCH 9 INSTALL PVC CONDUIT 10 INSTALL RIGID, GALVANIZED STEEL CONDUIT 12 INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL 14 INSTALL POLYETHYLENE CONDUIT 18 INSTALL CABLE(S) IN NEW CONDUIT 19 INSTALL CABLE(S) IN EXISTING RISER 20 INSTALL CABLE(S) IN NEW RISER 21 INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS 22 INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)	24 INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET 25 INSTALL NEW RISER INTO POLE MOUNTED CABINET 26 INSTALL NEW ETHERNET EDGE SWITCH 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET 31 MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE 34 INSTALL CABINET FOUNDATION 39 INSTALL JUNCTION BOX 40A INSTALL OVERSIZED JUNCTION BOX 48B REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT 50 INSTALL ANTENNA AND MOUNTING BRACKET 53A STORE 20 FEET OF COMMUNICATIONS CABLE 53B STORE 50 FEET OF COMMUNICATIONS CABLE 57 MODIFY EXISTING ELECTRICAL SERVICE 58 INSTALL NEW ELECTRICAL SERVICE	59 INSTALL NEW EQUIPMENT CABINET DISCONNECT 60 BOND TRACER WIRE TO EQUIPMENT GROUND BUS 63 BOND RISER TO POLE GROUND 65 INSTALL HEAT SHRINK TUBING RETROFIT KIT 66 INSTALL MOLDABLE DUCT SEAL 68 INTERCEPT AND REROUTE EXISTING CONDUITS 69 DRILL/CORE DRILL EXISTING FOUNDATION 70 INSTALL SERVICE CONDUCTORS CONSTRUCTION NOTE SYMBOLOGY KEY XX INDICATES NUMBER OF CABLES, LOOPS, ETC. XX INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC. XX INDICATES NUMBER OF RISER(S) / CONDUIT(S) XX INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH) XX NUMBER OF RISER(S) / CONDUIT(S) XX NUMBER OF FIBERS/TWISTED PAIRS XX NEW/ EXISTING CABLE XX REMOVE/ MODIFY CABLE XX CONDUIT/ RISER XX DIAMETER XX RISER(S)/CONDUIT(S) (INCH)
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(919) 876-6888 NCBEES #F-0326

Prepared for the Offices of:

Seal of Wilson County, North Carolina

750 N. Greenfield Pkwy, Garner, NC 27529

North Carolina

Seal of North Carolina

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton REVIEWED BY: PL Alexander

REVISIONS

INIT.

DATE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

PROFESSIONAL
ENGINEER

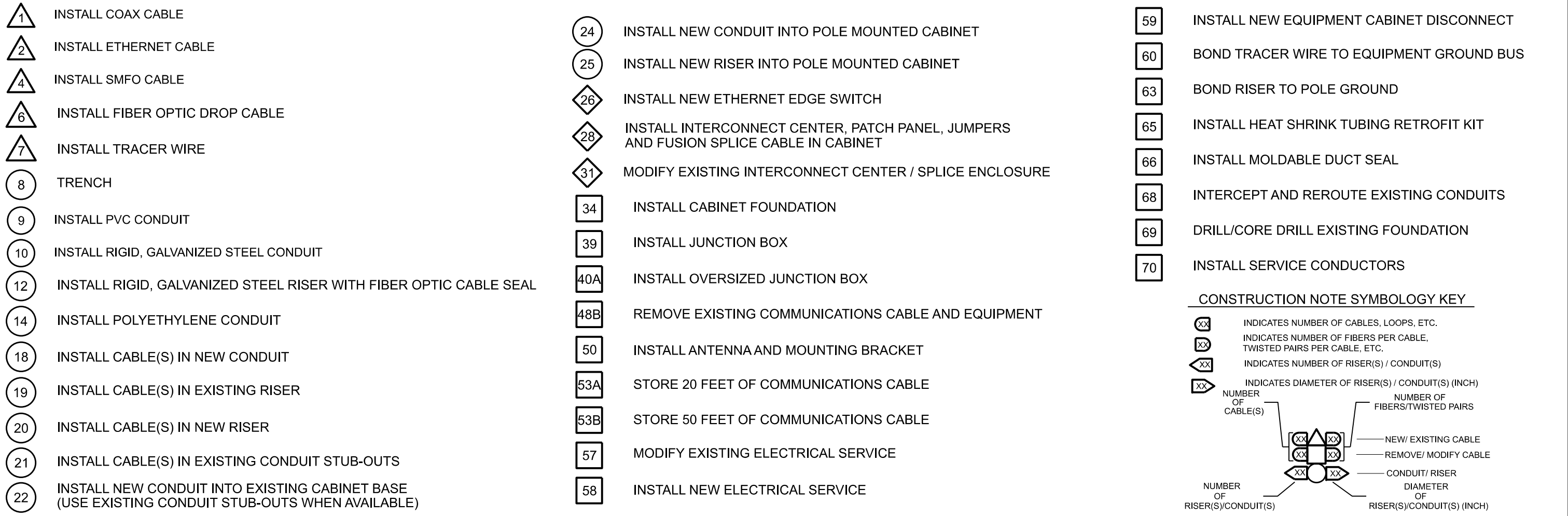
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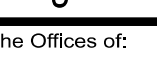
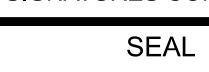
ANTHONY M. ENCARNACION

Designed by:
Anthony Encarnacion

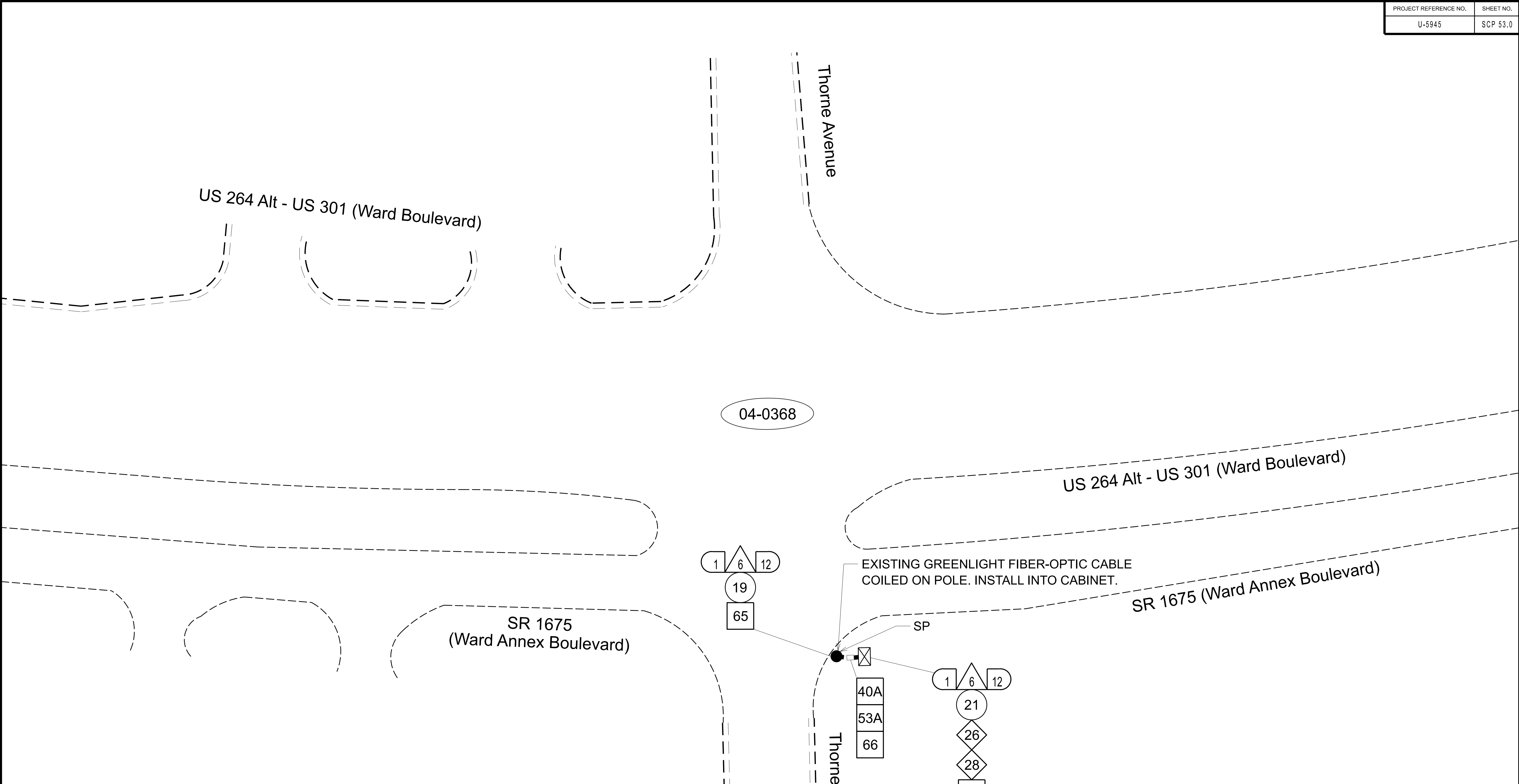
SIGNATURE: [Signature]
DATE: 3/10/2025

	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
	SEAL
	A circular professional seal for the State of North Carolina. The outer ring contains the text "NORTH CAROLINA" at the top and "STATE ENGINEERING" at the bottom. Inside the ring, it says "PROFESSIONAL" above "ENGINEER". In the center, there is a smaller circle containing the word "SEAL" above the license number "044476".
Wilson	
cation	
der	
DATE	
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.....	
SIGNATURE:	Desiglnated by: <i>Anthony Encarnacion</i> ENCARNACION@GMAIL.COM
DATE:	3/10/2025



Cable Routing		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED												
Prepared for the Offices of: 	U-5945 Wilson Signal System	SEAL 												
750 N. Greenfield Pkwy, Garner, NC 27529	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center; padding: 5px;"> Division 4 Wilson County Wilson </td> </tr> <tr> <td style="width: 50%; padding: 5px;"> PLAN DATE: December 2024 </td> <td style="width: 50%; padding: 5px;"> REVIEWED BY: AM Encarnacion </td> </tr> <tr> <td style="padding: 5px;"> PREPARED BY: JT Sutton </td> <td style="padding: 5px;"> REVIEWED BY: PL Alexander </td> </tr> <tr> <td style="padding: 5px;"> REVISIONS </td> <td style="padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">INIT.</td> <td style="width: 50%; padding: 5px;">DATE</td> </tr> <tr> <td style="height: 40px;"></td> <td></td> </tr> </table> </td> </tr> </table>	Division 4 Wilson County Wilson		PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	REVISIONS	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">INIT.</td> <td style="width: 50%; padding: 5px;">DATE</td> </tr> <tr> <td style="height: 40px;"></td> <td></td> </tr> </table>	INIT.	DATE			SIGNATURE: <i>Anthony Encarnacion</i> DATE: 3/10/2025
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PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 53.0



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|----|--|
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| 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT |
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| 53A | STORE 20 FEET OF COMMUNICATIONS CABLE |
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- | | |
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RISER(S)/CONDUIT(S) (INCH)

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888

NCBEES #F-0326

Cable Routing

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529 	U-5945 Wilson Signal System		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	Division 4 Wilson County Wilson		SEAL NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION	
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion		
	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	SIGNATURE: <i>Anthony Encarnacion</i> DATE: 3/10/2025	
	REVISIONS		INIT.	DATE



- AtkinsRéalis**
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RALEIGH, NORTH CAROLINA 27609
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Prepared for the Offices of:

Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ITS & Signals Management Section

750 N. Greenfield Pkwy, Garner, NC

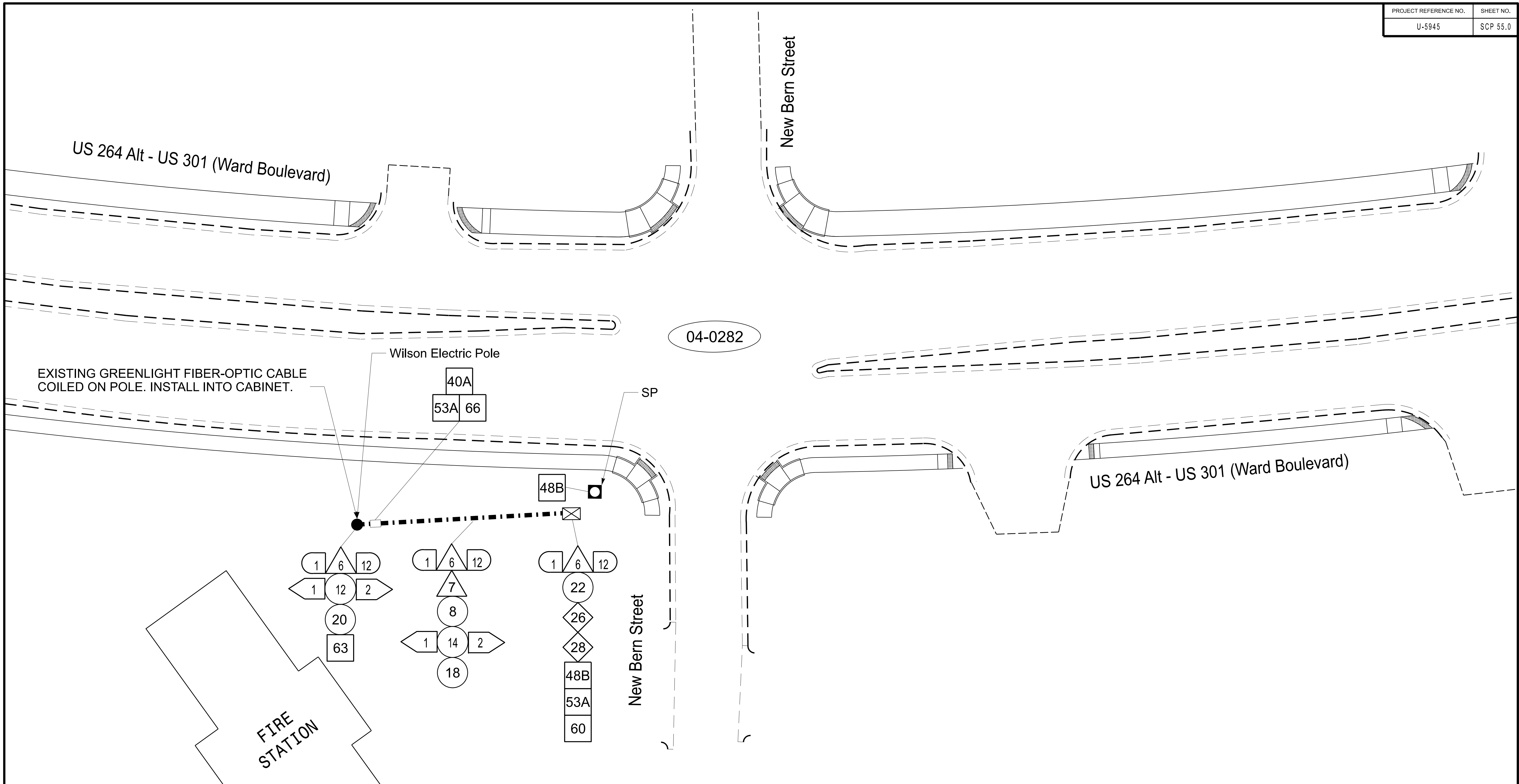
 SCALE
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1" = 20'

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SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

DocuSigned by:
Anthony Encarnacion
SIGNATURE
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DATE: 3/10/2025



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C4X

INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.

R20

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R20X

INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)

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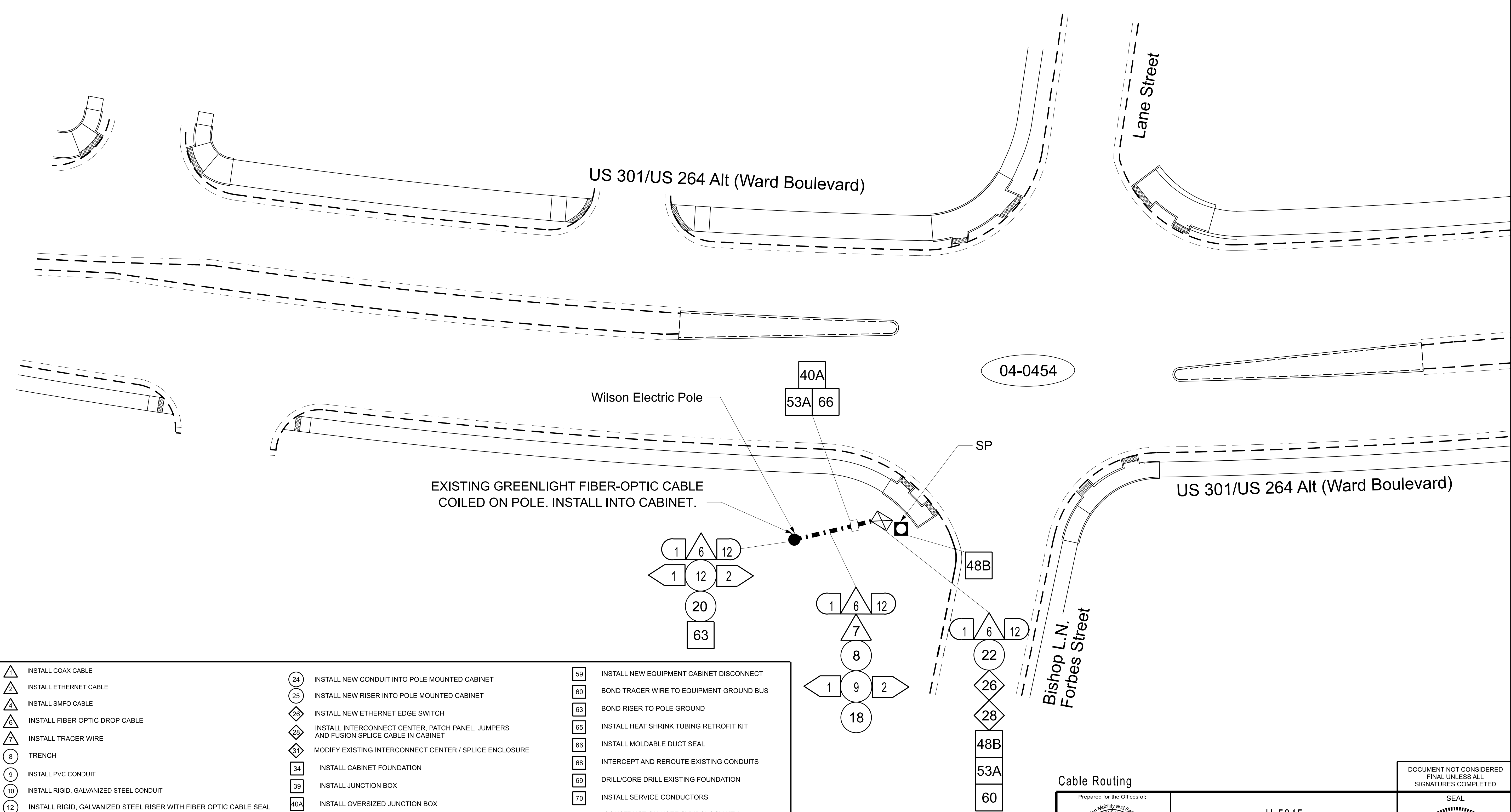
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Cable Routing

Prepared for the Offices of:		U-5945 Wilson Signal System																																	
750 N. Greenfield Pkwy, Garner, NC 27529		Division 4 Wilson County Wilson		PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion																															
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RALEIGH, NORTH CAROLINA 27609
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- CONSTRUCTION NOTE SYMBOLOGY KEY**
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REMOVE/ MODIFY CABLE
CONDUIT/ RISER
DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of:
North Carolina Department of Transportation
Division 4
Wilson County
Wilson

U-5945
Wilson Signal System

PLAN DATE: December 2024
REVIEWED BY: AM Encarnacion
PREPARED BY: JT Stiff
REVIEWED BY: PL Alexander

REVISIONS
INIT. DATE

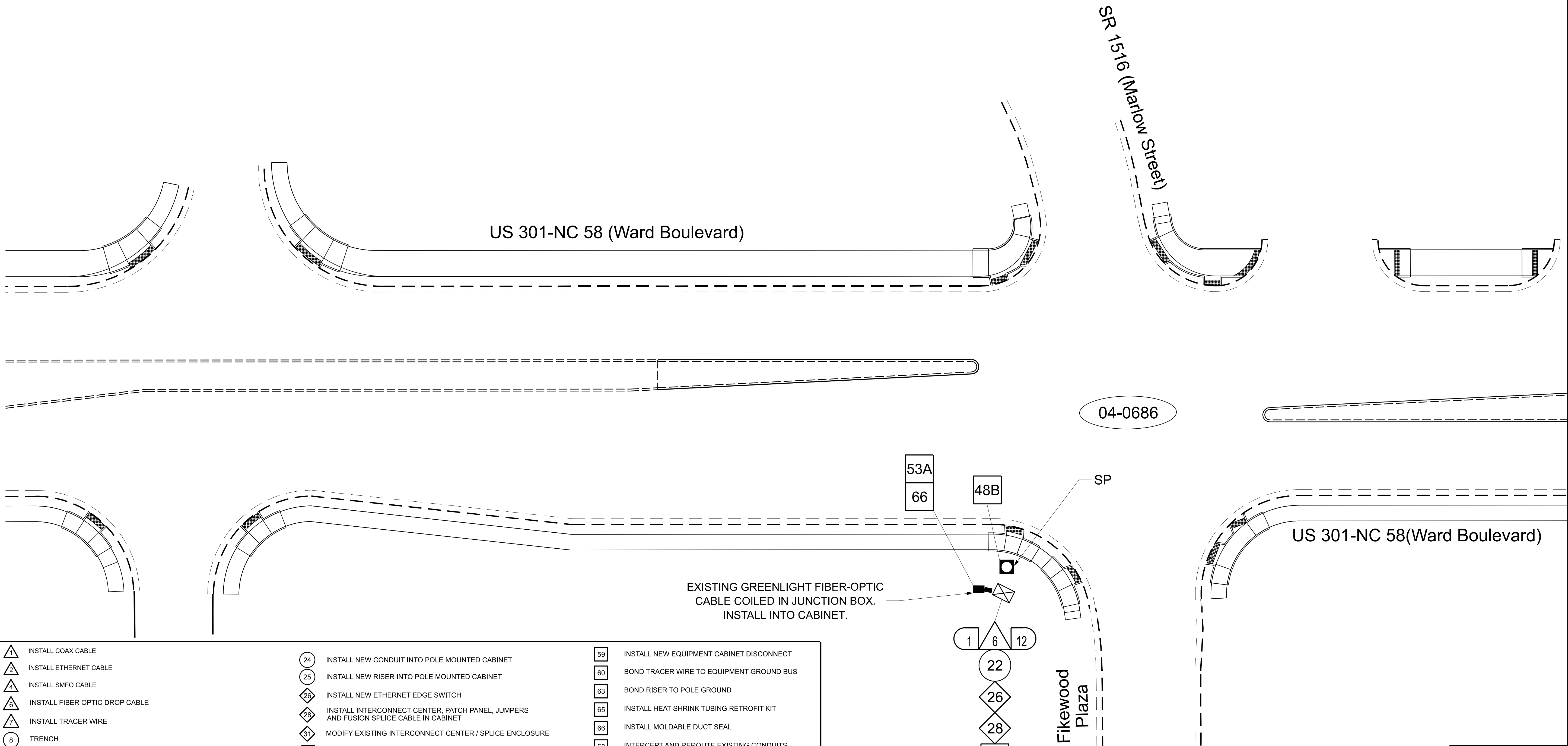
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1"=20'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

Designed by:
Signature: Anthony Encarnacion
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 57.0



- | | | | |
|----|--|-----|--|
| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 2 | INSTALL ETHERNET CABLE | 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
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| 9 | INSTALL PVC CONDUIT | 39 | INSTALL JUNCTION BOX |
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| 19 | INSTALL CABLE(S) IN EXISTING RISER | 53B | STORE 50 FEET OF COMMUNICATIONS CABLE |
| 20 | INSTALL CABLE(S) IN NEW RISER | 57 | MODIFY EXISTING ELECTRICAL SERVICE |
| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS | 58 | INSTALL NEW ELECTRICAL SERVICE |
| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | | |

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(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE: 0 20 1"=20'

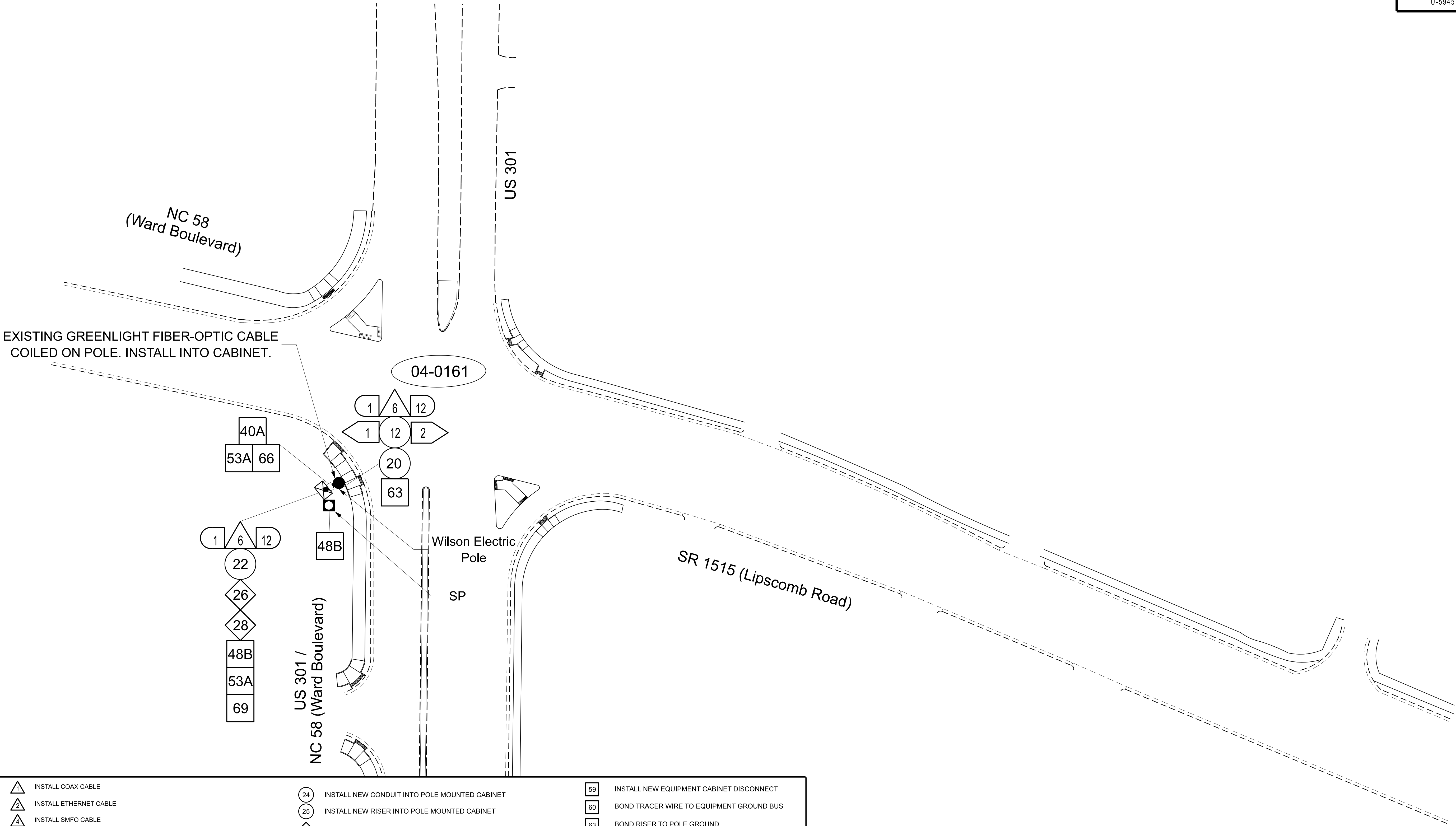
U-5945 Wilson Signal System	
Division 4 Wilson County Wilson	
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REVISIONS	INIT. DATE

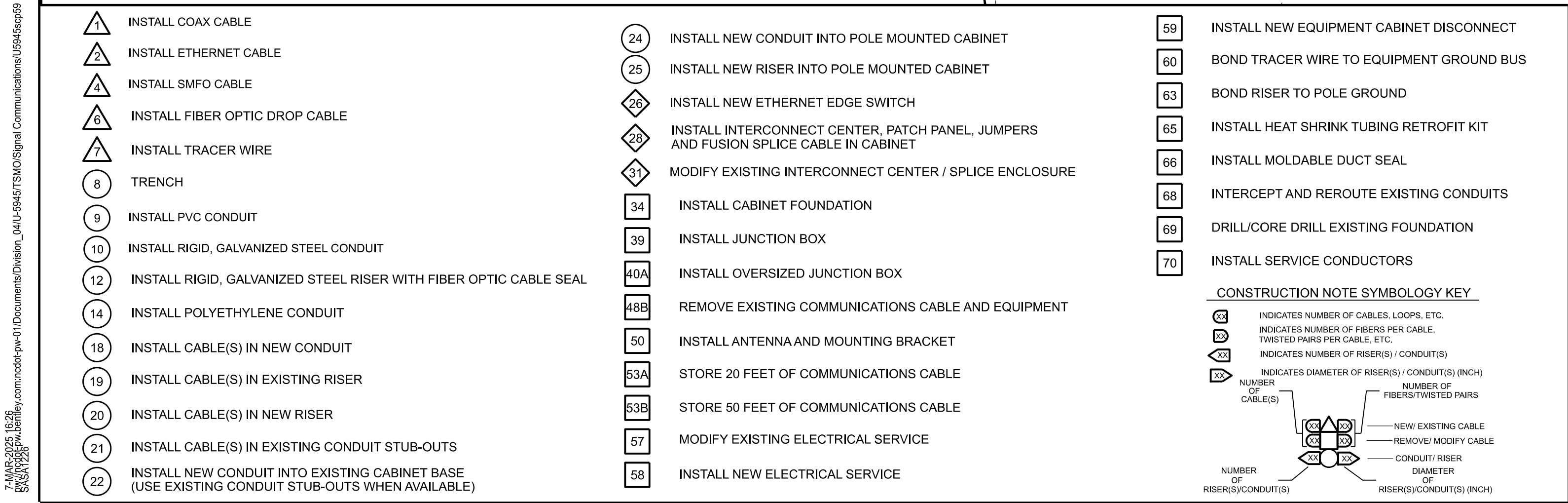
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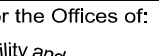
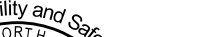
SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

Designed by: Anthony Encarnacion
SIGNATURE: [Signature]
DATE: 3/10/2025

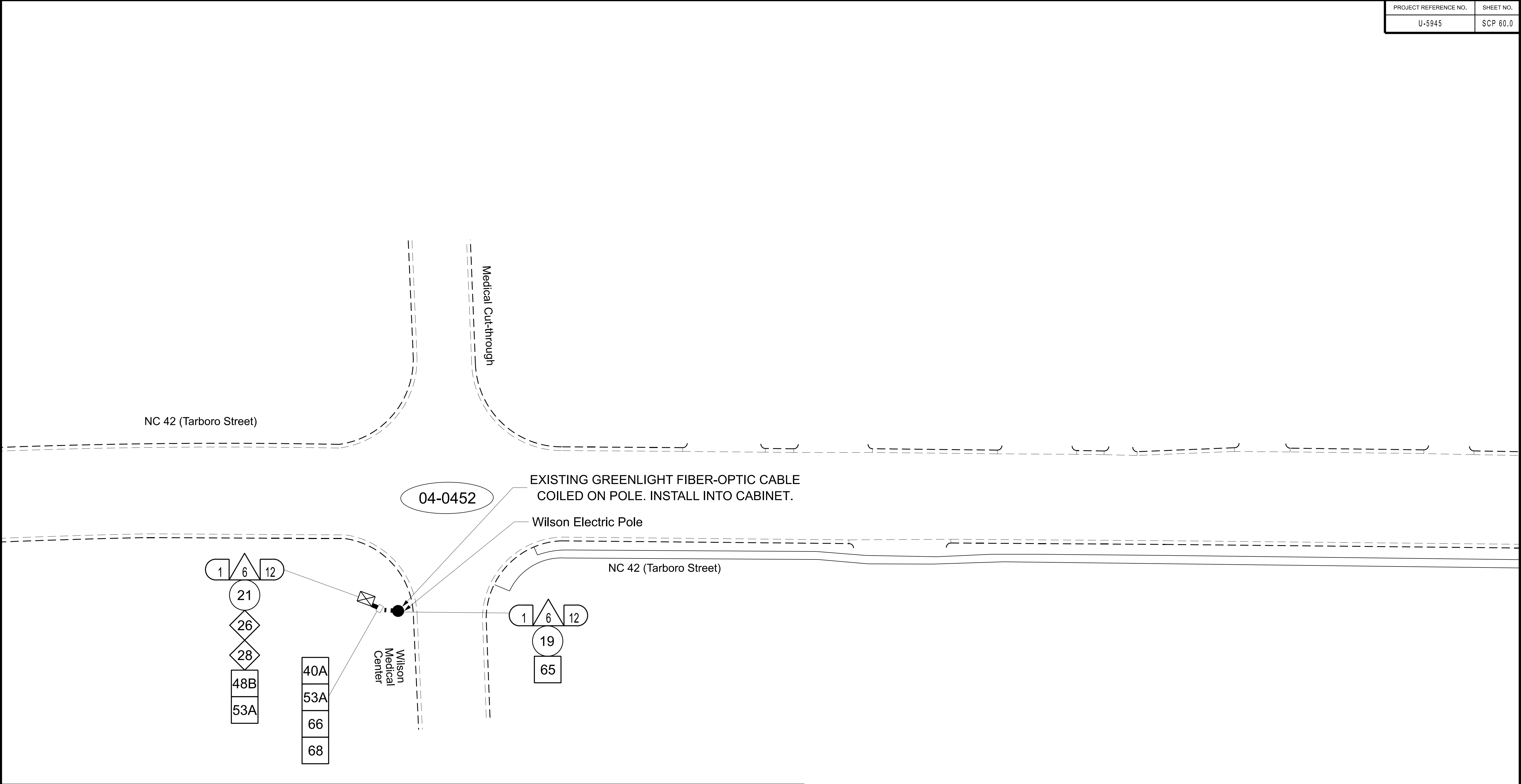
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Cable Routing Prepared for the Offices of:  TRANSPORTATION AND SAFETY DIVISION STATE OF NORTH CAROLINA SIGNAL MANAGEMENT SECTION		U-5945 Wilson Signal System		SEAL 																															
750 N. Greenfield Pkwy, Garner, NC 27529		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Division 4</td> <td style="width: 33%;">Wilson County</td> <td style="width: 33%;">Wilson</td> </tr> <tr> <td>PLAN DATE: December 2024</td> <td>REVIEWED BY: AM Encarnacion</td> <td></td> </tr> <tr> <td>PREPARED BY: JT Stiff</td> <td>REVIEWED BY: PL Alexander</td> <td></td> </tr> <tr> <td colspan="2">REVISIONS</td> <td>INIT. DATE</td> </tr> <tr><td colspan="2"> </td><td> </td></tr> <tr><td colspan="2"> </td><td> </td></tr> <tr><td colspan="2"> </td><td> </td></tr> <tr><td colspan="2"> </td><td> </td></tr> <tr><td colspan="2"> </td><td> </td></tr> <tr><td colspan="2"> </td><td> </td></tr> </table>		Division 4	Wilson County	Wilson	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion		PREPARED BY: JT Stiff	REVIEWED BY: PL Alexander		REVISIONS		INIT. DATE																			SCALE  0 20 1"=20'	
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PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 60.0



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NCBEES #F-0326

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

U-5945

Wilson Signal System

Division 4

Wilson County

Wilson

PLAN DATE: December 2024

REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton

REVIEWED BY: PL Alexander

REVISIONS

INIT.

DATE

Seal of Anthony M. Encarnacion, Professional Engineer, No. 044476

Signature of Anthony M. Encarnacion

DATE: 3/10/2025

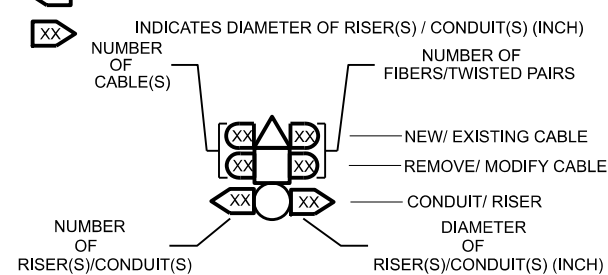
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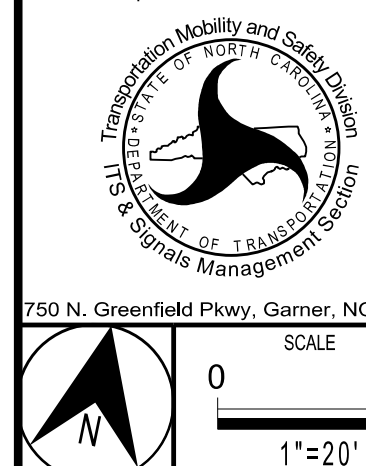
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Prepared for the Offices of:



Division 4 Wilson County Wilson

PLAN DATE:	December 2024	REVIEWED BY:	AM Encarnacion
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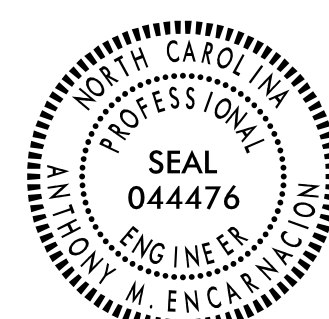
PREPARED BY:	JT Stiff	REVIEWED BY:	PL Alexander
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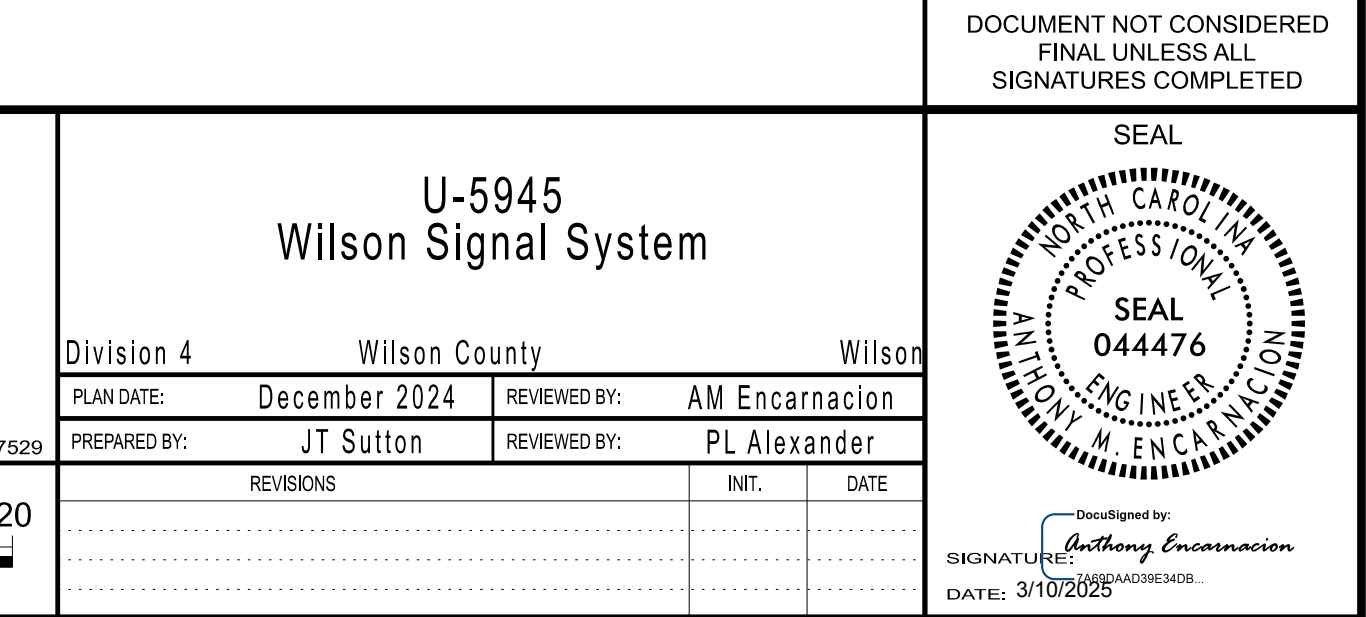
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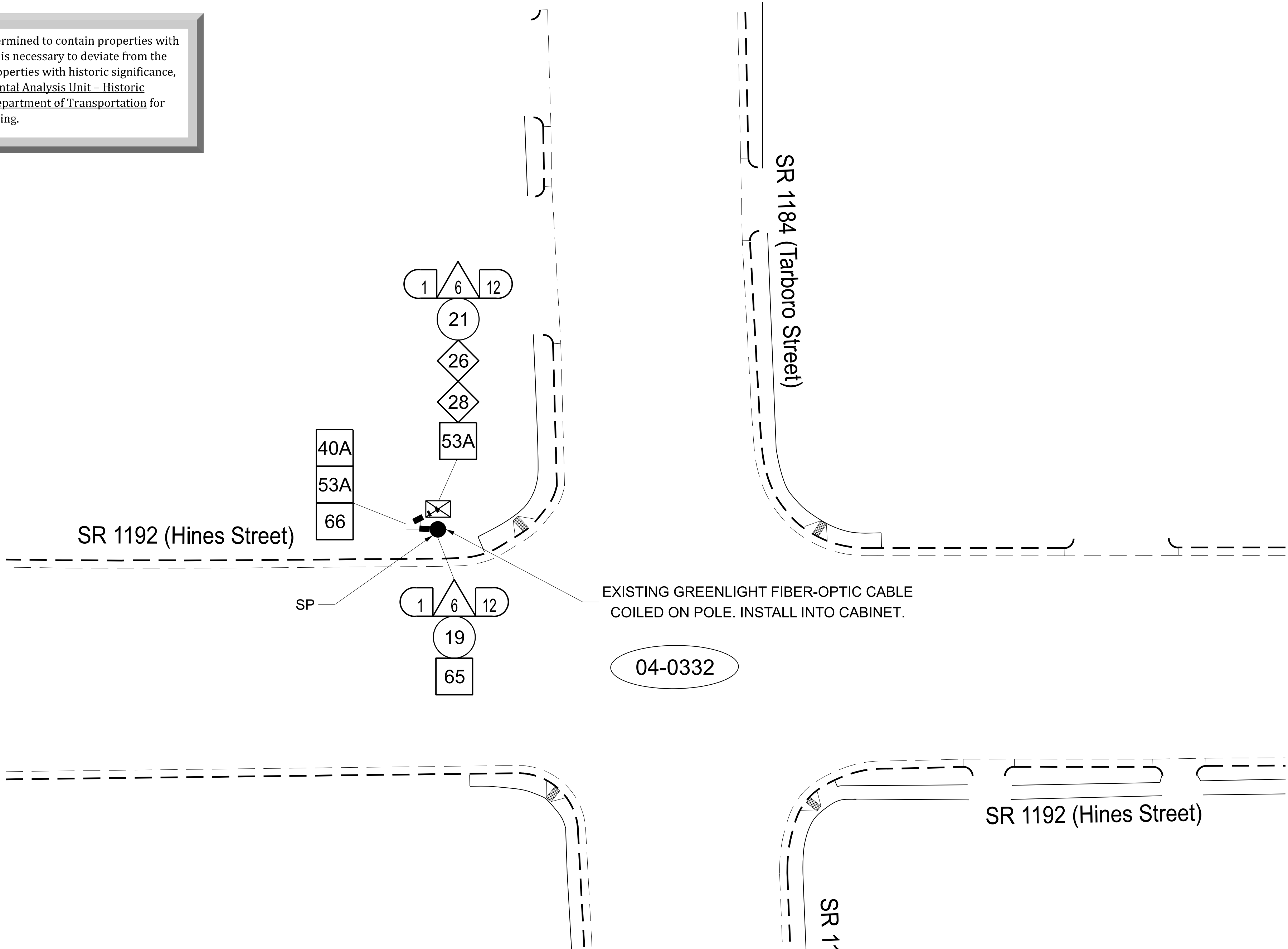
SEAL



Designed by:
SIGNATURE: *Anthony Encarnacion*
DATE: 3/10/2025



Areas within this project have been determined to contain properties with documented historical significance. If it is necessary to deviate from the plans in an area identified to contain properties with historic significance, alert the engineer to contact Environmental Analysis Unit – Historic Architecture Group of North Carolina Department of Transportation for an effects determination before proceeding.

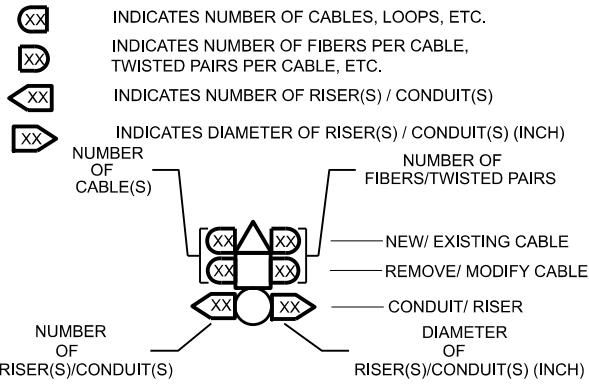


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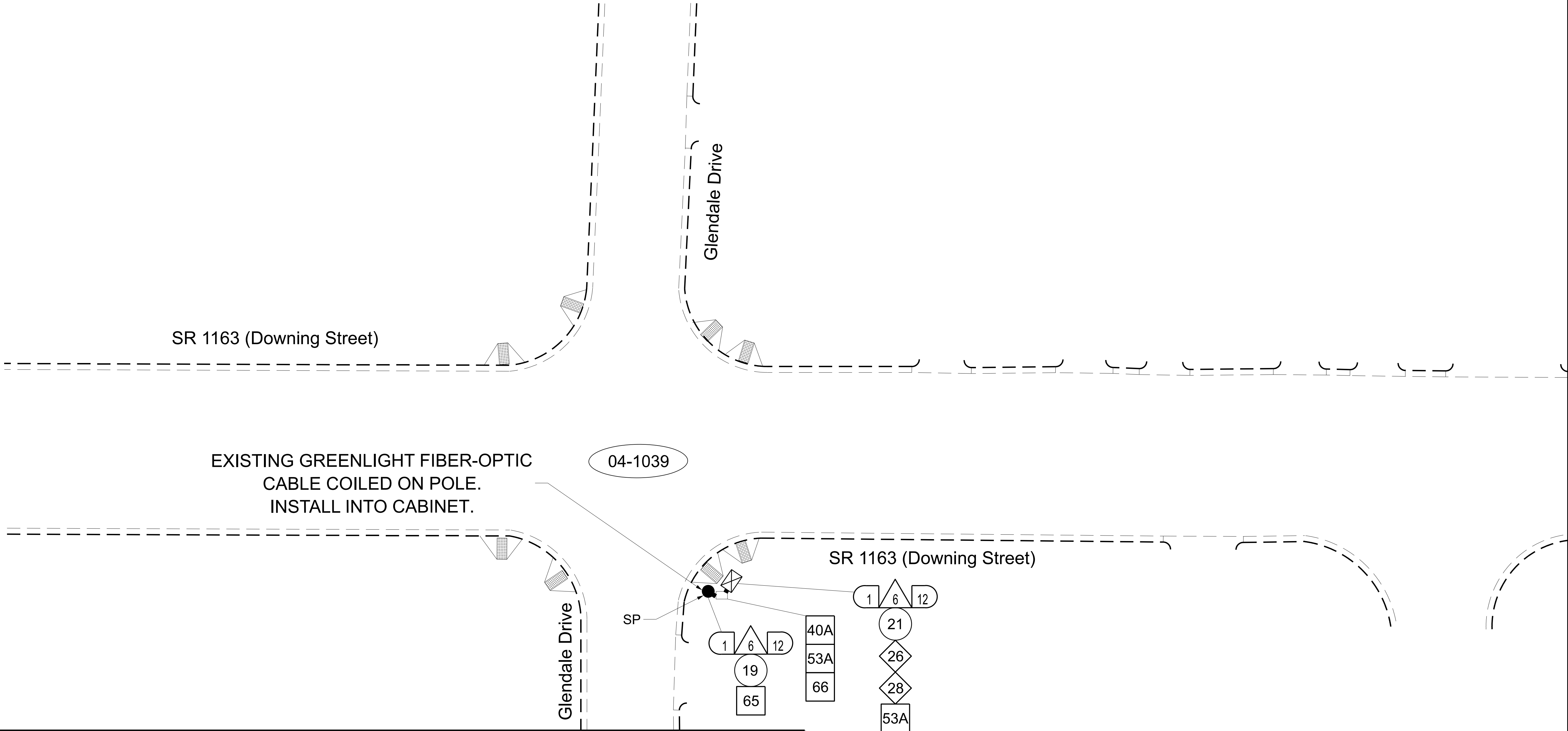
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U-5945

Wilson Signal System

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Wilson

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PREPARED BY: JT Stiff

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REVISIONS

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SEAL

Seal of the State of North Carolina, Professional Engineer, License No. 044476, Anthony M. Encarnacion

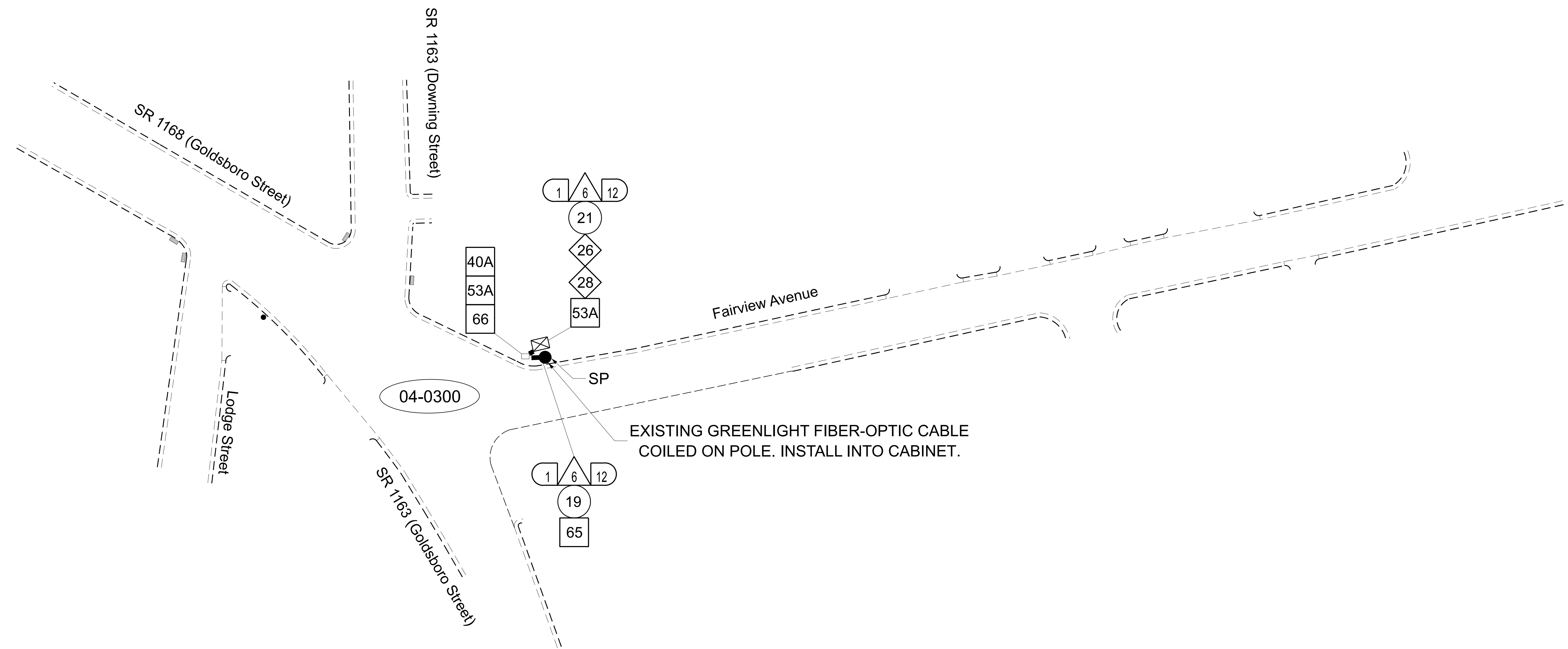
Designed by

Signature of Anthony Encarnacion

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REMOVE/ MODIFY CABLE
CONDUIT/ RISER
DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

U-5945
Wilson Signal System

Division 4Wilson CountyWilson

PLAN DATE: December 2024REVIEWED BY: AM Encarnacion

PREPARED BY: JT StiffREVIEWED BY: PL Alexander

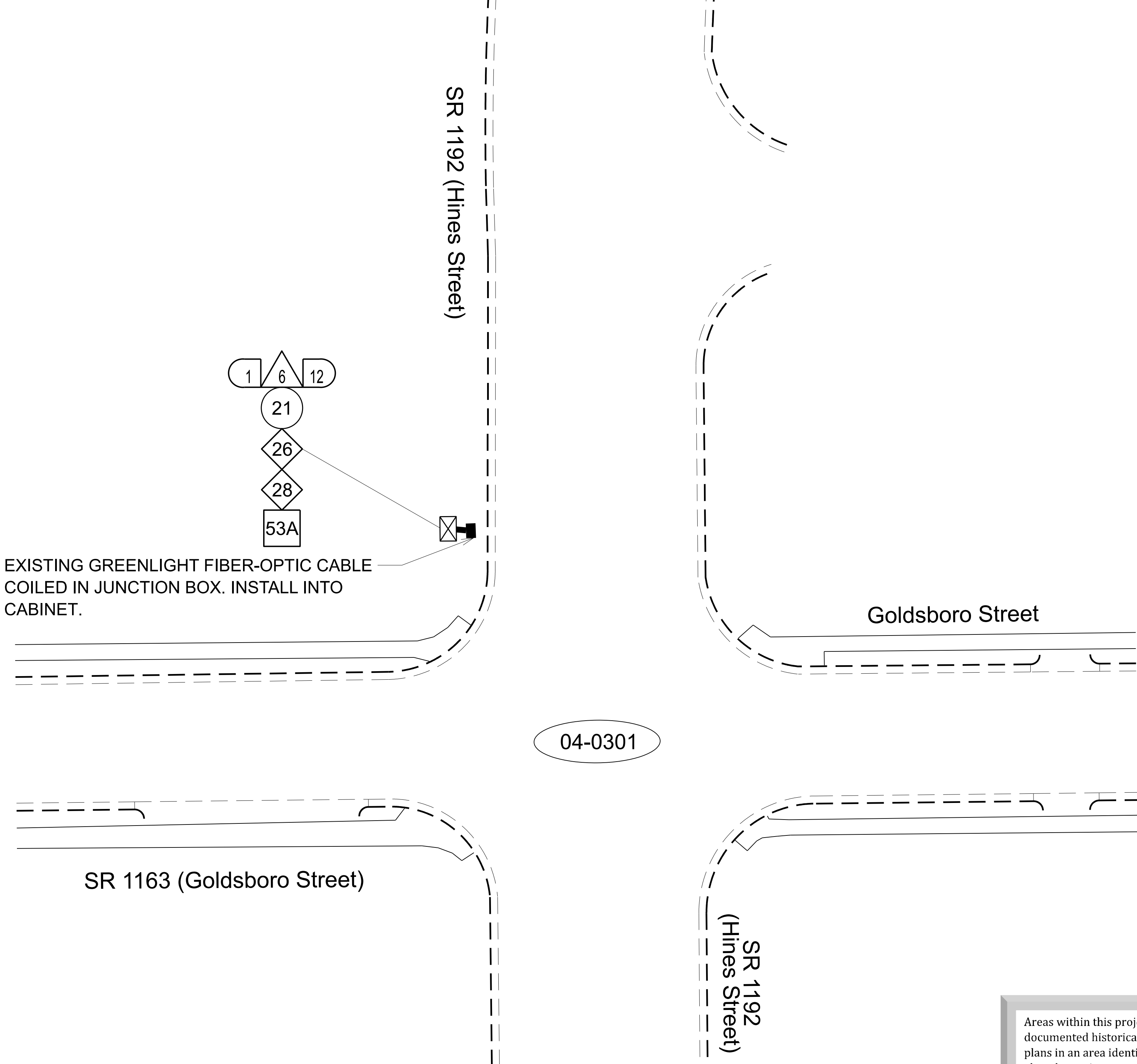
REVISIONSINIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

Signed by:
Anthony Encarnacion
SIGNATURE: [Signature]
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 66.0



Areas within this project have been determined to contain properties with documented historical significance. If it is necessary to deviate from the plans in an area identified to contain properties with historic significance, alert the engineer to contact [Environmental Analysis Unit – Historic Architecture Group of North Carolina Department of Transportation](#) for an effects determination before proceeding.

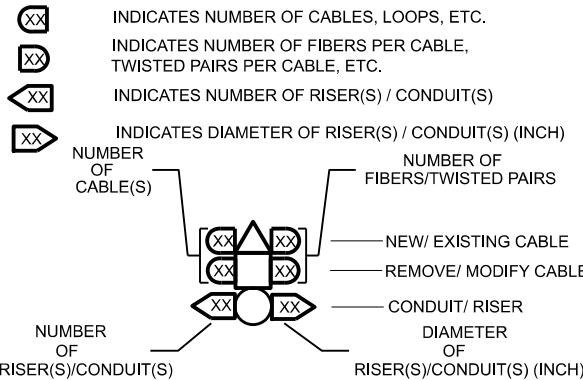
C:\Users\jag\OneDrive\Documents\Division_04\U-5945\TSMOSignal Communications\U5945cp66
SUT12606

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- 34 INSTALL CABINET FOUNDATION
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- 48B REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT
- 50 INSTALL ANTENNA AND MOUNTING BRACKET
- 53A STORE 20 FEET OF COMMUNICATIONS CABLE
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- 57 MODIFY EXISTING ELECTRICAL SERVICE
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- 66 INSTALL MOLDABLE DUCT SEAL
- 68 INTERCEPT AND REROUTE EXISTING CONDUITS
- 69 DRILL/CORE DRILL EXISTING FOUNDATION
- 70 INSTALL SERVICE CONDUCTORS

CONSTRUCTION NOTE SYMBOLOGY KEY

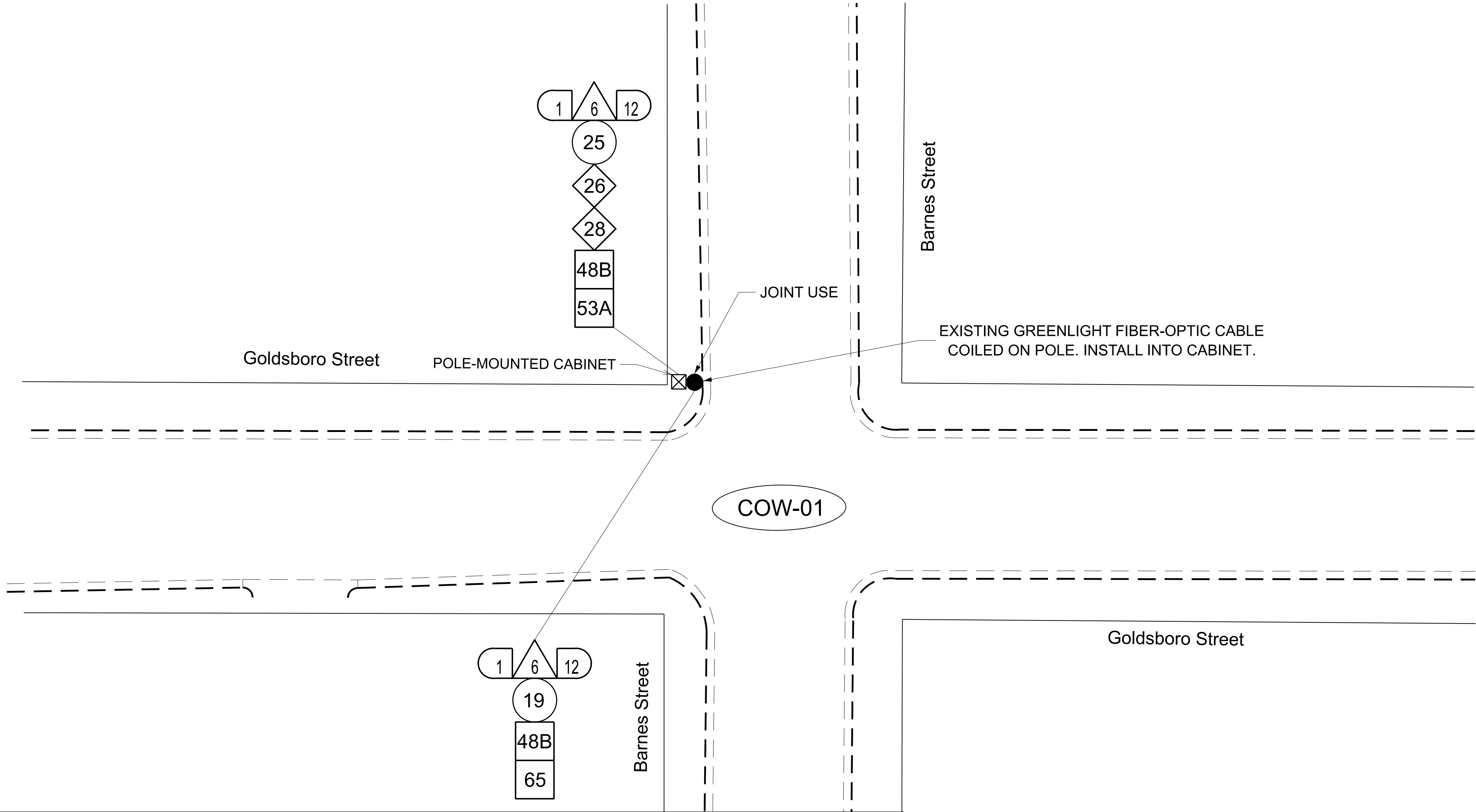


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	Division 4 Wilson County Wilson		SEAL NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION	
	PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion			
	PREPARED BY: JT Sutton REVIEWED BY: PL Alexander		DATE: 3/13/2025	
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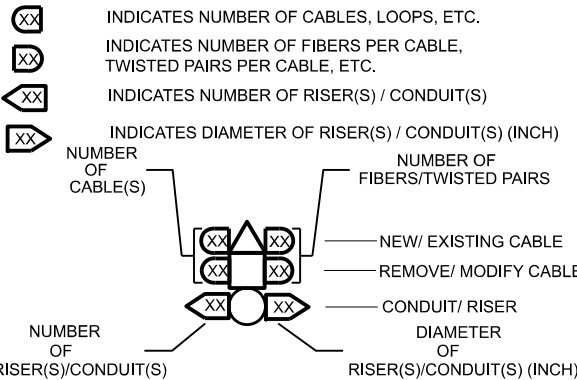
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The diagram illustrates the installation of a pole-mounted cabinet at the intersection of Goldsboro Street and Green Street. The cabinet is labeled "POLE-MOUNTED CABINET" and is shown with a "SP" (Service Point) label. A line connects the cabinet to a list of existing fiber-optic cables: 1, 6, 12, 19, 48B, and 65. A new cable, labeled "COW-02", is shown being installed into the cabinet. A note indicates that existing Greenlight fiber-optic cable coiled on the pole should be installed into the cabinet. The diagram also shows the intersection of Goldsboro Street and Green Street, with a dashed line indicating the location of the cabinet.

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NUMBER OF FIBERS/TWISTED PAIRS

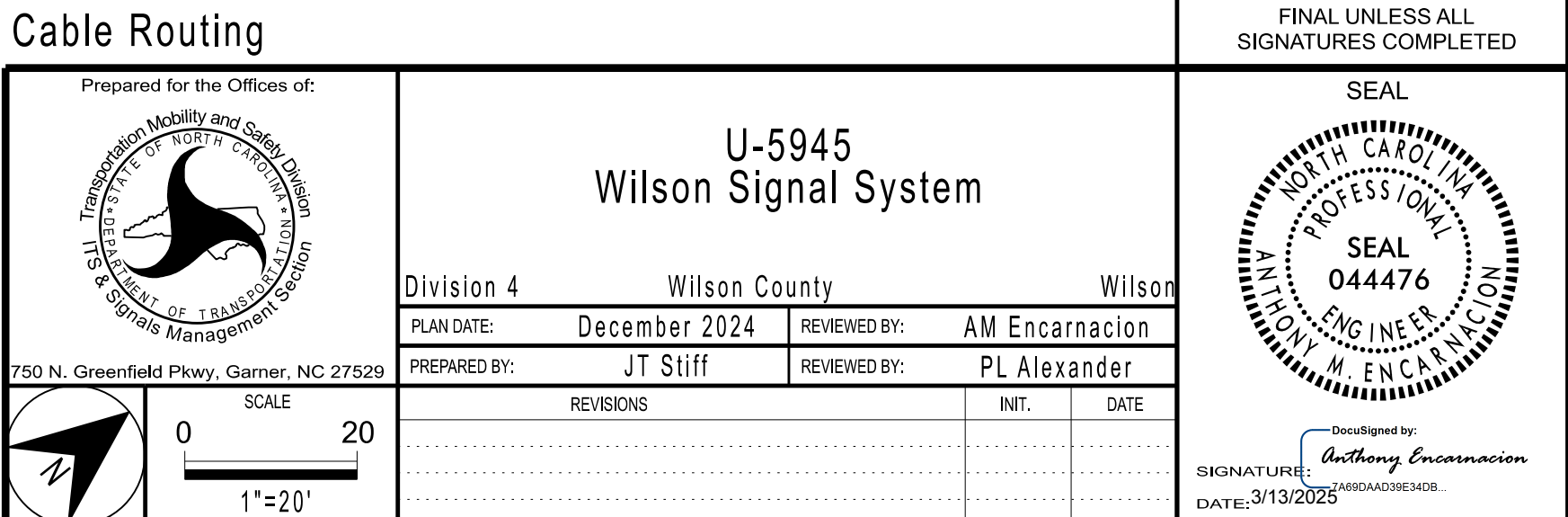
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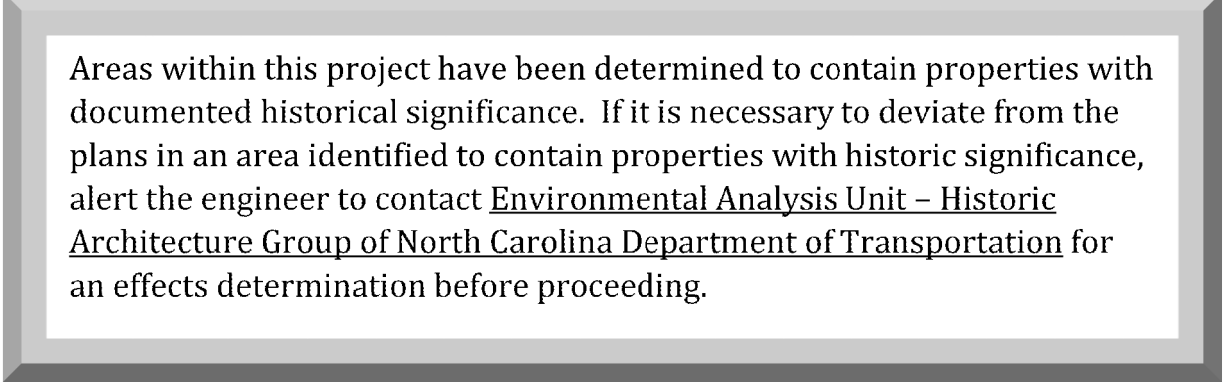
NEW EXISTING CABLE

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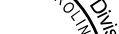
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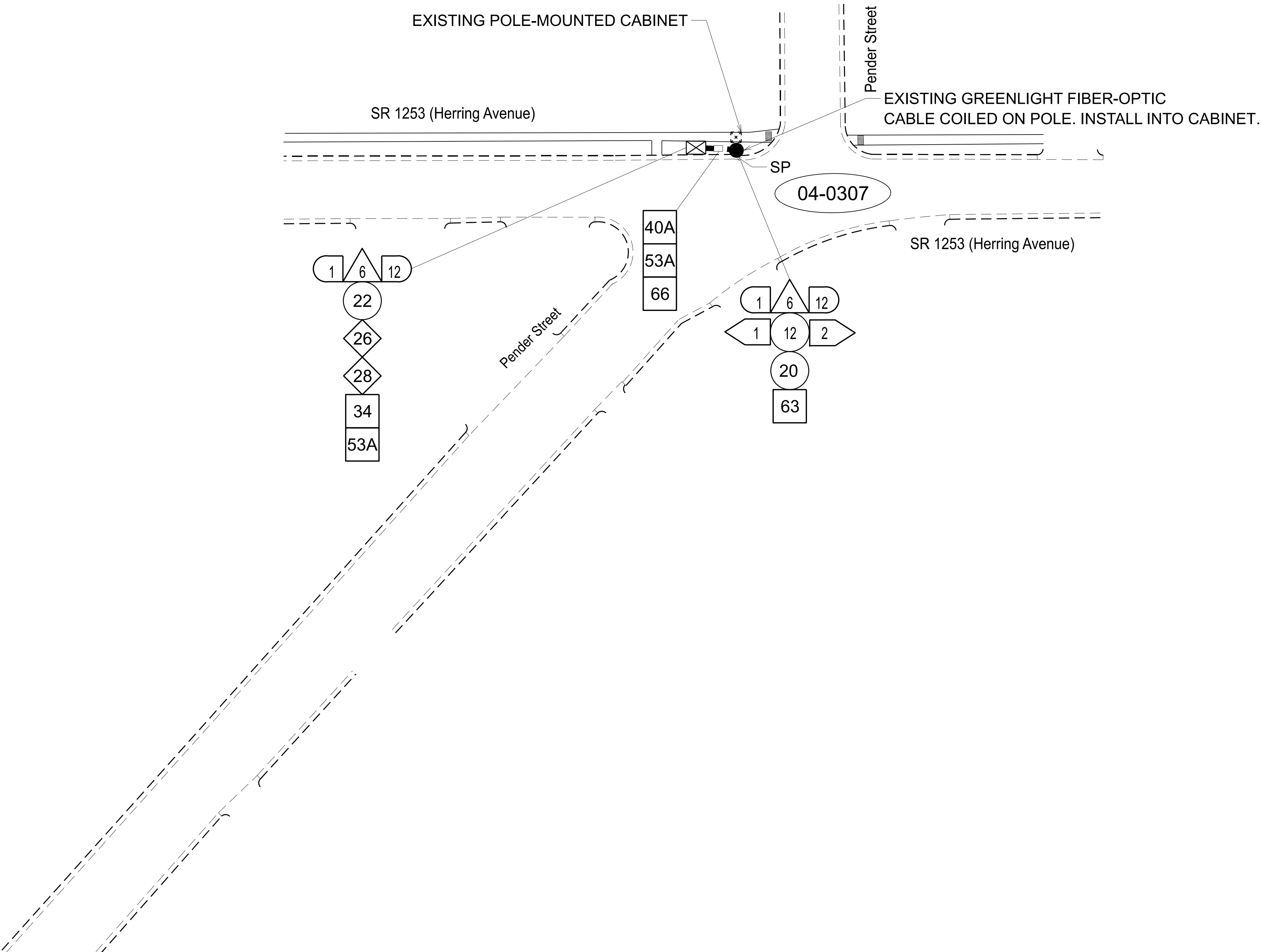
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REVISIONS INT. DATE		
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	SCALE  1" = 20'	Discussed by:  SIGNATURE: ANTHONY ENCARNACION MOB. DATE: 3/13/2025



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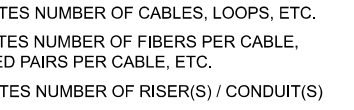
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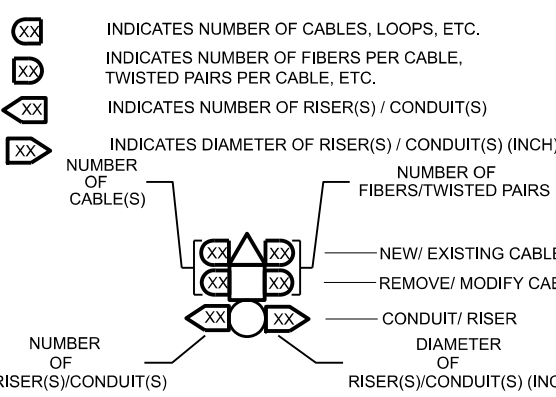
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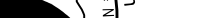


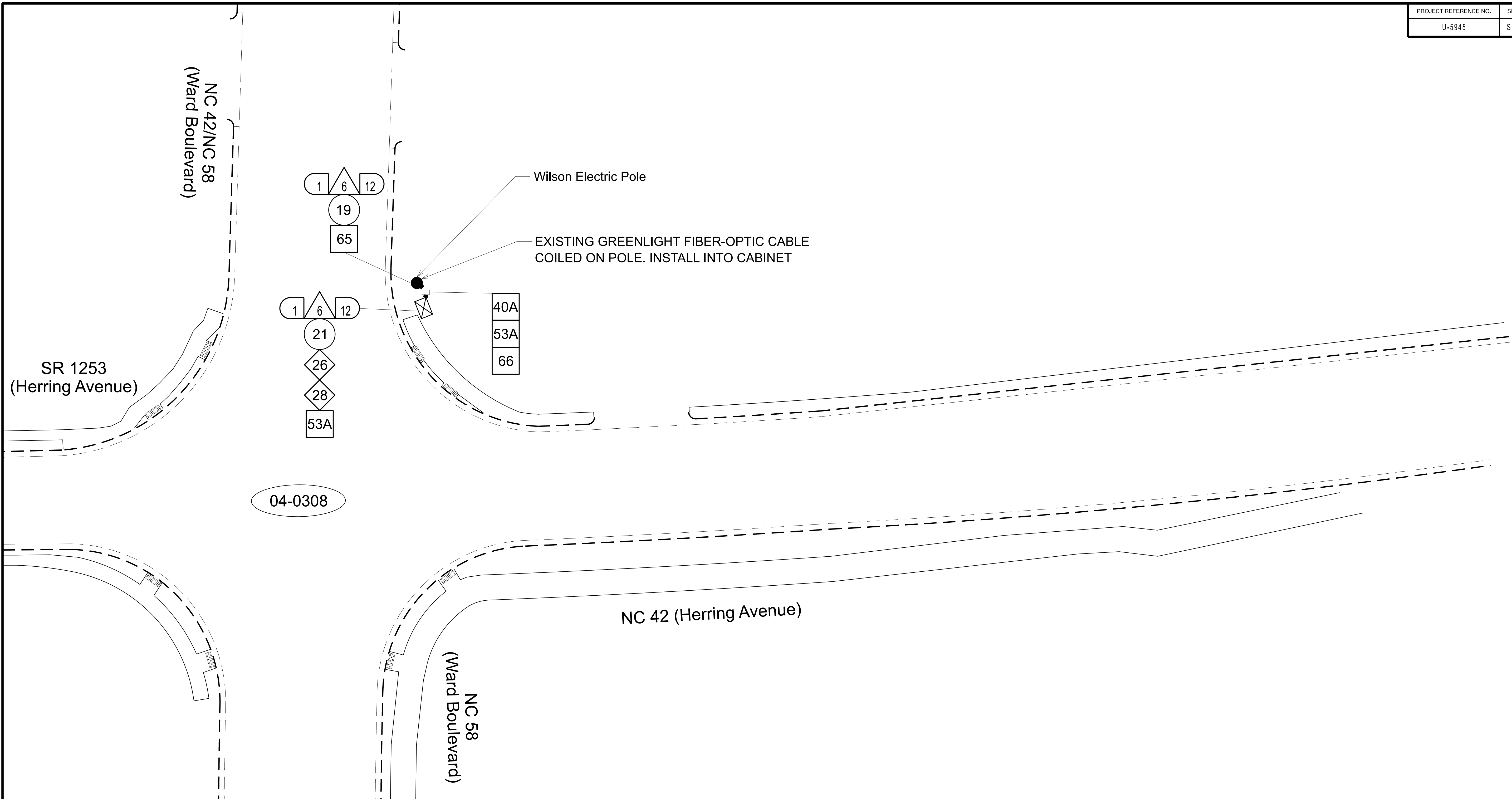
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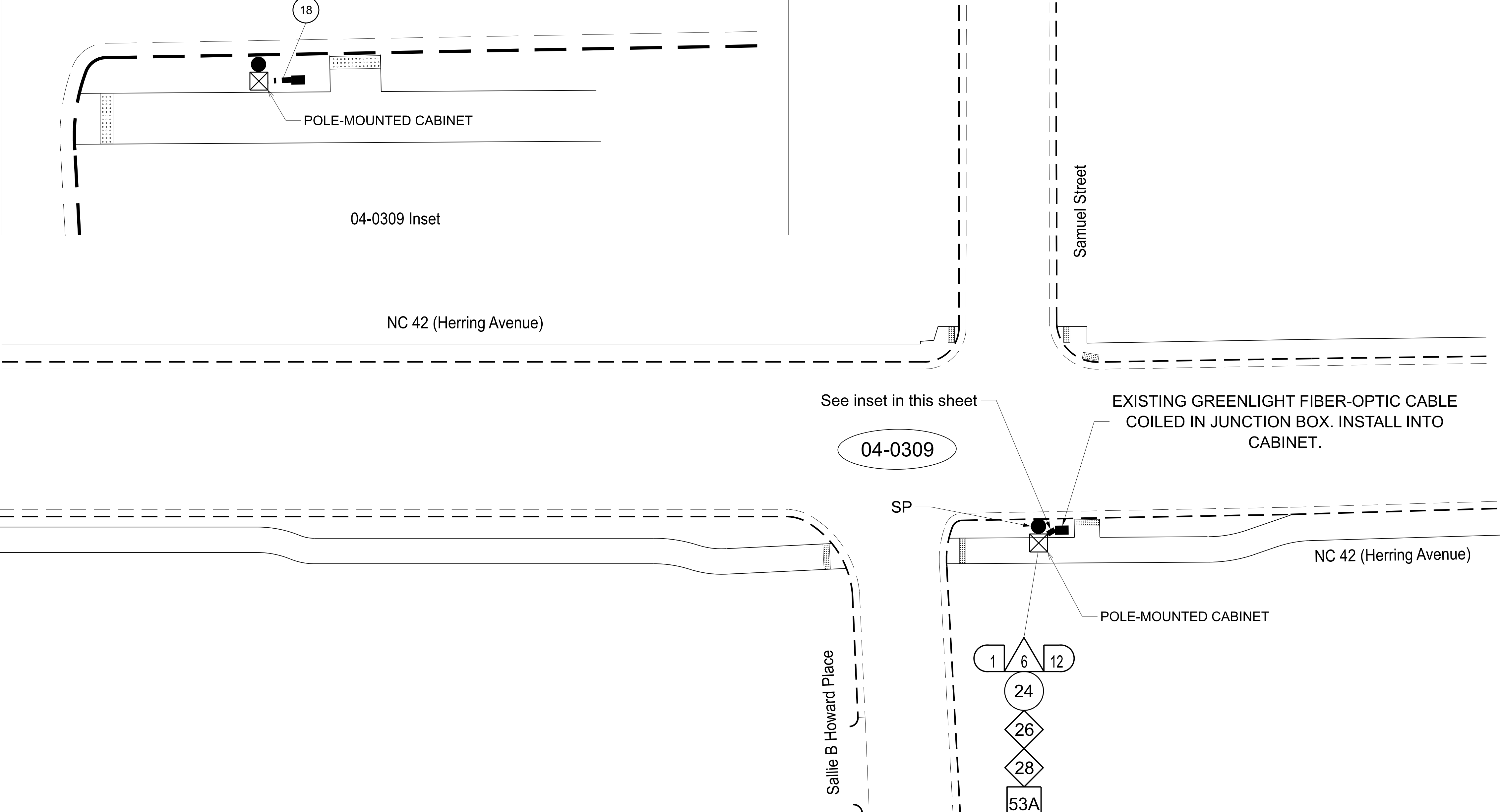
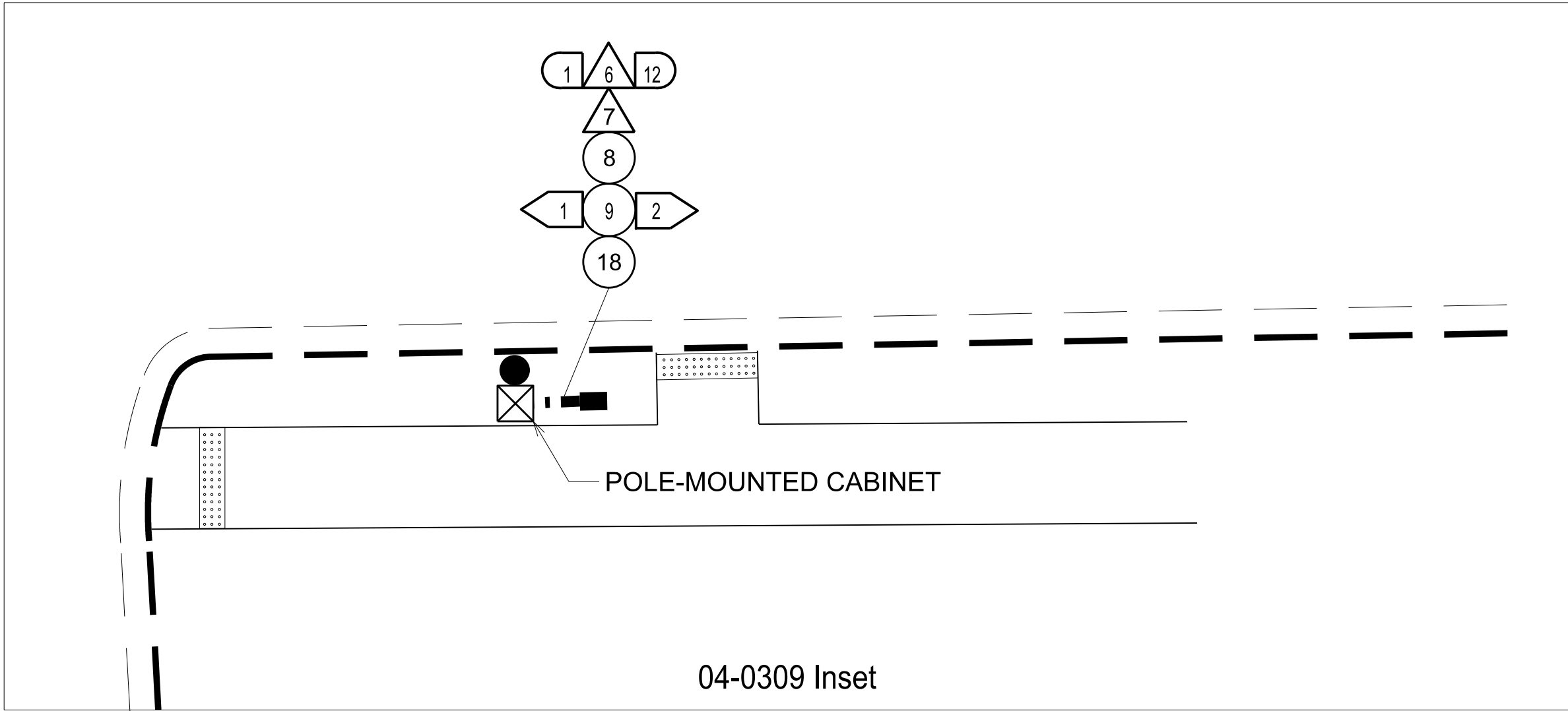
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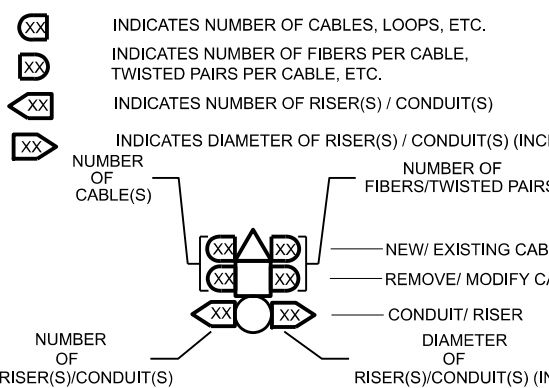


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- 69 DRILL/CORE DRILL EXISTING FOUNDATION
- 70 INSTALL SERVICE CONDUCTORS

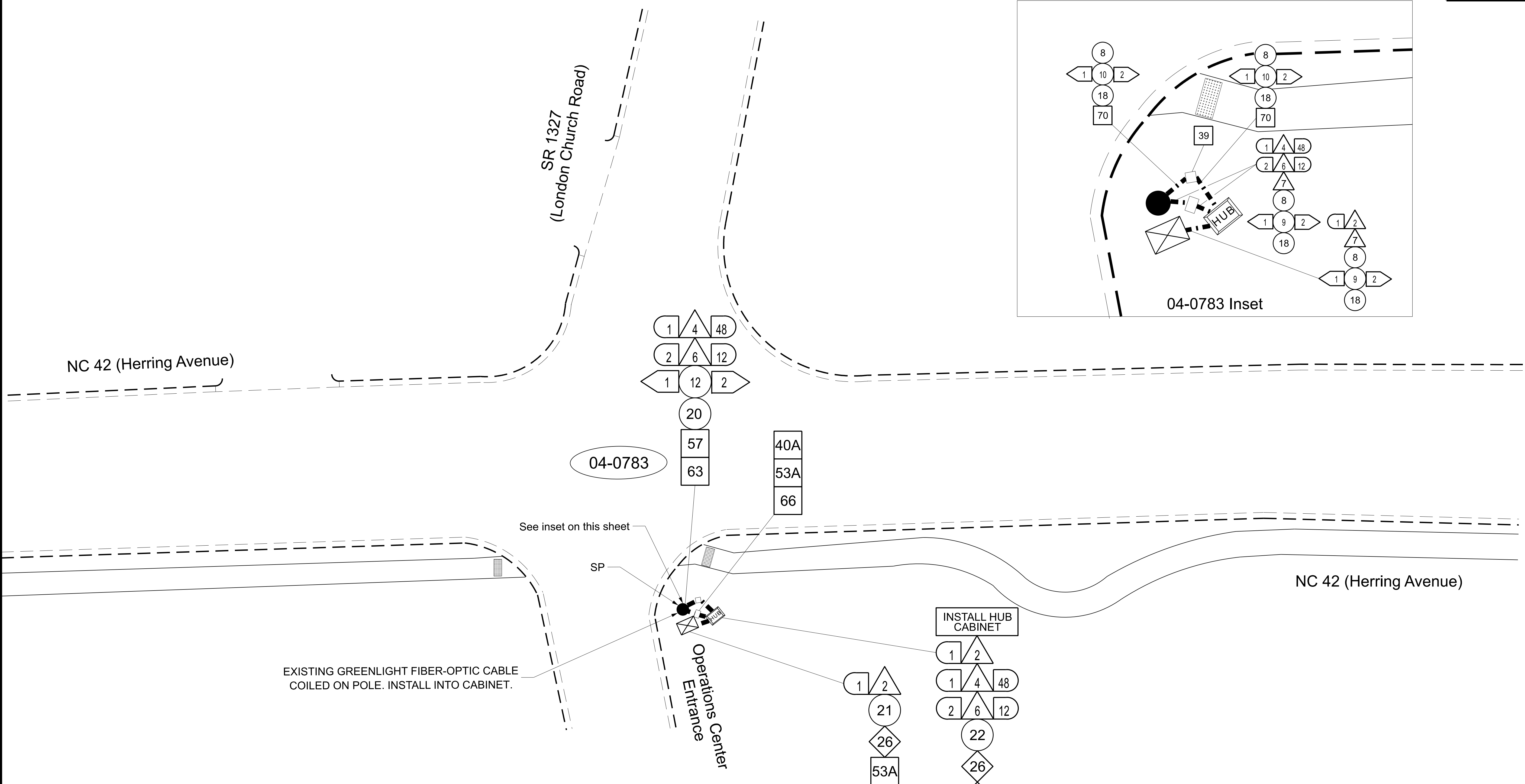
CONSTRUCTION NOTE SYMBOLOGY KEY



AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of:  750 N. Greenfield Pkwy, Garner, NC 27529	U-5945 Wilson Signal System Division 4 Wilson County Wilson PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion PREPARED BY: JT Stiff REVIEWED BY: PL Alexander REVISIONS INIT. DATE Seal of the State of North Carolina Professional Engineer SEAL 044476 ANTHONY M. ENCARNACION ENGINEER 3/10/2025	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
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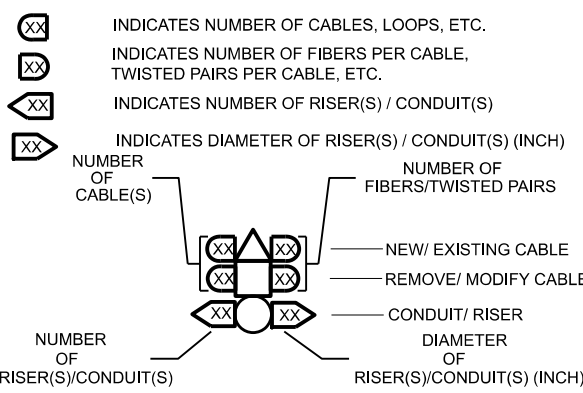
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- | | |
|----|--|
| 1 | INSTALL COAX CABLE |
| 2 | INSTALL ETHERNET CABLE |
| 4 | INSTALL SMFO CABLE |
| 6 | INSTALL FIBER OPTIC DROP CABLE |
| 7 | INSTALL TRACER WIRE |
| 8 | TRENCH |
| 9 | INSTALL PVC CONDUIT |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT |
| 12 | INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL |
| 14 | INSTALL POLYETHYLENE CONDUIT |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT |
| 19 | INSTALL CABLE(S) IN EXISTING RISER |
| 20 | INSTALL CABLE(S) IN NEW RISER |
| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS |
| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) |

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|-----|--|
| 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
| 26 | INSTALL NEW ETHERNET EDGE SWITCH |
| 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET |
| 31 | MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE |
| 34 | INSTALL CABINET FOUNDATION |
| 39 | INSTALL JUNCTION BOX |
| 40A | INSTALL OVERSIZED JUNCTION BOX |
| 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT |
| 50 | INSTALL ANTENNA AND MOUNTING BRACKET |
| 53A | STORE 20 FEET OF COMMUNICATIONS CABLE |
| 53B | STORE 50 FEET OF COMMUNICATIONS CABLE |
| 57 | MODIFY EXISTING ELECTRICAL SERVICE |
| 58 | INSTALL NEW ELECTRICAL SERVICE |

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|----|--|
| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |

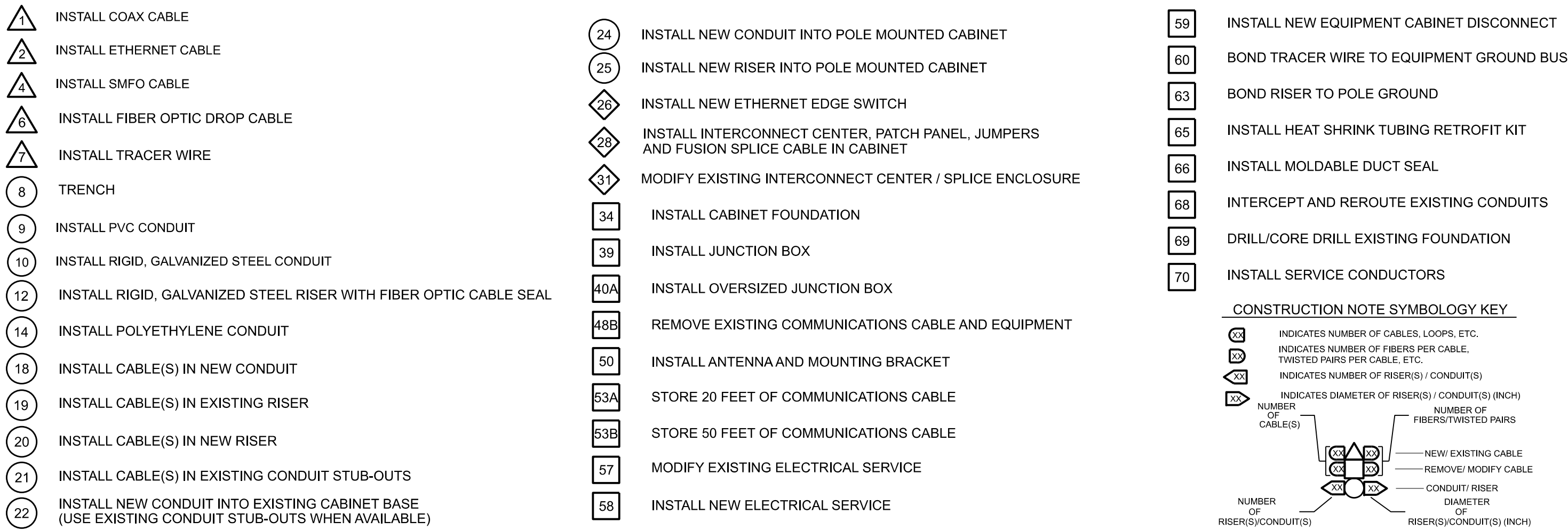
CONSTRUCTION NOTE SYMBOLOGY KEY



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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Cable Routing

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529	U-5945 Wilson Signal System Division 4 Wilson County Wilson PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion PREPARED BY: JT Stiff REVIEWED BY: PL Alexander <table><tr><th>REVISIONS</th><th>INIT.</th><th>DATE</th></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>	REVISIONS	INIT.	DATE										DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SEAL Designed by: SIGNATURE: <i>Anthony Encarnacion</i> DATE: 3/10/2025
REVISIONS	INIT.	DATE												



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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Prepared for the Offices of:

South Carolina
DEPARTMENT OF TRANSPORTATION
Signal, Transportation Mobility and Safety Division
& Signals Management Section

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE
0 20
1" = 20'

[illegible]

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

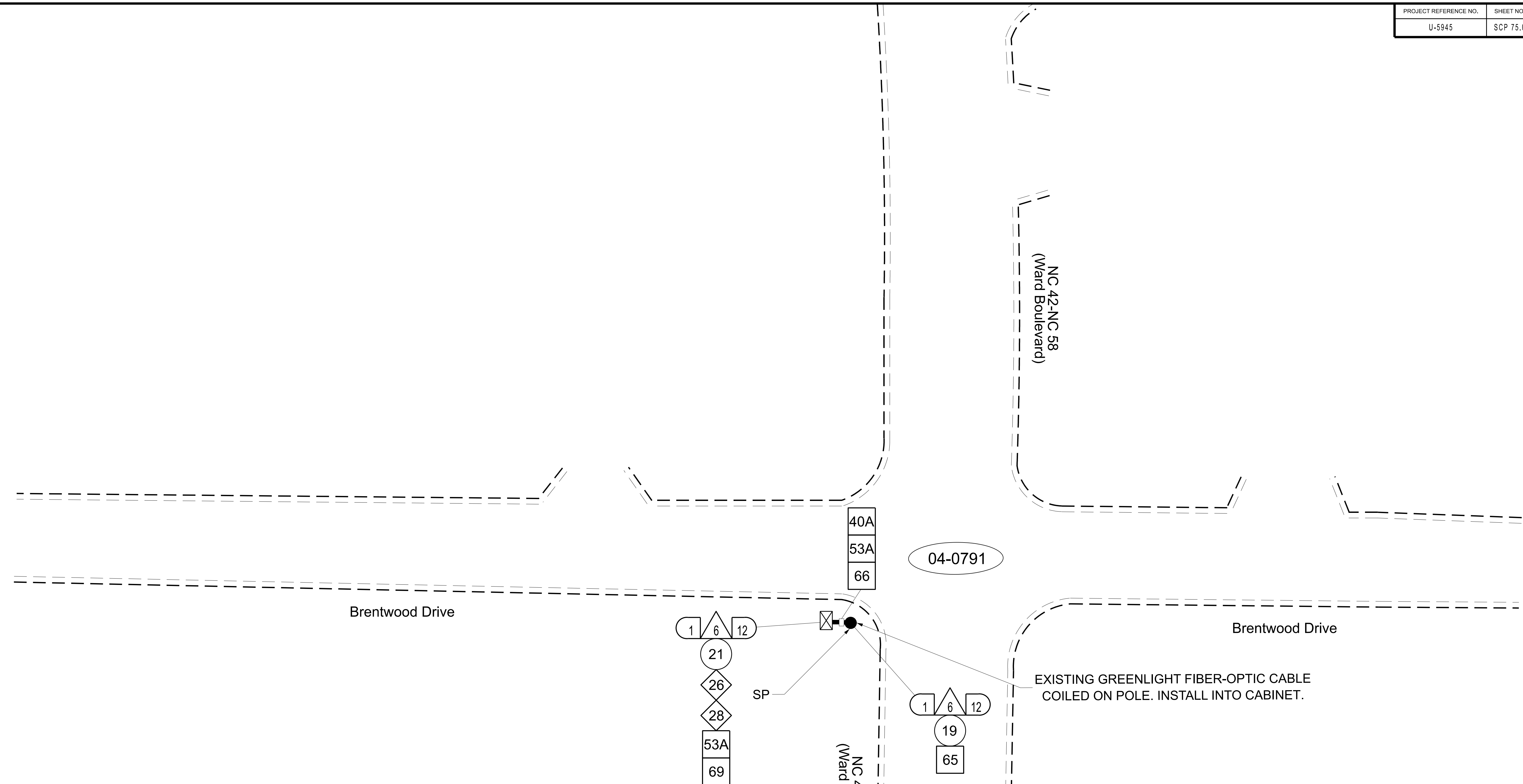
SEAL



DocuSigned by:
Anthony Encarnacion
044476-029923403

SIGNATURE: _____
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 75.0



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|----|--|-----|--|
| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 2 | INSTALL ETHERNET CABLE | 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
| 4 | INSTALL SMFO CABLE | 26 | INSTALL NEW ETHERNET EDGE SWITCH |
| 6 | INSTALL FIBER OPTIC DROP CABLE | 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET |
| 7 | INSTALL TRACER WIRE | 31 | MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE |
| 8 | TRENCH | 34 | INSTALL CABINET FOUNDATION |
| 9 | INSTALL PVC CONDUIT | 39 | INSTALL JUNCTION BOX |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT | 40A | INSTALL OVERSIZED JUNCTION BOX |
| 12 | INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL | 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT |
| 14 | INSTALL POLYETHYLENE CONDUIT | 50 | INSTALL ANTENNA AND MOUNTING BRACKET |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT | 53A | STORE 20 FEET OF COMMUNICATIONS CABLE |
| 19 | INSTALL CABLE(S) IN EXISTING RISER | 53B | STORE 50 FEET OF COMMUNICATIONS CABLE |
| 20 | INSTALL CABLE(S) IN NEW RISER | 57 | MODIFY EXISTING ELECTRICAL SERVICE |
| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS | 58 | INSTALL NEW ELECTRICAL SERVICE |
| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | | |

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|----|--|
| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |
- CONSTRUCTION NOTE SYMBOLOGY KEY**
- | | | | |
|----|---|----|--|
| XX | INDICATES NUMBER OF CABLES, LOOPS, ETC. | XX | INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH) |
| XX | INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC. | XX | NUMBER OF RISER(S)/CONDUIT(S) |
| XX | INDICATES NUMBER OF RISER(S) / CONDUIT(S) | XX | NUMBER OF FIBERS/TWISTED PAIRS |
- NEW/EXISTING CABLE
REMOVE/ MODIFY CABLE
CONDUIT/ RISER
DIAMETER OF RISER(S)/CONDUIT(S) (INCH)



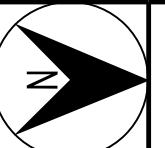
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Cable Routing

Prepared for the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529



U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Stiff REVIEWED BY: PL Alexander

REVISIONS	INIT.	DATE

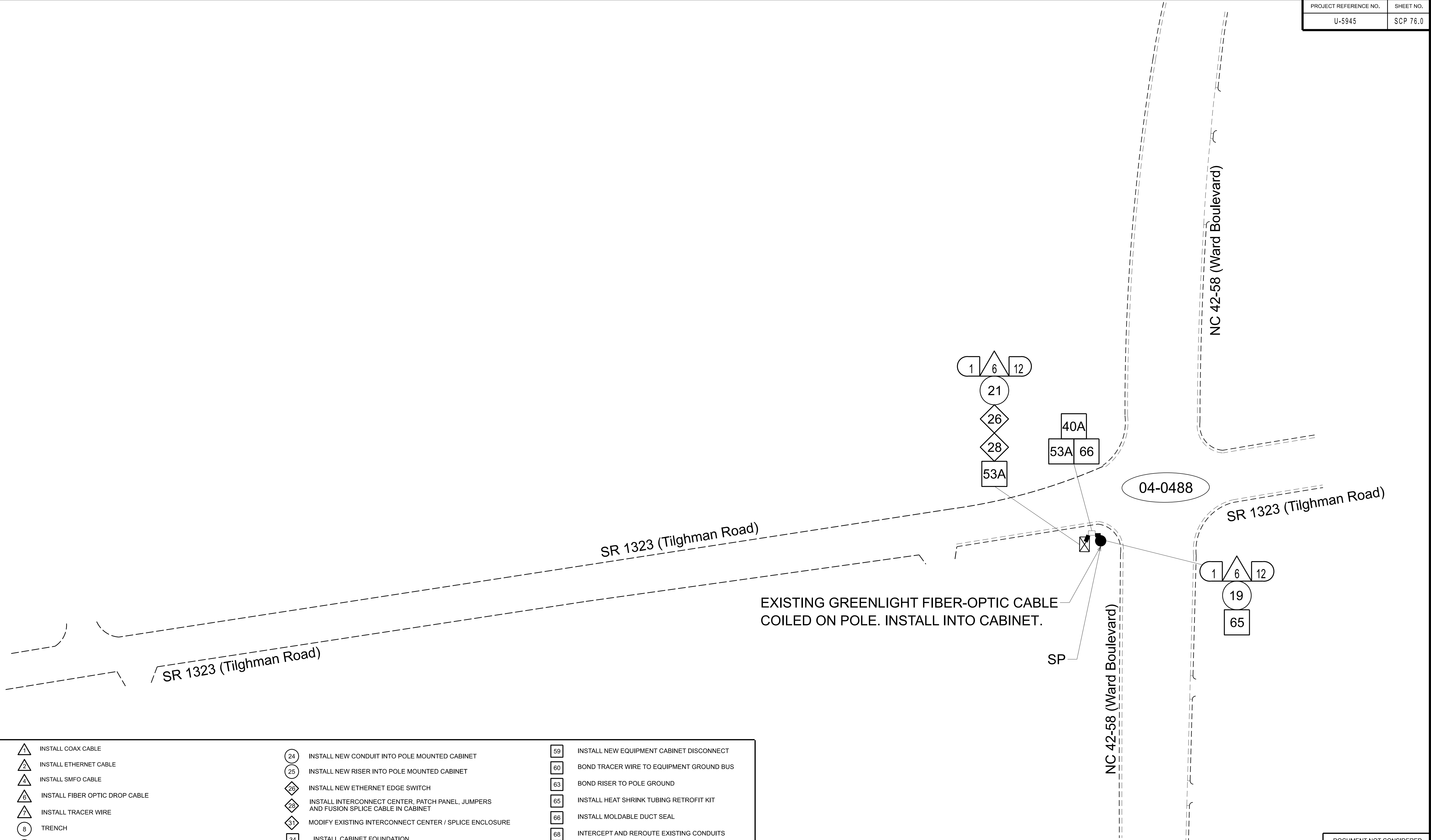
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1"=20'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

Designed by
Signature: Anthony Encarnacion
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 76.0



	INSTALL COAX CABLE		24	INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET		59	INSTALL NEW EQUIPMENT CABINET DISCONNECT
	INSTALL ETHERNET CABLE		25	INSTALL NEW RISER INTO POLE MOUNTED CABINET		60	BOND TRACER WIRE TO EQUIPMENT GROUND BUS
	INSTALL SMFO CABLE		26	INSTALL NEW ETHERNET EDGE SWITCH		63	BOND RISER TO POLE GROUND
	INSTALL FIBER OPTIC DROP CABLE		28	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET		65	INSTALL HEAT SHRINK TUBING RETROFIT KIT
	INSTALL TRACER WIRE		31	MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE		66	INSTALL MOLDABLE DUCT SEAL
	TRENCH		34	INSTALL CABINET FOUNDATION		68	INTERCEPT AND REROUTE EXISTING CONDUITS
	INSTALL PVC CONDUIT		39	INSTALL JUNCTION BOX		69	DRILL/CORE DRILL EXISTING FOUNDATION
	INSTALL RIGID, GALVANIZED STEEL CONDUIT		40A	INSTALL OVERSIZED JUNCTION BOX		70	INSTALL SERVICE CONDUCTORS
	INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL		48B	REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT			
	INSTALL POLYETHYLENE CONDUIT		50	INSTALL ANTENNA AND MOUNTING BRACKET			
	INSTALL CABLE(S) IN NEW CONDUIT		53A	STORE 20 FEET OF COMMUNICATIONS CABLE			
	INSTALL CABLE(S) IN EXISTING RISER		53B	STORE 50 FEET OF COMMUNICATIONS CABLE			
	INSTALL CABLE(S) IN NEW RISER		57	MODIFY EXISTING ELECTRICAL SERVICE			
	INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS		58	INSTALL NEW ELECTRICAL SERVICE			
	INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)						

CONSTRUCTION NOTE SYMBOLOGY KEY

	INDICATES NUMBER OF CABLES, LOOPS, ETC.
	INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.
	INDICATES NUMBER OF RISERS(S) / CONDUIT(S)
	INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)

NUMBER OF
RISER(S)/CONDUIT(S)

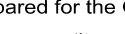
NUMBER OF
FIBERS/TWISTED PAIRS

DIAMETER OF
RISER(S)/CONDUIT(S) (INCH)

— NEW/ EXISTING CABLE

— REMOVE/ MODIFY CABLE

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(919) 876-6888 NCBEES #F-0326

Cable Routing		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED												
Prepared for the Offices of:														
	U-5945 Wilson Signal System													
750 N. Greenfield Pkwy., Garner, NC 27529	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">Division 4</th> <th style="width: 33%;">Wilson County</th> <th style="width: 33%;">Wilson</th> </tr> <tr> <td>PLAN DATE: December 2024</td> <td>REVIEWED BY:</td> <td>AM Encarnacion</td> </tr> <tr> <td>PREPARED BY: JT Stiff</td> <td>REVIEWED BY:</td> <td>PL Alexander</td> </tr> <tr> <td style="height: 40px; vertical-align: bottom;"> REVISIONS </td> <td style="height: 40px; vertical-align: bottom;">INIT.</td> <td style="height: 40px; vertical-align: bottom;">DATE</td> </tr> </table>		Division 4	Wilson County	Wilson	PLAN DATE: December 2024	REVIEWED BY:	AM Encarnacion	PREPARED BY: JT Stiff	REVIEWED BY:	PL Alexander	REVISIONS	INIT.	DATE
Division 4	Wilson County	Wilson												
PLAN DATE: December 2024	REVIEWED BY:	AM Encarnacion												
PREPARED BY: JT Stiff	REVIEWED BY:	PL Alexander												
REVISIONS	INIT.	DATE												
 0 SCALE 40 1"=40'														
SEAL  AUTHORITY W. ENCARNACION														
Drawn by: <u>Anthony Encarnacion</u> SIGNATURE: _____ DATE: 3/10/2025														

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 77.0

SR 1326 (Corbett Avenue)

NC 42/NC 58 (Ward Boulevard)

NC 42/NC 58 (Ward Boulevard)

04-0637

SP

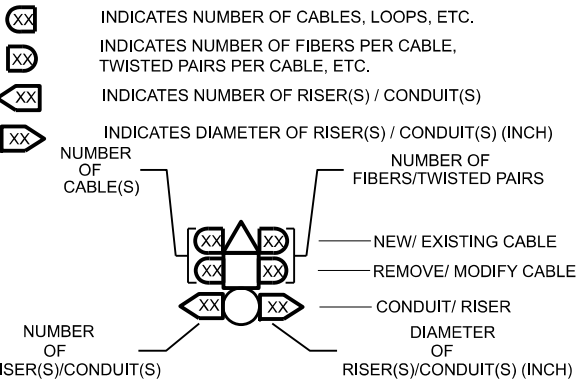
EXISTING GREENLIGHT FIBER-OPTIC CABLE
COILED ON POLE. INSTALL INTO CABINET.

- | | |
|----|---|
| 1 | INSTALL COAX CABLE |
| 2 | INSTALL ETHERNET CABLE |
| 4 | INSTALL SMFO CABLE |
| 6 | INSTALL FIBER OPTIC DROP CABLE |
| 7 | INSTALL TRACER WIRE |
| 8 | TRENCH |
| 9 | INSTALL PVC CONDUIT |
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| 14 | INSTALL POLYETHYLENE CONDUIT |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT |
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|-----|---|
| 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
| 26 | INSTALL NEW ETHERNET EDGE SWITCH |
| 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS
AND FUSION SPLICE CABLE IN CABINET |
| 31 | MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE |
| 34 | INSTALL CABINET FOUNDATION |
| 39 | INSTALL JUNCTION BOX |
| 40A | INSTALL OVERSIZED JUNCTION BOX |
| 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT |
| 50 | INSTALL ANTENNA AND MOUNTING BRACKET |
| 53A | STORE 20 FEET OF COMMUNICATIONS CABLE |
| 53B | STORE 50 FEET OF COMMUNICATIONS CABLE |
| 57 | MODIFY EXISTING ELECTRICAL SERVICE |
| 58 | INSTALL NEW ELECTRICAL SERVICE |

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| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
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CONSTRUCTION NOTE SYMBOLOGY KEY



AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529 TRANSPORTATION MOBILITY AND SAFETY DIVISION DEPARTMENT OF TRANSPORTATION SIGNALS MANAGEMENT SECTION	U-5945 Wilson Signal System		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	Division 4 Wilson County Wilson		SEAL PROFESSIONAL ENGINEER ANTHONY M. ENCARNACION	
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion	DATE: 3/10/2025	
	PREPARED BY: KG Sasaki	REVIEWED BY: PL Alexander	INIT. DATE	
	REVISIONS		DATE	

EXISTING GREENLIGHT FIBER-OPTIC
CABLE COILED ON POLE.
INSTALL INTO CABINET.



- ### CONSTRUCTION NOTE SYMBOLOGY KEY

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(919) 876-6888 NCBEES #F-0326

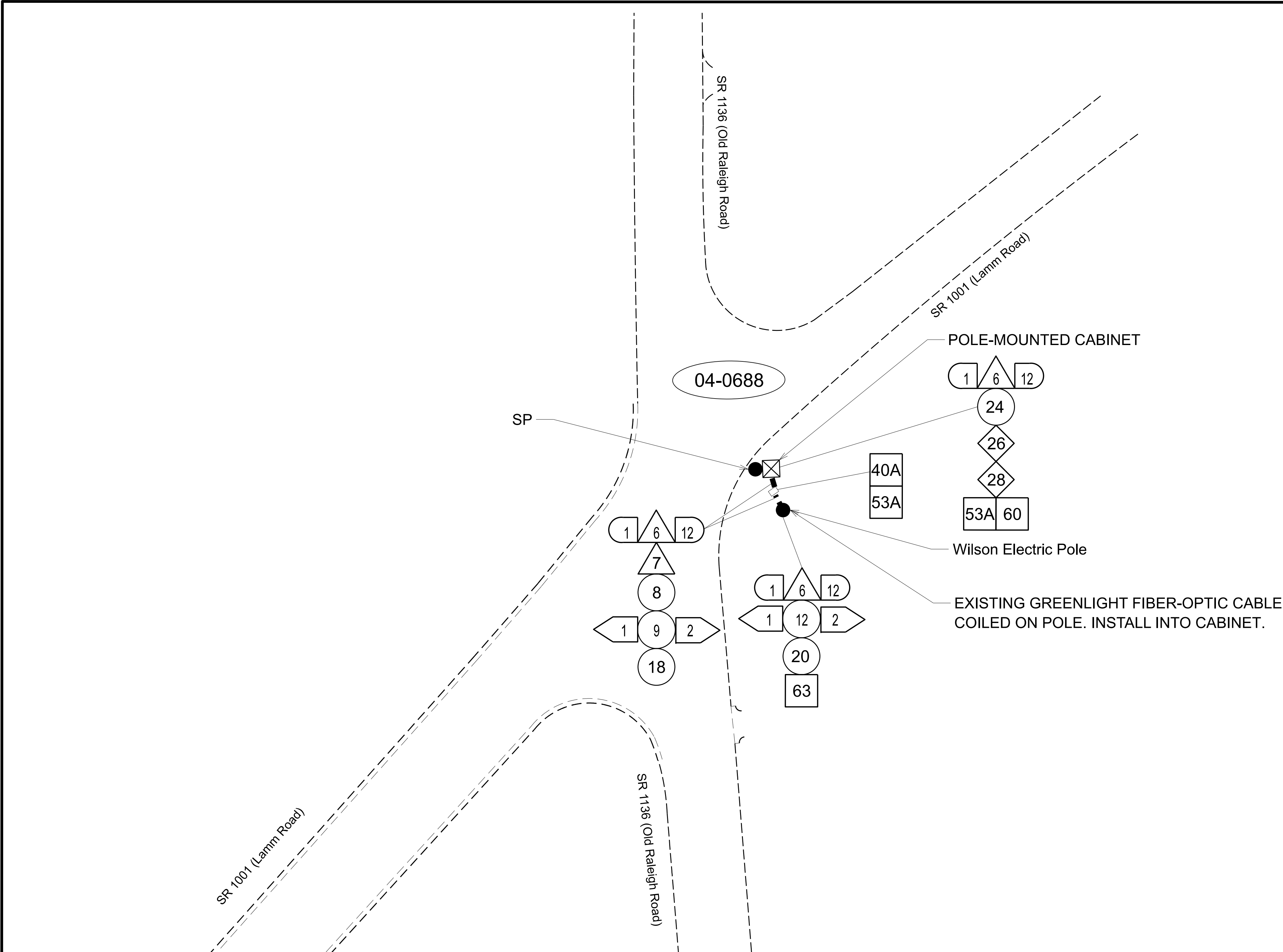
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL



DocuSigned by:
Anthony Encarnacion
IGNATURE: 76000AA029E340B..
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 79.0



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1 INSTALL COAX CABLE 2 INSTALL ETHERNET CABLE 4 INSTALL SMFO CABLE 6 INSTALL FIBER OPTIC DROP CABLE 7 INSTALL TRACER WIRE 8 TRENCH 9 INSTALL PVC CONDUIT 10 INSTALL RIGID, GALVANIZED STEEL CONDUIT 12 INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL 14 INSTALL POLYETHYLENE CONDUIT 18 INSTALL CABLE(S) IN NEW CONDUIT 19 INSTALL CABLE(S) IN EXISTING RISER 20 INSTALL CABLE(S) IN NEW RISER 21 INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS 22 INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)	24 INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET 25 INSTALL NEW RISER INTO POLE MOUNTED CABINET 26 INSTALL NEW ETHERNET EDGE SWITCH 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET 31 MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE 34 INSTALL CABINET FOUNDATION 39 INSTALL JUNCTION BOX 40A INSTALL OVERSIZED JUNCTION BOX 48B REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT 50 INSTALL ANTENNA AND MOUNTING BRACKET 53A STORE 20 FEET OF COMMUNICATIONS CABLE 53B STORE 50 FEET OF COMMUNICATIONS CABLE 57 MODIFY EXISTING ELECTRICAL SERVICE 58 INSTALL NEW ELECTRICAL SERVICE	59 INSTALL NEW EQUIPMENT CABINET DISCONNECT 60 BOND TRACER WIRE TO EQUIPMENT GROUND BUS 63 BOND RISER TO POLE GROUND 65 INSTALL HEAT SHRINK TUBING RETROFIT KIT 66 INSTALL MOLDABLE DUCT SEAL 68 INTERCEPT AND REROUTE EXISTING CONDUITS 69 DRILL/CORE DRILL EXISTING FOUNDATION 70 INSTALL SERVICE CONDUCTORS CONSTRUCTION NOTE SYMBOLOGY KEY INDICATES NUMBER OF CABLES, LOOPS, ETC. INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC. INDICATES NUMBER OF RISER(S) / CONDUIT(S) INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH) NUMBER OF CABLE(S) NUMBER OF RISER(S) / CONDUIT(S) NEW/ EXISTING CABLE REMOVE/ MODIFY CABLE CONDUIT/ RISER DIAMETER OF RISER(S)/CONDUIT(S) (INCH)
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AtkinsRéal

1616 EAST MILLBROOK ROAD, SUITE 160

RALEIGH, NORTH CAROLINA 27609

(919) 876-6888

NCBEES #F-0326

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

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SCALE

1"=30'

U-5945

Wilson Signal System

Division 4

Wilson County

Wilson

PLAN DATE: December 2024

REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton

REVIEWED BY: PL Alexander

REVISIONS

INIT.

DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

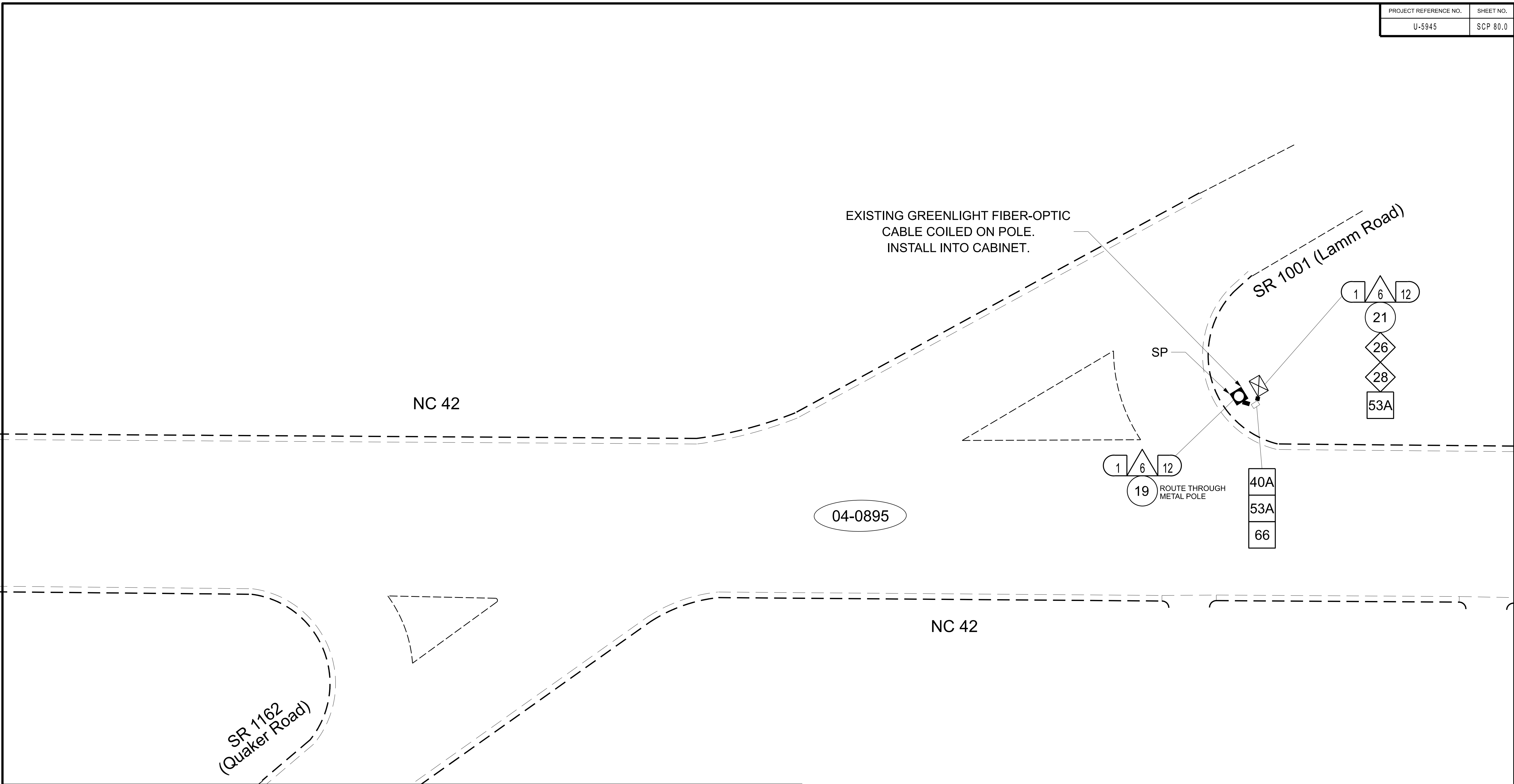
PROFESSIONAL ENGINEER

044476

ANTHONY M. ENCARNACION

SIGNATURE: Anthony Encarnacion

DATE: 3/10/2025



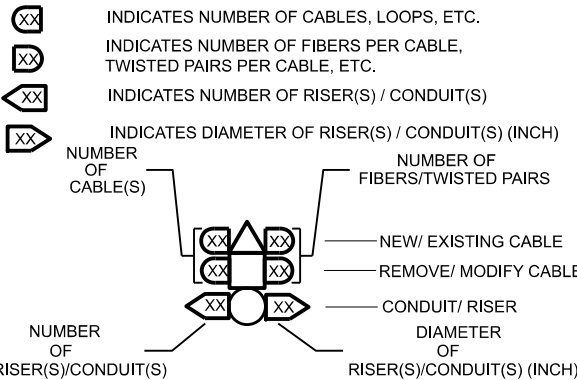
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| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |

CONSTRUCTION NOTE SYMBOLOGY KEY

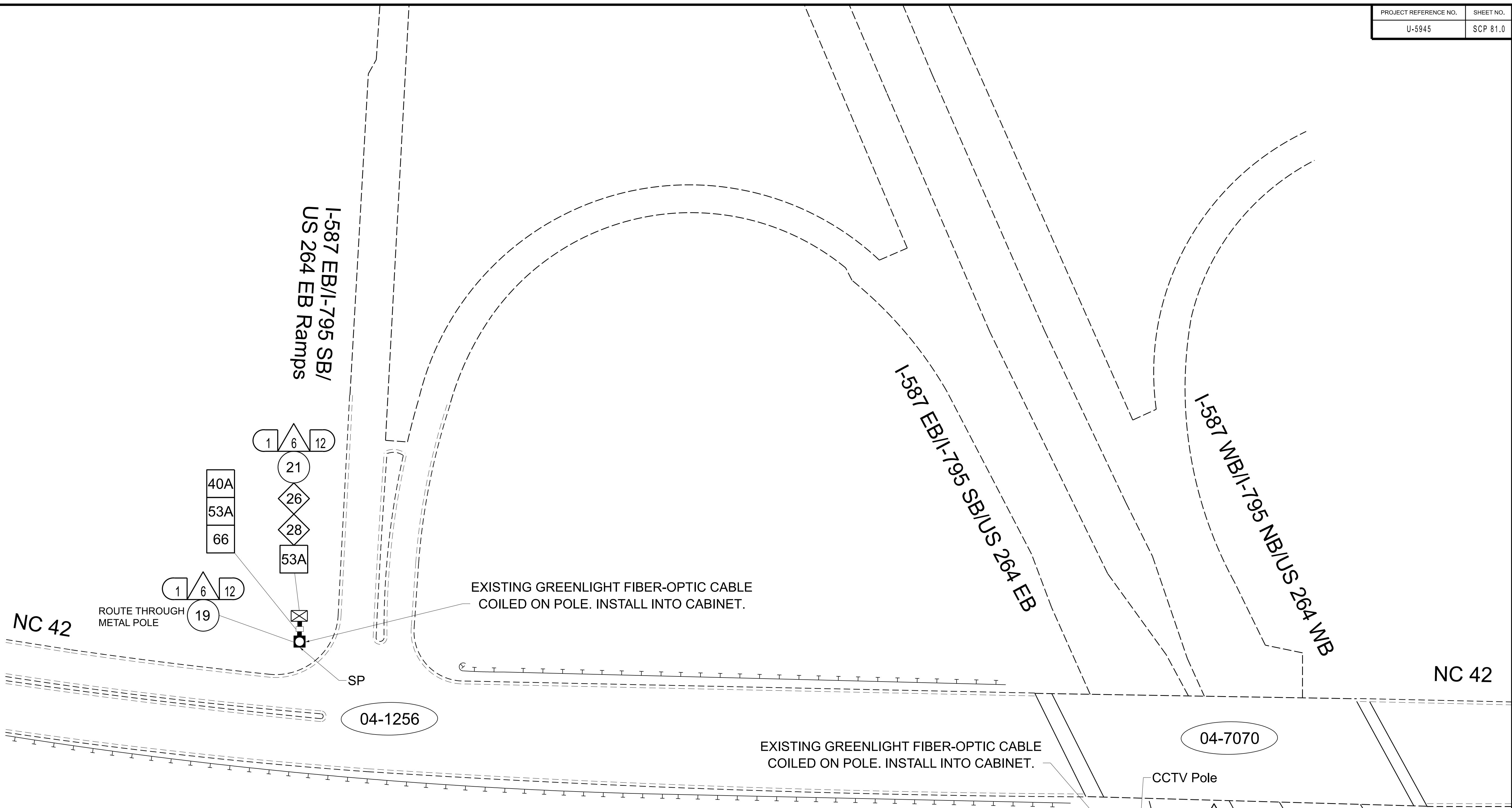


AtkinsRéalis

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529 TRANSPORTATION MOBILITY AND SAFETY DIVISION NORTH CAROLINA DEPARTMENT OF TRANSPORTATION Signal Management Section	U-5945 Wilson Signal System		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	Division 4 Wilson County Wilson		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044476 ANTHONY M. ENCARNACION	
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion	DATE: 3/10/2025	
	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	INIT. DATE	

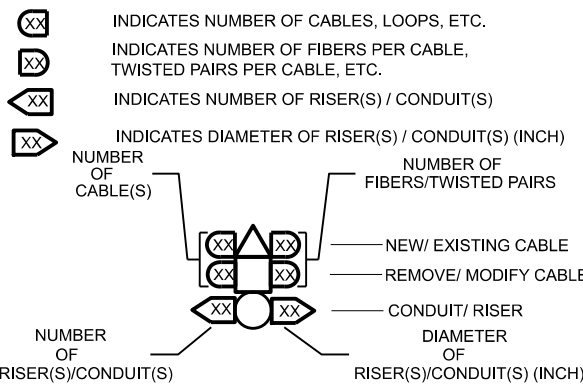


- | | |
|----|--|
| 1 | INSTALL COAX CABLE |
| 2 | INSTALL ETHERNET CABLE |
| 4 | INSTALL SMFO CABLE |
| 6 | INSTALL FIBER OPTIC DROP CABLE |
| 7 | INSTALL TRACER WIRE |
| 8 | TRENCH |
| 9 | INSTALL PVC CONDUIT |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT |
| 12 | INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL |
| 14 | INSTALL POLYETHYLENE CONDUIT |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT |
| 19 | INSTALL CABLE(S) IN EXISTING RISER |
| 20 | INSTALL CABLE(S) IN NEW RISER |
| 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS |
| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) |

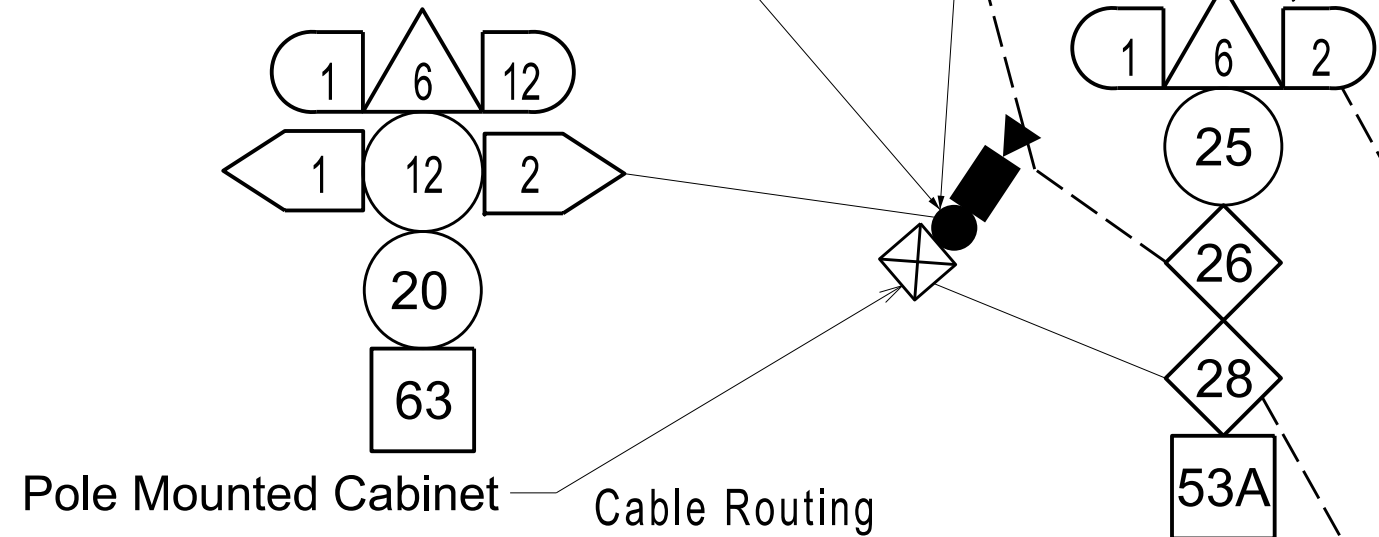
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|-----|---|
| 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
| 26 | INSTALL NEW ETHERNET EDGE SWITCH |
| 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICER CABLE IN CABINET |
| 31 | MODIFY EXISTING INTERCONNECT CENTER / SPLICER ENCLOSURE |
| 34 | INSTALL CABINET FOUNDATION |
| 39 | INSTALL JUNCTION BOX |
| 40A | INSTALL OVERSIZED JUNCTION BOX |
| 48B | REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT |
| 50 | INSTALL ANTENNA AND MOUNTING BRACKET |
| 53A | STORE 20 FEET OF COMMUNICATIONS CABLE |
| 53B | STORE 50 FEET OF COMMUNICATIONS CABLE |
| 57 | MODIFY EXISTING ELECTRICAL SERVICE |
| 58 | INSTALL NEW ELECTRICAL SERVICE |

- | | |
|----|--|
| 59 | INSTALL NEW EQUIPMENT CABINET DISCONNECT |
| 60 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 63 | BOND RISER TO POLE GROUND |
| 65 | INSTALL HEAT SHRINK TUBING RETROFIT KIT |
| 66 | INSTALL MOLDABLE DUCT SEAL |
| 68 | INTERCEPT AND REROUTE EXISTING CONDUITS |
| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |

CONSTRUCTION NOTE SYMBOLOGY KEY



NC 42



AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

	Prepared for the Offices of:			
	U-5945 Wilson Signal System			
	Division 4	Wilson County		
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion		
PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	REVISIONS	INIT.	DATE
750 N. Greenfield Pkwy, Garner, NC 27529		0 40 1"=40'		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		SEAL PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION		
Signature of: Anthony Encarnacion DATE: 3/10/2025				



AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

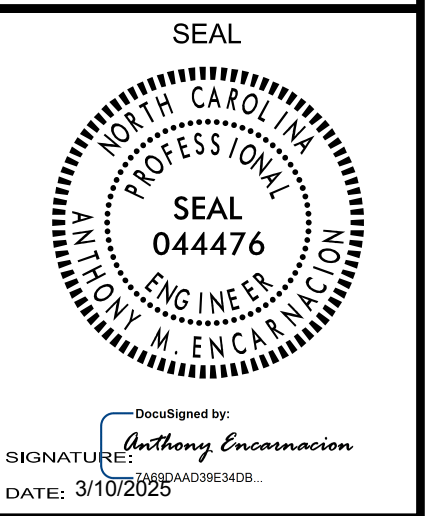
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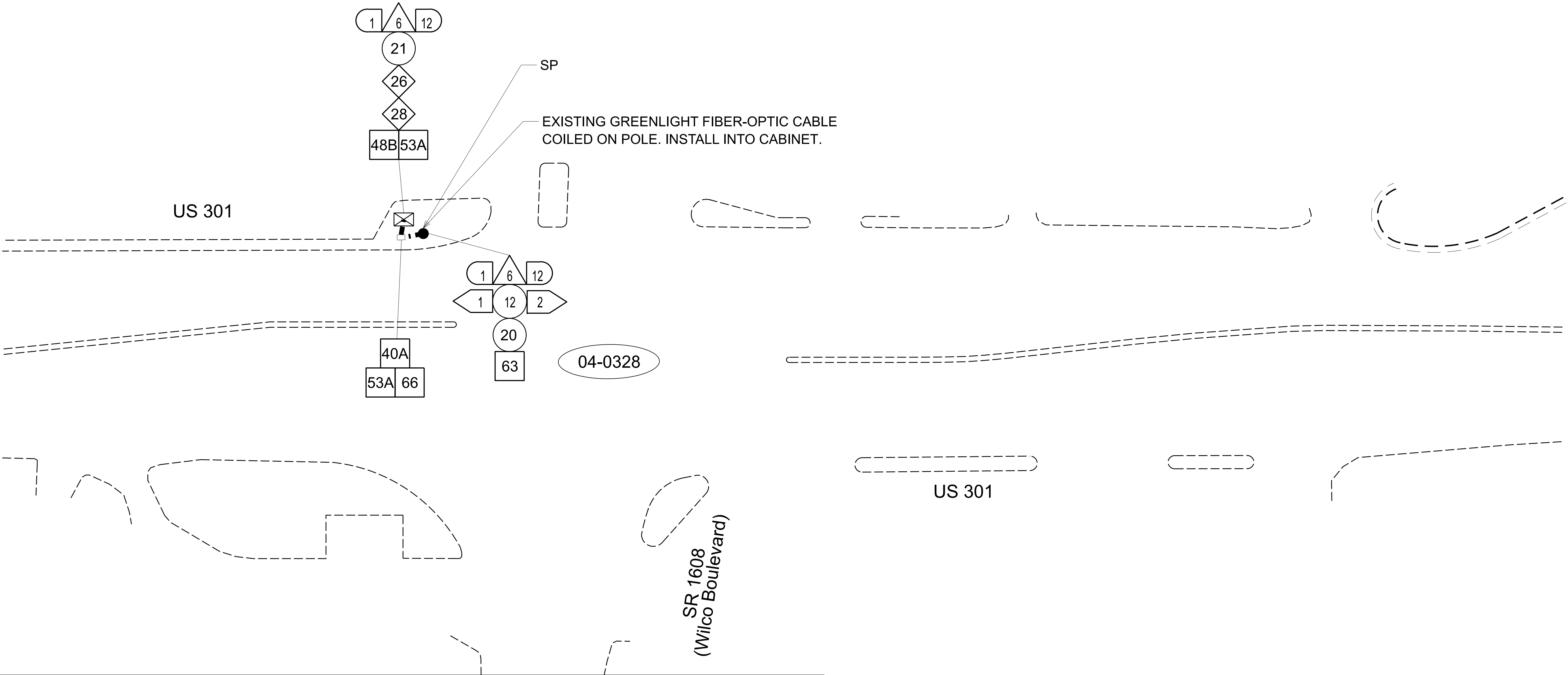
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA • NORTH
TTS • GREENSBORO
DEPARTMENT OF TRANSPORTATION
Signals Management Section

750 N. Greenfield Pkwy, Garner, NC

 SCALE
0
1"=20'

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED





1	INSTALL COAX CABLE	24	INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	59	INSTALL NEW EQUIPMENT CABINET DISCONNECT
2	INSTALL ETHERNET CABLE	25	INSTALL NEW RISER INTO POLE MOUNTED CABINET	60	BOND TRACER WIRE TO EQUIPMENT GROUND BUS
4	INSTALL SMFO CABLE	26	INSTALL NEW ETHERNET EDGE SWITCH	63	BOND RISER TO POLE GROUND
6	INSTALL FIBER OPTIC DROP CABLE	28	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET	65	INSTALL HEAT SHRINK TUBING RETROFIT KIT
7	INSTALL TRACER WIRE	31	MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE	66	INSTALL MOLDABLE DUCT SEAL
8	TRENCH	34	INSTALL CABINET FOUNDATION	68	INTERCEPT AND REROUTE EXISTING CONDUITS
9	INSTALL PVC CONDUIT	39	INSTALL JUNCTION BOX	69	DRILL/CORE DRILL EXISTING FOUNDATION
10	INSTALL RIGID, GALVANIZED STEEL CONDUIT	40A	INSTALL OVERSIZED JUNCTION BOX	70	INSTALL SERVICE CONDUCTORS
12	INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL	48B	REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT		
14	INSTALL POLYETHYLENE CONDUIT	50	INSTALL ANTENNA AND MOUNTING BRACKET		
18	INSTALL CABLE(S) IN NEW CONDUIT	53A	STORE 20 FEET OF COMMUNICATIONS CABLE		
19	INSTALL CABLE(S) IN EXISTING RISER	53B	STORE 50 FEET OF COMMUNICATIONS CABLE		
20	INSTALL CABLE(S) IN NEW RISER	57	MODIFY EXISTING ELECTRICAL SERVICE		
21	INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS	58	INSTALL NEW ELECTRICAL SERVICE		
22	INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)				

CONSTRUCTION NOTE SYMBOLOGY KEY

INDICATES NUMBER OF CABLES, LOOPS, ETC.
INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.
INDICATES NUMBER OF RISER(S) / CONDUIT(S)
INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)
NUMBER OF CABLE(S)
NUMBER OF RISER(S)/CONDUIT(S) (INCH)
NUMBER OF FIBERS/TWISTED PAIRS

NEW/EXISTING CABLE
REMOVE/ MODIFY CABLE
CONDUIT/ RISER
DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE 0 20 1"=20'

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton REVIEWED BY: PL Alexander

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

PROFESSIONAL ENGINEER

SEAL 044476

ANTHONY M. ENCARNACION

Signatured by: Anthony Encarnacion

SIGNATURE: DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 84.0

TO 04-1186 ON SCP 85.0

US 301

04-1187

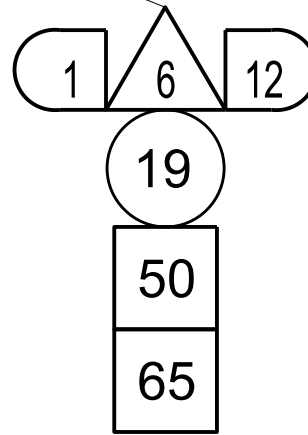
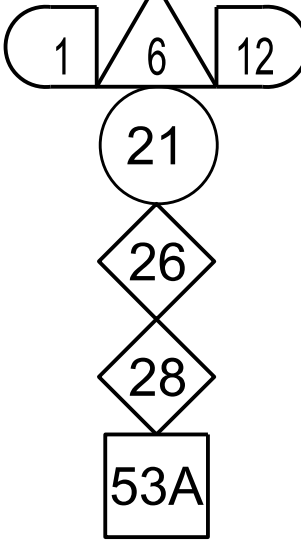
Reconnect existing coax to new antenna

EXISTING GREENLIGHT FIBER-OPTIC CABLE
COILED ON POLE. INSTALL INTO CABINET.

SP

US 301

I-587/ US 264 (Wilson Bypass)
WB Off Ramp

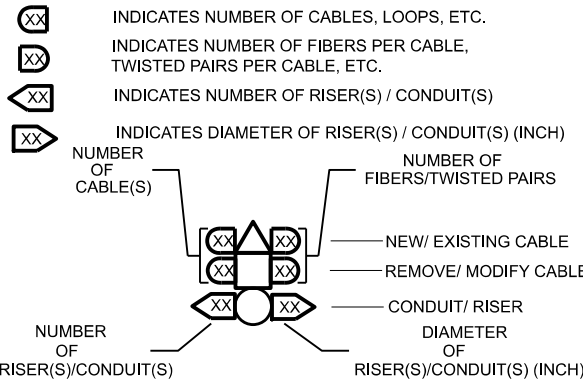


- 1 INSTALL COAX CABLE
- 2 INSTALL ETHERNET CABLE
- 4 INSTALL SMFO CABLE
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- 24 INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET
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- 39 INSTALL JUNCTION BOX
- 40A INSTALL OVERSIZED JUNCTION BOX
- 48B REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT
- 50 INSTALL ANTENNA AND MOUNTING BRACKET
- 53A STORE 20 FEET OF COMMUNICATIONS CABLE
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- 69 DRILL/CORE DRILL EXISTING FOUNDATION
- 70 INSTALL SERVICE CONDUCTORS

CONSTRUCTION NOTE SYMBOLOGY KEY



Cable Routing

Prepared for the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton REVIEWED BY: PL Alexander

REVISIONS	INIT.	DATE

SCALE
0 30
1"=30'

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY M. ENCARNACION

Designed by
Signature: Anthony Encarnacion
DATE: 3/10/2025

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 85.0

TO 04-1185 ON SCP 86.0

US 301

TO 04-1187 ON SCP 84.0

I-587 / US 264 EB Off Ramp

04-1186

Reconnect existing coax to new antenna

US 301

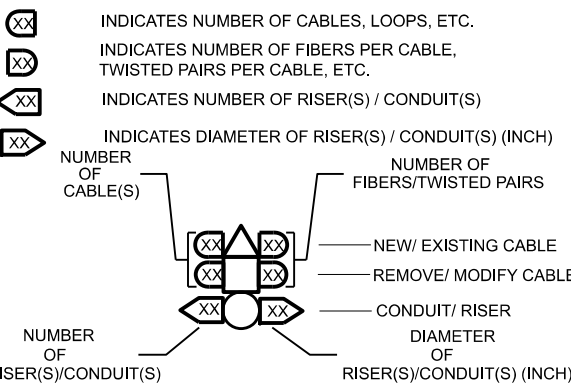
I-587 / US 264
EB On Ramp

- 1 INSTALL COAX CABLE
- 2 INSTALL ETHERNET CABLE
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- 69 DRILL/CORE DRILL EXISTING FOUNDATION
- 70 INSTALL SERVICE CONDUCTORS

CONSTRUCTION NOTE SYMBOLOGY KEY



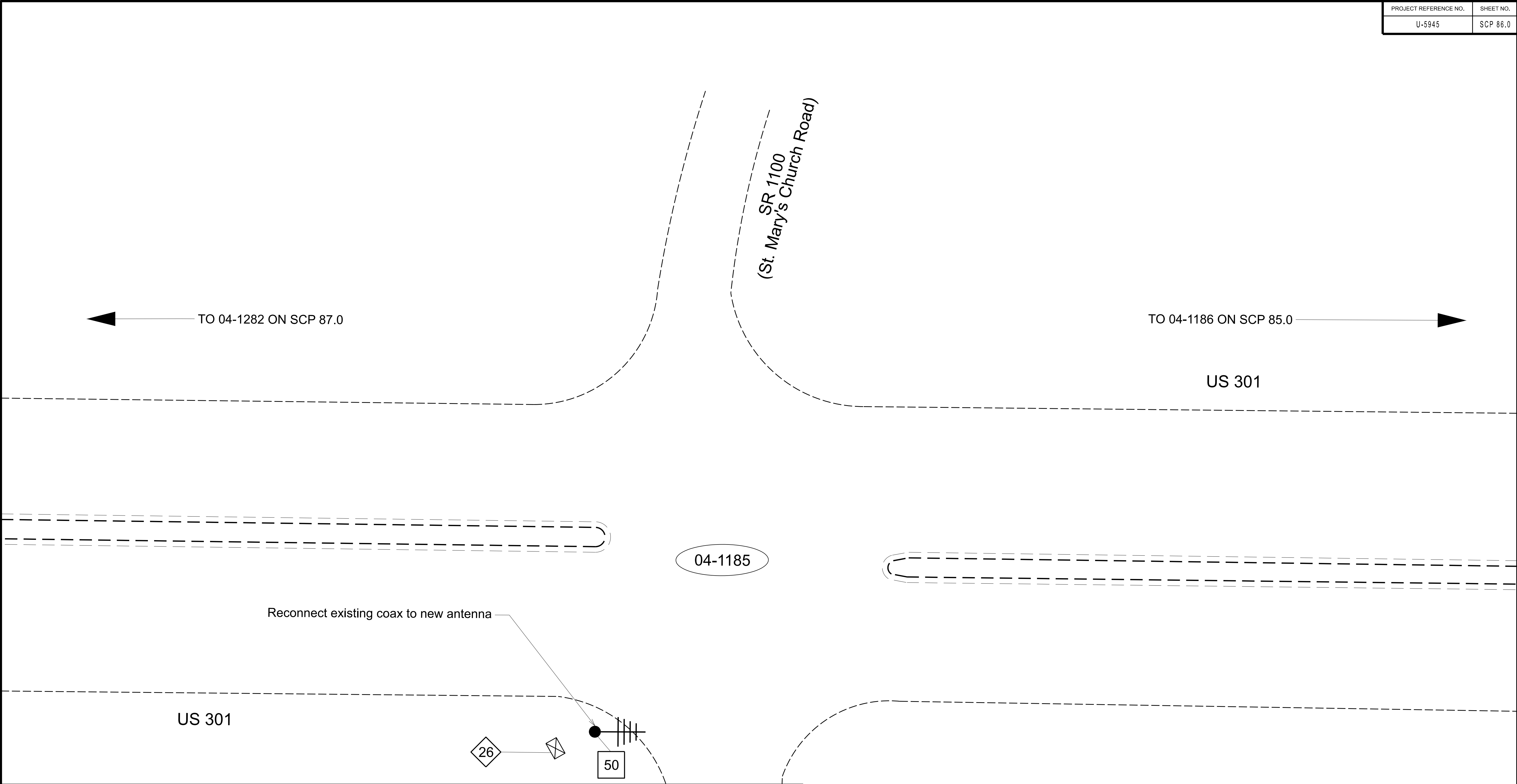
Cable Routing

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529 SCALE 0 20 1"=20'	U-5945 Wilson Signal System		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	Division 4 Wilson County Wilson		SEAL PROFESSIONAL ENGINEER ANTHONY M. ENCARNACION	
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion	DATE	
	PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	INIT.	
	REVISIONS		DATE	

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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 86.0

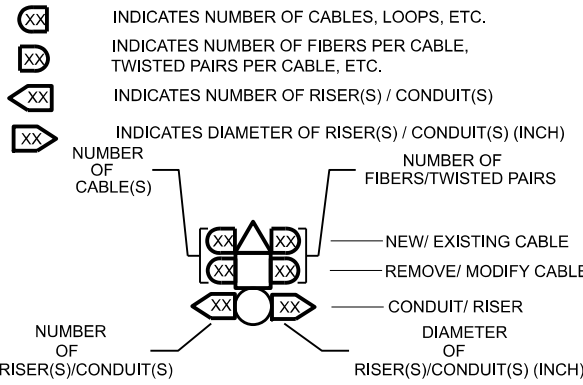


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|----|--|
| 1 | INSTALL COAX CABLE |
| 2 | INSTALL ETHERNET CABLE |
| 4 | INSTALL SMFO CABLE |
| 6 | INSTALL FIBER OPTIC DROP CABLE |
| 7 | INSTALL TRACER WIRE |
| 8 | TRENCH |
| 9 | INSTALL PVC CONDUIT |
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| 14 | INSTALL POLYETHYLENE CONDUIT |
| 18 | INSTALL CABLE(S) IN NEW CONDUIT |
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| 20 | INSTALL CABLE(S) IN NEW RISER |
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| 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) |

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|-----|--|
| 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
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CONSTRUCTION NOTE SYMBOLOGY KEY

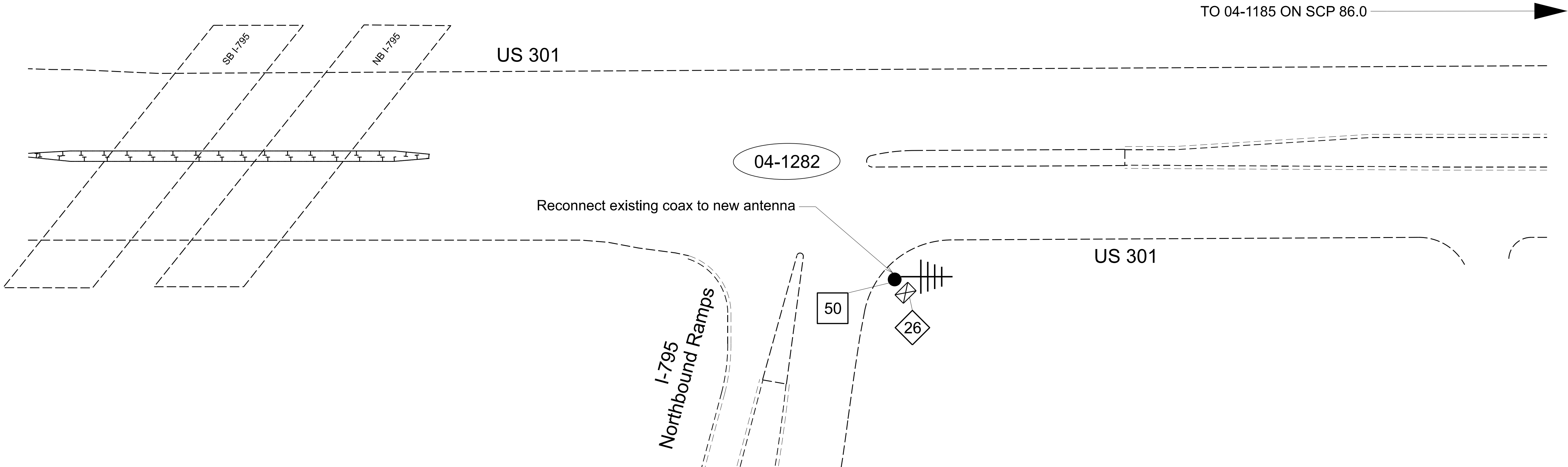


US 117

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529 	U-5945 Wilson Signal System		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	Division 4 Wilson County Wilson		SEAL NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION	
	PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion			
	PREPARED BY: JT Sutton REVIEWED BY: PL Alexander		SIGNATURE: <i>Anthony Encarnacion</i> DATE: 3/10/2025	
	REVISIONS		INIT.	DATE



C:\Users\jag\Documents\Division_04\U-5945\TSMO\Signal Communications\U5945eq87

- | | | | |
|----|--|-----|--|
| 1 | INSTALL COAX CABLE | 24 | INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET |
| 2 | INSTALL ETHERNET CABLE | 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET |
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- | | |
|----|--|
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- CONSTRUCTION NOTE SYMBOLOGY KEY**
- | | | | |
|----|---|----|--|
| XX | INDICATES NUMBER OF CABLES, LOOPS, ETC. | XX | INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH) |
| XX | INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC. | XX | NUMBER OF RISER(S) / CONDUIT(S) |
| XX | INDICATES NUMBER OF RISER(S) / CONDUIT(S) | XX | NUMBER OF FIBERS / TWISTED PAIRS |
-

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888

NCBEES #F-0326

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

0

40

1"=40'

U-5945
Wilson Signal System

Division 4Wilson CountyWilson

PLAN DATE: December 2024REVIEWED BY: AM Encarnacion

PREPARED BY: JT SuttonREVIEWED BY: PL Alexander

REVISIONS

INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

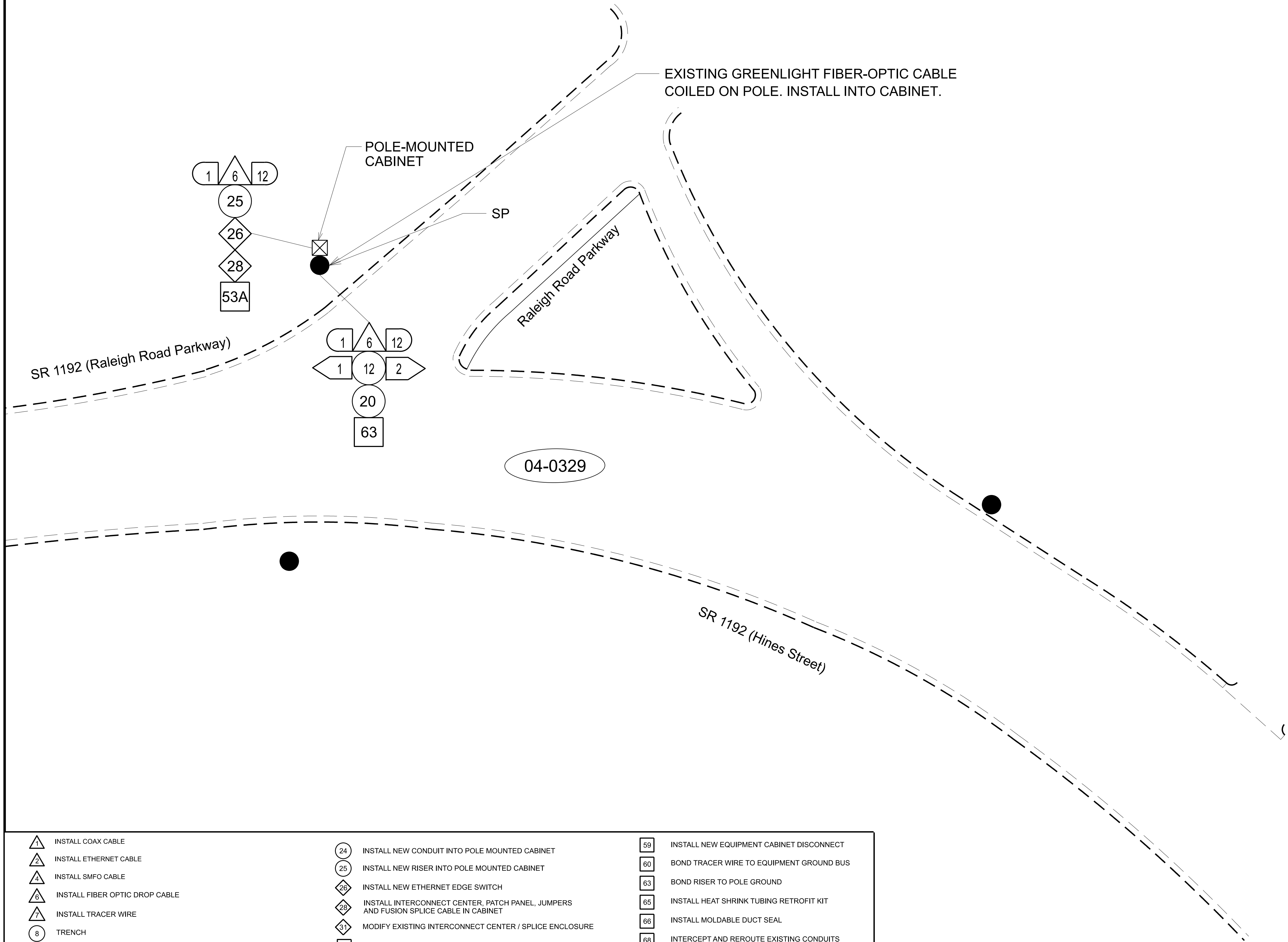
Seal of the State of North Carolina, Professional Engineer, No. 044476

Designed by

Signature of Anthony Encarnacion

SIGNATURE: Anthony Encarnacion

DATE: 3/10/2025



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12	INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL	48B	REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT		
14	INSTALL POLYETHYLENE CONDUIT	50	INSTALL ANTENNA AND MOUNTING BRACKET		
18	INSTALL CABLE(S) IN NEW CONDUIT	53A	STORE 20 FEET OF COMMUNICATIONS CABLE		
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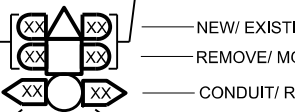
CONSTRUCTION NOTE SYMBOLOGY KEY

 INDICATES NUMBER OF CABLES, LOOPS, ETC.

 INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.

 INDICATES NUMBER OF RISER(S) / CONDUIT(S)

 INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)



NEW EXISTING CABLE

REMOVE/ MODIFY CABLE

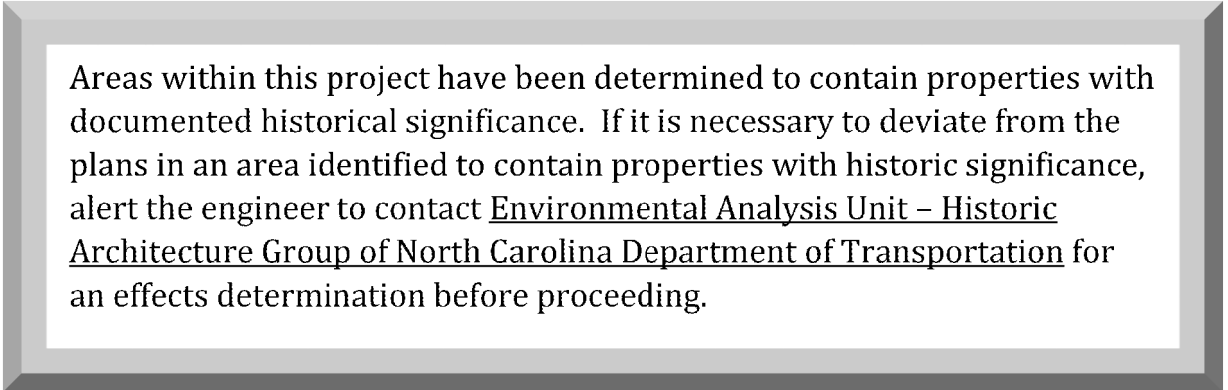
CONDUIT/ RISER

DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

Cable Routing

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

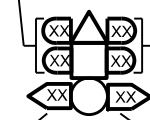
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750 N. Greenfield Pkwy. Garner, NC 27529		Division 4 Wilson County Wilson																																				
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Signature of:		SIGNATURE: <u>Anthony Encarnacion</u> DATE: 3/10/2025																																				



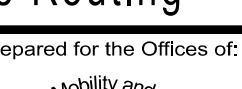
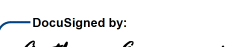
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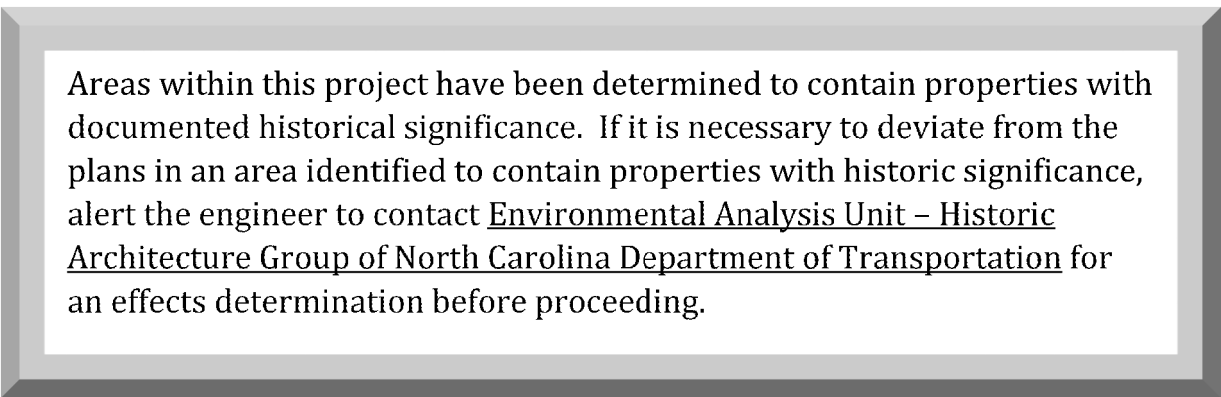
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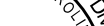
NUMBER OF CABLE(S)		NUMBER OF FIBERS/TWISTED PAIRS
	NEW EXISTING CABLE	
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| 69 | DRILL/CORE DRILL EXISTING FOUNDATION |
| 70 | INSTALL SERVICE CONDUCTORS |

Diagram illustrating the components of a riser symbol:

- NEW/ EXISTING CAB
- REMOVE/ MODIFY C
- CONDUIT/ RISER
- DIAMETER
- NUMBER OF RISER(S)/CONDUIT(S)
- RISER(S)/CONDUIT(S) (M)



Prepared for the Offices of:

Transportation Mobility and Safety Division
DEPARTMENT OF TRANSPORTATION
Traffic and Signals Management Section

750 N. Greenfield Pkwy, Garner, NC

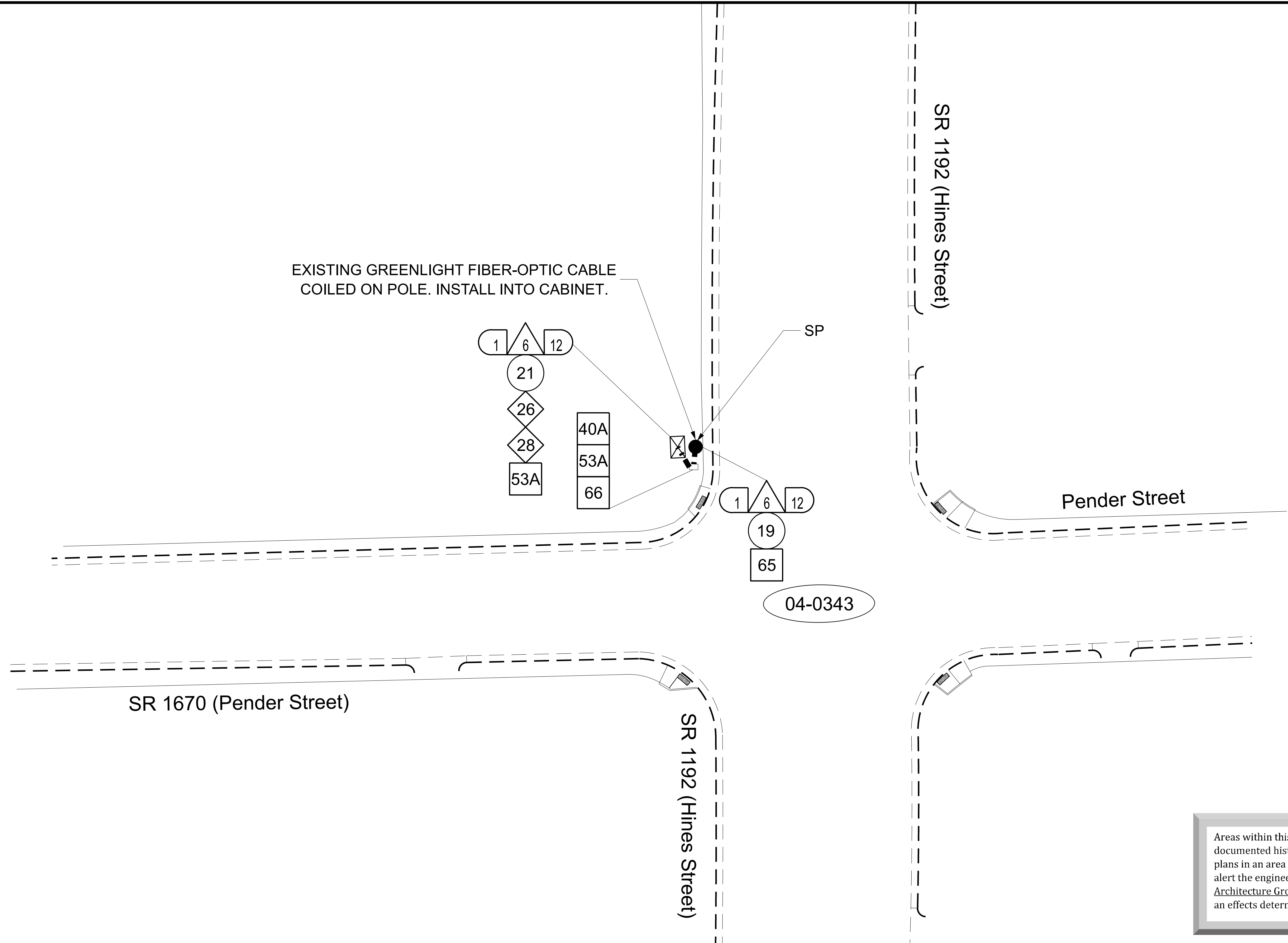
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1"=20'

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NORTH CAROLINA
PROFESSIONAL
ENGINEER
ANTHONY M. ENCARNACION
SEAL
044476

Signed by: *Anthony Encarnacion*
 DocuSigned by:
 SIGNATURE: *Anthony Encarnacion*
 DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP. 92.0



1	INSTALL COAX CABLE	24	INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	59	INSTALL NEW EQUIPMENT CABINET DISCONNECT
2	INSTALL ETHERNET CABLE	25	INSTALL NEW RISER INTO POLE MOUNTED CABINET	60	BOND TRACER WIRE TO EQUIPMENT GROUND BUS
4	INSTALL SMFO CABLE	26	INSTALL NEW ETHERNET EDGE SWITCH	63	BOND RISER TO POLE GROUND
6	INSTALL FIBER OPTIC DROP CABLE	28	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET	65	INSTALL HEAT SHRINK TUBING RETROFIT KIT
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XX NEW/EXISTING CABLE
XX REMOVE/ MODIFY CABLE
XX CONDUIT/ RISER
XX DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Division 4

Wilson County

Wilson

PLAN DATE: December 2024

REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton

REVIEWED BY: PL Alexander

REVISIONS

INIT. DATE

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SEAL

PROFESSIONAL ENGINEER

044476

ANTHONY M. ENCARNACION

Signature: Anthony Encarnacion

DATE: 3/13/2025

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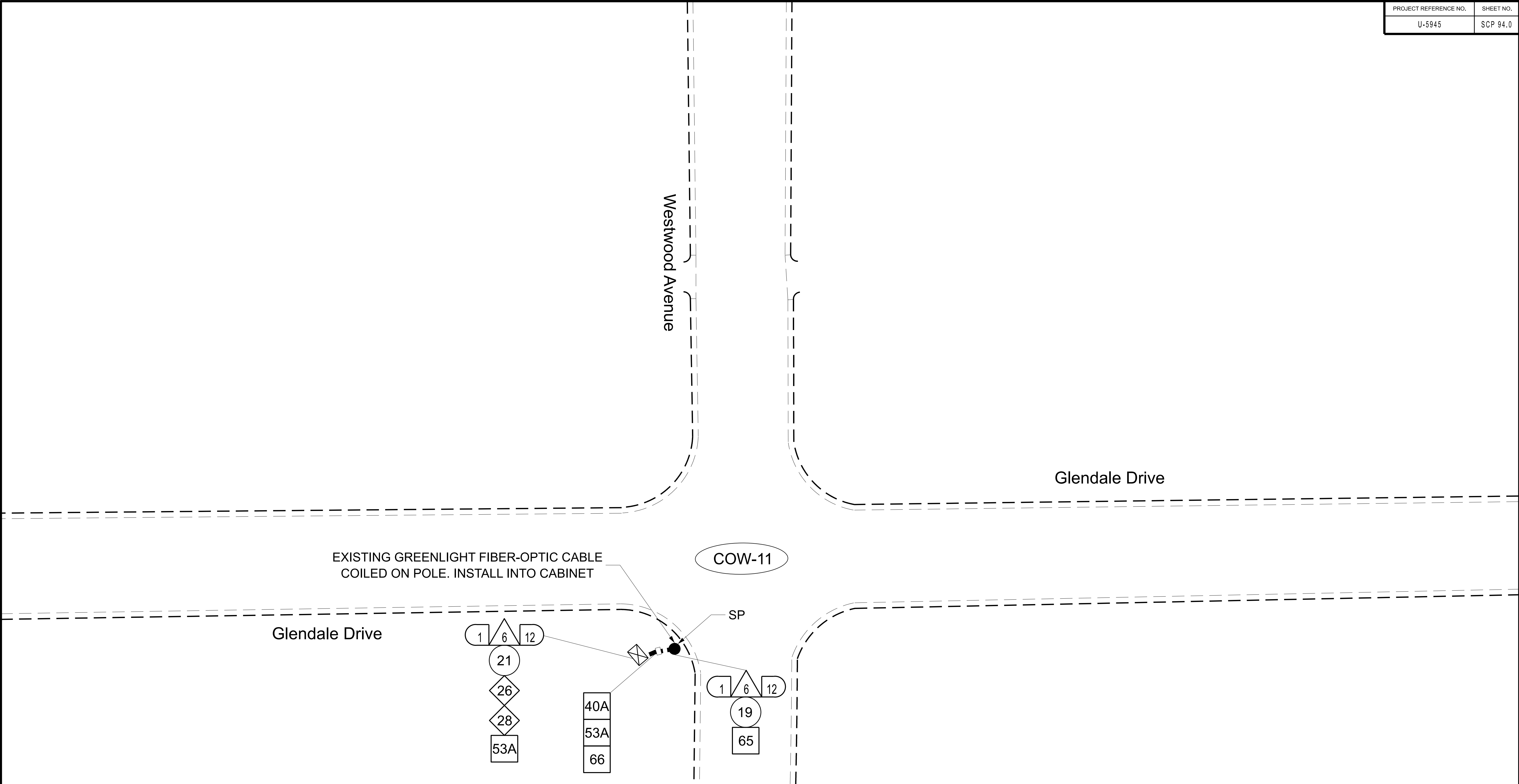
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NORTH CAROLINA
PROFESSIONAL
SEAL
044476
ENGINEER
ANTHONY W. ENCARNACION

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Anthony Encarnacion
SIGNATURE: _____ WAREHOUSE
DATE: 3/10/2025



PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 94.0

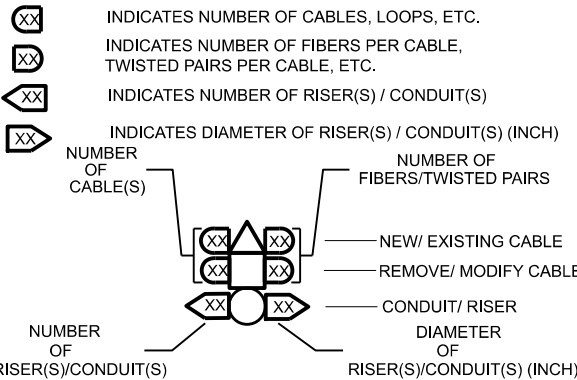


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- 4 INSTALL SMFO CABLE
- 6 INSTALL FIBER OPTIC DROP CABLE
- 7 INSTALL TRACER WIRE
- 8 TRENCH
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CONSTRUCTION NOTE SYMBOLOGY KEY



Westwood Avenue

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Cable Routing

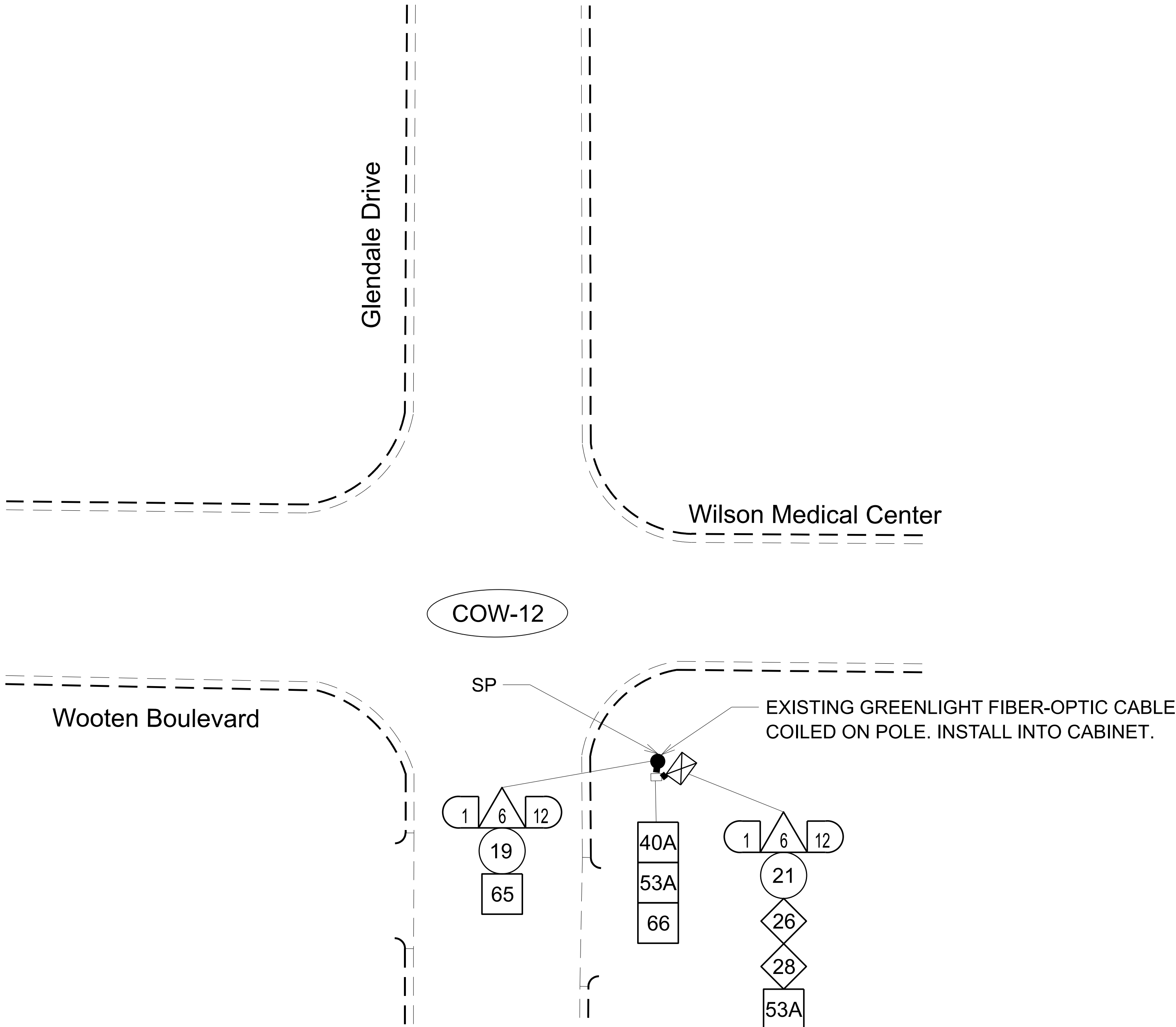
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	Division 4	Wilson County		
	PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion		
PREPARED BY: JT Sutton		REVIEWED BY: PL Alexander	INIT.	DATE
REVISIONS				
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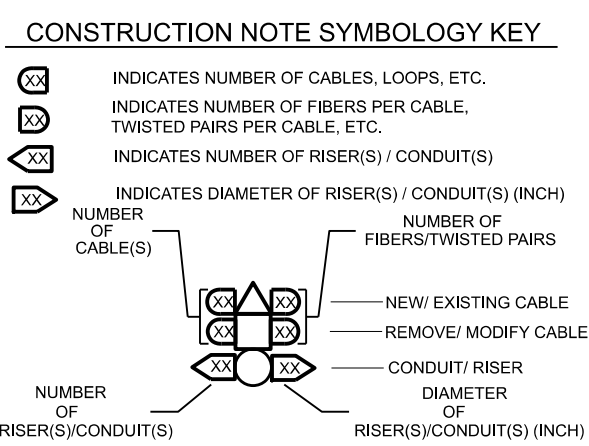
SEAL
PROFESSIONAL ENGINEER
044476
ANTHONY M. ENCARNACION

Signatured by: *Anthony Encarnacion*
SIGNATURE: ANTHONY M. ENCARNACION
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
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Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE 0 20 1"=20'

U-5945
Wilson Signal System

Division 4 Wilson County Wilson

PLAN DATE: December 2024 REVIEWED BY: AM Encarnacion

PREPARED BY: JT Sutton REVIEWED BY: PL Alexander

REVISIONS INIT. DATE

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SEAL

PROFESSIONAL ENGINEER

ANTHONY M. ENCARNACION

Seal of the State of North Carolina

Seal 044476

Signature of: Anthony Encarnacion

SIGNATURE: DATE: 3/10/2025

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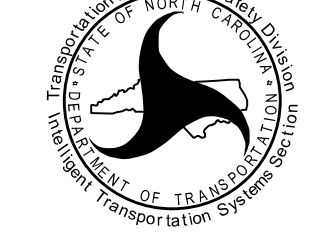
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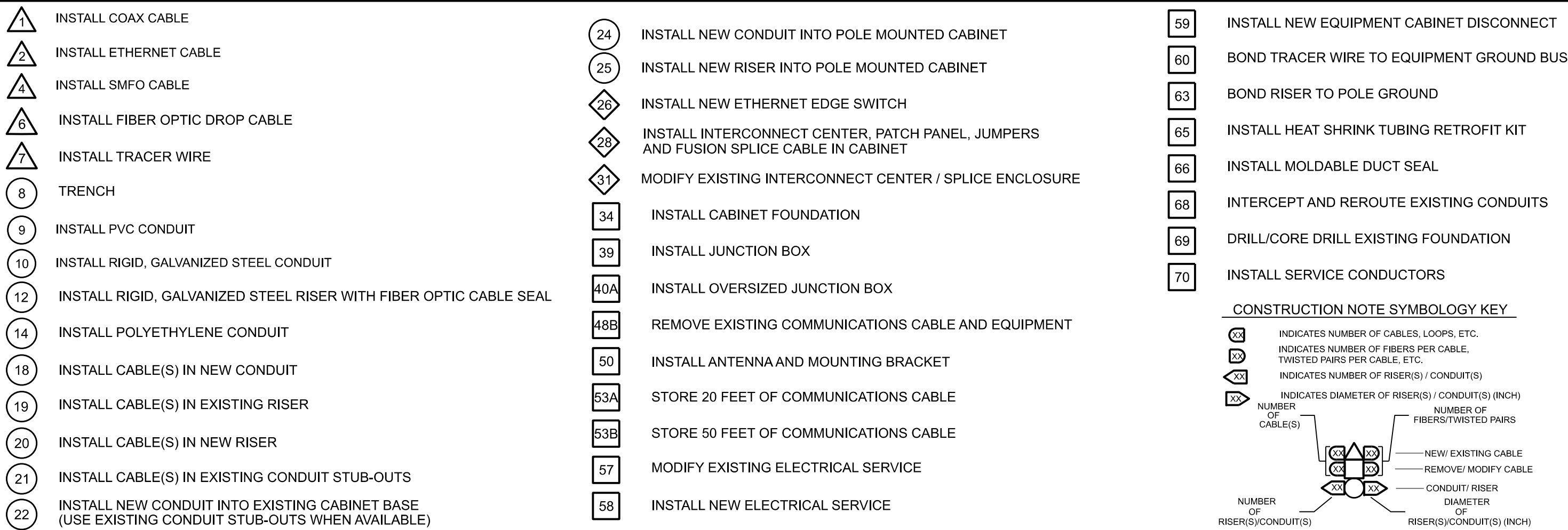
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PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 98.0

EXISTING GREENLIGHT FIBER-OPTIC
CABLE COILED ON POLE

Wilson Electric Pole

No work on this sheet.
Fiber connection to
Division Office installed
by others.

NCDOT Division 4
509 Ward Blvd

Furnish interconnect center, patch
panel, jumpers and new ethernet edge
switch to Division 4

US 264 Alt (Ward Boulevard)

US 264 Alt (Ward Boulevard)

- 1

INSTALL COAX CABLE
- 2

INSTALL ETHERNET CABLE
- 4

INSTALL SMFO CABLE
- 6

INSTALL FIBER OPTIC DROP CABLE
- 7

INSTALL TRACER WIRE
- 8

TRENCH
- 9

INSTALL PVC CONDUIT
- 10

INSTALL RIGID, GALVANIZED STEEL CONDUIT
- 12

INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL
- 14

INSTALL POLYETHYLENE CONDUIT
- 18

INSTALL CABLE(S) IN NEW CONDUIT
- 19

INSTALL CABLE(S) IN EXISTING RISER
- 20

INSTALL CABLE(S) IN NEW RISER
- 21

INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS
- 22

INSTALL NEW CONDUIT INTO EXISTING CABINET BASE
(USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)

- 24

INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET
- 25

INSTALL NEW RISER INTO POLE MOUNTED CABINET
- 26

INSTALL NEW ETHERNET EDGE SWITCH
- 28

INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS
AND FUSION SPLICE CABLE IN CABINET
- 31

MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE
- 34

INSTALL CABINET FOUNDATION
- 39

INSTALL JUNCTION BOX
- 40A

INSTALL OVERSIZED JUNCTION BOX
- 48B

REMOVE EXISTING COMMUNICATIONS CABLE AND EQUIPMENT
- 50

INSTALL ANTENNA AND MOUNTING BRACKET
- 53A

STORE 20 FEET OF COMMUNICATIONS CABLE
- 53B

STORE 50 FEET OF COMMUNICATIONS CABLE
- 57

MODIFY EXISTING ELECTRICAL SERVICE
- 58

INSTALL NEW ELECTRICAL SERVICE

- 59

INSTALL NEW EQUIPMENT CABINET DISCONNECT
- 60

BOND TRACER WIRE TO EQUIPMENT GROUND BUS
- 63

BOND RISER TO POLE GROUND
- 65

INSTALL HEAT SHRINK TUBING RETROFIT KIT
- 66

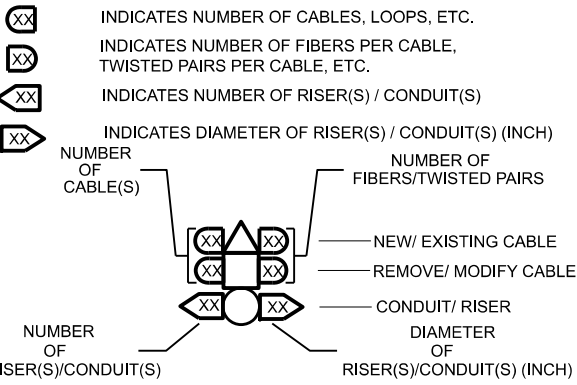
INSTALL MOLDABLE DUCT SEAL
- 68

INTERCEPT AND REROUTE EXISTING CONDUITS
- 69

DRILL/CORE DRILL EXISTING FOUNDATION
- 70

INSTALL SERVICE CONDUCTORS

CONSTRUCTION NOTE SYMBOLOGY KEY



AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

Cable Routing

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

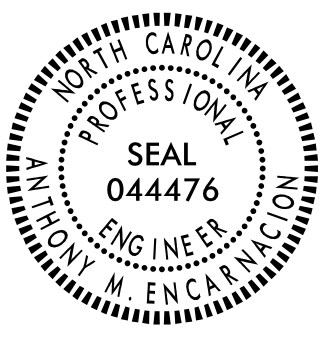


U-5945
Wilson Signal System

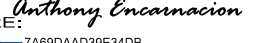
Division 4	Wilson County	Wilson
PLAN DATE: December 2024	REVIEWED BY: AM Encarnacion	
PREPARED BY: JT Sutton	REVIEWED BY: PL Alexander	
REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED
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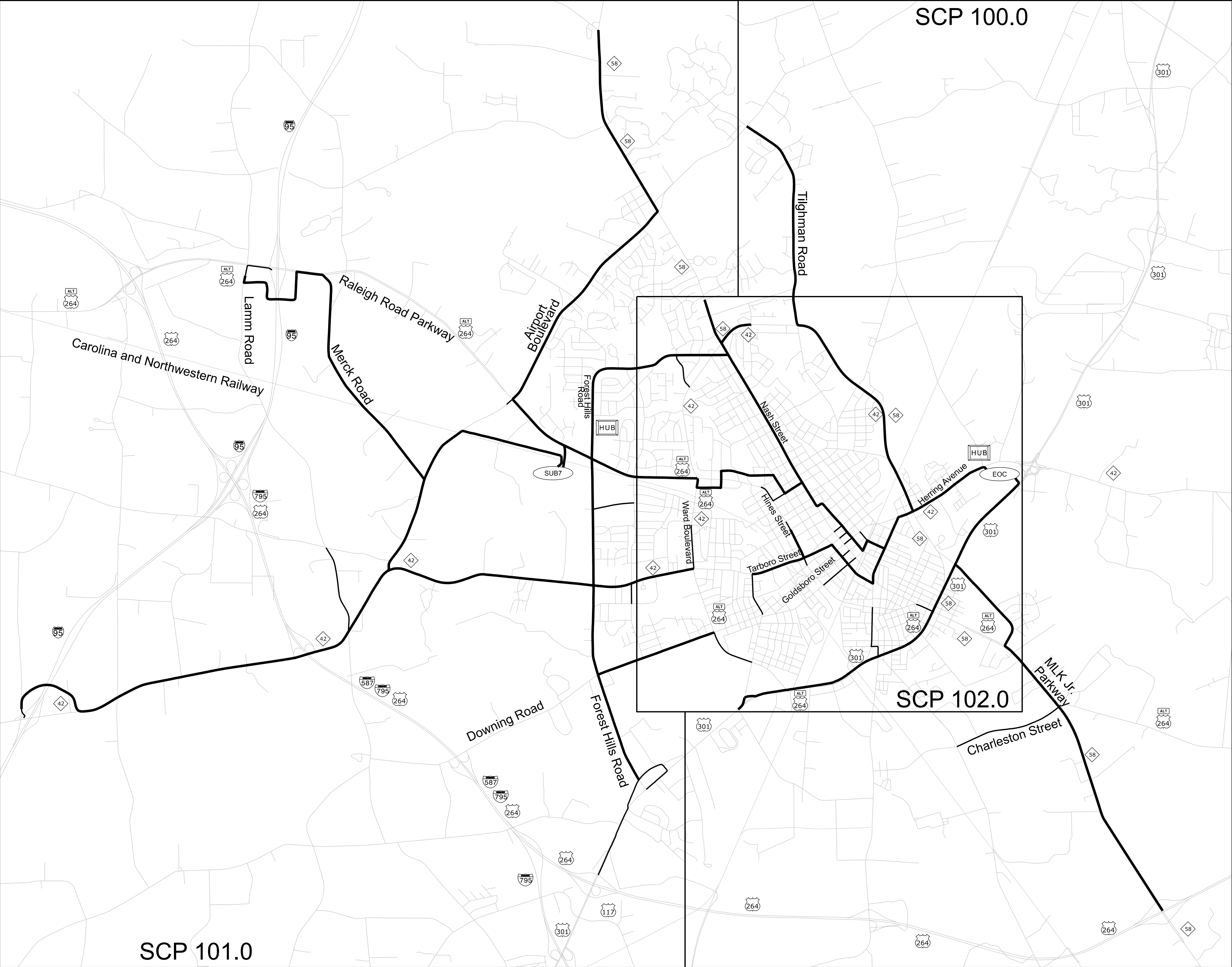
SEAL



Seal of the State of North Carolina
Professional Engineer
ANTHONY M. ENCARNACION
044476

Designed by:

SIGNATURE: ANTHONY ENCARNACION
DATE: 3/10/2025

PROJECT REFERENCE NO.	SHEET NO.
U-5945	SCP 99.0



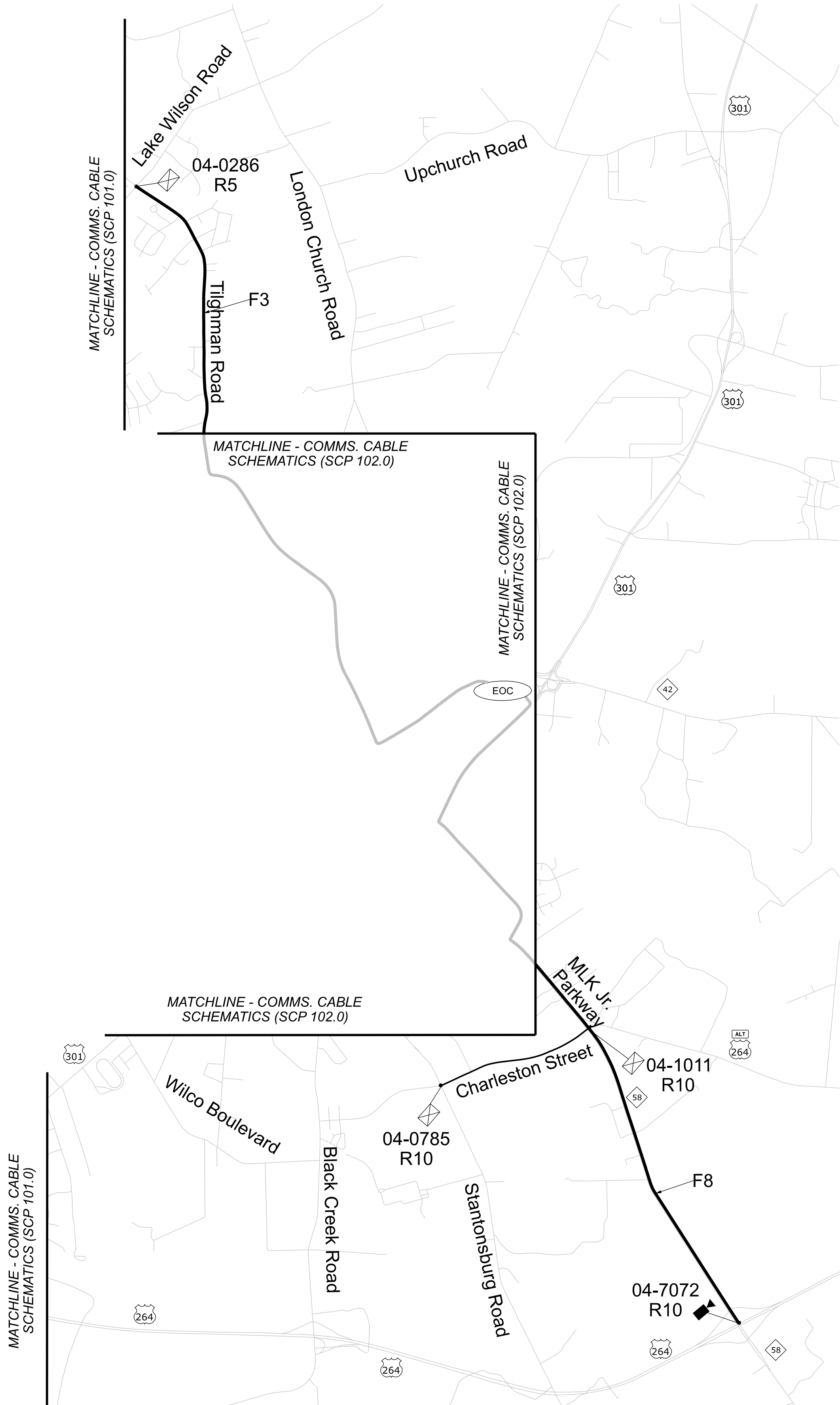
Cable Schematics

DOCUMENT NOT CONSIDERED FINAL
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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Prepared for the Offices of:  750 N. Greenfield Pkwy, Garner, NC 27529	Wilson Signal System Comms Cable Schematics Sheet Layout				SEAL NORTH CAROLINA PROFESSIONAL SEAL 040877 ENGINEER BRADFORD J. SLOCUM Signed by:  BRADFORD J. SLOCUM DATE: 3/13/2025
	Division 4 Wilson County Wilson				
	PLAN DATE: January 2025	REVIEWED BY: BJ Slocum			
	PREPARED BY: JT Sutton	REVIEWED BY: AM Encarnacion			
	REVISIONS		INIT.	DATE	



LEGEND

- CABLE-TO-CABLE SPLICE
- HUB CABINET
- CCTV CABINET
- SIGNAL CABINET
- YAGI ANTENNA RADIO CONNECTION
- BACKBONE FEEDER CABLE
- 12 STRAND FIBER-OPTIC DROP CABLE
- WIRELESS COMMUNICATIONS
- 04-#### STATE SIGNAL/CCTV CABINET INVENTORY NUMBER
- WILSON OPERATIONS CENTER (HEAD-END) BUILDING
- GREENLIGHT SUBSTATION 7 BUILDING

NOTES:
1. ALL 12 STRAND FIBER-OPTIC DROP CABLES USE FIBER PAIRS 1-2, 3-4.

2. FIBER PAIRS FOR EACH DEVICE RING ON THE CABLES LISTED ARE USED BETWEEN THE SUBSTATION-7 / HEAD-END BUILDINGS AND THE FURTHEST DEVICE CABINET ON THE RING.

F3		
Ring #		Fiber Pairs
Ring 5	Primary	13-14
	Return	15-16
	Spare	17-18

F8		
Ring #		Fiber Pairs
Ring 10	Primary	109-110
	Return	111-112
	Spare	113-114

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Cable Schematics

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE

NTS

Wilson Signal System
Comms Cable Schematics

Division 4	Wilson County	Wilson
PLAN DATE: January 2025	REVIEWED BY: BJ Slocum	
PREPARED BY: JT Sutton	REVIEWED BY: AM Encarnacion	
REVISIONS	INIT.	DATE

Seal of North Carolina Professional Engineer
BRADFORD J. SLOCUM
040877

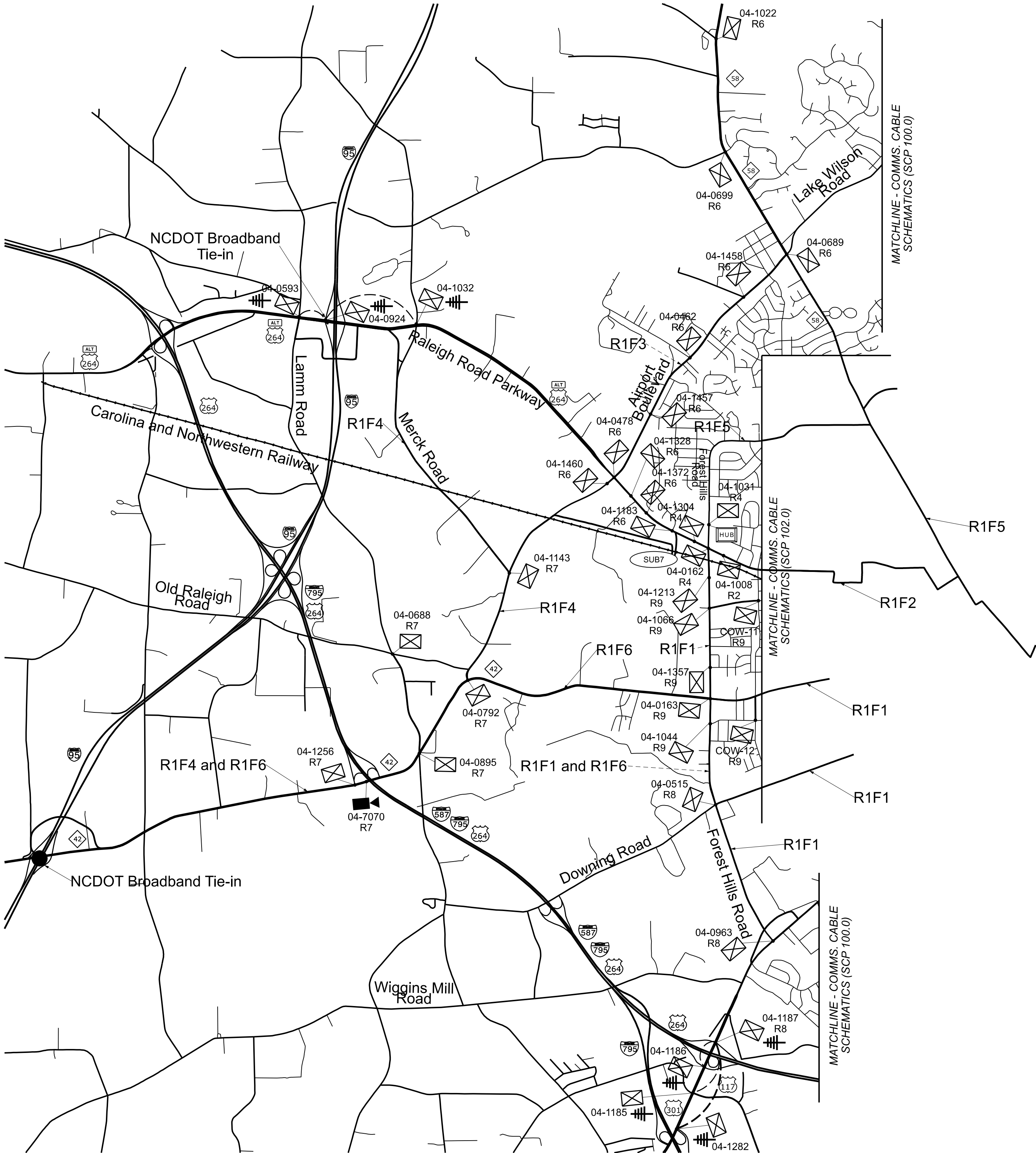
Signed by:
SIGNATURE: BRADFORD J. SLOCUM
DATE: 3/13/2025

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LEGEND

- CABLE-TO-CABLE SPLICE
- HUB CABINET
- CCTV CABINET
- SIGNAL CABINET
- YAGI ANNTENNA RADIO CONNECTION
- BACKBONE FEEDER CABLE
- 12 STRAND FIBER-OPTIC DROP CABLE
- WIRELESS COMMUNICATIONS
- 04-#### STATE SIGNAL/CCTV CABINET INVENTORY NUMBER
- EOC WILSON OPERATIONS CENTER (HEAD-END) BUILDING
- SUB7 GREENLIGHT SUBSTATION 7 BUILDING

NOTES:
1. ALL 12 STRAND FIBER-OPTIC DROP CABLES USE FIBER PAIRS 1-2, 3-4.
2. FIBER PAIRS FOR EACH DEVICE RING ON THE CABLES LISTED ARE USED BETWEEN THE SUBSTATION-7 / HEAD-END BUILDINGS AND THE FURTHEST DEVICE CABINET ON THE RING.



R1F1		
Ring #	Fiber Pairs	
Ring 8	Primary	235-236
	Return	237-238
	Spare	239-240
Ring 9	Primary	163-164
	Return	165-166
	Spare	167-168

R1F4		
Ring #	Fiber Pairs	
Hub-to-Broadband	Primary	247-248
	Return	249-250
	Spare	251-252
Ring 7	Primary	253-254
	Return	255-256
	Spare	257-258

R1F5		
Ring #	Fiber Pairs	
Ring 2	Primary	1-2*
	Return	3-4*
	Spare	5-6*
Hub-to-Hub	Primary	49-50
	Secondary	51-52
Ring 4	Primary	37-38*, 43-44
	Return	39-40*, 45-46
	Spare	41-42*, 47-48
Ring 6	Primary	7-8*
	Return	9-10*
	Spare	11-12*
Ring 7	Primary	19-20*
	Return	21-22*
	Spare	23-24*
Ring 8	Primary	25-26*
	Return	27-28*
	Spare	29-30*
Ring 9	Primary	31-32*
	Return	33-34*
	Spare	35-36*
Hub-to-Broadband	Primary	13-14*
	Secondary	15-16*
Hub-to-Broadband	Primary	17-18*
	Spare	17-18*

R1F2		
Ring #	Fiber Pairs	
Ring 2	Primary	241-242
	Return	243-244
	Spare	245-246

R1F3		
Ring #	Fiber Pairs	
Ring 6	Primary	13-14
	Return	15-16
	Spare	17-18

R1F6		
Ring #	Fiber Pairs	
Hub-to-Broadband	Primary	55-56
	Return	57-58
	Spare	59-60

* FIBERS USED ONLY FOR CONNECTION BETWEEN SUBSTATION-7 BUILDING AND HUB CABINET

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

Cable Schematics

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750 N. Greenfield Pkwy, Garner, NC 27529

Wilson Signal System
Comms Cable Schematics

Division 4	Wilson County	Wilson
PLAN DATE: January 2025	REVIEWED BY: BJ Slocum	
PREPARED BY: JT Sutton	REVIEWED BY: AM Encarnacion	
REVISIONS	INIT.	DATE

SEAL

SEAL

040877

ENGINEER

BRADFORD J. SLOCUM

SIGNATURE: *Brad J. Slocum*

DATE: 7/3/2025

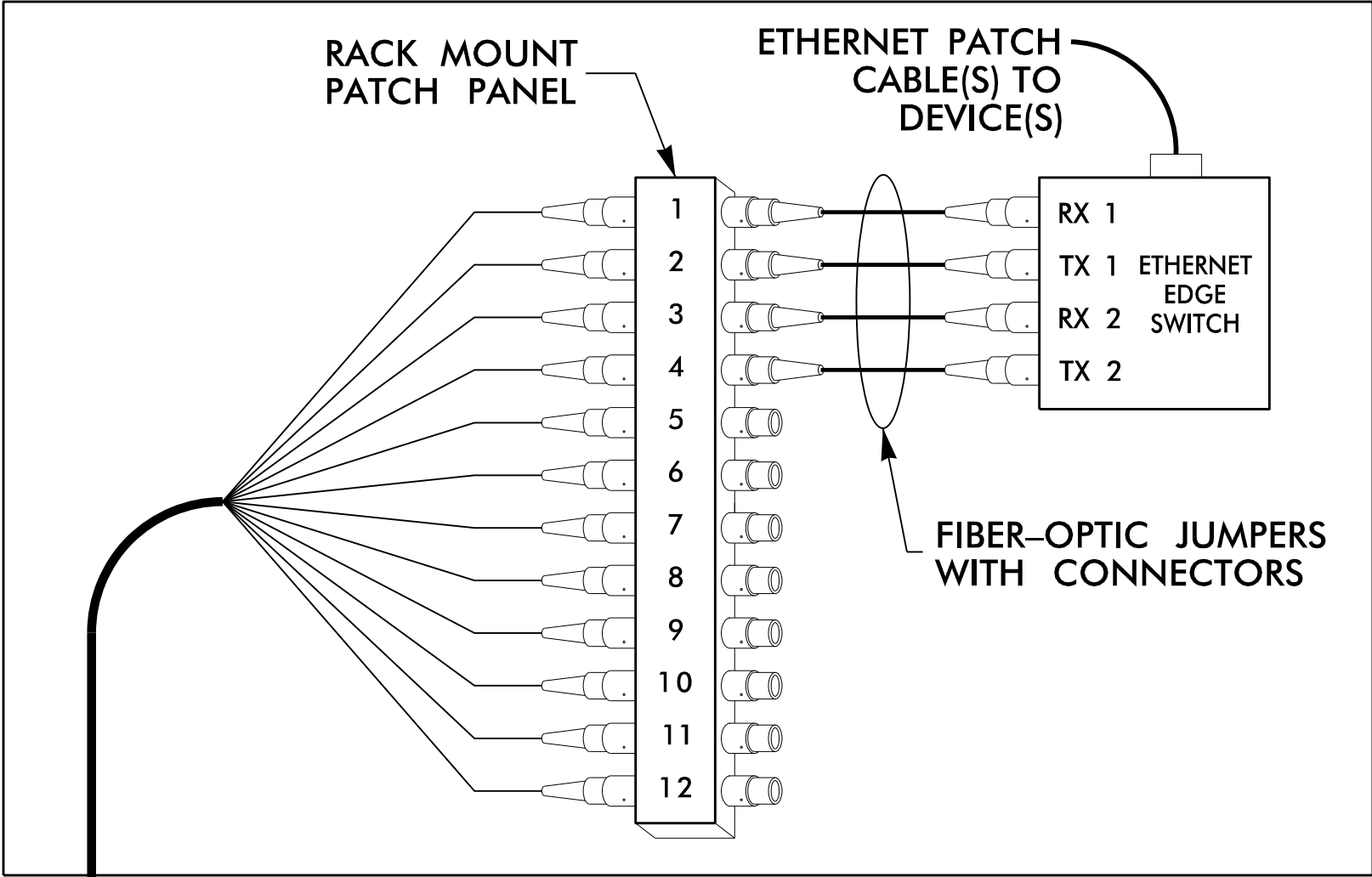
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Prepared In the Offices of:  DEPARTMENT OF TRANSPORTATION NORTH CAROLINA 750 N. Greenfield Pkwy., Garner, NC 27529	Wilson Signal System Wireless Comms Layout	SEAL 																																	
Division 4 Wilson County Wilson																																			
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PREPARED BY:	JT Sutton	REVIEWED BY: AM Encarnacion																																	
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Signed by:  SIGNATURE: <u>Brad Slocum</u> DATE: 3/13/2025																																			

TYPICAL TRAFFIC SIGNAL
OR CCTV CABINET

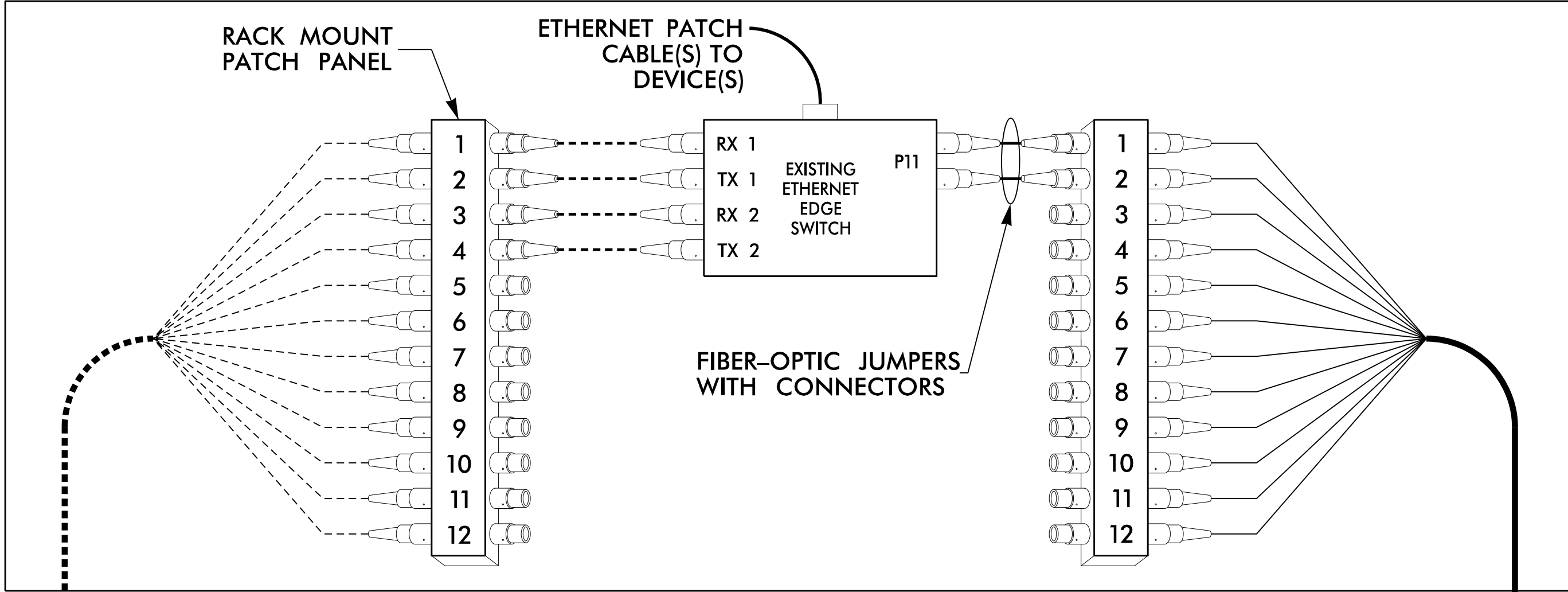
EQUIPMENT CABINET: 04-####



DROP
CABLE TO
CABINET
04-####

HEAD-END HUB TO
BROADBAND
CONNECTION
DETAIL

EQUIPMENT CABINET: 04-0924



EXISTING
DROP
CABLE TO
EXISTING
NCDOT SPLICE
ENCLOSURE
AT I-95
AND US-264A

GREENLIGHT
DROP
CABLE

LEGEND

X = FUSION SPICE INDIVIDUAL FIBER
C = CAP AND SEAL
Y = EXISTING FUSION SPICE INDIVIDUAL FIBER

COLOR CODE
TIA/EIA 598-D

- | | |
|------------|-------------|
| (1) BLUE | (7) RED |
| (2) ORANGE | (8) BLACK |
| (3) GREEN | (9) YELLOW |
| (4) BROWN | (10) VIOLET |
| (5) SLATE | (11) ROSE |
| (6) WHITE | (12) AQUA |

EXPRESS
BUFFER SPICE
EXISTING

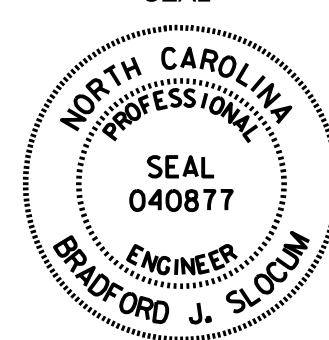
EXPRESS ENTIRE BUFFER TUBE /FIBERS
THROUGH WITHOUT CUTTING
SPICE ALL FIBERS IN BUFFER
TUBE COLOR TO COLOR
EXISTING BUFFER TUBE /FIBERS. DO NOT
MODIFY EXISTING SPLICES OR EXPRESSED FIBERS.

NOTES

- UNUSED FIBERS LEFT COILED AND STORED IN SPLICE TRAY
- UNUSED BUFFER TUBES LEFT COILED AND STORED IN SPLICE ENCLOSURE
- EDGE SWITCH CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING/ENSURING THE PROPER TERMINATIONS.

Cable Routing

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

 750 N. Greenfield Pkwy., Garner, NC 27529	Wilson Signal System Splice Details		 Signed by: <i>Bradford J. Slocum</i> DATE: 3/13/2025	
	Division 4	Wilson County		Wilson
	PLAN DATE: February 2024	REVIEWED BY: BJ Slocum		
	PREPARED BY: JT Sutton	REVIEWED BY: AM Encarnacion		
	REVISIONS	INIT.	DATE	

EXISTING CABLE
TO DMS04095-114N
AT I-95 AND MM114.5

144 FIBERS IN 12 BUFFER TUBES NCDOT ITS DEVICE LINE

EXISTING CABLE
TO CCTV04-95-118S
AT I-95 AND SR 1154
(MM118)

144 FIBERS IN 12 BUFFER TUBES NCDOT ITS DEVICE LINE

NOTES

1. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING SPLICING. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER WHERE EXISTING SPLICING IS NOT AS EXPECTED.

LEGEND

X = FUSION SPLICE INDIVIDUAL FIBER
C = CAP AND SEAL
Y = EXISTING FUSION SPLICE INDIVIDUAL FIBER

COLOR CODE TIA/EIA 598-D		Y = EXISTING FUSION SPlice INDIVIDUAL FIBERS	
(1) BLUE	(7) RED	EXPRESS	EXPRESS ENTIRE BUFFER TUBE / FIBERS THROUGH WITHOUT CUTTING
(2) ORANGE	(8) BLACK	BUFFER SPlice	SPlice ALL FIBERS IN BUFFER TUBE COLOR TO COLOR
(3) GREEN	(9) YELLOW		
(4) BROWN	(10) VIOLET	EXISTING	EXISTING BUFFER TUBE / FIBERS DO NOT MODIFY EXISTING SPlices OR EXPRESSED FIBERS.
(5) SLATE	(11) ROSE		
(6) WHITE	(12) AQUA		

DROP TO
CCTV04-95-116S NC42

**GREENLIGHT
CABLE DROP**

12 FIBERS IN 1 BUFFER TUBE

Cable Routing

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UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:

Department of Transportation
State of North Carolina



Division of Transportation Systems

750 N. Greenfield Pkwy., Garner, NC 27529

Wilson Signal System
Splice Details

Division 4

Wilson County

Wilson

PLAN DATE: February 2024

REVIEWED BY: BJ Slocum

PREPARED BY: JT Sutton

REVIEWED BY: AM Encarnacion

REVISIONS

INIT.

DATE

SEAL

NORTH CAROLINA
PROFESSIONAL
ENGINEER

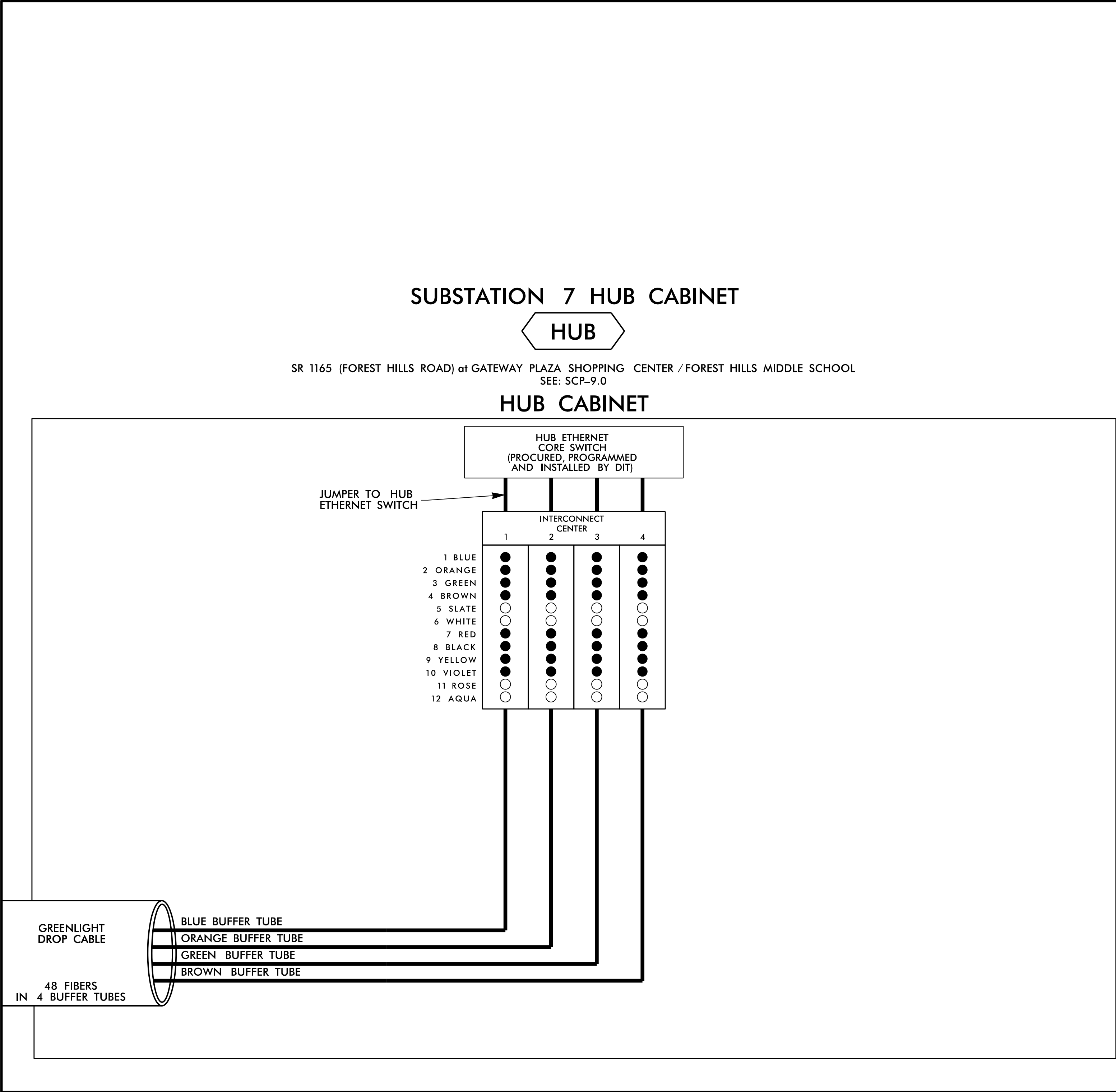
SEAL
040877

BRADFORD J. SLOCUM

Signed by:

SIGNATURE: *Brad Slocum*

DATE: 3/13/2025



48 FOC Drop Cable			Sub7 Hub Cabinet			
Ring#		Fiber Pairs	Patch Panel	Jumpers	Port	Hub Switch
Ring2	Primary	1-2	Patch Panel 1		1	
	Return	3-4			2	
	Spare	5-6			3	
Ring6	Primary	7-8			4	
	Return	9-10			5	
	Spare	11-12			6	
Hub-to-Broadband	Northbound	13-14	Patch Panel 2		7	
	Southbound	15-16			8	
	Spare	17-18			9	
Ring7	Primary	19-20			10	
	Return	21-22			11	
	Spare	23-24			12	
Ring8	Primary	25-26	Patch Panel 3		13	
	Return	27-28			14	
	Spare	29-30			15	
Ring9	Primary	31-32			16	
	Return	33-34			17	
	Spare	35-36			18	
Ring4	Primary	37-38	Patch Panel 4		19	
	Return	39-40			20	
	Spare	41-42			21	
Hub-to-Hub	Primary	43-44			22	
	Secondary	45-46			23	
Spare	Spare	47-48			24	

LEGEND

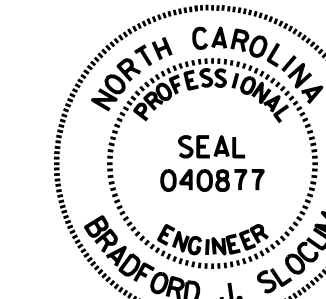
COLOR CODE		TIA/EIA 598-D	
(1) BLUE	(7) RED	EXPRESS	EXPRESS ENTIRE BUFFER TUBE /FIBERS THROUGH WITHOUT CUTTING
(2) ORANGE	(8) BLACK	BUFFER SPICE	SPICE ALL FIBERS IN BUFFER TUBE COLOR TO COLOR
(3) GREEN	(9) YELLOW	EXISTING	EXISTING BUFFER TUBE /FIBERS. DO NOT MODIFY EXISTING SPICES OR EXPRESSED FIBERS.
(4) BROWN	(10) VIOLET		
(5) SLATE	(11) ROSE		
(6) WHITE	(12) AQUA		

NOTES

- UNUSED FIBERS LEFT COILED AND STORED IN SPICE TRAY
- UNUSED BUFFER TUBES LEFT COILED AND STORED IN SPICE ENCLOSURE
- EDGE SWITCH CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING/ENSURING THE PROPER TERMINATIONS.

Cable Routing

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:  750 N. Greenfield Pkwy., Garner, NC 27529	Wilson Signal System Splice Details		SEAL  Signed by:  DATE: 3/13/2025
	Division 4 Wilson County Wilson		
	PLAN DATE: February 2024	REVIEWED BY: BJ Slocum	
	PREPARED BY: JT Sutton	REVIEWED BY: AM Encarnacion	
	REVISIONS		
INIT.		DATE	

