

**Requested Action:** Major Site Plan Approval  
**Project Name:** SPMAJ 2020-01 – Winchester Place Apartments  
**Property Address:** 600 Block of Amelia Street (even side) between Winchester Street and Douglas Street  
**GPIN#:** 7779-94-9964  
**Applicant Name:** Darrell M. Caldwell, W.J. Vakos & Company  
/ [dcaldwell@wjvco.com](mailto:dcaldwell@wjvco.com)  
**Engineer Name:** Will Duncanson, Bowman Consulting  
/ [wduncanson@bowmanconsulting.com](mailto:wduncanson@bowmanconsulting.com)  
**Description:** Construction of a 4-story mixed use building consisting of approximately 3,200 square feet of commercial space and 34 multifamily residential units.  
**Comments Due:** The general public is invited to make inquiries and provide comments regarding this request on or before close of business on March 9, 2020 to [mesherman@fredericksburgva.gov](mailto:mesherman@fredericksburgva.gov).

# MAJOR SITE PLAN

# WINCHESTER PLACE

## GPIN: 7779-94-9964

## CITY OF FREDERICKSBURG, VIRGINIA

## WARD 2 - PRECINCT 201

APPROVAL BLOCK	
DEVELOPMENT ADMINISTRATOR	DATE
ZONING ADMINISTRATOR	DATE
STORMWATER ADMINISTRATOR	DATE
APPROVED FOR WORK RELATED TO PUBLIC WATER, SEWER, STORM DRAINAGE, STREET TREES AND RIGHTS-OF-WAYS.	
DEPARTMENT OF PUBLIC WORKS	DATE
APPROVED FOR FIRE LANES AND SIGNAGE, HYDRANT LOCATIONS AND COLOR CODING, FDC AND PIV LOCATIONS, TURNING RADII AND ROADWAY WIDTH FOR EMERGENCY VEHICLES.	
FIRE MARSHAL	DATE

**PASS GENERAL NOTE**

DUE TO RECENT FINDINGS OF POSSIBLE ACID SULPHATE SOILS (PASS) WITHIN THE PROXIMITY OF THE CITY OF FREDERICKSBURG, IT IS RECOMMENDED THAT THE DEVELOPER, BUILDERS AND ENGINEERS BE AWARE THAT IF ACID SULPHATE SOILS AS WELL AS OTHER SOILS THAT PRODUCE A PH OF <4 ARE PRESENT ON THE PROJECT SITE EXTENSIVE TREATMENT TO BRING THE SOILS ACID/PH LEVEL TO AN ACCEPTABLE LEVEL TO SUSTAIN ANY FORM OF PLANT GROWTH MAY BE REQUIRED.

**HUC**

SIXTH ORDER HYDRAULIC UNIT CODE - R446

**CHESAPEAKE BAY PRESERVATION STATEMENT**

THE PROPERTY IS OUT OF A CHESAPEAKE BAY RESOURCE MANAGEMENT AREA (RMA) AND DOES NOT CONTAIN A 100-FOOT RESOURCE PROTECTION AREA BUFFER.

**FIRM NOTE**

THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE X (UNSHADED), AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD, AS GRAPHICALLY SHOWN ON FIRM MAP COMMUNITY PANEL NUMBER 5100650037C, DATED SEPTEMBER 19, 2007.

**CITY WATER AND SEWER TAP PROCEDURES**

THE CONTRACTOR/OWNER SHALL NOTIFY THE BUILDING AND DEVELOPMENT SERVICES DEPARTMENT PRIOR TO ANY TAP WORK WITHIN THE CITY TO OBTAIN APPROVAL, PAY FEES AND OBTAIN PERMITS. A SPECIAL EXCAVATION PERMIT SHALL BE REQUIRED WHEN WORKING IN THE RIGHT OF WAY. A COPY OF THE APPROVED UTILITY PLAN WILL BE REQUIRED FOR ALL SUBMISSION REQUESTS FOR TAPS. THIS APPROVED UTILITY PLAN SHEET MUST SHOW ALL REQUIRED TAP INFORMATION TO INCLUDE THE SIZE OF THE WATER AND SEWER LINE TAPS AND WATER METER SIZE AND TYPE.

IF THE SITE CONTRACTOR IS MAKING THE TAPS, THEY WILL NEED TO SEND A LETTER REQUESTING PERMISSION TO THE DIRECTOR OF PUBLIC WORKS, DOUG FAWCETT, TO PERFORM SUCH TAPS. THIS LETTER WILL NEED TO INCLUDE THREE REFERENCES FROM JOBS WHERE THEY HAVE ALREADY PERFORMED THIS TYPE OF WORK. ONCE APPROVED, A COPY OF THE APPROVAL NEEDS TO BE PROVIDED BY THE CONTRACTOR TO BUILDING AND DEVELOPMENT SERVICES.

IF THE CONTRACTOR WOULD LIKE THE CITY TO MAKE THE TAPS, FEES FOR THESE TAPS WILL BE PAID AT TIME OF PERMIT PICK UP.

A WORK ORDER (GREEN SHEET) FOR WATER & SEWER SERVICE INSTALLATION IN THE CITY WILL NOT BE RELEASED TO THE CITY SHOP UNTIL ALL FEES HAVE BEEN PAID.

**GPS TIE IN NOTE**

THE SITE PLAN SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 AS COMPUTED FROM A FIELD SURVEY WHICH TIES THIS DEVELOPMENT BOUNDARY TO HV 2876 K 463.

THE GRID FACTOR (ELEVATION FACTOR X SCALE FACTOR) THAT HAS BEEN APPLIED TO THE FILED DISTANCE TO DERIVE THE REFERENCED COORDINATES IS 0.99996525713. UNLESS OTHERWISE STATED, THE PLAT DISTANCES SHOWN ARE INTENDED TO BE HORIZONTAL DISTANCES MEASURED AT THE MEAN ELEVATION OF THE DEVELOPMENT.

THE BEARINGS SHOWN ARE REFERENCED TO VIRGINIA STATE PLAN 1983 GRID NORTH.

**NOTE**

ALL DETAILS AND SPECIFICATIONS HEREIN ARE PROVIDED FROM THE MANUFACTURER OR GOVERNING LOCALITY. BCG ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR VERIFICATION OF THE ACCURACY OF SAID DETAILS OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND/OR MANUFACTURER TO VERIFY THE ACCURACY OF DETAILS OR SPECIFICATIONS AND TO PROVIDE MATERIALS TESTING ON ANY MATERIALS TO BE USED IN THE CONSTRUCTION OF THIS PROJECT PRIOR TO THEIR INSTALLATION.

**ACCESSIBILITY NOTES (FHA)**

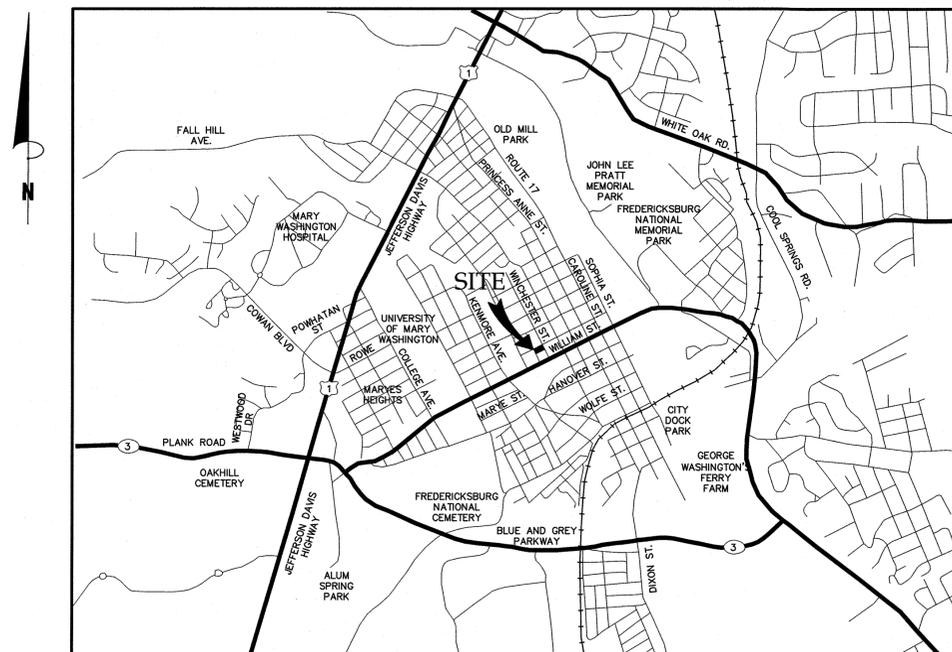
- THE DESIGN PROFESSIONAL SIGNING THIS DOCUMENT REPRESENTS THAT TO THE BEST OF HIS/HER PROFESSIONAL JUDGMENT, KNOWLEDGE, AND BELIEF THE DESIGN SPECIFICATIONS HEREIN COMPLY WITH THE FAIR HOUSING ACT (FHA) AND, WHERE APPLICABLE, THE AMERICANS WITH DISABILITIES ACT (ADA).
- ALL GRADES/SLOPES SHOWN ON THIS PLAN WERE DESIGNED AT OR BELOW MAXIMUMS ALLOWED BY THE FAIR HOUSING ACT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE FAIR HOUSING ACCESSIBILITY GUIDELINES, AND THE FAIR HOUSING ACT DESIGN MANUAL. IN THE EVENT THAT A DESIGN QUESTION SHOULD ARISE, OR A FIELD CONDITION PRESENT ITSELF THAT IS DIFFERENT FROM THOSE SHOWN ON THESE PLANS, WORK SHOULD CEASE AND THE ENGINEER SHOULD BE NOTIFIED SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED.
- THE CONTRACTOR IS ADVISED TO CAREFULLY CHECK ALL THE PHASES OR WORK RELATING TO FAIR HOUSING ACCESSIBILITY FOR THIS PROJECT, SINCE THE CODE DOES NOT ALLOW FOR CONSTRUCTION TOLERANCE. ANY CONSTRUCTION THAT EXCEEDS MAXIMUM OR MINIMUM DIMENSIONS AND SLOPES AS REQUIRED BY THE FAIR HOUSING ACT ARE SUBJECT TO REJECTION AND MAY BE REQUIRED TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- SINCE THE CIVIL ENGINEER OR SURVEYOR CANNOT CONTROL THE EXACT METHODS OR MEANS USED BY THE GENERAL CONTRACTOR OR THEIR SUBCONTRACTORS DURING GRADING AND CONSTRUCTION OF THE PROJECT, THE CIVIL ENGINEER OR SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE FINAL ACCEPTANCE OF FAIR HOUSING ACT ACCESSIBILITY RELATED ITEMS BY THE CITY, ANY OTHER AUTHORITY, OR OTHER AFFECTED PARTIES.

**PROJECT NARRATIVE**

THIS PROJECT IS LOCATED ON GPIN 7779-94-9964, ADJACENT TO AMELIA STREET BETWEEN WINCHESTER STREET AND DOUGLAS STREET. THE SITE IS ZONED C-D AND TOTALS 0.30 ACRES. THE EXISTING SITE CONSISTS OF A PARKING LOT, WHICH WILL BE REMOVED. THE PROPOSED USES FOR THIS SITE ARE DWELLING, MULTIFAMILY; DWELLING, UPPER-STORY; AND RETAIL. THESE USES WILL BE SERVED BY PUBLIC WATER AND SEWER. THE PROPOSED MIXED USE BUILDING WILL BE 4 STORIES. PARKING WILL BE PROVIDED BOTH ON-STREET AND WITHIN THE PARKING GARAGE ON ADJACENT GPIN 7789-04-0822, WHICH IS OWNED BY THE OWNER/APPLICANT OF THIS PROJECT.

**VICINITY MAP**

SCALE: 1"=2000'



**OWNER/APPLICANT**

WILLIAM SQUARE LLC  
10333 SOUTHPOINT LANDING BLVD, 3rd FLOOR  
FREDERICKSBURG, VA 22407  
P: (540) 848-3242  
CONTACT: MR. WILLIAM J. VAKOS, JR.

RPA IMPACTS TABLE	
CATEGORY	IMPACT (SF)
ROAD	0.00
STORMSEWER	0.00
UTILITIES	0.00
<b>TOTAL</b>	<b>0.00</b>

VIRGINIA MISS UTILITY  
3 DAYS BEFORE DIGGING CALL  
TOLL FREE 1-800-257-777  
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY.

**SHEET INDEX**

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24.	COST ESTIMATES

**RESPONSIBLE LAND DISTURBER NOTE\***

UNTIL FURTHER NOTICE, THE RESPONSIBLE LAND DISTURBER FOR THIS PROJECT IS:

NAME: \_\_\_\_\_ CERTIFICATION # \_\_\_\_\_ EXPIRATION DATE \_\_\_\_\_  
\*NOTE: CONTRACTOR RLD INFORMATION SHALL BE PROVIDED PRIOR TO ISSUANCE OF LAND DISTURBANCE PERMIT.

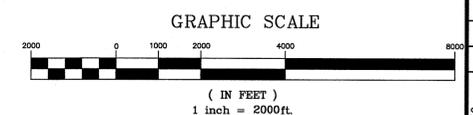
**ENGINEER'S CERTIFICATE:**

I HEREBY CERTIFY THAT GPIN 7779-94-9964 AS RECORDED IN INSTRUMENT #2019-2159 AMONG THE LAND RECORDS FOR THE CITY OF FREDERICKSBURG, VIRGINIA IS NOW IN THE NAME OF LIBERTY PLACE PARTNERS LLC AND THAT ALL THE REQUIREMENTS AND ORDINANCES OF THE CITY OF FREDERICKSBURG, VIRGINIA, HAVE BEEN MET.

SIGNATURE: *William E. Duncanson Jr.*  
SIGNATURE

I, WILLIAM DUNCANSON, CERTIFY THAT 0.56 ACRES OF LAND DISTURBANCE AND 0.00 SQUARE FEET OF IMPERVIOUS AREA WILL BE CREATED WITH THIS PROJECT.

SIGNATURE: *William E. Duncanson Jr.* LICENSE NO.: 055205

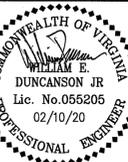


**Bowman**  
CONSULTING

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COVER SHEET  
MAJOR SITE PLAN  
WINCHESTER PLACE  
CITY OF FREDERICKSBURG, VIRGINIA  
WARD 2: PRECINCT 201

SPMAJ 2020-  
COUNTY PROJECT NUMBER



PLAN STATUS  
02/10/20 1st SUBMISSION

DATE	DESCRIPTION
WED	DESIGN
WED	DRAWN
WED	CHKD

SCALE H: 1"=2000'  
V: N/A  
JOB No. 100253-01-001  
DATE: DECEMBER 2019  
FILE No. 100253-D-CP-001

SHEET 1 OF 24

SPMAJ 2020-

EXISTING	DESCRIPTION	PROPOSED
	INDEX CONTOUR	
	INTERMEDIATE CONTOUR	
	EDGE OF PAVEMENT	
	CURB AND GUTTER	
	TRANSITION FROM CG-6 TO CG-6R	
	PROPOSED HEADER CURB	
	PROPERTY LINE	
	DEPARTING PROPERTY LINE	
	LOT LINE	
	RIGHT-OF-WAY	
	CENTERLINE	
	FLOOD PLAIN	
	CLEARING AND GRADING	
	TREE LINE	
	FLOW LINE OF SWALE	
	STREAM	
	OVERLAND RELIEF PATHWAY	
	FENCE LINE	
	EASEMENT	
	WATER LINE	
	WATER VALVE	
	REDUCER	
	SANITARY SEWER	
	STORM SEWER	
	CABLE TV	
	ELECTRIC SERVICE	
	TELEPHONE SERVICE	
	GAS LINE	
	SPOT ELEVATION	
	UTILITY POLE	
	SIGN	
	SANITARY SEWER IDENTIFIER	
	STORM DRAIN IDENTIFIER	
	EASEMENT IDENTIFIER	
	WATER METER	
	FIRE HYDRANT	
	PARKING INDICATOR INDICATES THE NUMBER OF TYPICAL PARKING SPACES	
	STREET LIGHT	
	VEHICLES PER DAY (TRAFFIC COUNT)	
	TEST PIT LOCATION RECOMMENDED/REQUIRED	
	CRITICAL SLOPE SLOPES TO BE STABILIZED PURSUANT TO VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK	
	HANDICAP RAMP (CG-12) DENOTES LOCATION OF STD VDOT CG-12 AND/OR JURISDICTIONAL STANDARD RAMP CONSTRUCTION	
	DENOTES CLEAR SIGHT TRIANGLE	
	TREE	
	BENCHMARK	
	ASPHALT TRAIL	
	CONCRETE SIDEWALK	
	END WALLS	
	END SECTIONS	
	STOP SIGN	
	STREET SIGN	
	OVERHEAD ELECTRIC	
	OVERHEAD TELEPHONE	
	HANDICAP PARKING SPACE (VAN)	
	RIP RAP	
	CROSSWALK	

ABBREVIATIONS	
A	AREA OF ARC
AD	ALGEBRAIC DIFFERENCE
AASHTO	AMERICAN ASSOCIATION OF STATE HWY. & TRANSP. OFFICIALS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AC	ACRE
AGGR.	AGGREGATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASPH	ASPHALT
AWWA	AMERICAN WATER WORKS ASSOCIATION
B	BREADTH
BC	BOTTOM OF CURB
BF	BASEMENT FLOOR
BLDG	BUILDING
BM	BENCHMARK
BMP	BEST MANAGEMENT PRACTICES (WATER QUALITY)
BLOW	BLOW OFF VALVE
BRL	BUILDING RESTRICTION LINE
BVCS	BEGINNING VERTICAL CURVE STATION
BVCE	BEGINNING VERTICAL CURVE ELEVATION
BW	BOTTOM OF WALL
C	CENTER CORRECTION ON VERTICAL CURVE
c,e	COEFFICIENT OF RUNOFF
CATV	CABLE TELEVISION
CB	CATCH BASIN OR CHORD BEARING
CC	CENTER TO CENTER
CFS (Q)	CUBIC FEET PER SECOND
CH	CHORD
CG	CURB AND GUTTER
CG	CAST IRON PIPE
C	CENTERLINE
CL	CLASS
CMP	CORRUGATED METAL PIPE
CONC.	CONCRETE
CO	CLEAN OUT
CONT.	CONTINUATION
CS	CURB STOP
CT	COURT
C/L	CENTERLINE
D	DEPTH
D,d	DRAINAGE AREA
DB	DEED BOOK
DEQ	VA. DEPARTMENT OF ENVIRONMENTAL QUALITY
DET.	DETAIL
DIP	DROP INLET
DIA.	DIAMETER
DIA.	DUCTILE IRON PIPE
DM	DROP MANHOLE
DR	DRIVE
DRNG	DRAINAGE
DRWG	DRAWING
D/W	DRIVE WAY
Δ	DELTA
DU	DWELLING UNITS
DOM	DOMESTIC
E	RATE OF SUPER ELEVATION IN FEET PER FOOT
E	EROSION CONTROL
ECL	ENERGY GRADIENT LINE
EQC	ENVIRONMENTAL QUALITY CORRIDOR
ESMT	EASEMENT
EG	EDGE OF GUTTER
ELEV.	ELEVATION
ENT.	ENTRANCE
EP	EDGE OF PAVEMENT
ES	END SECTION
EVCS	ENDING VERTICAL CURVE STATION
EVCE	ENDING VERTICAL CURVE ELEVATION
EW	END WALL
EX.	EXISTING
ELEC.	ELECTRICAL
EBL	EAST BOUND LANE
F	FIRE LINE
FAR	FLOOR AREA RATIO
FC	FACE OF CURB
FF	FIRST FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FP	FLOOD PLAIN
FS	FACTOR OF SAFETY
FT.	FOOT
FOY.	FOYER
FPS	FEET PER SECOND
G	GRAVITY
GAS	GAS
GFA	GROSS FLOOR AREA
Gr.	GRADE
GR	GUARD RAIL
GAR	GARAGE
H	HEIGHT
H,h	HEAD
HCL	HANDICAPPED PARKING SPACE
HCS	HYDRAULIC GRADIENT LINE
HP	HIGH POINT
HR	HAND RAIL
HT	HEIGHT
HW	HEADWATER
I	RAINFALL INTENSITY
ID	INSIDE DIAMETER
IN	INCH
INV.	INVERT
IP	IRON PIPE
IPF	IRON PIPE FOUND
IPS	IRON PIPE SET
J	JUNCTION BOX
K	SIGHT DISTANCE COEFFICIENT
Ke	CULVERT ENTRANCE LOSS COEFFICIENT
L	LENGTH
L	LATERAL
LL	LINEAR FOOT
LF	LOWER LEVEL
LOS	LINE OF SIGHT
LP	LOW POINT
LS	LOADING SPACE
LOG	LIMITS OF CLEARING & GRADING
LT	LEFT
M	MONUMENT FOUND
MECH.	MECHANICAL
MH	MANHOLE
M	MILE
MPH	MILES PER HOUR
MS	MEDIA STRIP
MSL	MEAN SEA LEVEL
MIN	MINIMUM
MAX	MAXIMUM
N	NOW OR FORMERLY
NFA	NET FLOOR AREA
NO.#	NUMBER
NBL	NORTH BOUND LANE
N/A	NOT APPLICABLE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHANG
O/H	OVERHEAD
P	PERIMETER
PC	POINT OF CURVATURE
PCCP	POINT OF CURVE EDGE OF PAVEMENT
PCTC	POINT OF CURVATURE TOP OF CURB
PFM	PUBLIC FACILITIES MANUAL
PG.	PAGE
PGL	POINT OF GRADE LINE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVES
PRELIM.	PRELIMINARY
PROP.	PROPOSED
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVC	POLY VINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PWT	PAVEMENT
PVRC	POINT OF VERTICAL REVERSE CURVE
PVT	POINT OF VERTICAL TANGENT
P&P	PLAN AND PROFILE
Q	AMOUNT OF RUNOFF
Q(C.F.S.)	AMOUNT OF RUNOFF
R	RADIUS
R,R	REQUIRED
RECD	REQUIRED CONCRETE PIPE
RCP	REINFORCED CONCRETE PIPE
RD.	ROAD
RET.	RETAINING
REV.	REVISION
RR	RAILROAD
RTE.	ROUTE
R/W	RIGHT OF WAY
RGP	ROUGH GRADING PLAN
ROM	ROUGH OUTSIDE MONITOR
RMA	RESOURCE MANAGEMENT AREA
RPA	RESOURCE PROTECTION AREA
RT	RIGHT
S	SPEED OR SLOPE
SAN.	SANITARY
SBL	SOUTH BOUND LANE
SD	SIGHT DISTANCE
SECT.	SECTION
SEW.	SEWER
SH.	SHOULDER
SF	SQUARE FEET
SP	SPACE
SP	SITE PLAN SPECIFICATION
SPEC.	SPECIFICATION
STA.	STATION
STD.	STANDARD
STK.	STACK
STM.	STORM
SVC.	SERVICE
SWM	STORM WATER MANAGEMENT
S/W	SIDE WALK
Sx	CROSS SLOPE
T	TANGENT
TB	TEST BORE
TC	TOP OF CURB
Tc	TIME OF CONCENTRATION
TEL	TELEPHONE
TEL	TEST PIT
TP	TREE PROTECTION
TB	TOP OF BANK
TW	TOP OF WALL
TW	TAILWATER
UD	UNDERDRAIN
UG	UNDERGROUND
UL	UPPER LEVEL
UP	UTILITY POLE
VAN	HANDICAPPED VAN PARKING SPACE
V	VELOCITY
V	VOLUME
VA	VIRGINIA
VC	VERTICAL CURVE
VA.	VA. DEPT. OF TRANSPORTATION
VF	VERTICAL FOOT
W	WEIGHT OR WIDTH
W/M	WATER MAIN
WBL	WEST BOUND LANE
WOIA	WATER QUALITY IMPACT ASSESSMENT
X	TRANSFORMER
Y	YARD INLET
YR	YEAR
Z	SIDE SLOPES

- ### UTILITY NOTES
- CITY BUILDING AND DEVELOPMENT SERVICES DEPARTMENT TO BE NOTIFIED PRIOR TO PERFORMING ANY WORK WITHIN CITY RIGHT OF WAY.
  - ALL WORK WITHIN THE CITY RIGHT OF WAY MUST BE INSPECTED AND APPROVED BY THE DEPARTMENT OF BUILDING AND DEVELOPMENT SERVICES.
  - GENERAL STATEMENT. STANDARD CONSTRUCTION DETAILS, SPECIFICATIONS, AND MATERIALS STANDARDS APPROVED BY THE DIRECTOR OF PUBLIC WORKS SHALL BE FOLLOWED FOR ALL WATER AND SEWER SYSTEMS, UNLESS SPECIFIC DEVIATION THEREFROM IS AUTHORIZED, IN WRITING BY THE DIRECTOR OF PUBLIC WORKS. IN NO CASE SHALL DEVIATIONS BE ALLOWED FROM THE VIRGINIA WATERWORKS REGULATIONS WITHOUT PRIOR WRITTEN APPROVAL OF THE VIRGINIA DEPARTMENT OF HEALTH. ALL CONSTRUCTION METHODS FOR WATER AND SEWER SYSTEMS SHALL BE IN ACCORDANCE WITH THE LATEST CITY OF FREDERICKSBURG CONSTRUCTION SPECIFICATIONS AND STANDARDS FOR WATER AND SEWERAGE FACILITIES.
  - WORK WITHIN HIGHWAY OR STREET RIGHTS OF WAY. WORK PERFORMED WITHIN OR REQUIRING UTILIZATION OF ANY VIRGINIA DEPARTMENT OF TRANSPORTATION'S (VDOT) RIGHTS OF WAY SHALL COMPLY IN EVERY RESPECT WITH THE LATEST EDITION OF VDOT'S ROAD AND BRIDGE SPECIFICATIONS, THE APPLICABLE SUBSECTIONS OF SECTION 2. GENERAL PROVISIONS OF THE VDOT'S LAND USE PERMIT MANUAL DATED JANUARY 1, 1984, AND WITH ANY SPECIAL PROVISIONS ATTACHED TO ANY VDOT APPROVED PERMIT. ALL WORK PERFORMED WITHIN OR REQUIRING UTILIZATION OF ANY CITY OF FREDERICKSBURG'S RIGHT OF WAY MUST BE APPROVED IN WRITING BY THE DIRECTOR OF PUBLIC WORKS IN ADVANCE OF THE WORK. WITHIN ANY STREET OR HIGHWAY RIGHT-OF-WAY, NO TREES OR TREE ROOTS LARGER THAN 3 INCHES IN DIAMETER SHALL BE CUT WITHOUT WRITTEN AUTHORIZATION OF THE DIRECTOR OF PUBLIC WORKS. ANY MEASURES NECESSARY OR AS MAY BE REQUIRED BY THE DIRECTOR OF PUBLIC WORKS SHALL BE TAKEN TO SAFELY ACCOMMODATE PEDESTRIAN AND VEHICULAR TRAFFIC. THE UNNECESSARY OBSTRUCTION OF STREETS AND/OR SIDEWALKS SHALL NOT BE ALLOWED. AT LEAST ONE TRAFFIC LANE SHALL BE KEPT OPEN AT ALL TIMES AND STREETS AND SIDEWALKS SHALL BE KEPT CLEAR AND CLEAN DURING ALL PHASES OF CONSTRUCTION UNLESS AUTHORIZED BY THE DIRECTOR OF PUBLIC WORKS. A SPECIAL EXCAVATION PERMIT IS REQUIRED WHEN WORKING IN THE RIGHT OF WAY.
  - PROTECTION OF EXISTING UNDERGROUND FACILITIES. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE "UNDERGROUND UTILITY DAMAGE PREVENTION ACT," TITLE 56, CHAPTER 10.3, SECTIONS 56-265.14 THROUGH 56-265.29 OF THE CODE OF VIRGINIA, AS AMENDED.
  - DISRUPTION OF WATER SERVICE DURING CONSTRUCTION. PRIOR TO ANY PLANNED DISRUPTION OF EXISTING WATER SERVICE, THE DIRECTOR OF PUBLIC WORKS SHALL BE NOTIFIED AT LEAST TWO FULL WORKING DAYS PRIOR TO THE DISRUPTION. THE DIRECTOR OF PUBLIC WORKS MAY REQUIRE RESCHEDULING OF THE DISRUPTION, SHOULD AN UNPLANNED BUT INTENTIONAL DISRUPTION BE UNAVOIDABLE, THE DIRECTOR OF PUBLIC WORKS SHALL BE NOTIFIED AS SOON AS POSSIBLE. THE DIRECTOR OF PUBLIC WORKS MAY RESCHEDULE THE DISRUPTION SHOULD AN ACCIDENTAL OR UNINTENTIONAL DISRUPTION OCCUR, THE DIRECTOR OF PUBLIC WORKS SHALL BE IMMEDIATELY NOTIFIED. THE DIRECTOR OF PUBLIC WORKS MAY ISSUE SPECIFIC INSTRUCTIONS WHICH THE CONTRACTOR SHALL IMMEDIATELY AS REQUIRED.
  - OCCUPATIONAL SAFETY AND HEALTH. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "OCCUPATIONAL SAFETY AND HEALTH STANDARDS" AND THE "CONSTRUCTION SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.
- ### GENERAL NOTES AND SPECIFICATIONS
- ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CITY OF FREDERICKSBURG AND/OR THE VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
  - IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE MOST CURRENT APPROVED ARCHITECTURAL PLANS AND COORDINATE SAME WITH THE SITE PLAN, PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
  - IF WHEN DURING THE COURSE OF CONSTRUCTION, ANY OBJECT OF ARCHAEOLOGICAL VALUE OR AN UNUSUAL NATURE IS ENCOUNTERED, THE CONTRACTOR SHALL CEASE WORK IN THAT AREA AND IMMEDIATELY NOTIFY THE PROPER AUTHORITY, THE CITY OF FREDERICKSBURG, AND/OR THE ARCHITECT/ENGINEER.
  - THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
  - ALL STEPS/RISERS SHALL HAVE HAND RAILS.
  - CONTROLLED FILLS MUST BE COMPACTED TO 95% AS DETERMINED PER STANDARD PROCTOR CASHTO T-99 OR ASTM D 698, AS SHOWN IN THE GEOTECHNICAL REQUIREMENTS. THE DENSITY MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER AND THE RESULTS SUBMITTED TO THE CITY OF FREDERICKSBURG PRIOR TO FOOTING CONSTRUCTION.
  - COMPACTION OF BACKFILL IN UTILITY TRENCHES SHALL BE IN ACCORDANCE WITH THE CITY OF FREDERICKSBURG AND/OR VDOT STANDARDS & SPECIFICATIONS.
  - ALL FILL SOILS UNDER EXPANDED PAVED AREAS SHALL BE COMPACTED TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM SPECIFICATION D-698 STANDARD PROCTOR METHOD, WITH + OR - 2% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED RIGHT-OF-WAY AND ALL PARKING LOTS; PRIVATE STREETS, PARKING YARDS, CURB AND GUTTER, AND SIDEWALKS ADJACENT TO STREETS AND PARKING LOTS (NOT INTENDED TO INCLUDE LEAD WALKS), WITH UPPER 1.0 FT. COMPACTED TO 100% OF THE MAXIMUM DRY DENSITY PER ASTM D-698.
  - OPEN CUTTING OF PAVED OR SURFACE TREATED ROADS IS COMPACTED, PROVIDED A SPECIAL EXCAVATION PERMIT IS OBTAINED AND ALL WORK IS IN ACCORDANCE WITH CITY OR VDOT STANDARDS.
  - ADDITIONAL DITCH LININGS OR SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROVIDED, AT THE CONTRACTOR'S EXPENSE, AS DETERMINED NECESSARY BY THE CITY OF FREDERICKSBURG AND/OR VDOT DURING FIELD REVIEW. ALL COSTS SHALL BE ASSUMED BY THE CONTRACTOR.
  - A SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF ROAD TO PROPOSED CURB AND GUTTER AND/OR PROPOSED EDGE OF PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER IN THE ROADWAY. REMOVE AND RECONSTRUCT EXISTING PAVEMENT AND/OR CURB AS DICTATED BY FIELD CONDITIONS TO PROVIDE POSITIVE DRAINAGE AT THE IN-POINTS.
  - PROPOSED SIDEWALKS MUST BE CONSTRUCTED WITH U3 UNDERDRAINS WHEN LONGITUDINAL GRADES ARE 3% OR GREATER UNLESS SOIL TEST CONFIRM THAT THEY ARE NOT NEEDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION (APPLIES TO SIDEWALK IN RIGHT-OF-WAY ONLY).
  - THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING ROADS AND UTILITIES WHICH OCCURS AS A RESULT OF THE PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.
  - ALL UTILITIES INCLUDING UTILITY POLES DESIGNATED TO BE RELOCATED SHALL BE RELOCATED PRIOR TO CONSTRUCTION. FURTHERMORE, ALL PROPOSED UTILITIES SHALL BE UNDERGROUND, AND ALL EXISTING, ABOVE GROUND UTILITIES SHALL BE RELOCATED UNDERGROUND.
  - THE DESIGN OF PAVEMENT PLACED WITHIN THE RIGHT-OF-WAY SHOULD EQUAL OR EXCEED THE THICKNESS OF THE EXISTING PAVEMENT.
  - OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1 1/2 INCH DEPTH; ANY COST ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE CONTRACTOR.
  - THE PAVEMENT DESIGN AND DEPTH OF STREETS SHOWN HEREON IS BASED ON AN ASSUMED CBR VALUE. PRIOR TO CONSTRUCTION SOIL TESTS OF SUBGRADE MUST BE PERFORMED BY A GEOTECHNICAL ENGINEER OF RECORD AND MUST BE SUBMITTED TO THE ENGINEER FOR ACTUAL DETERMINATION AND CALCULATION OF THE REQUIRED PAVEMENT DESIGN AND SUBBASE THICKNESS. NO PAVEMENT CONSTRUCTION MAY COMMENCE WITHOUT THE FINAL PAVEMENT DESIGN APPROVAL BY THE CITY OF FREDERICKSBURG AND/OR VDOT.
  - ALL STREET CUT AND PATCH WORK IN PUBLIC RIGHT-OF-WAY REQUIRED FOR UTILITIES INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CITY OF FREDERICKSBURG STANDARDS AND SPECIFICATIONS. A SPECIAL EXCAVATION PERMIT IS REQUIRED WHEN WORKING IN THE RIGHT-OF-WAY.
  - THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING AND/OR SIGNALIZATION PLAN TO VDOT LAND DEVELOPMENT SECTION A MINIMUM OF 30 DAYS PRIOR TO PERMIT APPLICATION. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.
  - ALL RIGHT-OF-WAY DEDICATED FOR PUBLIC USE SHALL BE CLEAR AND UNOCCLUDED.
  - EROSION AND SEDIMENT CONTROL WILL BE INSTALLED IN ACCORDANCE WITH THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE REGULATIONS OF THE CITY OF FREDERICKSBURG.
  - CONTRACTOR SHALL OBTAIN AN AIR QUALITY PERMIT IF REQUIRED BY THE CITY OF FREDERICKSBURG.
  - ANY LIGHTING SHOWN IN THE CIVIL DRAWINGS IS INCLUDED FOR INFORMATION PURPOSES ONLY, REFER TO ELECTRICAL SITE PLAN FOR LIGHTING DESIGN.
  - TO THE BEST OF OUR KNOWLEDGE THERE ARE NO GRAVE SITES OR BURIAL PLOTS ON THIS PROPERTY UNLESS NOTED.
  - ALL ELEVATIONS SHALL BE BASED ON USGS OR USCGS MEAN SEA LEVEL DATUM.
  - ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CITY OF FREDERICKSBURG SPECIFICATIONS AND DESIGN STANDARDS.

- ### LEGEND, ABBREVIATIONS AND NOTES
- #### MAJOR SITE PLAN
- #### WINCHESTER PLACE
- #### CITY OF FREDERICKSBURG, VIRGINIA
- #### WARD 2: PRECINCT 201
- ### UTILITY NOTES
- MANHOLES, CLEANOUT TOPS AND WATER LINE VALVE BOXES SHALL BE FLUSH WITH OR A MAXIMUM OF ONE-HALF INCH BELOW FINISH PAVEMENT (OR SURFACE TREATMENT) ELEVATION. THIS WILL PREVENT DAMAGE FROM SNOW REMOVAL EQUIPMENT.
  - THE MINIMUM COVER OVER TOP OF WATER PIPE SHALL BE 36".
  - THE LOCATION OF EXISTING UTILITIES ACROSS OR ALONG THE LINE OF THE WORK IS NOT NECESSARILY INDICATED ON THE PLANS, AND WHERE INDICATED IS ONLY APPROXIMATE. LOCATE ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY TO COMPLETE THE WORK. DAMAGE TO UNDERGROUND STRUCTURES SHALL BE REPAIRED/ REPLACED AT NO ADDITIONAL COST TO THE OWNER.
  - MANHOLE AND CLEANOUT TOPS ARE PLACED ON FINAL GRADES.
  - VERIFY PROPER TOP ELEVATIONS BEFORE CONSTRUCTION OF MANHOLES.
  - PROVIDE WRITTEN CERTIFICATION THAT THE GRADES ARE WITHIN 6" OF SUBGRADE BEFORE BEGINNING WATERLINE CONSTRUCTION.
  - FIRE HYDRANT PUMPER CONNECTIONS SHALL FACE IN DIRECTION OF ARROW OR STREET.
  - VERIFY THE LOCATION OF BUILDING ENTRY ALL UTILITY SERVICE LINES PRIOR TO CONSTRUCTION.
  - NOTIFY OWNER'S REPRESENTATIVE OF ANY DISAGREEMENT WITH THE SITE PLAN.
  - CROSS CONNECTION CONTROL AND BACKFLOW PREVENTION SHALL BE IN ACCORDANCE WITH VUSBC CODE. SERVICE CONNECTIONS OR LATERALS. LATERALS SHALL BE INSTALLED AS INDICATED ON THE APPROVED PLANS. SERVICE CONNECTIONS SHALL BE MADE TO THE MAIN SEWER BY MEANS OF TEES OR WYES OF THE SAME MATERIAL AS THE MAIN, OR BY USING APPROVED STRAPPED SEWER SERVICE SADDLES. WHEN SEWER SADDLES ARE USED, THE HOLE IN THE MAIN SEWER SHALL BE CUT USING HOLE SAWS AND THE HOLE SHALL NOT BE MADE BY CHIPPING THE WALL SECTION OUT WITH A HAMMER. THE MINIMUM GRADE ON A LATERAL SHALL BE 1/4-INCH PER FOOT FOR 4-INCH PIPES AND 1/8-INCH PER FOOT FOR 6-INCH PIPES. EACH SERVICE CONNECTION SHALL BE CAPPED OR PLUGGED AS DIRECTED BY THE DIRECTOR OF PUBLIC WORKS.
  - UTILITY WORK SHALL BE IN COMPLIANCE WITH THE CITY OF FREDERICKSBURG SPECIFICATIONS AND DESIGN STANDARDS.
  - ALL SANITARY HOUSE CLEAN OUTS ARE TO BE CAST IRON COLLARS WITH BRASS PLUGS.
  - WATER LINE (FIRE) MUST BE DIP CLASS - 52
  - WATER LINE (FIRE) MUST BE RESTRAINED WITH MEGA LUG AND THRUST BLOCK PROVIDED AT MAIN.
  - ALL WORK WITHIN THE CITY RIGHT OF WAY MUST BE INSPECTED, TESTED AND APPROVED.
  - ALL CUTS AND TRENCHES IN THE CITY RIGHT OF WAY MUST BE DONE AS PER CITY STANDARDS AND SPECIFICATIONS.
  - ALL TRAFFIC CONTROL MUST BE PROVIDED AS PER APPROVED TRAFFIC CONTROL PLAN. A PRE CONSTRUCTION MEETING WITH THE CITY STAFF IS REQUIRED PRIOR TO BEGINNING CONSTRUCTION.
  - CONSTRUCTION APPROVAL PRIOR TO CONSTRUCTION. FIRE DEPARTMENT CONNECTION AND LOCATION MUST BE APPROVED BY THE FIRE DEPARTMENT. BACKFLOW PREVENTER MUST BE PROVIDED AND LOCATION MUST BE APPROVED BY THE FIRE DEPARTMENT.
- ### LAND CONSERVATION NOTES (MINIMUM STANDARDS)
- PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. ~ SEE EROSION AND SEDIMENT CONTROL NARRATIVE (ESN), SHEET 15, UNDER THE HEADING PERMANENT STABILIZATION
  - DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE. ~ SEE ESN, SHEET 15, NOTE NUMBER 6 UNDER THE HEADING MANAGEMENT STRATEGIES, PHASE I & DEMOLITION
  - A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION. ~ SEE ESN, SHEET 15, UNDER THE HEADING PERMANENT STABILIZATION
  - SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPLAND LAND DISTURBANCE TAKES PLACE. ~ SEE ESN, SHEET 15, PHASE I & E UNDER THE HEADING CONSTRUCTION SEQUENCE
  - STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION. ~ NO DAMS, DIKES, OR DIVERSIONS ARE PART OF THE E&S PLAN
  - SEDIMENT TRAP AND SEDIMENT BASIN MUST BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
    - THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
    - SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC

**GENERAL NOTES:**

- THE PROPERTY SHOWN HEREIN IS IDENTIFIED AS GPIN 7779-94-9964.
- THE PROPERTY IS CURRENTLY ZONED C-D.
- BOUNDARY INFORMATION IS BASED ON A PLAT OF SURVEY, PREPARED BY VAKOS COMPANIES, DATED SEPTEMBER 19, 2019 TITLED "SUBDIVISION OF GPIN 7789-04-0822 (PLAT BOOK 19, PG. 19) BEING THE PROPERTY OF WILLIAM SQUARE, L.L.C., CITY OF FREDERICKSBURG, VIRGINIA."
- EXISTING TOPOGRAPHY AND UTILITY INFORMATION IS FROM A FIELD RUN SURVEY BY BOWMAN CONSULTING GROUP, DATED SEPTEMBER 2014. SUPPLEMENTAL TOPO AND UTILITY INFORMATION PROVIDED BY BOWMAN CONSULTING IN MAY 2015 AND JUNE 2015.
- ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP FOR THE CITY OF FREDERICKSBURG, VIRGINIA, COMMUNITY PANEL NUMBER 5100651037C, DATED 09-19-2007, THIS PROPERTY IS LOCATED IN ZONE X. THE 100 YEAR FLOOD DOES NOT ENROACH ONTO THIS SITE.
- THE CONTRACTOR SHALL CONTACT MISS UTILITY AT 1-800-257-7777, UTILITY COMPANY REPRESENTATIVES, PERFORM TEST PITS, REVIEW CURRENT TEST PIT DATA, AND WHATEVER OTHER OPERATIONS AVAILABLE TO INSURE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES IN THE AREA OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY BOWMAN CONSULTING GROUP, LTD. OF ANY POTENTIAL CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND MAKE ALL INSPECTIONS NECESSARY IN ORDER TO DETERMINE THE FULL EXTENT OF THE WORK REQUIRED TO MAKE THE PROPOSED WORK CONFORM TO THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE NATURE AND LOCATION OF THE WORK, CONDITIONS, AND CONFORMATION AND CONDITION OF EXISTING GROUND SURFACE AND THE CHARACTER OF THE EQUIPMENT AND FACILITIES NEEDED PRIOR TO AND DURING PROSECUTION OF THE WORK. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE CHARACTER, QUANTITY AND QUALITY OF SURFACE AND SUBSURFACE MATERIALS OR OBSTACLES TO BE ENCOUNTERED. ANY INACCURACIES OR DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS MUST BE BOUGHT TO THE OWNER'S ATTENTION IN ORDER TO CLARIFY THE EXACT NATURE OF THE WORK TO BE PERFORMED PRIOR TO THE COMMENCEMENT OF ANY WORK.
- UTILITY COMPANIES SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF ANY EXCAVATION.
- ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE INSTALLED TO THE REQUIRED DISTANCE BEYOND THE RIGHT-OF-WAY LINE PRIOR TO THE INSTALLATION OF ANY SUBBASE MATERIAL, CURB AND GUTTER OR SIDEWALK.
- NO BLASTING SHALL BE PERMITTED.
- ADDITIONAL SILTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS DIRECTED BY THE INSPECTOR DURING FIELD REVIEW; COSTS ASSOCIATED WITH ADDITIONAL MEASURES SHALL BE ASSUMED BY THE CONTRACTOR.
- ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION RULES AND REGULATIONS.
- THE RIGHT IS SPECIFICALLY RESERVED TO UTILIZE NON-STRUCTURAL AREAS FOR BORROW PITS CONSISTENT WITH THE GEOTECHNICAL REQUIREMENTS.
- ALL SURFACED STREETS SHALL BE MAINTAINED IN A CLEAR CONDITION; FREE OF DUST, MUD OR SNOW AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS TO CLEAN TRUCKS AND OTHER EQUIPMENT USING SURFACED STREETS.
- THE APPROVAL OF THIS PLAN SHALL IN NO WAY GRANT PERMISSION BY THE CITY FOR THE CONTRACTOR TO TRESPASS ON OFF-SITE PROPERTIES.
- THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF COMPLYING WITH OTHER APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENTS AND/OR RECONSTRUCTION OF ALL UTILITY COVERS (MANHOLE FRAMES AND COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
- THE CONTRACTOR MUST HAVE THE APPROVED CONSTRUCTION DRAWINGS IN POSSESSION PRIOR TO THE START OF CONSTRUCTION. AT LEAST ONE (1) COPY OF THE APPROVED PLANS, WITH REVISIONS, MUST BE KEPT ON-SITE AT ALL TIMES.
- EARTHWORK AND GRADING OPERATIONS SHALL BE PERFORMED IN A MANNER AS TO PREVENT SURFACE OR SUBSURFACE WATER FROM FLOWING INTO EXCAVATIONS, FLOODING PROJECT SITE OR ADJACENT PROPERTY AND WATER ACCUMULATIONS DETRIMENTAL TO STABILITY OF SUBGRADES.
- STORM SEWER AND CULVERT PIPE SHALL BE REINFORCED CONCRETE PIPE TO CONFORM TO THE CURRENT A.A.S.H.T.O. DESIGNATION WITH, UNLESS OTHERWISE DESIGNATED ON THESE PLANS, CLASS III PIPE AS A MINIMUM, WILL BE REQUIRED WITHIN THE LIMITS OF RIGHT-OF-WAY.
- THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING ALL NECESSARY INSPECTIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SAFE CONSTRUCTION SITE AND COMPLYING WITH ALL OSHA REGULATIONS.
- EMERGENCY VEHICLE ACCESS SHALL BE PROVIDED DURING ALL PHASES OF CONSTRUCTION.
- WHERE IMPROVEMENTS ARE PROPOSED WITHIN EXISTING EASEMENTS OF RECORD, THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM THE AUTHORITIES THAT ARE DOMINANT TENEMENTS OF THESE EASEMENTS FOR PERMIT FOR ANY DISTURBANCES WITHIN THESE AREAS PRIOR TO CONSTRUCTION.
- ALL FINISHED GRADING, SEEDING, SODDING OR PAVING SHALL BE DONE IN SUCH A MANNER TO PRECLUDE THE PONDING OF WATER.
- TYPICAL SECTIONS ARE INTENDED TO SHOW GENERAL FEATURES OF THE PROPOSED CONSTRUCTION. FOR EXACT DETAILS AT ANY GIVEN LOCATION, SEE THE SITE PLAN SHEETS.
- ALL HANDICAP RAMPS SHALL BE BUILT IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS AND SHALL BE IN COMPLIANCE WITH ADA REQUIREMENTS TO INCLUDE DETECTABLE WARNING SURFACES.
- ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE. ALSO, A REPRESENTATIVE OF THE CONTRACTOR MUST BE AVAILABLE AT ALL TIMES.
- THE ENGINEER SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK SHOWN ON THESE PLANS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S SCHEDULES OR FAILURE TO CARRY OUT THE WORK. THE ENGINEER IS NOT RESPONSIBLE FOR ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK.
- ALL GAS LINES REQUIRE A MINIMUM OF 1 FOOT VERTICAL AND 5 FEET HORIZONTAL SEPARATION. CONSTRUCTION WITHIN 10 FEET OF THE GAS LINE REQUIRES A GAS LINE REPRESENTATIVE TO BE PRESENT DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE GAS COMPANY PRIOR TO CONSTRUCTION.
- THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.

**TRANSPORTATION NOTES:**

- METHOD AND MATERIALS USED SHALL CONFORM TO CURRENT CITY OF FREDERICKSBURG AND VDOT STANDARDS AND/OR SPECIFICATIONS.
- CONTACT THE CITY OF FREDERICKSBURG TWO DAYS BEFORE EXCAVATION IN ANY STATE OR CITY RIGHT-OF-WAY. A SPECIAL EXCAVATION PERMIT SHALL BE REQUIRED WHEN WORKING IN THE RIGHT OF WAY.
- DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION, CONTROL AND SAFETY OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE CITY OF FREDERICKSBURG.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL.
- ALL UTILITIES INCLUDING UTILITY POLES DESIGNATED TO BE RELOCATED SHALL BE RELOCATED PRIOR TO BUILDING CONSTRUCTION.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING ROADS AND UTILITIES WHICH OCCURS AS A RESULT OF THE PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.
- A SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF EXISTING ROAD TO PROPOSED CURB AND GUTTER AND/OR PROPOSED EDGE OF PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER IN THE ROADWAY. REMOVE AND RECONSTRUCT EXISTING PAVEMENT AND/OR CURB AS DICTATED BY FIELD CONDITIONS TO PROVIDE POSITIVE DRAINAGE AT TIE-IN-POINTS.
- OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1 1/2 INCHES DEPTH; ANY COST ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE CONTRACTOR.
- ALL RIGHT-OF-WAY DEDICATED FOR PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.

**PAVEMENT**

- AN ACTUAL COPY OF THE CBR REPORT IS TO BE SUBMITTED PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE MATERIAL. THE PRELIMINARY DESIGN IS BASED ON A CBR VALUE OF 10. IF THE CBR VALUES ARE LESS THAN 10, THE AGGREGATE THICKNESS SHALL BE INCREASED BASED ON THE GEOTECHNICAL ENGINEER'S RECOMMENDATION.
- SUBGRADE MUST BE APPROVED BY CITY OF FREDERICKSBURG FOR GRADE, TEMPLATE, AND COMPACTION BEFORE AGGREGATE IS PLACED.
- ENTRANCES SHALL BE MILLED FOR CLEAN JOINT WITH EXISTING PAVEMENT.
- THE PRICE BID FOR SAW CUTTING OF THE EXISTING PAVEMENT IS TO INCLUDE REMOVING, AND DISPOSING OF THE EXISTING PAVEMENT AND MATERIALS. WIDTH OF THE REMOVED SECTION IS 6" MIN.
- THE USE OF AN AGGREGATE SPREADER IS REQUIRED WHEN PLACING AGGREGATE BASE.
- PRIME COAT MUST BE APPLIED TO BASE MATERIAL PRIOR TO PLACEMENT OF ASPHALT (PRIME COAT RC-250 @ 0.3 GAL/SY).

**TRASH COLLECTION**

AFTER CONSTRUCTION IS COMPLETE, ON-SITE TRASH SHALL BE PLACED IN INTERNAL CONTAINERS LOCATED ON-SITE. IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE POST OCCUPANCY TRASH SERVICE FOR THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION DEBRIS PRIOR TO OCCUPANCY.

**ENVIRONMENTAL PERMIT NOTES**

- THE CONTRACTOR SHALL ENSURE THAT EROSION AND SEDIMENT (E&S) CONTROL DEVICES ARE IN PLACE PRIOR TO CLEARING AND GRADING AND THAT THEY ARE MAINTAINED IN GOOD WORKING ORDER TO MINIMIZE IMPACTS TO STATE WATERS IN ACCORDANCE WITH THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENTATION HANDBOOK. ALL EARTHWORK OPERATION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO PREVENT THE EROSION OF THESE MATERIALS AND PRECLUDE THEIR ENTRY INTO STATE WATERS. THESE CONTROLS SHALL REMAIN IN PLACE UNTIL THE AREA STABILIZES. SOIL STABILIZATION PRACTICES SHALL BE APPLIED TO ALL DENUDED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED WITHIN ANY IMPACT AREA.
- ALL UTILITY WORK IN STATE WATERS SHALL BE PERFORMED IN A MANNER AS TO MINIMIZE DISTURBANCE AND THE AREA MUST BE RETURNED TO ITS ORIGINAL CONTOURS AND STABILIZED.
- THE POURING OF CONCRETE DIRECTLY INTO STATE WATERS SHALL BE STRICTLY PROHIBITED.
- CONTINUOUS FLOW OF PERENNIAL SPRINGS SHALL BE MAINTAINED. PIPES AND CULVERTS SHALL BE COUNTERSUNK A MINIMUM OF 6 INCHES TO PROVIDE FOR THE RE-ESTABLISHMENT OF NATURAL STREAM BOTTOM AND A LOW STREAM CHANNEL.

**CONSTRUCTION NOTES**

- ALL WORK SHOWN HEREON SHALL BE IN STRICT ACCORDANCE WITH THE FREDERICKSBURG CITY CODE AND CONSTRUCTION SPECIFICATIONS AND STANDARDS.
- WHERE CONFLICTS EXIST BETWEEN THE CONSTRUCTION PLANS AND THE CITY OF FREDERICKSBURG CODE, SPECIFICATIONS, OR STANDARDS AND THE VIRGINIA EROSION AND SEDIMENT CONTROL MANUAL, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR A RESOLUTION OF THE CONFLICT.
- CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION MEETING WITH THE ENGINEER AND CITY OF FREDERICKSBURG OFFICIAL A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD BEFORE STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DIFFERENCES.
- CONTRACTOR SHALL BE RESPONSIBLE TO SEE THAT ALL EROSION AND SEDIMENT CONTROL STANDARDS ARE MET AND THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH CITY STANDARDS.
- ALL WATER AND SEWER LINE TRENCHES SHALL BE COMPACTED TO 95% DENSITY IN 6" LAYERS. COMPACTION TESTS MAY BE REQUIRED BY THE CITY.
- THE CONTRACTOR IS RESPONSIBLE FOR SECURING APPROPRIATE CONSTRUCTION PERMITS REQUIRED BY THE CITY OF FREDERICKSBURG.
- CLEARING AND GRUBBING IS TO BE CONFINED TO THOSE AREAS NEEDED FOR CONSTRUCTION. NO TREES OR SHRUBS IN UNGRADED AREAS ARE TO BE CUT WITHOUT THE PERMISSION OF THE OWNER.
- WHERE UNSUITABLE MATERIAL IS ENCOUNTERED IN THE SITE, IT SHALL BE REMOVED FROM THE ENTIRE SITE AND REPLACED WHERE NECESSARY WITH SUITABLE MATERIAL TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
- ALL VEGETATION AND OVERBURDEN TO BE REMOVED FROM SITE PRIOR TO THE CONSTRUCTION OF THE SUBGRADE.
- ALL GROWTH OF TREES AND VEGETATION SHALL BE CLEARED AND GRUBBED FOR THE ENTIRE RIGHT OF WAY. OTHER TREES AND VEGETATION WHICH OBSTRUCT SIGHT DISTANCES AT ROAD INTERSECTIONS SHALL BE REMOVED.
- THE GRADE LINES DENOTE TOP OF FINISHED PAVEMENT UNLESS SHOWN OTHERWISE ON TYPICAL SECTIONS OR PLANS.
- CONTRACTOR SHALL DO GRADING AS NECESSARY TO PRECLUDE THE PONDING OF WATER ADJACENT TO THE ROADWAY.
- ALL CONSTRUCTION RELATED ACTIVITIES SHALL BE IN COMPLIANCE WITH SECTION 38-36.6 OF THE CITY OF FREDERICKSBURG'S ZONING ORDINANCE.

**ZONING TABULATIONS:**

GPIN: 7779-94-9964  
 EXISTING ZONING: C-D (COMMERCIAL DOWNTOWN DISTRICT)  
 SITE AREA (GPIN 7779-94-9964): 12,933 SF OR 0.2969 AC  
 BLOCK AREA: 61,848 SF OR 1.4198 AC  
 PROPOSED USES: DWELLING, MULTIFAMILY  
 DWELLING, UPPER-STORY  
 RETAIL SALES ESTABLISHMENT

**DIMENSIONAL STANDARDS:** (MIXED USE DEVELOPMENT STANDARDS)  
**RESIDENTIAL DENSITY:** 24 DU/AC (BASED ON OVERALL BLOCK - 1.42 ACRES)  
 34.08 DU MAX  
 34 DU PROPOSED  
**NON-RESIDENTIAL FAR:** 3.0 MAXIMUM  
 38,799 SF MAXIMUM  
 3,199 SF PROPOSED (RETAIL)  
 (SEE AREA INFORMATION BELOW)

**LOT AREA:** NONE (MINIMUM SF)  
 12,933.00 SF PROPOSED  
**LOT WIDTH:** NONE (MINIMUM FT)  
 72.05 FT (AT WINCHESTER STREET ROW)

**SETBACKS:** REQUIRED:  
 FRONT: CONFORM TO FRONT YARD SETBACK OF ADJACENT STRUCTURES  
 SIDE: 15 FT WHEN ADJACENT TO A RESIDENTIAL DISTRICT; OTHERWISE, NONE  
 REAR: 25 FT WHEN ADJACENT TO A RESIDENTIAL DISTRICT; OTHERWISE, NONE

**OPEN SPACE SET-ASIDE:** NONE MINIMUM % REQUIRED  
**BUILDING HEIGHT:** 50 FT (MAXIMUM)  
 50 FT (PROPOSED)

**PROPOSED BUILDING AREA SUMMARY:**

MIXED USE BUILDING	RETAIL	RESIDENTIAL	TOTAL
1ST FLOOR:	3,199 SF	7,967 SF	11,166 SF
2ND FLOOR:	- SF	10,686 SF	10,686 SF
3RD FLOOR:	- SF	10,686 SF	10,686 SF
4TH FLOOR:	- SF	10,686 SF	10,686 SF
<b>TOTAL:</b>	<b>3,199 SF</b>	<b>40,025 SF</b>	<b>43,224 SF</b>

**PRINCIPAL USE STANDARDS:**

- DWELLING, MULTIFAMILY**
- NO ACCESSORY STRUCTURE SHALL BE LESS THAN 10 FEET FROM ANOTHER STRUCTURE. **THE MIXED USE BUILDING IS GREATER THAN 10 FEET FROM THE PARKING GARAGE.**
  - NO IMPROVED RECREATION AREA SHALL BE LOCATED WITHIN THE REQUIRED EXTERIOR SETBACKS OR WITHIN 20 FEET OF ANY DWELLING UNIT. **NO IMPROVED RECREATION AREAS ARE LOCATED OUTSIDE OF THE BUILDING.**
  - NO INDIVIDUAL BUILDING SHALL EXCEED A LENGTH OF 250 FEET. **THE PROPOSED BUILDING IS LESS THAN 250 IN LENGTH.**

- DWELLING, UPPER-STORY**
- UPPER STORY RESIDENTIAL DWELLING UNITS SHALL OCCUPY THE SECOND OR HIGHER FLOOR OF A BUILDING WITH A NONRESIDENTIAL USE ON THE GROUND FLOOR. **UNDERSTOOD.**

**PARKING STANDARDS:**  
 MINIMUM PARKING SPACES:

USE CATEGORY	USE TYPE	MINIMUM NUMBER OF PARKING SPACES	NUMBER OF UNITS/ GROSS SF OF USE	NUMBER OF SPACES
DWELLING, MULTIFAMILY	DWELLING, MULTIFAMILY	1.5 PER DU + 1 PER EVERY 5 DU	5	8.5
DWELLING, UPPER-STORY	DWELLING, UPPER-STORY	0.5 PER DU	29	14.5
RETAIL	RETAIL SALES ESTABLISHMENT	1 PER EVERY 300 SF	3,199	10.7
<b>TOTAL OFF-STREET PARKING REQUIRED =</b>				<b>34</b>
<b>MAXIMUM ALLOWED OFF-STREET PARKING=</b>				<b>43</b>
<b>(WITHOUT ALTERNATIVE PARKING PLAN)</b>				
<b>MINIMUM HANDICAPPED ACCESSIBLE SPACES REQUIRED FOR WINCHESTER PLACE=</b>				<b>2</b>

**WINCHESTER PARKING GARAGE TABULATIONS**

RESIDUAL PARKING SPACES=	176	SPACES
PROPOSED OFF-STREET PARKING SPACES DEDICATED TO WINCHESTER PLACE=	22	SPACES
PROPOSED OFF-STREET PARKING SPACES DEDICATED TO LIBERTY PLACE=	124	SPACES
(PER PARKING AGREEMENT WITH WILLIAM SQUARE LLC)		
<b>TOTAL NUMBER OF HANDICAPPED ACCESSIBLE PARKING SPACES IN GARAGE=</b>	<b>8</b>	<b>SPACES</b>
<b>TOTAL NUMBER OF VAN ACCESSIBLE HC PARKING SPACES IN GARAGE=</b>	<b>2</b>	<b>SPACES</b>

<b>PROPOSED ON-STREET PARKING SPACES =</b>	<b>12</b>	<b>PARALLEL SPACES</b>
<i>PER SECTION 72-82.7(E) OF THE UDO ORDINANCE ON-STREET PARKING MAY BE USED TO SATISFY THE OFF-STREET PARKING REQUIREMENTS IN THE C-D DISTRICT.</i>		
<b>TOTAL NUMBER OF PARKING SPACES AVAILABLE TO WINCHESTER PLACE=</b>	<b>34</b>	<b>SPACES</b>
<b>TOTAL NUMBER OF HANDICAPPED ACCESSIBLE PARKING SPACES AVAILABLE TO WINCHESTER PLACE=</b>	<b>2</b>	<b>SPACES</b>
<b>TOTAL NUMBER OF VAN ACCESSIBLE HC PARKING SPACES AVAILABLE TO WINCHESTER PLACE=</b>	<b>1</b>	<b>SPACES</b>

**LOADING SPACE STANDARDS:**

USE OR ACTIVITY	GROSS FLOOR AREA	MIN. NUMBER OF LOADING BERTHS
RETAIL	3,199	0
TOTAL REQUIRED =		0
<b>TOTAL PROVIDED =</b>		<b>0</b>
(OFFSTREET = 15 FT WIDE X 25 FT LONG)		

**BICYCLE PARKING STANDARDS:**

	NUMBER OF UNITS/ GROSS SF OF USE	REQUIRED # OF SPACES
NON-RESIDENTIAL =	3,199 SF	0
NON-RESIDENTIAL =	34 UNITS	2
<b>TOTAL =</b>		<b>2 SPACES</b>
<b>TOTAL PROPOSED =</b>		<b>2 SPACES (IN PARKING GARAGE)</b>

**OVERALL BLOCK MIXED USE AND DENSITY CALCULATIONS (INCLUDES LIBERTY PLACE & WINCHESTER PLACE)**

**Mixed Use Definition Test**

25% Minimum Commercial or Residential

Total Restaurant Space	10,065 SF
Total Outdoor Dining	1,372 SF
Total Specialty Eating Establishment	2,427 SF
Total General Office	22,515 SF
Total Retail	3,199 SF
Associated Core Spaces	8,162 SF
Total Commercial Space	47,740 SF
Total Residential Square Footage	40,025 SF
Total Project Square Footage	87,765 SF
Percent Commercial	54.4%
Percent Residential	45.6%

30% of Gross Floor Area of Ground Floor devoted to commercial use

Ground Floor Commercial Space	15,691 SF
Ground Floor Residential Space	7,967 SF
Ground Floor Core Space (Office)	1,894 SF
Total Ground Floor Gross Floor Area	25,552 SF
Percent Commercial	61.4%

**FAR and Density Calculations**

Total Site Area	61,848 SF
Total Project Square Footage	87,765 SF
Gross FAR	1.42
Ground Floor SF of Restaurant, Retail, or Personal Service Establishments	15,691 SF
Adjusted Total Floor Area (Excludes Ground Floor SF devoted to Commercial)	72,074 SF
Adjusted FAR (Excludes Ground Floor SF devoted to Commercial)	1.17
Building Footprint Square Footage (Includes Garage)	46,982 SF
Building Site Coverage Ratio	76.0%

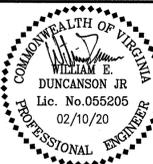
Site Area (Acres)	1.42
Density Allowed	34.08 Units
Proposed Density	24 DU/AC
	34 Units
	23.95 DU/AC



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GENERAL NOTES & SITE TABULATIONS  
 MAJOR SITE PLAN  
**WINCHESTER PLACE**  
 CITY OF FREDERICKSBURG, VIRGINIA  
 WARD 2; PRECINCT 201

SPMAJ 2020-\_\_\_  
 COUNTY PROJECT NUMBER



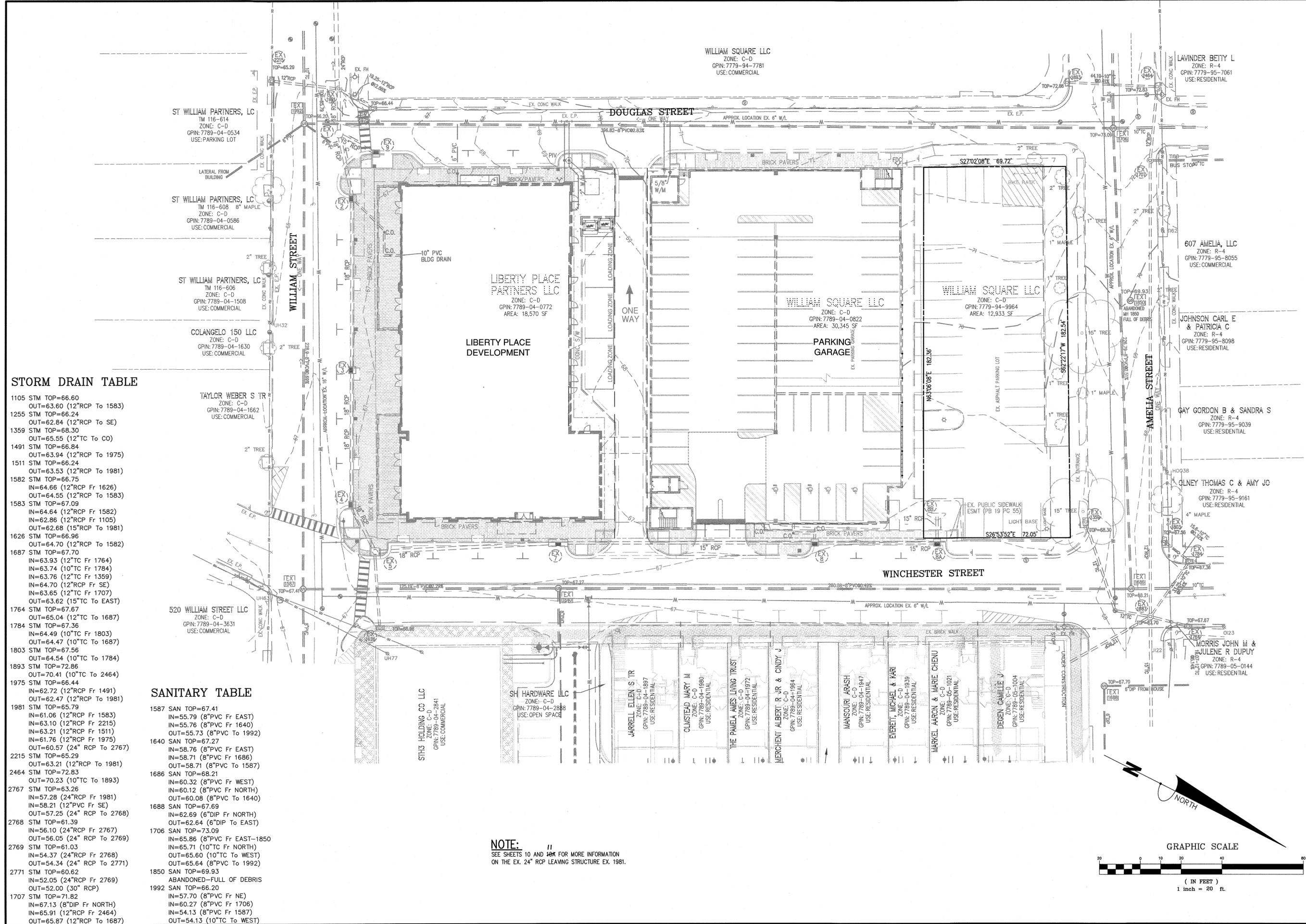
PLAN STATUS  
 02/10/20 1st SUBMISSION

DATE	DESCRIPTION
WED	DESIGN
WED	DRAWN
WED	CHKD

SCALE H: AS NOTED  
 V: N/A

JOB No. 100253-01-001  
 DATE : DECEMBER 2019  
 FILE No. 100253-D-CP-001

SHEET 3 OF 24



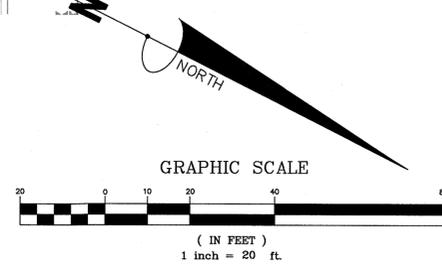
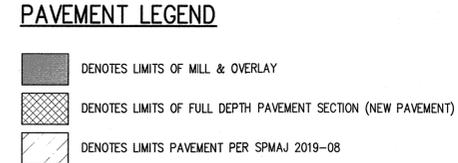
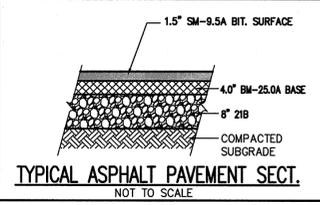
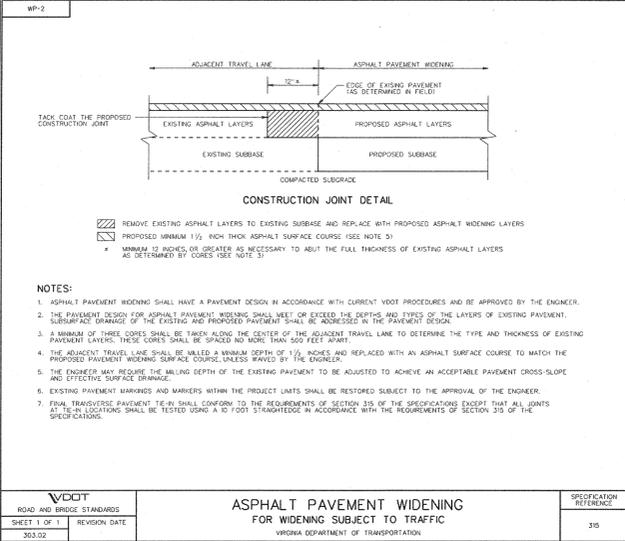
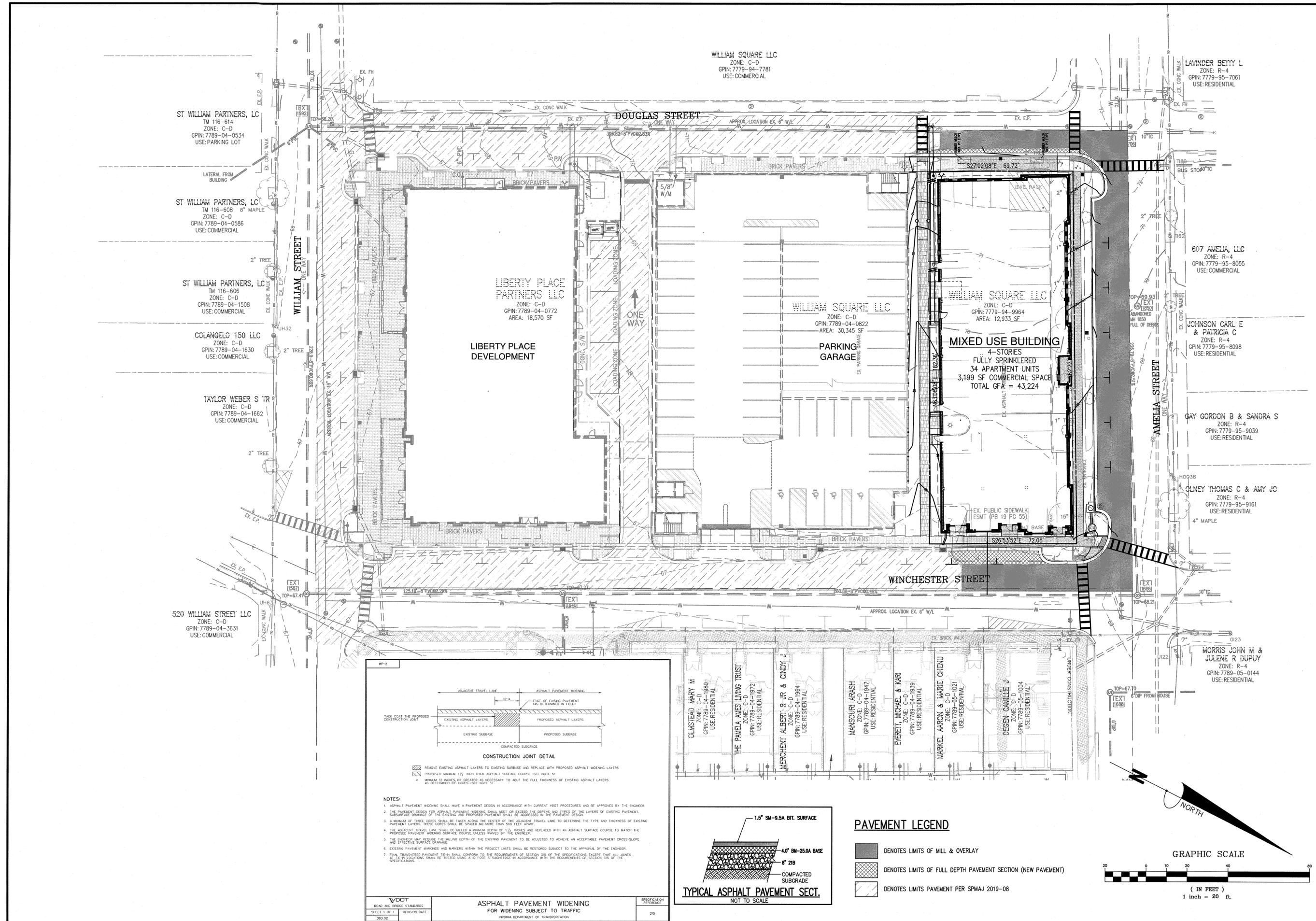
**STORM DRAIN TABLE**

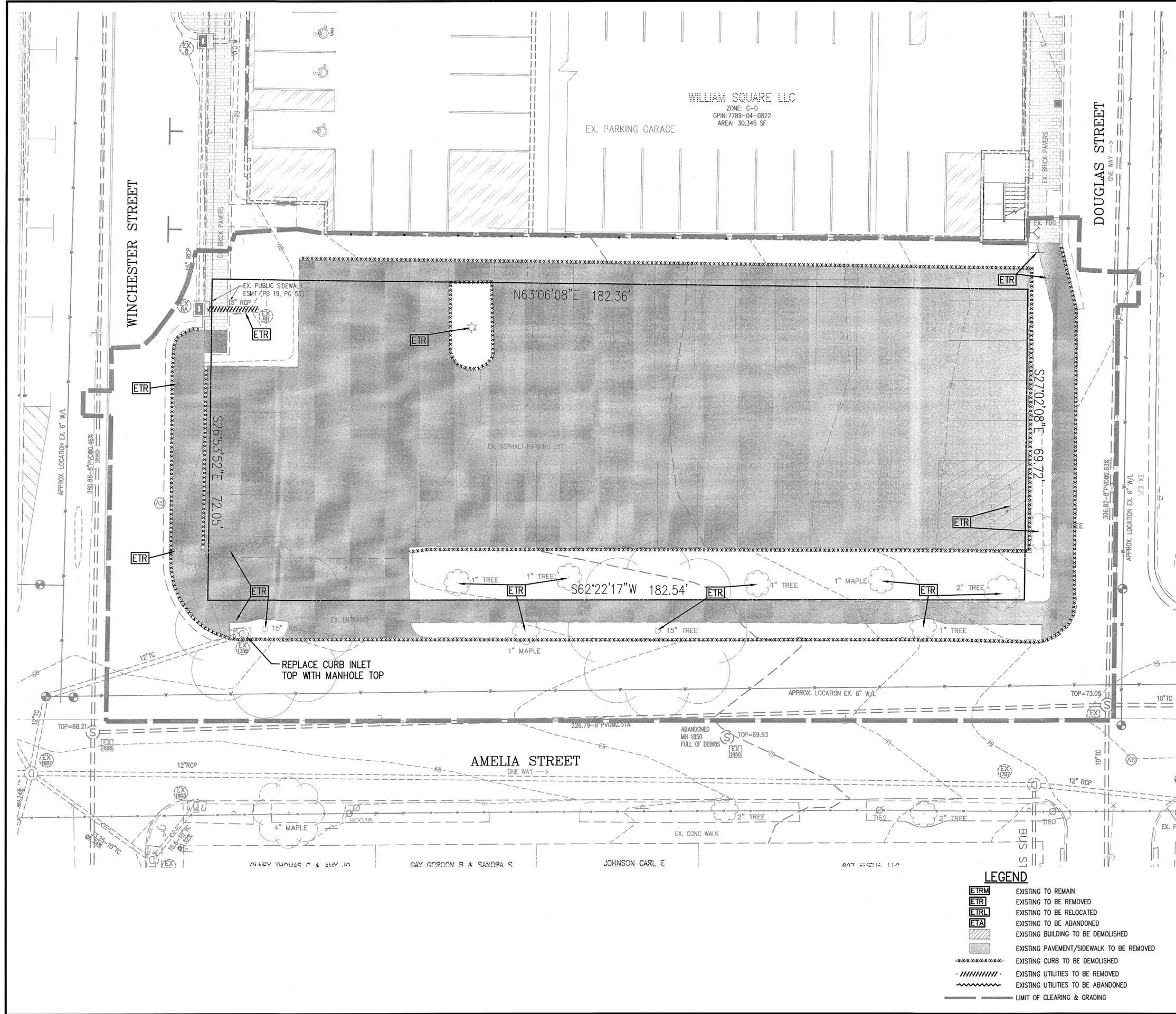
1105	STM TOP=66.60
1255	STM TOP=66.24
1359	STM TOP=68.30
1491	STM TOP=66.84
1511	STM TOP=66.24
1582	STM TOP=66.75
1583	STM TOP=67.09
1626	STM TOP=66.96
1687	STM TOP=67.70
1764	STM TOP=67.67
1784	STM TOP=67.36
1803	STM TOP=67.56
1893	STM TOP=72.86
1975	STM TOP=66.44
2215	STM TOP=65.29
2464	STM TOP=63.26
2767	STM TOP=63.26
2788	STM TOP=61.39
2769	STM TOP=61.03
2771	STM TOP=60.62
1707	STM TOP=71.82

**SANITARY TABLE**

1587	SAN TOP=67.41
1640	SAN TOP=67.27
1686	SAN TOP=68.21
1688	SAN TOP=67.69
1706	SAN TOP=73.09
1850	SAN TOP=69.93
1992	SAN TOP=66.20

**NOTE:**  
SEE SHEETS 10 AND 10A FOR MORE INFORMATION ON THE EX. 24" RCP LEAVING STRUCTURE EX. 1981.





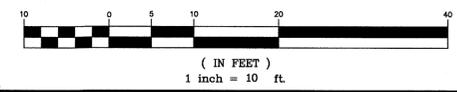
### DEMOLITION NOTES

- ALL DEMOLITION SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE CURRENT REGULATIONS OF THE CITY OF FREDERICKSBURG AND THE STATE OF VIRGINIA.
- ALL APPLICABLE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROVIDED PRIOR TO COMMENCING DEMOLITION.
- ALL ITEMS WHICH REQUIRE VERIFICATION BETWEEN THE CONTRACTOR AND THE OWNER SHALL BE DONE IN WRITING BY THE CONTRACTOR PRIOR TO BIDDING AS A METHOD OF BID CLARIFICATION.
- THE CONTRACTOR SHALL READ ALL GEOTECHNICAL INFORMATION AVAILABLE AND CLEARLY REPORT PROPOSED CONSTRUCTION METHODOLOGIES TO THE OWNER PRIOR TO BIDDING.
- THE CONTRACTOR SHALL ADHERE TO ALL SAFETY REGULATIONS GIVEN BY OSHA.
- THE CONTRACTOR SHALL CALL "MISS UTILITY" AT 1-800-257-777 AT LEAST THREE (3) DAYS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.
- THE CONTRACTOR SHALL SECURE A CONSTRUCTION / DEMOLITION PERMIT PRIOR TO ANY WORK ON-SITE OR PUBLIC OPEN SPACE.
- THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (INCLUDING, BUT NOT LIMITED TO, MANHOLES, INLETS, VALVES, AND MARKS MADE UPON THE GROUND BY OTHERS) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE WAS NO ABOVE GROUND EVIDENCE OR FOR WHICH THERE WAS NO ABOVE GROUND EVIDENCE OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY BOWMAN CONSULTING GROUP, LTD. IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOWMAN CONSULTING SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN ACCORDANCE WITH LOCAL REGULATIONS AND CODES.
- TEST PIT LOCATIONS SHOWN ARE PRELIMINARY AND SUBJECT TO REVISIONS. ADDITIONAL TEST PITS MAY BE REQUIRED FOLLOWING "UTILITY MARK-OUT" PROCEDURES (i.e. TEST PITS FOR GAS, ELECTRIC, CABLE, TELEPHONE, ETC.) AS ORDERED BY THE CONTRACTOR VIA MISS UTILITY. ADDITIONAL TEST PITS MAY ALSO BE REQUIRED SHOULD THE PROPOSED UTILITY LOCATIONS BE REVISED PRIOR TO FINAL JURISDICTIONAL APPROVAL.
- ALL EXISTING ASPHALT, UTILITIES, BUILDINGS, RETAINING WALLS, CURB AND GUTTER, AND SIDEWALKS WITHIN THE LIMITS OF CLEARING AND GRADING ARE TO BE REMOVED UNLESS SPECIFICALLY NOTED TO REMAIN (ETRM) OR TO BE ABANDONED (ETA) WITH THIS PLAN.
- THE CONTRACTOR SHALL CAP ALL EXISTING WATER AND SEWER SERVICE LINES THAT CURRENTLY SERVE THE SITE. SERVICE LINES ARE TO REMAIN UNDER STREET.
- EXISTING OVERHEAD UTILITIES SHALL BE RELOCATED UNDERGROUND. THE CONTRACTOR SHALL COORDINATE REMOVAL OR RELOCATION OF ALL OVERHEAD UTILITY LINES AND REMOVAL OF ALL UTILITY POLES, PEDESTALS AND TRANSFORMERS WITH UTILITY COMPANIES AND WITH THE DEVELOPER PRIOR TO DEMOLITION.
- PARKING STRIPING ALONG WILLIAM STREET, DOUGLAS STREET, AMELIA STREET AND WINCHESTER STREET SHALL BE REMOVED AND RESTRIPEAS AS NOTED ON SHEET 7.
- SEE SHEETS 16 AND 16A FOR PEDESTRIAN ACCESS ROUTES AND MAINTENANCE OF TRAFFIC PLANS.
- CONTRACTOR SHALL NOTIFY AND COORDINATE WITH GOVERNING AUTHORITIES FOR ANY EXISTING OVERHEAD UTILITIES THAT ARE TO REMAIN THROUGHOUT CONSTRUCTION TO ENSURE CORRECT PRECAUTIONARY MEASURES ARE TAKEN.
- ON SITE DEMOLITION IS SCHEDULED TO COMMENCE UPON PLAN APPROVAL AND PROCEED AS NECESSARY TO COMPLETION. THE CONTRACTOR MUST COORDINATE WITH THE DEVELOPER RELATIVE TO THE SCOPE OF THE DEMOLITION ACTIVITIES AND THE EXISTING CONDITIONS WHICH ARE PRESENT FOLLOWING THOSE ACTIVITIES. THIS DEMOLITION PLAN INDICATES CONDITIONS PRIOR TO ANY AND ALL DISTURBANCE AND MAY NOT ACCURATELY REFLECT CONDITIONS AT THE TIME OF CONTRACTOR MOBILIZATION.
- CONTRACTOR SHALL COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS TO DETERMINE METHOD OF ABANDONMENT FOR ALL UTILITIES NOTED TO BE ABANDONED (ETA) WITH THIS PLAN.
- ALL STORM AND SANITARY SEWER MANHOLES WITHIN THE PUBLIC STREETS NOTED TO BE REMOVED (ETRM) WITH THIS PLAN SHALL BE REMOVED ENTIRELY.

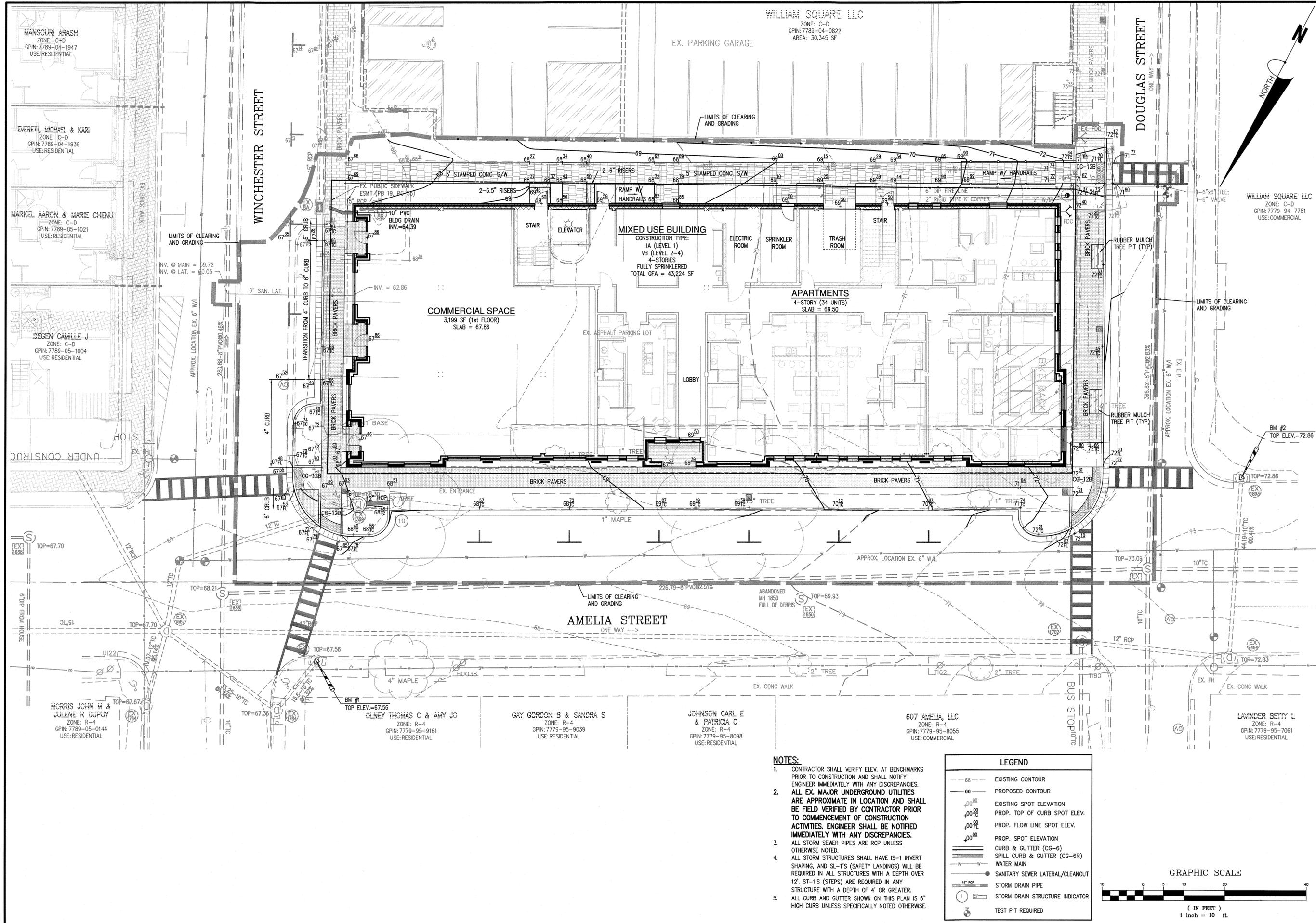
### LEGEND

- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- EXISTING TO BE RELOCATED
- EXISTING TO BE ABANDONED
- EXISTING BUILDING TO BE DEMOLISHED
- EXISTING PAVEMENT/SIDEWALK TO BE REMOVED
- EXISTING CURB TO BE DEMOLISHED
- EXISTING UTILITIES TO BE REMOVED
- EXISTING UTILITIES TO BE ABANDONED
- LIMIT OF CLEARING & GRADING

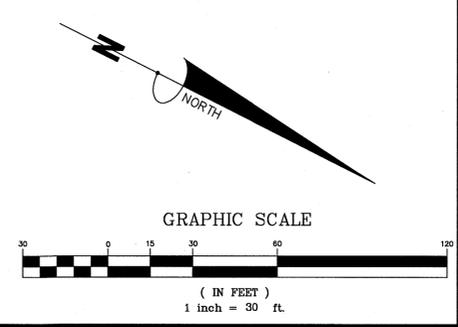
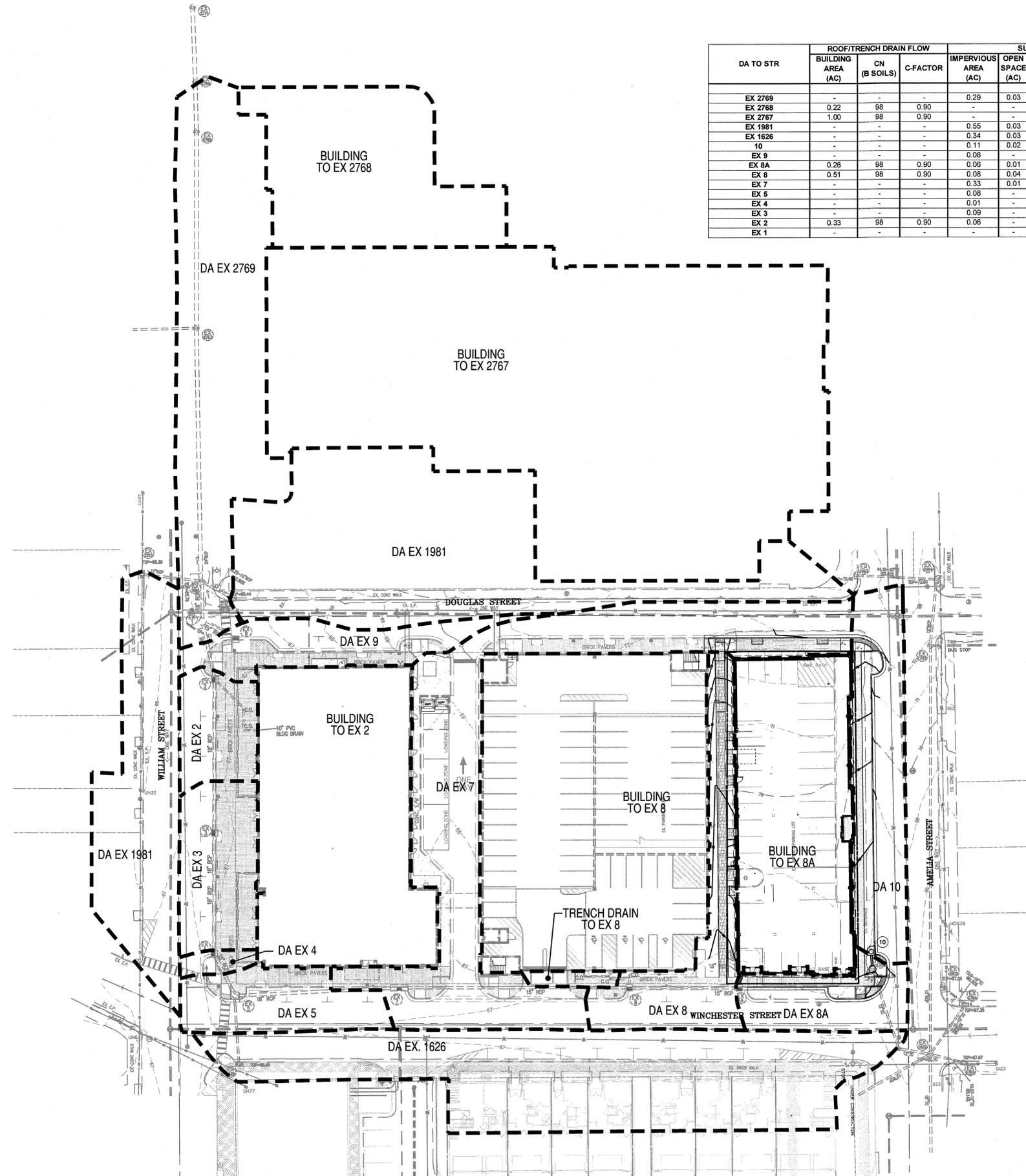
### GRAPHIC SCALE







DA TO STR	ROOF/TRENCH DRAIN FLOW			SURFACE FLOW				TOTAL DRAINAGE AREA			
	BUILDING AREA (AC)	CN (8 SOILS)	C-FACTOR	IMPERVIOUS AREA (AC)	OPEN SPACE (AC)	TOTAL SURFACE FLOW	CN (8 SOILS)	C-FACTOR	DRAINAGE AREA (AC)	CN (8 SOILS)	C-FACTOR
EX 2769	-	-	-	0.29	0.03	0.32	95	0.85	0.32	95	0.85
EX 2768	0.22	98	0.90	-	-	-	-	-	0.22	98	0.90
EX 2767	1.00	98	0.90	-	-	-	-	-	1.00	98	0.90
EX 1981	-	-	-	0.55	0.03	0.58	96	0.87	0.58	96	0.87
EX 1626	-	-	-	0.34	0.03	0.37	95	0.86	0.37	95	0.86
10	-	-	-	0.11	0.02	0.13	92	0.82	0.13	92	0.82
EX 9	-	-	-	0.08	-	0.08	98	0.90	0.08	98	0.90
EX 8A	0.26	98	0.90	0.06	0.01	0.07	93	0.82	0.33	97	0.88
EX 8	0.51	98	0.90	0.08	0.04	0.12	86	0.72	0.63	96	0.87
EX 7	-	-	-	0.33	0.01	0.34	97	0.88	0.34	97	0.88
EX 5	-	-	-	0.08	-	0.08	98	0.90	0.08	98	0.90
EX 4	-	-	-	0.01	-	0.01	98	0.90	0.01	98	0.90
EX 3	-	-	-	0.09	-	0.09	98	0.90	0.09	98	0.90
EX 2	0.33	98	0.90	0.06	-	0.06	98	0.90	0.39	98	0.90
EX 1	-	-	-	-	-	-	-	-	-	-	-



### STORM SEWER COMPUTATIONS FOR A 10-YR STORM EVENT

Structure	From	To	Drainage Area (acre)		Runoff Coef.	CA		Tc (min.)	I (in/hr)	Q (cfs)	Slope (%)		From Invert Out	To Invert In	From Top	To Top	Structure Depth (ft) From	n	Diameter (in)	Velocity (fps)	Length (ft)	Flow Time (min.)	Capacity (cfs)	q/Q (%)	Remarks
			Incr.	Accum.		Incr.	Accum.				(min)	(actual)													
EX9	EX1		0.08	0.08	0.90	0.07	0.07	5.00	6.91	0.50	0.01	0.53	60.97	60.89	66.55	66.10	5.58	0.013	15	2.45	15.04	0.10	4.71	10.57%	
EX1626	EX5		0.37	0.37	0.86	0.32	0.32	5.00	6.91	2.19	0.38	0.12	64.70	64.65	66.96	66.61	2.26	0.013	12	2.79	37.45	0.22	1.25	175.25%	
EX8A	EX8		0.33	0.33	0.88	0.29	0.29	5.00	6.91	2.02	0.10	0.50	64.25	63.95	67.62	67.31	3.37	0.013	15	3.50	60.00	0.29	4.57	44.12%	INCL DA FROM BLDG DRAIN
EX8	EX7		0.63	0.96	0.87	0.55	0.84	5.29	6.85	5.73	0.79	0.80	63.85	62.84	67.31	67.03	3.46	0.013	15	5.34	125.83	0.39	5.78	99.14%	INCL DA FROM BLDG DRAIN
EX7	EX5		0.34	1.30	0.88	0.30	1.14	5.68	6.72	7.64	0.53	0.55	62.74	62.25	67.03	66.61	4.29	0.013	18	5.00	89.81	0.30	7.79	98.06%	
EX5	EX4		0.08	1.75	0.90	0.07	1.53	5.98	6.63	10.11	0.93	0.98	62.15	61.90	66.61	66.97	4.46	0.013	18	5.64	25.91	0.08	10.37	97.44%	
EX4	EX3		0.01	1.76	0.90	0.01	1.53	6.05	6.60	10.12	0.20	0.50	61.85	61.52	66.97	66.80	5.12	0.013	24	5.36	66.25	0.21	16.00	63.27%	
EX3	EX2		0.09	1.85	0.90	0.08	1.62	6.26	6.54	10.56	0.22	0.50	61.47	61.04	66.80	66.65	5.33	0.013	24	5.42	84.25	0.26	16.00	66.01%	
EX2	EX1		0.39	2.24	0.90	0.35	1.97	6.52	6.45	12.68	0.31	0.50	60.99	60.84	66.65	66.10	5.66	0.013	24	5.63	31.83	0.09	16.00	79.28%	INCL DA FROM BLDG DRAIN
EX1981	EX1981		0.00	2.32	-	0.00	2.04	6.61	6.42	13.09	0.33	0.50	60.79	60.67	66.10	65.79	5.31	0.013	24	5.65	23.13	0.07	16.00	81.82%	
EX2767	EX2767		0.58	2.90	0.87	0.51	2.54	6.68	6.42	16.33	0.52	2.37	60.57	57.28	65.79	63.26	5.22	0.013	24	10.87	139.03	0.21	34.80	46.94%	
EX2768	EX2768		1.00	3.90	0.90	0.90	3.44	6.90	6.37	21.92	0.94	1.07	57.25	56.10	63.26	61.39	6.01	0.013	24	8.44	107.64	0.21	23.38	93.75%	
EX2769	EX2769		0.22	4.12	0.90	0.20	3.64	7.11	6.28	22.88	1.02	8.17	56.05	54.37	61.39	61.03	5.34	0.013	24	16.94	27.22	0.03	56.20	40.72%	
EX2771	EX2771		0.32	4.44	0.85	0.27	3.91	7.13	6.28	24.59	1.18	5.58	54.34	52.05	61.03	60.62	6.69	0.013	24	16.63	41.01	0.04	53.46	46.00%	
10	EX1359		0.13	0.13	0.82	0.11	0.11	5.00	6.91	0.73	0.04	0.51	65.70	65.65	68.48	68.30	2.78	0.013	12	2.69	9.74	0.06	2.55	28.71%	

### V.D.O.T. METHOD HYDRAULIC GRADELINE COMPUTATIONS

Struct. Number	Surface Flow	Inlet Shaping	Outlet W.S.E.	n Factor	Do	Qo	Lo	Ao	Po	Ro	Sf	Hf	H.G.L. @ Struct. Outlet	Vo	Ho	Qi	Di	Ai	Pi	Ri	Vi	Hi	Angle a	Angle 'K' Value	Ha	Ht total	Percent Surface v Total Q	Ht (Adjust Surface Flow)	Total H	H.G.L. @ Struct. Inlet	Top of Structure	HGL Elev. Below Top Struct.
EX2769	1.88	Y	53.85	0.013	24	24.59	41.01	3.14	6.28	0.50	0.0118	0.48	54.13	16.63	1.07	22.88	24	3.14	6.28	0.50	16.94	1.56	12	0.15	0.69	3.32	8%	0.00	2.14	55.79	61.03	5.24
EX2768	0.00	Y	55.97	0.013	24	22.88	27.22	3.14	6.28	0.50	0.0102	0.28	56.25	16.94	1.11	21.92	24	3.14	6.28	0.50	16.94	0.39	12	0.15	0.17	1.67	0%	0.00	1.11	57.08	61.39	4.31
EX2767	0.00	Y	57.70	0.013	24	21.92	107.64	3.14	6.28	0.50	0.0094	1.01	58.71	6.98	0.19	16.33	24	3.14	6.28	0.50	5.20	0.15	12	0.15	0.06	0.40	0%	0.00	1.21	58.91	63.26	4.35
EX1981	3.49	Y	58.91	0.013	24	16.33	139.03	3.14	6.28	0.50	0.0052	0.73	59.64	10.87	0.46	13.09	24	3.14	6.28	0.50	5.65	0.17	12	0.15	0.08	0.71	21%	0.92	1.19	60.10	65.79	5.69
EX1	0.00	Y	62.27	0.013	24	13.09	23.13	3.14	6.28	0.50	0.0033	0.08	62.35	5.65	0.12	12.68	24	3.14	6.28	0.50	5.63	0.17	12	0.15	0.08	0.37	0%	0.00	0.26	62.53	66.10	3.57
EX2	0.37	Y	62.53	0.013	24	12.68	31.83	3.14	6.28	0.50	0.0031	0.10	62.63	5.63	0.12	10.56	24	3.14	6.28	0.50	5.42	0.16	33	0.37	0.17	0.45	3%	0.00	0.33	62.86	66.65	3.79
EX3	0.56	Y	62.86	0.013	24	10.56	84.25	3.14	6.28	0.50	0.0022	0.18	63.94	5.42	0.11	10.12	24	3.14	6.28	0.50	5.36	0.16	0	0.00	0.00	0.27	9%	0.00	0.32	63.18	66.80	3.62
EX4	0.06	Y	63.18	0.013	24	10.12	66.25	3.14	6.28	0.50	0.0020	0.13	63.31	5.36	0.11	10.11	18	1.77	4.71	0.38	5.94	0.17	26	0.31	0.15	0.44	1%	0.00	0.35	63.53	66.97	3.44
EX5	0.50	Y	63.53	0.013	18	10.11	25.91	1.77	4.71	0.38	0.0020	0.24	63.77	5.72	0.13	7.84	18	1.77	4.71	0.38	4.32	0.10	68	0.60	0.17	0.40	5%	0.00	0.44	63.97	66.61	2.64
EX7	2.08	Y	63.97	0.013	18	7.84	89.81	1.77	4.71	0.38	0.0053	0.48	64.45	4.32	0.07	5.73	15	1.23	3.93	0.31	4.67	0.12	3	0.04	0.01	0.20	27%	0.26	0.61	64.58	67.03	2.45
EX8	0.59	Y	64.58	0.013	15	5.73	125.83	1.23	3.93	0.31	0.0079	0.99	65.57	4.67	0.06	2.02	15	1.23	3.93	0.31	1.64	0.01	90	0.70	0.03	0.13	10%	0.00	1.05	65.63	67.31	1.68
EX8A	0.40	Y	65.63	0.013	15	2.02	60.00	1.23	3.93	0.31	0.0010	0.06	65.69	1.64	0.01	2.02	10	0.55	2.62	0.21	3.70	0.07	90	0.70	0.15	0.23	20%	0.00	0.17	65.81	67.62	1.81
EX1626	2.19	Y	65.45	0.013	12	2.19	37.45	0.79	3.14	0.25	0.0038	0.14	65.60	2.79	0.04	2.19	12	0.79	3.14	0.25	0.00	0.00	0	0.00	0.00	0.04	100%	0.05	0.16	65.62	66.96	1.34
EX9	0.50	Y	62.53	0.013	15	0.50	15.04	1.23	3.93	0.31	0.0001	0.00	62.53	0.41	0.00	0.50	15	1.23	3.93	0.31	0.41	0.00	0	0.00	0.00	0.00	100%	0.00	0.00	62.54	66.55	4.01
10	0.73	Y	66.45	0.013	12	0.73	9.74	0.79	3.14	0.25	0.0004	0.00	66.45	2.69	0.03	0.73	12	0.79	3.14	0.25	0.00	0.00	0	0.00	0.00	0.03	100%	0.04	0.03	66.48	68.48	2.00

### STORM WATER INLET COMPUTATIONS - 10/100-YR STORM EVENT

NUMBER	TYPE	LENGTH (ft.)	DRAINAGE AREA (Ac.)	C	CA	10-YR INTENSITY (in./hr.)	100-YR INTENSITY (in./hr.)	Q INCR. (C.F.S.)	Q Carryover (C.F.S.)	10-yr Qt Gutterflow (C.F.S.)	100-yr Qt Gutterflow (C.F.S.)	S Gutterslope (ft./ft.)	Sx Cross Slope (ft./ft.)	T Spread (ft.)	W/W/T	Sw (ft./ft.)	Sw/Sx	Eo (Chart 10)	Sw a (a/(12W))	Se (Sx+Sw/Eo) (ft./ft.)	Lt Length (ft.)	L/Lt (Chart 16)	E Intercepted (C.F.S.)	Qb Carry Over (C.F.S.)	P Effic. Lt. (ft.)	d 10-YR (ft.)	d 100-YR (ft.)	h (ft.)	d/h	T Spread @ Sag (ft.)	REMARKS			
																																10	100	10
CONTINUOUS GRADE INLETS																																		
EX8A	DH-2 A	2.17	0.07	0.62	0.06	6.91	9.03	0.40	0.00	0.40	0.52	0.005	0.01	6.13	1.5	0.24	0.0633	8.3	0.73	3.3	0.184	0.145	2.97	0.73	1.00	0.40	0.00	-	-	-	-	-	-	-
SUMP LOCATION INLETS																																		
EX8	DH-2 A	2.17	0.12	0.72	0.09	6.91	9.03	0.59	0.00	0.59	0.78	0.005	0.02	5.56	1.5	-	-	-	-	-	-	-	-	-	0.59	0.00	4.87	0.18	0.20	0.458	0.39	3.59		
10	DH-3 B	4	0.13	0.82	0.11	6.91	9.03	0.73	0.00	0.73	0.96	0.005	0.02	6.20	1.5	-	-	-	-	-														

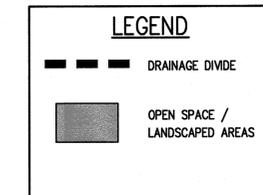
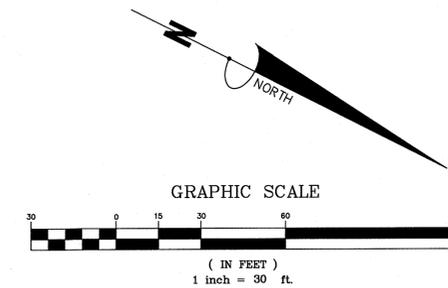
### SWM NARRATIVE:

THIS PROJECT CONSISTS OF CONSTRUCTING A 4-STORY MIXED-USE BUILDING CONSISTING OF GROUND FLOOR COMMERCIAL SPACE AND 34 MULTIFAMILY UNITS. THIS SITE WAS PREVIOUSLY ANALYZED WITH SPMAJ 2019-08. THE SWM CALCULATIONS SHOWN ON SPMAJ 2019-08 HAVE BEEN UPDATED TO ACCOUNT FOR THE DEVELOPMENT PROPOSED WITH THIS PLAN. THERE ARE 2 DISTINCT DISCHARGE POINTS WHERE STORMWATER LEAVES THE PROJECT LIMITS. EACH STUDY POINT HAS BEEN ANALYZED FOR ITS ADEQUACY UNDER THE PRE-DEVELOPMENT AND POST-DEVELOPMENT CONDITIONS.

THE DISCHARGE TO STUDY POINT 'A' OUTFALLS INTO AN EXISTING 24" RCP STORM SEWER. THE PEAK FLOWRATE FROM THE 2-YR STORM IS NON-EROSIVE. THE EXISTING 24" STORM SEWER IS ADEQUATE TO CONVEY THE SITE'S PEAK RATE OF RUNOFF FROM THE 10-YR STORM UNDER BOTH THE PRE-DEVELOPMENT AND THE POST-DEVELOPMENT CONDITIONS. IN ADDITION, UNDER THE POST DEVELOPMENT CONDITION, THE PEAK FLOWRATE FROM THE 10-YR STORM DOES NOT EXCEED THAT OF THE PRE-DEVELOPED PEAK FLOWRATE FROM THE 10-YR STORM. THEREFORE, PER 9 VAC 25-870-66 C, NO FURTHER ANALYSIS IS REQUIRED.

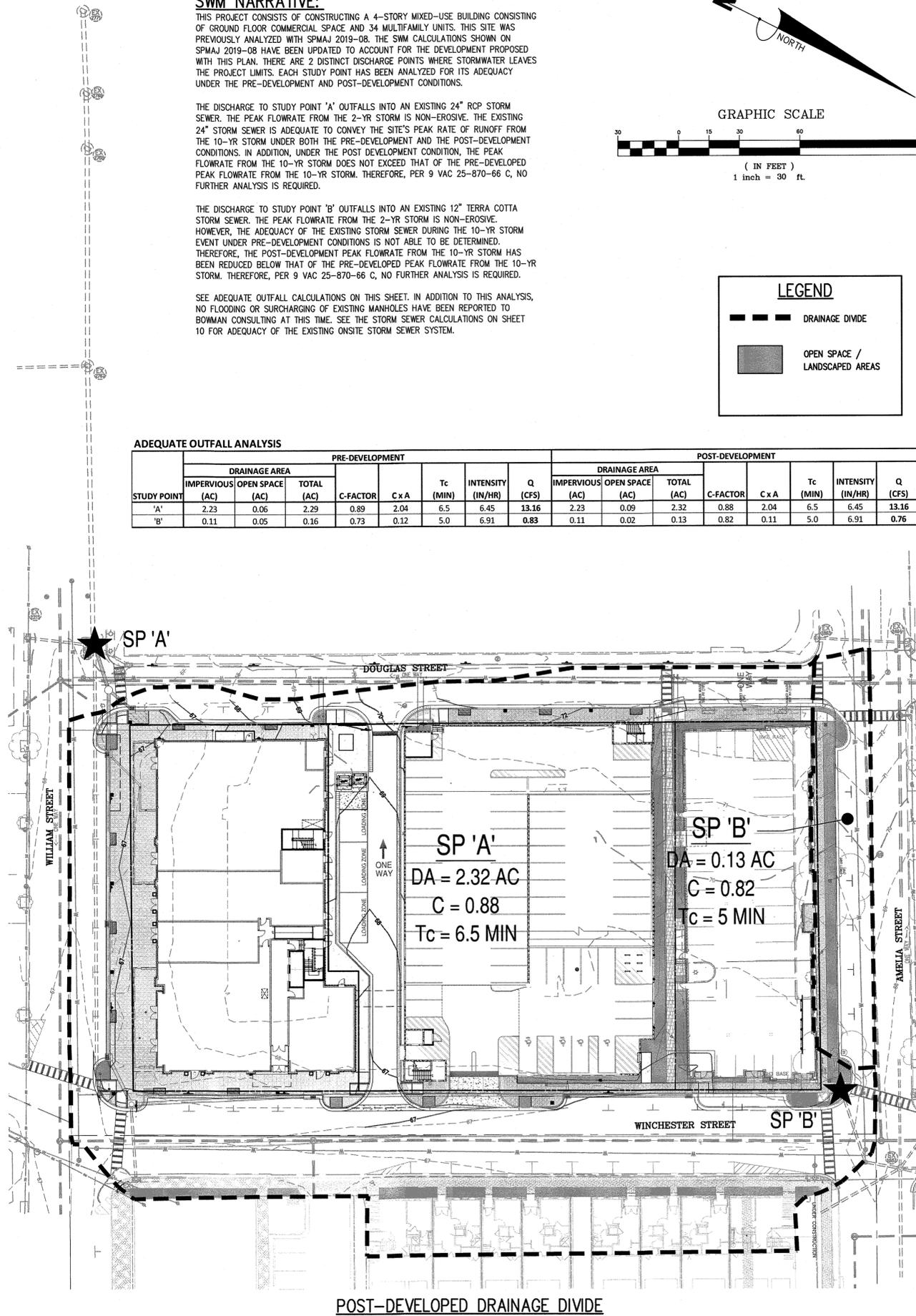
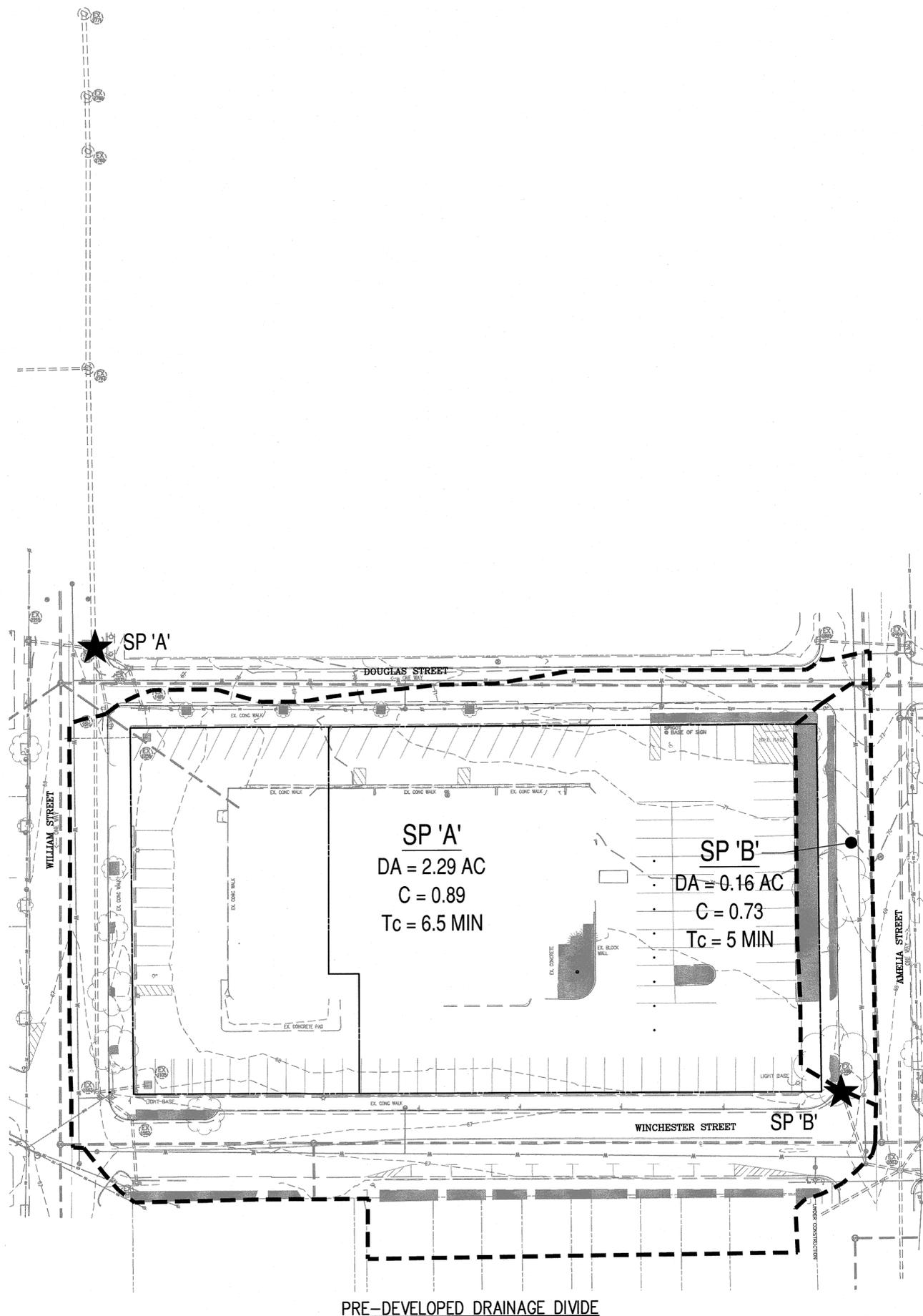
THE DISCHARGE TO STUDY POINT 'B' OUTFALLS INTO AN EXISTING 12" TERRA COTTA STORM SEWER. THE PEAK FLOWRATE FROM THE 2-YR STORM IS NON-EROSIVE. HOWEVER, THE ADEQUACY OF THE EXISTING STORM SEWER DURING THE 10-YR STORM EVENT UNDER PRE-DEVELOPMENT CONDITIONS IS NOT ABLE TO BE DETERMINED. THEREFORE, THE POST-DEVELOPMENT PEAK FLOWRATE FROM THE 10-YR STORM HAS BEEN REDUCED BELOW THAT OF THE PRE-DEVELOPED PEAK FLOWRATE FROM THE 10-YR STORM. THEREFORE, PER 9 VAC 25-870-66 C, NO FURTHER ANALYSIS IS REQUIRED.

SEE ADEQUATE OUTFALL CALCULATIONS ON THIS SHEET. IN ADDITION TO THIS ANALYSIS, NO FLOODING OR SURCHARGING OF EXISTING MANHOLES HAVE BEEN REPORTED TO BOWMAN CONSULTING AT THIS TIME. SEE THE STORM SEWER CALCULATIONS ON SHEET 10 FOR ADEQUACY OF THE EXISTING ONSITE STORM SEWER SYSTEM.



### ADEQUATE OUTFALL ANALYSIS

STUDY POINT	PRE-DEVELOPMENT										POST-DEVELOPMENT					
	DRAINAGE AREA			C-FACTOR	C x A	Tc (MIN)	INTENSITY (IN/HR)	Q (CFS)	DRAINAGE AREA			C-FACTOR	C x A	Tc (MIN)	INTENSITY (IN/HR)	Q (CFS)
	IMPERVIOUS (AC)	OPEN SPACE (AC)	TOTAL (AC)						IMPERVIOUS (AC)	OPEN SPACE (AC)	TOTAL (AC)					
'A'	2.23	0.06	2.29	0.89	2.04	6.5	6.45	13.16	2.23	0.09	2.32	0.88	2.04	6.5	6.45	13.16
'B'	0.11	0.05	0.16	0.73	0.12	5.0	6.91	0.83	0.11	0.02	0.13	0.82	0.11	5.0	6.91	0.76



2011 BMP Standards and Specifications | 2013 Draft BMP Standards and Specifications

Project Name: **Winchester Place**  
 Date: **1/28/2020**  
 Linear Development Project? **No**

CLEAR ALL  
 (Ctrl+Shift+R)

data input cells  
 constant values  
 calculation cells  
 final results

**Site Information**

**Post-Development Project (Treatment Volume and Loads)**

Enter Total Disturbed Area (acres) → **1.79**

Maximum reduction required: **20%**  
 The site's net increase in impervious cover (acres) is: **0**  
 Post-Development TP Load Reduction for Site (lb/yr): **0.73**

Check:  
 BMP Design Specifications List: **2011 Stds & Specs**  
 Linear project? **No**  
 Land cover areas entered correctly? **✓**  
 Total disturbed area entered? **✓**

**Pre-ReDevelopment Land Cover (acres)**

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be		0.08			0.08
Impervious Cover (acres)		1.71			1.71
					1.79

**Post-Development Land Cover (acres)**

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be		0.09			0.09
Impervious Cover (acres)		1.70			1.70
Area Check	OK.	OK.	OK.	OK.	1.79

**Constants**

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
Pj (unitless correction factor)	0.90

**Runoff Coefficients (Rv)**

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

**LAND COVER SUMMARY -- PRE-REDEVELOPMENT**

Land Cover Summary-Pre		
Pre-ReDevelopment	Listed	Adjusted <sup>1</sup>
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	0.08	0.08
Weighted Rv(turf)	0.20	0.20
% Managed Turf	4%	4%
Impervious Cover (acres)	1.71	1.71
Rv(impervious)	0.95	0.95
% Impervious	96%	96%
Total Site Area (acres)	1.79	1.79
Site Rv	0.92	0.92

**LAND COVER SUMMARY -- POST DEVELOPMENT**

Land Cover Summary-Post (Final)		Land Cover Summary-Post		Land Cover Summary-Post	
Post ReDev. & New Impervious		Post-ReDevelopment		Post-Development New Impervious	
Forest/Open Space Cover (acres)	0.00	Forest/Open Space Cover (acres)	0.00		
Weighted Rv(forest)	0.00	Weighted Rv(forest)	0.00		
% Forest	0%	% Forest	0%		
Managed Turf Cover (acres)	0.09	Managed Turf Cover (acres)	0.09		
Weighted Rv (turf)	0.20	Weighted Rv (turf)	0.20		
% Managed Turf	5%	% Managed Turf	5%		
Impervious Cover (acres)	1.70	ReDev. Impervious Cover (acres)	1.70	New Impervious Cover (acres)	0.00
Rv(impervious)	0.95	Rv(impervious)	0.95	Rv(impervious)	--
% Impervious	95%	% Impervious	95%		
Final Site Area (acres)	1.79	Total ReDev. Site Area (acres)	1.79		
Final Post Dev Site Rv	0.91	ReDev Site Rv	0.91		

**Treatment Volume and Nutrient Load**

Pre-ReDevelopment Treatment Volume (acre-ft)	0.1367	0.1367
Pre-ReDevelopment Treatment Volume (cubic feet)	5,955	5,955
Pre-ReDevelopment TP Load (lb/yr)	3.74	3.74
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	2.09	2.09
Baseline TP Load (lb/yr) (0.41 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		0.73

**Treatment Volume and Nutrient Load**

Final Post-Development Treatment Volume (acre-ft)	0.1361	Post-ReDevelopment Treatment Volume (acre-ft)	0.1361	Post-Development Treatment Volume (acre-ft)	--
Final Post-Development Treatment Volume (cubic feet)	5,928	Post-ReDevelopment Treatment Volume (cubic feet)	5,928	Post-Development Treatment Volume (cubic feet)	--
Final Post-Development TP Load (lb/yr)	3.72	Post-ReDevelopment TP Load (lb/yr)*	3.72	Post-Development TP Load (lb/yr)	--
Final Post-Development TP Load per acre (lb/acre/yr)	2.08	Post-ReDevelopment TP Load per acre (lb/acre/yr)	2.08		
		Max. Reduction Required (Below Pre-ReDevelopment Load)	20%		

TP Load Reduction Required for Redeveloped Area (lb/yr)	0.73	TP Load Reduction Required for New Impervious Area (lb/yr)	0
---	------	--	---

<sup>1</sup> Adjusted Land Cover Summary:

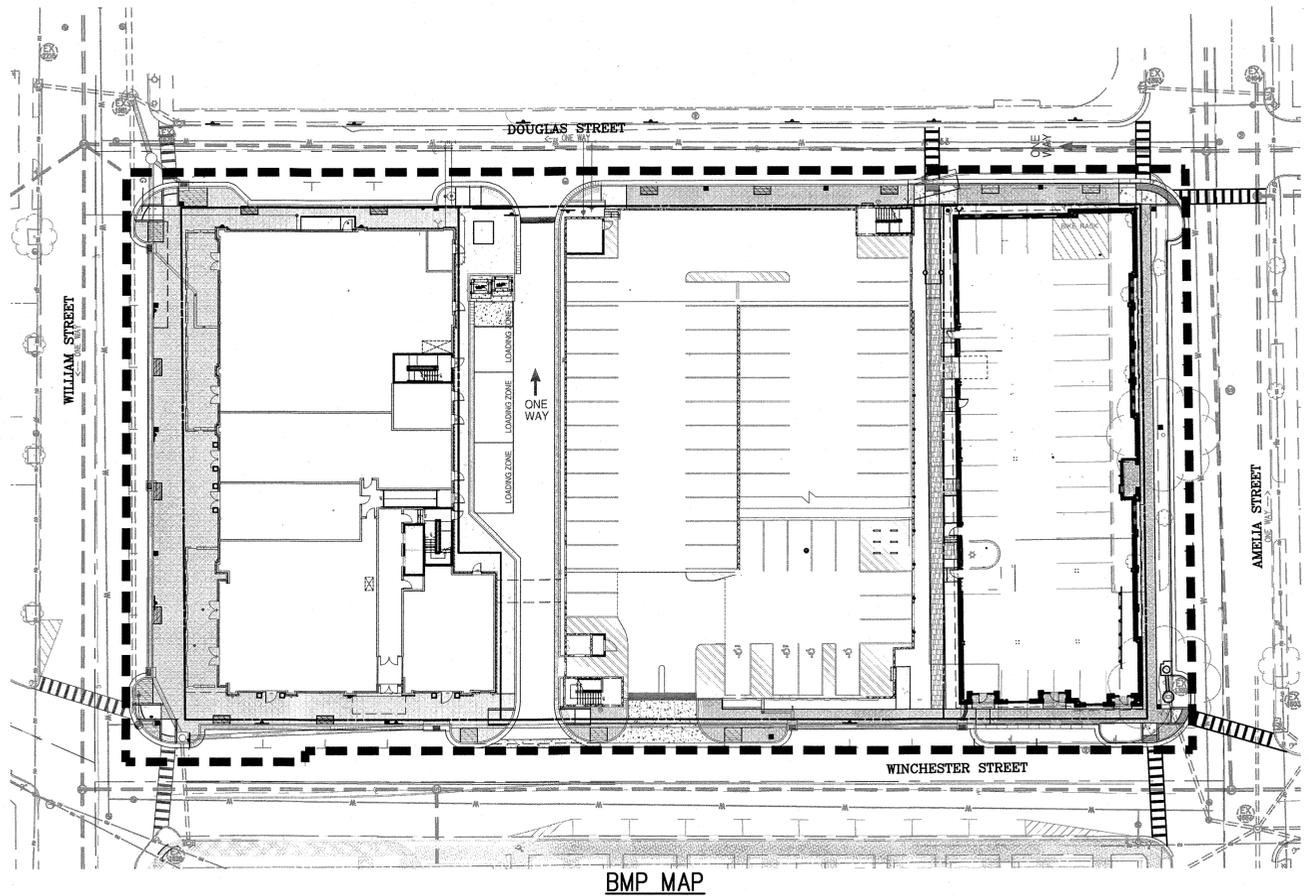
Pre-ReDevelopment land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

Column 1 shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

**Post-Development Requirement for Site Area**

TP Load Reduction Required (lb/yr) **0.73**



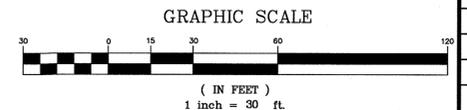
**BMP NARRATIVE:**

THIS PROJECT CONSISTS OF CONSTRUCTING A 4-STORY MIXED-USE BUILDING CONSISTING OF GROUND FLOOR COMMERCIAL SPACE AND 34 MULTIFAMILY UNITS. THIS SITE WAS PREVIOUSLY ANALYZED WITH SPMJ 2019-08. THE BMP CALCULATIONS SHOWN ON SPMJ 2019-08 HAVE BEEN UPDATED TO ACCOUNT FOR THE DEVELOPMENT PROPOSED WITH THIS PLAN. THE TOTAL SITE ANALYSIS AREA IS 1.79 ACRES. UNDER THE PRE-DEVELOPED CONDITIONS, 1.71 ACRES OF THE TOTAL ANALYSIS AREA IS IMPERVIOUS. THE TOTAL IMPERVIOUS AREA PROPOSED WITH THIS DEVELOPMENT IS 1.70 ACRES.

THE PROPOSED SITE IS CONSIDERED RE-DEVELOPMENT. BECAUSE THIS SITE IS GREATER THAN ONE ACRE, THE TOTAL PHOSPHOROUS LOAD SHALL BE REDUCED AT LEAST 20% BELOW THE PREDEVELOPMENT TOTAL PHOSPHOROUS LOAD. THERE IS NO PROPOSED INCREASE TO THE IMPERVIOUS AREA. BASED ON THE VIRGINIA RUNOFF REDUCTION METHOD COMPLIANCE SPREADSHEET FOR REDEVELOPMENT, THE TOTAL LOAD REDUCTION REQUIRED FOR THIS SITE IS 0.73 LB/YR. A TOTAL OF 0.74 NUTRIENT CREDITS WERE PREVIOUSLY PURCHASED WITH SPMJ 2019-08. THEREFORE, WATER QUALITY REQUIREMENTS HAVE BEEN SATISFIED. SEE SHEET 13, WHICH WAS TAKEN FROM THE APPROVED SPMJ 2019-08 SITE PLAN, FOR THE NUTRIENT CREDITS BILL OF SALE.

**LEGEND**

--- VRRM SITE AREA

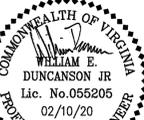


**Bowman**  
 CONSULTING

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 www.bowmanconsulting.com  
 © Bowman Consulting Group, Ltd.

BMP ANALYSIS AND CALCULATIONS  
 MAJOR SITE PLAN  
**WINCHESTER PLACE**  
 CITY OF FREDERICKSBURG, VIRGINIA  
 WARD 2: PRECINCT 201

SPMAJ 2020-  
 COUNTY PROJECT NUMBER



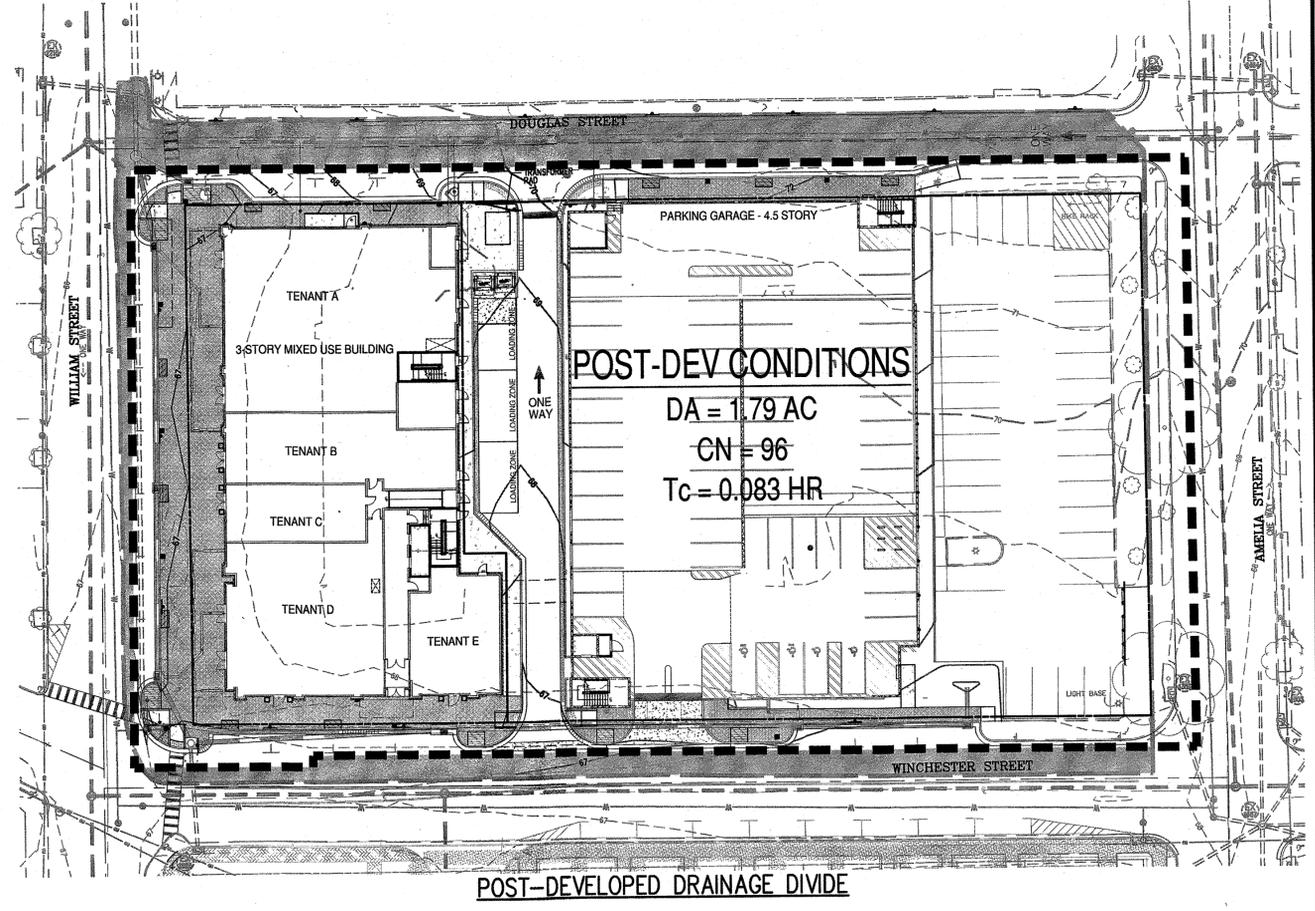
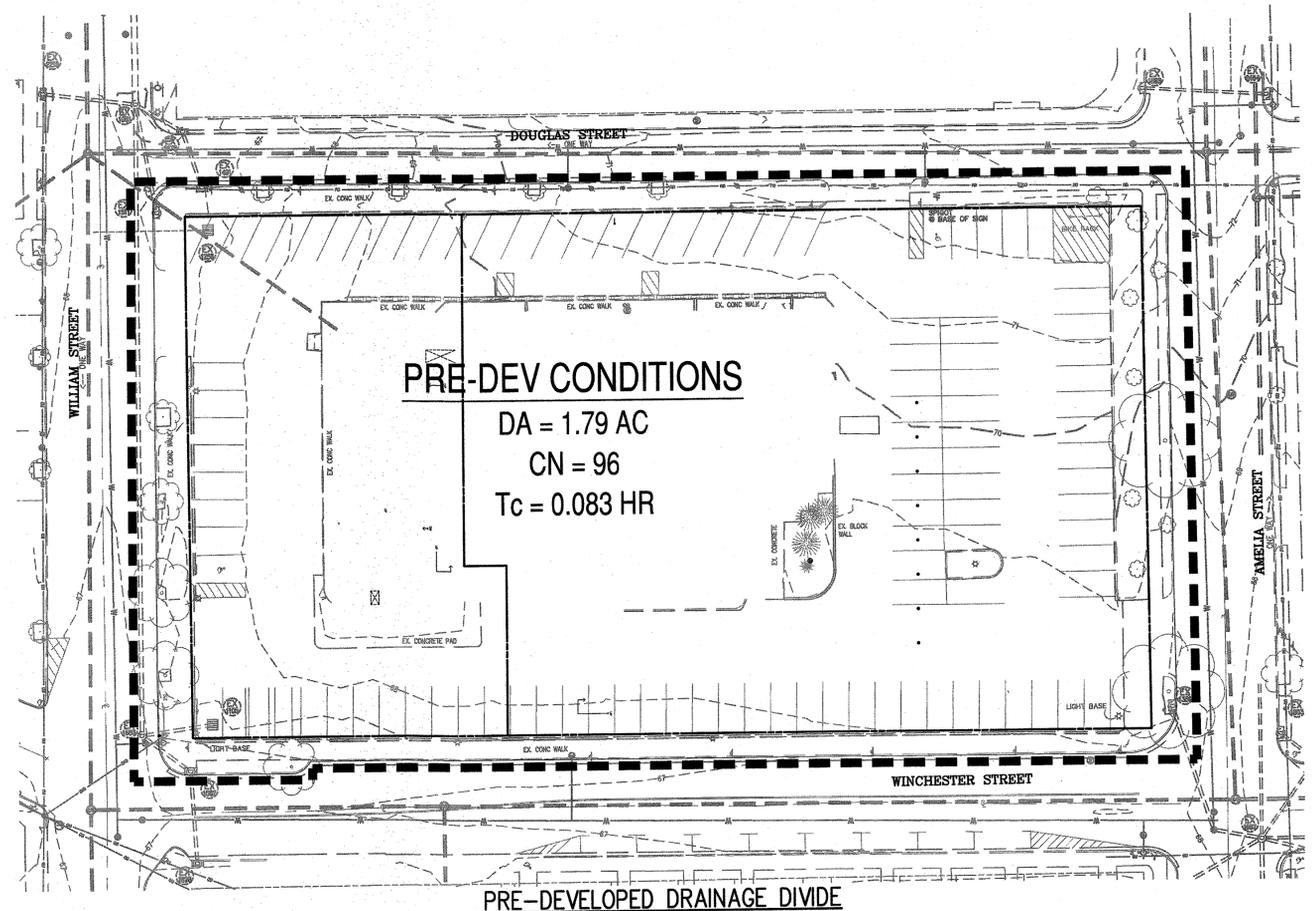
PLAN STATUS  
 02/10/20 1st SUBMISSION

DATE	DESCRIPTION
WED DESIGN	WED DRAWN
WED	CHKD
SCALE	H: 1"=30'
	V: N/A
JOB No.	100253-01-001
DATE	DECEMBER 2019
FILE No.	100253-D-CP-001

### PEAK FLOWRATE ANALYSIS

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (cfs)
PRE-DEV	1-YR	1	0.335	11.900	5.79
PRE-DEV	2-YR	2	0.407	11.900	6.97
PRE-DEV	10-YR	10	0.657	11.900	10.96
POST-DEV	1-YR	1	0.335	11.900	5.79
POST-DEV	2-YR	2	0.407	11.900	6.97
POST-DEV	10-YR	10	0.657	11.900	10.96

DRAINAGE AREAS	ROOF DRAIN FLOW			SURFACE FLOW				TOTAL DRAINAGE AREA			
	BUILDING AREA (AC)	CN (B SOILS)	C-FACTOR	IMPERVIOUS AREA (AC)	OPEN SPACE (AC)	TOTAL SURFACE FLOW	CN (B SOILS)	C-FACTOR	DRAINAGE AREA (AC)	CN (B SOILS)	C-FACTOR
PRE-DEVELOPED	-	-	-	1.71	0.08	1.79	96	0.88	1.79	96	0.88



#### EXHIBIT A BILL OF SALE

Nonpoint Nutrient Offset Credits

**BILL OF SALE**, made as of March 2, 2016, by **OVERLAND VA, LLC**, a Virginia limited liability company ("Seller"), to **LIBERTY PLACE PARTNERS, LLC** ("Purchaser").

**WHEREAS**, Seller and Purchaser have entered into that certain Agreement for Purchase and Sale of Nutrients Mitigation Credits, dated as of March 2, 2016 (the "Purchase Agreement"), the terms of which are incorporated herein by reference and made a part hereof, with respect to the sale by Seller and purchase by Purchaser of Compensatory Nutrient Mitigation Credits held in Seller's Nonpoint Nutrient Offset Bank in Culpeper County, Virginia.

**NOW THEREFORE**, for and in consideration of the payment of the Purchase Price (as defined in the Purchase Agreement) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Seller hereby sells, transfers, assigns, conveys, delivers and sets over to Purchaser, its successors and assigns, 0.74 Nutrient Credits ("Credits") as such as described in the Purchase Agreement.

**TO HAVE AND TO HOLD** all such Nutrient Credits hereby sold and transferred to Purchaser and its successors and assigns forever.

**IN WITNESS WHEREOF**, Seller has caused this Bill of Sale to be executed by its duly authorized representative as of the date first above written.

**OVERLAND VA, LLC**,  
a Virginia limited liability company

By: Chris Snow  
Name: Chris Snow  
Its: Managing Member

#### EXHIBIT B AFFIDAVIT OF PHOSPHOROUS OFFSET SALE

**OVERLAND VA, LLC**, a Virginia limited liability company ("Seller"), hereby certifies the following:

- Pursuant to that certain Agreement for Purchase and Sale of Nutrients Mitigation Credits, dated as of March 2, 2016 (the "Purchase Agreement"), the terms of which are incorporated herein by reference and made a part hereof, between Seller and **LIBERTY PLACE PARTNERS, LLC** ("Purchaser"), Seller, for the benefit of the Purchaser, agreed to sell 0.74 pounds of nonpoint source phosphorus offsets (the Nutrient Credits) to Purchaser and retire the associated ratio of nonpoint source nitrogen offsets at the offset generating facility in the amount of 2.16 pounds of nitrogen offsets.
- Seller and Purchaser, as of the date hereof, have closed the transaction contemplated by the Agreement and the Seller has sold to Purchaser the phosphorous offsets.

WITNESS the following signature:

**OVERLAND VA, LLC**,  
a Virginia limited liability company

By: Chris Snow  
Name: Chris Snow  
Title: Managing Member  
Date: 3/21/16

Sworn to and subscribed before me this 21st day of March, 2016, by Chris Snow,  
Manager, on behalf of the **OVERLAND VA, LLC**, a Virginia limited liability company.

My commission expires: 6/30/2017  
City/County of: Richmond  
Deborah K. Anubler  
Notary Public

Project Name: **Liberty Place**  
Site Plan #: **SPMAJ 2015-09**  
Applicant: **Liberty Place Partners, LLC**  
Phosphorous Offsets: 0.74 pounds  
Associated Nitrogen Offsets: 2.16 pounds



#### EXHIBIT C DEPARTMENT OF ENVIRONMENTAL QUALITY WATER QUALITY ENHANCEMENT FEE FORM

Instructions:  
Nonpoint nutrient offset brokers are required to pay a water quality enhancement fee equal to six percent of the amount paid by the permittee for the nonpoint nutrient offsets.

With submittal of this payment, brokers should complete this form and submit it with their payment. Payment should be in the form of check or money order payable to "Treasurer of Virginia" and should be mailed to:

Department of Environmental Quality  
Receipts Control  
P.O. Box 1104  
Richmond, Virginia 23218

You should retain a copy for your records. Please direct any questions regarding this form or fee payment to [andrew.hammond@deq.virginia.gov](mailto:andrew.hammond@deq.virginia.gov).

Offset Broker:  
Name: Overland VA, LLC FIN: 46-2768374

Mailing Address: 1800 Bayberry Ct. Suite 101  
City: Henrico State: VA Zip: 23226 Phone:  
Daytime Phone Number: ( 804 ) 288-0070

Name and Location of Construction Activity:  
Name: Liberty Place Mixed Use Development Project  
Town, City, or County: Fredericksburg  
VSMIP Permit Number: SPMAS 2015-09

Nutrient Bank:  
Bank Name: Culpeper Nutrient Bank  
Total Phosphorus Purchased: 0.74  
Amount of Fee Submitted  
(6% of the amount paid for the nonpoint nutrient offsets): \$ 710.40

FOR DEQ USE ONLY  
Date: DC #:

#### SWM/BMP NARRATIVE:

THIS PROJECT CONSISTS OF DEMOLISHING THE EXISTING BUILDING AND PARKING LOT LOCATED ON THE SITE AND CONSTRUCTING A 3-STORY MIXED-USE BUILDING ALONG WITH A 4 1/2-STORY ABOVEGROUND PARKING GARAGE. THE MAJORITY OF THE EXISTING SITE DRAINS TO THE CURB INLETS LOCATED AT THE INTERSECTION OF WILLIAM STREET AND DOUGLAS STREET AND AT THE INTERSECTION OF WILLIAM STREET AND WINCHESTER STREET. A SMALL PORTION OF THE SITE DISCHARGES TO THE CURB INLET AT THE INTERSECTION OF WINCHESTER STREET AND AMELIA STREET. THE PROPOSED DEVELOPMENT MIMICS THE PRE-DEVELOPED CONDITION AND ALSO DRAINS TO THESE CURB INLETS. THE TOTAL SITE ANALYSIS AREA IS 1.79 ACRES. UNDER THE PRE-DEVELOPED CONDITIONS, 1.71 ACRES OF THE TOTAL ANALYSIS AREA IS IMPERVIOUS. THE TOTAL IMPERVIOUS AREA PROPOSED WITH THIS DEVELOPMENT IS 1.69 ACRES.

THIS SITE IS LOCATED WITHIN THE KENMORE FLUME WATERSHED. PER SECTION 72-54.3(B)(11) OF THE CITY OF FREDERICKSBURG'S UNIFIED DEVELOPMENT ORDINANCE, THE FIRST ONE-HALF INCH OF RUNOFF FROM ALL NEW IMPERVIOUS SURFACES SHALL BE REMOVED FROM THE RUNOFF FLOW, AND AT LEAST 50% OF THE PARKING LOT SURFACE SHALL DRAIN TO A FILTRATION PRACTICE. THERE IS NO PROPOSED INCREASE IN THE IMPERVIOUS ACREAGE OF THE SITE. THEREFORE, SECTION 72-54.3(B)(11) OF THE UDO HAS BEEN SATISFIED.

**CHANNEL PROTECTION**  
THIS SITE OUTFALLS TO A MANMADE, CONCRETE STORMWATER CONVEYANCE SYSTEM. THE 2-YEAR STORM DOES NOT CAUSE EROSION, AND THE VSMIP CHANNEL PROTECTION CRITERIA (9VAC25-870-66 B) HAS BEEN SATISFIED.

**FLOOD PROTECTION**  
THE PRE-DEVELOPED SITE HAS A CURVE NUMBER (CN) OF 96, AND THE POST-DEVELOPED SITE HAS A CN OF 96. SINCE THE PROPOSED SITE DOES NOT RESULT IN AN INCREASE IN THE RUNOFF CN VALUE, THERE IS NO INCREASE IN THE 10-YR PEAK FLOWRATE. THE PRE-DEVELOPED 10-YR PEAK FLOWRATE IS 10.96 CFS, AND THE POST-DEVELOPED 10-YR PEAK FLOWRATE IS 10.96 CFS. THEREFORE, THE VSMIP FLOOD PROTECTION CRITERIA (9VAC25-870-66 C) HAS BEEN SATISFIED.

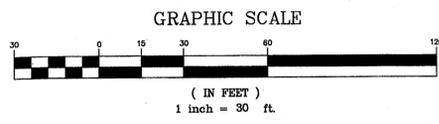
SEE SHEET 10A FOR ADEQUATE OUTFALL ANALYSIS.

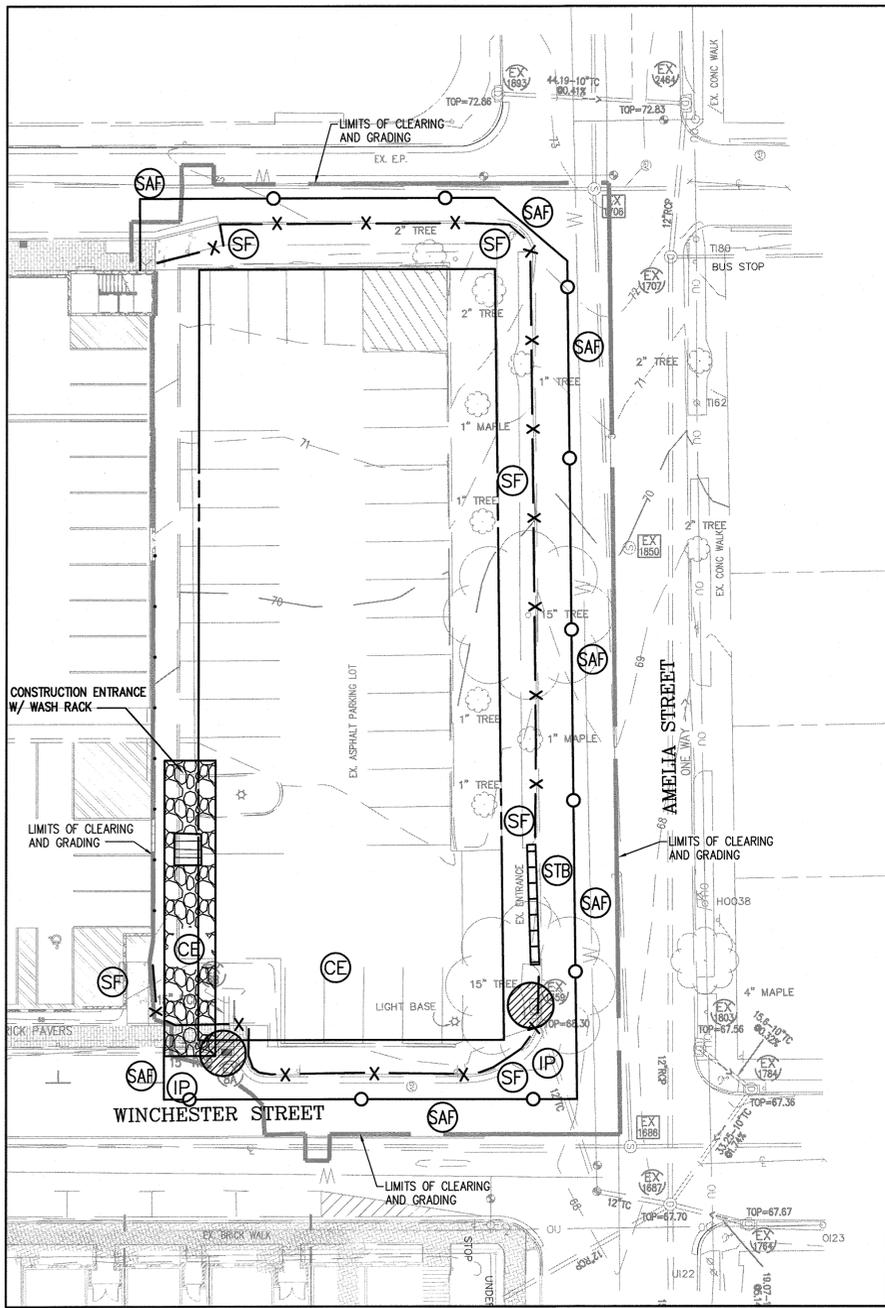
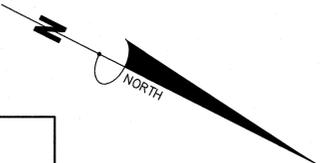
**WATER QUALITY**  
THE PROPOSED SITE IS CONSIDERED RE-DEVELOPMENT. BECAUSE THIS SITE IS GREATER THAN ONE ACRE, THE TOTAL PHOSPHOROUS LOAD SHALL BE REDUCED AT LEAST 20% BELOW THE PREDEVELOPMENT TOTAL PHOSPHOROUS LOAD. THERE IS NO PROPOSED INCREASE TO THE IMPERVIOUS AREA. BASED ON THE VIRGINIA RUNOFF REDUCTION METHOD COMPLIANCE SPREADSHEET FOR REDEVELOPMENT, THE TOTAL LOAD REDUCTION REQUIRED FOR THIS SITE IS 0.71 LB/YR. PURSUANT TO 9VAC25-870-69 A 3, THE DEVELOPER HAS ELECTED TO PURCHASE NUTRIENT CREDITS WITHIN THE RAPPAHANNOCK WATERSHED TO SATISFY WATER QUALITY REQUIREMENTS. SEE THIS SHEET FOR NUTRIENT OFFSET CREDITS BILL OF SALE.

**LEGEND**

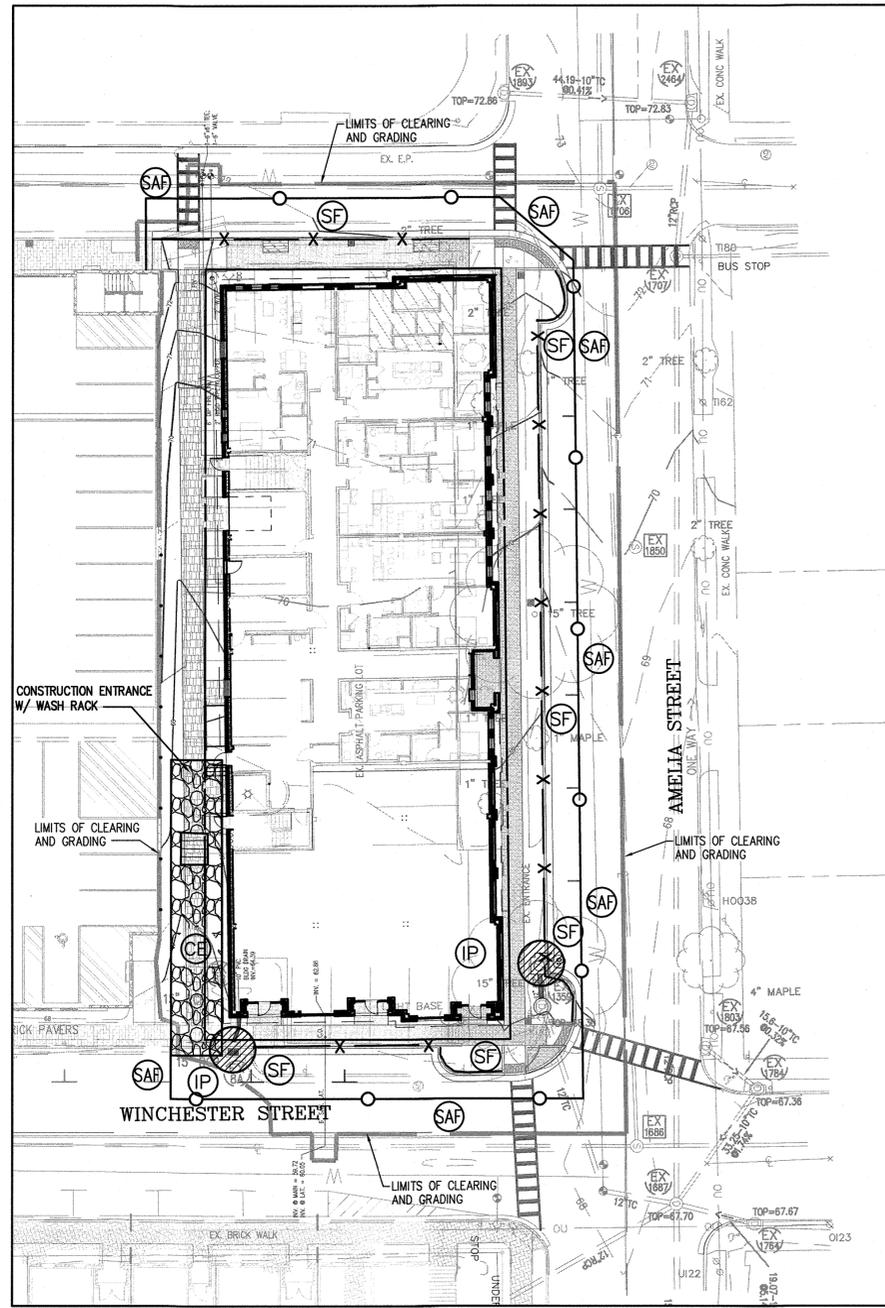
--- VRRM WATER QUALITY AREA

■ DENOTES AREA TO BE MILLED & OVERLAID TO ORIGINAL LINE & GRADE (AREA EXCLUDED FROM VRRM)





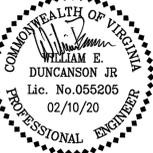
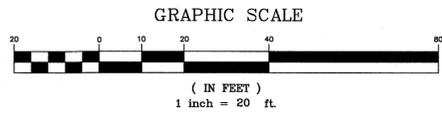
PHASE 1



PHASE 2

EROSION AND SEDIMENT CONTROL LEGEND

NO.	TITLE	KEY	SYMBOL
3.01	METAL SAFETY FENCE	SAF	—○—○—
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	▒▒▒▒
3.04	STRAW BALE BARRIER	STB	▬▬▬▬
3.05	SILT FENCE	SF	—X—
3.07	STORM DRAIN INLET PROTECTION	IP	⊗

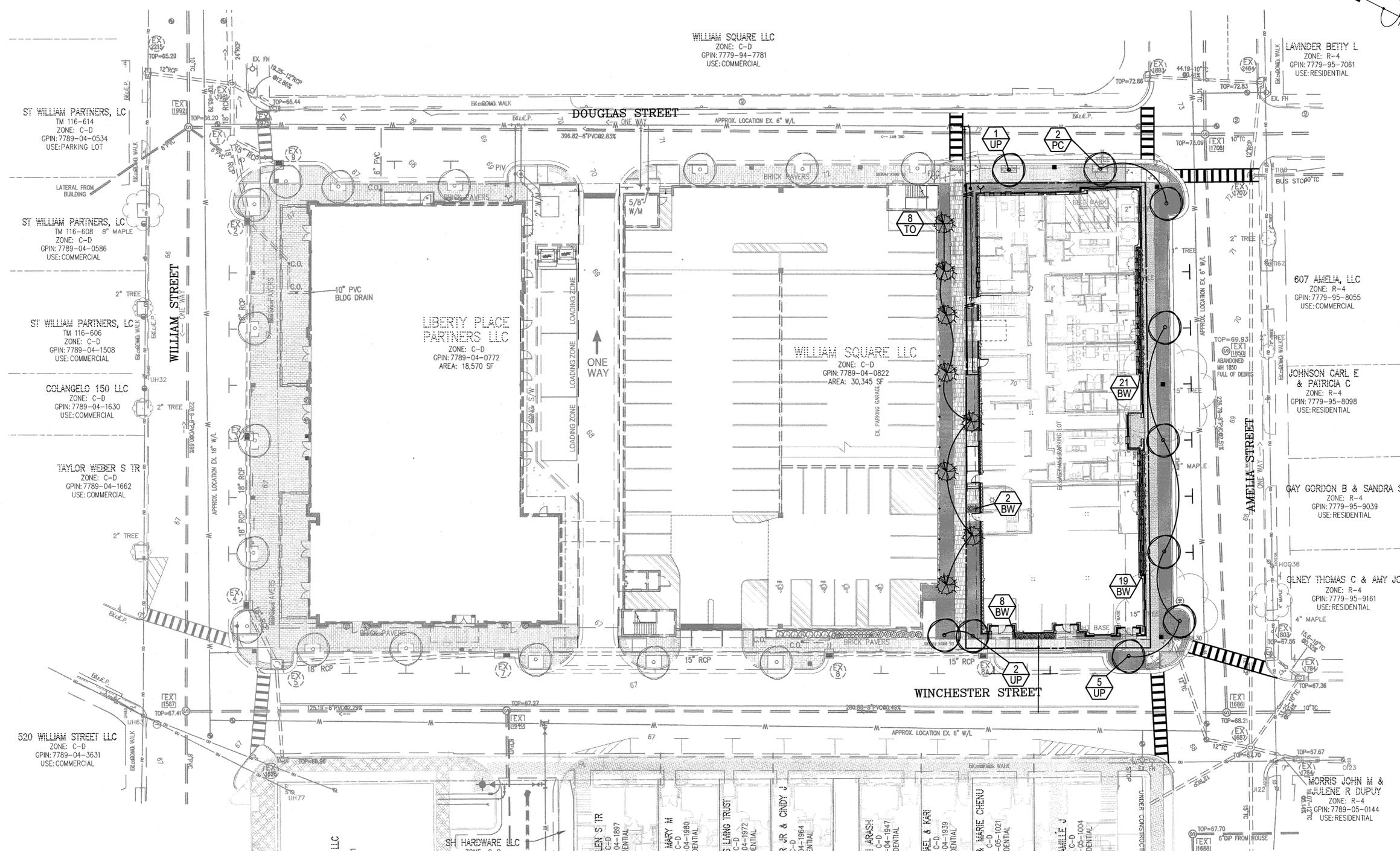


DATE	DESCRIPTION
WED DESIGN	WED DRAWN
WED CHKD	

SCALE H: 1"=20'  
V: N/A







**NOTES:**

- TO THE GREATEST EXTENT PRACTICAL, STREET TREES SHALL BE MAINTAINED SO THAT THE MINIMUM DISTANCE FROM THE LOWEST BRANCHES TO THE BASE OF THE TREE IS 5.0 FEET TO PROVIDE ADEQUATE SIGHT DISTANCE. A 50/50 CANOPY TO TRUNK RATIO SHALL BE MAINTAINED AT TIME OF PLANTING.
- THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF RUBBER MULCH, PER CITY OF FREDERICKSBURG PUBLIC WORKS DEPARTMENT STANDARD DETAIL T4.

**NOTE**

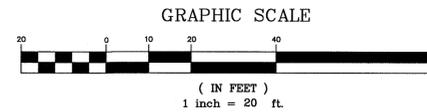
ALL LANDSCAPING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE LANDSCAPE STANDARDS OF THE CITY OF FREDERICKSBURG.

**STREET TREE CALCULATIONS (BASED ON OVERALL BLOCK)**

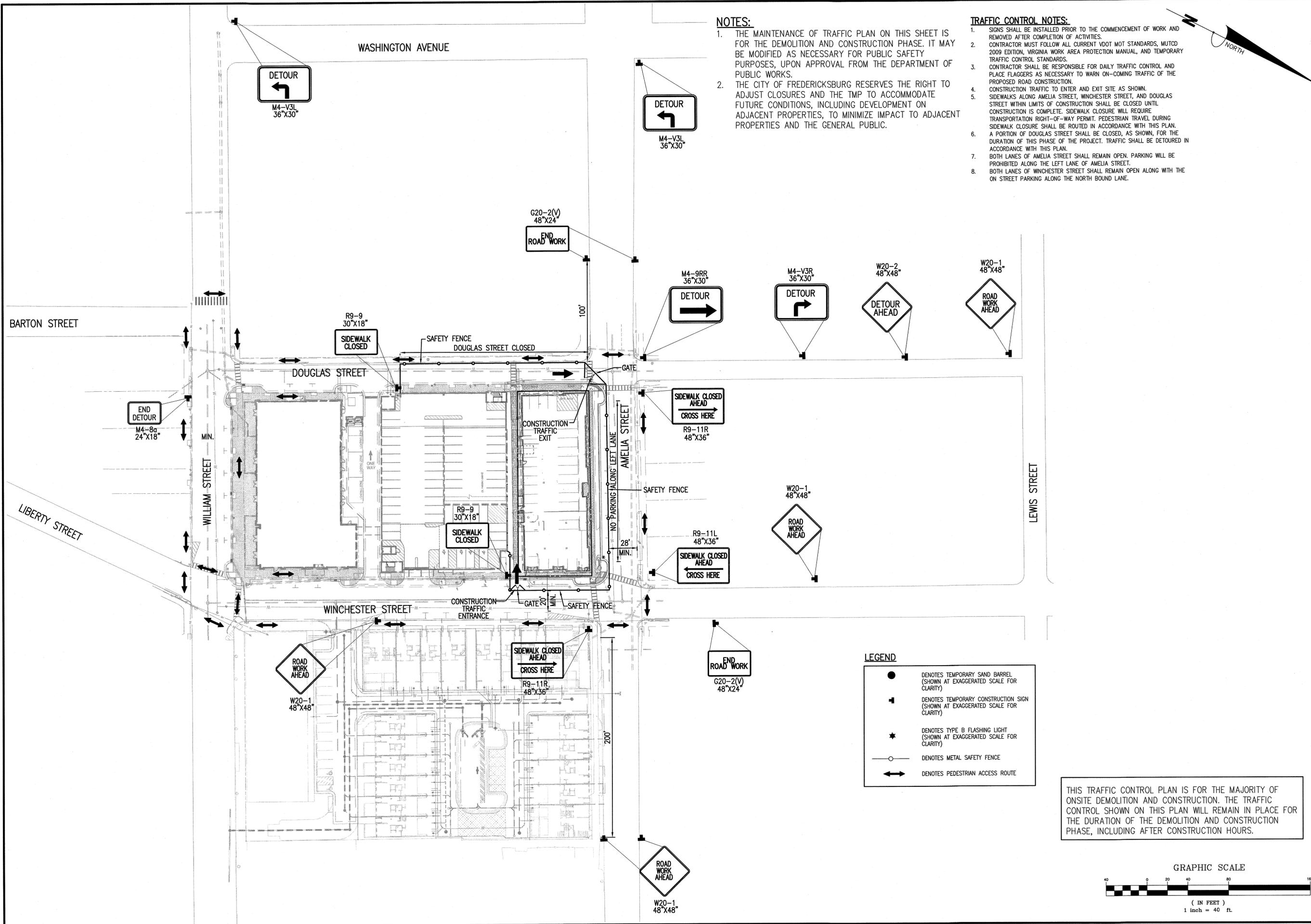
<b>WILLIAM STREET R.O.W. LENGTH:</b> STREET TREES REQUIRED: STREET TREES PROVIDED WITH SPMAJ 2019-08: AGGREGATE CALIPER INCHES PROVIDED:	181.72 LF. 1 CANOPY TREE PER 40' OR 5 TREES 5 TREES 10" (5 TREES @ 2" CAL.)
<b>WINCHESTER STREET R.O.W. LENGTH:</b> STREET TREES REQUIRED: STREET TREES PROVIDED WITH SPMAJ 2019-08: STREET TREES PROVIDED WITH THIS PLAN: AGGREGATE CALIPER INCHES PROVIDED:	339.99 LF. 1 CANOPY TREE PER 40' OR 8 TREES 5 TREES 3 TREES 16" (8 TREES @ 2" CAL.)
<b>AMELIA STREET R.O.W. LENGTH:</b> STREET TREES REQUIRED: STREET TREES PROVIDED WITH THIS PLAN: AGGREGATE CALIPER INCHES PROVIDED:	182.54 LF. 1 CANOPY TREE PER 40' OR 5 TREES 5 TREES 10" (5 TREES @ 2" CAL.)
<b>DOUGLAS STREET R.O.W. LENGTH:</b> STREET TREES REQUIRED: STREET TREES PROVIDED WITH SPMAJ 2019-08: STREET TREES PROVIDED WITH THIS PLAN: AGGREGATE CALIPER INCHES PROVIDED:	339.20 LF. 1 CANOPY TREE PER 40' OR 8 TREES 6 TREES 2 TREES 16" (8 TREES @ 2" CAL.)

**LANDSCAPE PLAN LEGEND**

- DENOTES CANOPY TREE
- DENOTES UNDERSTORY TREE
- DENOTES SHRUB
- DENOTES LANDSCAPING PROVIDED WITH SPMAJ 2019-08
- DENOTES GRASS
- DENOTES RUBBER MULCH
- DENOTES QUANTITY
- DENOTES TREE TYPE







**NOTES:**

1. THE MAINTENANCE OF TRAFFIC PLAN ON THIS SHEET IS FOR THE DEMOLITION AND CONSTRUCTION PHASE. IT MAY BE MODIFIED AS NECESSARY FOR PUBLIC SAFETY PURPOSES, UPON APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS.
2. THE CITY OF FREDERICKSBURG RESERVES THE RIGHT TO ADJUST CLOSURES AND THE TMP TO ACCOMMODATE FUTURE CONDITIONS, INCLUDING DEVELOPMENT ON ADJACENT PROPERTIES, TO MINIMIZE IMPACT TO ADJACENT PROPERTIES AND THE GENERAL PUBLIC.

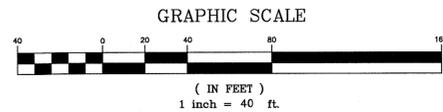
**TRAFFIC CONTROL NOTES:**

1. SIGNS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK AND REMOVED AFTER COMPLETION OF ACTIVITIES.
2. CONTRACTOR MUST FOLLOW ALL CURRENT VDOT MOT STANDARDS, MUTCD 2009 EDITION, VIRGINIA WORK AREA PROTECTION MANUAL, AND TEMPORARY TRAFFIC CONTROL STANDARDS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY TRAFFIC CONTROL AND PLACE FLAGGERS AS NECESSARY TO WARN ON-COMING TRAFFIC OF THE PROPOSED ROAD CONSTRUCTION.
4. CONSTRUCTION TRAFFIC TO ENTER AND EXIT SITE AS SHOWN.
5. SIDEWALKS ALONG AMELIA STREET, WINCHESTER STREET, AND DOUGLAS STREET WITHIN LIMITS OF CONSTRUCTION SHALL BE CLOSED UNTIL CONSTRUCTION IS COMPLETE. SIDEWALK CLOSURE WILL REQUIRE TRANSPORTATION RIGHT-OF-WAY PERMIT. PEDESTRIAN TRAVEL DURING SIDEWALK CLOSURE SHALL BE ROUTED IN ACCORDANCE WITH THIS PLAN.
6. A PORTION OF DOUGLAS STREET SHALL BE CLOSED, AS SHOWN, FOR THE DURATION OF THIS PHASE OF THE PROJECT. TRAFFIC SHALL BE DETOURED IN ACCORDANCE WITH THIS PLAN.
7. BOTH LANES OF AMELIA STREET SHALL REMAIN OPEN. PARKING WILL BE PROHIBITED ALONG THE LEFT LANE OF AMELIA STREET.
8. BOTH LANES OF WINCHESTER STREET SHALL REMAIN OPEN ALONG WITH THE ON STREET PARKING ALONG THE NORTH BOUND LANE.

**LEGEND**

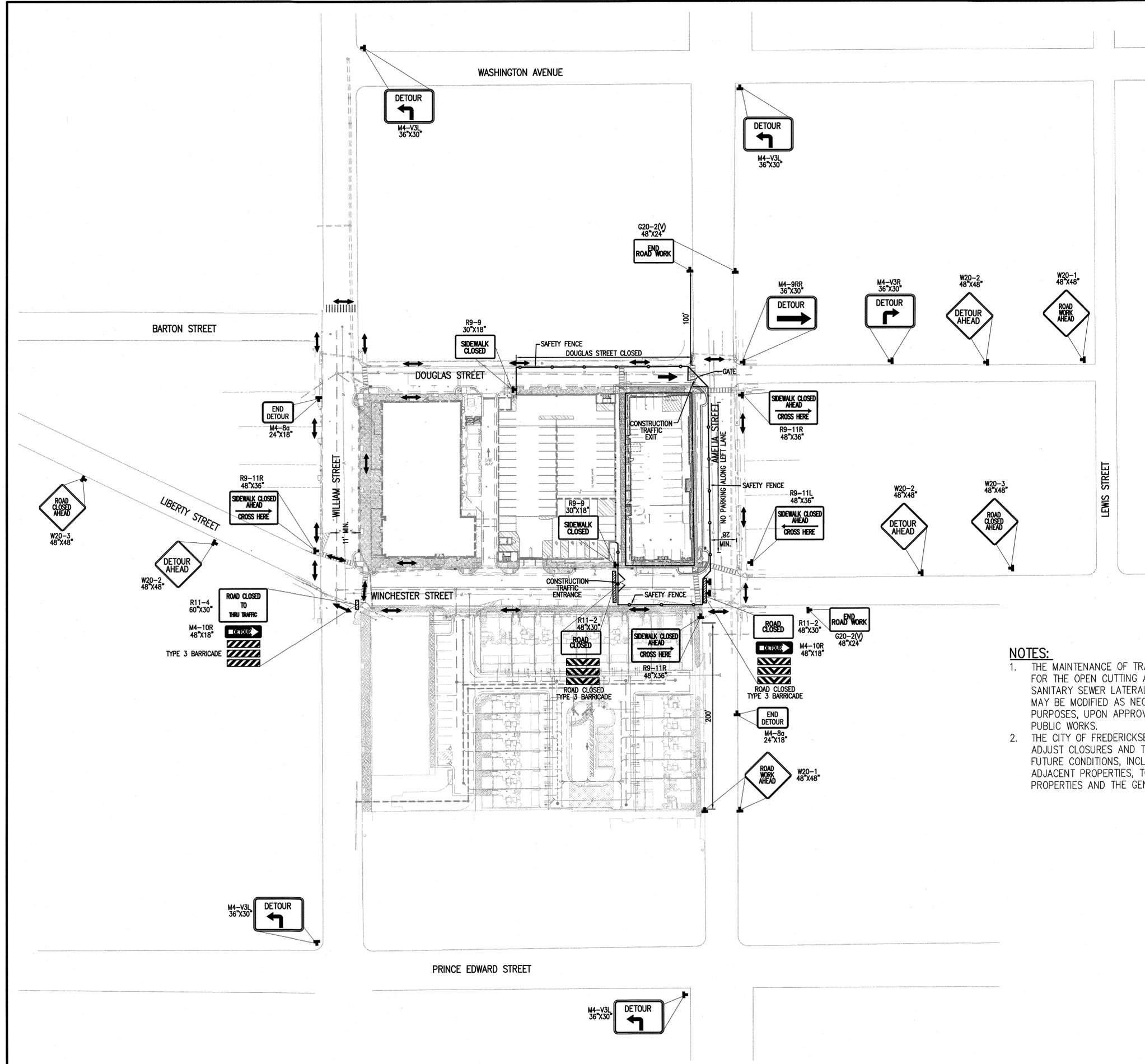
- DENOTES TEMPORARY SAND BARREL (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- DENOTES TEMPORARY CONSTRUCTION SIGN (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- ★ DENOTES TYPE B FLASHING LIGHT (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- DENOTES METAL SAFETY FENCE
- ↔ DENOTES PEDESTRIAN ACCESS ROUTE

THIS TRAFFIC CONTROL PLAN IS FOR THE MAJORITY OF ONSITE DEMOLITION AND CONSTRUCTION. THE TRAFFIC CONTROL SHOWN ON THIS PLAN WILL REMAIN IN PLACE FOR THE DURATION OF THE DEMOLITION AND CONSTRUCTION PHASE, INCLUDING AFTER CONSTRUCTION HOURS.



DATE	DESCRIPTION
02/10/20	1st SUBMISSION

DATE	DESIGN	WED	WED	WED
	DESIGN	DRAWN	CHKD	CHKD
	SCALE	H: 1"=50'	V: N/A	
	JOB No.	100253-01-001		
	DATE	DECEMBER 2019		
	FILE No.	100253-D-CP-001		



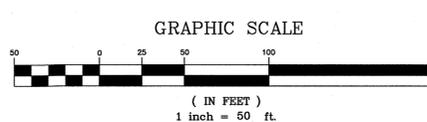
- TRAFFIC CONTROL NOTES:**
- SIGNS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK AND REMOVED AFTER COMPLETION OF ACTIVITIES.
  - CONTRACTOR MUST FOLLOW ALL CURRENT VDOT MOT STANDARDS, MUTCD 2009 EDITION, VIRGINIA WORK AREA PROTECTION MANUAL, AND TEMPORARY TRAFFIC CONTROL STANDARDS.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY TRAFFIC CONTROL AND PLACE FLAGGERS AS NECESSARY TO WARN ON-COMING TRAFFIC OF THE PROPOSED ROAD CONSTRUCTION.
  - CONSTRUCTION TRAFFIC TO ENTER AND EXIT SITE AS SHOWN.
  - SIDEWALKS ALONG WILLIAM STREET, WINCHESTER STREET, AND DOUGLAS STREET WITHIN LIMITS OF CONSTRUCTION SHALL BE CLOSED UNTIL CONSTRUCTION IS COMPLETE. SIDEWALK CLOSURE WILL REQUIRE TRANSPORTATION RIGHT-OF-WAY PERMIT. PEDESTRIAN TRAVEL DURING SIDEWALK CLOSURE SHALL BE ROUTED IN ACCORDANCE WITH THIS PLAN.
  - DOUGLAS STREET SHALL BE CLOSED FOR THE DURATION OF THIS PHASE OF THE PROJECT. TRAFFIC SHALL BE DETOURED IN ACCORDANCE WITH THIS PLAN.
  - BOTH LANES OF WILLIAM STREET SHALL REMAIN OPEN. PARKING WILL BE PROHIBITED ALONG THE NORTH LANE OF WILLIAM STREET.
  - BOTH LANES OF AMELIA STREET SHALL REMAIN OPEN.
  - WINCHESTER STREET SHALL REMAIN OPEN FROM THE INTERSECTION OF WILLIAM STREET TO THE SERVICE DRIVE ENTRANCE BEHIND SEDONA. WINCHESTER STREET SHALL BE CLOSED FROM THIS SERVICE DRIVE ENTRANCE TO ITS INTERSECTION WITH AMELIA STREET. TRAFFIC SHALL BE DETOURED IN ACCORDANCE WITH THIS PLAN.

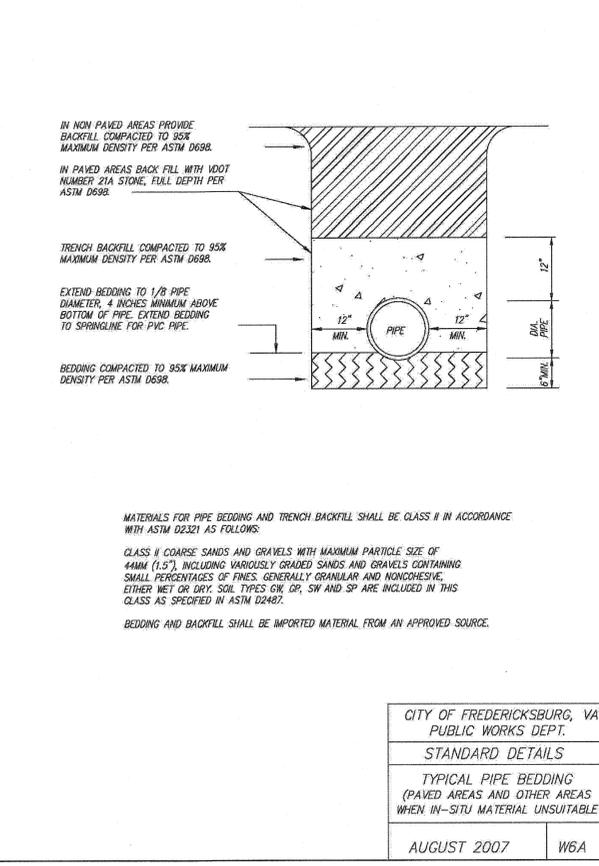
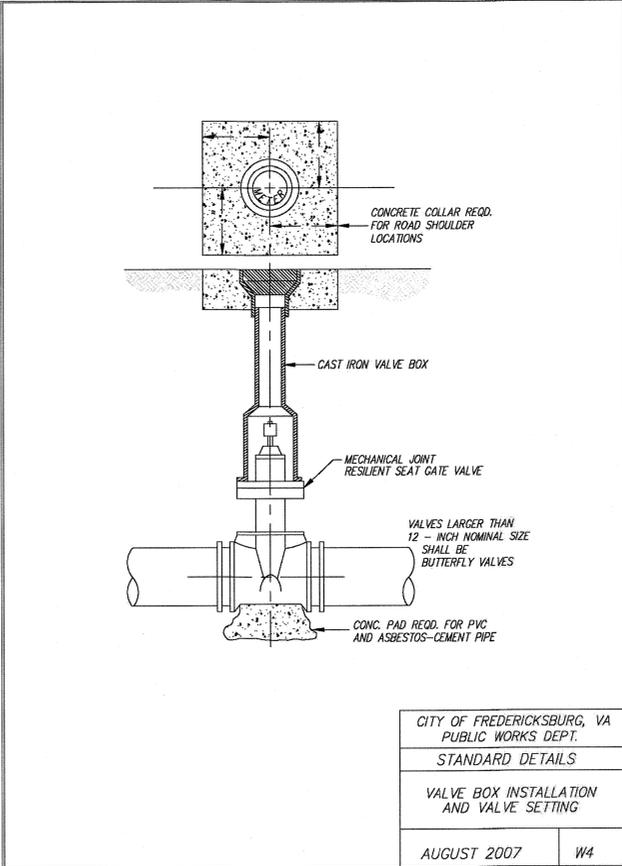
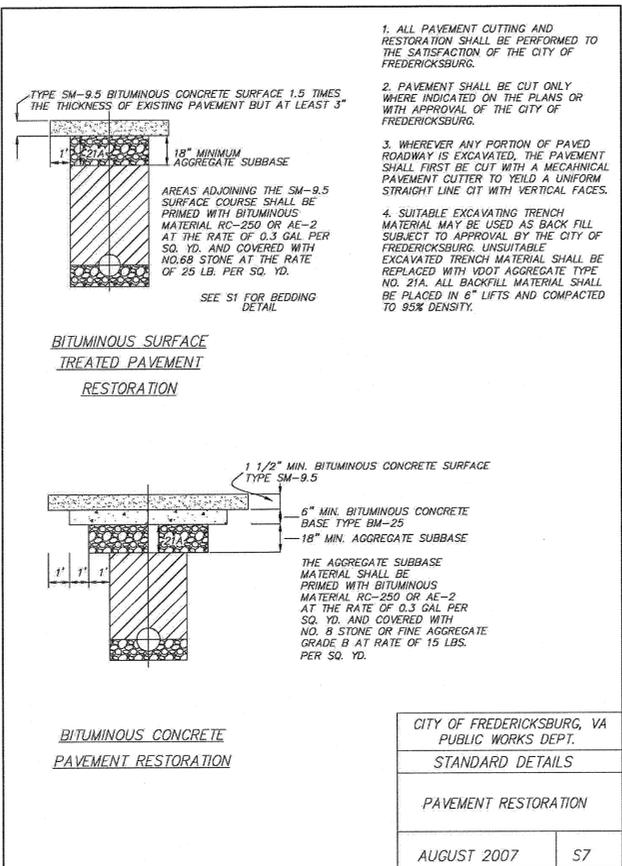
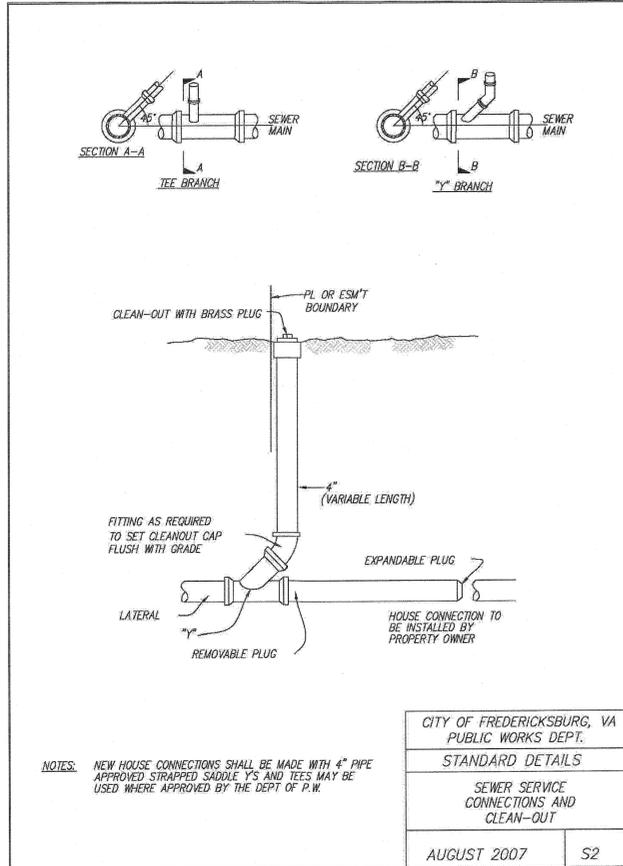
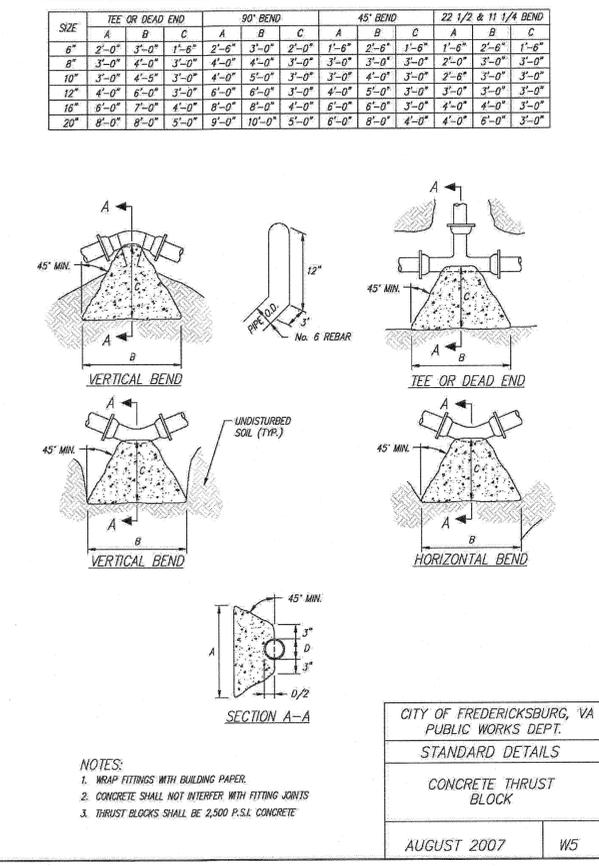
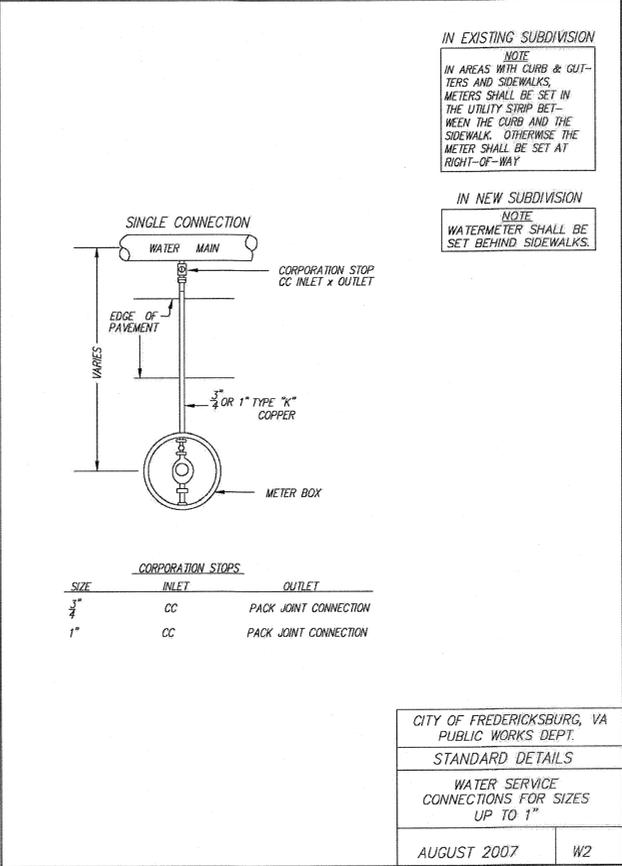
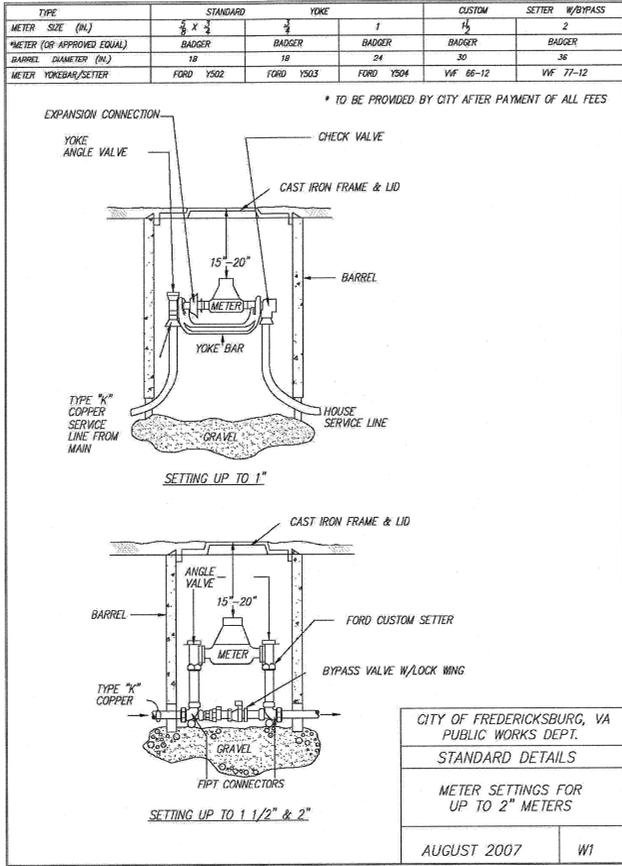
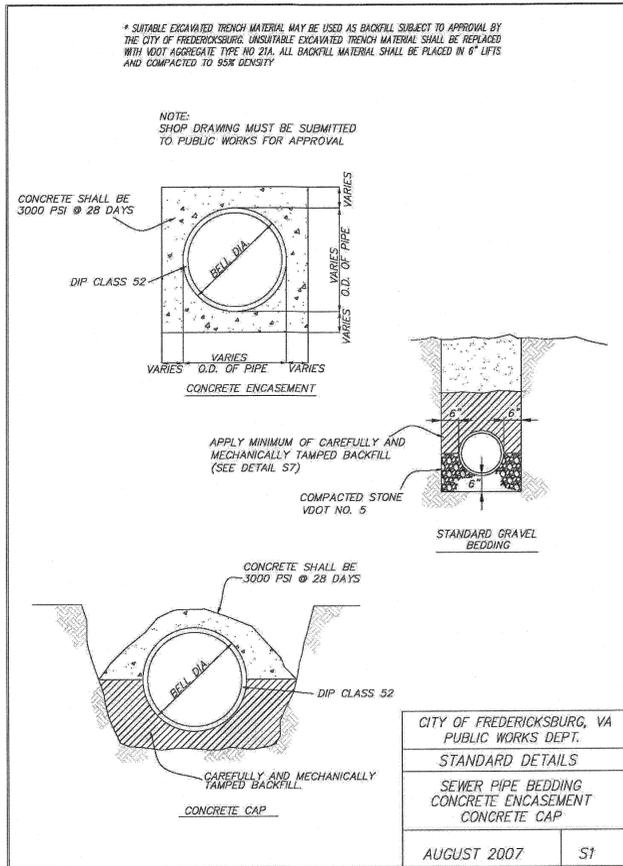
- NOTES:**
- THE MAINTENANCE OF TRAFFIC PLAN ON THIS SHEET IS FOR THE OPEN CUTTING AND INSTALLATION OF THE SANITARY SEWER LATERAL ACROSS WINCHESTER STREET. IT MAY BE MODIFIED AS NECESSARY FOR PUBLIC SAFETY PURPOSES, UPON APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS.
  - THE CITY OF FREDERICKSBURG RESERVES THE RIGHT TO ADJUST CLOSURES AND THE TMP TO ACCOMMODATE FUTURE CONDITIONS, INCLUDING DEVELOPMENT ON ADJACENT PROPERTIES, TO MINIMIZE IMPACT TO ADJACENT PROPERTIES AND THE GENERAL PUBLIC.

**LEGEND**

- DENOTES TEMPORARY CONE OR DRUM PER MUTCD (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- DENOTES TEMPORARY SAND BARREL (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- DENOTES TEMPORARY CONSTRUCTION SIGN (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- ▨ DENOTES TYPE III BARRICADE (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- ★ DENOTES TYPE B FLASHING LIGHT (SHOWN AT EXAGGERATED SCALE FOR CLARITY)
- DENOTES METAL SAFETY FENCE
- ↔ DENOTES PEDESTRIAN ACCESS ROUTE

THIS TRAFFIC CONTROL PLAN IS FOR THE OPEN CUTTING AND INSTALLATION OF THE SANITARY SEWER LATERAL ACROSS WINCHESTER STREET. THE TRAFFIC CONTROL SHOWN ON THIS PLAN WILL REMAIN IN PLACE FOR THE DURATION OF ALLOWABLE WORK HOURS. THIS PHASE OF CONSTRUCTION IS ANTICIPATED TO LAST 1 DAY.





# Bowman

CONSULTING

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Fredericksburg, Virginia 22406  
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Fax: (540) 371-9479  
www.bowmanconsulting.com  
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MISCELLANEOUS DETAILS  
MAJOR SITE PLAN  
WINCHESTER PLACE  
CITY OF FREDERICKSBURG, VIRGINIA

WARD 2: PRECINCT 201

SPMAJ 2020-  
COUNTY PROJECT NUMBER



PLAN STATUS  
02/10/20 1st SUBMISSION

DATE	DESCRIPTION
02/10/20	1st SUBMISSION

WED DESIGN	WED DRAWN	WED CHKD

SCALE: H: N/A  
V: N/A

JOB No. 100253-01-001

DATE: DECEMBER 2019

FILE No. 100253-D-CP-001

**SPECIFICATIONS FOR BRICK SIDEWALK**

**General**- The work covered by this division of specifications, in general, includes furnishing and installing all masonry materials; items specified in other divisions to be set in masonry shall be provided and installed under this division. Brick sidewalks shall be installed as per design patterns shown on the plans. Removal of existing concrete sidewalk included in price.

**Description of Work**- Brick paving shall be constructed in those areas as shown on the plans and/or as directed, and shall consist of brick placed on a sand-cement bed as shown on plans and/or as directed, and the joints filled with approved clean white silica sand. The exact pattern, brick size, and construction details shall be as shown on the plans.

In brick sidewalk repair, available suitable old brick and new brick as required shall be used. Any transportation of brick from one site to another shall be included in the work.

All excavation needed to remove old or defective brick work shall be included as part of this work.

**Materials**- Materials used shall meet the following requirement:

1. Masonry Cement- AASHO M-150 Type II
2. Preformed Bituminous Fiber Expansion Material - AASHO M-153 Type II or approved equal
3. Brick - Watontown red brick pavers 2 1/4" x 4" x 8" or approved equal
4. Sand - Fine aggregate for mortar shall meet the requirement of the AASHO Standard Specification for "Aggregate for Masonry Mortar" M-45 and shall be clean and free of salt
5. Water - Water for mixing shall be potable, clean, and free from oil, acids, salts, and other deleterious matter
6. Roofing Felt - 15# roofing felt as approved by City Engineer

**Construction Methods**- Construction of brick paving, including repair, shall meet the following requirements:

1. Sand Cement Bed - Sand-cement bedding course shall consist of sand and Portland Cement in the proportion of 1 part cement and 4 parts sand by weight, mixed dry until the mass is of uniform color. Mixing must be carried out at an approved batch mix plant. The contractor must furnish a batch ticket with each load, stating the correct batched weights of each material. Hand mixing will not be permitted unless approved by the City Engineer.
2. The bedding course shall be placed and shaped upon the prepared soils base so that its furnished depth shall not be less than 4 inches.
3. The bedding shall be shaped to a true surface, parallel with surface of finished brick walkway, by means of template, and the bed shall be struck off until proper alignment is secured. The contractor shall coordinate his work so that the area of bedding course placed and rolled in any workday shall be scheduled so that no bedding course remains at the end of the day without the brick course placed.

Last revised 09/28/2015

4. The city may require the contractor to compact the bedding course in addition to shaping it with a template.
5. After final shaping, the bedding shall not be disturbed prior to laying the brick.
6. Preformed bituminous fiber expansion joint material shall be furnished in areas as shown on the plans and cost to be included in price for placement of brick in order to place joint sealer. Joint sealers are to be placed as per plans and specifications.
7. The brick shall be laid in successive courses with the better face or wire-cut side upward.
8. Each and every course of brick shall be laid true and even and brought to grade by use of wooden mallets or similar tools. No course shall deviate from a straight line more than 2 inches in 30 feet. Brick laying shall take place in a continuous sequence and shall follow the completion of the bedding within 50 feet.
9. Immediately after placement of brick, brick surfaces shall be swept and inspected. Any imperfect brick as determined by the City Engineer shall be lifted out and reset.

**Cutting Brick** - Required cutting of bricks shall be accomplished with a mason's saw using a diamond blade or broken by brick hammer on an approved straight and even edge.

**Sand Filler**- Joints shall be thoroughly chocked with a clean white fine grained silica sand.

The sand filler shall be brought up flush with surface or bricks. After filling, bricks shall be swept clean and carefully watered to saturate the joint filler, care being exercised not to displace filler from the joints. Any joints to which do not remain flush with brick surfaces shall be rechecked and watered, particular attention shall be paid to small section of cut brick necessary to fit manholes, light poles, water meters, tree planters, and any other obstructions within the sidewalk area.

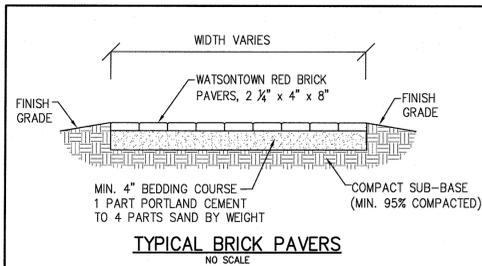
**Clean Up**- The contractor shall remove from the roadway and sidewalk all excavated material, debris, and dirt as rapidly as the completion of the repair work proceeds and in no case will it be permissible for this material to remain as an obstruction or safety hazard overnight.

**Roofing Felt**- 15# roofing felt shall be placed as per plans between building and expansion material with top edge being flush with top of 1/2 inch expansion material and under sand-cement filler, 3 feet from building (top of expansion material).

**Method of payment**- The cost of placing brick walkways shall be paid for on a square foot basis under the item "Brick Walkways" and shall include excavation and removal of existing concrete sidewalk. The brick walkways shall be placed according to specification and as shown on plans.

**Meter Barrels**- Any existing water meter barrels that may have to be adjusted to match elevation of new brick sidewalks shall be completed by the contractor and the cost shall be included in the bid price for the removal of existing concrete sidewalk and replacement with the brick sidewalks.

Last revised 09/28/2015



**City of Fredericksburg**  
**Fredericksburg Fire Department**  
 601 Princess Anne Street, Fredericksburg, VA 22401  
 (540) 372-1059 (540) 372-1050 (Fax)

**Fire Lanes**

**CODE 503.3 - Requirements for Fire Lanes**

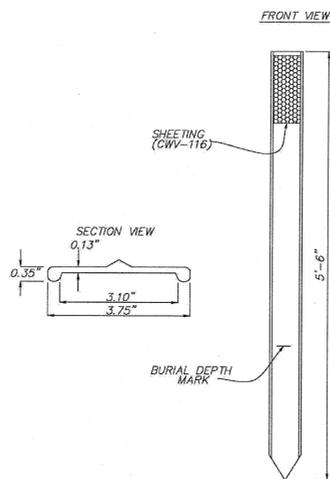
**503.2. Authority:** The fire official shall require and designate public or private fire lanes as deemed necessary for the efficient and effective operation of fire apparatus. Fire lanes shall have a minimum width of 20 feet.

**Obstructions:** Designated fire lanes shall be maintained free of obstructions and vehicles and shall be identified in an approved manner.

**Maintenance:** All designated fire lane signs or markings shall be maintained in a clean and legible condition at all times and replaced when necessary to ensure adequate visibility.

**503.3 A. SIGNAGE SPECIFICATIONS:**

1. Metal construction: 12" x 18"
2. Red letters on reflective white background with 3/8" red trim strip around entire outer edge of sign.
3. Lettering on sign to be "NO PARKING OR STANDING - FIRE LANE". Refer to plate 1-1.
4. Lettering size to be as follows:
  - a. NO PARKING or STANDING - 2"
  - b. OR - 1"
  - c. FIRE LANE - 2 1/2"
  - d. Arrows 1" x 9" solid shaft with solid head 1 1/4" wide and 2" deep.
5. Signs are to be mounted 6' from the ground surface to the bottom of the sign unless otherwise directed by the fire official.
6. Posts for the signs, when required, shall be metal and securely mounted unless written permission for alternatives is obtained from the fire official prior to installation.
7. Signs shall be posted at the beginning and the end of all designated fire lanes and spaced a minimum of 25' apart and a maximum of 100' apart when needed.
8. Short islands require curb marking and one sign.
9. Yellow stripes and/or complete hash marks may be required for the 20' fire lane.



CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
PVC UTILITY MARKER (CARBONITE CUM-375 PRODUCT NO. CRM 3066/BLUE)	
AUGUST 2007	W12

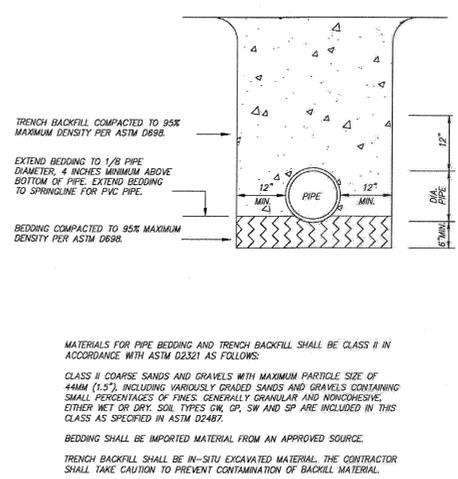
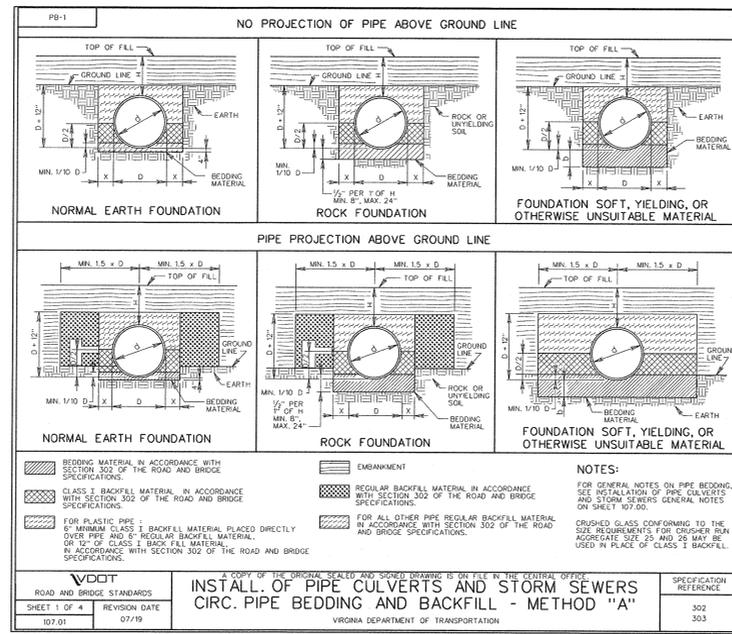
**PLATE 1-1**

**SIGN-A**      **SIGN-B**      **SIGN-C**

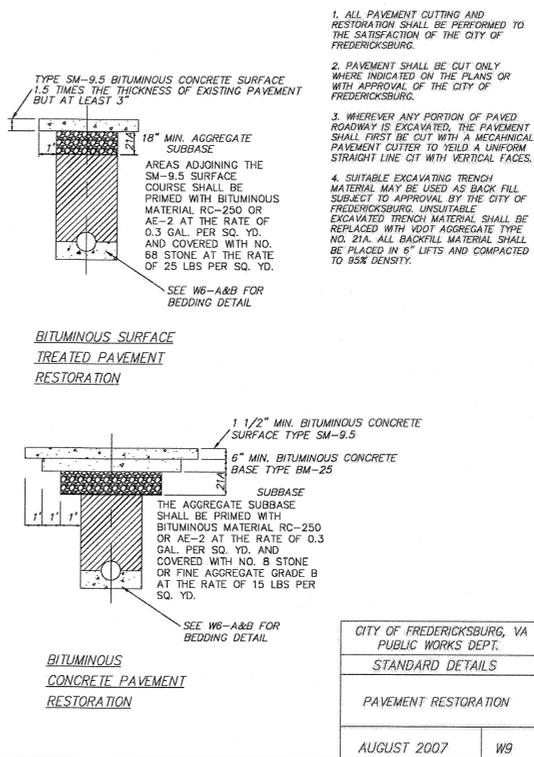
**PLATE 1-2**

TYPICAL CURB MARKINGS IN BLACK WITH VDOT HIGHWAY YELLOW PAINTED CURBS

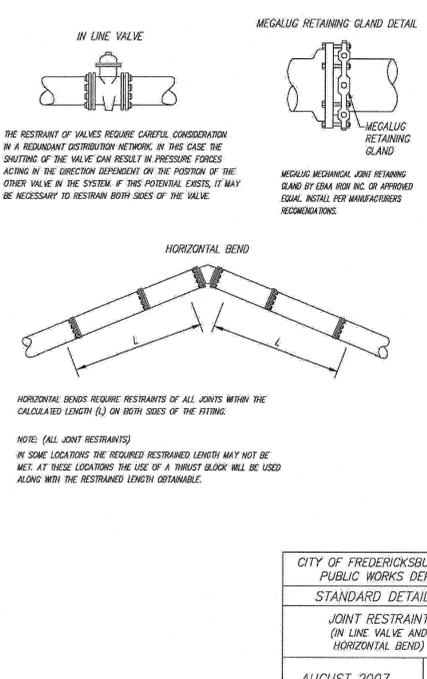
**NO PARKING FIRE LANE TOW ZONE**



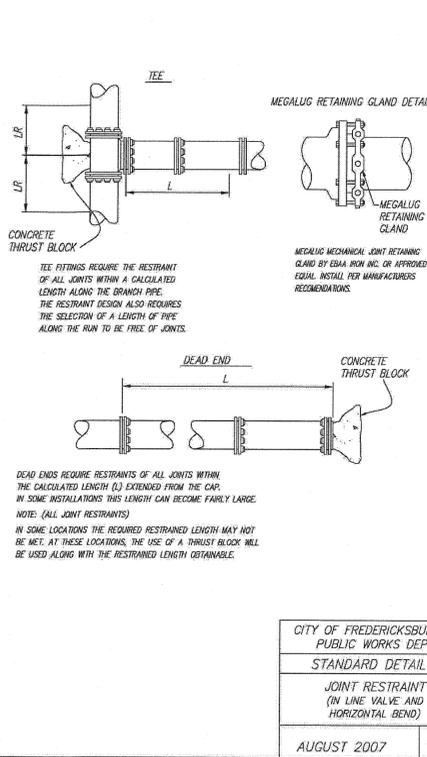
CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
TYPICAL PIPE BEDDING (PAVED AREAS AND OTHER AREAS WHEN IN-SITU MATERIAL UNSUITABLE)	
AUGUST 2007	W6B



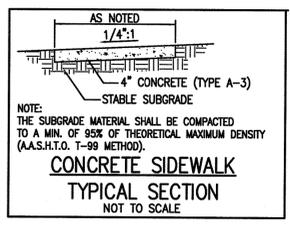
CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
PAVEMENT RESTORATION	
AUGUST 2007	W9



CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
JOINT RESTRAINT (IN LINE VALVE AND HORIZONTAL BEND)	
AUGUST 2007	W11



CITY OF FREDERICKSBURG, VA PUBLIC WORKS DEPT.	
STANDARD DETAILS	
JOINT RESTRAINT (IN LINE VALVE AND HORIZONTAL BEND)	
AUGUST 2007	W11A



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 www.bowmanconsulting.com

**MISCELLANEOUS DETAILS**

**MAJOR SITE PLAN**

**WINCHESTER PLACE**

CITY OF FREDERICKSBURG, VIRGINIA

WARD 2 - PRECINCT 201

SPMAJ 2020-  
 COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA  
 WILLIAM E. DUNCANSON JR.  
 Lic. No. 055205  
 02/10/20  
 PROFESSIONAL ENGINEER

PLAN STATUS  
 02/10/20 1st SUBMISSION

DATE	DESCRIPTION
DESIGN	WED
DRAWN	WED
CHKD	WED
SCALE	H: N/A
	V: N/A
JOB No.	100253-01-001
DATE	DECEMBER 2019
FILE No.	100253-D-CP-001

SHEET 22 OF 24  
 SPMAJ 2020-



**COST ESTIMATE FOR  
EROSION AND SEDIMENT CONTROL**

PROJECT NAME: WINCHESTER PLACE  
Fredericksburg Project # SPMAJ 2020- DATE PREPARED: 2/10/2020  
REVISED:

QUANTITY	UNIT COST	UNIT	TOTAL COST	% COMPLETE	COST TO COMPLETE
1 Mobilization	@ \$ 2,500.00	LS	\$2,500.00	0%	\$2,500.00
1 Temporary Construction Entrance	@ \$ 1,000.00	EA	\$1,000.00	0%	\$1,000.00
550 Silt Fence	@ \$ 4.50	LF	\$2,475.00	0%	\$2,475.00
29 Straw Bale Barrier	@ \$ 4.50	LF	\$130.50	0%	\$130.50
3 Inlet Protection	@ \$ 165.00	EA	\$495.00	0%	\$495.00
346 Perm. Seed, Fertilizer, Mulch, & Tack (Up to 1 Ac.)	@ \$ 1.10	SY	\$380.60	0%	\$380.60
<b>SUBTOTAL</b>			<b>\$6,981.10</b>		<b>\$6,981.10</b>
<b>TOTAL COST</b>			<b>\$6,981.10</b>		<b>\$6,981.10</b>
<b>125% BOND</b>			<b>\$8,726.38</b>		<b>\$8,726.38</b>
<b>AMOUNT DUE TO CITY OF FREDERICKSBURG</b>			<b>\$8,726.38</b>		<b>\$8,726.38</b>

**COST ESTIMATE FOR  
LANDSCAPING**

PROJECT NAME: WINCHESTER PLACE  
Fredericksburg Project # SPMAJ 2020- DATE PREPARED: 2/10/2020  
REVISED:

QUANTITY	UNIT COST	UNIT	TOTAL COST	% COMPLETE	COMPLETE
<b>1. LANDSCAPING WITHIN RIGHTS-OF-WAY</b>					
10 Deciduous Street Tree	2" Cal.	@ \$ 250.00 EA	\$2,500.00	0%	\$2,500.00
<b>SUBTOTAL</b>			<b>\$2,500.00</b>		<b>\$2,500.00</b>
<b>2. LANDSCAPING OUTSIDE RIGHTS-OF-WAY</b>					
8 Evergreen Tree	6-7' Height	@ \$ 165.00 EA	\$1,320.00	0%	\$1,320.00
50 Shrub	24"	@ \$ 45.00 EA	\$2,250.00	0%	\$2,250.00
<b>SUBTOTAL</b>			<b>\$3,570.00</b>		<b>\$3,570.00</b>
<b>3. COST ESTIMATE BREAKDOWN</b>					
<b>TOTAL COST</b>			<b>\$2,500.00</b>		<b>\$2,500.00</b>
<b>1. LANDSCAPING WITHIN RIGHTS-OF-WAY</b>			<b>\$2,500.00</b>		<b>\$2,500.00</b>
<b>110% BOND</b>			<b>\$2,750.00</b>		<b>\$2,750.00</b>
<b>AMOUNT DUE TO CITY OF FREDERICKSBURG</b>			<b>\$2,750.00</b>		<b>\$2,750.00</b>
<b>TOTAL COST</b>			<b>\$3,570.00</b>		<b>\$3,570.00</b>
<b>2. LANDSCAPING OUTSIDE RIGHTS-OF-WAY</b>			<b>\$3,570.00</b>		<b>\$3,570.00</b>
<b>110% BOND</b>			<b>\$3,927.00</b>		<b>\$3,927.00</b>
<b>AMOUNT DUE TO CITY OF FREDERICKSBURG</b>			<b>\$3,927.00</b>		<b>\$3,927.00</b>

**COST ESTIMATE FOR  
STORM DRAINAGE AND STORMWATER MANAGEMENT**

PROJECT NAME: WINCHESTER PLACE  
Fredericksburg Project # SPMAJ 2020- DATE PREPARED: 2/10/2020  
REVISED:

QUANTITY	UNIT COST	UNIT	TOTAL COST	% COMPLETE	COST TO COMPLETE
<b>1. STORM DRAINAGE (WITHIN PROPOSED RIGHTS-OF-WAY)</b>					
<b>A. STRUCTURES</b>					
1 DI-3	@ \$ 4,500.00	EA	\$4,500.00	0%	\$4,500.00
1 MH-2 (4' Dia.)	@ \$ 3,500.00	EA	\$3,500.00	0%	\$3,500.00
<b>SUBTOTAL 1. A</b>			<b>\$8,000.00</b>		<b>\$8,000.00</b>
<b>B. CONCRETE PIPE</b>					
10 12" Dia	@ \$ 50.00	EA	\$500.00	0%	\$500.00
<b>SUBTOTAL 1. B</b>			<b>\$500.00</b>		<b>\$500.00</b>
<b>TOTAL COST</b>			<b>\$8,500.00</b>		<b>\$8,500.00</b>
<b>110% BOND</b>			<b>\$9,350.00</b>		<b>\$9,350.00</b>
<b>2. STORM DRAINAGE (OUTSIDE PROPOSED RIGHTS-OF-WAY)</b>					
<b>B. PVC PIPE (C-900)</b>					
8 10" Dia	@ \$ 60.00	LF	\$480.00	0%	\$480.00
<b>SUBTOTAL 2. B</b>			<b>\$480.00</b>		<b>\$480.00</b>
<b>TOTAL COST</b>			<b>\$480.00</b>		<b>\$480.00</b>
<b>110% BOND</b>			<b>\$528.00</b>		<b>\$528.00</b>
<b>3. COST ESTIMATE BREAKDOWN</b>					
<b>STORM DRAINAGE WITHIN RIGHT-OF-WAY</b>			<b>\$8,500.00</b>		<b>\$8,500.00</b>
<b>STORM DRAINAGE OUTSIDE RIGHT-OF-WAY</b>			<b>\$480.00</b>		<b>\$480.00</b>
<b>SUBTOTAL BOND ESTIMATES</b>			<b>\$8,980.00</b>		<b>\$8,980.00</b>
<b>110% BOND</b>			<b>\$9,878.00</b>		<b>\$9,878.00</b>
<b>AMOUNT DUE TO CITY OF FREDERICKSBURG</b>			<b>\$9,878.00</b>		<b>\$9,878.00</b>

**COST ESTIMATE FOR  
ROADS AND UTILITIES**

PROJECT NAME: WINCHESTER PLACE  
Fredericksburg Project # SPMAJ 2020- DATE PREPARED: 2/10/2020

QUANTITY	UNIT COST	UNIT	TOTAL COST	% COMPLETE	COST TO COMPLETE		
<b>I. INFRASTRUCTURE WITHIN RIGHTS-OF-WAY</b>							
<b>1. ROADS</b>							
<b>A. SUBGRADE, SUBBASE AND BASE COURSE ITEMS</b>							
<b>SUBTOTAL 1. A</b>						<b>\$0.00</b>	<b>\$0.00</b>
<b>B. ENTRANCES AND MISCELLANEOUS CONSTRUCTION ITEMS</b>							
1069 Concrete Sidewalk	@ \$ 5.00	SF	\$5,345.00	0%	\$5,345.00		
674 Brick Pavers	@ \$ 10.00	SF	\$6,740.00	0%	\$6,740.00		
<b>SUBTOTAL 1. B</b>			<b>\$12,085.00</b>		<b>\$12,085.00</b>		
<b>TOTAL COST</b>			<b>\$12,085.00</b>		<b>\$12,085.00</b>		
<b>Admin. Adjustment 10%</b>			<b>\$1,208.50</b>		<b>\$1,208.50</b>		
<b>Subtotal</b>			<b>\$13,293.50</b>		<b>\$13,293.50</b>		
<b>II. INFRASTRUCTURE OUTSIDE RIGHTS-OF-WAY</b>							
<b>2. SANITARY SEWER AND WATERLINE CONSTRUCTION</b>							
<b>A. WATERMAIN</b>							
80 6" Dia DIP	@ \$ 60.00	LF	\$4,800.00	0%	\$4,800.00		
76 2" Dia Copper	@ \$ 25.00	LF	\$1,900.00	0%	\$1,900.00		
1 FDC	@ \$ 4,000.00	EA	\$4,000.00	0%	\$4,000.00		
<b>SUBTOTAL 2.A</b>			<b>\$10,700.00</b>		<b>\$10,700.00</b>		
<b>B. SANITARY SEWER</b>							
6 6" PVC (laterals inc. cleanout)	@ \$ 55.00	LF	\$330.00	0%	\$330.00		
<b>SUBTOTAL 2. B</b>			<b>\$330.00</b>		<b>\$330.00</b>		
<b>TOTAL COST</b>			<b>\$11,030.00</b>		<b>\$11,030.00</b>		
<b>110% BOND</b>			<b>\$12,133.00</b>		<b>\$12,133.00</b>		
<b>3. COST ESTIMATE BREAKDOWN</b>							
<b>1. ROADS</b>			<b>\$12,085.00</b>		<b>\$12,085.00</b>		
<b>2. SANITARY SEWER AND WATERLINE CONSTRUCTION</b>			<b>\$11,030.00</b>		<b>\$11,030.00</b>		
<b>SUBTOTAL BOND ESTIMATES</b>			<b>\$23,115.00</b>		<b>\$23,115.00</b>		
<b>110% BOND</b>			<b>\$25,426.50</b>		<b>\$25,426.50</b>		
<b>TOTAL AMOUNT DUE</b>			<b>\$25,426.50</b>		<b>\$25,426.50</b>		
<b>III. TOTAL COST ESTIMATE BREAKDOWN</b>							
<b>I. INFRASTRUCTURE WITHIN RIGHTS-OF-WAY</b>			<b>\$83,921.00</b>		<b>\$83,921.00</b>		
<b>II. INFRASTRUCTURE OUTSIDE RIGHTS-OF-WAY</b>			<b>\$23,115.00</b>		<b>\$23,115.00</b>		
<b>SUBTOTAL BOND ESTIMATES</b>			<b>\$107,036.00</b>		<b>\$107,036.00</b>		
<b>110% BOND</b>			<b>\$117,739.60</b>		<b>\$117,739.60</b>		
<b>TOTAL AMOUNT DUE</b>			<b>\$117,739.60</b>		<b>\$117,739.60</b>		

**COST ESTIMATE FOR  
ROADS AND UTILITIES**

PROJECT NAME: WINCHESTER PLACE  
Fredericksburg Project # SPMAJ 2020- DATE PREPARED: 2/10/2020

QUANTITY	UNIT COST	UNIT	TOTAL COST	% COMPLETE	COST TO COMPLETE
<b>I. INFRASTRUCTURE WITHIN RIGHTS-OF-WAY</b>					
<b>1. ROADS</b>					
<b>A. SUBGRADE, SUBBASE AND BASE COURSE ITEMS</b>					
54 Subbase (21B)	@ \$ 2.00	SY/IN 8" Depth	\$864.00	0%	\$864.00
54 Subbase (BM-25.0)	@ \$ 5.00	SY/IN 4" Depth	\$1,080.00	0%	\$1,080.00
54 Surface (SM-9.5A)	@ \$ 5.00	SY/IN 1.5" Depth	\$405.00	0%	\$405.00
586 Mill and Overlay Public Streets	@ \$ 20.00	SY	\$11,320.00	0%	\$11,320.00
<b>SUBTOTAL 1. A</b>			<b>\$13,669.00</b>		<b>\$13,669.00</b>
<b>B. ENTRANCES AND MISCELLANEOUS CONSTRUCTION ITEMS</b>					
374 CG-6 Curb & Gutter	@ \$ 18.00	LF	\$6,732.00	0%	\$6,732.00
4 CG-12	@ \$ 1,500.00	EA	\$6,000.00	0%	\$6,000.00
1128 Brick Pavers	@ \$ 10.00	SF	\$11,280.00	0%	\$11,280.00
380 Pavement Marking (Thermoplastic)	@ \$ 5.00	SF	\$1,900.00	0%	\$1,900.00
2 Rubber Mulch Tree Well	@ \$ 400.00	EA	\$800.00	0%	\$800.00
4 Street Lighting	@ \$ 5,000.00	EA	\$20,000.00	0%	\$20,000.00
<b>SUBTOTAL 1. B</b>			<b>\$46,712.00</b>		<b>\$46,712.00</b>
<b>C. MAINTENANCE OF TRAFFIC</b>					
30 Temporary Traffic Control Sign	@ \$ 350.00	EA	\$10,500.00	0%	\$10,500.00
630 Safety Fence	@ \$ 3.50	LF	\$2,205.00	0%	\$2,205.00
<b>SUBTOTAL 1. C</b>			<b>\$12,705.00</b>		<b>\$12,705.00</b>
<b>TOTAL COST</b>			<b>\$73,086.00</b>		<b>\$73,086.00</b>
<b>Admin. Adjustment 10%</b>			<b>\$7,308.60</b>		<b>\$7,308.60</b>
<b>Subtotal</b>			<b>\$80,394.60</b>		<b>\$80,394.60</b>
<b>2. SANITARY SEWER AND WATERLINE CONSTRUCTION</b>					
<b>A. WATERMAIN</b>					
1 2" Meter (incl. connection)	@ \$ 2,500.00	EA	\$2,500.00	0%	\$2,500.00
23 6" Dia DIP	@ \$ 120.00	LF	\$2,760.00	0%	\$2,760.00
23 2" Dia Copper	@ \$ 25.00	LF	\$575.00	0%	\$575.00
2 Wet Tap to Ex. Waterline	@ \$ 1,500.00	EA	\$3,000.00	0%	\$3,000.00
<b>SUBTOTAL 2.A</b>			<b>\$8,835.00</b>		<b>\$8,835.00</b>
<b>B. SANITARY SEWER</b>					
25 6" PVC (laterals inc. cleanout)	@ \$ 80.00	LF	\$2,000.00	0%	\$2,000.00
<b>SUBTOTAL 2. B</b>			<b>\$2,000.00</b>		<b>\$2,000.00</b>
<b>TOTAL COST</b>			<b>\$10,835.00</b>		<b>\$10,835.00</b>
<b>110% BOND</b>			<b>\$11,918.50</b>		<b>\$11,918.50</b>
<b>3. COST ESTIMATE BREAKDOWN</b>					
<b>1. ROADS</b>			<b>\$73,086.00</b>		<b>\$73,086.00</b>
<b>2. SANITARY SEWER AND WATERLINE CONSTRUCTION</b>			<b>\$10,835.00</b>		<b>\$10,835.00</b>
<b>SUBTOTAL BOND ESTIMATES</b>			<b>\$83,921.00</b>		<b>\$83,921.00</b>
<b>110% BOND</b>			<b>\$92,313.10</b>		<b>\$92,313.10</b>
<b>TOTAL AMOUNT DUE</b>			<b>\$92,313.10</b>		<b>\$92,313.10</b>