

2014 STP-DA PEDESTRIAN IMPROVEMENTS

TIP #'s: U5534(I), U5534(J), U5534(K)

FOR

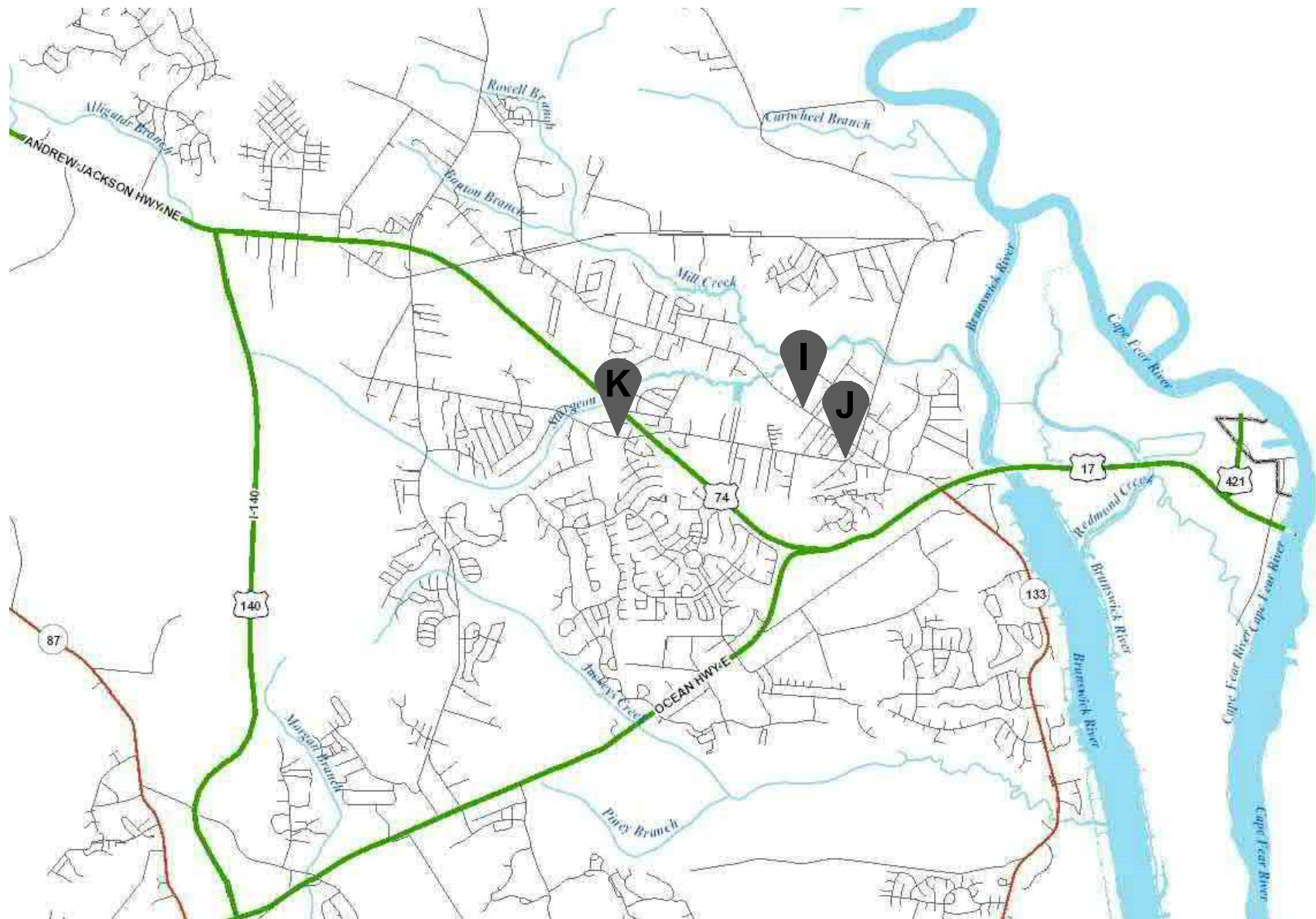
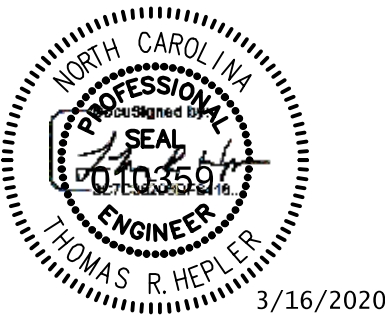
TOWN OF LELAND
LELAND, NORTH CAROLINA

100% DRAWINGS

DECEMBER 2019

REVISED 11/5/2020 for
Bid Date of 12/3/2020

2018 NCDOT Standard Specifica-
tions for Roads and Structures



VICINITY MAP
NOT TO SCALE

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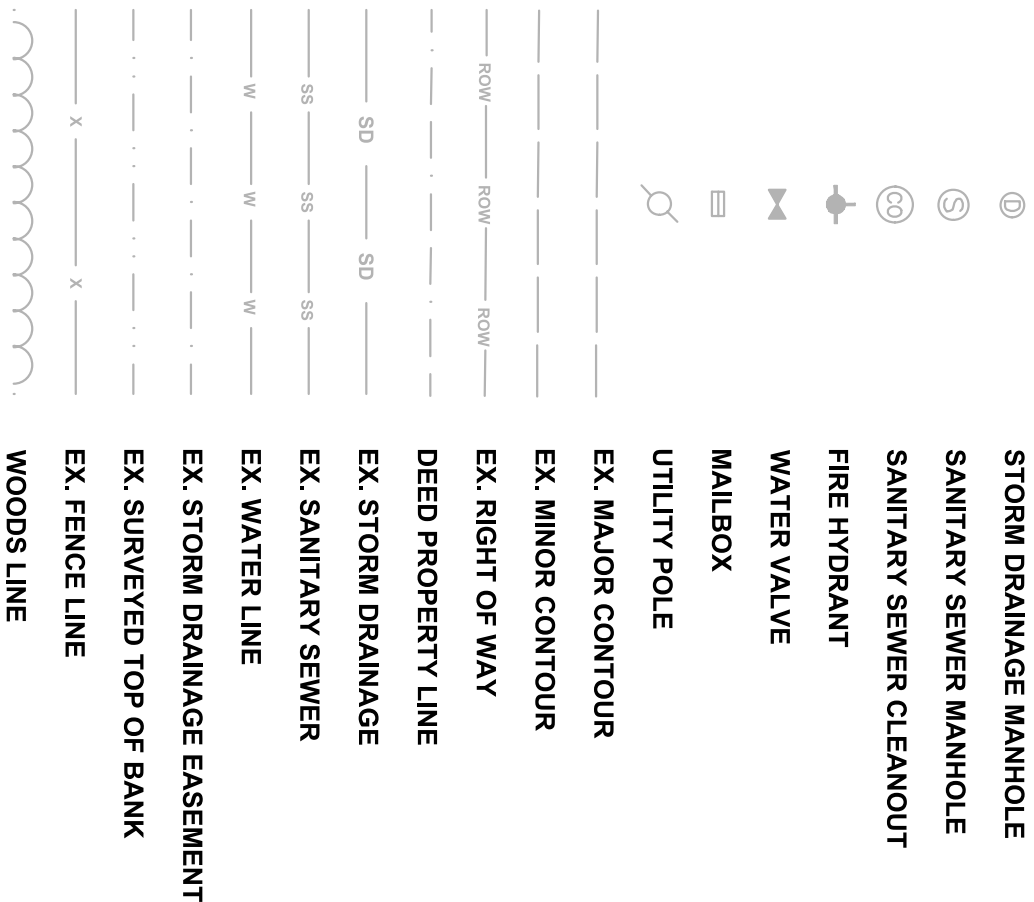
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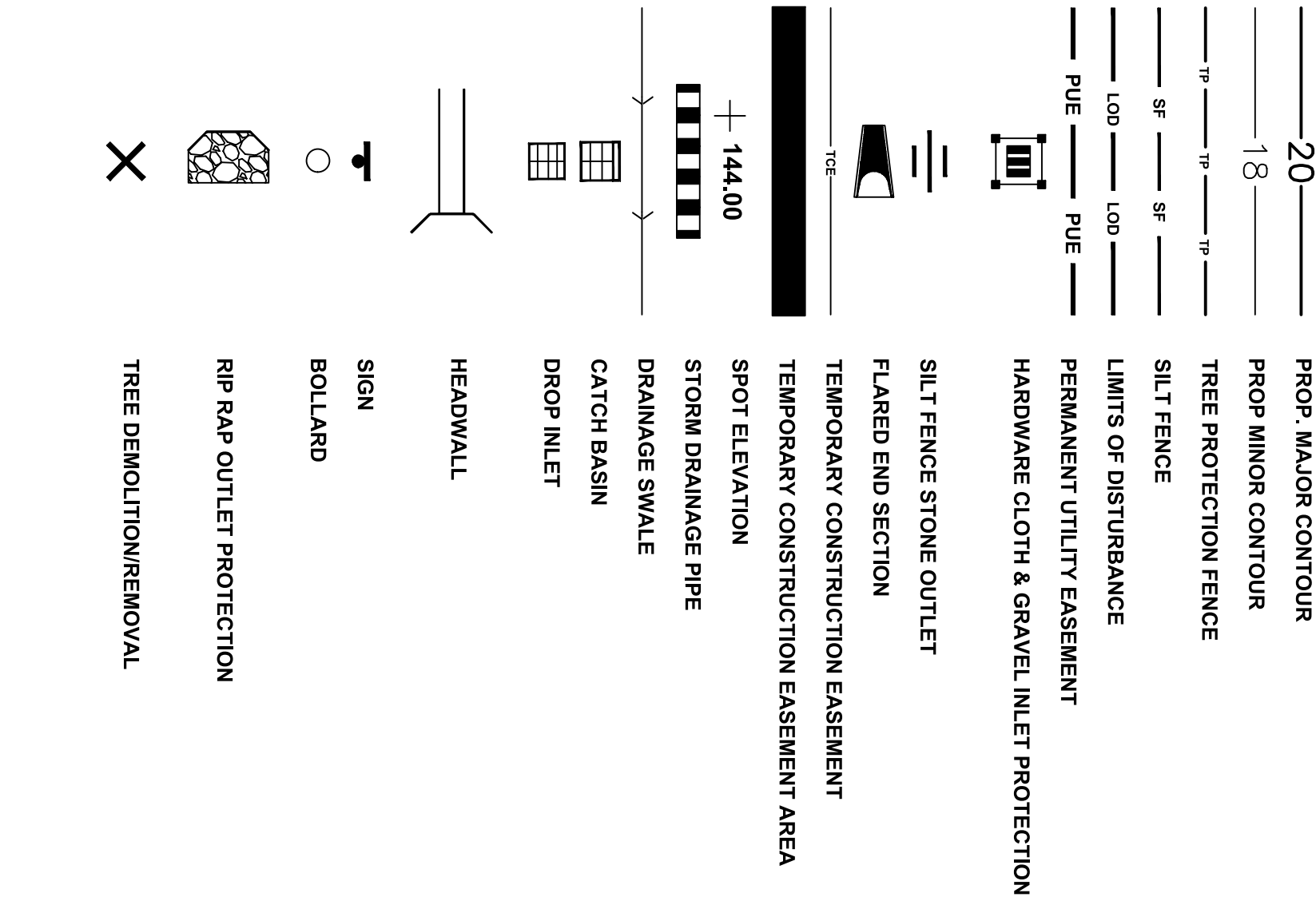
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EXISTING CIVIL LEGEND



NEW CIVIL LEGEND



CIVIL ABBREVIATIONS

ABC	AGGREGATE BASE COURSE
B	BASELINE
BC	BACK OF CURB
BLDG	BUILDING
BM	BENCH MARK
BMF	BEST MANAGEMENT PRACTICE
C	CONSTRUCTION ENTRANCE
CE	CONSTRUCTION
CF	CUBIC FEET
CLF	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COND	CONDUIT
CONST.	CONSTRUCTION
DIP	DUCTILE IRON PIPE
E	SUPERELEVATION RATE
E	EAST, EASTING
ELEC MH	ELECTRIC MANHOLE
ELEV/EL	ELEVATION
EP	EDGE OF PAVEMENT
ES	EXISTING STORM
EUT	EXISTING UNDERGROUND TELEPHONE
EW	EXISTING WATER, EACH WAY
EXIST	EXISTING
F	GRADE IN FILL
FEE	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
FL	FLOW LINE
HP	HIGH POINT
INV	INVERT
IP	INLET PROTECTION
L	LENGTH/LENGTH OF CURVE
LF	LINEAR FEET
LP	LOW POINT
LT	LEFT
MBL	MINIMUM BUILDING LINE
MG	MATCH GRADE
MIN.	MINIMUM
MINUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NORTH
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PIP	PIPE INLET PROTECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PP	POWER POLE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE/POLYVINYL CHLORIDE
PVT	POINT OF VERTICAL TANGENT
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RBC	REBAR & CAP
RCP	REINFORCED CONCRETE PIPE
RT	RIGHT
S	SOUTH/SANITARY SEWER
SAN	SANITARY SEWER
SAN FM	SANITARY SEWER FORCE MAIN
SAN MH	SANITARY SEWER MANHOLE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SF	SILT FENCE
SHWT	SEASONAL HIGH WATER TABLE
SLWT	SEASONAL LOW WATER TABLE
STM	STEAM
STY	STORY
T	LENGTH OF TANGENT
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
TEL PED	TELEPHONE PEDESTAL
TMH	TELEPHONE MANHOLE
T.O.B.	TOP OF BANK
T.O.S.	TOP OF SLOPE
TP	TREE PROTECTION
TYP.	TYPICAL
WV	WATER VALVE
WWF	WELDED WIRE FABRIC

WETLAND NOTES

- AREA IN WETLANDS - NOT REQUIRED
1. WETLANDS MUST BE DELINEATED -- NO WETLANDS ARE PRESENT IN PROJECT AREA.
 2. PROPOSED WETLAND IMPACTS REQUIRE PERMITS FROM ARMY CORPS OF ENGINEERS & DNR. THERE ARE NO NON-COASTAL AND COASTAL WETLANDS IDENTIFIED WITHIN THE DESIGNATED PROJECT AREA. THEREFORE, WETLAND AND STREAM IMPACTS ARE NOT ANTICIPATED.

CIVIL GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF EXISTING UTILITIES WITHIN THE PROJECT LIMITS AND THE PROTECTION OF SUCH UTILITIES DURING CONSTRUCTION. IF SAID UTILITIES PRESENT A CONFLICT WITH THE CONSTRUCTION, CONTRACTOR SHALL NOTIFY THE TOWN OF LELAND OR THEIR REPRESENTATIVE.
2. ROADWAYS, EMERGENCY VEHICLE CORRIDORS, AND PARKING LOT DRIVE AISLES MUST BE CAPABLE OF SUPPORTING FIRE APPARATUS DURING CONSTRUCTION.
3. ALL DIMENSIONS ARE IN FEET. TO OUTSIDE FACE OF CURB, TO CENTERLINE, CENTER TO CENTER ON STRIPES, AND/OR TO FACE OF CURB, UNLESS OTHERWISE NOTED.
4. ANY EXCAVATION MUST BE BACKFILLED AND COMPACTED AT THE CONCLUSION OF EACH WORK PERIOD IN ACCORDANCE WITH THE SPECIFICATIONS, AND EQUIPMENT AND SUPPLIES RETURNED TO THE CONSTRUCTION STAGING AREA.
5. CONTRACTOR SHALL RESTORE THE LAY DOWN AND STAGING AREA TO ORIGINAL CONDITIONS AND TO THE SATISFACTION OF THE OWNER, PRIOR TO DEMOBILIZATION AT THE CONCLUSION OF THE PROJECT.
6. CONTRACTOR SHALL FIELD ADJUST STRUCTURE LOCATIONS AS NECESSARY BASED ON THE ACTUAL DIMENSIONS OF THE STRUCTURE.

DEMOLITION NOTES

1. RELOCATION OF EXISTING UTILITIES TO BE COORDINATED WITH THE UTILITY PROVIDER(S).
2. ALL UTILITIES LOCATED IN AREAS OF DEMOLITION OR SUBSEQUENT CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE AND ACCESS CASTING SHALL BE ADJUSTED TO FLUSH WITH NEW GRADE.
3. OVERHEAD ELECTRICAL AND GAS UTILITY SERVICES INDICATED TO BE REMOVED SHALL BE REMOVED AND RELOCATED (AS INDICATED) BY THE UTILITY PROVIDER. CONTRACTOR SHALL SCHEDULE AND COORDINATE THIS WORK WITH THE APPROPRIATE SERVICE PROVIDER. ALL SERVICES SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF PAVEMENT, SIDEWALKS, CURB AND GUTTER, OR OTHER PERMANENT FEATURES. SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
4. DEMOLITION AND SUBSEQUENT CONSTRUCTION OF STORM DRAINAGE FACILITIES SHALL BE PERFORMED IN SUCH A MANNER THAT THE OLD PIPE AND STRUCTURES ARE REMOVED AND NEW STRUCTURES AND PIPING ARE IMMEDIATELY PUT INTO SERVICE. CONTRACTOR SHALL ENSURE THAT STORM DRAINAGE DOES NOT REMAIN OUT OF SERVICE FOR LONGER THAN 12 HOURS AT A TIME. PROVISIONS SHALL BE MADE TO MAINTAIN STORM DRAINAGE DURING CONSTRUCTION.
5. WHERE ASPHALT/CONCRETE SECTION IS TO BE REMOVED, CONTRACTOR SHALL USE A SAW CUT AT THE LIMITS OF DEMOLITION OR NEAREST JOINT TO OBTAIN A CLEAN VERTICAL EDGE.

GENERAL GRADING NOTES

1. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN OR FOR ACTIONS TAKEN BY THE CONTRACTOR BEFORE FORMAL RESPONSE FROM THE ENGINEER.

2. WHERE FILL IS TO BE PLACED ON EXISTING SLOPES STEEPER THAN 4:1, CONTRACTOR SHALL EXCAVATE BENCHES WITH A MAXIMUM DEPTH OF 3'.
3. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR APPROPRIATE SLOPE STABILIZATION ON ALL SLOPES STEEPER THAN 3:1.

GENERAL UTILITY NOTES

1. A NORTH CAROLINA LICENSED UTILITY CONTRACTOR MUST PERFORM ALL UTILITY WORK INVOLVED IN CONSTRUCTING THIS PROJECT.
2. CONTRACTOR SHALL ISOLATE ALL NEW PIPING FROM EXISTING PIPING UNTIL ALL NEW PIPING HAS BEEN TESTED AND ACCEPTED FOR SERVICE.
3. THE UTILITY DRAWINGS DO NOT SHOW EVERY UTILITY OFFSET, TRANSITION, AND FITTING THAT MAY BE REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINATION OF AND PURCHASE OF ANY SUCH FITTING NECESSARY FOR INSTALLATION & OPERATION OF SYSTEM.
4. EXISTING UTILITIES SHALL BE PROTECTED DURING ALL CONSTRUCTION. CONTRACTOR SHALL HAND EXCAVATE WHEN ADJACENT TO EXISTING UTILITIES.
5. CONTRACTOR SHALL NOTIFY AND RECEIVE APPROVAL FROM THE UTILITY AT LEAST 2 DAYS PRIOR TO ANY UTILITY DISRUPTION.
6. ELECTRICAL AND NATURAL GAS TO BE DESIGNED AND INSTALLED BY THE UTILITY PROVIDER.

SIDEWALK/PAVING/CURBING NOTES

1. INSTALL EXPANSION JOINT WITH THICKENED EDGE WHERE CONCRETE PAVEMENT ABUTS BUILDINGS, MANHOLES, INLETS AND OTHER STRUCTURES IN THE PAVEMENT UNLESS NOTED OTHERWISE.
2. ALL FREE CONCRETE PAVEMENT EDGES ADJUTING GRASSSED, GRAVEL OR ASPHALT PAVEMENT SHALL BE THICKENED.
3. CONSTRUCTION JOINTS SHALL BE USED AT THE END OF EACH DAYS PLACING OPERATIONS AND WHEN CONCRETE PLACEMENT IS INTERRUPTED FOR 30 MINUTES OR LONGER.
4. ALL ODD SHAPED SLABS AND SLABS WITH PENETRATIONS (FOR UTILITIES, BASINS, BOLLARDS, ETC.) SHALL BE REINFORCED WITH WWF (6X6-W2.9XW2.9) IN CENTER OF SLAB.
5. SLOPE OF PAVEMENT WITHIN HANDICAPPED PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.
6. ALL HANDICAP RAMPING SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN.

STORM DRAINAGE NOTES

1. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF CURB INLETS AND GRATE INLETS AND ALL UTILITIES CROSSING THE STORM SEWER.
2. THE LOCATIONS OF STORM SEWER STRUCTURES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL STAKE ALL CURB INLET STRUCTURES SUCH THAT INLETS ALIGN HORIZONTALLY WITH NEW CURB LOCATIONS, WHERE NEW STORM SEWERS JIE TO EXISTING STRUCTURES, PIPES, ETC., THE CONTRACTOR SHALL FIELD ADJUST NEW STORM SEWERS TO MATCH THE LOCATIONS OF THESE EXISTING FEATURES.
3. ALL REINFORCED CONCRETE PIPE WILL BE MINIMUM CLASS III PIPE OR GREATER PER NCDOT SPECIFICATION REQUIREMENTS FOR COVER.

SIGNAGE/STRIPING/MARKING NOTES

1. CROSSWALKS SHALL BE MARKED WITH THERMOPLASTIC MATERIALS AND CONSTRUCTED IN ACCORDANCE WITH NCDOT SPECIFICATIONS. CONTRACTOR TO INSTALL CROSSWALKS IN SUCH A MANNER THAT CROSSWALKS ARE ALIGNED BETWEEN HANDICAP/WALKWAY ACCESS POINTS OR PERPENDICULAR TO THE ROADWAY/DRIVE LANE.
2. ALL ACCESSIBLE STRIPING AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN.

General Note from Encroachment Agreement:

MUP and/or sidewalk shall be constructed to match the existing terrain in order to provide positive drainage within the project limits

MUP and/or sidewalk shall not impede surface runoff from roadway.

NCDOT 2018 Standard Drawings shall be used in the event of a discrepancy from that shown in the plans

REVISIONS

NO.	DESCRIPTION:	DATE	BY

PROJECT ENG: TRH
DESIGNED BY: BPD
DRAWN BY: BPD
CHECKED BY: TRH
APPROVED BY: TRH

DATE 3/16/2020

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LEGEND & NOTES

SHEET TITLE:	LEGEND & NOTES
DATE: 10/31/2017	SCALE: --

PROJECT:
2014 STP--DA
PEDESTRIAN IMPROVEMENTS
BRUNSWICK COUNTY
NORTH CAROLINA

TOWN OF LELAND

CLIENT PROJ. NO.	SHEET 10
ACCOM PROJ. NO.	G-100



NCDOT GENERAL NOTES

MAP KEY INDEX

NOT TO SCALE

1. ALL MATERIALS AND WORKMANSHIP ON THIS PROJECT SHALL CONFORM TO THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S STANDARDS AND SPECIFICATIONS MANUALS (LATEST EDITION).
2. ALL DRY EXCAVATIONS INSIDE THE THEORETICAL 1:1 SLOPE FROM THE EXISTING EDGE OF PAVEMENT TO THE BOTTOM OF THE NEAREST EXCAVATION WALL SHOULD BE MADE IN ACCORDANCE WITH THE FOLLOWING CONDITIONS:
 - A. MOVE TRAFFIC TO A TRAVEL LANE OUTSIDE THE LIMITS OF A THEORETICAL 1:1 SLOPE FROM THE BOTTOM OF THE NEAREST TRENCH WALL TO THE PAVEMENT SURFACE.
 - B. USE ACTIVE EXCAVATION SUPPORT SYSTEMS SUCH AS SHEETING, SHORING OR BRACING FOR INSTALLATION OF PIPE AND APPURTENANCES, OR AS NOTED ON THE DRAWINGS. DESIGN OF SHEETING, SHORING AND BRACING SHALL INCLUDE THE EFFECTS OF TRAFFIC LOADS. AN ENGINEER LICENSED IN NORTH CAROLINA SHALL SEAL THE DESIGN AS APPLICABLE TO THE SPECIFIC SITE. SHEETING, SHORING OR BRACING PLANS AND DESIGN CALCULATION SHALL BE SUBMITTED TO THE NCDOT DIVISION ENGINEER AND THE OWNER'S ENGINEER FOR REVIEW AND DUNS IN THE SCHEDULE FOR REVIEW AND COMMENT OF SHEETING, SHORING AND BRACING. ALL SHEETING, SHORING OR BRACING SHALL COMPLY WITH NCDOT STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND REQUIREMENTS. SHEETING, SHORING OR BRACING SHALL COMPLY WITH SPECIFICATION SECTIONS 02150 AND 02151. TRENCH BOXES ARE NOT ACCEPTABLE AS 5. ACTIVE EXCAVATION SUPPORT SYSTEMS.
 - C. THE TRENCH BACKFILL MATERIAL SHALL MEET THE STATEWIDE BORROW CRITERIA. BACKFILL THE TRENCH BACKFILL WITH SECTION 300.6 OF THE DISTRICT SPECIFICATIONS. THE BACKFILL MATERIAL TO BE PLACED IN LAYERS NOT TO EXCEED 6 INCHES LOOSE AND COMPACTED TO AT LEAST 100% OF THE DENSITY OBTAINED BY COMPACTING A SAMPLE IN ACCORDANCE WITH MSHTO 199 AS MODIFIED BY NCDOT.
 - D. AT THE FIRST SIGN OF A TRENCH FAILURE, IMMEDIATELY BACKFILL THE TRENCH WITH MATERIALS CONSISTING OF A-1, A-3, A-2-4 SOILS, OR A-4 SOILS HAVING A MAXIMUM OF 45% PASSING A NO.200 SIEVE AND A MAXIMUM P.I. OF 6. CEASE ALL WORK AND CONTACT THE DIVISION ENGINEER. THE CONTRACTOR IS REQUIRED TO REPAIR ANY DAMAGE TO THE PAVEMENT CAUSED BY THE EXCAVATION OF A NCDOT APPROVED DESIGN FOR HS-20 LOADING, AT NO ADDITIONAL COST TO THE OWNER.
 - E. ALL TRENCH EXCAVATION INSIDE THE LIMITS OF THE THEORETICAL 1:1 SLOPE, AS DEFINED BY THE POLICY, SHOULD BE COMPLETELY BACKFILLED AND COMPACTED AT THE END OF EACH CONSTRUCTION DAY. NO PORTION OF THE TRENCH SHOULD BE LEFT OPEN OVERNIGHT.

- F. THE LENGTH OF PARALLEL EXCAVATION SHOULD BE LIMITED TO THE LENGTH NECESSARY TO INSTALL AND BACKFILL ONE JOINT OF PIPE AT A TIME, NOT TO EXCEED TWENTY FIVE (25) FEET.
- G. AN APPROPRIATE PERFORMANCE BOND SHOULD BE POSTED FOR A PERIOD OF TWO (2) TO FIVE (5) YEARS TO COVER ANY LONG TERM PAVEMENT REPAIRS WHICH MAY BE REQUIRED AS A RESULT OF THE INSTALLATION.
- H. GROUNDWATER SHALL BE REMOVED SUFFICIENTLY TO BE A DRY EXCAVATION PRIOR TO EXCAVATING.
- I. AN EXECUTED COPY OF A NCDOT ENCROACHMENT AGREEMENT WILL BE PRESENT AT THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION. IF SAFETY OR TRAFFIC CONDITIONS WARRANT SUCH AN ACTION, NCDOT RESERVES THE RIGHT TO FURTHER LIMIT, RESTRICT, OR SUSPEND OPERATIONS WITHIN THE RIGHT OF WAY.
- J. NCDOT DOES NOT GUARANTEE THE RIGHT OF WAY ON THIS ROAD, NOR WILL IT BE RESPONSIBLE FOR ANY CLAIM FOR DAMAGES BROUGHT ABOUT BY ANY PROPERTY OWNER BY REASON OF THIS INSTALLATION.
- K. THE CONTRACTOR IS REQUIRED TO CONTACT THE APPROPRIATE UTILITY COMPANIES INVOLVED AND MAKE SATISFACTORY ARRANGEMENTS TO ADJUST THE UTILITIES IN CONFLICT WITH THE PROPOSED WORK PRIOR TO BEGINNING CONSTRUCTION.
- L. THE CONTRACTOR SHALL NOT BEGIN THE CONSTRUCTION UNTIL AFTER THE TRAFFIC CONTROL AND EROSION CONTROL DEVICES HAVE BEEN INSTALLED TO THE SATISFACTION OF THE DISTRICT ENGINEER.
- M. TRENCHING, BORE PITS, AND/OR OTHER EXCAVATIONS SHALL NOT BE LEFT OPEN OR UNSAFE DURING THE CONSTRUCTION. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AND PROVIDE A COMPETENT PERSON KNOWLEDGEABLE OF ALL APPLICABLE OSHA RULES AND REGULATIONS ON SITE TO SUPERVISE EXCAVATION AT ALL TIMES.
- N. ALL FILL AREAS/BACKFILL SHALL BE COMPACTED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND LATEST NCDOT STANDARDS.
- O. VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL DISTURBED AREAS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE DIVISION ROADSIDE ENVIRONMENTAL ENGINEER.
- P. PROPER TEMPORARY AND PERMANENT MEASURES SHALL BE USED TO CONTROL EROSION AND SEDIMENTATION IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

11. STRICT COMPLIANCE WITH THE POLICIES, AND PROCEDURES, FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS OF WAY MANUAL (LATEST EDITION) SHALL BE REQUIRED.
12. ANY DRAINAGE STRUCTURE DISTURBED OR DAMAGED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AS DIRECTED BY THE DISTRICT ENGINEER.
13. ALL DRIVEWAYS ALTERED DURING CONSTRUCTION SHALL BE RETURNED TO A STATE EQUAL TO OR BETTER THAN THE CONDITION OF THE DRIVEWAYS PRIOR TO CONSTRUCTION.
14. RIGHT OF WAY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REFERENCED BY A NORTH CAROLINA REGISTERED LAND SURVEYOR AND RESET AFTER CONSTRUCTION.
15. PROPER TRAFFIC CONTROL DEVICES, SIGNS, ETC. SHALL BE INSTALLED TO ENSURE PUBLIC SAFETY IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ANY SUPPLEMENTS THERETO.
16. TRAFFIC WILL BE MAINTAINED AT ALL TIMES.
17. INGRESS AND EGRESS SHALL BE MAINTAINED TO ALL BUSINESSES AND DWELLINGS AFFECTED BY THE PROJECT. SPECIAL ATTENTION SHALL BE PAID TO FIRE HYDRANTS.
18. ANY WORK REQUIRING EQUIPMENT OR PERSONNEL WITHIN 5' OF THE EDGE OF ANY TRAVEL LANE SHALL REQUIRE A LANE CLOSURE WITH APPROPRIATE TAPERS.
19. DURING NON-WORKING HOURS, EQUIPMENT SHALL BE PARKED AS CLOSE TO THE RIGHT-OF-WAY LINE AS POSSIBLE, AND BE PROPERLY BARICADED IN ORDER NOT TO HAVE ANY EQUIPMENT OBSTRUCTION WITHIN THE CLEAR RECOVERY AREA.
20. ALL ROADWAY SIGNS THAT ARE REMOVED DUE TO CONSTRUCTION SHALL BE REINSTALLED AS SOON AS POSSIBLE.
21. EXCAVATION MATERIAL SHALL NOT BE PLACED ON THE PAVEMENT. DRAINAGE STRUCTURES SHALL NOT BE BLOCKED WITH EXCAVATION MATERIALS.
22. WHOLE RINGS AND COVERS, VALVE COVERS, AND STORM DRAIN GRATES AND FRAMES SHALL BE OF THE TRAFFIC BEARING TYPES APPROVED BY NCDOT FOR USE WITHIN HIGHWAY RIGHTS OF WAY.
23. BORE PIT DIMENSIONS SHOWN ON THE PLANS REPRESENT THE BASE AREA OF THE PIT. CONTRACTOR SHALL FOLLOW ALL NCDOT AND OSHA REQUIREMENTS, INCLUDING, BUT NOT LIMITED TO, BORE PIT STOPPING REQUIREMENTS.

24. NCDOT RESERVES THE RIGHT TO CHANGE THE TIMES OF LANE CLOSURE ALLOWED ON ROADWAYS BASED ON TRAFFIC CONDITIONS. ALLOWABLE HOURS OF CONSTRUCTION MAY BE ADJUSTED TO PROVIDE A MINIMUM OF 7 HOURS PER DAY, NOT NECESSARILY CONTINUOUS, OF WORKING TIME ON NCDOT ROADS.
25. ALL MAILBOXES SHALL BE MAINTAINED ACCESSIBLE DURING CONSTRUCTION. BOXES WITHIN CONSTRUCTION LIMITS SHALL BE REPLACED WITH NEW BOX ON WOODEN POST AT A LOCATION ACCESSIBLE TO BOTH MAIL CARRIER AND RESIDENT.

PROHIBITED CONSTRUCTION ACTIVITIES

1. USING ANY SUBSTANCE OTHER THAN WATER TO CONTROL DUST.
2. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE PERMIT OR DISPOSING OF THE TREES AND STUMPS.
3. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS.
4. DISCHARGING POLLUTANTS - SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE - AND OTHER HARMFUL WASTE INTO OR ALONGSIDE RIVERS, STREAMS, IMPOUNDMENTS OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.
5. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED BY THE OWNER FOR SAID PURPOSES.
6. DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOOD PLANS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER.
7. INDISCRIMINATE, ARBITRARY, OR CARELESS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, WETLAND SURFACE WATERS, OR OUTSIDE THE BASEMENT AREA.
8. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF A STREAM.
9. DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA.
10. DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDORS, WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS.

REVISIONS			
NO.	DESCRIPTION:	DATE	BY

PROJECT ENG: TRH	DESIGNED BY: BPD	DRAWN BY: BPD	CHECKED BY: TRH	APPROVED BY: TRH
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PROJECT: 2014 STP-DA PEDESTRIAN IMPROVEMENTS BRUNSWICK COUNTY NORTH CAROLINA	TOWN OF LELAND
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CLIENT PROJ. NO. C-101	SHEET 10
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ACCOM PROJ. NO. 3 of 22

SHEET TITLE: MAP KEY INDEX	DATE: 10/31/2017	SCALE: NTS
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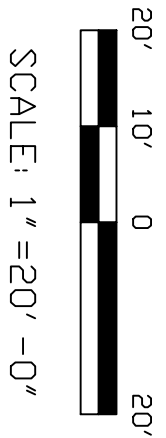
NORTH CAROLINA PROFESSIONAL SEAL THOMAS R. HEPLER ENGINEER DATE 3/16/2020
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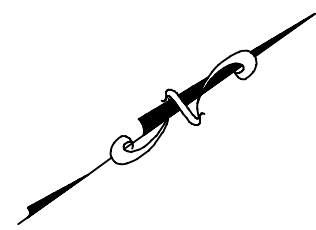
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CLIENT PROJ. NO.	SHEET I.D.
U-5534(I)	<u>C-102</u>
AECOM PROJ. NO.	
60402572	4 OF 22



1. ABOVE GROUND UTILITY MARKERS IMPACTED BY CONSTRUCTION WILL BE RELOCATED IN COORDINATION WITH UTILITY OWNER.
2. DUKE ENERGY WILL REMOVE EXISTING LIGHTS AND INSTALL NEW LIGHTS.

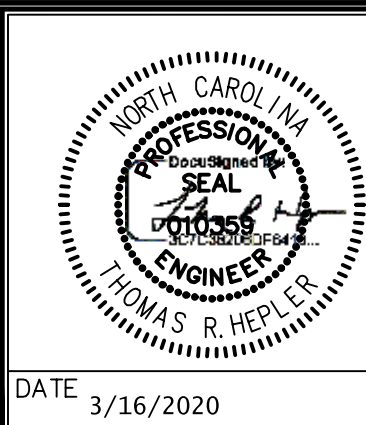
CLIENT PROJ. NO.	SHEET I.D.
U-5534(1)	<u>C-103</u>
AECOM PROJ. NO.	
60402572	5 of 22



SCALE: 1"=20'-0"

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PROJECT ENG:	TRH
DESIGNED BY:	BPD
DRAWN BY:	BPD
CHECKED BY:	TRH
APPROVED BY:	TRH



DATE 3/16/2020

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201 North Front Street, Suite 509
Wilmington, North Carolina 28401
Telephone (910) 763-8063, FAX (910) 763-8289
www.AECOM.com
NCBELS LIC. NO. C-2243

SHEET TITLE:

VILLAGE ROAD
MULTI-USE PATH
EXTENSION

DATE: 10/31/2017	SCALE: 1"=20'
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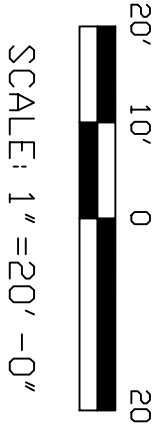
PROJECT:

2014 STP-DA
PEDESTRIAN IMPROVEMENTS
BRUNSWICK COUNTY
NORTH CAROLINA

TOWN OF LELAND

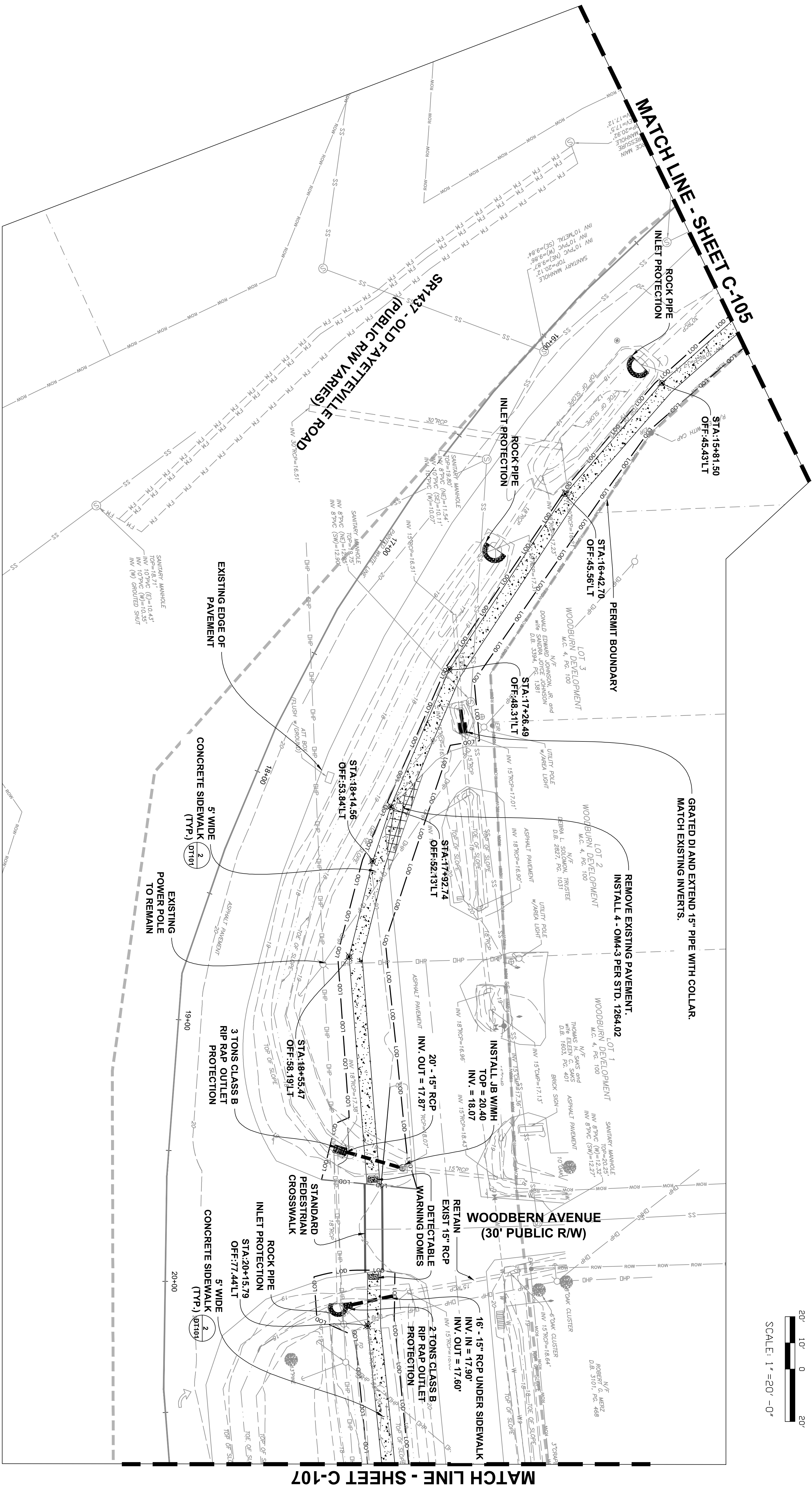
1. ABOVE GROUND UTILITY MARKERS IMPACTED BY CONSTRUCTION WILL BE RELOCATED IN COORDINATION WITH UTILITY OWNER.
2. DUKE ENERGY WILL REMOVE EXISTING LIGHTS AND INSTALL NEW LIGHTS.

CLIENT PROJ. NO.	SHEET I.D.
U-5534(1)	<u>C-104</u>
AECOM PROJ. NO.	
60402572	6 OF 22



1. ABOVE GROUND UTILITY MARKERS IMPACTED BY CONSTRUCTION WILL BE RELOCATED IN COORDINATION WITH UTILITY OWNER.
2. DUKE ENERGY WILL REMOVE EXISTING LIGHTS AND INSTALL NEW LIGHTS.

CLIENT PROJ. NO.	SHEET I.D.
U-5534(j)	C-105
AECOM PROJ. NO.	
60402586	7 of 22



PLAN

- NOTE:
1. ABOVE GROUND UTILITY MARKERS IMPACTED BY CONSTRUCTION WILL BE RELOCATED IN COORDINATION WITH UTILITY OWNER.
 2. DUKE ENERGY WILL REMOVE EXISTING LIGHTS AND INSTALL NEW LIGHTS.

REVISIONS			
NO.	DESCRIPTION:	DATE	BY

PROJECT ENG: TRH	DESIGNED BY: BPD	DRAWN BY: BPD	CHECKED BY: TRH	APPROVED BY: TRH
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PROJECT: 2014 STP-DA PEDESTRIAN IMPROVEMENTS BRUNSWICK COUNTY NORTH CAROLINA	TOWN OF LELAND
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CLIENT PROJ. NO. U-5534(J)	SHEET 10. C-106
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ACCOM PROJ. NO. 60402586	8 OF 22
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SHEET TITLE: OLD FAYETTEVILLE ROAD/VILLAGE ROAD PEDESTRIAN LOOP	DATE: 10/31/2017	SCALE: 1"=20'
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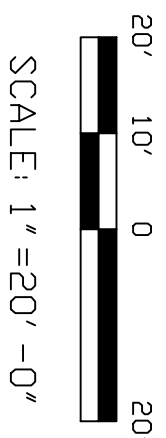
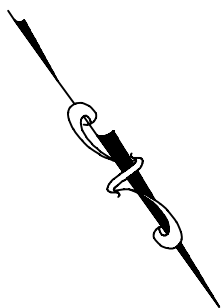
AECOM Corporation - North Carolina	201 North Front Street, Suite 509	Wilmington, North Carolina 28401
Telephone (910) 763-8063, FAX (910) 763-8289	www.AECOM.com	NCBELS LIC. NO. C-2243

NORTH CAROLINA PROFESSIONAL SEAL	THOMAS R. HEPLER	DATE 3/16/2020
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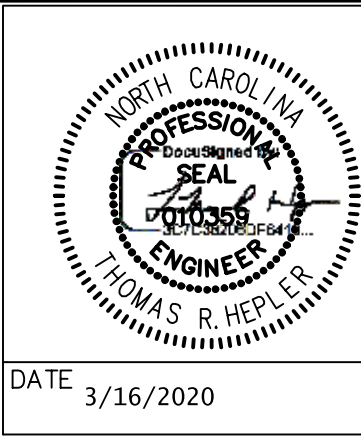


NOTE:

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[illegible]

PROJECT ENG:	TRH
DESIGNED BY:	BPD
DRAWN BY:	BPD
CHECKED BY:	TRH
APPROVED BY:	TRH



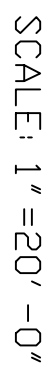
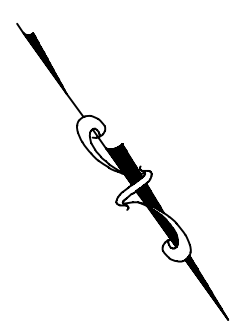
AECOM Corporation - North Carolina
201 North Front Street, Suite 509
Wilmington, North Carolina 28401
Telephone (910) 763-8063, FAX (910) 763-8289
www.AECOM.com
NCBELS LIC. NO. C-2243

SHEET TITLE:

OLD FAYETTEVILLE
ROAD/VILLAGE ROAD
PEDESTRIAN LOOP

DATE: 08/31/2017	SCALE: 1"=20'
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CLIENT PROJ. NO. U-5534(J) ACCOM. PROJ. NO. 604042586		PROJECT: 2014 STP-DA PEDESTRIAN IMPROVEMENTS BRUNSWICK COUNTY NORTH CAROLINA TOWN OF LELAND
SHEET I.D. C-107 9 of 22		



PROJECT ENG:	TRH
DESIGNED BY:	BPD
DRAWN BY:	BPD
CHECKED BY:	TRH
APPROVED BY:	TRH

DATE 3/16/2020

AECOM Corporation - North Carolina
201 North Front Street, Suite 509
Wilmington, North Carolina 28401
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www.AECOM.com
NCBELS LIC. NO. C-2243

SHEET TITLE:

OLD FAYETTEVILLE
ROAD/VILLAGE ROAD
PEDESTRIAN LOOP

DATE: 10/31/2017	SCALE: 1"=20'
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PROJECT:

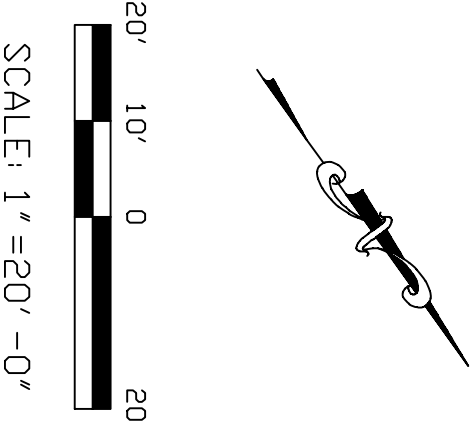
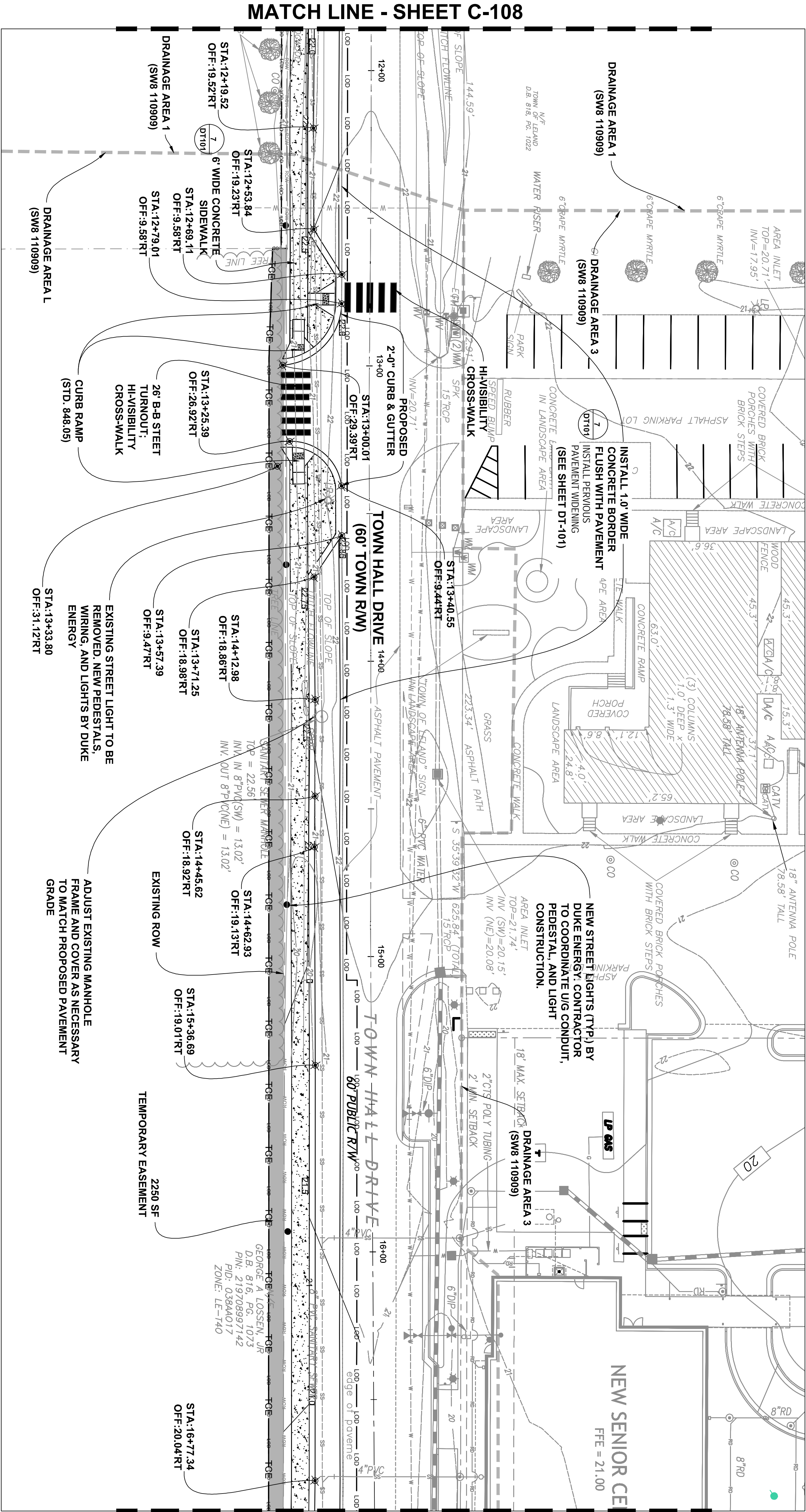
2014 STP-DA
PEDESTRIAN IMPROVEMENTS
BRUNSWICK COUNTY
NORTH CAROLINA

TOWN OF LELAND

NOTE:

1. ABOVE GROUND UTILITY MARKERS IMPACTED BY CONSTRUCTION WILL BE RELOCATED IN COORDINATION WITH UTILITY OWNER.
2. DUKE ENERGY WILL REMOVE EXISTING LIGHTS AND INSTALL NEW LIGHTS.

PLAN



PLAN

- NOTE:
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REVISIONS				DATE		BY	
NO.	DESCRIPTION:						

PROJECT ENG: TRH	DESIGNED BY: BPD	DRAWN BY: BPD	CHECKED BY: TRH	APPROVED BY: TRH
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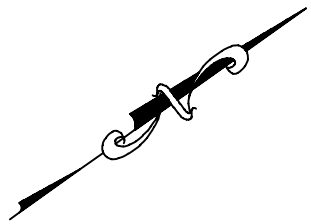
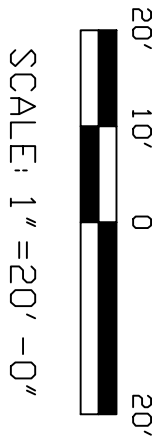
PROJECT: 2014 STP-DA PEDESTRIAN IMPROVEMENTS BRUNSWICK COUNTY NORTH CAROLINA	TOWN OF LELAND
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CLIENT PROJ. NO. U-5534(U)	SHEET 10. C-109
AECOM PROJ. NO. 60402586	11 OF 22

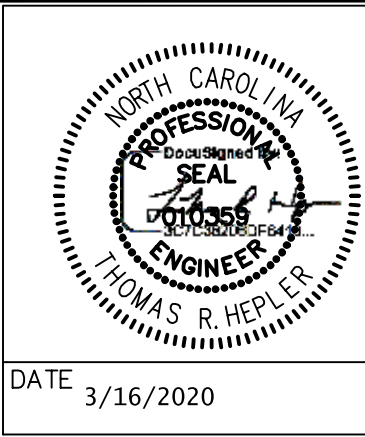
SHEET TITLE: OLD FAYETTEVILLE ROAD/VILLAGE ROAD PEDESTRIAN LOOP	DATE: 10/31/2017	SCALE: 1"=20'
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AECOM Corporation - North Carolina	201 North Front Street, Suite 509	Wilmington, North Carolina 28401
Telephone (910) 763-8063, FAX (910) 763-8289	www.AECOM.com	NCBELS LIC. NO. C-2243

NORTH CAROLINA PROFESSIONAL SEAL	THOMAS R. HEHLER	DATE 3/16/2020
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[illegible]

PROJECT ENG:	TRH
DESIGNED BY:	BPD
DRAWN BY:	BPD
CHECKED BY:	TRH
APPROVED BY:	TRH



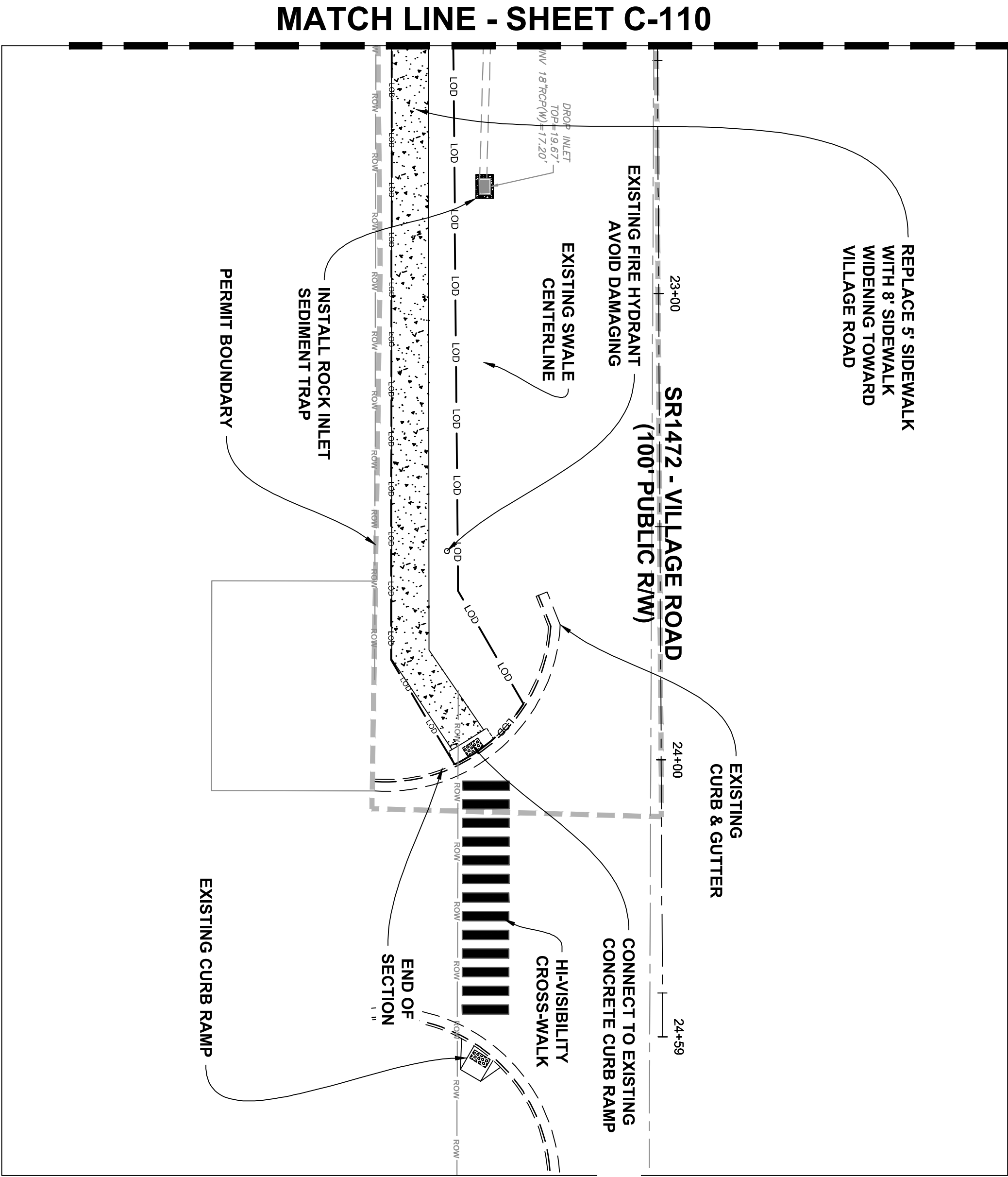
AECOM Corporation - North Carolina
201 North Front Street, Suite 509
Wilmington, North Carolina 28401
Telephone (910) 763-8063, FAX (910) 763-8289
www.AECOM.com
NCBELS LIC. NO. C-2243

SHEET TITLE:

OLD FAYETTEVILLE
ROAD/VILLAGE ROAD
PEDESTRIAN LOOP

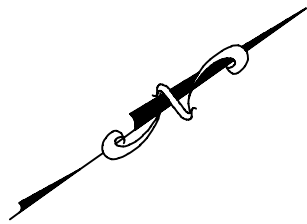
DATE: 01/31/2017	SCALE: 1"=20'
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PROJECT: 2014 STP-DA PEDESTRIAN IMPROVEMENTS BRUNSWICK COUNTY NORTH CAROLINA TOWN OF LELAND		CLIENT PROJ. NO. U-5534(J) AECOM PROJ. NO. 60402586	SHEET I.D. C-110 12 of 22
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PLAN

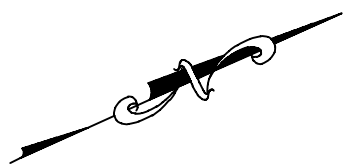
- NOTE:
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20' 10' 0 20'

SCALE: 1" = 20' - 0"

PROJECT:		SHEET TITLE:		AECOM Corporation - North Carolina 201 North Front Street, Suite 509 Wilmington, North Carolina 28401 Telephone (910) 763-8063, FAX (910) 763-8289 www.AECOM.com NCBELS LIC. NO. C-2243		PROJECT ENG:		REVISIONS			
U-5534(J)	CLIENT PROJ. NO.	C-111	SHEET NO.			TRH	DESIGNED BY:	NO.	DESCRIPTION:	DATE	BY
AECOM PROJ. NO.						BPD	DRAWN BY:	△			
						BPD	CHECKED BY:	△			
						TRH	APPROVED BY:	△			
						TRH		△			
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								△			



2014 STP-DA
PEDESTRIAN IMPROVEMENTS
BRUNSWICK COUNTY
NORTH CAROLINA

TOWN OF LELAND

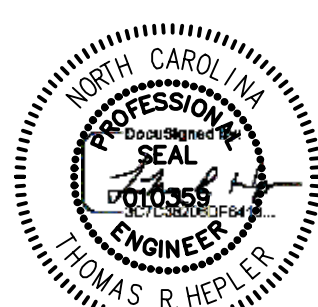
HEET TITLE:

LELAND MIDDLE SCHOOL
PEDESTRIAN ACCESS

DATE: 10/31/2017

SCALE: 1"=20'

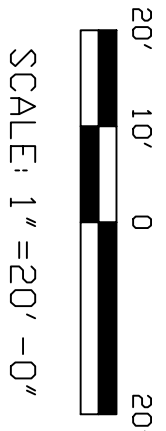
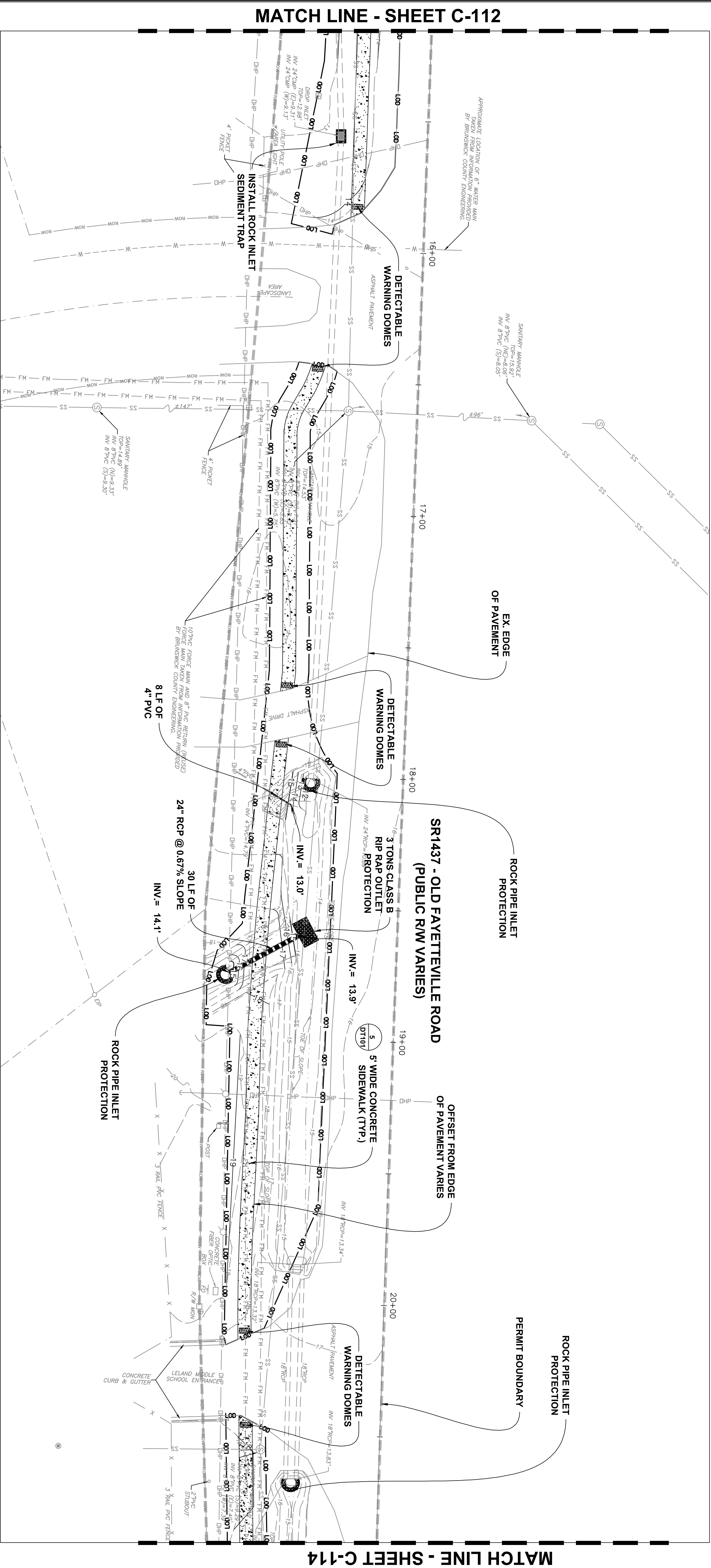
AECOM Corporation - North Carolina
201 North Front Street, Suite 509
Wilmington, North Carolina 28401
Telephone (910) 763-8063, FAX (910) 763-8289
www.AECOM.com
NCBELS LIC. NO. C-2243



DATE 3/16/2020

PROJECT ENG:	TRH
DESIGNED BY:	BPD
DRAWN BY:	BPD
CHECKED BY:	TRH
APPROVED BY:	TRH

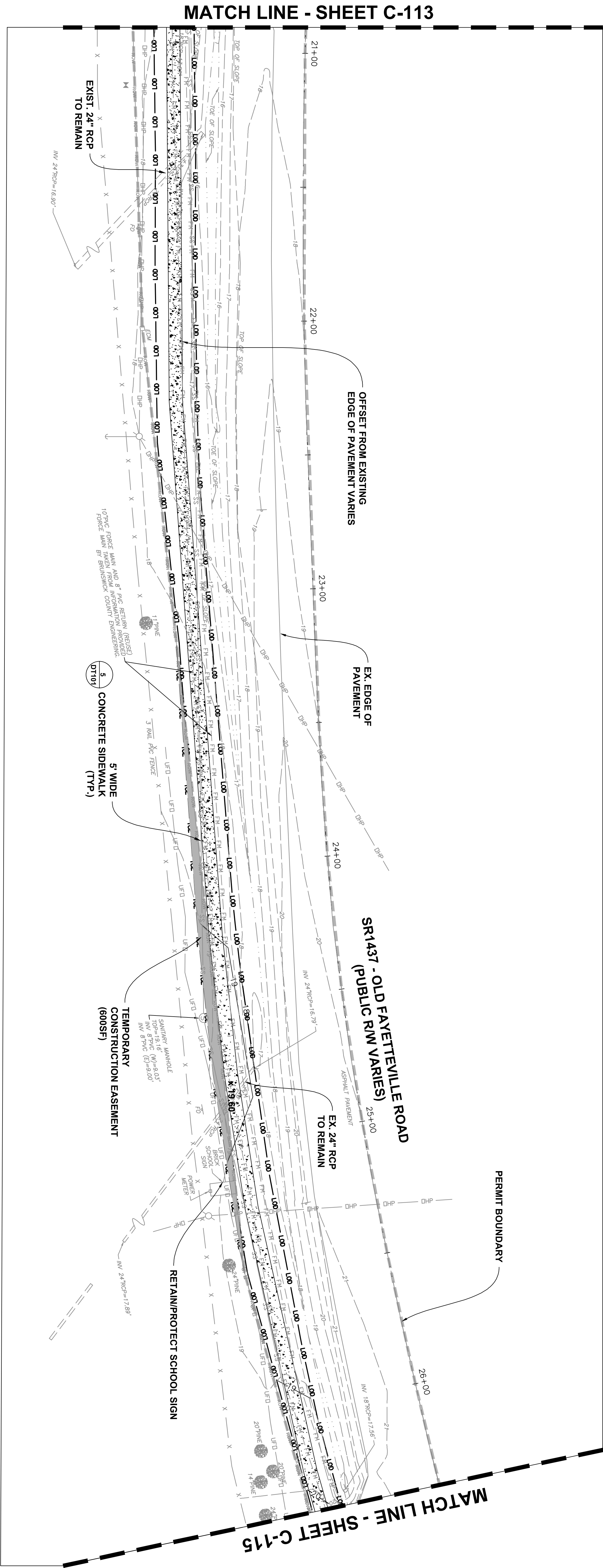
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PLAN

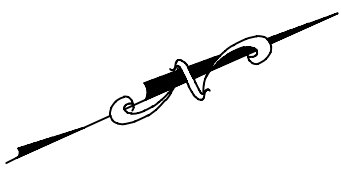
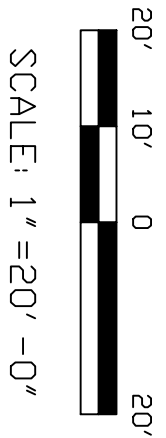
- NOTE:
1. ABOVE GROUND UTILITY MARKERS IMPACTED BY CONSTRUCTION WILL BE RELOCATED IN COORDINATION WITH UTILITY OWNER.
 2. DUKE ENERGY WILL REMOVE EXISTING LIGHTS AND INSTALL NEW LIGHTS.

PROJECT:		SHEET TITLE:		PROJECT ENG:		REVISIONS					
2014 STP-DA PEDESTRIAN IMPROVEMENTS BRUNSWICK COUNTY NORTH CAROLINA		LELAND MIDDLE SCHOOL PEDESTRIAN ACCESS		AECOM Corporation - North Carolina 201 North Front Street, Suite 509 Wilmington, North Carolina 28401 Telephone (910) 763-8063, FAX (910) 763-8289 www.AECOM.com NCBELS LIC. NO. C-2243		TRH					
U-5534(K) AECOM PROJ. NO.						DESIGNED BY: BPD		NO.		DESCRIPTION:	
CLIENT PROJ. NO.				DATE 3/16/2020		DRAWN BY: BPD					
						CHECKED BY: TRH					
						APPROVED BY: TRH					
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											
											



PLAN

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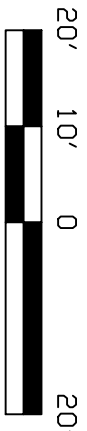
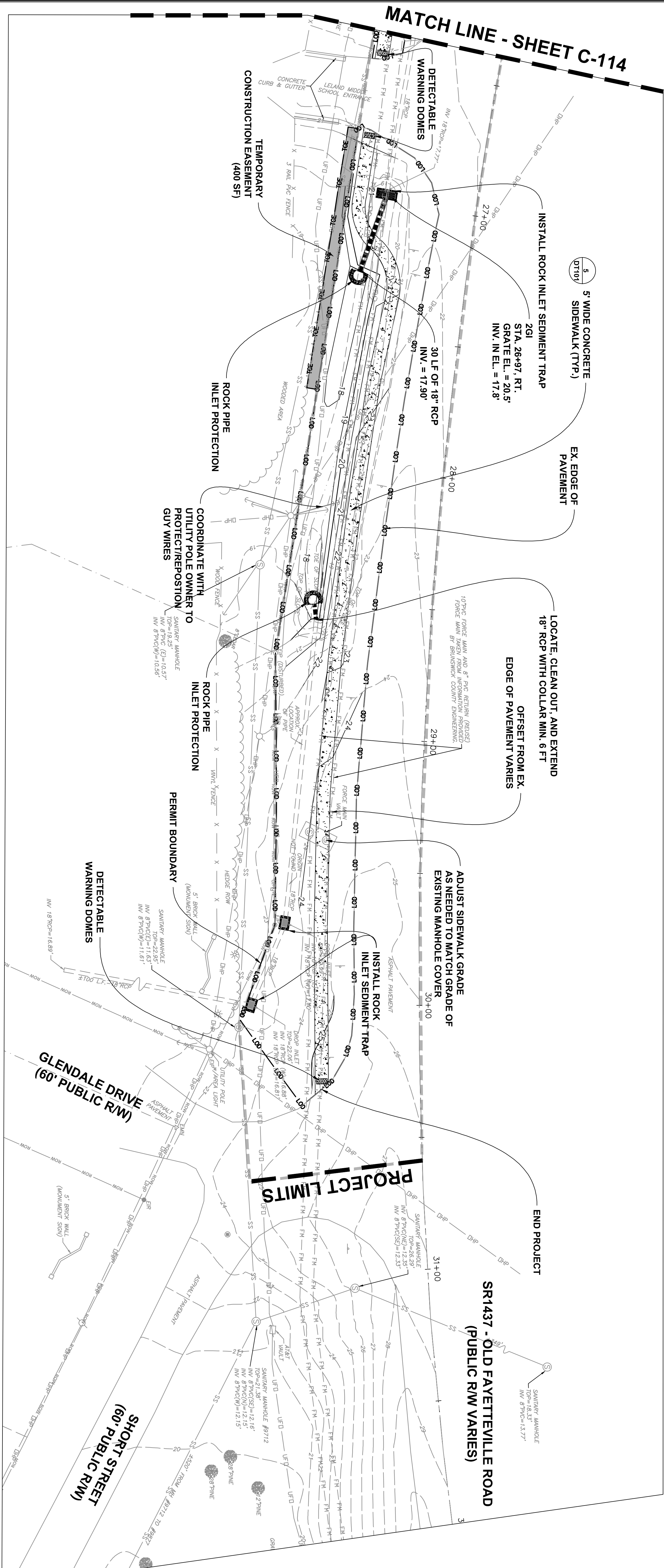
REVISIONS			
NO.	DESCRIPTION:	DATE	BY

PROJECT ENG: TRH	DESIGNED BY: BPD	CHECKED BY: TRH	APPROVED BY: TRH
DRAWN BY: BPD			

PROJECT: 2014 STP-DA PEDESTRIAN IMPROVEMENTS BRUNSWICK COUNTY NORTH CAROLINA TOWN OF LELAND	CLIENT PROJ. NO. U-5534(K) AECOM PROJ. NO. 60402602	SHEET ID: C-114 16 OF 22
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SHEET TITLE: LELAND MIDDLE SCHOOL PEDESTRIAN ACCESS	DATE: 10/31/2017 SCALE: 1"=20'
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AECOM Corporation - North Carolina 201 North Front Street, Suite 509 Wilmington, North Carolina 28401 Telephone (910) 763-8063, FAX (910) 763-8289 www.AECOM.com NCBELS LIC. NO. C-2243	
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SCALE: 1" = 20' - 0"

PLAN

- NOTE:
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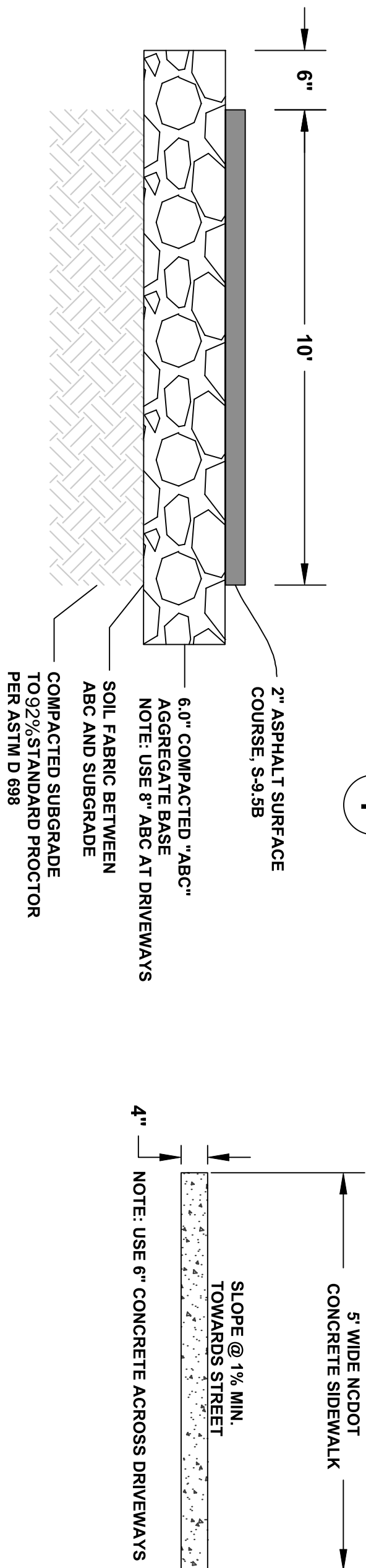
60402602		U-5534(K) AECOM PROJ. NO.		CLIENT PROJ. NO.		PROJECT: 2014 STP-DA PEDESTRIAN IMPROVEMENTS BRUNSWICK COUNTY NORTH CAROLINA TOWN OF LELAND		SHEET 10. C-115		17 of 22	
								DATE: 10/31/2017		SCALE: 1"=20'	
<div><div><div><div><div>AECOM Corporation - North Carolina</div><div>201 North Front Street, Suite 509</div><div>Wilmington, North Carolina 28401</div><div>Telephone (910) 763-8063, FAX (910) 763-8289</div><div>www.AECOM.com</div><div>NCBELS LIC. NO. C-2243</div></div></div><div><div><div><div>PROFESSIONAL SEAL 000359 THOMAS R. HEPLER ENGINEER STATE OF NORTH CAROLINA</div></div></div><div>DATE 3/16/2020</div></div></div></div>											
PROJECT ENG: TRH		DESIGNED BY: BPD		DRAWN BY: BPD		CHECKED BY: TRH		APPROVED BY: TRH		REVISIONS	
NO.		DESCRIPTION:		DATE		BY					
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STD. DRAWING NO. DESCRIPTION

840.01	BRICK CATCH BASIN
840.02	CONCRETE CATCH BASIN
840.03	FRAME, GRATES, AND HOOD
840.14	CONCRETE DROP INLET
840.15	BRICK DROP INLET
840.16	DROP INLET FRAME AND GRATES
840.31	CONCRETE JUNCTION BOX
840.32	BRICK JUNCTION BOX
840.54	MANHOLE FRAME AND COVER
846.01	CONCRETE CURB, GUTTER AND CURB & GUTTER
848.01	CONCRETE SIDEWALK
848.02	DRIVEWAY TURNOUT
848.05	CURB RAMP
848.06	CURB RAMP
876.02	RIP RAP AT PIPE OUTLETS
1205.07	PAVEMENT MARKINGS PEDESTRIAN CROSSWALKS
1264.02	OBJECT MARKERS
1632.03	ROCK INLET SEDIMENT TRAP TYPE C
1635.02	ROCK PIPE INLET SEDIMENT TRAP TYPE B

STANDARD NCDOT DETAILS REFERENCED INTO SET

1



MULTI-USE ASPHALT PAVEMENT

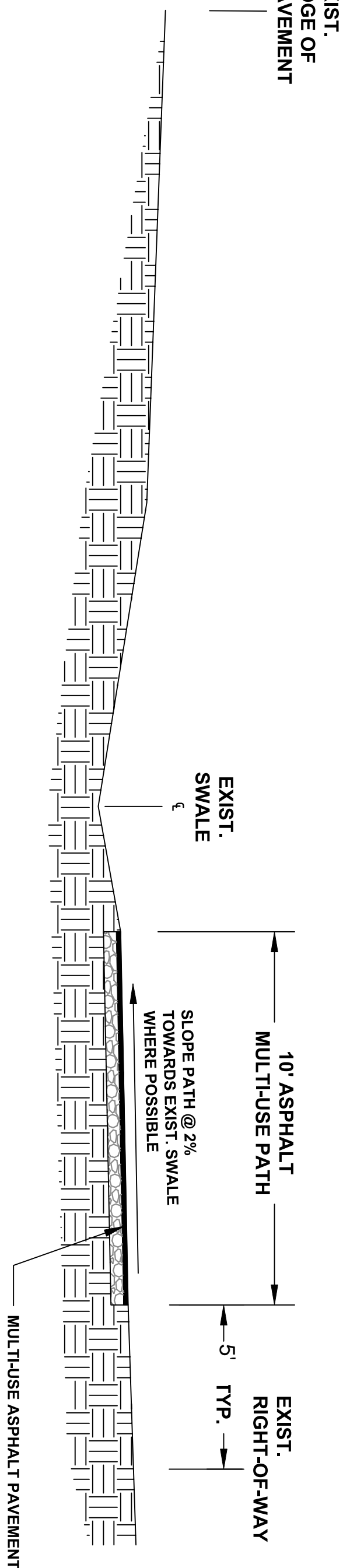
SCALE: NTS

4

CONCRETE SIDEWALK (TYP. SECTION)

SCALE: NTS

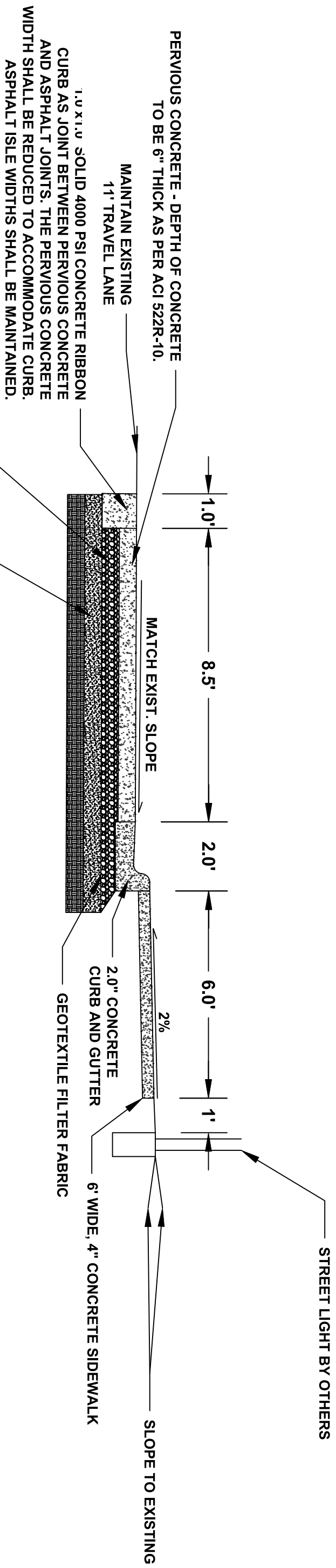
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MULTI-USE PATH, TYPICAL CROSS-SECTION

SCALE: NTS

6

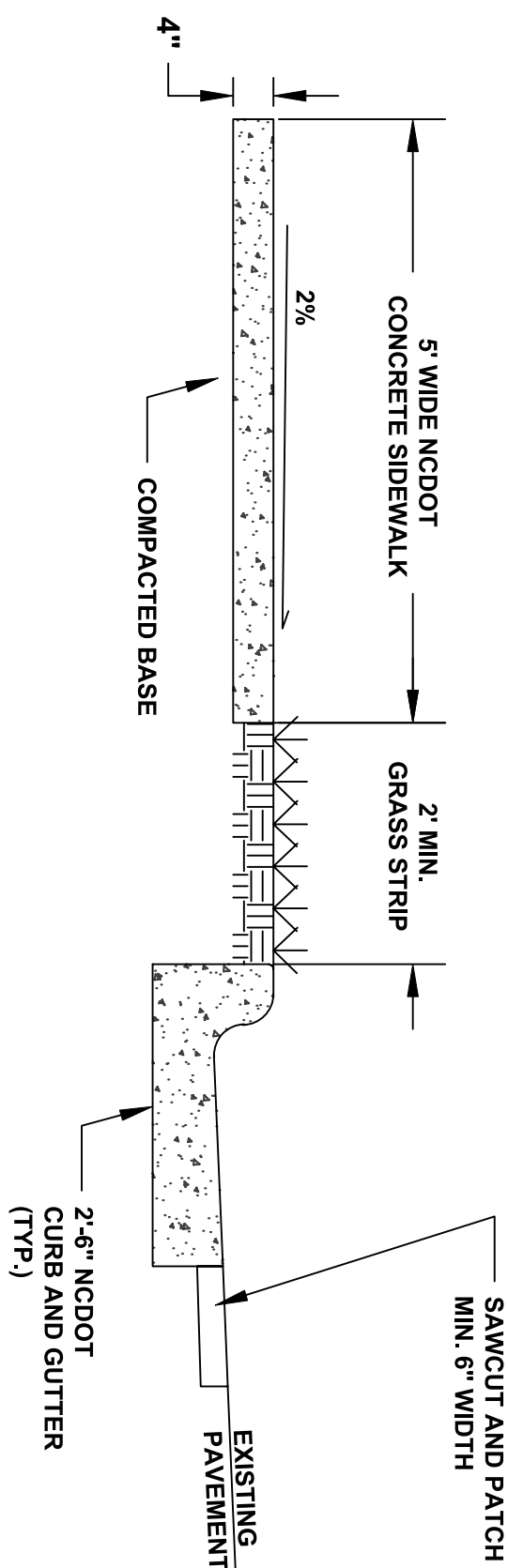


PERVIOUS PAVEMENT WIDENING TYPICAL

SCALE: NTS

7

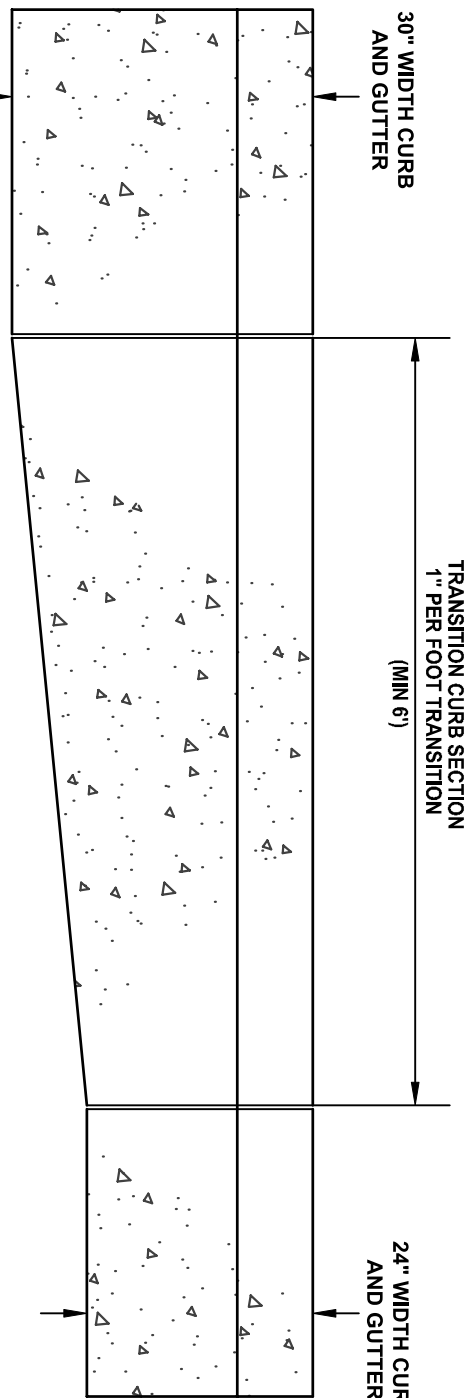
PERVIOUS CONCRETE - DEPTH OF CONCRETE TO BE 6" THICK AS PER ACI 522R-10.
MAINTAIN EXISTING 11' TRAVEL LANE
1.5" x 1.5" SOLID 4000 PSI CONCRETE RIBBON CURB AS LOCATED BETWEEN PERVIOUS CONCRETE AND ASPHALT JOINTS. THE PERVIOUS CONCRETE WIDTH SHALL BE REDUCED TO ACCOMMODATE CURB. ASPHALT ISLE WIDTHS SHALL BE MAINTAINED.
6" OF WASHED #57 STONE (OR EQUIV.) TO ACHIEVE THE MAXIMUM PERVIOUS CREDITS OFFERED BY NCDENR.
CLEAN SAND BACKFILL MATERIAL CONSOLIDATE TO SPECIFIED COMPACTION PER GEOTECHNICAL REPORT.



CONCRETE SIDEWALK WITH GRASS STRIP AND CURB AND GUTTER (TYP. SECTION)

SCALE: NTS

2



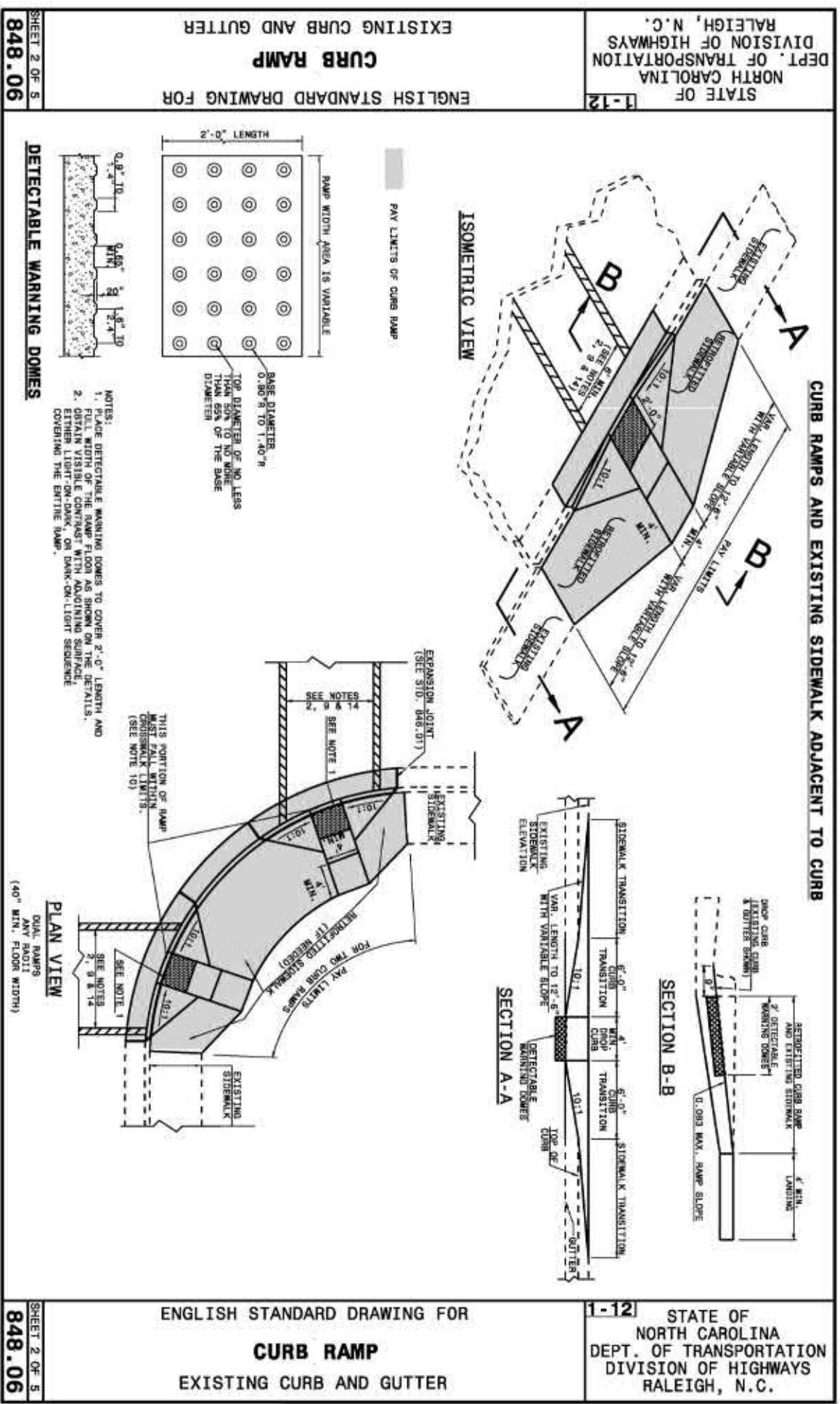
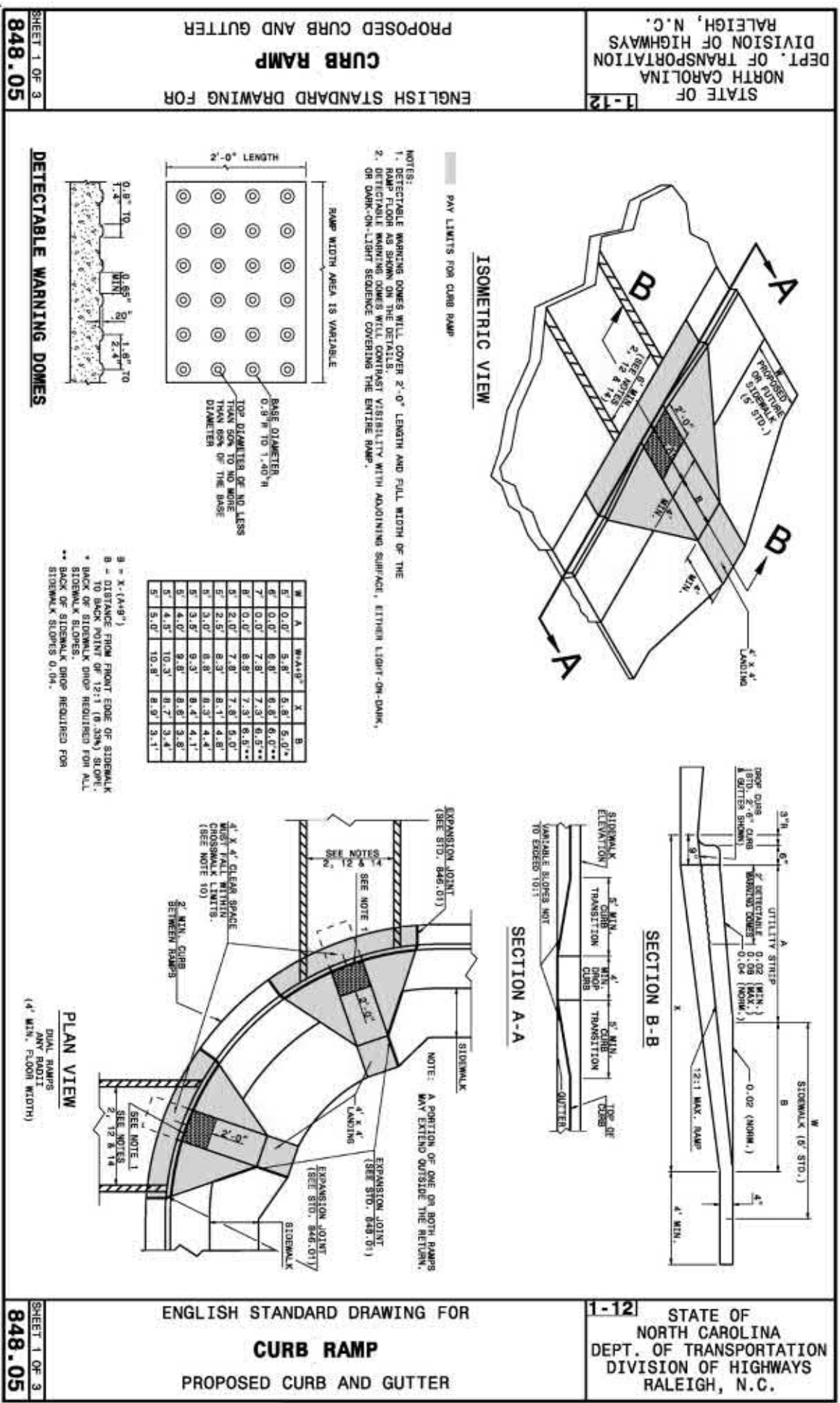
TRANSITION CURB AT CATCH BASINS

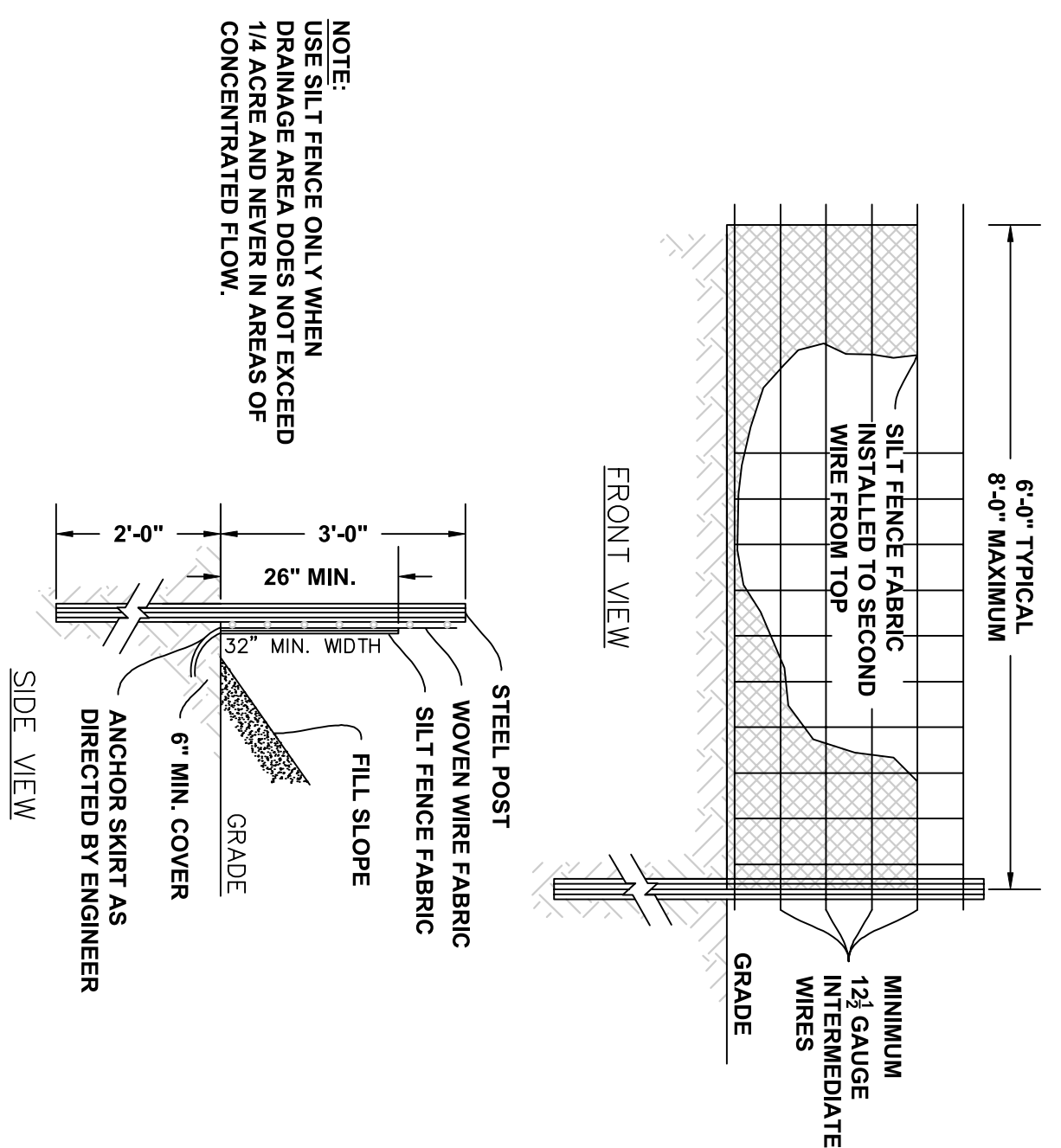
NTS

CURB AND GUTTER TRANSITION FROM 30" TO 24"

SCALE: NTS

3

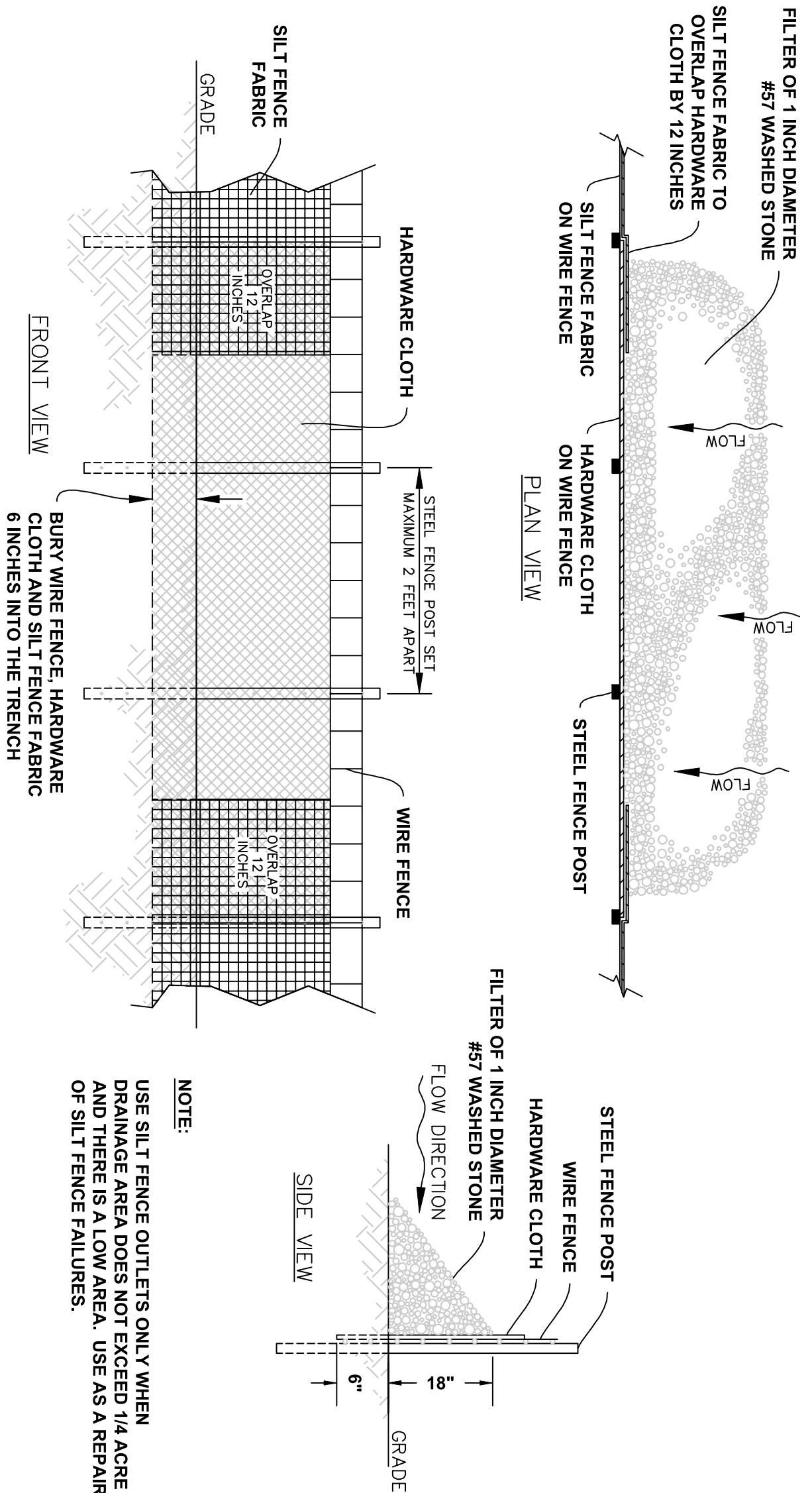




TEMPORARY SILT FENCE

SCALE: NTS

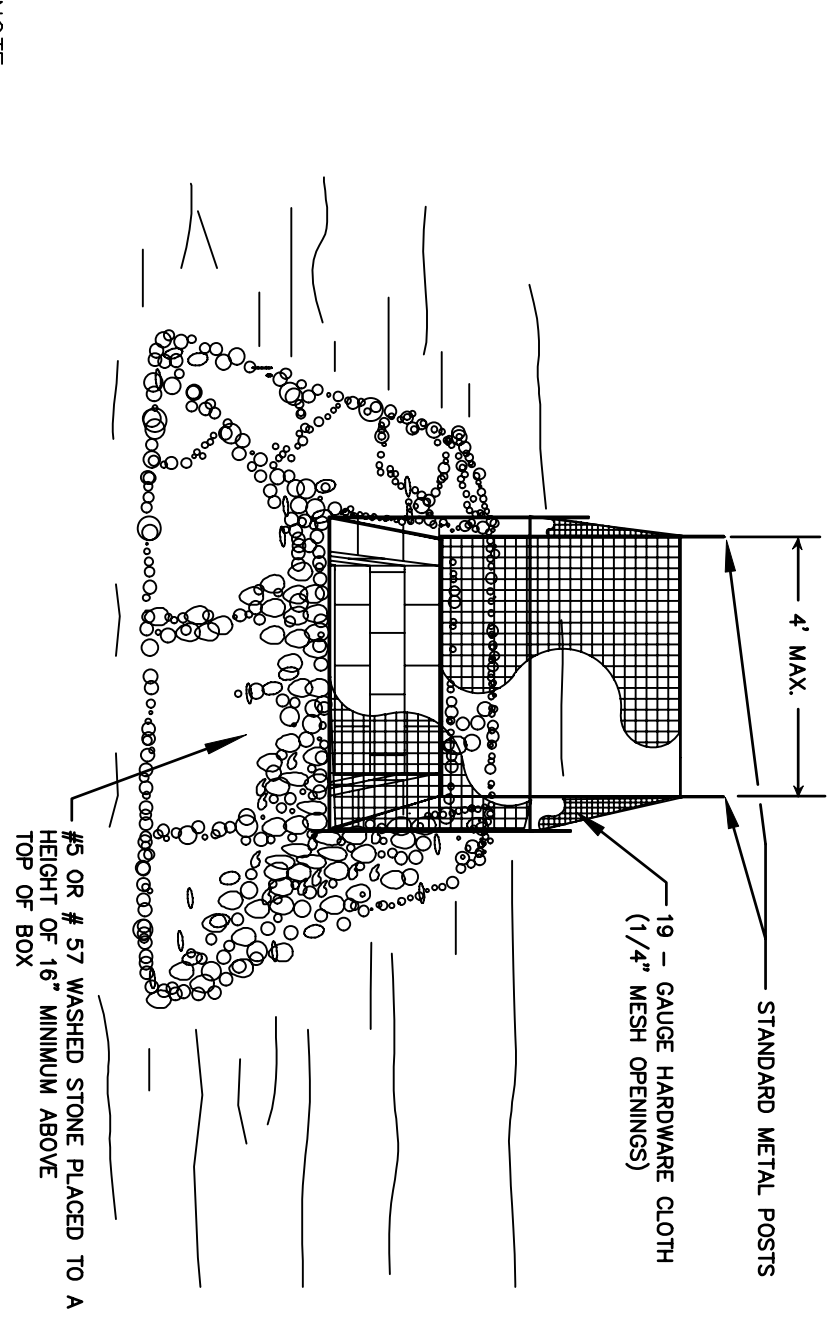
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TEMPORARY SILT FENCE OUTLET

SCALE: NTS

2



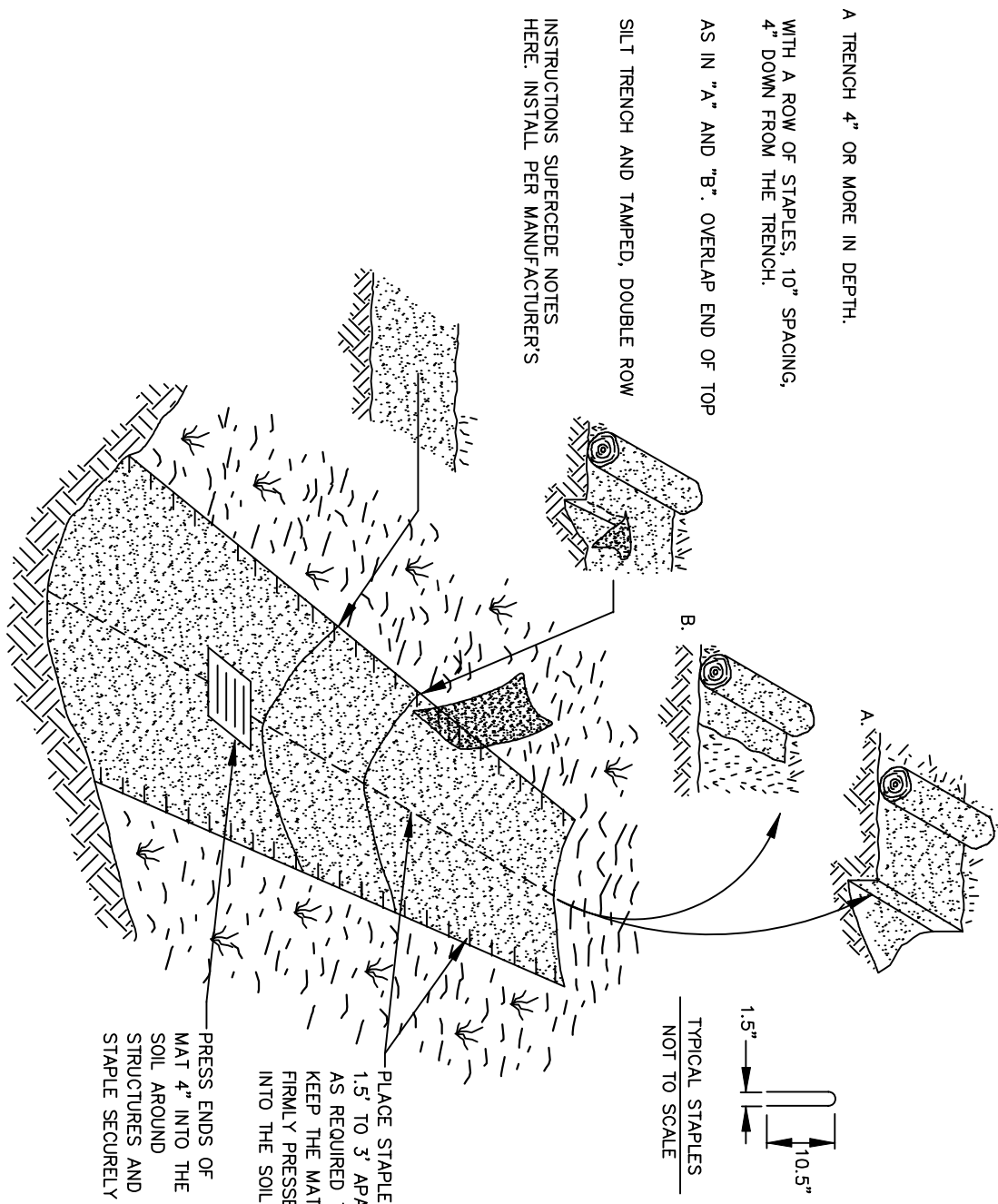
HARDWARE CLOTH & GRAVEL INLET PROTECTION

SCALE: NTS

3

EROSION & SEDIMENT CONTROL NOTES

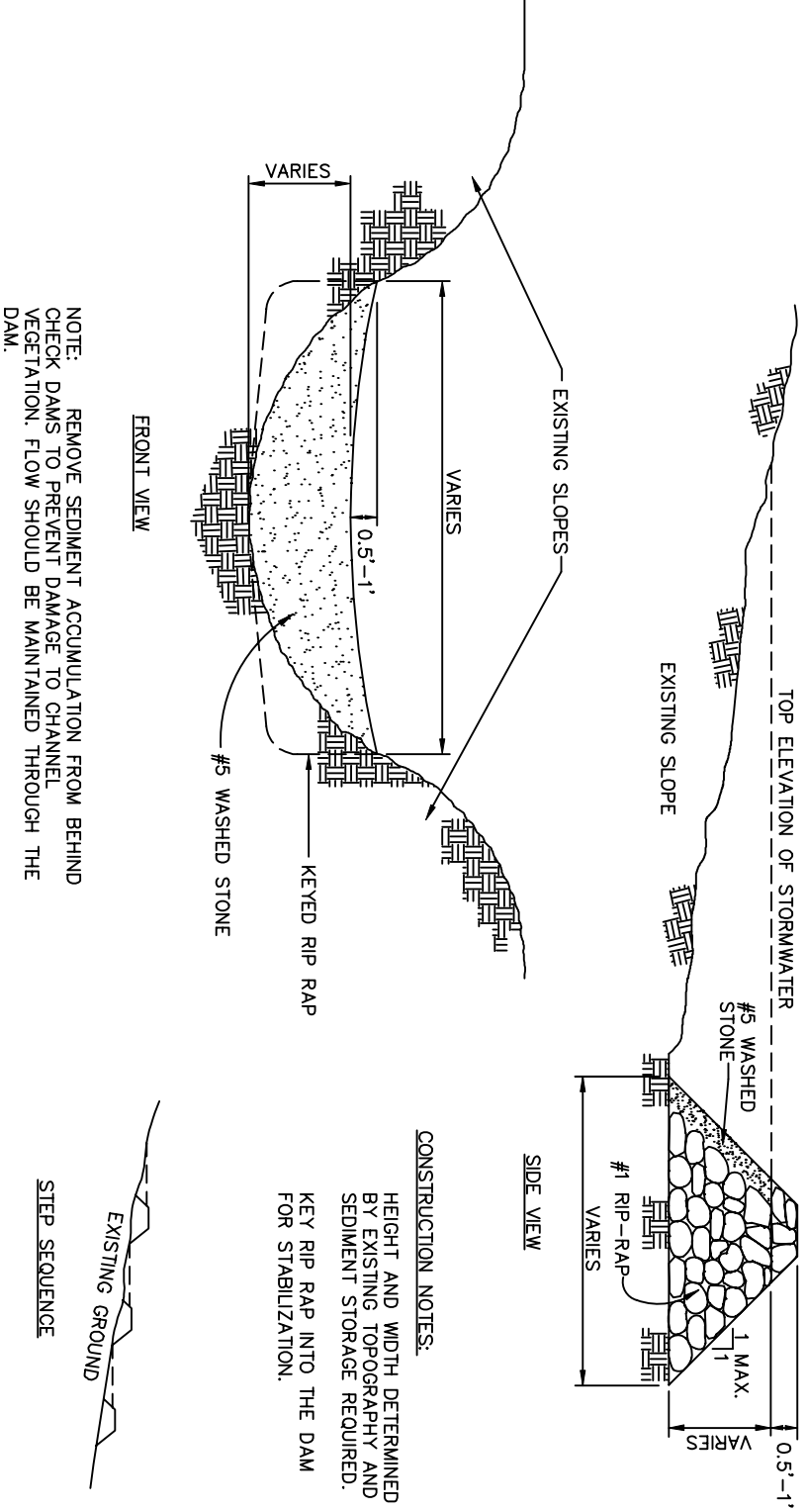
- UNLESS OTHERWISE INDICATED, ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE EROSION CONTROL LAWS OF THE STATE OF NORTH CAROLINA, SPECIFICALLY THE SEDIMENT POLLUTION CONTROL ACT OF 1973, AS AMENDED, AND THE LOCAL EROSION AND SEDIMENT CONTROL ORDINANCES.
- THE FOLLOWING SEQUENCE OF EVENTS AND EROSION CONTROL MEASURES SHALL BE INCORPORATED INTO THE CONSTRUCTION SCHEDULE FOR THIS PROJECT AND SHALL APPLY TO ALL CONSTRUCTION ACTIVITIES WITHIN PROJECT LIMITS:
1. A COPY OF THE APPROVED EROSION & SEDIMENT CONTROL PLAN MUST BE ON FILE AT THE JOB SITE AT ALL TIMES.
2. PROTECT ALL EXISTING DRAINAGE STRUCTURES WITH INLET PROTECTION WITHIN LIMITS OF WORK UNTIL AREA DRAINING TO INLET IS STABILIZED.
3. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHALL BE UNIFORMILY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING.
4. EROSION & SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY GRADING ON SITE.
5. EROSION & SEDIMENT DEVICES MUST BE CHECKED AFTER EACH STORM EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE.
6. CONSTRUCTION, MAINTENANCE AND REMOVAL OF ALL EROSION CONTROL DEVICES ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF LAND RESOURCES (INCENR, DLR) EROSION & SEDIMENT CONTROL PLANNING LAND DESIGN MANUAL.
7. NO SEDIMENT SHALL BE ALLOWED TO RUN OFF THE PROJECT SITE. IF SEDIMENT IS TRACKED ONTO THE ROADWAY, IT MUST BE CLEANED OFF DAILY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING, AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA (STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER).
13. SITES UTILIZED BY THE CONTRACTOR FOR THE PURPOSE OF STORING EQUIPMENT, EXCESS EXCAVATED MATERIALS, STRIPPED TOPSOIL, ETC. SHALL BE ENVIRONMENTALLY SUITABLE FOR SUCH PURPOSES AND SHALL BE APPROVED IN ADVANCE BY THE OWNER. ENVIRONMENTALLY SUITABLE SITES SHALL BE LEVEL, DEVOID OF MATURE STANDS OF TREES, AND ISOLATED FROM DRAINAGE FACILITIES AND FEATURES. WETLANDS, STREAMS, AND STREAM CORRIDORS, SITES SHALL COMPLY WITH ALL EROSION AND SEDIMENT CONTROL REQUIREMENTS OF THE TOWN OF LELAND OR BRUNSWICK COUNTY, WHOEVER HAS JURISDICTION.
14. THE CLEANUP AND DISPOSAL OF EXCESS EXCAVATED MATERIALS SHALL BE DONE AS SOON AS PRACTICAL AND AS THE OWNER MAY DIRECT.
15. ADDITIONAL MEASURES, BEYOND APPROVED PERMITTED DESIGN, TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A LOCAL REPRESENTATIVE OF THE STATE, CITY, OR COUNTY.
16. ANY GRADING BEYOND THE LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE STATE EROSION & SEDIMENT CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
17. REFER TO APPROVED EROSION & SEDIMENT CONTROL PLANS FOR CLEARING LIMITS AND TEMPORARY EROSION & SEDIMENT CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION.
18. SEEDED AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RESEEDED, AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS.
19. GROUND COVER SHALL BE PROVIDED ON EXPOSED SLOPES PER THE GROUND STABILIZATION CRITERIA TABLE AND PERMANENT GROUND COVER FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 30 CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT IN ANY PHASE.



STABILIZATION OF SOIL/CHANNELS STRAW WITH NET BLANKET

SCALE: NTS

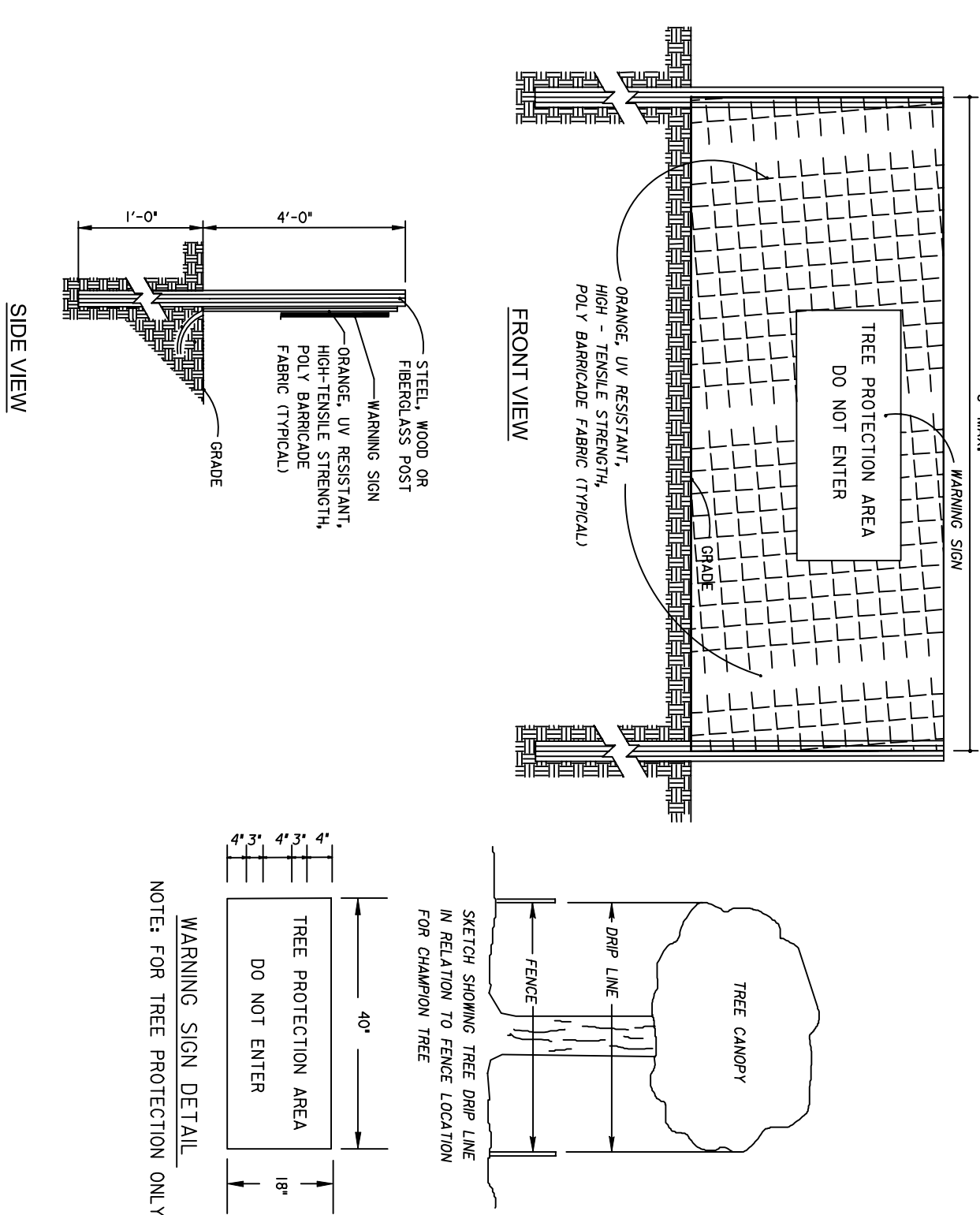
4



STANDARD CHECK DAM

SCALE: NTS

5



STANDARD TREE PROTECTION FENCE

SCALE: NTS

6

GROUND STABILIZATION CRITERIA

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION EXCEPTIONS
PERIMETER DIKS, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14-DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES)

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 UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

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) **INTERMEDIATE ICT:**
Village Road and Old Fayetteville Rd. 800 feet south of Village Rd. : No lane closures between 6:00 and 8:00am and between 3:00 and 6:00pm weekdays and no closures on weekends
All other sections of Fayetteville Rd.: No lane closures between 6:00 and 8:00am and between 2:00 and 3:00pm weekdays and no closures on weekends
- B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

VILLAGE ROAD
OLD FAYETTEVILLE ROAD
PERRY AVENUE
TOWN HALL DRIVE

HOLIDAY

- FOR ANY UNEXPECTED OCCURENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00AM DECEMBER 31ST TO 7:00PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00PM THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00AM THURSDAY AND 7:00PM MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY TO 7:00PM TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00AM THE DAY BEFORE INDEPENDENCE DAY AND 7:00PM THE DAY AFTER INDEPENDENCE DAY.
IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00PM THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY AND TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00AM TUESDAY TO 7:00PM MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
N/A		

- D) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

LANE AND SHOULDER CLOSURE REQUIREMENTS

- E) 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.
- F) 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.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- H) 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.
- I) 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.
- J) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON (ROAD).
- K) PAVEMENT EDGE DROP OFF REQUIREMENTS
BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:
BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.
BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.
BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.
- L) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 200 FEET IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.
- M) TRAFFIC PATTERN ALTERATIONS
NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.
- N) 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.
- O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

- P) 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 RADIIL, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DROWS), 1135 (CONES) AND 1160 (SKINNY DROWS) FOR ADDITIONAL REQUIREMENTS.
- Q) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN RT11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- R) PAVEMENT MARKINGS AND MARKERS
PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE ANOTHER APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- S) THE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- T) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- U) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE CONES TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION

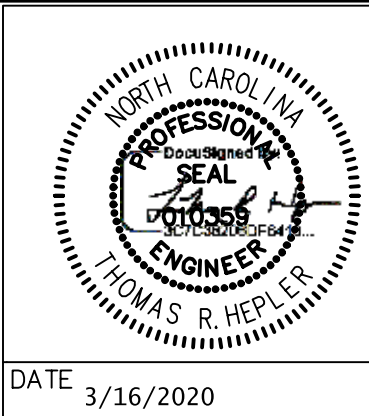
MISCELLANEOUS

- V) LAW ENFORCEMENT SHALL BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- W) ALL CURB RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.

REVISIONS

	BY	DATE	DESCRIPTION:	NO.
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PROJECT ENG: TRH
DESIGNED BY: BPD
DRAWN BY: BPD
CHECKED BY: TRH
APPROVED BY: TRH

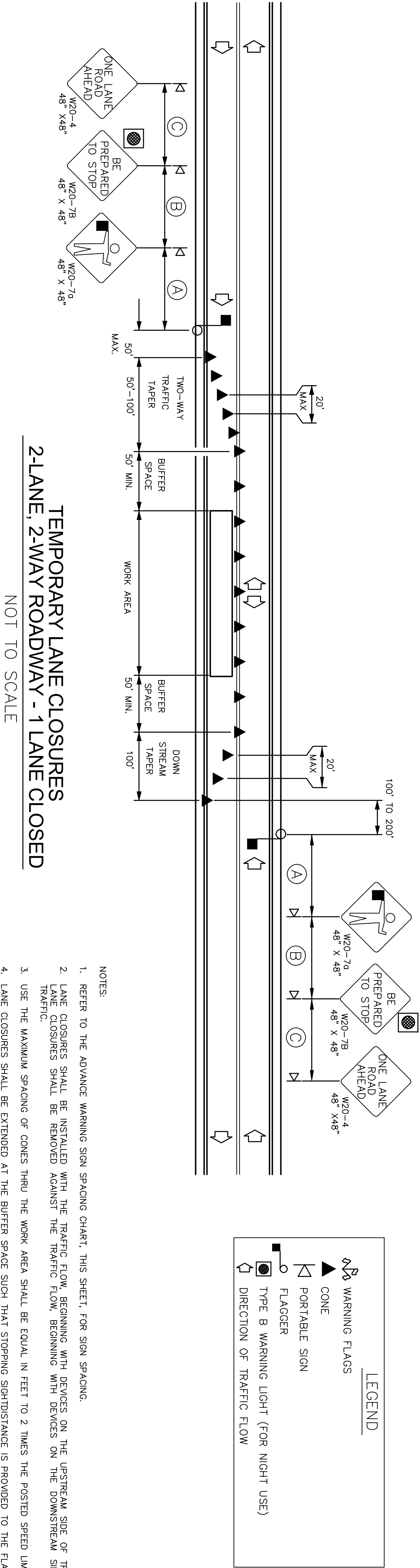


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SHEET TITLE:
TRAFFIC MANAGEMENT PLAN
DATE: 10/31/2017
SCALE: --

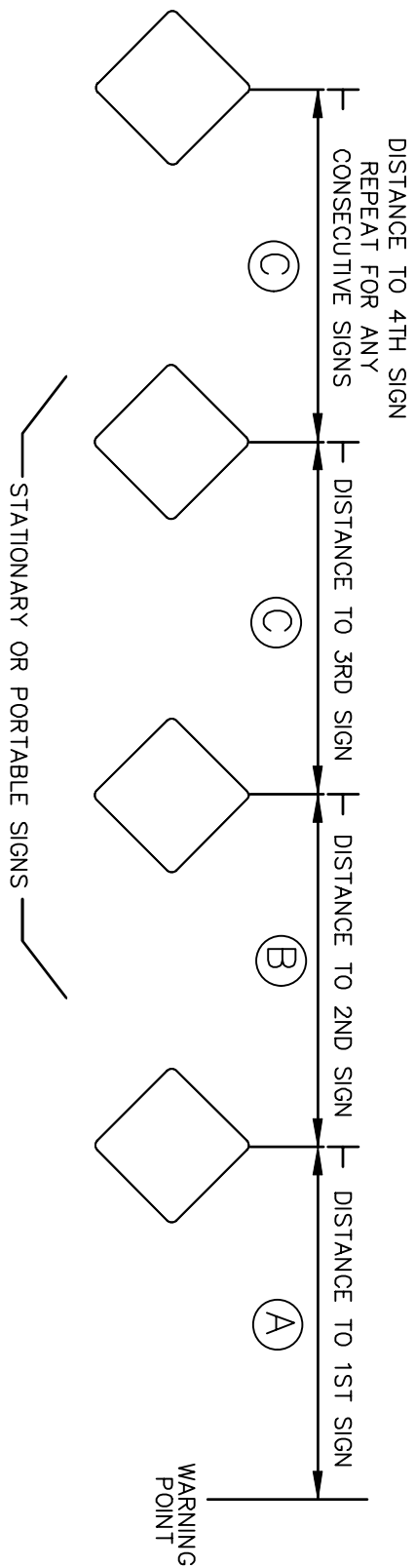
PROJECT:
**2014 STP-DA
PEDESTRIAN IMPROVEMENTS
BRUNSWICK COUNTY
NORTH CAROLINA**
TOWN OF LELAND

CLIENT PROJ. NO.	SHEET 10.
AECOM PROJ. NO.	TOP-100
21 of 22	



TEMPORARY LANE CLOSURES 2-LANE, 2-WAY ROADWAY - 1 LANE CLOSED

NOT TO SCALE



ADVANCE WARNING SIGN SPACING CHART						
POSTED SPEED LIMIT (MPH)	RECOMMENDED DISTANCE BETWEEN SIGNS (FEET)					
	(A)	(B)	(C)			
5-35	200	200	200			
40-50	350	350	350			
55	500	500	500			
CONTROLLED ACCESS ROADS (≥ 55)	1000	1600	2600			

NOTE:
THE ADVANCE WARNING SIGN SPACING CHART IS TO BE APPLIED WHERE A SERIES OF 2 OR MORE SIGNS ARE USED. ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED AS VARIOUS CONDITIONS OCCUR, SUCH AS LIMITED SIGHT DISTANCE, OBSTRUCTION INTERFERENCE, ETC.

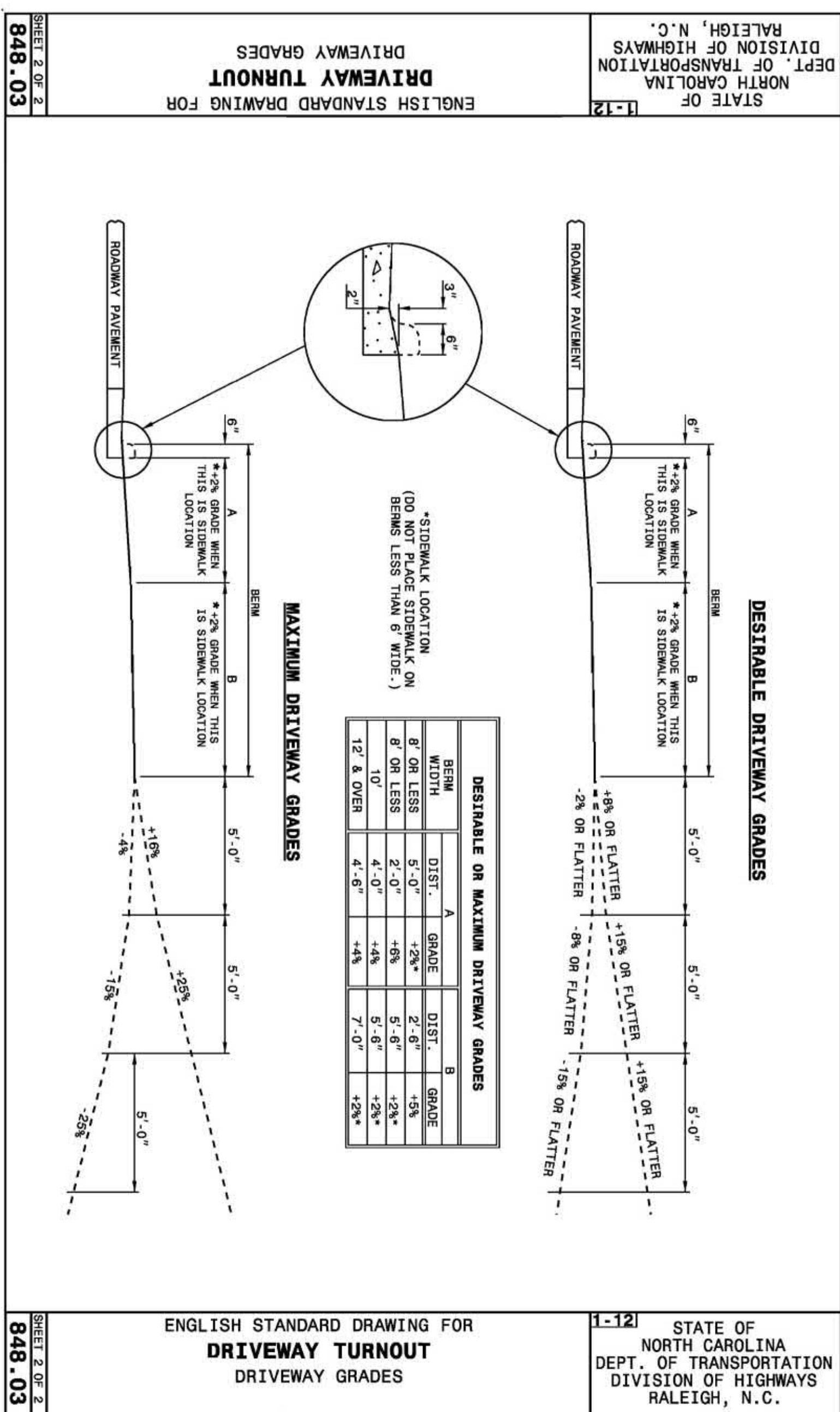
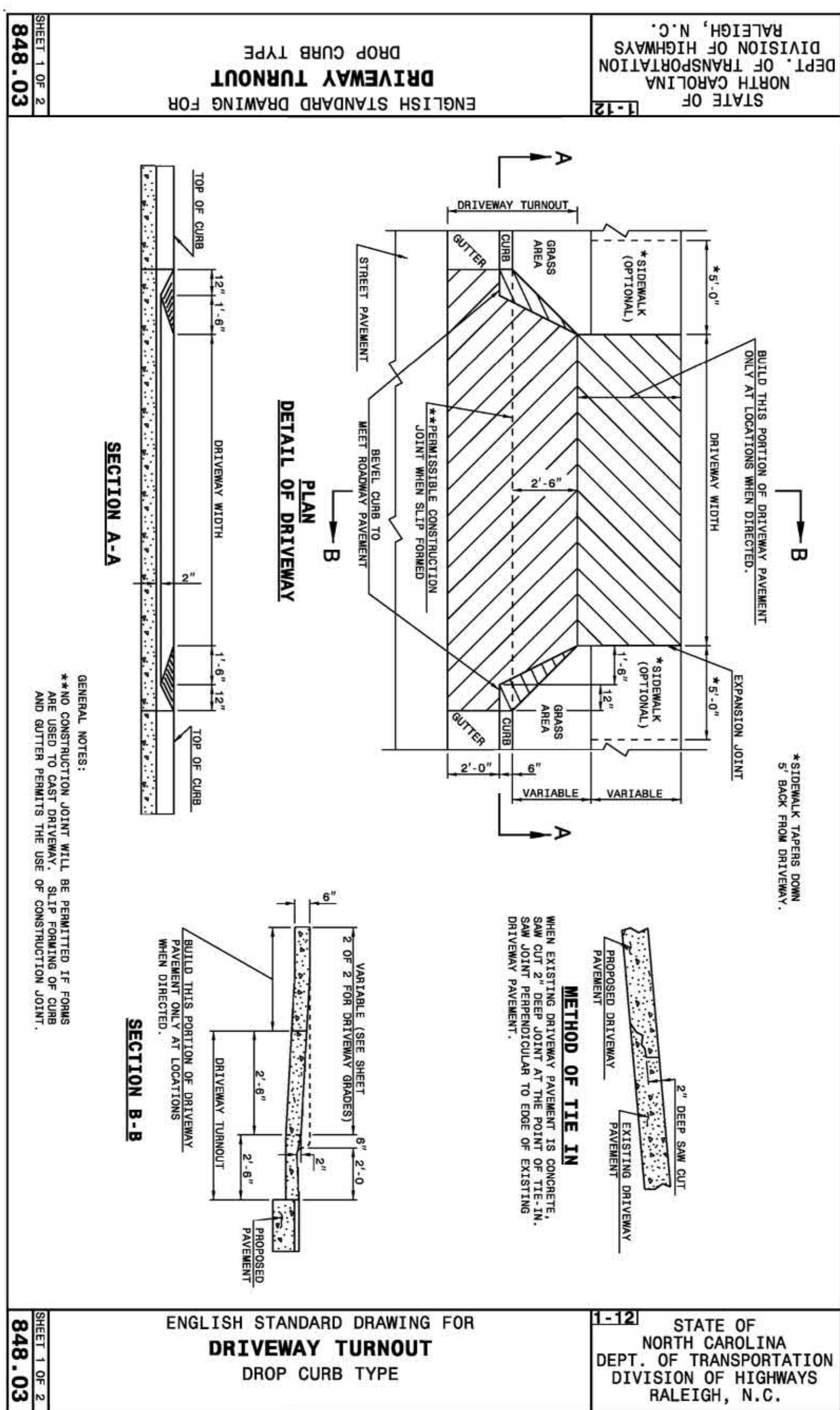
TRAFFIC CONTROL DESIGN TABLES SPACING OF TEMPORARY SIGNS IN SERIES

POSTED SPEED LIMIT (MPH)	MINIMUM LONGITUDINAL BUFFER SPACE (FEET)
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

MINIMUM SIGHT DISTANCE			
POSTED SPEED LIMIT (MPH)	STOPPING SIGHT DISTANCE (FEET)	PASSING SIGHT DISTANCE (FEET)	
30	200	500	
35	250	550	
40	325	600	
45	400	700	
50	475	800	
55	550	900	
60	650	1000	
65	725	1100	

- NOTES:
1. TABLES ARE BASED ON THE AASHTO GREEN BOOK "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". MINIMUM SIGHT DISTANCE VALUES ARE FOR PASSENGER CAR VEHICLES ON WET AND LEVEL ROADWAYS. AASHTO GREEN BOOK SHOULD BE CONSULTED TO MAKE FINAL DETERMINATION OF STOPPING SIGHT DISTANCE REQUIREMENTS.
 2. BUFFER SPACE TABLE IS BASED ON THE BRAKING DISTANCE PORTION OF STOPPING SIGHT DISTANCE FOR WET AND LEVEL PAVEMENTS.
 3. USE OF STOPPING SIGHT DISTANCE IN TRAFFIC CONTROL PLAN APPLICATIONS INCLUDES PROVIDING SIGHT DISTANCE FOR TRAFFIC APPROACHING FROM BOTH DIRECTIONS. STOPPING SIGHT DISTANCE SHOULD BE PROVIDED TO THE BEGINNING OF THE FLAGGER CLOSURE MERGE TAPER OR FLASHING ARROW PANEL. LANE CLOSURES SHOULD BE EXTENDED AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED.
 4. USE OF MINIMUM PASSING SIGHT DISTANCE TABLE IN TRAFFIC CONTROL PLAN APPLICATIONS INCLUDES PROVIDING SIGHT DISTANCE REQUIREMENTS FOR PLACEMENT OF PAIEMENT MARKING PASSING/NO-PASSING ZONES FOR 2-LANE, 2-WAY ROADWAYS.

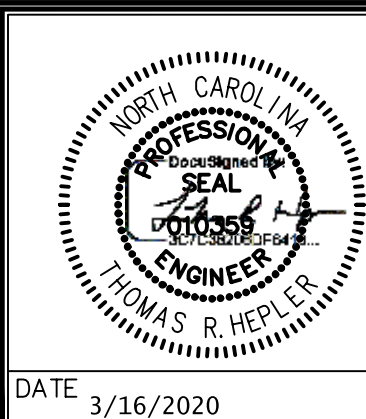
TRAFFIC CONTROL DESIGN TABLES BUFFER SPACE & SIGHT DISTANCE



DESIRABLE OR MAXIMUM DRIVEWAY GRADES				
BERM	A		B	
	WIDTH	DIST.	DIST.	GRADE
B' OR LESS	5'-0"	+2*	2'-6"	+5
B' OR LESS	2'-0"	+6*	5'-6"	+2*
10'	4'-0"	+4*	5'-6"	+2*
12' & OVER	4'-6"	+4*	7'-0"	+2*

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PROJECT ENG:	TRH
DESIGNED BY:	BPD
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APPROVED BY:	TRH



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