

PROJECT MANAGER NICKIE D. MILLS, P.E. CITY ENGINEER, CITY OF STAUNTON
DESIGN SUPERVISED BY NICKIE, D. MILLS, P.E.
DESIGNED BY NICKIE D. MILLS, P.E., CITY ENGINEER

FOR INDEX OF SHEETS SEE SHEET 1B



UPC 109024

STATE	FEDERAL AID	STATE		SHEET NO.
	PROJECT	ROUTE	PROJECT	
VA.			EN16-132-104 SEE TABULATIONS BELOW FOR SECTION NUMBERS	1

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROPOSED CONSTRUCTION PLANS

BESSIE WELLER ELEMENTARY SCHOOL
SAFE ROUTES TO SCHOOL

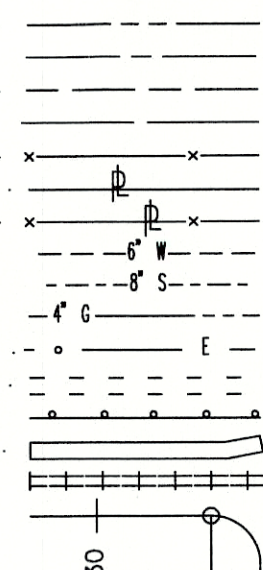
THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE GENERAL NOTES.

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

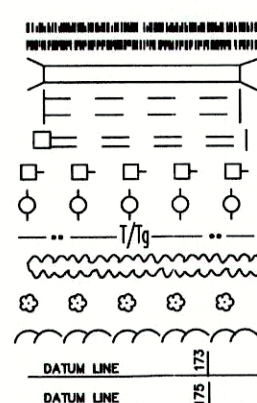
THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2016 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

CONVENTIONAL SIGNS

STATE LINE
COUNTY LINE
CITY, TOWN OR VILLAGE
RIGHT OF WAY LINE
FENCE LINE
UNFENCED PROPERTY LINE
FENCED PROPERTY LINE
WATER LINE
GAS LINE
SEWER LINE
ELECTRIC UNDERGROUND CABLE
TRAVELED WAY
GUARD RAIL
RETAINING WALL
RAILROADS
BASE OR SURVEY LINE



LEVEE OR EMBANKMENT
BRIDGES
CULVERTS
DROP INLET
POWER POLES
TELEPHONE OR TELEGRAPH POLES
TELEPHONE OR TELEGRAPH LINES
LEDGE
TREES
HEAVY WOODS
GROUND ELEVATION
GRADE ELEVATION



POPULATION _____ (____ CENSUS)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	PPMS NO.	LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		TYPE PROJECT	DESCRIPTION
					FEET	MILES	FEET	MILES		
EN16-132-104										

NOTE: PROJECT LENGTH BASED ON CONSTRUCTION BASELINE

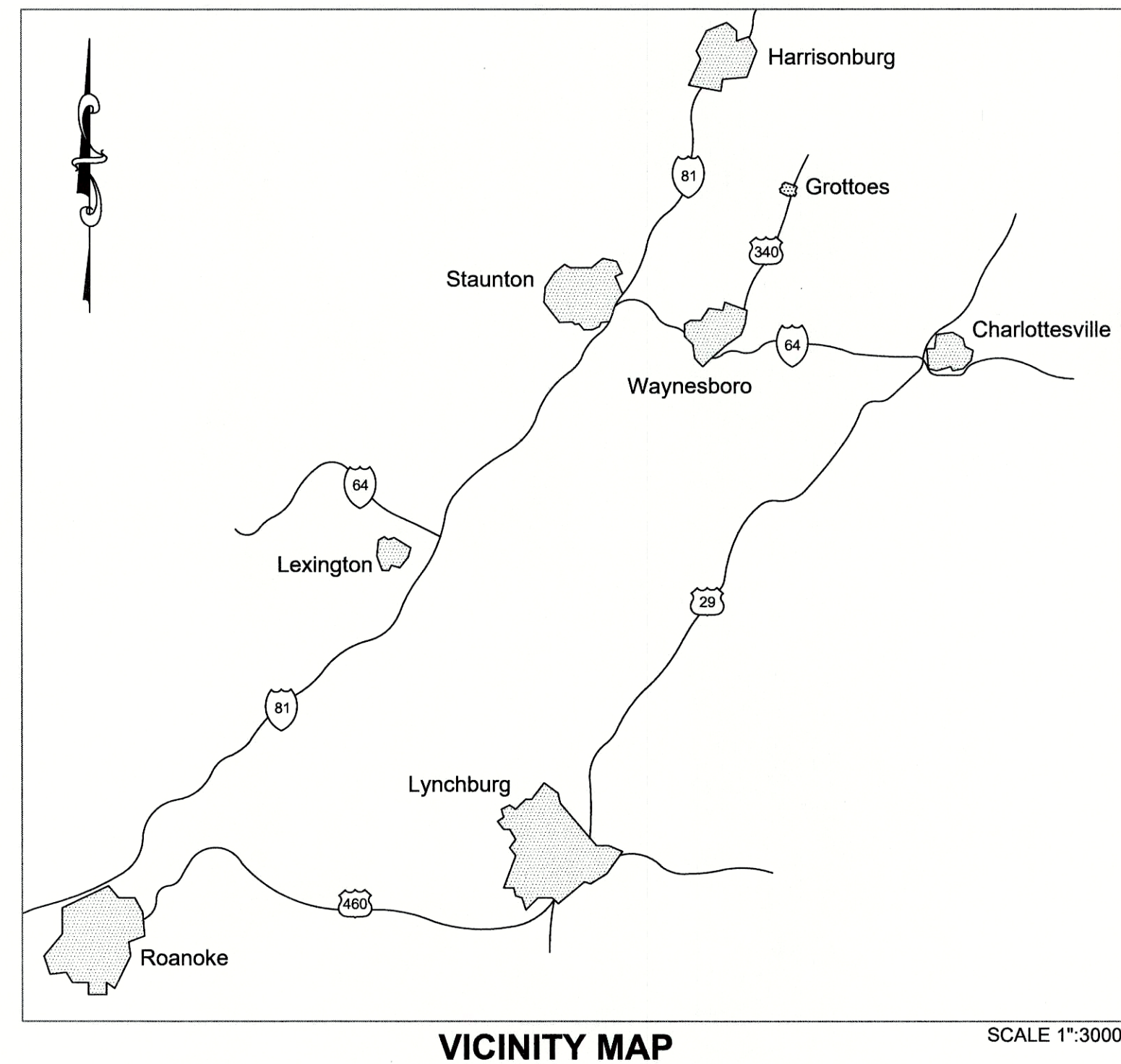
TIER 1 PROJECT

LOCALLY ADMINISTERED PROJECTS	
CITY OF STAUNTON	
NAME OF LOCALITY	
(SIGNATURE)	
NICKIE D. MILLS, P.E.	
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
7-24-19	CITY ENGINEER - CITY OF STAUNTON
DATE	TITLE OF POSITION
(SIGNATURE)	
STEVEN L. ROSENBERG	
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
7-24-19	CITY MANAGER - CITY OF STAUNTON
DATE	TITLE OF POSITION

Copyright 2019 , Commonwealth of Virginia

BESSIE WELLER ELEMENTARY SCHOOL SAFE ROUTES TO SCHOOL

PROJECT NO : EN16-132-104, C501, P101, R201
FHWA No. : TAP-5132(139)
UPC : 109024



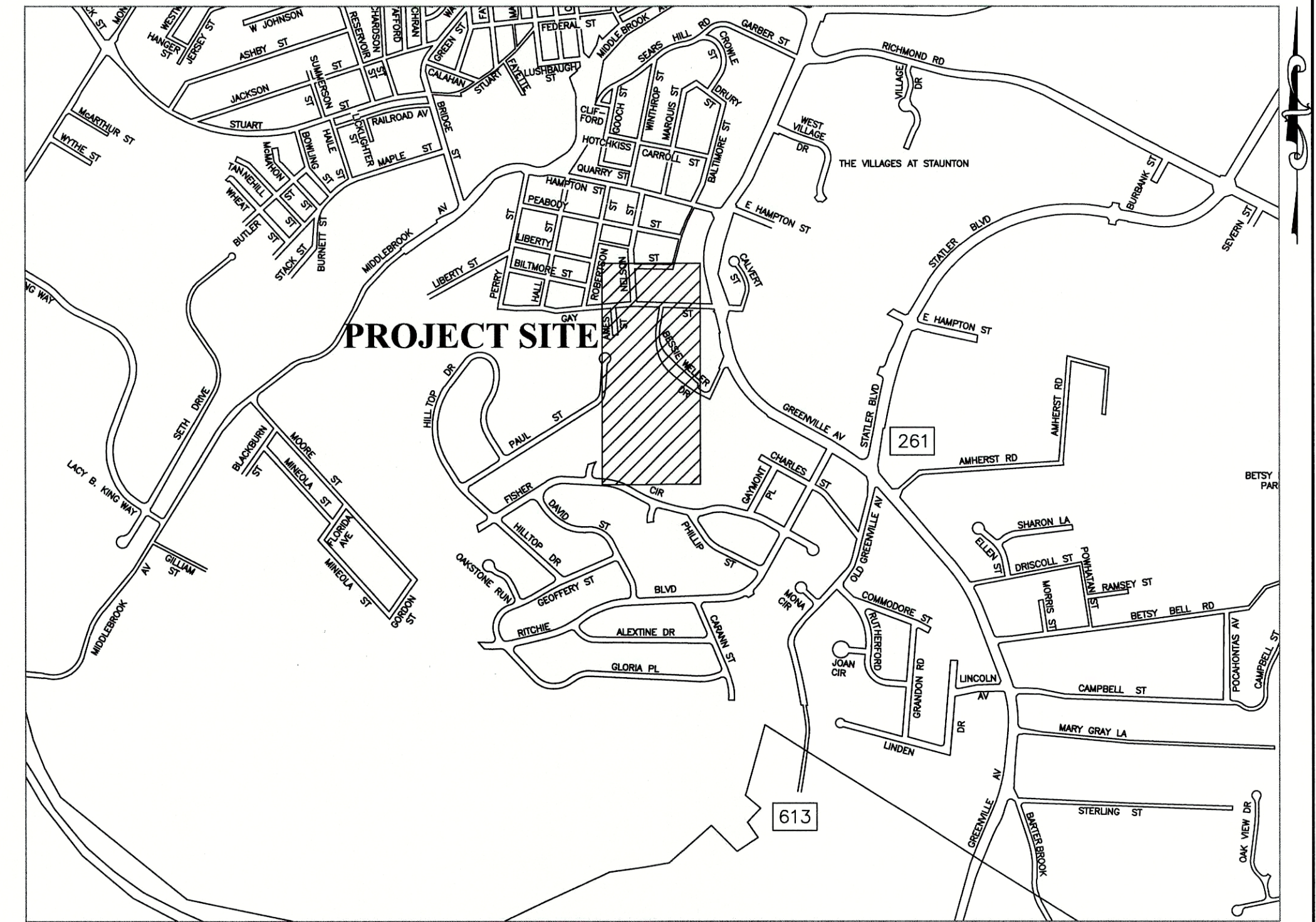
VICINITY MAP

SCALE 1"=3000'

JUNE 4, 2019

CITY OF STAUNTON

116 W. Beverley Street
P.O. Box 58
Staunton, Virginia 24402



LOCATION MAP

SCALE 1"=1000'

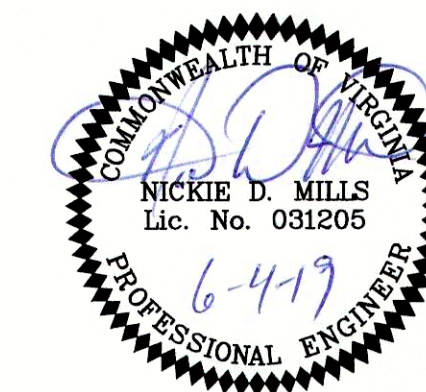
GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, SPECIAL CONDITIONS, CITY OF STAUNTON DESIGN AND CONSTRUCTION STANDARDS, VDOT ROAD AND BRIDGE STANDARDS, HEALTH DEPARTMENT WATER WORKS AND SEWERAGE REGULATIONS AND ANY OTHER APPLICABLE STANDARDS.
2. ALL MATERIAL USED ON THIS PROJECT SHALL BE NEW AND COMPLY WITH THE LATEST REVISION OF THE APPLICABLE AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM), AMERICAN WATERWORKS ASSOCIATION (AWWA), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) & VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD & BRIDGE STANDARDS & SPECIFICATIONS UNLESS OTHERWISE NOTED.
3. THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THE PLANS ARE AS THEY WERE KNOWN AT THE TIME THE PLANS WERE PREPARED. HOWEVER, NOTHING IN THE CONTRACT DOCUMENTS SHALL BE CONSTRUED AS A GUARANTEE THAT SUCH UTILITIES ARE IN THE LOCATION INDICATED OR THAT THEY ACTUALLY EXIST, OR THAT OTHER UTILITIES ARE NOT IN THE AREA OF OPERATION. THE CONTRACTOR SHALL MAKE ALL NECESSARY INVESTIGATIONS TO DETERMINE THE EXISTENCE AND LOCATION OF SUCH LINES. THE CONTRACTOR SHALL PAY FOR ANY DAMAGE TO AND FOR MAINTENANCE AND PROTECTION OF EXISTING UTILITIES AND STRUCTURES.
CALL MISS UTILITY 48 HOURS IN ADVANCE OF DIGGING.
4. THE CONTRACTOR IS TO DIG & LOCATE EXISTING UTILITIES IN ADVANCE OF PIPE LAYING TO ALLOW FOR HORIZONTAL AND VERTICAL ALIGNMENT ADJUSTMENT.
5. UTILITY SERVICES SHALL BE UNINTERRUPTED UNLESS PRIOR APPROVAL IS GIVEN BY THE CITY ENGINEER. THE CONTRACTOR IS REQUIRED TO HANG (CITY PROVIDED) NOTICES ON ALL CUSTOMER DOORS 24 HOURS PRIOR TO UTILITY SHUT-OFFS.
6. MAINTAIN 18" VERTICAL CLEARANCE AT ALL SANITARY SEWER CROSSINGS, AND 12" CLEARANCE AT ALL STORM SEWER CROSSINGS. MAINTAIN 10 FEET HORIZONTAL DISTANCE BETWEEN WATER LINES AND SANITARY SEWER LINES AND MANHOLES.
7. WATERLINE APPURTENANCES SHALL BE LOCATED AWAY FROM DRAINAGE PATTERNS.
8. ALL TOPSOIL, SEEDING & MULCHING OPERATIONS ARE TO FOLLOW IMMEDIATELY BEHIND PIPE LAYING OPERATIONS.
9. ALL PAVEMENT REPAIR IS TO BE KEPT UP WITH LINE INSTALLATION AS DIRECTED BY INSPECTOR.
10. ALL SALVAGE ITEMS REMOVED FROM THE PROJECT SHALL BE DEPOSITED AT THE CITY SALVAGE YARD.
11. ALL TRAFFIC CONTROL DEVICES MUST BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE VIRGINIA WORK AREA PROTECTION MANUAL.
12. EXISTING LINES ARE NOT TO BE ABANDONED UNTIL ALL SERVICES IN THE PROJECT AREA ARE CONNECTED TO NEW LINES.
13. CONTACTS FOR ASSOCIATED UTILITY COORDINATION ARE:
COLUMBIA GAS TERRY HOWARD 290-0203
VIRGINIA POWER RICH PARASKA 245-4121
COMCAST ROB CROSIER 887-3461
VERIZON CALVIN JOHNSON 434-841-8570
14. DRAWINGS FOR THESE PROJECTS ARE BASED ON AVAILABLE RECORDS, SUPPLEMENTED WITH A LIMITED AMOUNT OF FIELD SURVEY.

City Engineer: Nickie D. Mills, P.E.
Phone: 540-332-3858

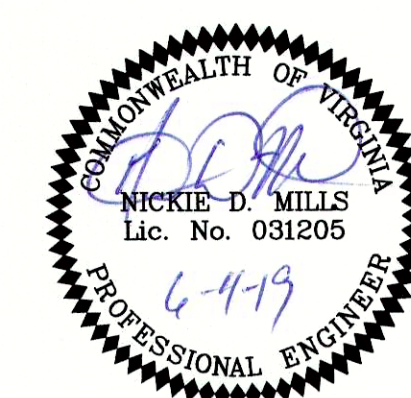
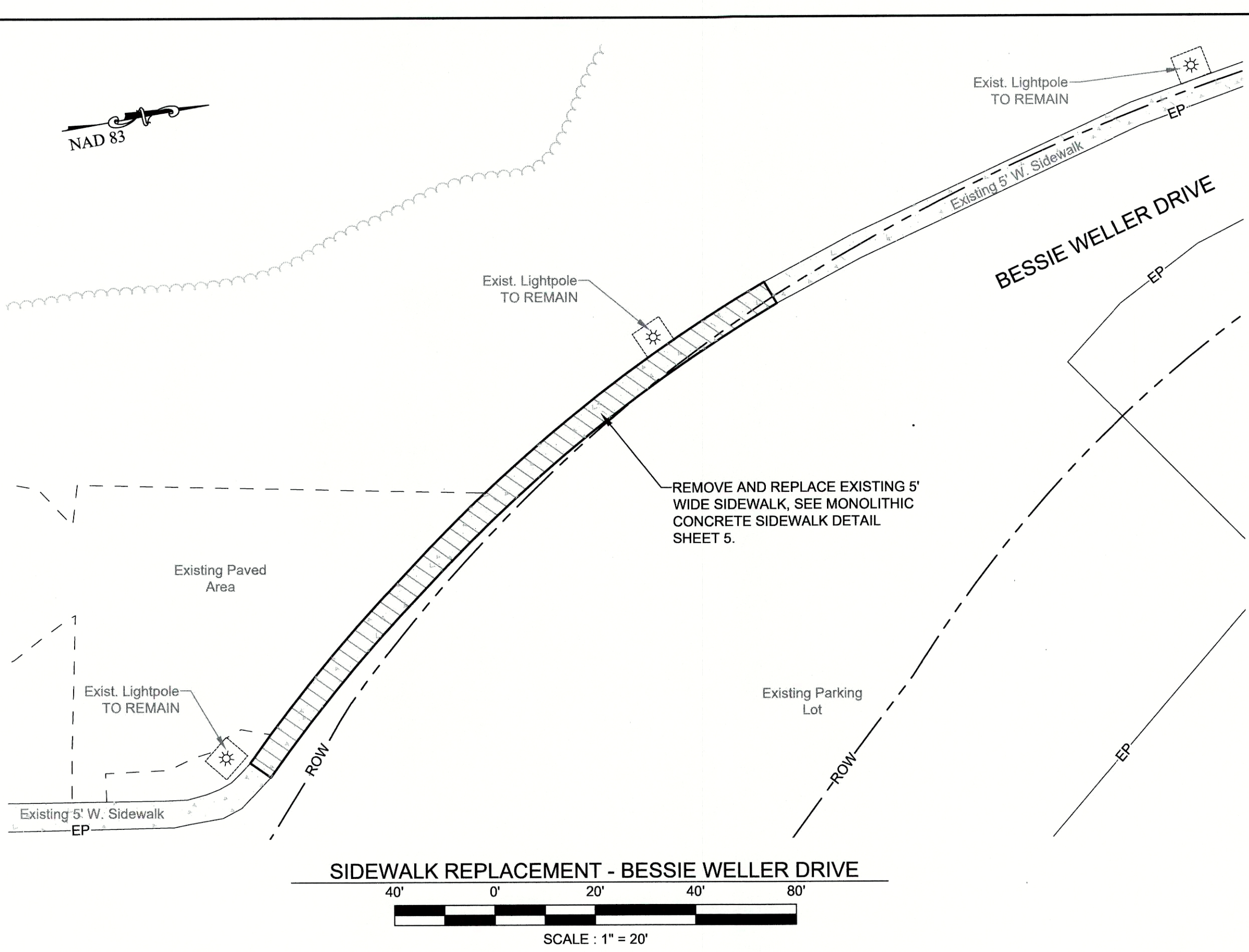
This project's topographic and utility information mapping was completed under the direct and responsible charge of Nickie D. Mills, P.E., from an actual ground survey made under my supervision in May 2018. The survey information on this drawing meets minimum accuracy standards unless otherwise noted.

Data shown outside the limits of the actual field survey (beyond roadway edge of pavement) was obtained from Staunton GIS Database.



SHEET INDEX

SHEET 1	VDOT COVER SHEET
SHEET 1B	TITLE SHEET
SHEET 2	EXISTING PLAN and SIDEWALK REPLACEMENT
SHEET 3	INTERSECTION PLANS
SHEET 4	PEDESTRIAN LIGHTING PLAN and INTERSECTION PLAN
SHEET 5	CONSTRUCTION DETAILS



CITY OF STAUNTON

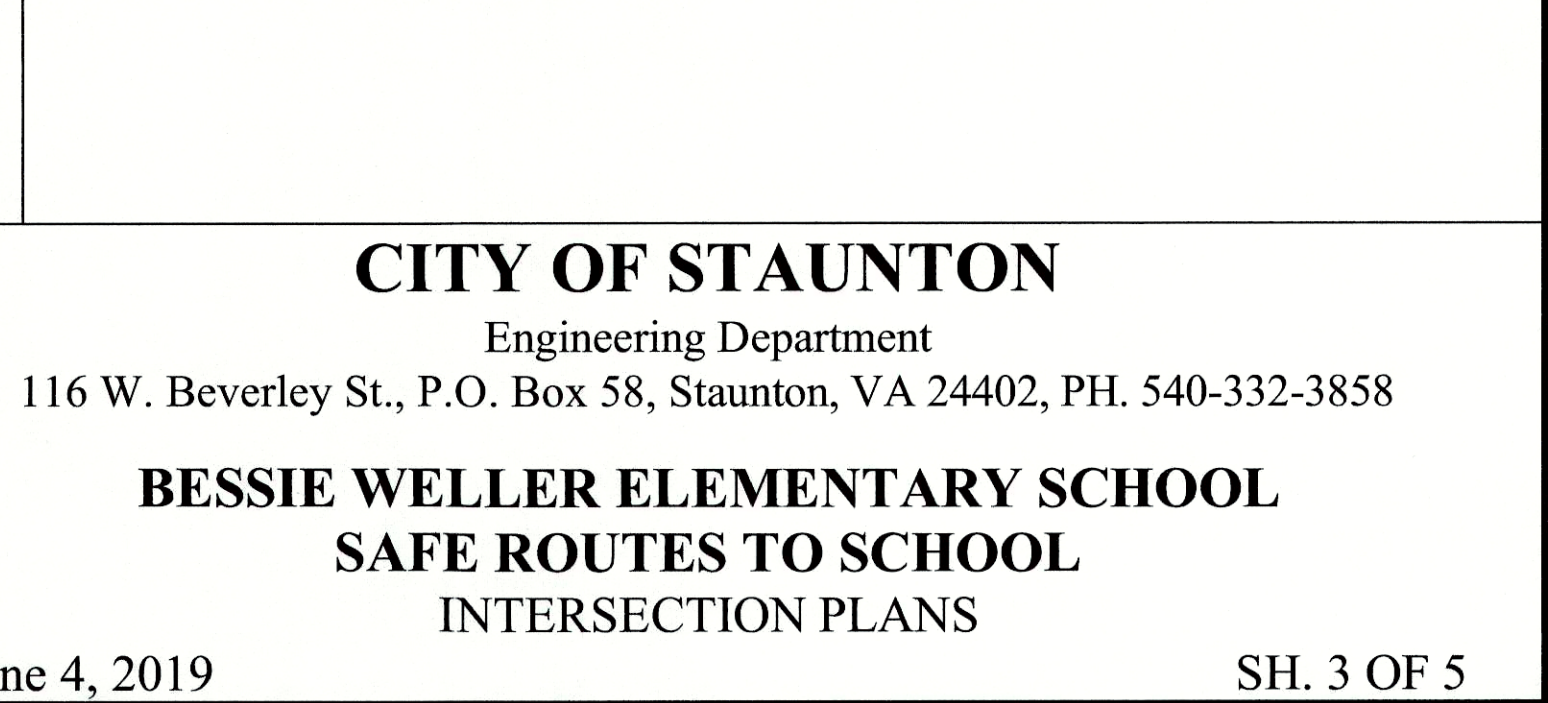
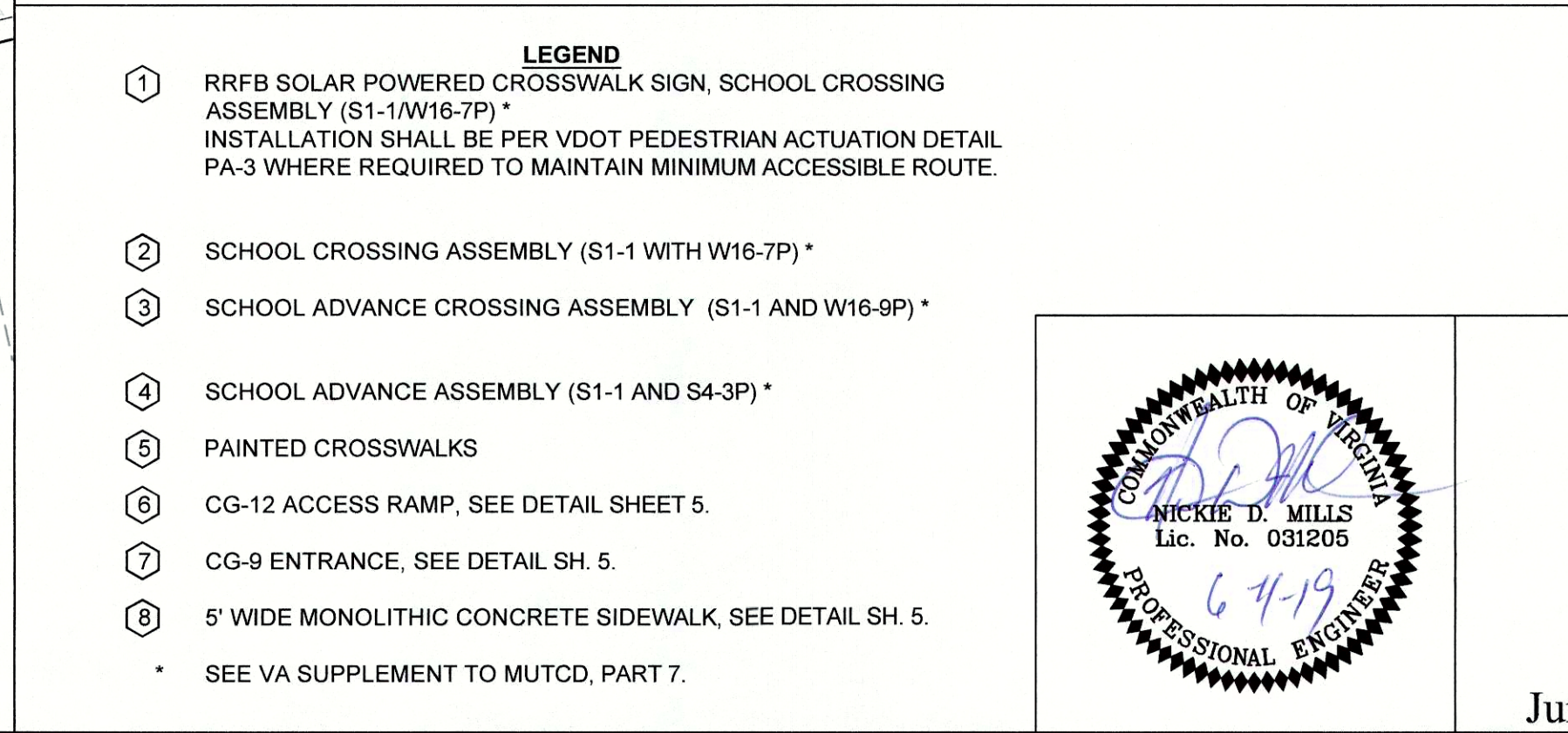
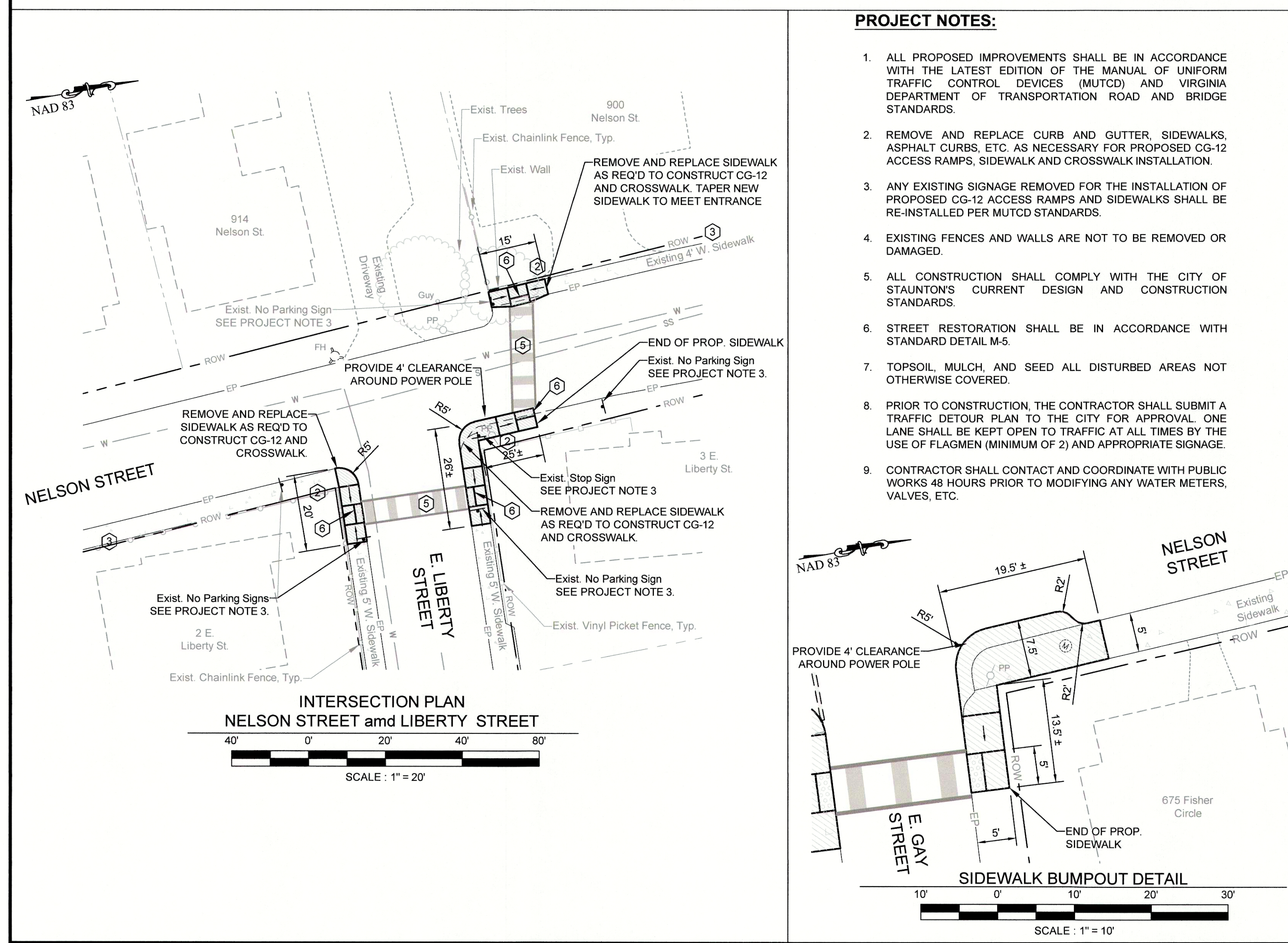
Engineering Department
116 W. Beverley St., P.O. Box 58, Staunton, VA 24402, PH. 540-332-3858

BESSIE WELLER ELEMENTARY SCHOOL SAFE ROUTES TO SCHOOL

EXISTING PLAN and SIDEWALK REPLACEMENT

June 4, 2019

SH. 2 OF 5



TRAIL LIGHTING ELECTRICAL SPECIFICATION

1. General Conditions:

- a. All electrical work, materials and its installation shall comply with the current National Electrical Code (NEC), Uniform Statewide Building Code, and all other applicable local, state and national codes.
- b. All materials shall be new and shall conform to the standards established for their particular application.
- c. The contractor shall be responsible for obtaining all required City permits at their own expense. The successful contractor must have a valid City of Staunton Business License, which can be obtained at the Commissioner of Revenue office, 116 W. Beverley Street, Staunton, VA, and a valid State Corporation Commission (SCC) identification number.

2. Warranty:

- a. Contractor shall provide all warranties including equipment, material defects, appearance, workmanship and performance. Warranties must be of industry standards but not less than one (1) year and will not commence until the City has given the successful bidder written acceptance of the product and its installation.

3. Drawings:

- a. The drawings indicate the general arrangement and location of the pole lights to be installed. Coordinate installation of all electrical conduits with other trades to insure proper positioning through the newly formed concrete footers before concrete is poured.
- b. Contractor shall install all electrical circuits, conduit and equipment as indicated on the drawings and as to the specifications contained herein, unless existing site and building conditions require a change or relocation necessary to perform the work. Any changes to the scope of work, electrical specification or site layout must be preapproved by city personnel prior to commencing work.

4. Site Visit:

- a. All interested contractors are required to visit the job site prior to submitting bids on this project. At the time proposals are received, each contractor will be presumed to have inspected the site and to have satisfied himself/herself as to the nature and locations of the work, the character of the equipment and facilities needed preliminary to and during the prosecution of the work, the general conditions and all other matters which in any way affect the work under this contract.
- b. No verbal agreement or conversation with any officer, agent, or employee of the City either before or after the execution of this contract shall affect or modify any of the terms or obligations herein contained.

5. Raceways/Conduits:

- a. All raceway, conduits and junction boxes shall comply with the provisions of the Electrical Code and shall be sized and installed accordingly.
- b. Continuous raceways are required for all electrical circuits between the lighting controls and pole lights. The minimum size of the conduit shall not be less than the size indicated herein or required by the NEC.
- c. Conduits stubbed out through concrete footers and extending underground to the lighting control shall be (Heavy Wall, Schedule 40 PVC). These conduits shall have a minimum size of 1 inch. **Long sweep 90's shall be used for easier wire installation. All conduits shall be buried a minimum of 24 inches.**
- d. Nylon insulating bushings on conduit ends shall be installed before any wiring is installed.

6. Wires and Cables:

- a. All wiring and cables shall bear the UL label and sized for the intended application of each electrical circuit and shall comply with the requirements of the NEC.
- b. Conductors shall be continuous and free from short circuits, grounds or damaged insulation. Any conductors damaged during installation shall be removed and replaced with new materials without defects.
- c. Lighting circuit feeders shall be copper, 6 AWG, THWN between lighting controls to the hand hole of each pole with an insulation voltage rating of 600 vac.
- d. Fixture conductors shall be copper, 12 AWG, THWN from each pole hand hole to the lighting fixture with an insulation voltage rating of 600 vac. **These circuits shall be fused individually at every pole with a minimum 10 amp GLR fuse assembly.**
- e. Color code all feeder wiring by the use of plastic tape applied within 6 inches of each conductor end.
- f. Terminate all feeder conductors directly to lugs on lighting control contactors.

7. Junction/Pull Boxes and Wiring Troughs:

- a. All boxes and troughs shall be NEMA-3R hot-dipped galvanized steel or heavy wall PVC and shall comply with the requirements of the NEC.
- b. Dimensions of the junction/pull boxes and wiring troughs shall not be less than those required by the NEC for the number, size and position of the conductors entering the box.
- c. All junction/pull boxes and wiring troughs shall be securely fastened using the proper fasteners for metal, wood, concrete or other sub straight surfaces, etc.

6. Grounding Systems:

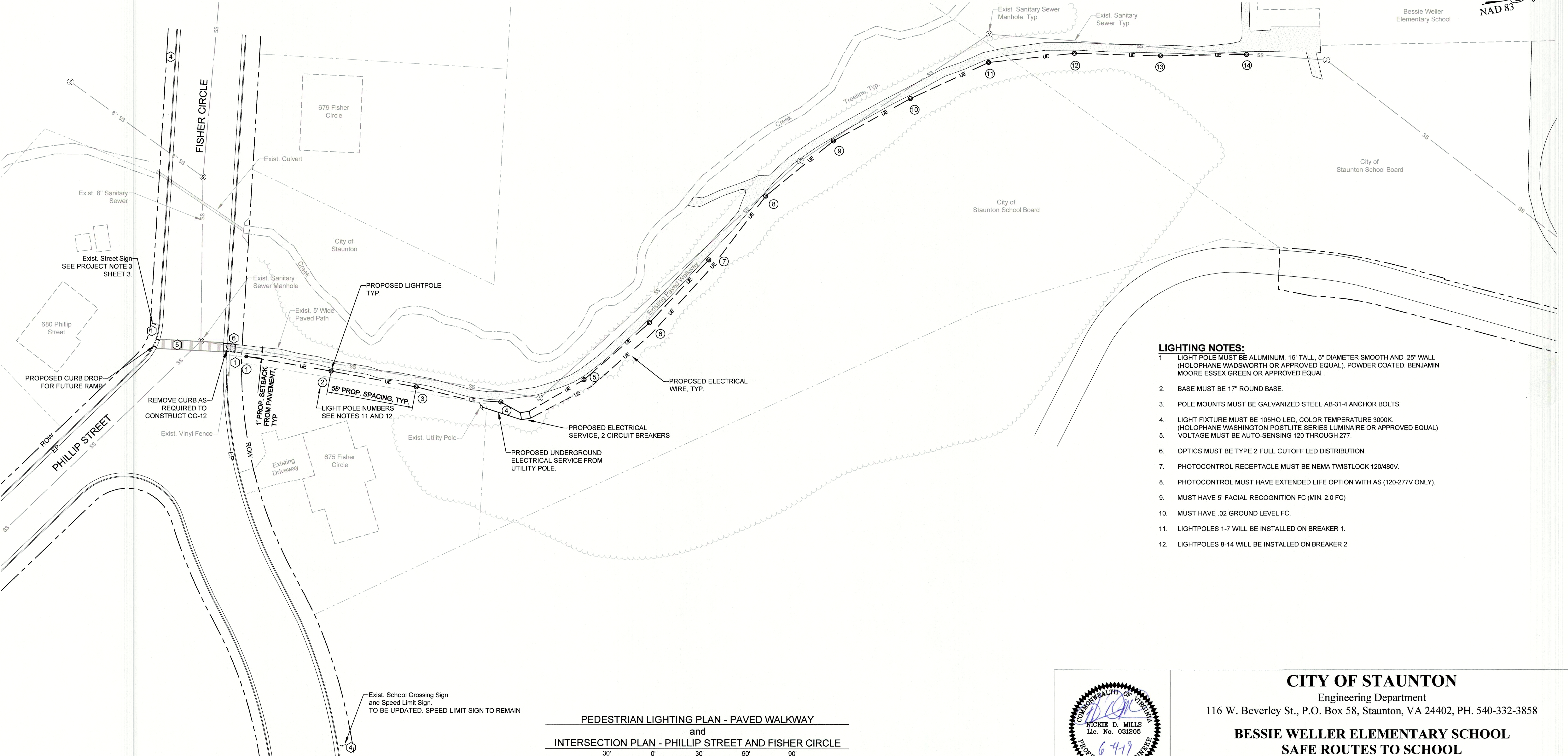
- a. Equipment grounding system shall be established with equipment ground conductors. The use of metallic raceways for equipment grounding is not acceptable.
- b. Install grounding electrodes and conductors at each of new light pole as per the NEC.
- c. The grounding rod shall not be less than 8 feet in length and must be free of nonconductive coatings, such as paint or enamel. The ground rods shall be 5/8" diameter or larger copper clad or galvanized.
- d. The ground rod must be installed so that at least 8 feet of its length is in contact with the soil. Ground rods shall be located as close as possible to the equipment to be protected. Where more than one ground rod is used, each rod shall not be less than 6 feet from any other rod. Ground rods shall be driven in as near as possible to vertical and flush with the ground.
- e. Grounding electrode conductors shall be bare or green insulated copper sized in accordance with the requirements listed in the NEC.
- f. Conductors used as the bonding jumper or grounding rod conductor shall be installed in one continuous length without a splice or joint. The wire is to be kept as short as possible and have smooth, gradual bends. The wire shall be connected to the rod with cast bronze or brass clamps listed for direct soil burial.

9. Electrical Service Installation:

- a. Install 100 amp, single phase 120/240 vac electrical service inside a NEMA-3R rated enclosure as per the requirements of the NEC and local Dominion Energy Blue Book.
- b. Electrical service entry shall be underground from service pole identified on drawings.
- c. Electrical equipment such as meter base, circuit breaker panel and lighting control, etc., shall be supported on a minimum of two - (2) 4" x 8" heavy wall galvanized tubing concreted 24" into the ground and mounted using unistrut.
- d. Service shall be grounded using two - (2) 1/2" x 8" galvanized grounding rods and installed per the requirements of the NEC and the requirements of item 8 of this specification.

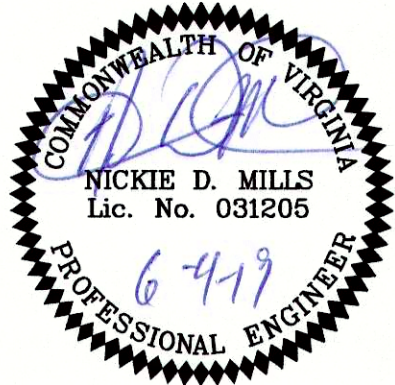
10. Lighting Controls:

- a. Lighting controls shall consist of a seven - (7) day digital, programmable timer.
- b. Two - (2) 20 amp double pole contractors with the light poles split into two - (2) circuits.
- c. Programmable timer, contactors and any other lighting controls shall be mounted inside a NEMA-3R rated enclosure hinged on one side and lockable. The enclosure shall be sized and installed as to the requirements on the NEC.



LIGHTING NOTES:

1. LIGHT POLE MUST BE ALUMINUM, 16' TALL, 5" DIAMETER SMOOTH AND .25" WALL (HOLOPHANE WADSWORTH OR APPROVED EQUAL). POWDER COATED, BENJAMIN MOORE ESSEX GREEN OR APPROVED EQUAL.
2. BASE MUST BE 17" ROUND BASE.
3. POLE MOUNTS MUST BE GALVANIZED STEEL AB-31-4 ANCHOR BOLTS.
4. LIGHT FIXTURE MUST BE 105HO LED, COLOR TEMPERATURE 3000K (HOLOPHANE WASHINGTON POSTLITE SERIES LUMINAIRE OR APPROVED EQUAL) VOLTAGE MUST BE AUTO-SENSING 120 THROUGH 277.
5. OPTICS MUST BE TYPE 2 FULL CUTOFF LED DISTRIBUTION.
6. PHOTOCONTROL RECEPTACLE MUST BE NEMA TWISTLOCK 120/480V.
7. PHOTOCONTROL MUST HAVE EXTENDED LIFE OPTION WITH AS (120-277V ONLY).
8. MUST HAVE 5' FACIAL RECOGNITION FC (MIN. 2.0 FC)
9. MUST HAVE .02 GROUND LEVEL FC.
10. LIGHTPOLES 1-7 WILL BE INSTALLED ON BREAKER 1.
11. LIGHTPOLES 8-14 WILL BE INSTALLED ON BREAKER 2.



CITY OF STAUNTON

Engineering Department
116 W. Beverley St., P.O. Box 58, Staunton, VA 24402, PH. 540-332-3858

BESSIE WELLER ELEMENTARY SCHOOL
SAFE ROUTES TO SCHOOL

PEDESTRIAN LIGHTING PLAN and INTERSECTION PLAN
June 4, 2019 SH. 4 OF 5

