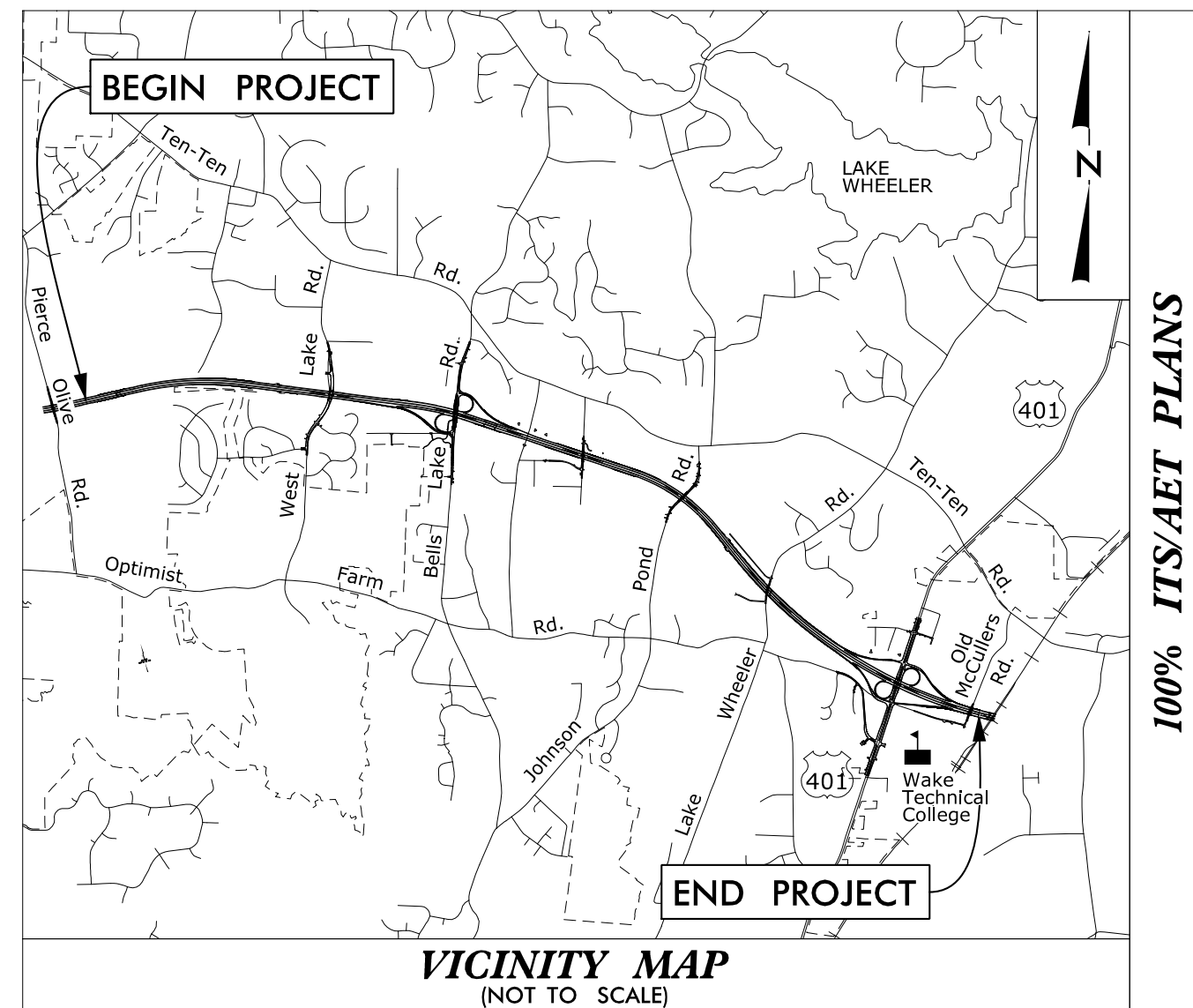


R-2721B

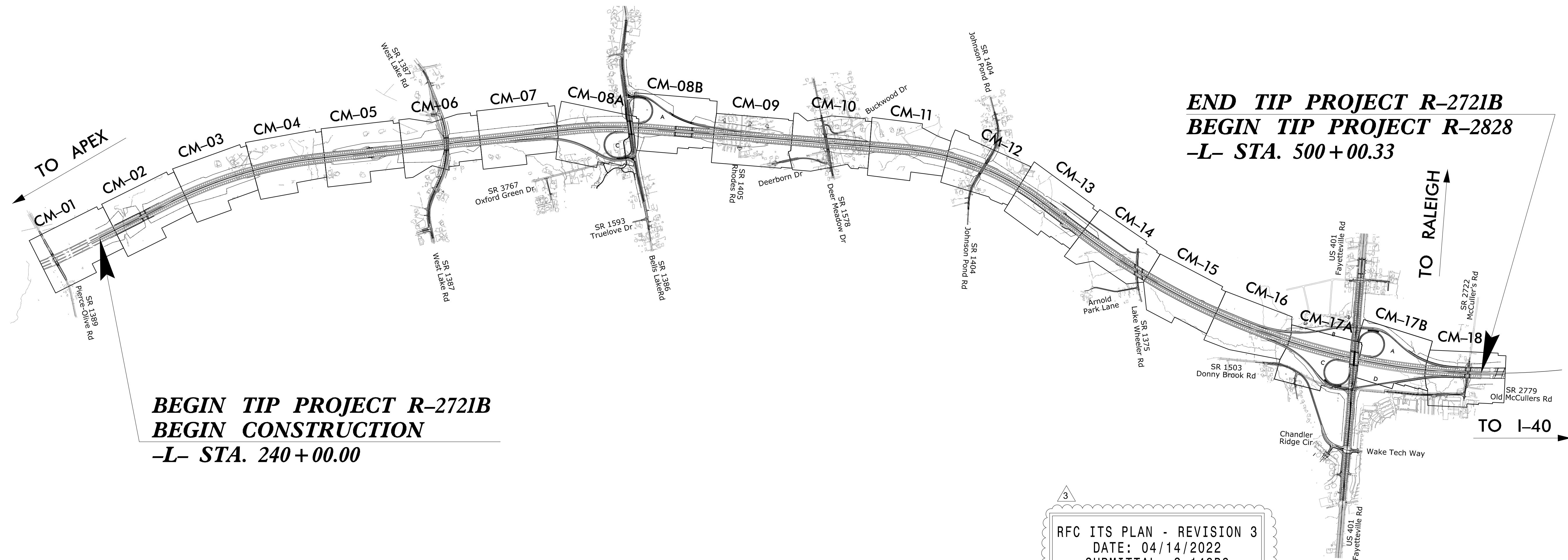
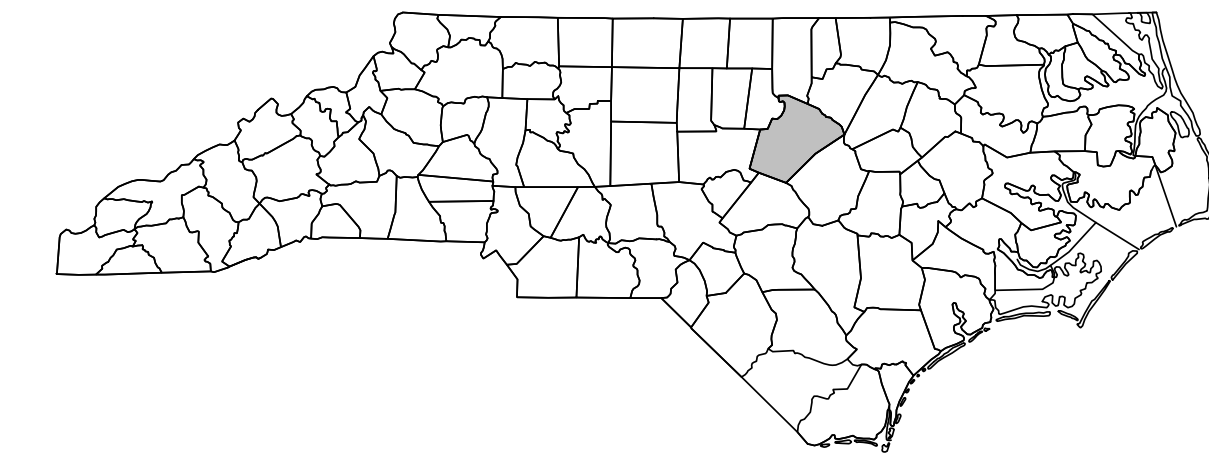


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WAKE COUNTY

LOCATION: TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION FROM EAST OF PIERCE OLIVE RD (SR 1389) TO EAST OF US 401

TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK CONTAINED IN THE REQUEST FOR PROPOSALS



**BEGIN TIP PROJECT R-2721B
BEGIN CONSTRUCTION
-L- STA. 240 + 00.00**

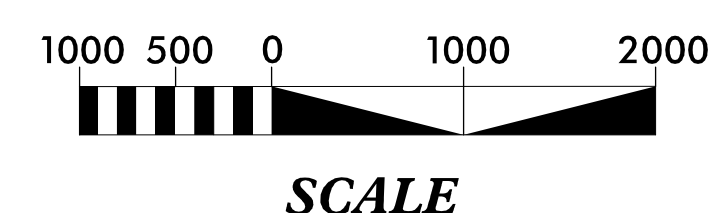
**END TIP PROJECT R-2721B
BEGIN TIP PROJECT R-2828
-L- STA. 500 + 00.33**

**RFC ITS PLAN - REVISION 3
DATE: 04/14/2022
SUBMITTAL: S-148R3**

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

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CONTRACT: C204198



NCTA CONTACT: RACHEL RUIZ NCDOT CONTACT: ANDREW SKUCE		Prepared for the Offices of:										
		ITS - TITLE SHEET & VICINITY MAP										
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116		DIVISION 5 WAKE COUNTY, HOLLY SPRINGS PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI PREPARED BY: C. BEARD REVIEWED BY: J. WU										
SCALE:		<table border="1"> <tr> <th>REVISIONS</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td>△ NCDOT FUTURE INTERCONNECT INFRASTRUCTURE</td> <td>C-B</td> <td>2020-12-23</td> </tr> <tr> <td>△ SOUNDWALL MODIFICATIONS</td> <td>C-B</td> <td>2022-04-14</td> </tr> </table>		REVISIONS	INIT.	DATE	△ NCDOT FUTURE INTERCONNECT INFRASTRUCTURE	C-B	2020-12-23	△ SOUNDWALL MODIFICATIONS	C-B	2022-04-14
REVISIONS	INIT.	DATE										
△ NCDOT FUTURE INTERCONNECT INFRASTRUCTURE	C-B	2020-12-23										
△ SOUNDWALL MODIFICATIONS	C-B	2022-04-14										
		SIGNATURE: _____ DATE: _____ CADD File name:										

EQUIPMENT LOCATION TABLE

NAME	VDS TYPE	STATION	BASE LINE	OFFSET	MOUNTING HEIGHT	POLE HEIGHT	TOLL ZONE	INTERCHANGE	LOWERING DEVICE	SHEET NO.	NCTA ASSET NO.
PEDESTAL 1		269+43	L (MAINLINE)	164' LT	N/A	N/A		N/A		CM-03	
CCTV-07		269+35	L (MAINLINE)	107' LT	45'	50'		N/A	YES	CM-03	
MVD-M03 (B)	MAINLINE	269+35	L (MAINLINE)	107' LT	29' 3/4	NA 3/4		N/A		CM-03 3/4	
MVD-M03 (A)	MAINLINE	269+57	L (MAINLINE)	109' RT	30'	35'		N/A		CM-03	
WWD-02 (A)**		287+70	L (MAINLINE)	10' RT	N/A	N/A		N/A		CM-05	
WWD-02 (B)**		287+70	L (MAINLINE)	95' RT	N/A	N/A		N/A		CM-05	
AET VAULT		291+29	L (MAINLINE)	105' RT	N/A	N/A	T37 & T38	N/A		CM-05	
PEDESTAL 2		291+23	L (MAINLINE)	108' RT	N/A	N/A		N/A		CM-05	
WWD-01 (A)**		295+20	L (MAINLINE)	8' LT	N/A	N/A		N/A		CM-05	
WWD-01 (B)**		295+20	L (MAINLINE)	94' LT	N/A	N/A		N/A		CM-05	
PEDESTAL 3		305+52	L (MAINLINE)	146' RT	N/A	N/A		N/A		CM-06	
CCTV-08		307+05	L (MAINLINE)	102' LT 3/4	45'	50'		N/A	YES	CM-06	
MVD-M04 (B) 3/4	MAINLINE	307+05 3/4	L (MAINLINE)	102' LT	26'	NA		N/A		CM-06	
MVD-M04 (A)	MAINLINE	306+37	L (MAINLINE)	107' RT	29' 3/4	35' 3/4		N/A		CM-06	
MVD-R07	RAMP	23+50	Y8RPC	39' LT	30'	35'		Y8 INTERCHANGE		CM-08A	
MVD-R08	RAMP	15+00	Y8LPC	29' RT	17'	25'		Y8 INTERCHANGE		CM-08A	
PEDESTAL 4		337+62	L (MAINLINE)	179' RT	N/A	N/A		N/A		CM-08A	
CCTV-09		338+51	L (MAINLINE)	162' LT	45'	50'		Y8 INTERCHANGE	YES	CM-08A	
WWD-R01 (A)		28+07	Y8RPC	30' LT	N/A	N/A		Y8 INTERCHANGE		CM-08A	
WWD-R01 (B)		28+07	Y8RPC	41' RT	N/A	N/A		Y8 INTERCHANGE		CM-08A	
MVD-R09	RAMP	16+25	Y8LPA	30' RT	17'	25'		Y8 INTERCHANGE		CM-08B	
MVD-R10	RAMP	19+26	Y8RPA	23' LT	17'	25'		Y8 INTERCHANGE		CM-08B	
WWD-R02 (A)		27+45	Y8RPA	35' RT	N/A	N/A		Y8 INTERCHANGE		CM-08B	
WWD-R02 (B)		27+45	Y8RPA	24' LT	N/A	N/A		Y8 INTERCHANGE		CM-08B	
PEDESTAL 5		374+62	L (MAINLINE)	128' RT	N/A	N/A		N/A		CM-10	
CCTV-10		375+12	L (MAINLINE)	111' RT	45'	50'		N/A	YES	CM-10	
MVD-M05 (B)	MAINLINE	375+10	L (MAINLINE)	108' LT	27'	35'		N/A		CM-10	
MVD-M05 (A)	MAINLINE	375+12	L (MAINLINE)	111' RT	29'	NA 3/4		N/A		CM-10	
CCTV-11		402+45	L (MAINLINE)	111' LT	45'	50'		N/A	YES	CM-12	
PEDESTAL 6		403+25	L (MAINLINE)	176' LT	N/A	N/A		N/A		CM-12	
WWD-04 (A)**		415+19	L (MAINLINE)	10' RT	N/A	N/A		N/A		CM-13	
WWD-04 (B)**		415+19	L (MAINLINE)	96' RT	N/A	N/A		N/A		CM-13	
DMS-03		418+50	L (MAINLINE)	53' RT	N/A	N/A		N/A		CM-13	
AET VAULT		418+80	L (MAINLINE)	105' RT	N/A	N/A	T39 & T40	N/A		CM-13	
PEDESTAL 7		418+74	L (MAINLINE)	108' RT	N/A	N/A		N/A		CM-13	
WWD-03 (A)**		422+37	L (MAINLINE)	96' LT	N/A	N/A		N/A		CM-13	
WWD-03 (B)**		422+37	L (MAINLINE)	8' LT	N/A	N/A		N/A		CM-13	
MVD-M06 (B)	MAINLINE	424+53	L (MAINLINE)	100' LT	20'	25'		N/A		CM-14	
MVD-M06 (A)	MAINLINE	423+97 3/4	L (MAINLINE)	96' RT 3/4	30' 3/4	35'		N/A		CM-14	
CCTV-12		436+14	L (MAINLINE)	98' LT	45'	50'		N/A	YES	CM-14 3/4	
PEDESTAL 8		437+65	L (MAINLINE)	151' LT	N/A	N/A		N/A		CM-15	
MVD-R11	RAMP	21+39	Y13RPB	26' RT	17'	25'		Y13 INTERCHANGE		CM-17A	
MVD-R12	RAMP	18+47	Y13RPC	27' LT	17'	25'		Y13 INTERCHANGE		CM-17A	
PEDESTAL 9		476+15	L (MAINLINE)	149' RT	N/A	N/A		Y13 INTERCHANGE		CM-17A	
MVD-R13	RAMP	14+22	Y13LPC	29' RT	17'	25'		Y13 INTERCHANGE		CM-17A	
WWD-R03 (A)		22+30	Y13RPC	26' LT	N/A	N/A		Y13 INTERCHANGE		CM-17A	
WWD-R03 (B)		22+30	Y13RPC	45' RT	N/A	N/A		Y13 INTERCHANGE		CM-17A	
CCTV-13		479+11	L (MAINLINE)	139' RT	45'	50'		Y13 INTERCHANGE	YES	CM-17B	
MVD-R14	RAMP	15+14	Y13LPA	30' RT	17'	25'		Y13 INTERCHANGE		CM-17B	
MVD-R15	RAMP	18+87	Y13RPA	46' RT	29'	35'		Y13 INTERCHANGE		CM-17B	
MVD-R16	RAMP	20+98	Y13RPD	46' LT	27'	35'		Y13 INTERCHANGE		CM-17B	
WWD-R04 (A)		26+08	Y13RPA	31' RT	N/A	N/A		Y13 INTERCHANGE		CM-17B	
WWD-R04 (B)		26+08	Y13RPA	22' LT	N/A	N/A		Y13 INTERCHANGE		CM-17B	
PEDESTAL 10		498+11	L (MAINLINE)	205' RT	N/A	N/A		Y13 INTERCHANGE		CM-18	
HUB-6		499+78	L (MAINLINE)	131' RT	N/A	N/A		N/A		CM-18	

** INCLUDES TYPE III PEDESTAL ONLY. WWD SIGN TO BE INSTALLED BY OTHERS.

NOTES

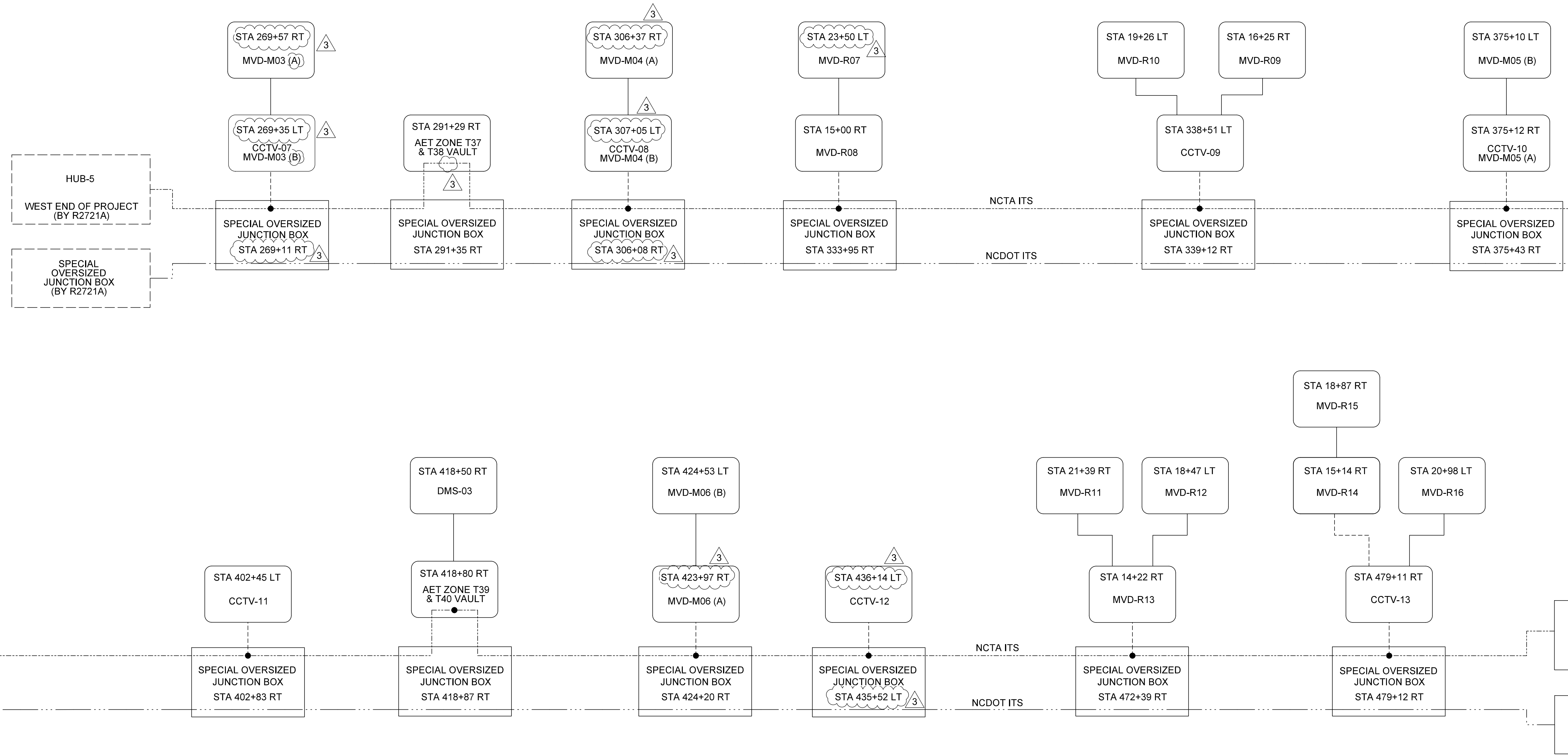
- STATION AND OFFSET IS MEASURED FROM THE CENTER OF POLE, DMS CABINET, OR AET VAULT.
- NCTA ASSET NUMBER TO BE PROVIDED BY NCTA.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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Prepared for the Offices of:		EQUIPMENT INSTALLATION SUMMARY		SEAL SEAL 050248 ENGINEER J. BEARD
DIVISION 5		WAKE COUNTY, HOLLY SPRINGS		
PLAN DATE: DECEMBER 2020	REVIEWED BY: T. MARTI	PREPARED BY: C. BEARD	REVIEWED BY: J. WU	
SCALE	REVISIONS	INIT.	DATE	
	△ SOUNDWALL MODIFICATIONS	C.B.	2022-04-14	SIGNATURE
				DATE

CADD Filename:



LEGEND

- NCDOT ITS 144 SMFOC
- NCTA ITS 144 SMFOC
- 12 FIBER DROP
- DEVICE CABLE
- SPLICE

NOTE

1. ALL WORK AND NEW EQUIPMENT SHALL BE DESIGNED AND INSTALLED ACCORDING TO THE REQUIREMENTS AND FUNCTIONALITY DESCRIBED IN THE RFP.
2. CCTV, AND WWD DEVICES AND DEVICE CABLES ARE TO BE PROVIDED AND INSTALLED BY TSI. MVD DEVICES WILL BE PROVIDED AND INSTALLED BY TSI, CABLE TO BE PROVIDED BY CONTRACTOR.
3. NCDOT ITS 144 SMFOC SHALL RUN STRAIGHT THROUGH WITHIN THE PROJECT LIMITS.
4. END-TO-END SPLICES ARE NOT SHOWN. THE CONTRACTOR SHALL ONLY PERFORM REEL END SPLICES AT THE SPECIAL OVERSIZED JUNCTION BOXES AND SHALL SUBMIT LOCATIONS TO THE ENGINEER PRIOR TO INSTALLATION.

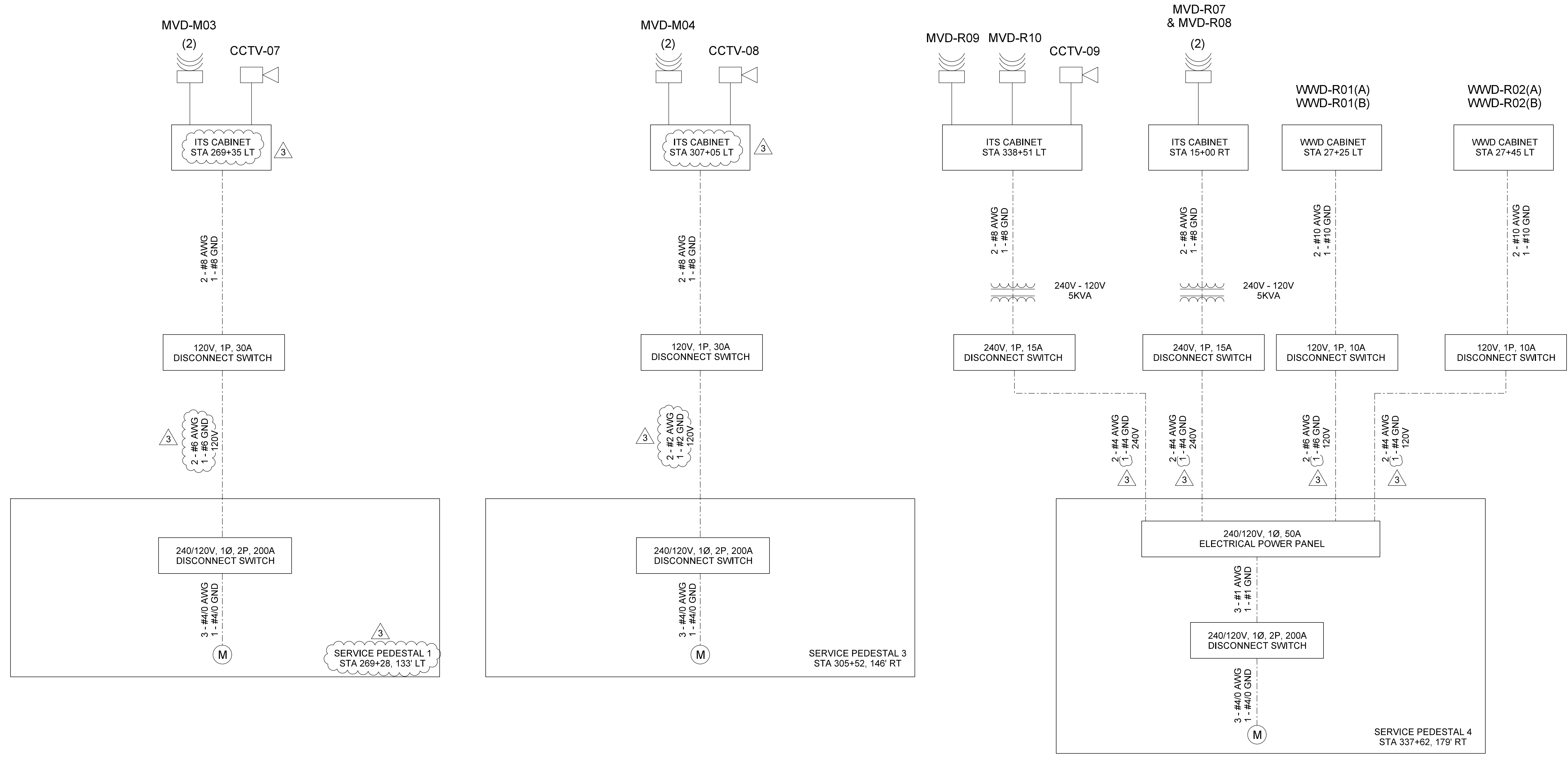
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MATCHLINE - SEE ABOVE

MATCHLINE - SEE BELOW

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:		ITS COMMUNICATION NETWORK BLOCK DIAGRAM		SEAL
DIVISION 5 WAKE COUNTY, HOLLY SPRINGS				
PLAN DATE: DECEMBER 2020	REVIEWED BY: T. MARTI			
PREPARED BY: C. BEARD	REVIEWED BY: J. WU			
SCALE: NTS	REVISIONS	INIT.	DATE	
	△ SOUNDWALL MODIFICATIONS	C.B.	2022-04-14	
		SIGNATURE	DATE	



LEGEND

- MICROWAVE VEHICLE DETECTION SITE (SENSOR FURNISHED AND INSTALLED BY TSI)
- CCTV CAMERA SITE (CAMERA FURNISHED AND INSTALLED BY TSI)
- FRONT ACCESS DYNAMIC MESSAGE SIGN
- METER
- STEP DOWN TRANSFORMER
- POWER CABLE
- DEVICE CABLE

NOTE

1. SEE AET VAULT ELECTRICAL PLANS FOR SERVICE PEDESTAL 2 DETAILS.
2. WWD AND WWD CABINET TO BE INSTALLED BY TSI.

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ITS POWER BLOCK DIAGRAM

DIVISION 5 WAKE COUNTY, HOLLY SPRINGS

PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI

PREPARED BY: C. BEARD REVIEWED BY: J. WU

SCALE: NTS

REVISIONS

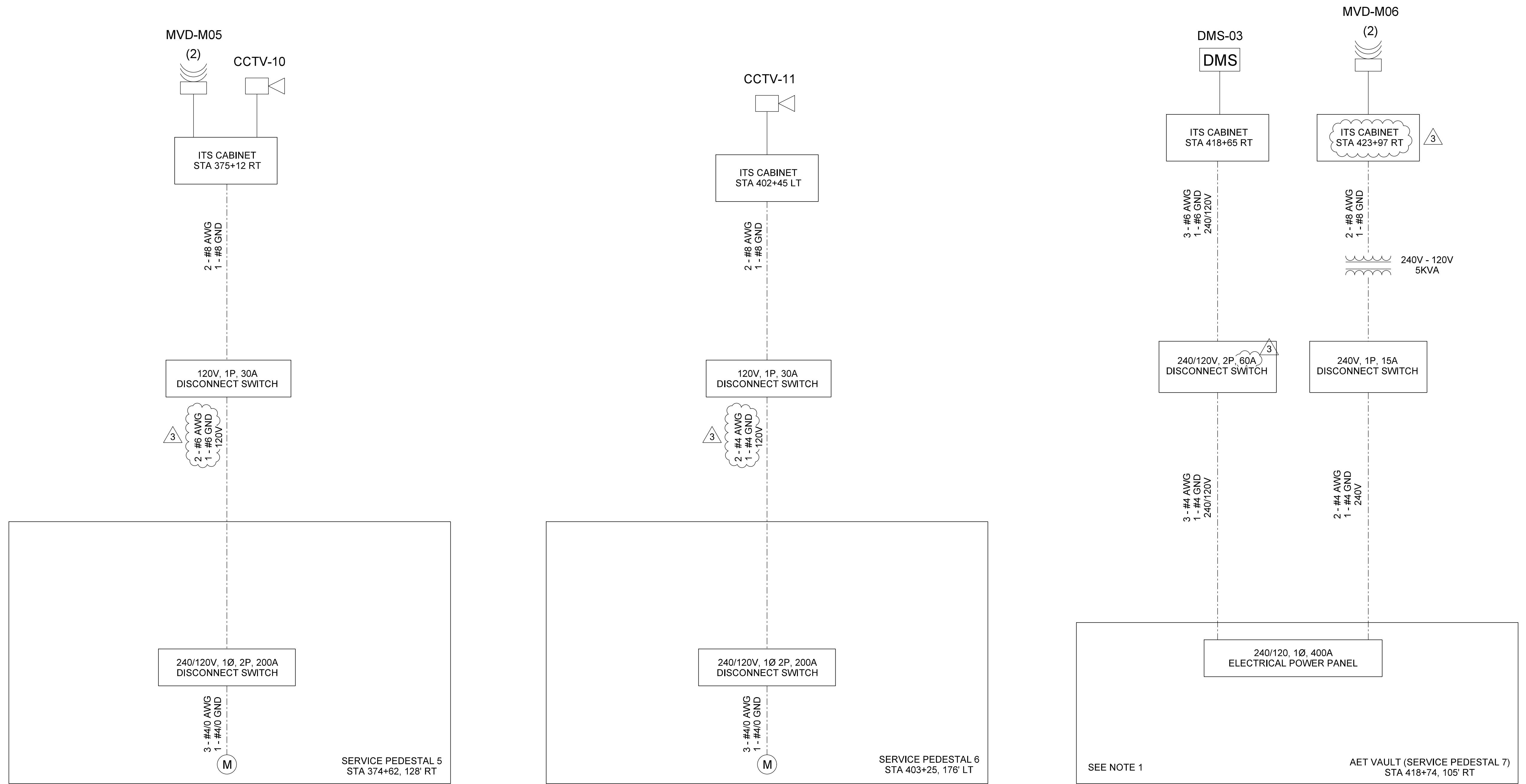
NO.	REVISIONS	INIT.	DATE
1	SOUNDWALL MODIFICATIONS	C.B.	2022-04-14

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

SIGNATURE: _____ DATE: _____

CADD File name: _____



LEGEND

- MICROWAVE VEHICLE DETECTION SITE (SENSOR FURNISHED AND INSTALLED BY TSI)
- CCTV CAMERA SITE (CAMERA FURNISHED AND INSTALLED BY TSI)
- FRONT ACCESS DYNAMIC MESSAGE SIGN
- METER
- STEP DOWN TRANSFORMER
- POWER CABLE
- DEVICE CABLE

NOTE

1. SEE AET VAULT ELECTRICAL PLANS FOR SERVICE PEDESTAL 7 DETAILS.

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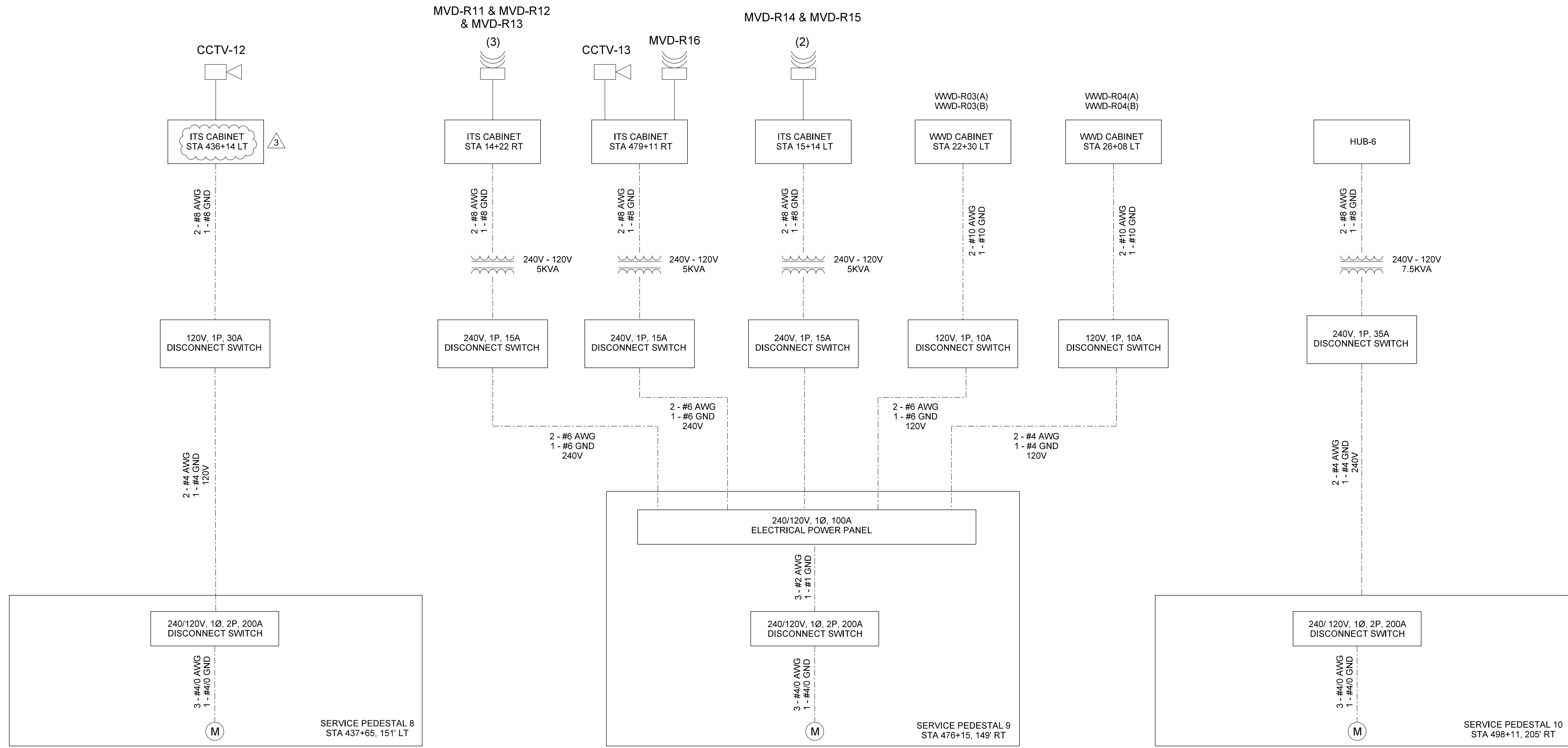
HDR HDR Engineering, Inc. of the Carolinas
 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
 N.C.B.E.L.S. License Number: F-0116

Prepared for the Offices of:
ITS POWER BLOCK DIAGRAM
 DIVISION 5 WAKE COUNTY, HOLLY SPRINGS
 PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI
 PREPARED BY: C. BEARD REVIEWED BY: J. WU
 SCALE: NTS
 REVISIONS: SOUNDWALL MODIFICATIONS
 INIT. DATE: C.B. 2022-04-14
 SIGNATURE: DATE: CADD Filename:

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

 COPY T. BEARD



LEGEND

- MICROWAVE VEHICLE DETECTION SITE (SENSOR FURNISHED AND INSTALLED BY TSI)
- CCTV CAMERA SITE (CAMERA FURNISHED AND INSTALLED BY TSI)
- FRONT ACCESS DYNAMIC MESSAGE SIGN
- METER
- STEP DOWN TRANSFORMER
- POWER CABLE
- DEVICE CABLE

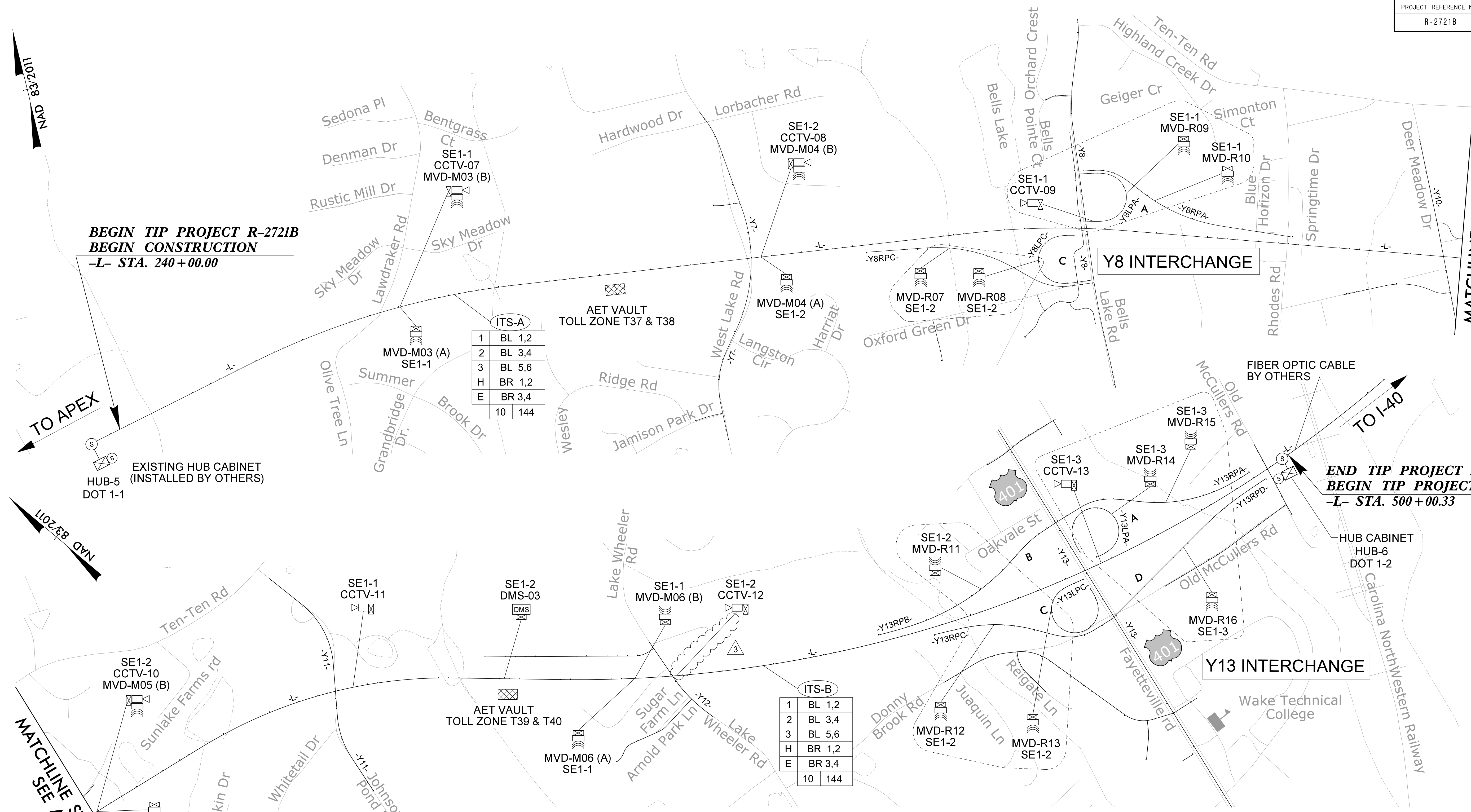
NOTE

1. WWD AND WWD CABINET TO BE INSTALLED BY TSI.

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**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

 	Prepared for the Offices of: ITS POWER BLOCK DIAGRAM		SEAL
	DIVISION 5 WAKE COUNTY, HOLLY SPRINGS PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI PREPARED BY: C. BEARD REVIEWED BY: J. WU		
 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	SCALE	REVISIONS SOUNDWALL MODIFICATIONS	DATE C.B. 2022-04-14
	NTS	SIGNATURE DATE	



**BEGIN TIP PROJECT R-2721B
BEGIN CONSTRUCTION
-L- STA. 240+00.00**

**END TIP PROJECT R-2721B
BEGIN TIP PROJECT R-2828
-L- STA. 500+00.33**

**MATCHLINE STA 375+00
SEE ABOVE**

**MATCHLINE STA 375+00
SEE BELOW**

ITS-A

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3	BL 5,6
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E	BR 3,4
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ITS-B

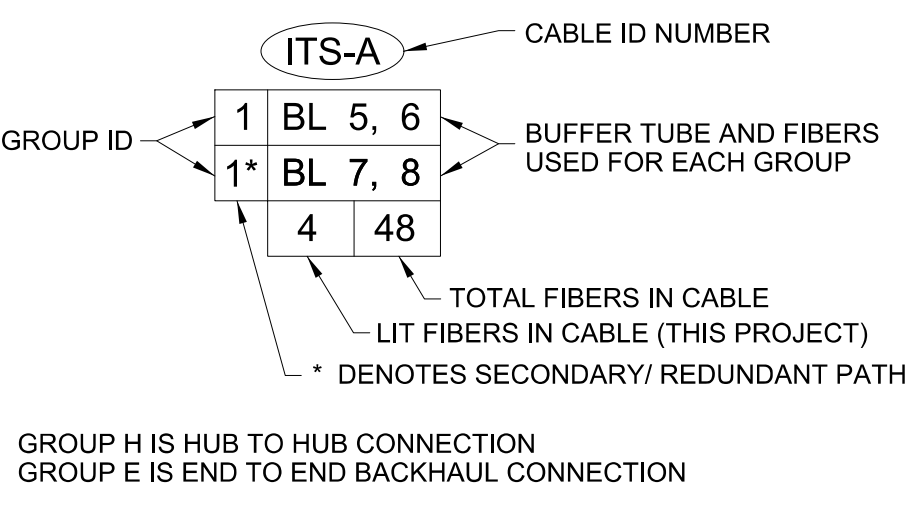
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2	BL 3,4
3	BL 5,6
H	BR 1,2
E	BR 3,4
10	144

LEGEND

- MVD - XX = DEVICE ID
 - SPECIFIC DEVICE #
 - TYPE OF DEVICE (MVD, CCTV, DMS, WVD)
- SE 1 - 1 = SPLICE ENCLOSURE ID
 - # OF SPLICE IN GROUP
 - GROUP #
 - SPLICE ENCLOSURE
- SE - V5 = SPLICE ENCLOSURE AT HUB/ SPLICE CABINET
 - ASSOCIATED WITH HUB/ SPLICE CABINET, MULTIPLE GROUPS
 - SPLICE ENCLOSURE
- MULTIPLE DROPS FROM A SINGLE SPLICE ENCLOSURE OR VAULT
- DROP TO CCTV
- DROP TO FUTURE WVD
- DROP TO MVD
- DROP TO SHARED CCTV/ MVD CABINET
- DROP TO DMS
- CABLE-TO-CABLE SPLICE
- HUB CABINET
- AET VAULT

COLOR CODE
TIA/ EIA 598-B

(1)	BLUE	BL
(2)	ORANGE	OR
(3)	GREEN	GR
(4)	BROWN	BR
(5)	SLATE	SL
(6)	WHITE	WH
(7)	RED	RD
(8)	BLACK	BK
(9)	YELLOW	YL
(10)	VIOLET	VI
(11)	ROSE	RS
(12)	AQUA	AQ



NOTES

- CCTV, WVD DEVICES, AND DEVICE CABLES TO BE PROVIDED AND INSTALLED BY TSI.
- MVD DEVICES TO BE PROVIDED AND INSTALLED BY TSI. MVD CABLE TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
- ALL END-TO-END SPLICES ARE NOT SHOWN. THE CONTRACTOR SHALL ONLY PERFORM REEL END SPLICES AT THE SPECIAL OVERSIZED JUNCTION BOXES AND SHALL SUBMIT LOCATIONS TO THE ENGINEER PRIOR TO INSTALLATION.

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

Prepared for the Offices of:

FLATIRON **BRANCH CIVIL**

HDR HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

ITS COMMUNICATIONS SCHEMATIC

DIVISION 5 WAKE COUNTY, HOLLY SPRINGS

PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI

PREPARED BY: C. BEARD REVIEWED BY: J. WU

SCALE: NTS

REVISIONS

NO.	DESCRIPTION	INIT.	DATE
1	SOUNDWALL MODIFICATIONS	C.B.	2022-04-14

SEAL

PROFESSIONAL ENGINEER
NORTH CAROLINA
SEAL 050248
CORY T BEARD

SIGNATURE DATE

CADD File name:

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 USER: CBEARD
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ITS SPLICE DIAGRAMS			
FS SHEET NO.	SPLICE NO.	DEVICE ID	CM SHEET NO.
FS-02	SE1-1	CCTV-07/ MVD-M03(A & B)	CM-03 ³
		CCTV-09/ MVD-R09/ MVD-R10	CM-08A
		CCTV-11	CM-12
		MVD-M06 (A & B)	CM-14
FS-03	SE1-2	CCTV-08/ MVD-M04(A & B)	CM-06
		MVD-R08/MVD-R07	CM-08A
		CCTV-10/MVD-M05(A & B)	CM-10
		DMS-03	CM-13
		CCTV-12	CM-14 ³
		MVD-R11/MVD-R12/MVD-R13	CM-17A
FS-04	SE1-3	CCTV-13/MVD-R14/MVD-R15/MVD-R16	CM-17B
FS-05	HUB-5	HUB	CM-01
FS-06	HUB-6	HUB	CM-18
FS-09	DOT 1-1	N/A	CM-01
FS-09	DOT 1-2	N/A	CM-18





TOLL SPLICE DIAGRAMS			
FS SHEET NO.	SPLICE NO.	DEVICE ID	CM SHEET NO.
FS-07	STOLL-1	T39 & T40	CM-13
FS-07	STOLL-2	T37 & T38	CM-05
FS-08	STOLL-3	WWD	CM-18B
FS-05	HUB-5	HUB	CM-01
FS-06	HUB-6	HUB	CM-18

ITS UTILIZATION			
CABLE NO.		A	B
CABLE SIZE		144	144
NEW/ EXISTING		NEW	NEW
TUBE	STRANDS	GROUP	
BLUE	1,2	GROUP 1	GROUP 1
	3,4	GROUP 2	GROUP 2
	5,6	GROUP 3	GROUP 3
	7-12	NOT USED	NOT USED
ORANGE	13-24	NOT USED	NOT USED
GREEN	25-36	NOT USED	NOT USED
BROWN	37-38	HUB TO HUB	HUB TO HUB
	39-40	END TO END BACKHAUL	END TO END BACKHAUL
BROWN	41-48	NOT USED	NOT USED
SLATE	49-60	NOT USED	NOT USED
WHITE	61-72	NOT USED	NOT USED
RED	73-84	NOT USED	NOT USED
BLACK	85-96	NOT USED	NOT USED
YELLOW	97-108	NOT USED	NOT USED
VIOLET	109-120	NOT USED	NOT USED
ROSE	121-132	NOT USED	NOT USED
AQUA	133-144	NOT USED	NOT USED

TOLL UTILIZATION		
CABLE NO.		TOLL A-C
CABLE SIZE		144
NEW/ EXISTING		NEW
TUBE	STRANDS	
BLUE	1, 2	WWD SIGNS
	3-12	NOT USED
ORANGE	13-24	NOT USED
GREEN	25-36	NOT USED
BROWN	37-38	HUB TO HUB
	39-40	END TO END BACKHAUL
BROWN	41-48	NOT USED
SLATE	49-60	TOLL PLAZAS
WHITE	61-72	NOT USED
RED	73-84	NOT USED
BLACK	85-96	NOT USED
YELLOW	97-108	NOT USED
VIOLET	109-120	NOT USED
ROSE	121-132	NOT USED
AQUA	133-144	NOT USED

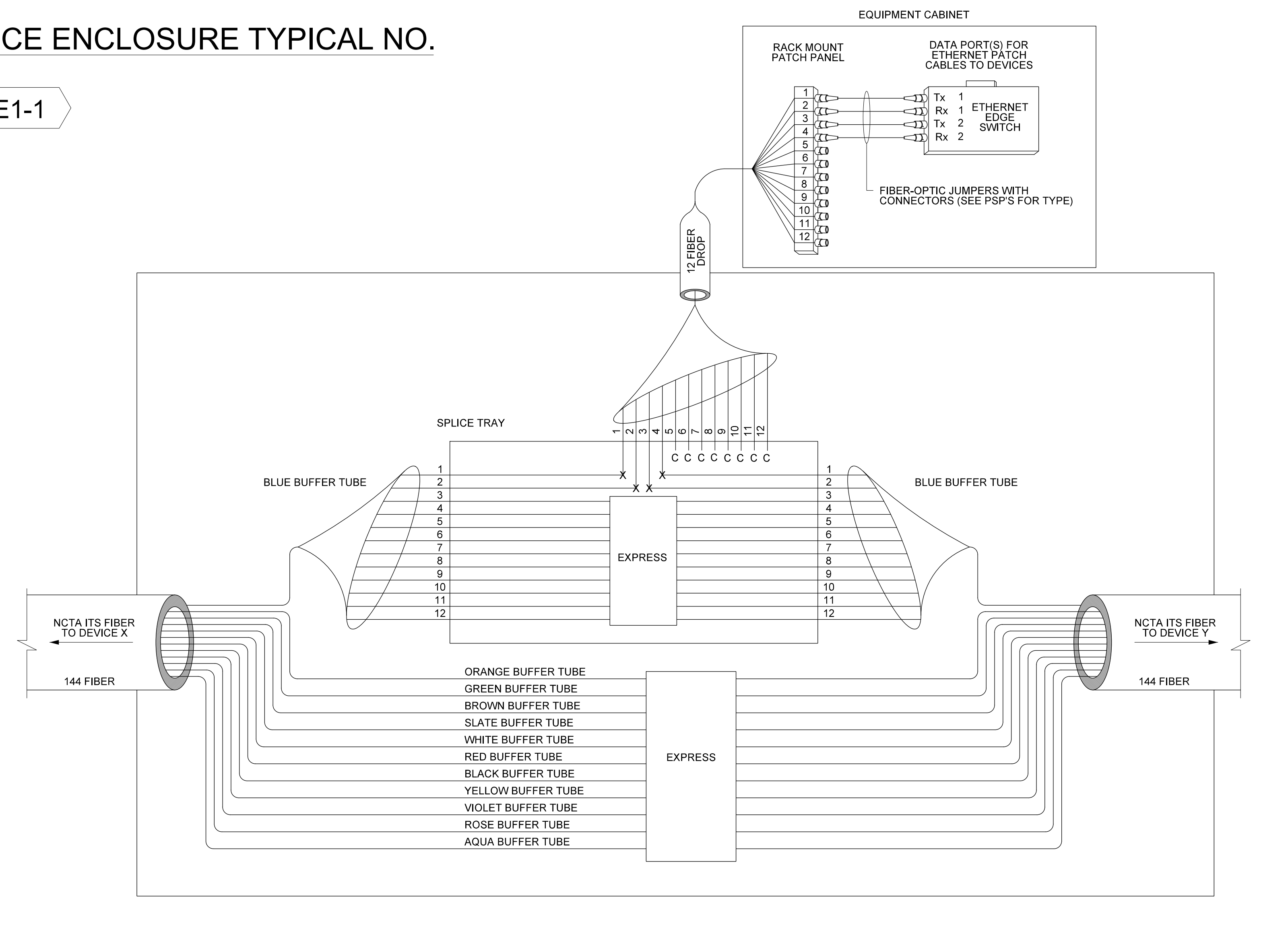
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**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

 	Prepared for the Offices of:		ITS & TOLL SPLICE DIAGRAM INDEX & FIBER UTILIZATION CHARTS	
	DIVISION 5 WAKE COUNTY, HOLLY SPRINGS			
	HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116		PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI	SIGNATURE: _____ DATE: _____ CADD Filename: _____
	SCALE: _____		PREPARED BY: C. BEARD REVIEWED BY: J. WU	
REVISIONS: _____ INIT. DATE _____ SOUNDWALL MODIFICATIONS: _____ C.B. 2022-04-14				

SPLICE ENCLOSURE TYPICAL NO.

SE1-1



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.

LEGEND

COLOR CODE	
TIA/ EIA	598-B

BL	(1)	BLUE
OR	(2)	ORANGE
GR	(3)	GREEN
BR	(4)	BROWN
SL	(5)	SLATE
WH	(6)	WHITE
RD	(7)	RED
BK	(8)	BLACK
YL	(9)	YELLOW
VI	(10)	VIOLET
RS	(11)	ROSE
AQ	(12)	AQUA

X = FUSION SPLICE INDIVIDUAL FIBER
 C = CAP AND SEAL



EXPRESS = EXPRESS ENTIRE BUFFER TUBE/ FIBERS THROUGH WITHOUT CUTTING

BUFFER SPLICE = SPLICE ALL FIBERS IN BUFFER TUBE COLOR TO COLOR

SPLICE ENCLOSURE TYPICAL NO. SE1-1

DEVICE ID	CM SHEET	TO	TO
		X	Y
CCTV-07/ MVD-M03(A & B)	CM-03	HUB-5 CABINET AT PIERCE OLIVE ROAD	CCTV-08/ MVD-M04
CCTV-09/ MVD-R09/ MVD-R10	CM-08A	MVD-R07/ MVD-R08	CCTV-10/ MVD-M05
CCTV-11	CM-12	CCTV-10/ MVD-M05	DMS-03
MVD-M06 (A & B)	CM-14	DMS-03	CCTV-12

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:

FIBER SPLICE DETAILS

DIVISION 5 WAKE COUNTY, HOLLY SPRINGS


PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI

PREPARED BY: C. BEARD REVIEWED BY: J. WU

SCALE: NTS

REVISIONS: SOUNDWALL MODIFICATIONS

INIT. DATE: C.B. 2022-04-14



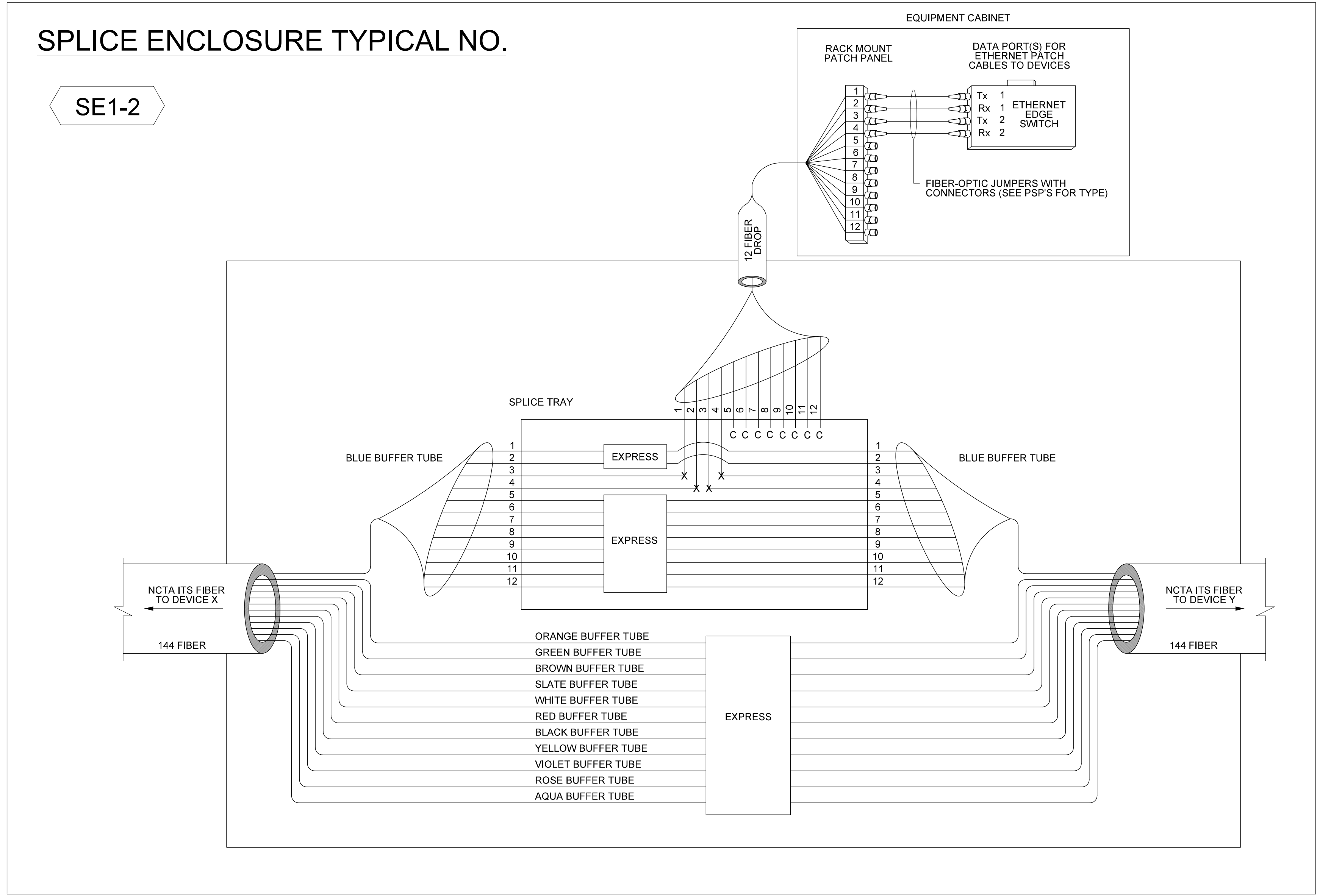
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SPLICE ENCLOSURE TYPICAL NO.

SE1-2



NOTES

1. UNUSED FIBERS LEFT COILED AND STORED IN SPLICE TRAY.
2. UNUSED BUFFER TUBES LEFT COILED AND STORED IN SPLICE ENCLOSURE.
3. EDGE SWITCH CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING/ ENSURING THE PROPER TERMINATIONS.
4. COIL AND STORE FIBER OPTIC DROP CABLE IN JUNCTION BOX FOR FUTURE WWD TO BE INSTALLED BY OTHERS.

LEGEND

COLOR CODE	
TIA/ EIA	598-B
BL	(1) BLUE
OR	(2) ORANGE
GR	(3) GREEN
BR	(4) BROWN
SL	(5) SLATE
WH	(6) WHITE
RD	(7) RED
BK	(8) BLACK
YL	(9) YELLOW
VI	(10) VIOLET
RS	(11) ROSE
AQ	(12) AQUA

- X = FUSION SPLICE INDIVIDUAL FIBER
- C = CAP AND SEAL
- EXPRESS = EXPRESS ENTIRE BUFFER TUBE/ FIBERS THROUGH WITHOUT CUTTING
- BUFFER SPLICE = SPLICE ALL FIBERS IN BUFFER TUBE COLOR TO COLOR

SPLICE ENCLOSURE TYPICAL NO. SE1-2			
DEVICE ID	CM SHEET	TO	TO
		X	Y
CCTV-08/ MVD-M04(A & B)	CM-06	CCTV-07/ MVD-M03	MVD-R07/MVD-R08
MVD-R08/MVD-R07	CM-08A	CCTV-08/ MVD-M04 (A & B)	CCTV-09/ MVD-R09/MVD-R10
CCTV-10/MVD-M05(A & B)	CM-10	CCTV-09/ MVD-R09/MVD-R10	CCTV-11
DMS-03	CM-13	CCTV-11	MVD-M06
CCTV-12	CM-14	MVD-M06	MVD-R11/MVD-R12/MVD-R13
MVD-R11/MVD-R12/MVD-R13	CM-17A	CCTV-12	CCTV-13/ MVD-R14/ MVD-R15/ MVD-R16

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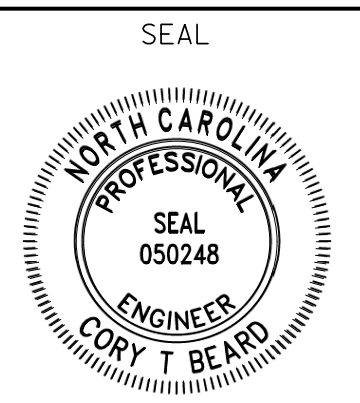
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HDR Engineering, Inc. of the Carolinas
 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
 N.C.B.E.L.S. License Number: F-0116

Prepared for the Offices of:

FIBER SPLICE DETAILS	
DIVISION 5 WAKE COUNTY, HOLLY SPRINGS	
PLAN DATE: DECEMBER 2020	REVIEWED BY: T. MARTI
PREPARED BY: C. BEARD	REVIEWED BY: J. WU
SCALE: NTS	DATE: 2022-04-14

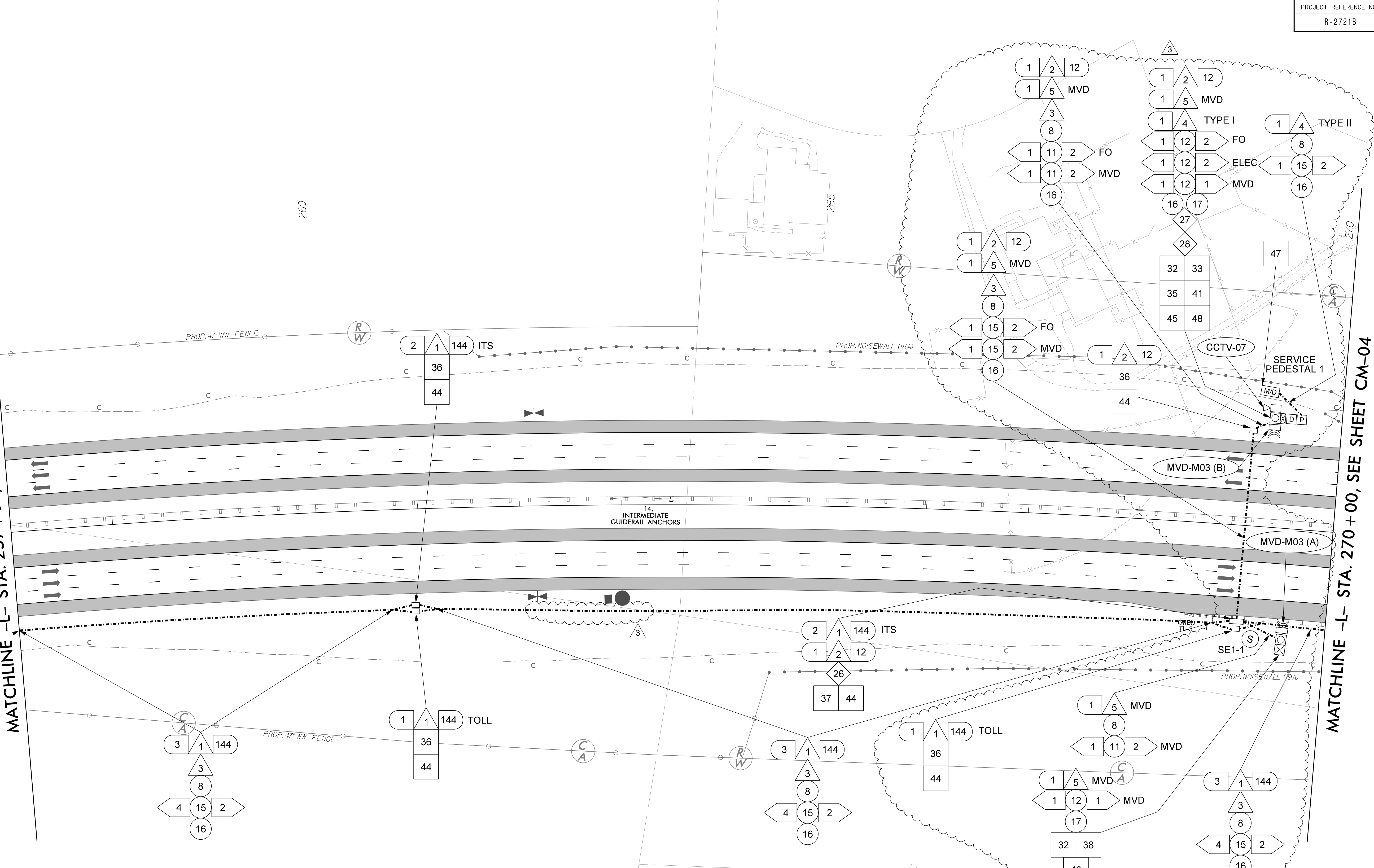
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MATCHLINE -L- STA. 257 + 00, SEE SHEET CM-02

MATCHLINE -L- STA. 270 + 00, SEE SHEET CM-04



1	INSTALL SMFO CABLE	12	INSTALL RIGID, GALVANIZED STEEL CONDUIT	22	NOT USED	32	INSTALL TECHNICIAN PAD	43	STORE 50 FEET OF EACH COMMUNICATIONS CABLE
2	INSTALL FIBER OPTIC DROP CABLE	13	INSTALL FIBERGLASS CONDUIT FOR BRIDGE MOUNT	23	NOT USED	33	INSTALL POLE-MOUNTED CABINET (TYPE 336)	44	STORE 50 FEET OF EACH FIBER OPTIC CABLE
3	INSTALL TRACER WIRE	14	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	24	NOT USED	34	INSTALL BASE-MOUNTED CABINET (TYPE 336)	45	INSTALL ELECTRICAL SERVICE DISCONNECT
4	INSTALL ELECTRICAL SERVICE WIRE (BY TYPE)	15	INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25	NOT USED	35	INSTALL STANDARD SIZED JUNCTION BOX	46	INSTALL UNINTERRUPTIBLE POWER SUPPLY
5	INSTALL MVD CABLE	16	INSTALL CABLE(S) IN NEW CONDUIT	26	INSTALL UNDERGROUND SPLICE ENCLOSURE	36	INSTALL OVERSIZED JUNCTION BOX	47	INSTALL NEW ELECTRICAL SERVICE PEDESTAL (COMBINATION PANEL)
6	INSTALL DMS COMMUNICATION CABLE	17	INSTALL NEW CONDUIT INTO NEW POLE MOUNTED CABINET	27	INSTALL FIBER OPTIC EDGE SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	37	INSTALL SPECIAL OVERSIZED JUNCTION BOX	48	BOND TRACER WIRE EQUIPMENT GROUND BUS
7	NOT USED	18	INSTALL NEW CONDUIT INTO NEW CABINET BASE	28	INSTALL PRETERMINATED PATCH PANEL WITH JUMPERS	38	INSTALL SLAVE MVD CABINET (NEMA 4X)	49	WALL MOUNTED METER AND DISCONNECT
8	TRENCH OR PLOW	19	INSTALL CABLE(S) IN NEW RISER	29	INSTALL LAYER 3 FIBER OPTIC HUB SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	39	INSTALL WWD TYPE III PEDESTAL AND FOUNDATION	50	INSTALL HUB/ SPLICE CABINET AND FOUR INTERCONNECT CENTERS
9	DIRECTIONAL DRILL CONDUIT	20	NOT USED	30	PULL AND TERMINATE ALL FIBERS AND INSTALL JUMPERS IN HUB/ SPLICE CABINET	40	INSTALL MVD POLE AND FOUNDATION	51	INSTALL TRANSFORMER/DISCONNECT TYPE II PEDESTAL AND FOUNDATION
10	INSTALL CABLES IN EXISTING CONDUIT	21	NOT USED	31	INSTALL CABINET FOUNDATION	41	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION WITH LOWERING DEVICE. SEE DEVICE TABLE FOR REQUIRED POLE HEIGHT	52	INSTALL STEP DOWN TRANSFORMER
11	INSTALL PVC CONDUIT					42	INSTALL FRONT ACCESS DMS		

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

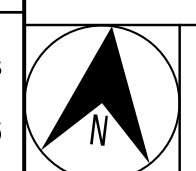
COMMUNICATION CABLE & CONDUIT ROUTING PLANS


DIVISION 5 WAKE COUNTY, HOLLY SPRINGS

PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI

PREPARED BY: C. BEARD REVIEWED BY: J. WU

SCALE 0 50





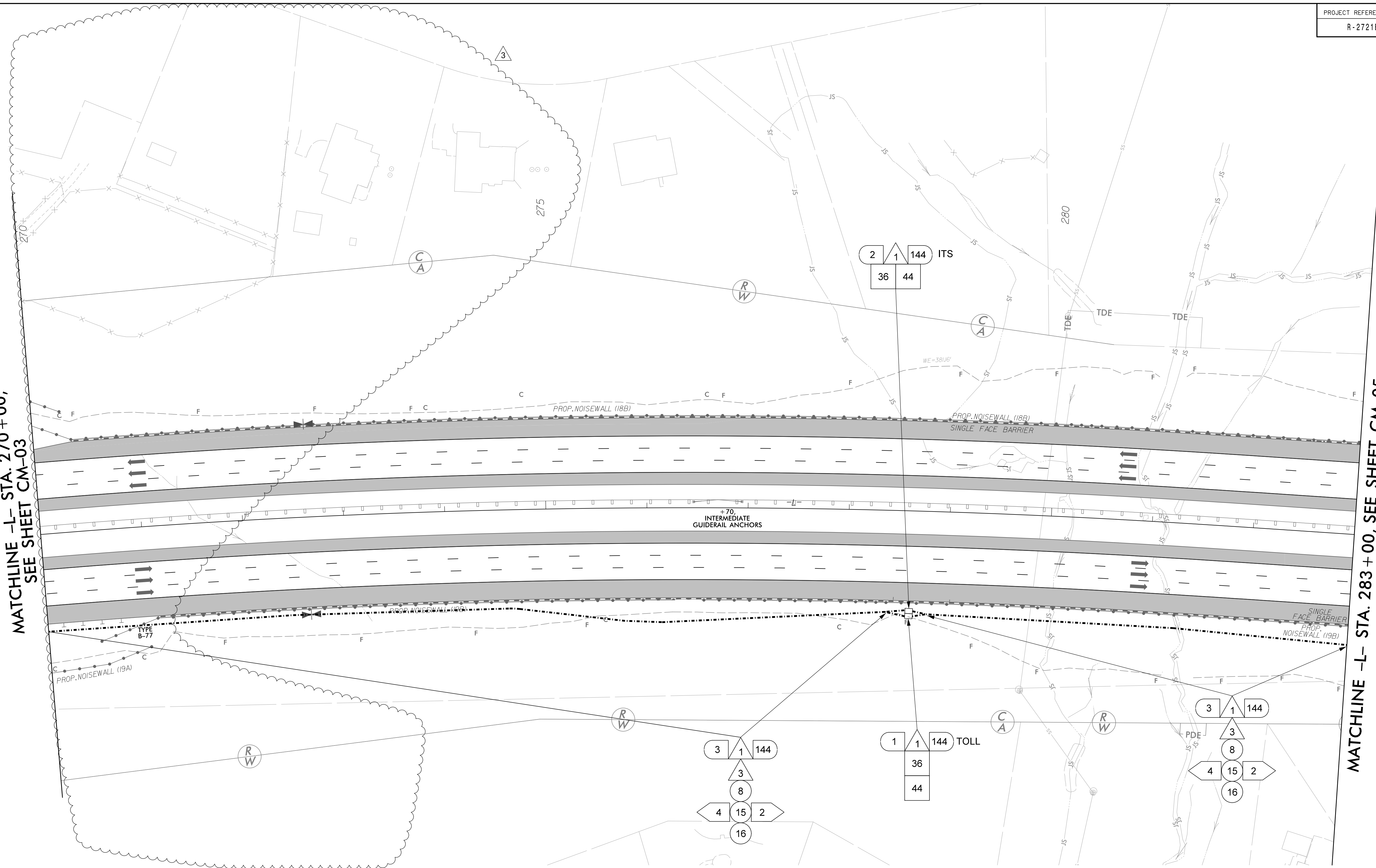
HDR Engineering, Inc. of the Carolinas
 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
 N.C.B.E.L.S. License Number: F-0116

SIGNATURE DATE
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MATCHLINE -L- STA. 270 + 00,
SEE SHEET CM-03

MATCHLINE -L- STA. 283 + 00, SEE SHEET CM-05



1	INSTALL SMFO CABLE	12	INSTALL RIGID, GALVANIZED STEEL CONDUIT	22	NOT USED	32	INSTALL TECHNICIAN PAD	43	STORE 50 FEET OF EACH COMMUNICATIONS CABLE
2	INSTALL FIBER OPTIC DROP CABLE	13	INSTALL FIBERGLASS CONDUIT FOR BRIDGE MOUNT	23	NOT USED	33	INSTALL POLE-MOUNTED CABINET (TYPE 336)	44	STORE 50 FEET OF EACH FIBER OPTIC CABLE
3	INSTALL TRACER WIRE	14	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	24	NOT USED	34	INSTALL BASE-MOUNTED CABINET (TYPE 336)	45	INSTALL ELECTRICAL SERVICE DISCONNECT
4	INSTALL ELECTRICAL SERVICE WIRE (BY TYPE)	15	INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25	NOT USED	35	INSTALL STANDARD SIZED JUNCTION BOX	46	INSTALL UNINTERRUPTIBLE POWER SUPPLY
5	INSTALL MVD CABLE	16	INSTALL CABLE(S) IN NEW CONDUIT	26	INSTALL UNDERGROUND SPLICE ENCLOSURE	36	INSTALL OVERSIZED JUNCTION BOX	47	INSTALL NEW ELECTRICAL SERVICE PEDESTAL (COMBINATION PANEL)
6	INSTALL DMS COMMUNICATION CABLE	17	INSTALL NEW CONDUIT INTO NEW POLE MOUNTED CABINET	27	INSTALL FIBER OPTIC EDGE SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	37	INSTALL SPECIAL OVERSIZED JUNCTION BOX	48	BOND TRACER WIRE EQUIPMENT GROUND BUS
7	NOT USED	18	INSTALL NEW CONDUIT INTO NEW CABINET BASE	28	INSTALL PRETERMINATED PATCH PANEL WITH JUMPERS	38	INSTALL SLAVE MVD CABINET (NEMA 4X)	49	WALL MOUNTED METER AND DISCONNECT
8	TRENCH OR PLOW	19	INSTALL CABLE(S) IN NEW RISER	29	INSTALL LAYER 3 FIBER OPTIC HUB SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	39	INSTALL WWD TYPE III PEDESTAL AND FOUNDATION	50	INSTALL HUB/ SPLICE CABINET AND FOUR INTERCONNECT CENTERS
9	DIRECTIONAL DRILL CONDUIT	20	NOT USED	30	PULL AND TERMINATE ALL FIBERS AND INSTALL JUMPERS IN HUB/ SPLICE CABINET	40	INSTALL MVD POLE AND FOUNDATION	51	INSTALL TRANSFORMER/ DISCONNECT TYPE II PEDESTAL AND FOUNDATION
10	INSTALL CABLES IN EXISTING CONDUIT	21	NOT USED	31	INSTALL CABINET FOUNDATION	41	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION WITH LOWERING DEVICE. SEE DEVICE TABLE FOR REQUIRED POLE HEIGHT	52	INSTALL STEP DOWN TRANSFORMER
11	INSTALL PVC CONDUIT					42	INSTALL FRONT ACCESS DMS		

Prepared for the Offices of:

HDR Engineering, Inc. of the Carolinas
 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
 N.C.B.E.L.S. License Number: F-0116

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COMMUNICATION CABLE & CONDUIT ROUTING PLANS

DIVISION 5 WAKE COUNTY, HOLLY SPRINGS

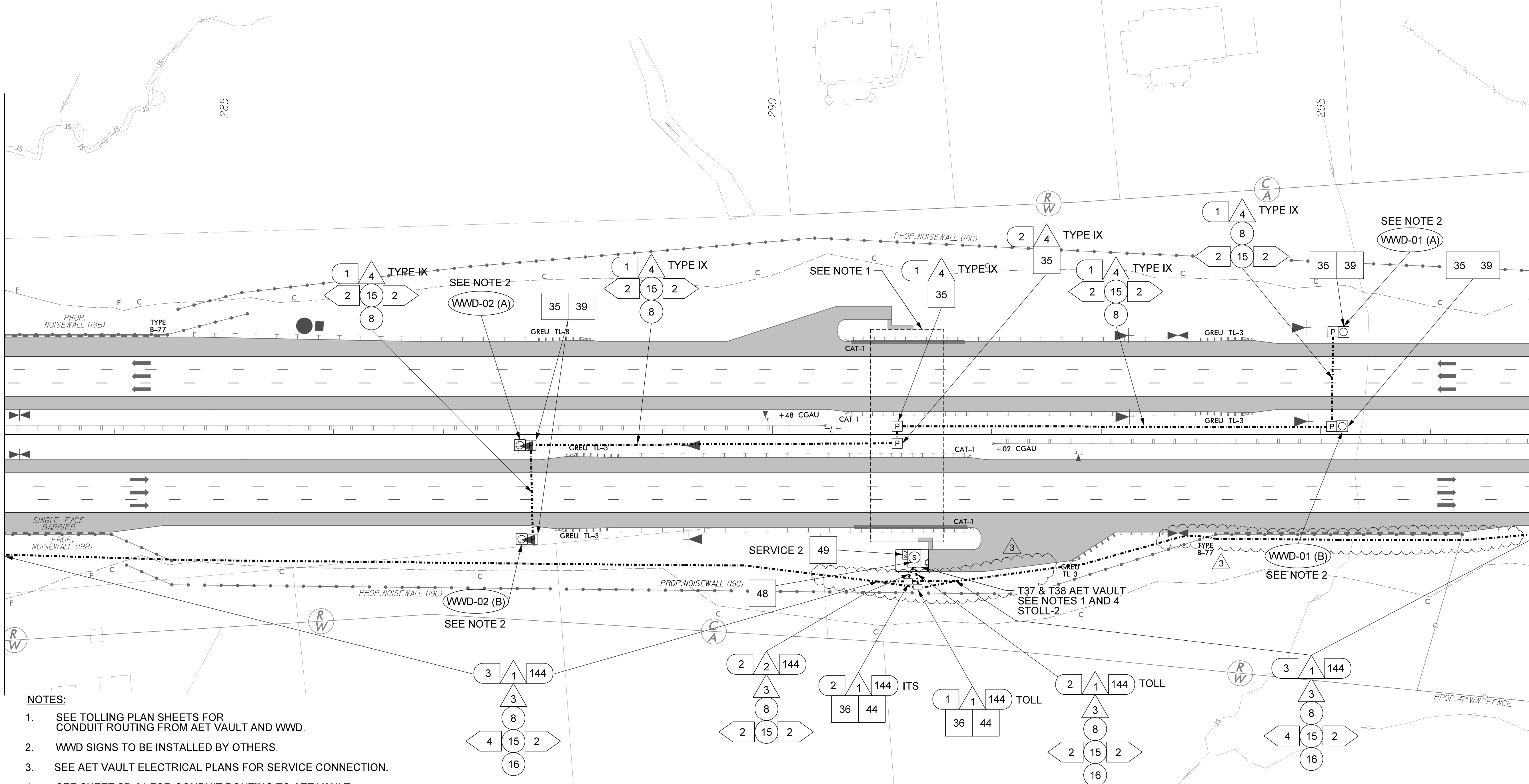
PLAN DATE: DECEMBER 2020	REVIEWED BY: T. MARTI
PREPARED BY: C. BEARD	REVIEWED BY: J. WU

REVISIONS	INIT.	DATE
△ SOUNDWALL MODIFICATIONS	C.B.	2022-04-14

SIGNATURE _____ DATE _____
 CADD File name: _____

MATCHLINE -L- STA. 283 + 00, SEE SHEET CM-04

MATCHLINE -L- STA. 297 + 00, SEE SHEET CM-06



- NOTES:**
1. SEE TOLLING PLAN SHEETS FOR CONDUIT ROUTING FROM AET VAULT AND WWD.
 2. WWD SIGNS TO BE INSTALLED BY OTHERS.
 3. SEE AET VAULT ELECTRICAL PLANS FOR SERVICE CONNECTION.
 4. SEE SHEET SD-01 FOR CONDUIT ROUTING TO AET VAULT.

1. INSTALL SMFO CABLE	12. INSTALL RIGID, GALVANIZED STEEL CONDUIT	22. NOT USED	32. INSTALL TECHNICIAN PAD	43. STORE 50 FEET OF EACH COMMUNICATIONS CABLE
2. INSTALL FIBER OPTIC DROP CABLE	13. INSTALL FIBERGLASS CONDUIT FOR BRIDGE MOUNT	23. NOT USED	33. INSTALL POLE-MOUNTED CABINET (TYPE 336)	44. STORE 50 FEET OF EACH FIBER OPTIC CABLE
3. INSTALL TRACER WIRE	14. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	24. NOT USED	34. INSTALL BASE-MOUNTED CABINET (TYPE 336)	45. INSTALL ELECTRICAL SERVICE DISCONNECT
4. INSTALL ELECTRICAL SERVICE WIRE (BY TYPE)	15. INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25. NOT USED	35. INSTALL STANDARD SIZED JUNCTION BOX	46. INSTALL UNINTERRUPTIBLE POWER SUPPLY
5. INSTALL MVD CABLE	16. INSTALL CABLE(S) IN NEW CONDUIT	26. INSTALL UNDERGROUND SPLICE ENCLOSURE	36. INSTALL OVERSIZED JUNCTION BOX	47. INSTALL NEW ELECTRICAL SERVICE PEDESTAL (COMBINATION PANEL)
6. INSTALL DMS COMMUNICATION CABLE	17. INSTALL NEW CONDUIT INTO NEW POLE MOUNTED CABINET	27. INSTALL FIBER OPTIC EDGE SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	37. INSTALL SPECIAL OVERSIZED JUNCTION BOX	48. BOND TRACER WIRE EQUIPMENT GROUND BUS
7. NOT USED	18. INSTALL NEW CONDUIT INTO NEW CABINET BASE	28. INSTALL PRETERMINATED PATCH PANEL WITH JUMPERS	38. INSTALL SLAVE MVD CABINET (NEMA 4X)	49. WALL MOUNTED METER AND DISCONNECT
8. TRENCH OR PLOW	19. INSTALL CABLE(S) IN NEW RISER	29. INSTALL LAYER 3 FIBER OPTIC HUB SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	39. INSTALL WWD TYPE III PEDESTAL AND FOUNDATION	50. INSTALL HUB/ SPLICE CABINET AND FOUR INTERCONNECT CENTERS
9. DIRECTIONAL DRILL CONDUIT	20. NOT USED	30. PULL AND TERMINATE ALL FIBERS AND INSTALL JUMPERS IN HUB/ SPLICE CABINET	40. INSTALL MVD POLE AND FOUNDATION	51. INSTALL TRANSFORMER/DISCONNECT TYPE II PEDESTAL AND FOUNDATION
10. INSTALL CABLES IN EXISTING CONDUIT	21. NOT USED	31. INSTALL CABINET FOUNDATION	41. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION WITH LOWERING DEVICE. SEE DEVICE TABLE FOR REQUIRED POLE HEIGHT	52. INSTALL STEP DOWN TRANSFORMER
11. INSTALL PVC CONDUIT			42. INSTALL FRONT ACCESS DMS	

Prepared for the Offices of:

HDR HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

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COMMUNICATION CABLE & CONDUIT ROUTING PLANS

DIVISION 5 WAKE COUNTY, HOLLY SPRINGS

PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI

PREPARED BY: C. BEARD REVIEWED BY: J. WU

REVISIONS: SOUNDWALL MODIFICATIONS

SCALE: 0 50

INIT. DATE: C.B. 2022-04-14

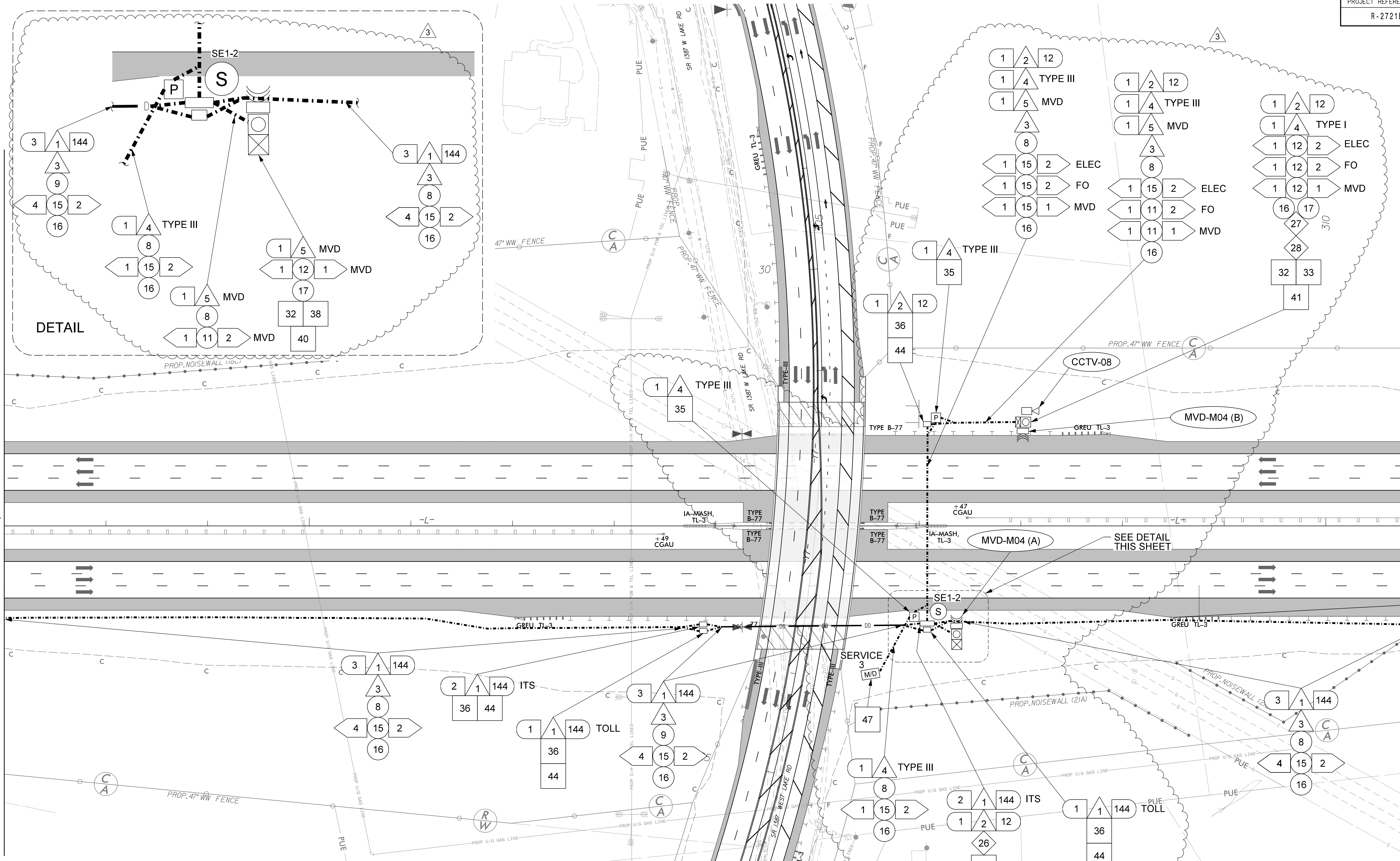
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MATCHLINE -L- STA. 297 + 00, SEE SHEET CM-05

MATCHLINE -L- STA. 311 + 00, SEE SHEET CM-07



1	INSTALL SMFO CABLE	12	INSTALL RIGID, GALVANIZED STEEL CONDUIT	22	NOT USED	32	INSTALL TECHNICIAN PAD	43	STORE 50 FEET OF EACH COMMUNICATIONS CABLE
2	INSTALL FIBER OPTIC DROP CABLE	13	INSTALL FIBERGLASS CONDUIT FOR BRIDGE MOUNT	23	NOT USED	33	INSTALL POLE-MOUNTED CABINET (TYPE 336)	44	STORE 50 FEET OF EACH FIBER OPTIC CABLE
3	INSTALL TRACER WIRE	14	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	24	NOT USED	34	INSTALL BASE-MOUNTED CABINET (TYPE 336)	45	INSTALL ELECTRICAL SERVICE DISCONNECT
4	INSTALL ELECTRICAL SERVICE WIRE (BY TYPE)	15	INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25	NOT USED	35	INSTALL STANDARD SIZED JUNCTION BOX	46	INSTALL UNINTERRUPTIBLE POWER SUPPLY
5	INSTALL MVD CABLE	16	INSTALL CABLE(S) IN NEW CONDUIT	26	INSTALL UNDERGROUND SPLICE ENCLOSURE	36	INSTALL OVERSIZED JUNCTION BOX	47	INSTALL NEW ELECTRICAL SERVICE PEDESTAL (COMBINATION PANEL)
6	INSTALL DMS COMMUNICATION CABLE	17	INSTALL NEW CONDUIT INTO NEW POLE MOUNTED CABINET	27	INSTALL FIBER OPTIC EDGE SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	37	INSTALL SPECIAL OVERSIZED JUNCTION BOX	48	BOND TRACER WIRE EQUIPMENT GROUND BUS
7	NOT USED	18	INSTALL NEW CONDUIT INTO NEW CABINET BASE	28	INSTALL PRETERMINATED PATCH PANEL WITH JUMPERS	38	INSTALL SLAVE MVD CABINET (NEMA 4X)	49	WALL MOUNTED METER AND DISCONNECT
8	TRENCH OR PLOW	19	INSTALL CABLE(S) IN NEW RISER	29	INSTALL LAYER 3 FIBER OPTIC HUB SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	39	INSTALL WWD TYPE III PEDESTAL AND FOUNDATION	50	INSTALL HUB/ SPLICE CABINET AND FOUR INTERCONNECT CENTERS
9	DIRECTIONAL DRILL CONDUIT	20	NOT USED	30	PULL AND TERMINATE ALL FIBERS AND INSTALL JUMPERS IN HUB/ SPLICE CABINET	40	INSTALL MVD POLE AND FOUNDATION	51	INSTALL TRANSFORMER/DISCONNECT TYPE II PEDESTAL AND FOUNDATION
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11	INSTALL PVC CONDUIT					42	INSTALL FRONT ACCESS DMS		

Prepared for the Offices of:

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555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

COMMUNICATION CABLE & CONDUIT ROUTING PLANS

DIVISION 5 WAKE COUNTY, HOLLY SPRINGS

PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI

PREPARED BY: C. BEARD REVIEWED BY: J. WU

SCALE: 0 50

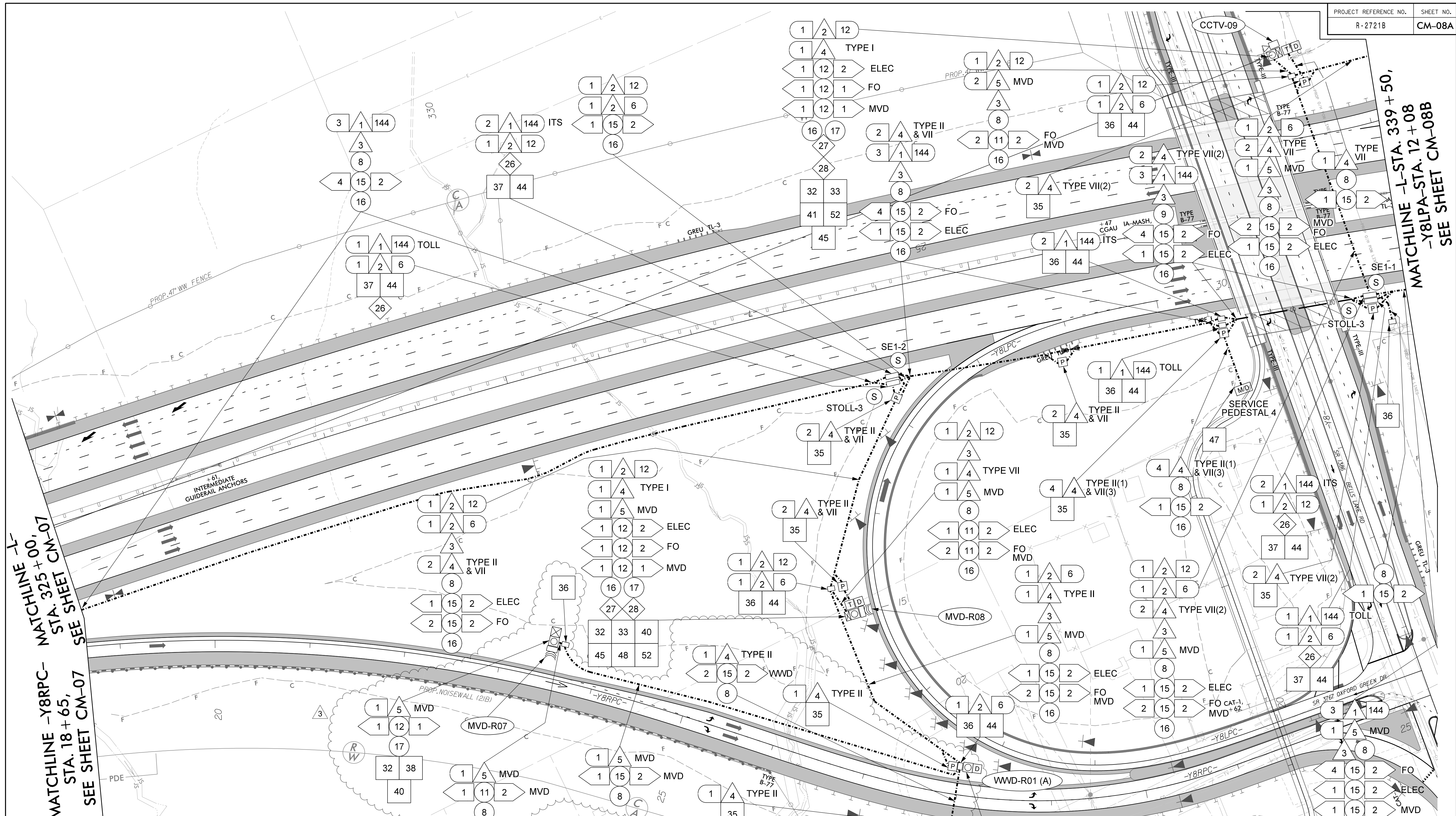
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COPY T BEARD

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1	INSTALL SMFO CABLE	12	INSTALL RIGID, GALVANIZED STEEL CONDUIT	22	NOT USED	32	INSTALL TECHNICIAN PAD	43	STORE 50 FEET OF EACH COMMUNICATIONS CABLE
2	INSTALL FIBER OPTIC DROP CABLE	13	INSTALL FIBERGLASS CONDUIT FOR BRIDGE MOUNT	23	NOT USED	33	INSTALL POLE-MOUNTED CABINET (TYPE 336)	44	STORE 50 FEET OF EACH FIBER OPTIC CABLE
3	INSTALL TRACER WIRE	14	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	24	NOT USED	34	INSTALL BASE-MOUNTED CABINET (TYPE 336)	45	INSTALL ELECTRICAL SERVICE DISCONNECT
4	INSTALL ELECTRICAL SERVICE WIRE (BY TYPE)	15	INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25	NOT USED	35	INSTALL STANDARD SIZED JUNCTION BOX	46	INSTALL UNINTERRUPTIBLE POWER SUPPLY
5	INSTALL MVD CABLE	16	INSTALL CABLE(S) IN NEW CONDUIT	26	INSTALL UNDERGROUND SPLICE ENCLOSURE	36	INSTALL OVERSIZED JUNCTION BOX	47	INSTALL NEW ELECTRICAL SERVICE PEDESTAL (COMBINATION PANEL)
6	INSTALL DMS COMMUNICATION CABLE	17	INSTALL NEW CONDUIT INTO NEW POLE MOUNTED CABINET	27	INSTALL FIBER OPTIC EDGE SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	37	INSTALL SPECIAL OVERSIZED JUNCTION BOX	48	BOND TRACER WIRE EQUIPMENT GROUND BUS
7	NOT USED	18	INSTALL NEW CONDUIT INTO NEW CABINET BASE	28	INSTALL PRETERMINATED PATCH PANEL WITH JUMPERS	38	INSTALL SLAVE MVD CABINET (NEMA 4X)	49	WALL MOUNTED METER AND DISCONNECT
8	TRENCH OR PLOW	19	INSTALL CABLE(S) IN NEW RISER	29	INSTALL LAYER 3 FIBER OPTIC HUB SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	39	INSTALL WWD TYPE III PEDESTAL AND FOUNDATION	50	INSTALL HUB/ SPLICE CABINET AND FOUR INTERCONNECT CENTERS
9	DIRECTIONAL DRILL CONDUIT	20	NOT USED	30	PULL AND TERMINATE ALL FIBERS AND INSTALL JUMPERS IN HUB/ SPLICE CABINET	40	INSTALL MVD POLE AND FOUNDATION	51	INSTALL TRANSFORMER/ DISCONNECT TYPE II PEDESTAL AND FOUNDATION
10	INSTALL CABLES IN EXISTING CONDUIT	21	NOT USED	31	INSTALL CABINET FOUNDATION	41	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION WITH LOWERING DEVICE. SEE DEVICE TABLE FOR REQUIRED POLE HEIGHT	52	INSTALL STEP DOWN TRANSFORMER
11	INSTALL PVC CONDUIT					42	INSTALL FRONT ACCESS DMS		

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:

HDR Engineering, Inc. of the Carolinas
 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
 N.C.B.E.L.S. License Number: F-0116

COMMUNICATION CABLE & CONDUIT ROUTING PLANS

DIVISION 5 WAKE COUNTY, HOLLY SPRINGS

PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI

PREPARED BY: C. BEARD REVIEWED BY: J. WU

SCALE 0 50

SEAL

COPY T BEARD

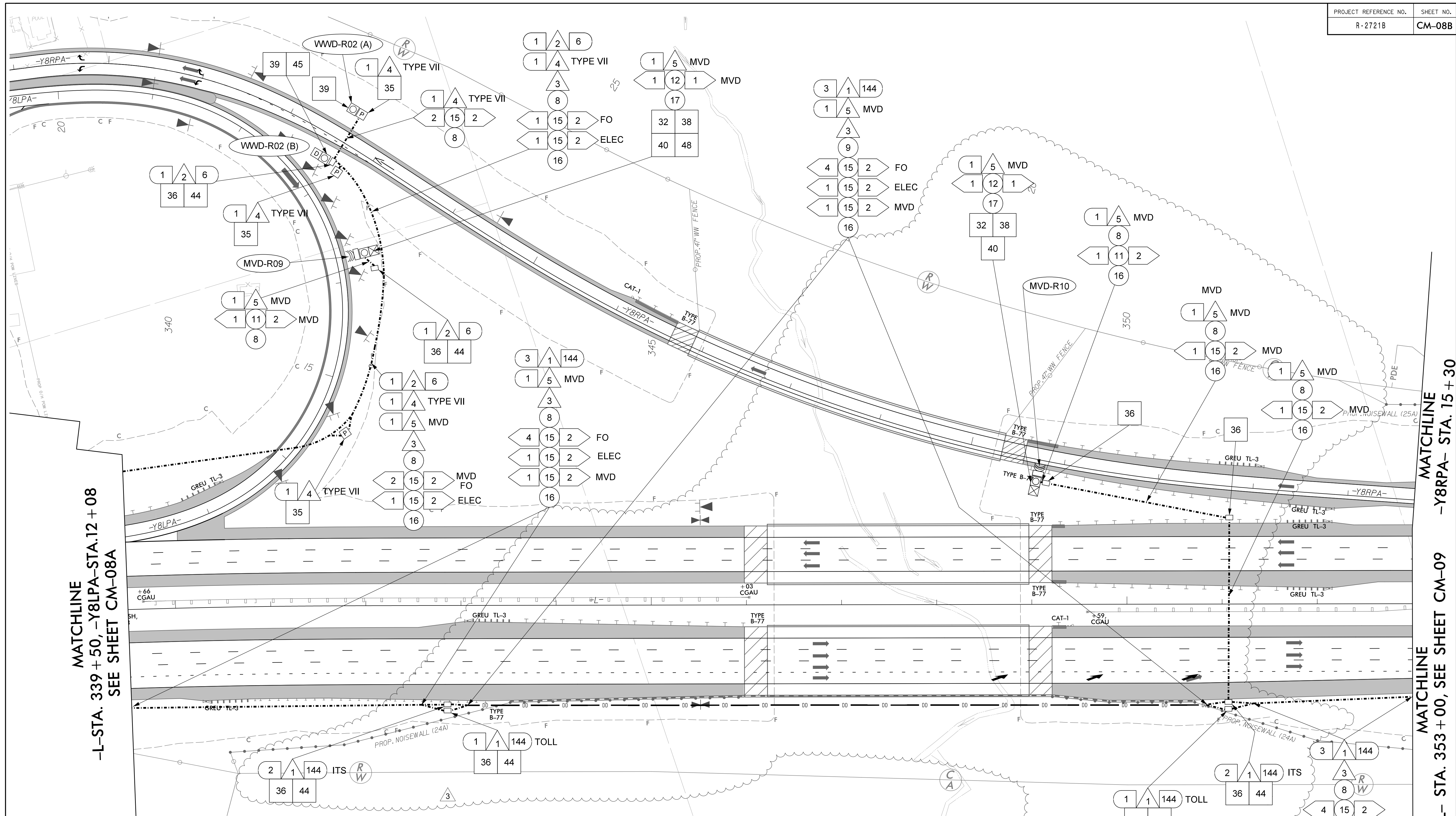
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NCOT FUTURE INTERCONNECT INFRASTRUCTURE	C-B	2020-12-23
SOUNDWALL MODIFICATIONS	C-B	2022-04-14

SIGNATURE DATE
CADD File name:

MATCHLINE -Y8RPC- MATCHLINE -L- STA. 325+00, STA. 18+65, SEE SHEET CM-07

MATCHLINE -L- STA. 339+50, -Y8LPA-STA. 12+08 SEE SHEET CM-08B

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- | | | | | |
|---|---|---|--|---|
| 1 INSTALL SMFO CABLE | 12 INSTALL RIGID, GALVANIZED STEEL CONDUIT | 22 NOT USED | 32 INSTALL TECHNICIAN PAD | 43 STORE 50 FEET OF EACH COMMUNICATIONS CABLE |
| 2 INSTALL FIBER OPTIC DROP CABLE | 13 INSTALL FIBERGLASS CONDUIT FOR BRIDGE MOUNT | 23 NOT USED | 33 INSTALL POLE-MOUNTED CABINET (TYPE 336) | 44 STORE 50 FEET OF EACH FIBER OPTIC CABLE |
| 3 INSTALL TRACER WIRE | 14 INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD | 24 NOT USED | 34 INSTALL BASE-MOUNTED CABINET (TYPE 336) | 45 INSTALL ELECTRICAL SERVICE DISCONNECT |
| 4 INSTALL ELECTRICAL SERVICE WIRE (BY TYPE) | 15 INSTALL HIGH DENSITY POLYETHYLENE CONDUIT | 25 NOT USED | 35 INSTALL STANDARD SIZED JUNCTION BOX | 46 INSTALL UNINTERRUPTIBLE POWER SUPPLY |
| 5 INSTALL MVD CABLE | 16 INSTALL CABLE(S) IN NEW CONDUIT | 26 INSTALL UNDERGROUND SPLICE ENCLOSURE | 36 INSTALL OVERSIZED JUNCTION BOX | 47 INSTALL NEW ELECTRICAL SERVICE PEDESTAL (COMBINATION PANEL) |
| 6 INSTALL DMS COMMUNICATION CABLE | 17 INSTALL NEW CONDUIT INTO NEW POLE MOUNTED CABINET | 27 INSTALL FIBER OPTIC EDGE SWITCH WITH JUMPERS (PROVIDED BY OTHERS) | 37 INSTALL SPECIAL OVERSIZED JUNCTION BOX | 48 BOND TRACER WIRE EQUIPMENT GROUND BUS |
| 7 NOT USED | 18 INSTALL NEW CONDUIT INTO NEW CABINET BASE | 28 INSTALL PRETERMINATED PATCH PANEL WITH JUMPERS | 38 INSTALL SLAVE MVD CABINET (NEMA 4X) | 49 WALL MOUNTED METER AND DISCONNECT |
| 8 TRENCH OR PLOW | 19 INSTALL CABLE(S) IN NEW RISER | 29 INSTALL LAYER 3 FIBER OPTIC HUB SWITCH WITH JUMPERS (PROVIDED BY OTHERS) | 39 INSTALL WWD TYPE III PEDESTAL AND FOUNDATION | 50 INSTALL HUB/ SPLICE CABINET AND FOUR INTERCONNECT CENTERS |
| 9 DIRECTIONAL DRILL CONDUIT | 20 NOT USED | 30 PULL AND TERMINATE ALL FIBERS AND INSTALL JUMPERS IN HUB/ SPLICE CABINET | 40 INSTALL WWD TYPE III PEDESTAL AND FOUNDATION | 51 INSTALL TRANSFORMER/DISCONNECT TYPE II PEDESTAL AND FOUNDATION |
| 10 INSTALL CABLES IN EXISTING CONDUIT | 21 NOT USED | 31 INSTALL CABINET FOUNDATION | 41 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION WITH LOWERING DEVICE. SEE DEVICE TABLE FOR REQUIRED POLE HEIGHT | 52 INSTALL STEP DOWN TRANSFORMER |
| 11 INSTALL PVC CONDUIT | | | 42 INSTALL FRONT ACCESS DMS | |

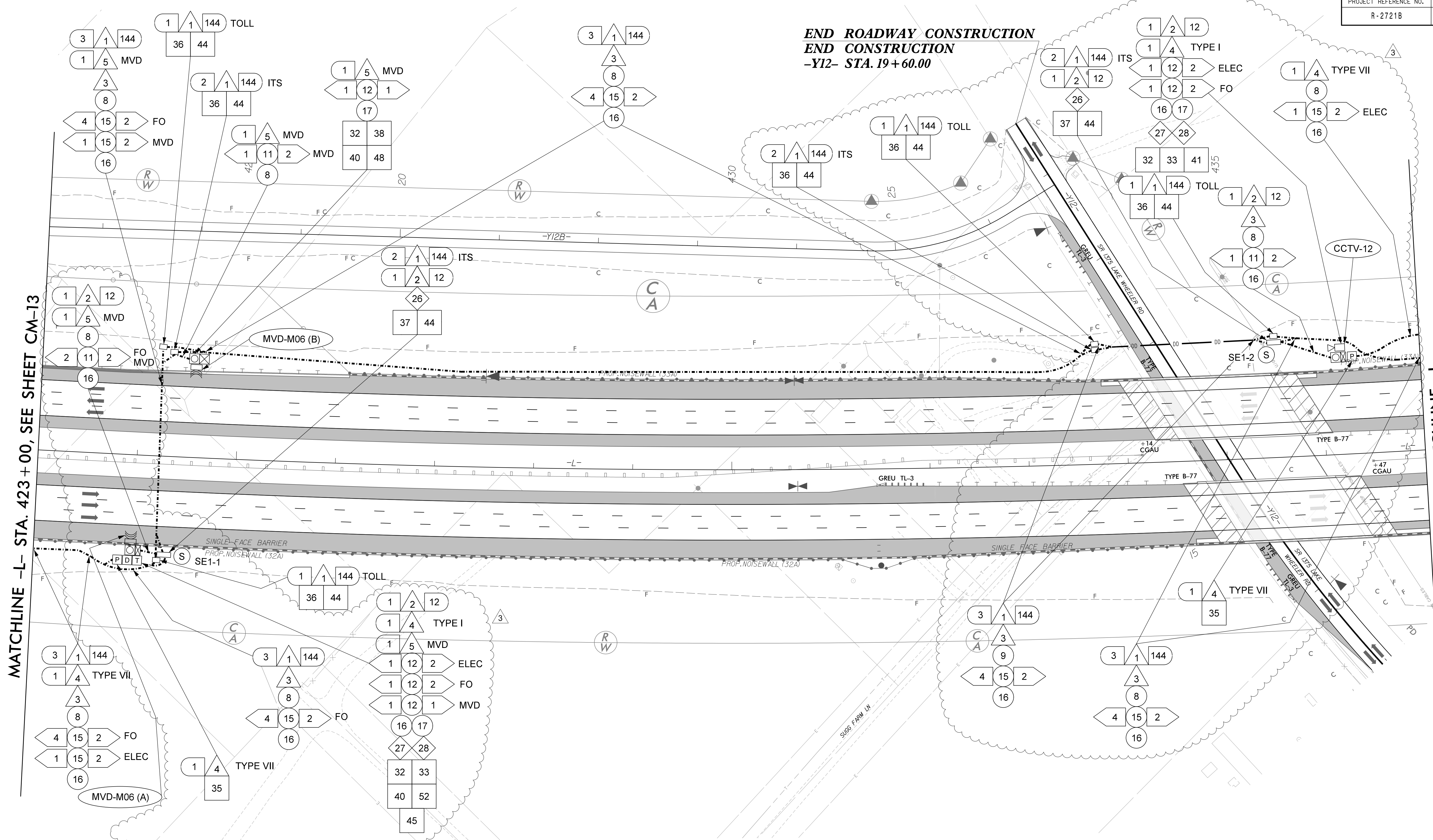
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	Prepared for the Offices of: COMMUNICATION CABLE & CONDUIT ROUTING PLANS		SEAL
	DIVISION 5 PLAN DATE: DECEMBER 2020 PREPARED BY: C. BEARD	WAKE COUNTY, HOLLY SPRINGS REVIEWED BY: T. MARTI REVIEWED BY: J. WU	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	SCALE 0 50	SIGNATURE DATE CADD File name:	

MATCHLINE -L- STA. 423+00, SEE SHEET CM-13

MATCHLINE -L- STA. 437+00, SEE SHEET CM-15

END ROADWAY CONSTRUCTION
END CONSTRUCTION
-Y12- STA. 19+60.00



1	INSTALL SMFO CABLE	12	INSTALL RIGID, GALVANIZED STEEL CONDUIT	22	NOT USED	32	INSTALL TECHNICIAN PAD	43	STORE 50 FEET OF EACH COMMUNICATIONS CABLE
2	INSTALL FIBER OPTIC DROP CABLE	13	INSTALL FIBERGLASS CONDUIT FOR BRIDGE MOUNT	23	NOT USED	33	INSTALL POLE-MOUNTED CABINET (TYPE 336)	44	STORE 50 FEET OF EACH FIBER OPTIC CABLE
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8	TRENCH OR PLOW	19	INSTALL CABLE(S) IN NEW RISER	29	INSTALL LAYER 3 FIBER OPTIC HUB SWITCH WITH JUMPERS (PROVIDED BY OTHERS)	39	INSTALL WWD TYPE III PEDESTAL AND FOUNDATION	50	INSTALL HUB/ SPLICE CABINET AND FOUR INTERCONNECT CENTERS
9	DIRECTIONAL DRILL CONDUIT	20	NOT USED	30	PULL AND TERMINATE ALL FIBERS AND INSTALL JUMPERS IN HUB/ SPLICE CABINET	40	INSTALL MVD POLE AND FOUNDATION	51	INSTALL TRANSFORMER/DISCONNECT TYPE II PEDESTAL AND FOUNDATION
10	INSTALL CABLES IN EXISTING CONDUIT	21	NOT USED	31	INSTALL CABINET FOUNDATION	41	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION WITH LOWERING DEVICE, SEE DEVICE TABLE FOR REQUIRED POLE HEIGHT	52	INSTALL STEP DOWN TRANSFORMER
11	INSTALL PVC CONDUIT					42	INSTALL FRONT ACCESS DMS		

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COMMUNICATION CABLE & CONDUIT ROUTING PLANS

DIVISION 5 WAKE COUNTY, HOLLY SPRINGS

PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI

PREPARED BY: C. BEARD REVIEWED BY: J. WU

REVISIONS: SOUNDWALL MODIFICATIONS

INIT. DATE: C.B. 2022-04-14

SIGNATURE: DATE: COPY T BEARD

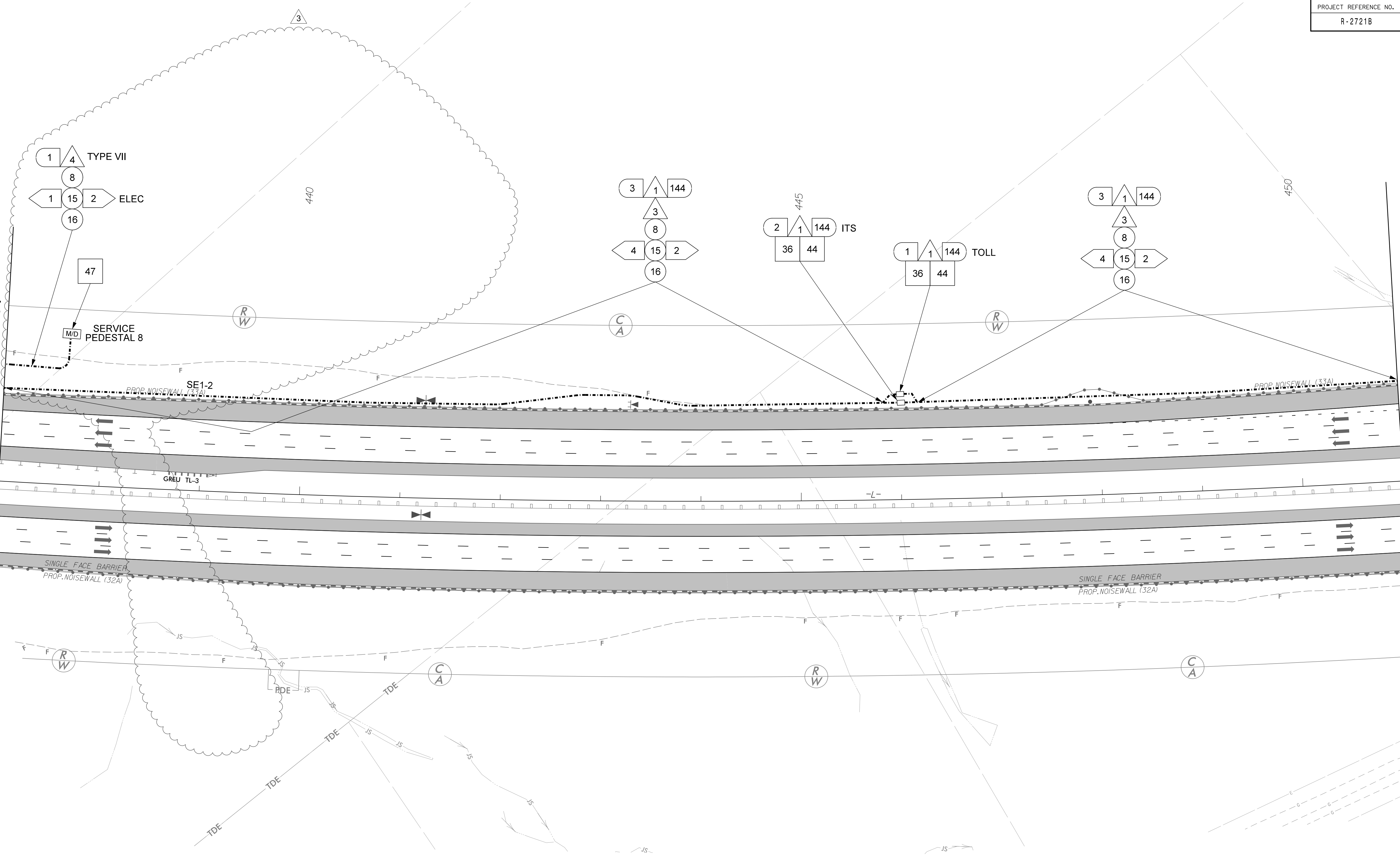
SCALE 0 50

HDR HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

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MATCHLINE -L- STA. 437+00, SEE SHEET CM-14

MATCHLINE -L- STA. 451+00, SEE SHEET CM-16



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COMMUNICATION CABLE & CONDUIT ROUTING PLANS

DIVISION 5 WAKE COUNTY, HOLLY SPRINGS

PLAN DATE: DECEMBER 2020 REVIEWED BY: T. MARTI


PREPARED BY: C. BEARD REVIEWED BY: J. WU





HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

SCALE 0 50



REVISIONS	INIT.	DATE
△ SOUNDWALL MODIFICATIONS	C.B.	2022-04-14

SIGNATURE DATE

CADD File name:

PLOT DRIVER: ITS_pdh.dwt; DATE: 4/14/2022; TIME: 9:39:20 AM; FILE: p:\dwg\hdr\usecases\01\HDR_US_East_01\Documents\7147\10168004\6.0_CAD_BIM\6.2_WIP\R-2721B\Trcf\fig\Electronic Tolling and ITS\CADD\Sheets\Revision 3\R2721B_TMS_PSH15_HDR_R3.dgn