

NORTH CAROLINA TURNPIKE AUTHORITY

Complete 540

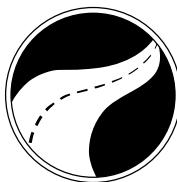
ITS and AET Concept Plans

Sheet Index

C-1 thru C-7 ITS & AET Concept Plan Sheets

Abbreviations

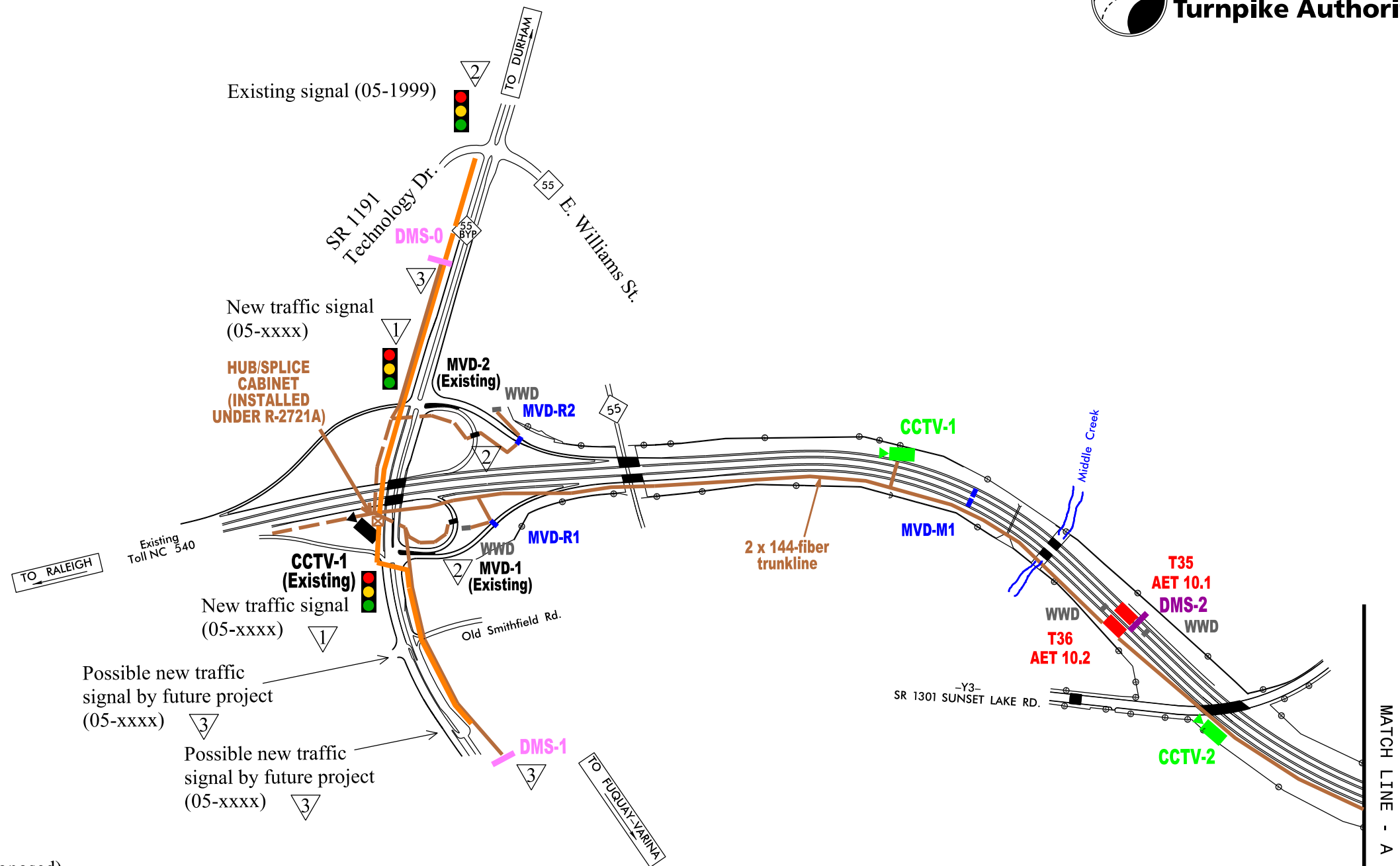
- AET - All-Electronic Tolling
- CCTV - Closed-Circuit Television
- C/L - Centerline
- DMS - Dynamic Message Sign
- EOP - Edge of Pavement
- EQ - Equal Distance
- FON - Fiber Optic Network
 - (includes conduit, fiber, boxes, etc.)
- GFI - Ground Fault Interrupter
- ITS - Intelligent Transportation Systems
- LD - Lowering Device
- LPS - Lightning Protection System
- MVD - Microwave Vehicle Detector
- NEC - National Electrical Code
- NEMA - National Electrical Manufacturers Association
- RFP - Request for Proposals
- R/W - Right-of-Way
- RWIS - Roadside Weather Information System
- SOW - Scope of Work
- SPD - Surge Protection Device
- TYP - Typical
- UL - Underwriters Laboratories
- UPS - Uninterruptable Power Supply



NORTH CAROLINA
Turnpike Authority

All design and installation shall conform to the latest published edition/version of the NCDOT Standard Specifications, Roadway Standard Drawings, and, as applicable, the NFPA 70 (NEC) and UL standards.

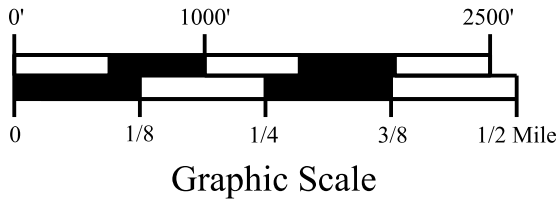
REVISION DATE - 12/28/2018



Legend

- **DMS-9** Color DMS (Dynamic Message Sign) (proposed)
- **DMS-2** Amber DMS (Dynamic Message Sign) (proposed)
- **MVD-47** MVD (Microwave Vehicle Detector) (proposed)
M# = Mainline Detectors R# = Ramp Detectors
- ▶ **CCTV-10** CCTV Camera (proposed)
- **WWD** Wrong-Way Driver Notification Sign infrastructure
- NCTA communications cable (proposed)
- - - NCTA communications cable (existing)
- NCDOT communications cable (proposed)
- - - NCDOT communications cable (existing)
- All-Electronic Toll (AET) zone
(Device symbols in BLACK are existing)

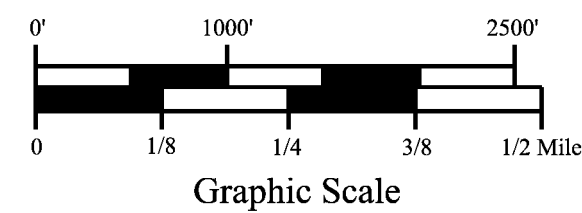
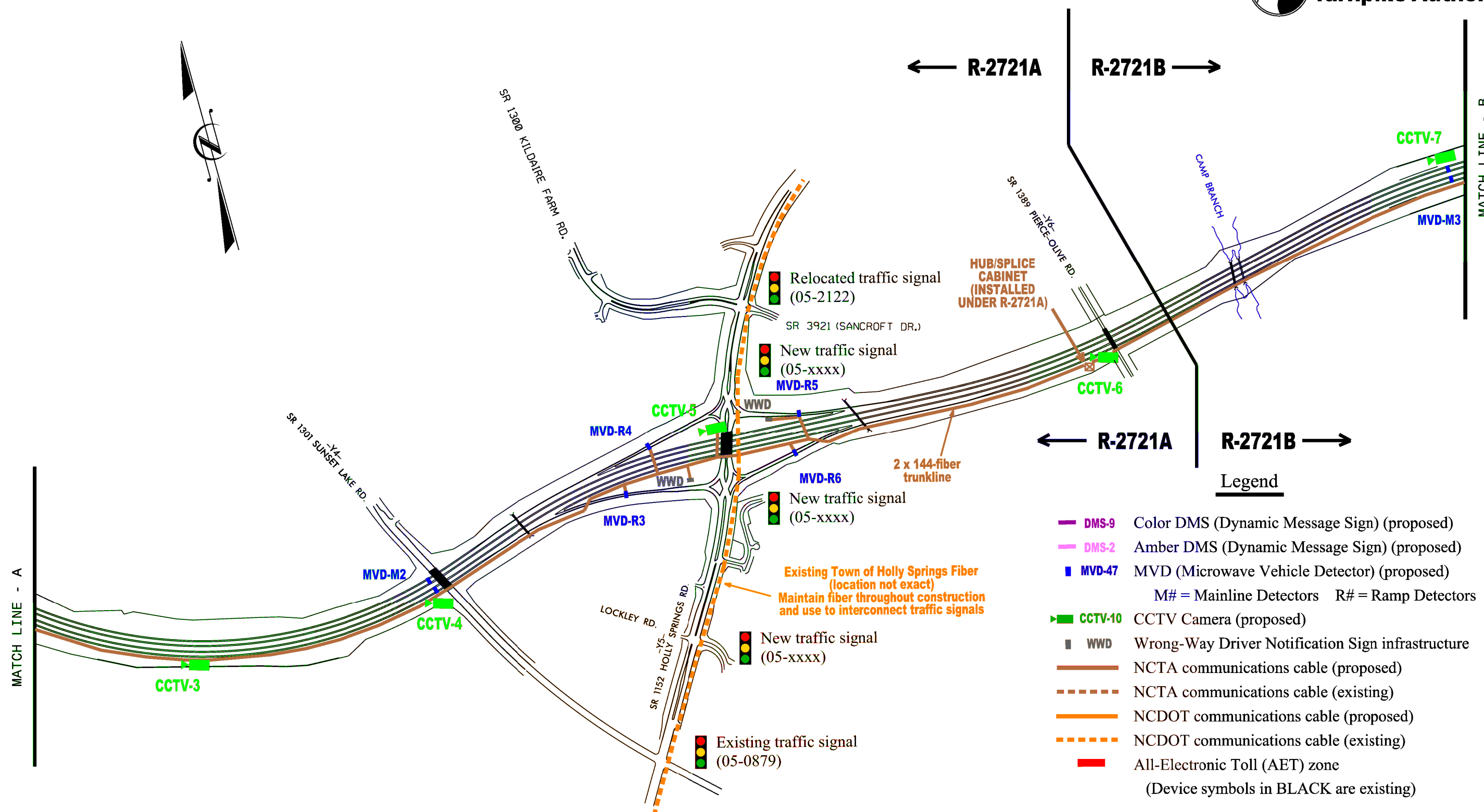
REV. NO.	BY	DATE	DESCRIPTION
1	DLJ	11/08/18	Added new signals and CLS fiber
2	DLJ	12/11/18	Added WWD infrastructure and revised CLS fiber; added exist. signal at Tech Dr.
3	DLJ	12/28/18	Added DMS-0, added notes about future signals, moved DMS-1 to the south

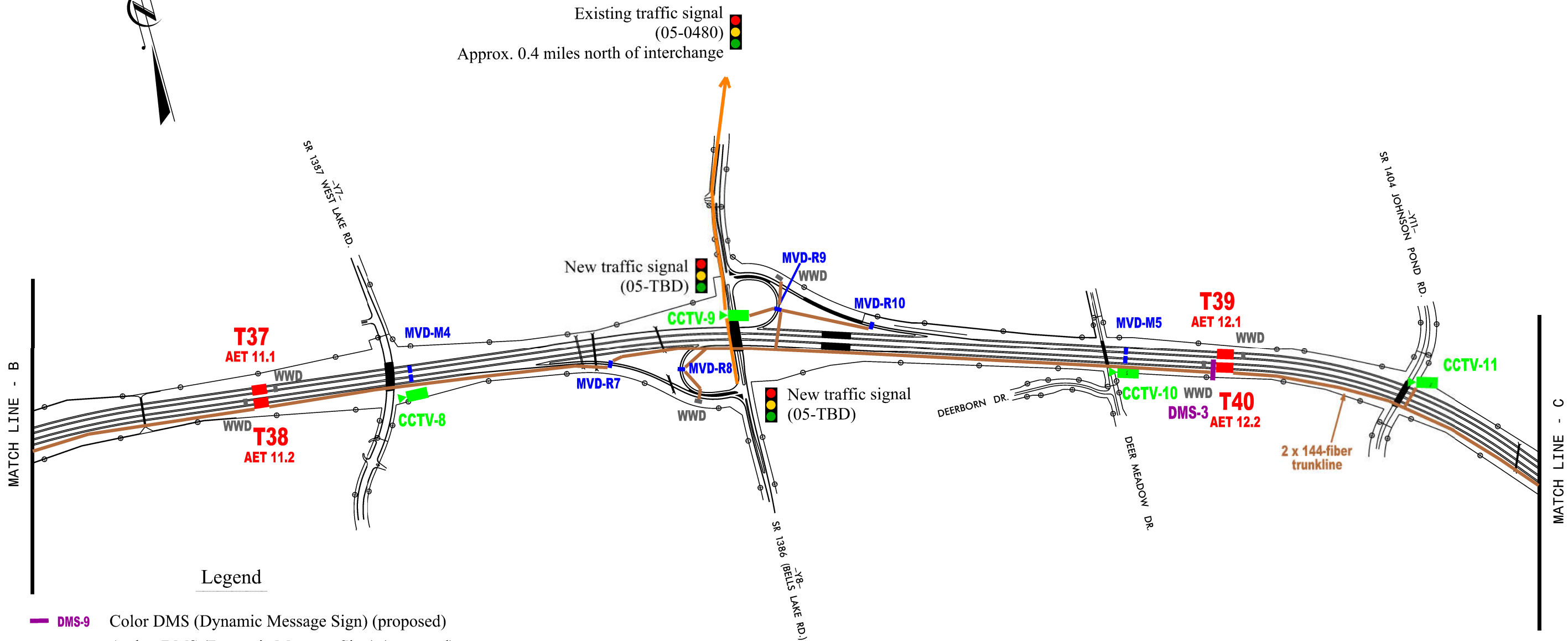


ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

COMPLETE 540
ITS AND AET CONCEPT PLAN

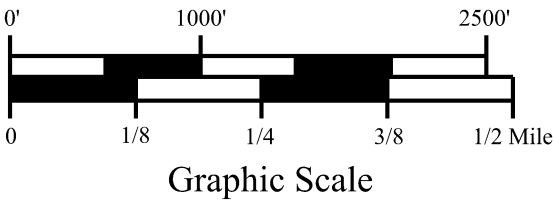
SCALE: GRAPHIC DATE: MAY 24, 2018	NORTH CAROLINA TURNPIKE AUTHORITY	SHEET NO. C-1
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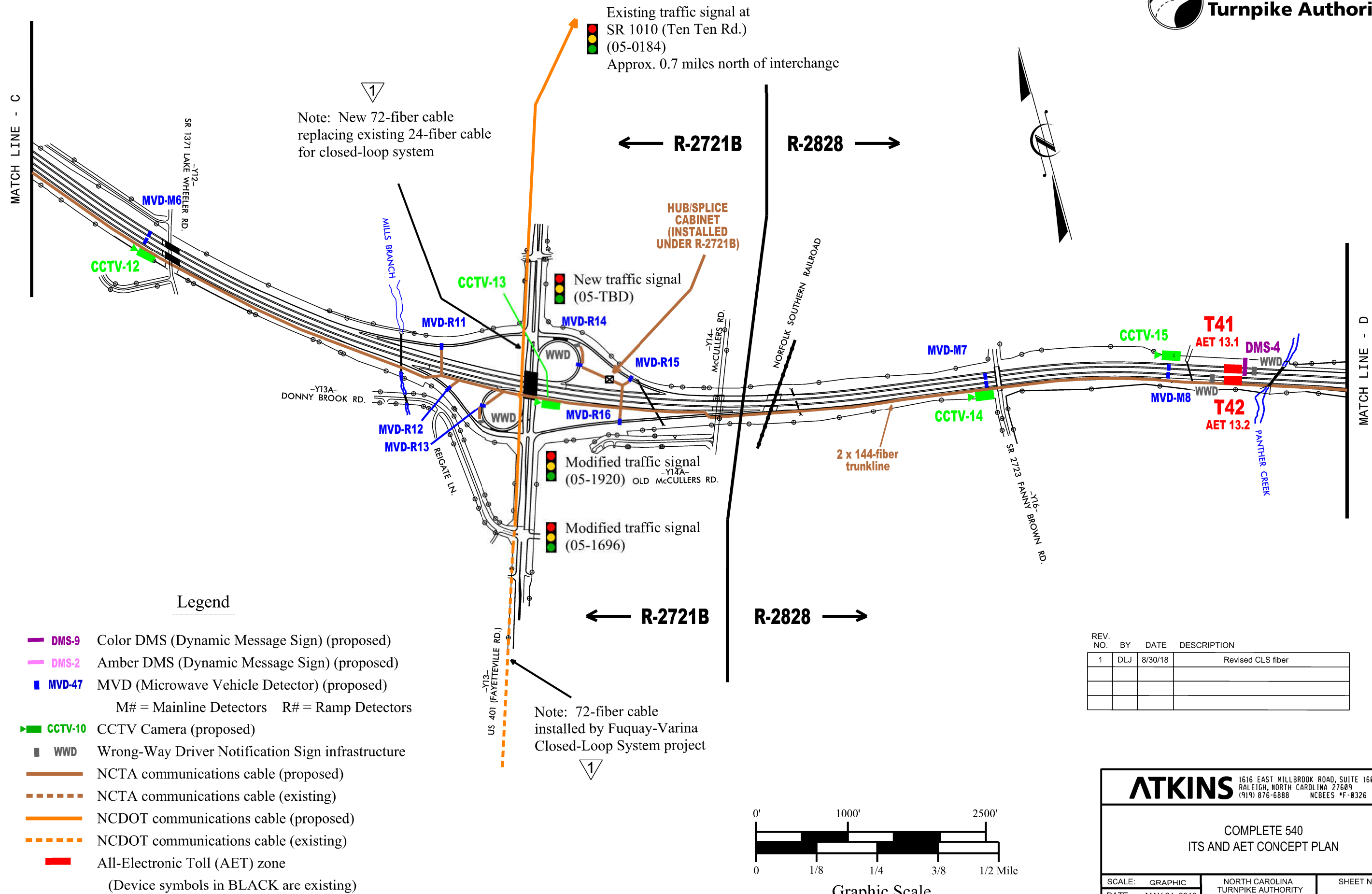


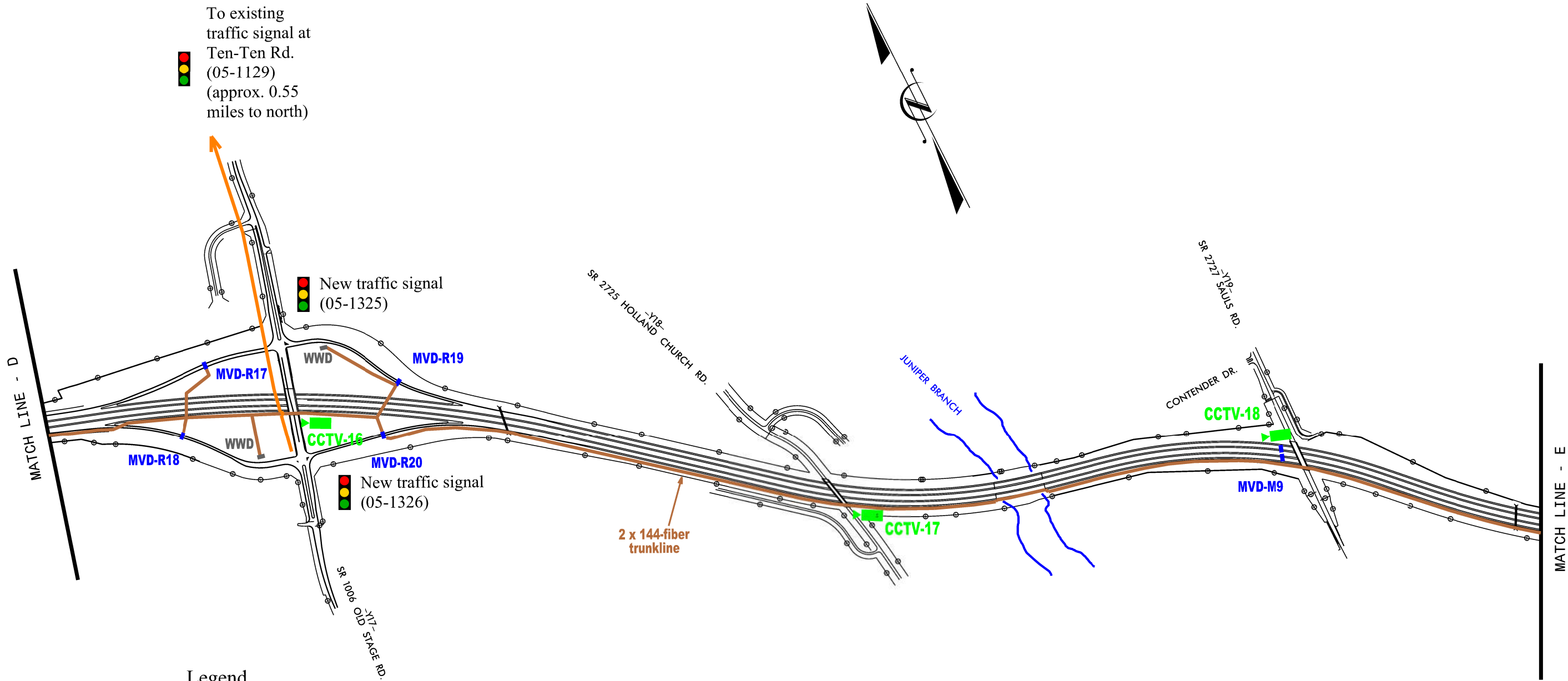
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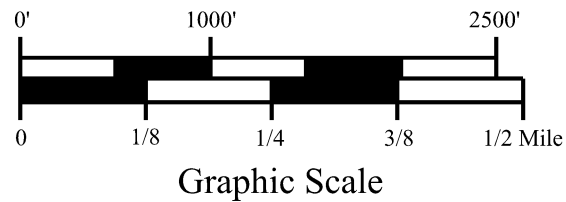


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COMPLETE 540 ITS AND AET CONCEPT PLAN		
SCALE: GRAPHIC	NORTH CAROLINA TURNPIKE AUTHORITY	SHEET NO. C-3
DATE: MAY 24, 2018		
REV: AUG 14, 2018		

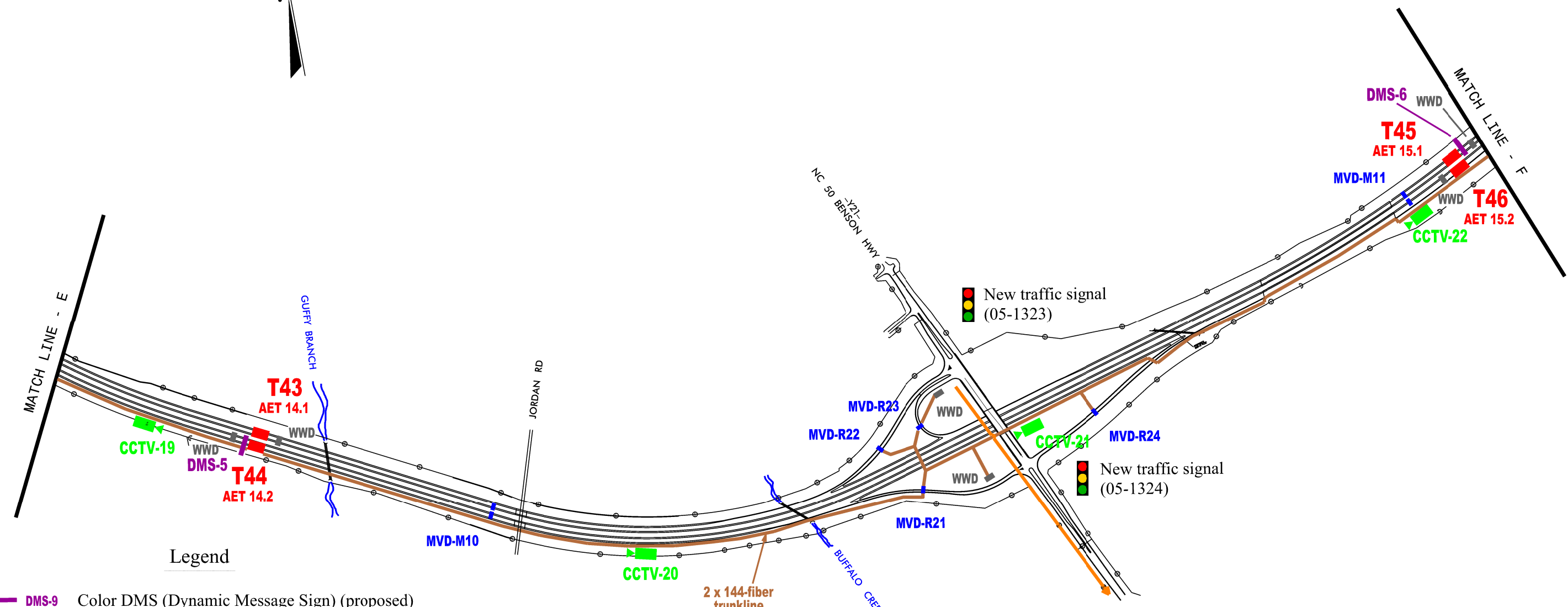




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COMPLETE 540 ITS AND AET CONCEPT PLAN		
SCALE: GRAPHIC	NORTH CAROLINA TURNPIKE AUTHORITY	SHEET NO. C-5
DATE: MAY 24 2018		



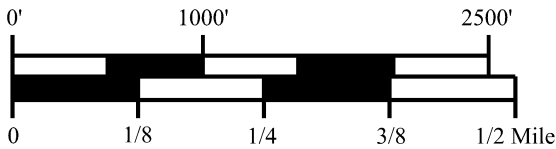
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(Device symbols in BLACK are existing)

New traffic signal
(05-1323)

New traffic signal
(05-1324)

To existing
traffic signal at
Cleveland School Rd.
(05-1299)
(approx. 0.3
miles to south)

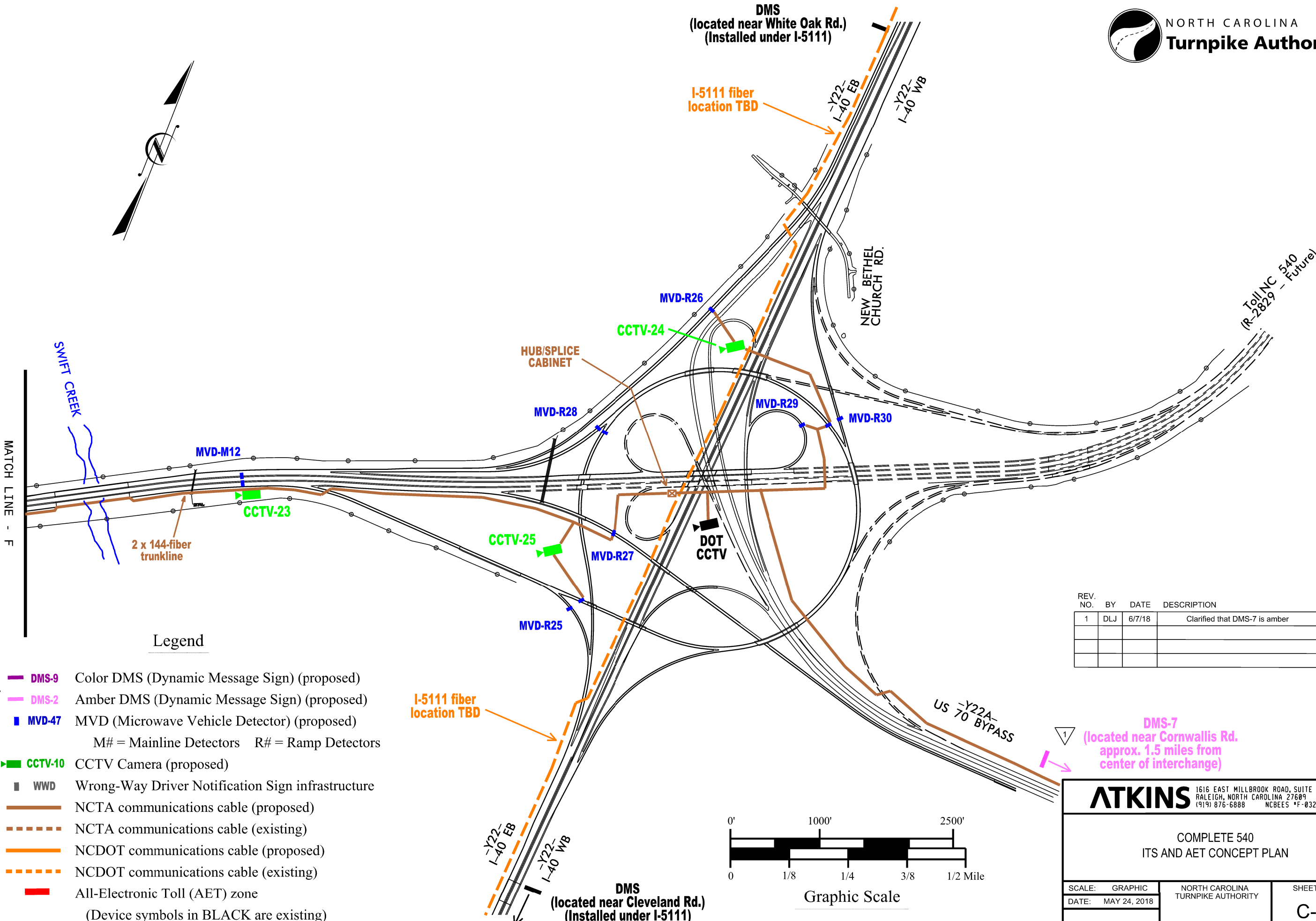


Graphic Scale











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COMPLETE 540
ITS AND AET CONCEPT PLAN

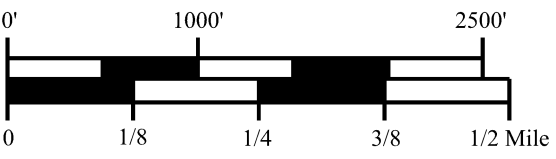
SCALE: GRAPHIC	NORTH CAROLINA TURNPIKE AUTHORITY	SHEET NO. C-6
DATE: MAY 24, 2018		



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REV. NO.	BY	DATE	DESCRIPTION
1	DLJ	6/7/18	Clarified that DMS-7 is amber



Graphic Scale

DMS-7
(located near Cornwallis Rd.
approx. 1.5 miles from
center of interchange)



1616 EAST MILLBROOK ROAD, SUITE 160
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COMPLETE 540
ITS AND AET CONCEPT PLAN

SCALE: GRAPHIC	NORTH CAROLINA TURNPIKE AUTHORITY	SHEET NO. C-7
DATE: MAY 24, 2018		