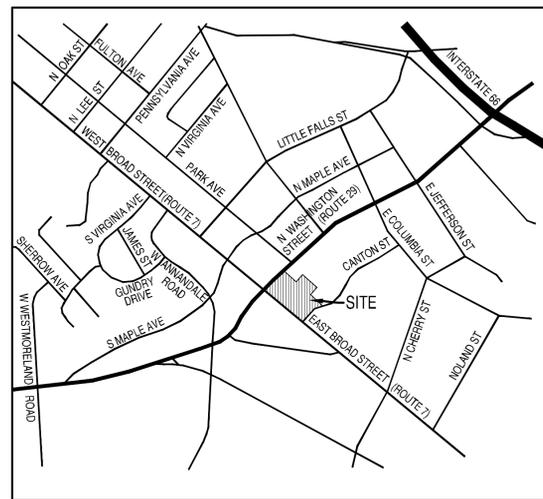


# BROAD & WASHINGTON

CITY OF FALLS CHURCH, VIRGINIA

## REZONING/SPECIAL EXCEPTION AND CONCEPTUAL DEVELOPMENT PLAN

MUNIS #2015-0764



VICINITY MAP  
1"=1000'



### SHEET INDEX

C1.0	COVER SHEET
C2.0	NOTES AND SITE TABULATIONS
C3.0	EXISTING CONDITIONS SURVEY PLAN
C4.0	CONCEPTUAL DEVELOPMENT PLAN
C4.1	ALTERNATIVE CONCEPTUAL DEVELOPMENT PLAN
C5.0	PRELIMINARY GRADING AND UTILITY PLAN
C6.0	CONCEPTUAL LANDSCAPE PLAN
C7.0	CONCEPTUAL STREETScape PLAN EAST BROAD STREET
C8.0	CONCEPTUAL STREETScape PLAN LAWTON STREET AND N. WASHINGTON STREET
C9.0	STREET FURNISHING DETAILS
C10.0	ROADWAY FRONTAGE EXHIBIT
C11.0	CONCEPTUAL PARKING PLANS
C12.0	LANDSCAPE SCHEDULE, NOTES, DETAILS AND EXISTING TREE INVENTORY
C13.0	EXISTING VEGETATIVE MAP
C14.0	CONCEPTUAL SWM AND BMP PLAN AND DRAINAGE MAP
C15.0	CONCEPTUAL SWM AND BMP NOTES AND DETAILS
16	TOTAL SHEETS

#### OWNER/APPLICANT:

BROAD & WASHINGTON, LLC  
4601 N. Fairfax Drive,  
Suite 1150  
Arlington, Virginia 22203

#### DEVELOPER:

Insight Property Group, LLC  
4601 N. Fairfax Drive,  
Suite 1150  
Arlington, Virginia 22203

#### ARCHITECT:

MV&A Architects  
1200 G Street N.W.,  
Suite 250  
Washington D.C. 20005

#### ATTORNEY / AGENT:

McGuire Woods, LLP  
1750 Tyson Boulevard,  
Suite 1800  
McLean, Virginia 22102

#### CIVIL ENGINEER:

Bowman Consulting Group, LTD.  
14020 Thunderbolt Place,  
Suite 300  
Chantilly, Virginia 20151

#### TRAFFIC CONSULTANT:

Gorove Slade Associates  
3914 Centreville Road,  
Suite 330  
Chantilly, Virginia 20151

JUNE 26, 2017  
MAY 26, 2017  
MARCH 20, 2017  
DECEMBER 16, 2015  
JUNE 30, 2015  
SHEET C1.0

**GENERAL NOTES:**

- THE SUBJECT PROPERTIES SHOWN HEREON ARE CURRENTLY LISTED WITHIN THE CITY OF FALLS CHURCH TAX ASSESSMENT RECORDS AS FOLLOWS:  

PARCEL I.D.	ADDRESS	OWNER	DEED BOOK/PAGE	EXISTING ZONE
53-104-051	100 N. WASHINGTON ST	BROAD & WASHINGTON, LLC	4816/936	B-2 (CENTRAL BUSINESS)
53-104-036	127 E. BROAD ST	BROAD & WASHINGTON, LLC	4816/936	B-2 (CENTRAL BUSINESS)
53-104-050	131 E. BROAD ST	BROAD & WASHINGTON, LLC	4816/936	T-1 (TRANSITIONAL)
- THE APPLICATION PROPERTY IS CURRENTLY ZONED B-2 (CENTRAL BUSINESS) AND T-1 (TRANSITIONAL) ZONING DISTRICT. THIS APPLICATION INCLUDES A REZONING OF THE T-1 DESIGNATED PARCEL TO A PROPOSED B-2 DESIGNATION, AND A SPECIAL EXCEPTION IN ORDER TO DEVELOP THE SUBJECT SITE AS A MIXED USE DEVELOPMENT.
- THE SUBJECT PROPERTY LIES WITHIN AN AREA DESIGNATED AS "BUSINESS AND TRANSITIONAL" ON THE FUTURE LAND USE PLAN MAP OF THE CITY OF FALLS CHURCH COMPREHENSIVE PLAN.
- THE SUBJECT PROPERTY IS CURRENTLY SERVED BY FAIRFAX WATER AND CITY OF FALLS CHURCH SANITARY SEWER AND STORM SEWER UTILITIES.
- BOUNDARY INFORMATION AS SHOWN HEREON IS COMPILED FROM EXISTING LAND RECORDS OF ARLINGTON COUNTY, VIRGINIA AND FAIRFAX COUNTY, VIRGINIA AND A FIELD SURVEY PERFORMED BY BOWMAN CONSULTING GROUP, LTD. DATED SEPTEMBER 17, 2014.
- THE HORIZONTAL AND VERTICAL DATUM'S AS REFERENCED HEREON WERE ESTABLISHED BY STATIC GPS CONTROL METHODS. THE HORIZONTAL DATUM IS REFERENCED TO VIRGINIA COORDINATE SYSTEM OF 1983 (VCS 83), NORTH ZONE AND IS REFERENCED IN U.S. SURVEY FEET AND THE VERTICAL DATUM IS REFERENCED TO NGVD 83 AND WAS ESTABLISHED BY GPS METHODS.
- THE TOPOGRAPHICAL FEATURES AS SHOWN HEREON WERE COMPILED FROM CONVENTIONAL SURVEY METHODS.
- UNDERGROUND UTILITIES SHOWN HEREON ON BASED ON VISUAL OBSERVATION AND HAVE NOT BEEN SPECIFICALLY CONFIRMED.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO UTILITY EASEMENTS HAVING A WIDTH OF TWENTY-FIVE (25) OR GREATER LOCATED WITHIN THE SUBJECT PROPERTY.
- THERE ARE NO AREAS OF SCENIC ASSETS OR NATURAL FEATURES DESERVING OF PROTECTION OR PRESERVATION ON THE SITE.
- THERE IS NO FLOODPLAIN WITHIN THE SUBJECT PROPERTY AS DESIGNATED BY THE FEDERAL INSURANCE ADMINISTRATION AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP FOR CITY OF FALLS CHURCH, VIRGINIA, COMMUNITY-PANEL NUMBER 5100540001C, EFFECTIVE DATE JULY 16, 2004. THERE ARE NO RESOURCE PROTECTION AREAS (RPA) OR ENVIRONMENTAL QUALITY CORRIDOR (EQC) WITHIN THE SUBJECT PROPERTY INDICATED ON CITY OF FALLS CHURCH GIS DATA.
- STORMWATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICES (BMP) ARE PROPOSED WITH THIS APPLICATION AND CONCEPTUAL DESIGN COMPUTATIONS ARE DEMONSTRATED HEREIN. FINAL DESIGN OF SWM/BMP FACILITIES WILL BE PROVIDED AT THE TIME OF FINAL SITE PLAN APPLICATION.
- THIS SITE SHALL BE DEVELOPED IN ONE PHASE SUBJECT TO REQUIRED PLAN APPROVALS AND PERMIT ISSUANCE.

**REQUESTED LAND USE ACTIONS:**

**COMPREHENSIVE PLAN:**

THE PURPOSE OF THIS COMPREHENSIVE PLAN AMENDMENT IS TO AMEND THE FUTURE LAND USE DESIGNATION FROM BUSINESS AND TRANSITIONAL USE TO MIXED-USE.

**REZONING:**

THE PURPOSE OF THIS REZONING IS TO REZONE THE PARCEL IDENTIFIED AS 53-104-050 FROM THE T-1(TRANSITIONAL) ZONING DISTRICT TO THE B-2(CENTRAL BUSINESS) ZONING DISTRICT.

**SPECIAL EXCEPTION:**

Z.O. SECTION 48-90 (GENERAL REQUIREMENTS) & SECTION 48-488 (B-2 DISTRICT REQUIREMENTS)

- THE PURPOSE OF THIS SPECIAL EXCEPTION APPLICATION IS TO:
  - ALLOW FOR RESIDENTIAL USE WITHIN A MIXED-USE REDEVELOPMENT WITHIN THE B-2 ZONING DISTRICT.
  - ALLOW FOR ADDITIONAL BUILDING HEIGHT (OF APPROXIMATELY 10 FT)

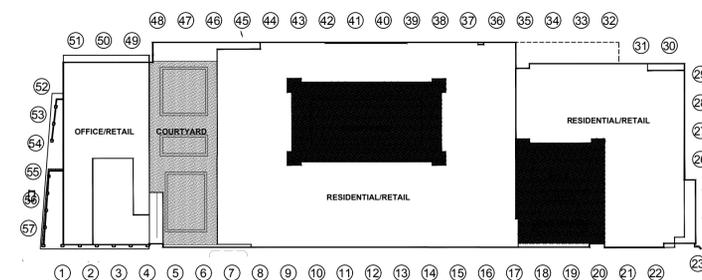
**WAIVER / VARIANCE REQUESTS:**

Z.O. SECTION 48-971(2)-PARKING  
 VARIANCE OF THE REQUIRED PARKING (733 SPACES) TO THOSE PROVIDED (600 SPACES) AS DEMONSTRATED IN THE PARKING STUDY, TRAFFIC REDUCTION PLAN AND TRAFFIC DEMAND MANAGEMENT PLAN AS SHOWN HEREIN.

Z.O. SECTION 48-1101: MINIMUM YARD SETBACK  
 VARIANCE TO REDUCE THE MINIMUM BUILDING SETBACK OF THE FOLLOWING:  
 -PROPOSED BUILDING ADJACENT TO LAWTON STREET FROM THE REQUIRED 14 FEET TO TEN (10) FEET AS SHOWN ON THE CDP.

Z.O. SECTION 48-1181: PERIMETER PARKING LOT LANDSCAPING  
 WAIVER TO ELIMINATE REQUIRED PERIMETER PARKING LOT LANDSCAPING, AS PROPOSED PARKING IS LOCATED WITHIN AN OFF-STREET PARKING GARAGE STRUCTURE.

Z.O. SECTION 48-1182: INTERIOR PARKING LOT LANDSCAPING  
 WAIVER TO ELIMINATE REQUIRED INTERIOR PARKING LOT LANDSCAPING, INCLUDING FIVE PERCENT (5%) CANOPY COVERAGE, AS PROPOSED PARKING IS LOCATED WITHIN AN OFF-STREET PARKING GARAGE STRUCTURE.



**AVERAGE GRADE SPOT LOCATION**

(SPOT ELEVATION CALCULATED AT PROPOSED BUILDING FACE)

**DEVELOPMENT NOTE:**

- OWNER/CONTRACT OWNER SHALL JOIN IN THE SITE PLAN APPROVAL AND AGREES TO BE BOUND BY ALL SITE PLAN REQUIREMENTS.

**AVERAGE GRADE TABULATIONS**

NUMBER	A EXISTING GRADE ELEVATION (1)	B PROPOSED GRADE ELEVATION (1)	BUILDING HEIGHT GRADE CALCULATION (1) (LOWER OF A OR B)
1	329.65	329.12	329.12
2	329.97	329.34	329.34
3	330.14	329.58	329.58
4	330.32	329.79	329.79
5	330.04	329.97	329.97
6	330.13	330.14	330.13
7	330.39	330.30	330.30
8	330.78	330.18	330.18
9	331.74	330.07	330.07
10	333.00	329.72	329.72
11	332.89	329.55	329.55
12	332.04	329.10	329.10
13	331.05	329.00	329.00
14	330.06	328.80	328.80
15	329.66	328.30	328.30
16	329.02	328.07	328.07
17	328.53	327.80	327.80
18	329.19	327.37	327.37
19	330.73	327.14	327.14
20	332.29	327.24	327.24
21	332.61	327.35	327.35
22	330.36	327.48	327.48
23	331.90	327.85	327.85
24	332.54	331.86	331.86
25	333.61	333.40	333.40
26	334.03	335.25	334.03
27	335.38	336.57	335.38
28	336.94	337.82	336.94
29	338.20	338.78	338.20
30	338.59	340.38	338.59
31	338.49	340.50	338.49
32	339.49	341.00	339.49
33	339.49	341.00	339.49
34	339.45	341.00	339.45
35	339.77	341.00	339.77
36	339.97	341.00	339.97
37	340.82	341.00	340.82
38	340.55	340.55	340.55
39	341.55	341.55	341.55
40	341.70	341.70	341.70
41	341.80	341.80	341.80
42	341.90	341.90	341.90
43	341.46	341.46	341.46
44	341.46	341.46	341.46
45	341.01	341.01	341.01
46	340.31	340.31	340.31
47	339.46	339.46	339.46
48	337.97	337.97	337.97
49	336.95	336.95	336.95
50	336.96	336.96	336.96
51	337.05	337.05	337.05
52	338.71	338.89	338.71
53	333.99	334.77	333.99
54	332.99	333.72	332.99
55	331.97	331.00	331.00
56	330.95	330.31	330.31
57	330.52	329.73	329.73
<b>AVERAGE=</b>	<b>334.90</b>	<b>334.37</b>	<b>334.09</b>

(1) Final elevation subject to change with final site plan design.

**SITE TABULATIONS:**

Current Zoning:	B-2(Central Business) / T-1(Transitional)
Proposed Zoning:	B-2 (Business)
Total Site Area:	2.68 AC (per Field Survey)
Proposed Use:	Mixed-Use (Residential/Retail/Office)
<b>FLOOR AREA</b>	
Proposed GFA:	
Retail:	26,300 GFA
Office (Includes Penthouse and Lobby):	66,700 GFA (6)
Residential Area (Includes Residential Lobby Area):	294,800 GFA
Total Gross Floor Area:	387,800 GFA(1)(2)
<b>FLOOR AREARATIO (F-AR)</b>	
Minimum F.A.R.:	None
Maximum F.A.R.:	None
Proposed F.A.R.:	3.32 (2)(3)
<b>Density</b>	
Total Proposed Dwelling Units:	289 D.U.
Proposed Residential Density:	108 DU/AC
<b>Maximum Building Height Allowed:</b>	
	115 FT W/ Bonus
	(75 FT By-Right + 40 FT By S.E.)
<b>Proposed Building Height: (measured from average grade)</b>	
	±90.0 FT
<b>Open Space (Usable):</b>	
	REQUIRED N/A
	PROVIDED ±5% (Private Common)

**YARD REQUIREMENTS:**

	REQUIRED	PROVIDED
Minimum Front Yard Setback E. Broad Street (To Face of Curb):	20 FT	20 FT
Minimum Front Yard Setback N. Washington Street (To Face of Curb):	20 FT	20 FT
Minimum Front Yard Setback Lawton Street (To Property Line):	14 FT	10 FT
Minimum Side/Rear Yard Setback (To Property Line):	20 FT (Adjacent 'R' District) 0 FT (Adjacent B-2 District)	20 FT 0 FT

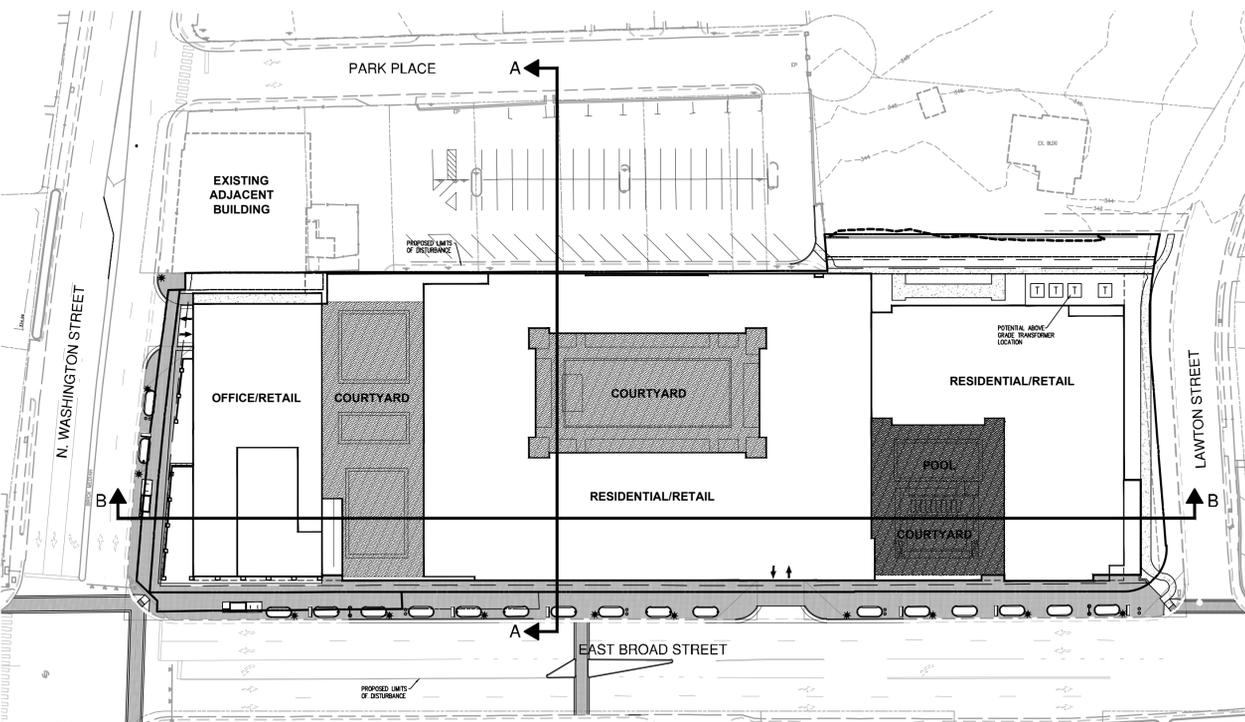
**PARKING TABULATIONS:**

	REQUIRED	PROVIDED
<b>Parking - Trade (Retail):</b>		
Trade/General Merchandise Retail (1 Space/250 SF @ 26,300 SF)	106 Spaces	105 Spaces
<b>Parking - Office:</b>		
(Business-General) (1 Space/450 SF @ 66,700 SF)	149 Spaces	136 Spaces
<b>Parking - Residence (Multi-Family):</b>		
Studio/Efficiency Unit (1 Space/ D.U. @ 32 DU)	478 Spaces	359 Spaces
One Bedroom Unit (1.5 Space/ D.U. @ 136 DU)		
Two/Three Bedroom Unit (2 Space/ D.U. @ 121 DU)		
<b>TOTAL PARKING:</b>	733 Spaces	600 Spaces (4)(6)

**LOADING TABULATIONS:**

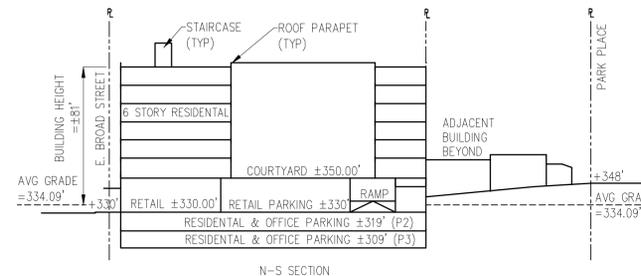
	REQUIRED	PROVIDED
General Retail-Merchandise	1 Space	1 Space
Office	1 Space	1 Space
Residential Multi-Family	0 Space	1 Space

- Gross Floor Area (GFA) reported per code definition.
- F.A.R. / GFA does not include area of structured parking.
- F.A.R. is based on current site area prior to dedication/vacation of road frontage.
- Final provided parking quantity for the residential, retail, and office uses is subject to change with final dwelling unit count and mix, and final retail/office GFA as determined at final site plan and final parking reduction plan, by the City Planning Commission under Section 48-971(2) of the city code.
- Refer to conceptual parking plan herein, and parking reduction plan under separate cover, for layout and proposed distribution of parking spaces. Restricted parking (Office and Residential uses) is to be located on parking levels P2-P3. Shared parking (Retail and Public access) is to be generally located on level P1, but may include a portion of level P2.
- Applicant reserves the right provide additional Office GFA by means of additional building height, as may be approved/permitted by means of a CDP/SEA application.



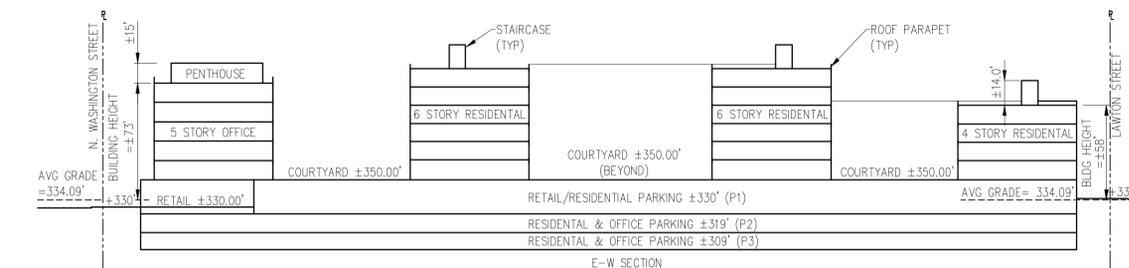
**PLAN VIEW - SCHEMATIC PLAN**

SCALE: 1" = 60'



**CROSS SECTION 'A'-A' SCHEMATIC**

SCALE: 1" = 50'



**CROSS SECTION 'B'-B' SCHEMATIC**

SCALE: 1" = 50'

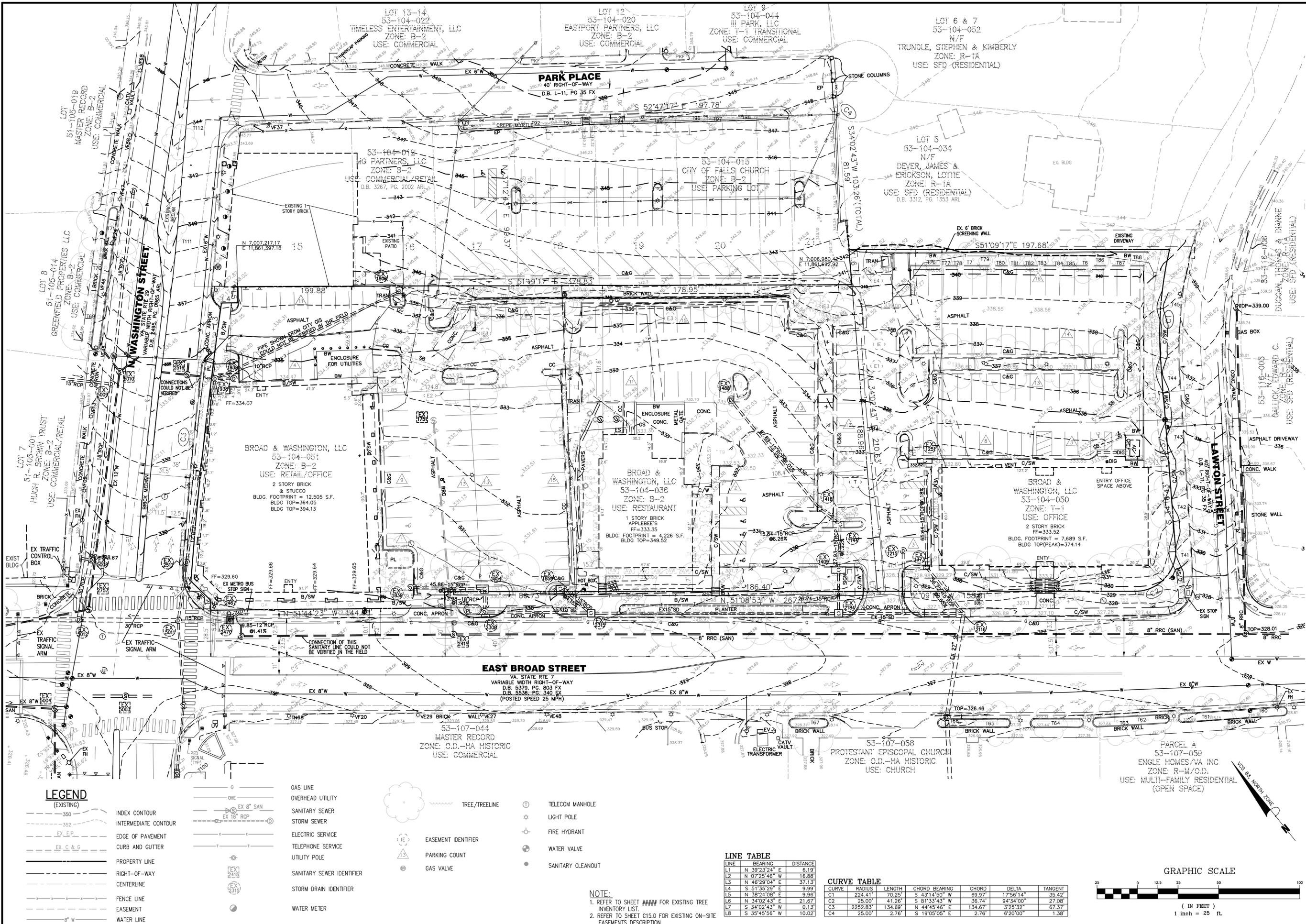
**Bowman**  
 CONSULTING

Bowman Consulting Group, Ltd.  
 14020 Thunderbolt Place  
 Suite 300  
 Chantilly, Virginia 20151  
 Phone: (703) 464-1000  
 Fax: (703) 481-9720  
 www.bowmanconsulting.com  
 © Bowman Consulting Group, Ltd.

NOTES AND SITE TABULATIONS  
**BROAD & WASHINGTON**  
 CITY OF FALLS CHURCH, VIRGINIA

PLAN STATUS		
DATE	DESCRIPTION	
06/26/17	5th SUBMISSION	
05/26/17	4th SUBMISSION	
03/20/17	3rd SUBMISSION	
12/16/15	2nd SUBMISSION	
DATE	DESCRIPTION	
MT	KF	MT
DESIGN	DRAWN	CHKD
SCALE	H: N/A	V:
JOB No.	8366-01-001	
DATE	June 2015	
FILE No.	8366-D-RZ-001	

SHEET C2.0



**LEGEND**

(EXISTING)	INDEX CONTOUR	ONE	GAS LINE	TREE/TREELINE	TELECOM MANHOLE
---	INTERMEDIATE CONTOUR	EX 8" SAN	OVERHEAD UTILITY		LIGHT POLE
---	EDGE OF PAVEMENT	EX 18" RCP	SANITARY SEWER		FIRE HYDRANT
---	CURB AND GUTTER		STORM SEWER	(IE)	WATER VALVE
---	PROPERTY LINE		ELECTRIC SERVICE		SANITARY CLEANOUT
---	RIGHT-OF-WAY		TELEPHONE SERVICE		
---	CENTERLINE		UTILITY POLE		
---	FENCE LINE		SANITARY SEWER IDENTIFIER		
---	EASEMENT		STORM DRAIN IDENTIFIER		
---	WATER LINE		WATER METER		

---	INDEX CONTOUR	ONE	GAS LINE	TREE/TREELINE	TELECOM MANHOLE
---	INTERMEDIATE CONTOUR	EX 8" SAN	OVERHEAD UTILITY		LIGHT POLE
---	EDGE OF PAVEMENT	EX 18" RCP	SANITARY SEWER		FIRE HYDRANT
---	CURB AND GUTTER		STORM SEWER	(IE)	WATER VALVE
---	PROPERTY LINE		ELECTRIC SERVICE		SANITARY CLEANOUT
---	RIGHT-OF-WAY		TELEPHONE SERVICE		
---	CENTERLINE		UTILITY POLE		
---	FENCE LINE		SANITARY SEWER IDENTIFIER		
---	EASEMENT		STORM DRAIN IDENTIFIER		
---	WATER LINE		WATER METER		

---	INDEX CONTOUR	ONE	GAS LINE	TREE/TREELINE	TELECOM MANHOLE
---	INTERMEDIATE CONTOUR	EX 8" SAN	OVERHEAD UTILITY		LIGHT POLE
---	EDGE OF PAVEMENT	EX 18" RCP	SANITARY SEWER		FIRE HYDRANT
---	CURB AND GUTTER		STORM SEWER	(IE)	WATER VALVE
---	PROPERTY LINE		ELECTRIC SERVICE		SANITARY CLEANOUT
---	RIGHT-OF-WAY		TELEPHONE SERVICE		
---	CENTERLINE		UTILITY POLE		
---	FENCE LINE		SANITARY SEWER IDENTIFIER		
---	EASEMENT		STORM DRAIN IDENTIFIER		
---	WATER LINE		WATER METER		

---	INDEX CONTOUR	ONE	GAS LINE	TREE/TREELINE	TELECOM MANHOLE
---	INTERMEDIATE CONTOUR	EX 8" SAN	OVERHEAD UTILITY		LIGHT POLE
---	EDGE OF PAVEMENT	EX 18" RCP	SANITARY SEWER		FIRE HYDRANT
---	CURB AND GUTTER		STORM SEWER	(IE)	WATER VALVE
---	PROPERTY LINE		ELECTRIC SERVICE		SANITARY CLEANOUT
---	RIGHT-OF-WAY		TELEPHONE SERVICE		
---	CENTERLINE		UTILITY POLE		
---	FENCE LINE		SANITARY SEWER IDENTIFIER		
---	EASEMENT		STORM DRAIN IDENTIFIER		
---	WATER LINE		WATER METER		

---	INDEX CONTOUR	ONE	GAS LINE	TREE/TREELINE	TELECOM MANHOLE
---	INTERMEDIATE CONTOUR	EX 8" SAN	OVERHEAD UTILITY		LIGHT POLE
---	EDGE OF PAVEMENT	EX 18" RCP	SANITARY SEWER		FIRE HYDRANT
---	CURB AND GUTTER		STORM SEWER	(IE)	WATER VALVE
---	PROPERTY LINE		ELECTRIC SERVICE		SANITARY CLEANOUT
---	RIGHT-OF-WAY		TELEPHONE SERVICE		
---	CENTERLINE		UTILITY POLE		
---	FENCE LINE		SANITARY SEWER IDENTIFIER		
---	EASEMENT		STORM DRAIN IDENTIFIER		
---	WATER LINE		WATER METER		

---	INDEX CONTOUR	ONE	GAS LINE	TREE/TREELINE	TELECOM MANHOLE
---	INTERMEDIATE CONTOUR	EX 8" SAN	OVERHEAD UTILITY		LIGHT POLE
---	EDGE OF PAVEMENT	EX 18" RCP	SANITARY SEWER		FIRE HYDRANT
---	CURB AND GUTTER		STORM SEWER	(IE)	WATER VALVE
---	PROPERTY LINE		ELECTRIC SERVICE		SANITARY CLEANOUT
---	RIGHT-OF-WAY		TELEPHONE SERVICE		
---	CENTERLINE		UTILITY POLE		
---	FENCE LINE		SANITARY SEWER IDENTIFIER		
---	EASEMENT		STORM DRAIN IDENTIFIER		
---	WATER LINE		WATER METER		

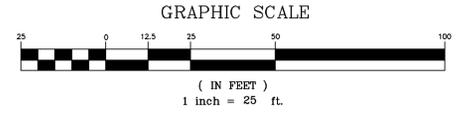
**NOTE:**  
 1. REFER TO SHEET ##### FOR EXISTING TREE INVENTORY LIST.  
 2. REFER TO SHEET C15.0 FOR EXISTING ON-SITE EASEMENTS DESCRIPTION.

**LINE TABLE**

LINE	BEARING	DISTANCE
L1	N 39°23'24" E	6.19
L2	N 07°25'46" W	16.88
L3	N 48°29'04" E	37.13
L4	S 51°35'29" E	9.99
L5	N 38°24'08" E	9.98
L6	N 34°02'43" E	21.67
L7	S 34°02'43" W	0.13
L8	S 35°45'56" W	10.02

**CURVE TABLE**

CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C1	224.41	70.25	S 43°14'50" W	69.97	17°56'14"	35.42
C2	25.00	41.26	S 81°33'43" W	36.74	94°34'00"	27.08
C3	2252.83	134.69	N 44°45'46" E	134.67	3°25'32"	67.37
C4	25.00	2.76	S 19°05'05" E	2.76	6°20'00"	1.38

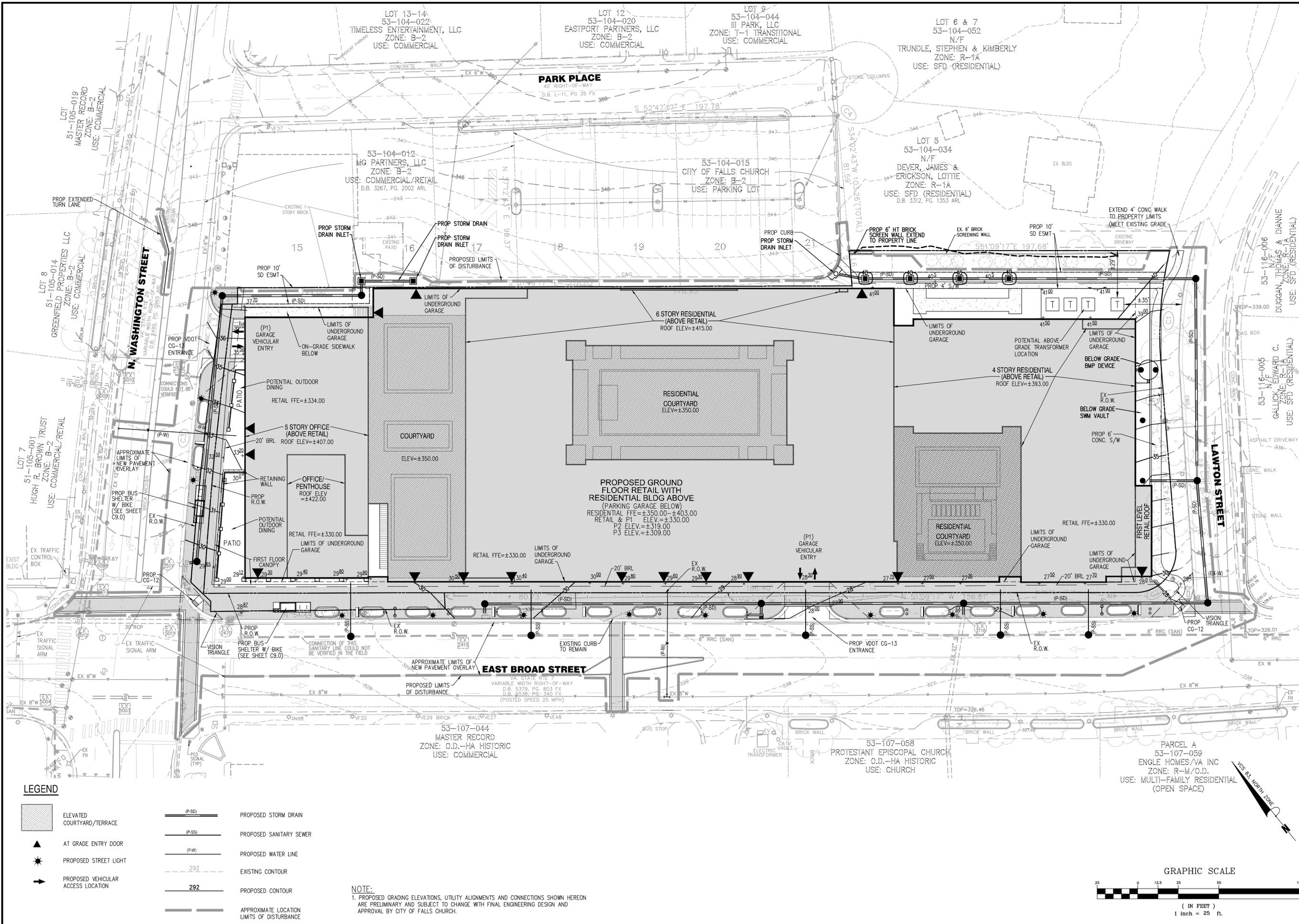


**PLAN STATUS**

DATE	DESCRIPTION	
06/26/17	5th SUBMISSION	
05/26/17	4th SUBMISSION	
03/20/17	3rd SUBMISSION	
12/16/15	2nd SUBMISSION	
	DATE	
	DESCRIPTION	
MT	KF	MT
DESIGN	DRAWN	CHKD
SCALE	H: 1" = 25'	V:
JOB No.	8366-01-001	
DATE	June 2015	
FILE No.	8366-D-RZ-001	
SHEET	C3.0	



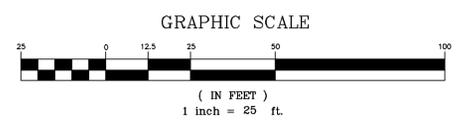




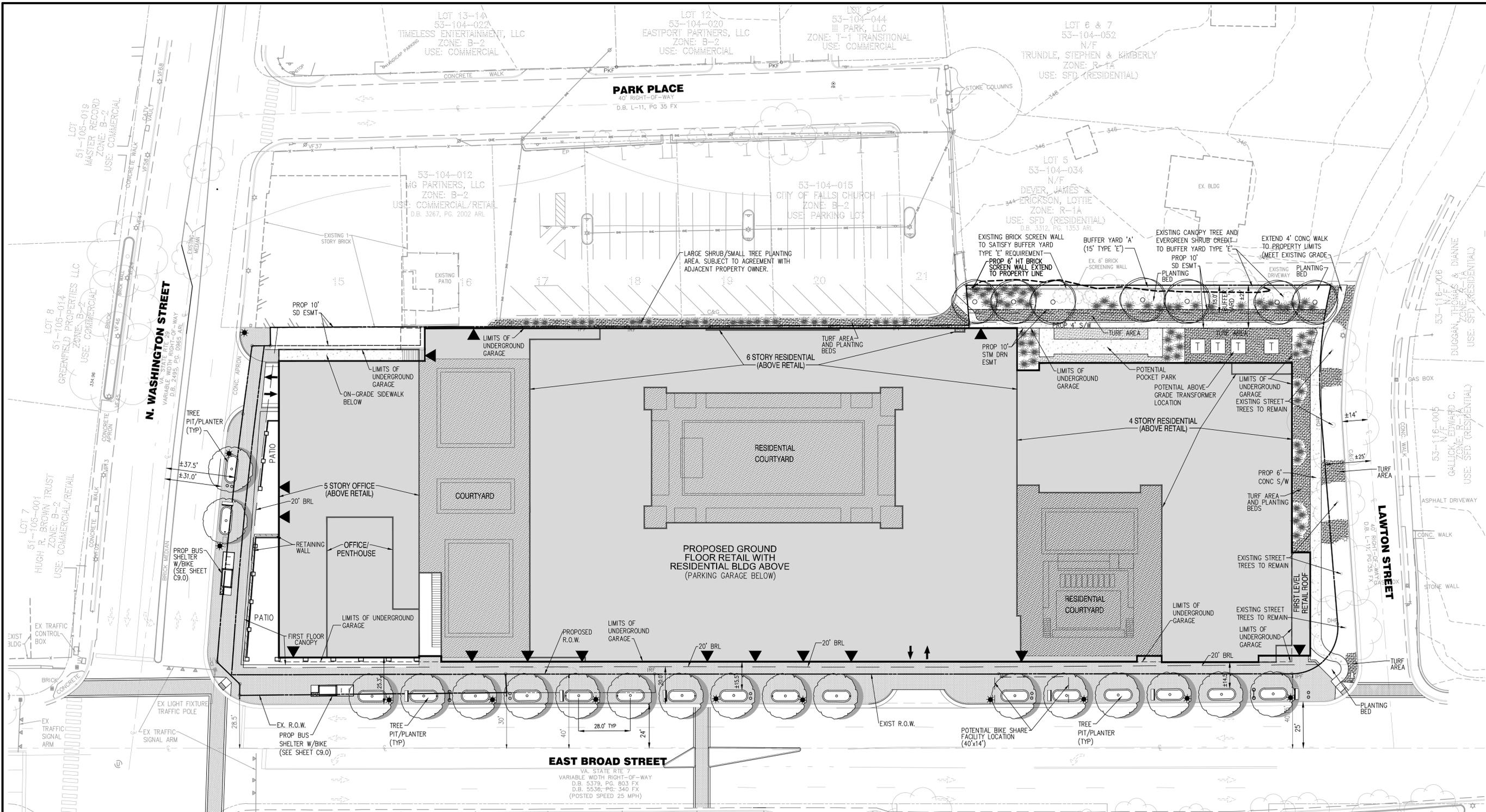
**LEGEND**

	ELEVATED COURTYARD/TERRACE		PROPOSED STORM DRAIN
	AT GRADE ENTRY DOOR		PROPOSED SANITARY SEWER
	PROPOSED STREET LIGHT		PROPOSED WATER LINE
	PROPOSED VEHICULAR ACCESS LOCATION		EXISTING CONTOUR
			PROPOSED CONTOUR
			APPROXIMATE LOCATION LIMITS OF DISTURBANCE

**NOTE:**  
 1. PROPOSED GRADING ELEVATIONS, UTILITY ALIGNMENTS AND CONNECTIONS SHOWN HEREON ARE PRELIMINARY AND SUBJECT TO CHANGE WITH FINAL ENGINEERING DESIGN AND APPROVAL BY CITY OF FALLS CHURCH.



PLAN STATUS		
DATE	DESCRIPTION	
06/26/17	5th SUBMISSION	
05/26/17	4th SUBMISSION	
03/20/17	3rd SUBMISSION	
12/16/15	2nd SUBMISSION	
DATE	DESCRIPTION	
MT	KF	MT
DESIGN	DRAWN	CHKD
SCALE: H: 1" = 25'		
V:		
JOB No. 8366-01-001		
DATE : June 2015		
FILE No. 8366-D-RZ-001		
SHEET C5.0		



**LEGEND**

- EXISTING CANOPY TREE TO REMAIN
- EXISTING EVERGREEN TREE TO REMAIN
- PROPOSED DECIDUOUS CANOPY STREET TREE
- PROPOSED DECIDUOUS CANOPY BUFFER YARD TREE
- PROPOSED LARGE SHRUBS
- PROPOSED BUS SHELTER W/ BIKE (SEE DETAIL SHEET C9.0) (FINAL LOCATION TO BE DETERMINED WITH SITE PLAN APPLICATION)
- PROPOSED STREET LIGHT (SEE DETAIL SHEET C9.0) (FINAL LOCATION TO BE DETERMINED WITH SITE PLAN APPLICATION)
- PROPOSED BIKE RACK (SEE DETAIL SHEET C9.0) (FINAL LOCATION TO BE DETERMINED WITH SITE PLAN APPLICATION)
- PROPOSED BENCH (SEE DETAIL SHEET C9.0) (FINAL LOCATION TO BE DETERMINED WITH SITE PLAN APPLICATION)
- PROPOSED TRASH/RECYCLE RECEPTACLE (SEE DETAIL SHEET C9.0) (FINAL LOCATION TO BE DETERMINED WITH SITE PLAN APPLICATION)
- APPROXIMATE TURF AREA

**NOTE:**

- FINAL STREETSCAPE ELEMENTS INCLUDING FURNITURE, TRASH RECEPTACLES, PAVING MATERIALS, LIGHTING, IRRIGATION, LANDSCAPING WILL CONFORM TO THE ADOPTED STREETSCAPE STANDARDS, AND WILL BE PROVIDED WITH FINAL SITE PLAN APPLICATION. LOCATION OF ELEMENTS SHOWN HEREON IS SUBJECT TO CHANGE WITH FINAL SITE PLAN DESIGN.
- FINAL SITE LANDSCAPING DESCRIPTIONS INCLUDING BUFFER YARDS AND PRIVATE COURTYARD AREAS WILL BE PROVIDED WITH FINAL SITE PLAN APPLICATION.
- STREETSCAPE IRRIGATION PLAN WILL BE PROVIDED WITH SITE PLAN APPLICATION.

**GRAPHIC SCALE**

1 inch = 25 ft.

**Bowman CONSULTING**

Bowman Consulting Group, Ltd.  
14020 Thunderbolt Place  
Suite 300  
Charlottesville, Virginia 22911  
Phone: (703) 464-1000  
Fax: (703) 481-9720  
www.bowmanconsulting.com  
© Bowman Consulting Group, Ltd.

**CONCEPTUAL LANDSCAPE PLAN**

**BROAD & WASHINGTON**

CITY OF FALLS CHURCH, VIRGINIA

**PLAN STATUS**

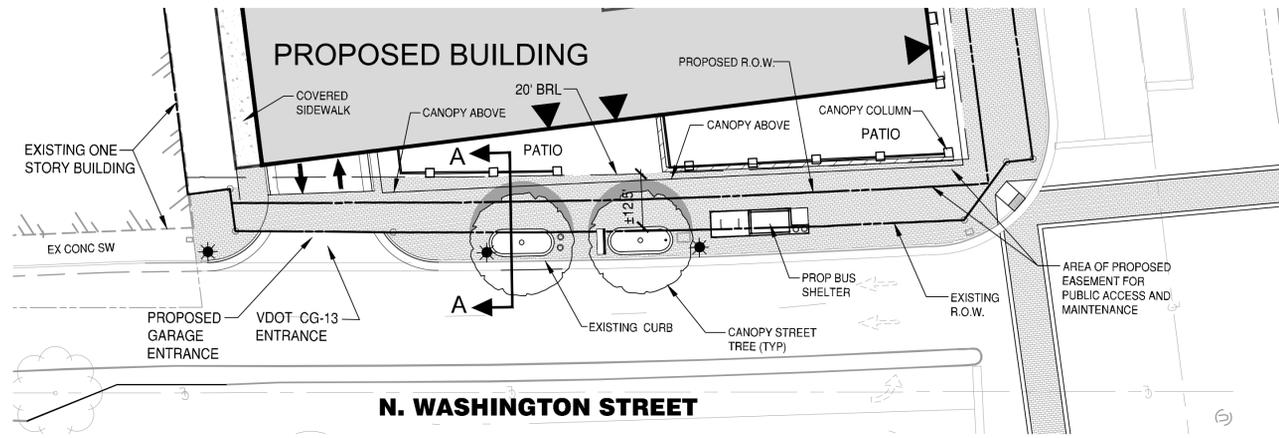
DATE	DESCRIPTION
06/26/17	5th SUBMISSION
05/26/17	4th SUBMISSION
03/20/17	3rd SUBMISSION
12/16/15	2nd SUBMISSION

DATE	DESCRIPTION
06/26/17	5th SUBMISSION
05/26/17	4th SUBMISSION
03/20/17	3rd SUBMISSION
12/16/15	2nd SUBMISSION

JOB No. 8366-01-001  
DATE : June 2015  
FILE No. 8366-D-RZ-001

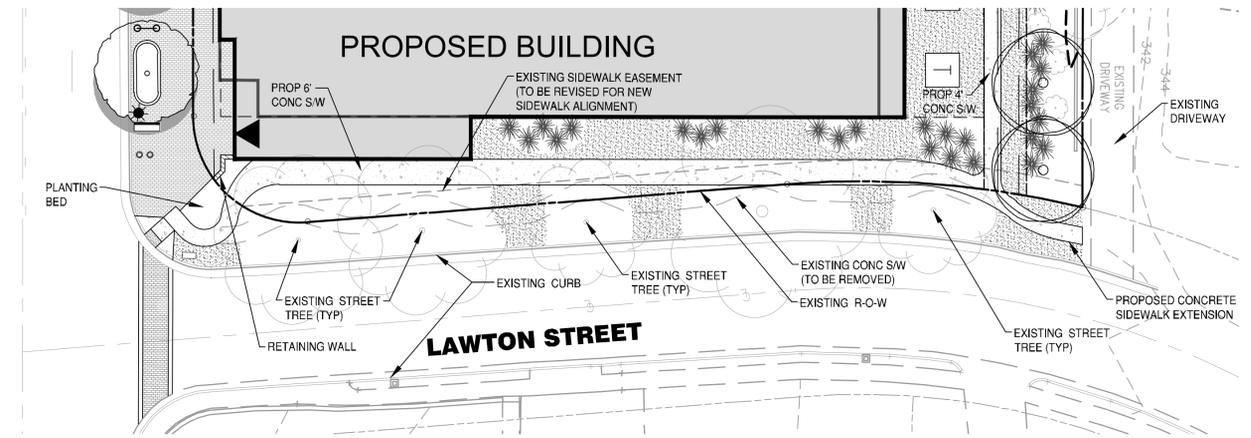
**SHEET C6.0**





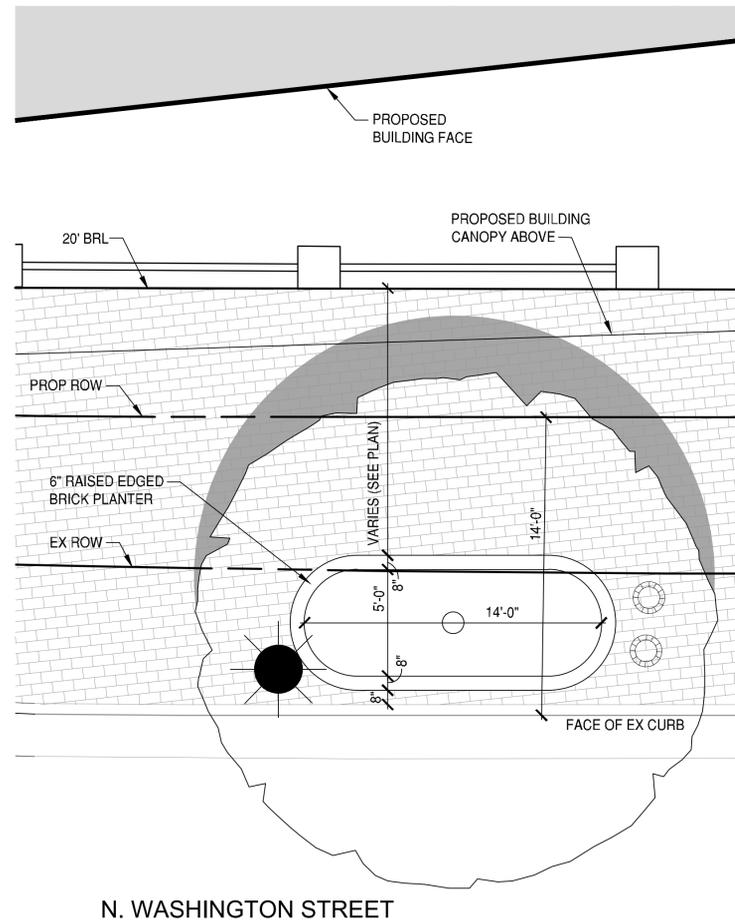
1 N. WASHINGTON STREET PLAN

Scale: 1"=20'



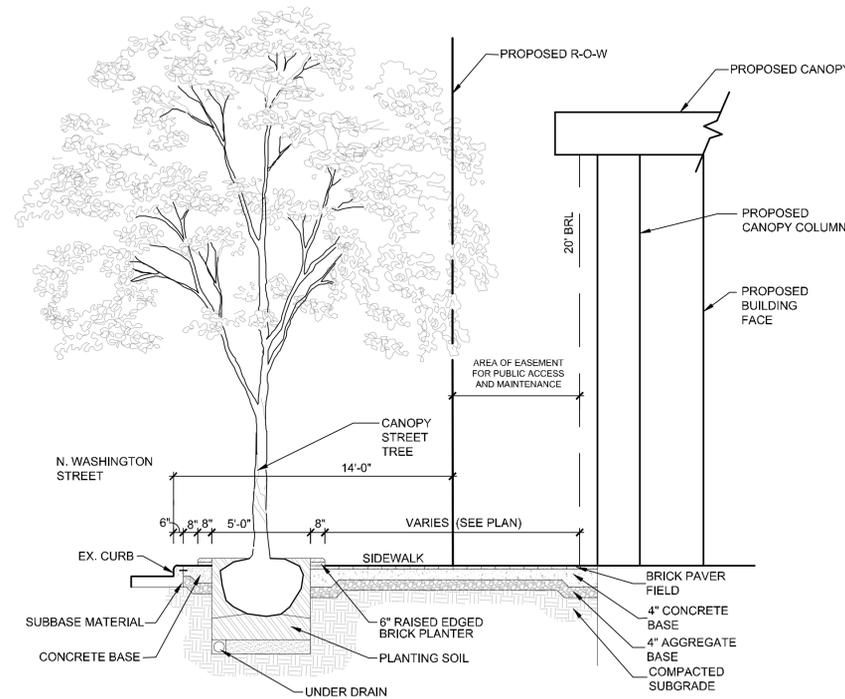
2 LAWTON STREET PLAN

Scale: 1"=20'



3 N. WASHINGTON STREET-PLAN ENLARGEMENT - SECTION A

Scale: 1/4" = 1'-0"



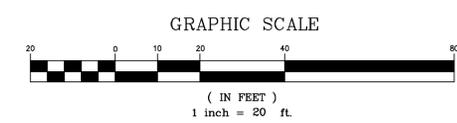
4 N. WASHINGTON STREET-SECTION A

Scale: 1/4" = 1'-0"



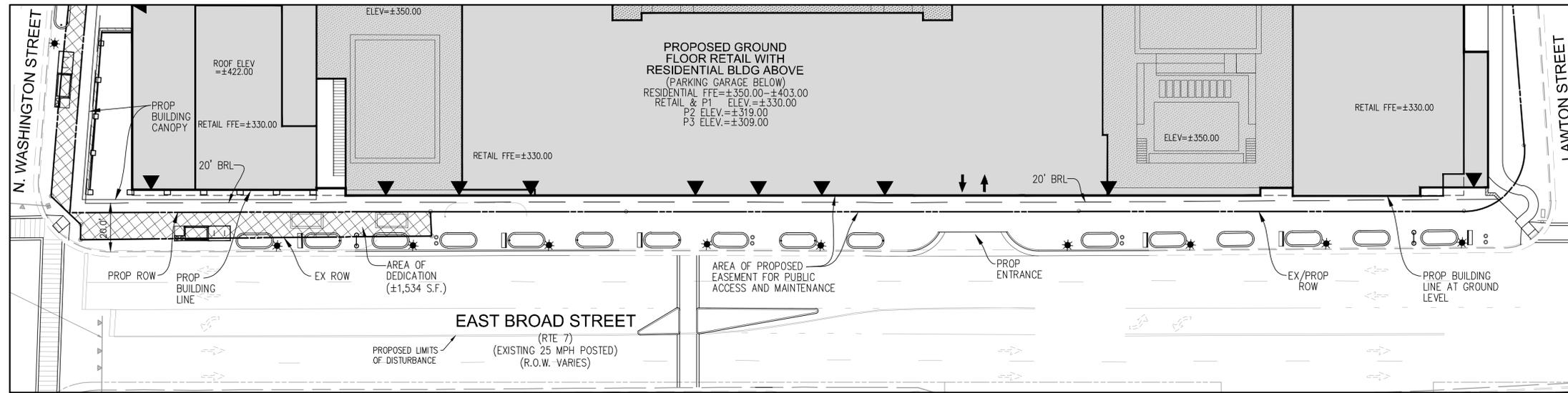
**LEGEND**

- EXISTING TREES TO REMAIN
- PROPOSED DECIDUOUS CANOPY STREET TREE
- PROPOSED BUS SHELTER W/ BIKE (SEE DETAIL SHEET C9.0) (FINAL LOCATION TO BE DETERMINED WITH SITE PLAN APPLICATION)
- PROPOSED STREET LIGHT (SEE DETAIL SHEET C9.0) (FINAL LOCATION TO BE DETERMINED WITH SITE PLAN APPLICATION)
- PROPOSED BIKE RACK (SEE DETAIL SHEET C9.0) (FINAL LOCATION TO BE DETERMINED WITH SITE PLAN APPLICATION)
- PROPOSED BENCH (SEE DETAIL SHEET C9.0) (FINAL LOCATION TO BE DETERMINED WITH SITE PLAN APPLICATION)
- PROPOSED TRASH/RECYCLE RECEPTACLE (SEE DETAIL SHEET C9.0) (FINAL LOCATION TO BE DETERMINED WITH SITE PLAN APPLICATION)

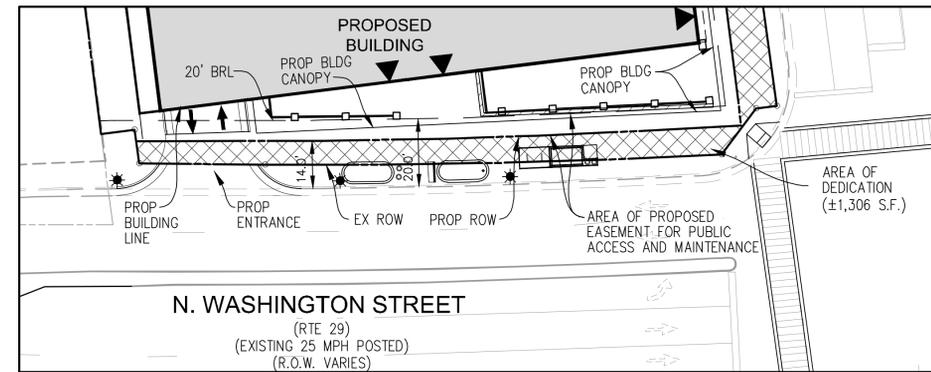


PLAN STATUS		
06/26/17	5th SUBMISSION	
05/26/17	4th SUBMISSION	
03/20/17	3rd SUBMISSION	
12/16/15	2nd SUBMISSION	
DATE	DESCRIPTION	
MT	KF	MT
DESIGN	DRAWN	CHKD
SCALE	H: 1" = 20'	
	V:	
JOB No. 8366-01-001		
DATE : June 2015		
FILE No. 8366-D-RZ-001		
SHEET C8.0		

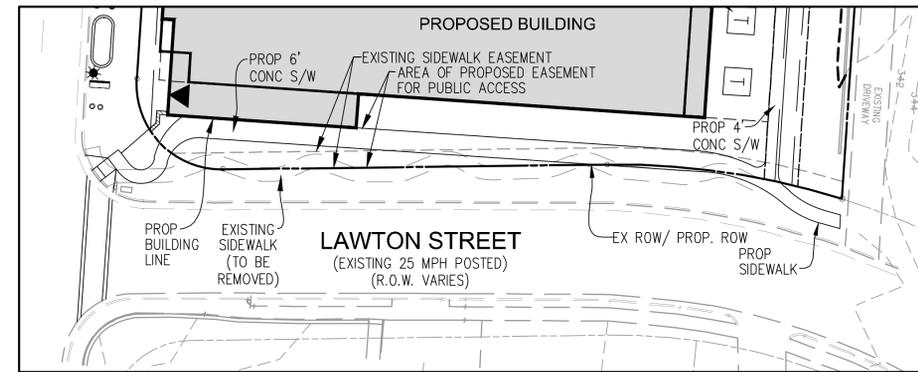




**EAST BROAD STREET FRONTAGE EXHIBIT**  
 SCALE: 1"=25'



**N. WASHINGTON STREET FRONTAGE EXHIBIT**  
 SCALE: 1"=25'



**LAWTON STREET FRONTAGE EXHIBIT**  
 SCALE: 1"=25'



**Bowman**  
 CONSULTING

Bowman Consulting Group, Ltd.  
 14020 Thunderbolt Place  
 Suite 300  
 Chantilly, Virginia 20151  
 Phone: (703) 464-1000  
 Fax: (703) 481-8720  
 www.bowmanconsulting.com  
 © Bowman Consulting Group, Ltd.

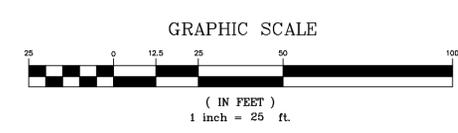
ROADWAY FRONTAGE EXHIBIT  
**BROAD & WASHINGTON**  
 CITY OF FALLS CHURCH, VIRGINIA

PLAN STATUS		
06/26/17	5th SUBMISSION	
05/26/17	4th SUBMISSION	
03/20/17	3rd SUBMISSION	
12/16/15	2nd SUBMISSION	
DATE	DESCRIPTION	
MT	KF	MT
DESIGN	DRAWN	CHKD
SCALE	H: AS SHOWN	
V:		
JOB No. 8366-01-001		
DATE : June 2015		
FILE No. 8366-D-RZ-001		
SHEET C10.0		

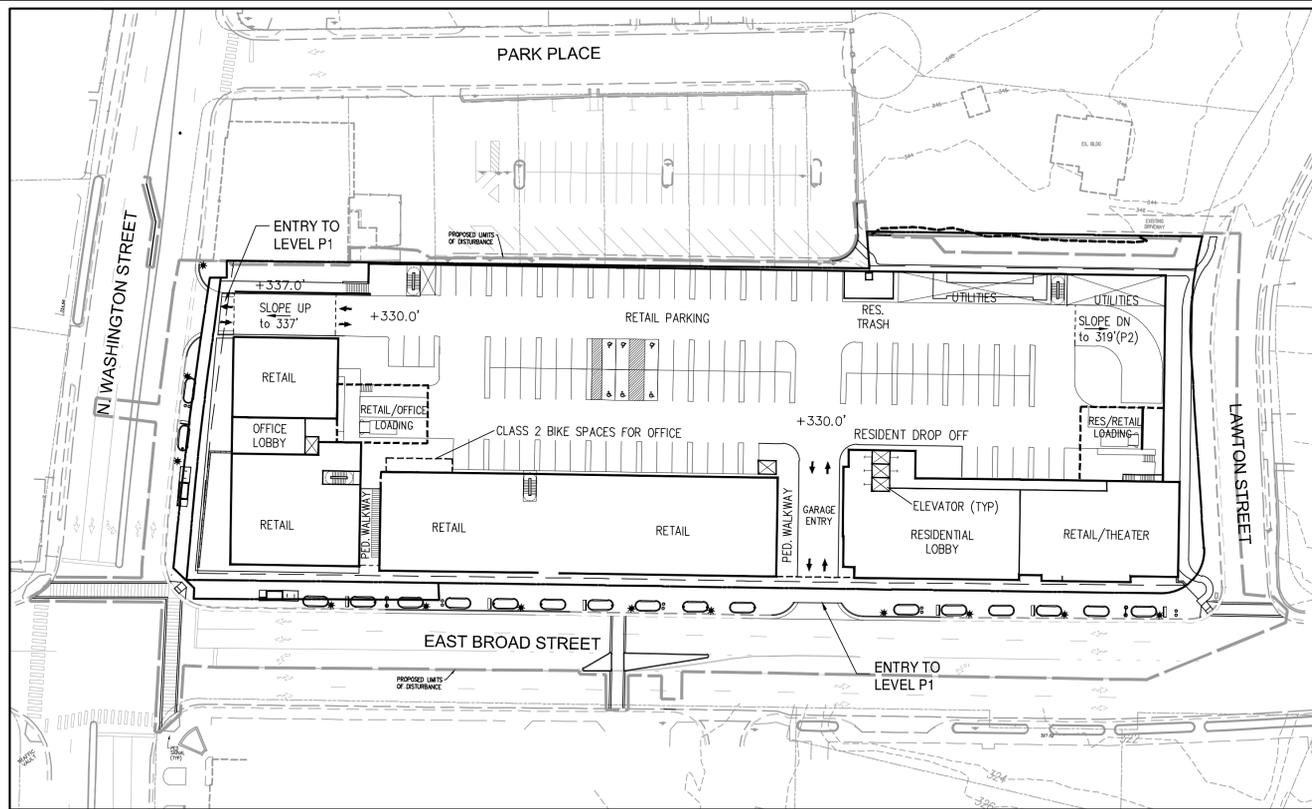
**LEGEND:**

- PROPOSED ROW DEDICATION  
 (±1,534 S.F.) E. BROAD STREET  
 (±1,306 S.F.) N. WASHINGTON STREET

**NOTE:**  
 1. FINAL AREA OF DEDICATION SUBJECT TO CHANGE WITH FINAL SITE PLAN APPROVAL.

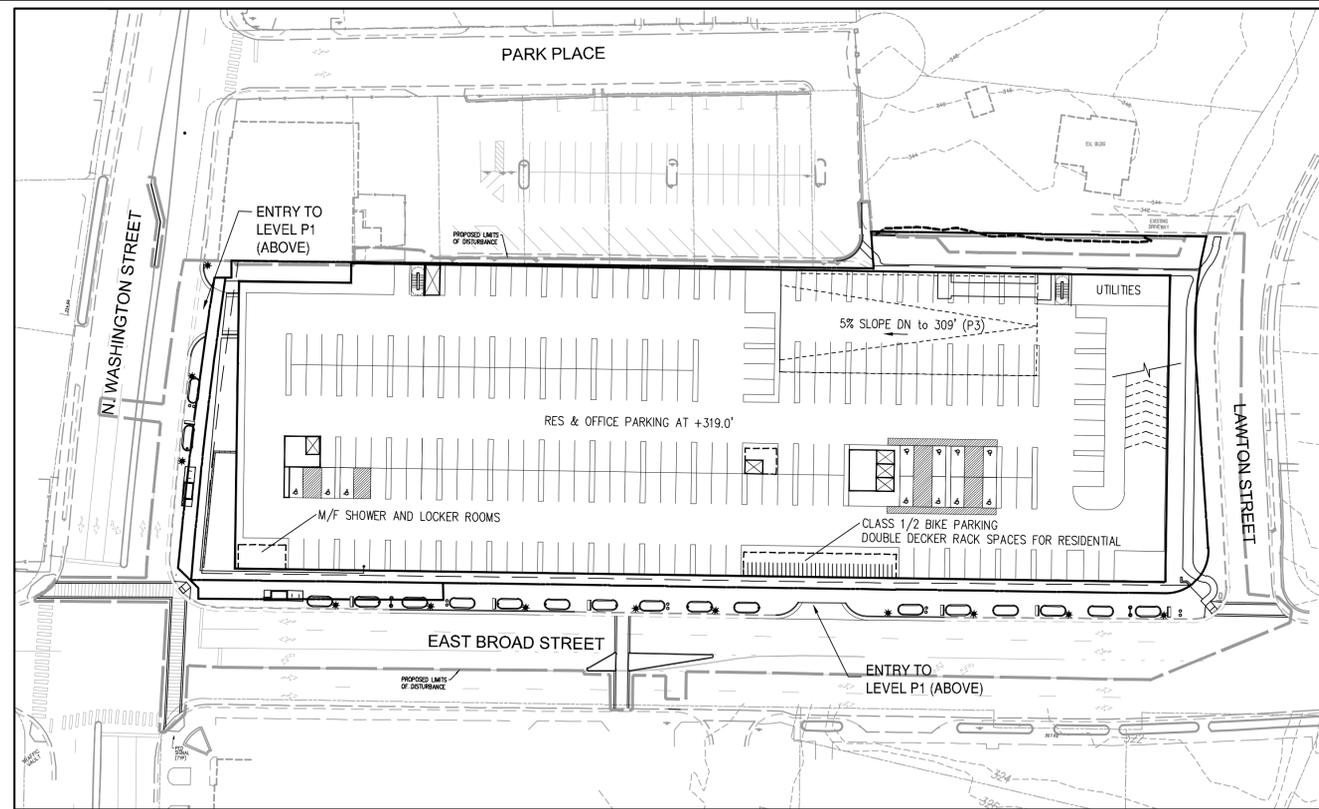


P:\8366 - Falls Church Assembly\8366-02-001 (PLN) - Broad & Washington S\Planning\Rezoning\8366-D-RZ-001 RD\_FRNTAGE.dwg, 6/26/2017 1:46:10 PM, KPrint



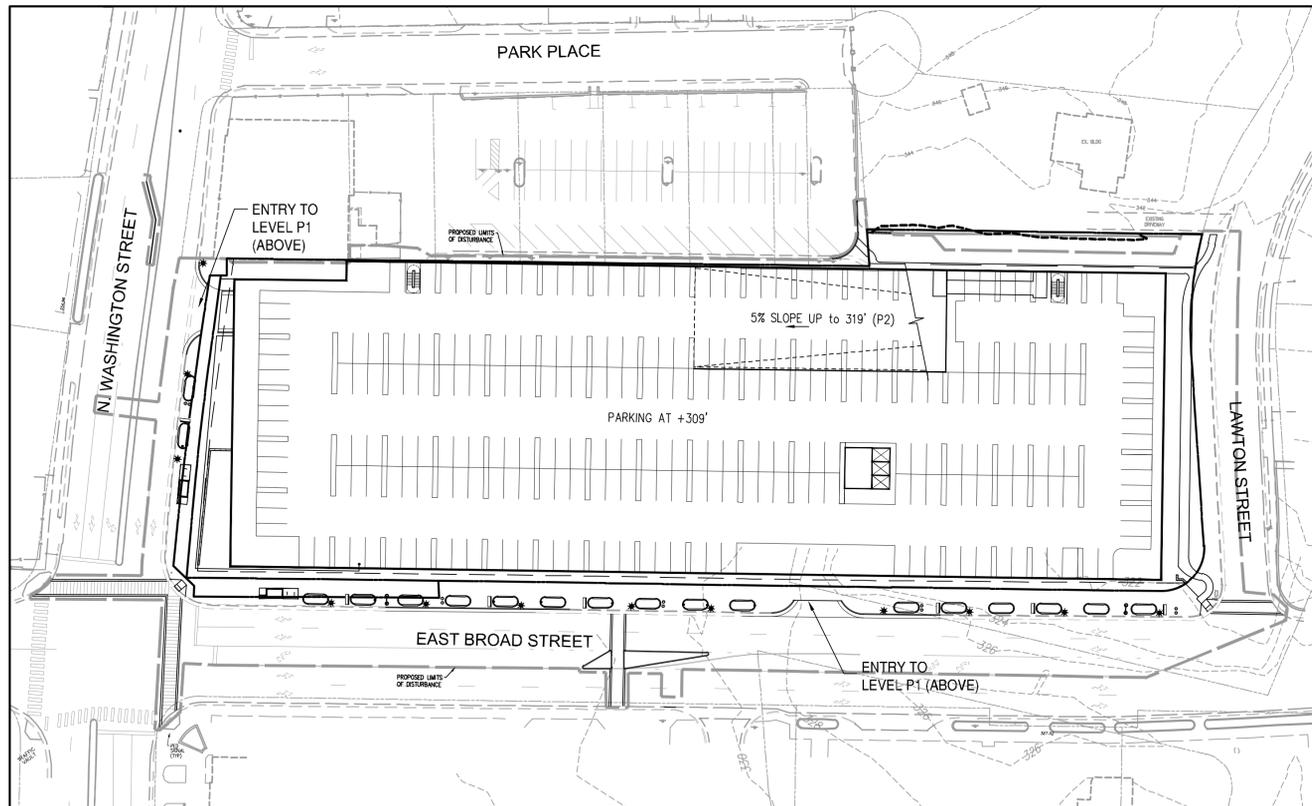
**STREET LEVEL RETAIL & PARKING LEVEL P1 (ELEVATION 330.0)**

SCALE: 1"=50'  
 (SUBJECT TO SHARED USE AND PUBLIC ACCESS WITH POTENTIAL CONTROLS)  
 RETAIL AND SHARED PARKING: ±105 SPACES  
 BIKE TOTAL: ±13 SPACES



**PARKING LEVEL P2 (ELEVATION 319.0)**

SCALE: 1"=50'  
 (TO INCLUDE RESTRICTED USE AND POTENTIAL PARTIAL SHARED USE AREA)  
 RESIDENTIAL AND OFFICE PARKING: ±249 SPACES  
 BIKE TOTAL: ±142 SPACES

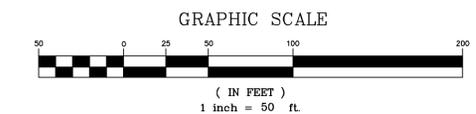


**PARKING LEVEL P3 (ELEVATION 309.0)**

SCALE: 1"=50'  
 (TO INCLUDE RESTRICTED USE)  
 RESIDENTIAL AND OFFICE PARKING: ±246 SPACES

**NOTES:**

- GARAGE DIAGRAMS, PARKING NUMBERS AND PEDESTRIAN ACCESS LOCATIONS ARE FOR INFORMATION AND ILLUSTRATION PURPOSES ONLY AND ARE SUBJECT TO CHANGE WITH FINAL DESIGN.
- AREAS WITHIN LEVELS OF SHARED USE, PUBLICLY ACCESSIBLE SPACES AND RESTRICTIONS AND/OR PARKING CONTROLS ARE SUBJECT TO FINAL AGREEMENTS WITH THE OWNER AND TENANT USERS.
- REFER TO ARCHITECTURAL PLANS WITHIN THE SPECIAL EXCEPTION PACKAGE DOCUMENTS FOR ADDITIONAL INFORMATION.



PLAN STATUS		
DATE	DESCRIPTION	
06/26/17	5th SUBMISSION	
05/26/17	4th SUBMISSION	
03/20/17	3rd SUBMISSION	
12/16/15	2nd SUBMISSION	
DATE	DESCRIPTION	
MT	KF	MT
DESIGN	DRAWN	CHKD
SCALE	H: 1"=50'	V:
JOB No.	8366-01-001	
DATE	June 2015	
FILE No.	8366-D-RZ-001	
SHEET	C11.0	

# TREE INVENTORY TABLE

Broad Street and Washington Street, Falls Church, VA  
 Date of site visit: January 20, 2015  
 Certified Arborist: Gregg D. Eberly MA-4C1GA

Plan Label	Botanic Name	Common Name	Caliper (DDH)	Condition Rating	Species Rating	Preserv of Remove	Tree Location
1	Deltoia nigra	River Birch	1.2	60	70	Remove	-
2	Deltoia nigra	River Birch	1.4	60	70	Remove	-
3	Deltoia nigra	River Birch	1.2	60	70	Remove	-
4	Prunus serrulata Kwanzan'	Kwanzan Cherry	1.0	70	50	Remove	-
5	Prunus serrulata Kwanzan'	Kwanzan Cherry	1.4	70	50	Remove	-
6	Quercus phellos	Willow Oak	1.4	60	70	Preserve	-
7	Quercus phellos	Willow Oak	1.1	60	70	Preserve	-
8	Tilia cordata	Littleleaf Linden	0	60	70	Remove	-
9	Acer spicatum	Sugar Maple	7	60	70	Remove	-
10	Tilia cordata	Littleleaf Linden	1.2	60	70	Remove	-
11	Tilia cordata	Littleleaf Linden	0	60	70	Remove	-
12	Tilia cordata	Littleleaf Linden	7	60	70	Remove	-
13	Tilia cordata	Littleleaf Linden	0	60	70	Remove	-
14	Tilia cordata	Littleleaf Linden	9	60	70	Remove	-
15	Gymnocladia dioica	Kentucky Coffee Tree	1.9	40	70	Remove	-
16	Fyrus calleryana	Bradford Pear	1.0	30	30	Remove	-
17	Lonicera japonica	Japanese Honeyuckle	2.0 (Multi)	40	20	Remove	-
18	Lonicera japonica	Japanese Honeyuckle	1.4 (Multi)	40	20	Remove	-
19	Lonicera japonica	Japanese Honeyuckle	1.0 (Multi)	40	20	Remove	-
20	Ilex opaca	American Holly	3.0 (Multi)	60	70	Remove	-
21	Ilex attenuata Foster'	Foster's Holly	7 (Multi)	60	70	Remove	-
22	Ilex attenuata Foster'	Foster's Holly	4 (Multi)	70	70	Remove	-
23	Ilex attenuata Foster'	Foster's Holly	7 (Multi)	70	70	Remove	-
24	Ilex attenuata Foster'	Foster's Holly	4 (Multi)	70	70	Remove	-
25	Ilex attenuata Foster'	Foster's Holly	0 (Multi)	70	70	Remove	-
26	Ilex attenuata Foster'	Foster's Holly	7 (Multi)	60	70	Remove	-
27	Ilex attenuata Foster'	Foster's Holly	1.2 (Multi)	70	70	Remove	-
28	Ilex attenuata Foster'	Foster's Holly	9 (Multi)	60	70	Remove	-
29	Ilex attenuata Foster'	Foster's Holly	9 (Multi)	60	70	Remove	-
30	Ilex attenuata Foster'	Foster's Holly	1.0 (Multi)	60	70	Remove	-
31	Ilex attenuata Foster'	Foster's Holly	1.5 (Multi)	60	70	Remove	-
32	Ilex attenuata Foster'	Foster's Holly	1.0 (Multi)	60	70	Remove	-
33	Ilex attenuata Foster'	Foster's Holly	2.4 (Multi)	70	70	Remove	-
34	Ilex attenuata Foster'	Foster's Holly	1.2 (Multi)	50	70	Remove	-
35	Ilex cornuta Burfordii	Burford Holly	1.5 (Multi)	60	70	Remove	-
36	Gleditsia triacanthos	Honey Locust	1.2	70	60	Remove	-
37	Gleditsia triacanthos	Honey Locust	1.0	70	60	Remove	-
38	Gleditsia triacanthos	Honey Locust	1.1	70	60	Remove	-
39	Gleditsia triacanthos	Honey Locust	1.6	70	60	Remove	-
40	Acer platanoides	Norway Maple	1.0	50	40	Remove	-
41	Liquidambar styraciflua	Sweetgum	1.2	70	60	Preserve	Public ROW
42	Liquidambar styraciflua	Sweetgum	1.4	70	60	Preserve	Public ROW
43	Liquidambar styraciflua	Sweetgum	1.2	70	60	Preserve	Public ROW
44	Acer rubrum	Red Maple	3.6	70	70	Preserve	Public ROW
45	Liquidambar styraciflua	Sweetgum	1.2	70	60	Preserve	Public ROW
46	Morus alba	White Mulberry	1.2	50	40	Remove	-
47	Quercus phellos	Willow Oak	1.4	60	70	Remove	-
48	Quercus phellos	Willow Oak	2.0	60	70	Remove	-
49	Quercus phellos	Willow Oak	1.0	60	70	Remove	-
50	Quercus palustris	Pin Oak	2.0	40	70	Remove	-
51	Quercus phellos	Willow Oak	2.4	60	70	Remove	-
52	Quercus phellos	Willow Oak	2.2	60	70	Remove	-
53	Quercus rubra	Red Oak	2.2	60	70	Remove	Public ROW
54	Quercus phellos	Willow Oak	1.6	60	70	Remove	Public ROW
55	Quercus phellos	Willow Oak	1.6	60	70	Remove	Public ROW
56	Quercus phellos	Willow Oak	2.0	60	70	Remove	Public ROW
57	Quercus phellos	Willow Oak	2.2	60	70	Remove	Public ROW
58	Quercus phellos	Willow Oak	2.0	60	70	Remove	Public ROW
59	Quercus phellos	Willow Oak	1.6	60	70	Remove	Public ROW
60	Quercus phellos	Willow Oak	1.4			Off-5se	
61	Quercus phellos	Willow Oak	1.2			Off-5se	
62	Quercus phellos	Willow Oak	1.4			Off-5se	
63	Quercus phellos	Willow Oak	1.4			Off-5se	
64	Quercus phellos	Willow Oak	0			Off-5se	
65	Quercus phellos	Willow Oak	1.3			Off-5se	
66	Quercus phellos	Willow Oak	5			Off-5se	
67	Quercus phellos	Willow Oak	1.9			Off-5se	
68	Quercus phellos	Willow Oak	2.4	60	70	Remove	
69	Quercus phellos	Willow Oak	2.6			Off-5se	
70	Quercus phellos	Willow Oak	2.1			Off-5se	
71	Quercus phellos	Willow Oak	2.3			Off-5se	
72	Quercus phellos	Willow Oak	2.0	60	70	Remove	
73	Juglans nigra	Black Walnut	1.0	50	70	Remove	-
74	Juglans nigra	Black Walnut	1.3	60	70	Remove	-
75	Ilex opaca	American Holly	4	70	70	Remove	-
76	Ilex cornuta Burfordii	Burford Holly	0	60	70	Preserve	-
77	Ilex attenuata Foster'	Foster's Holly	4	60	70	Preserve	-
78	Ilex attenuata Foster'	Foster's Holly	3	70	70	Preserve	-
79	Ilex attenuata Foster'	Foster's Holly	4 (Multi)	60	70	Preserve	-
80	Ilex attenuata Foster'	Foster's Holly	5 (Multi)	60	70	Preserve	-
81	Ilex attenuata Foster'	Foster's Holly	0	60	70	Preserve	-
82	Ilex attenuata Foster'	Foster's Holly	6 (Multi)	60	70	Preserve	-
83	Ilex attenuata Foster'	Foster's Holly	7 (Multi)	60	70	Preserve	-
84	Ilex attenuata Foster'	Foster's Holly	3	60	70	Preserve	-
85	Ilex attenuata Foster'	Foster's Holly	5 (Multi)	60	70	Preserve	-
86	Ilex attenuata Foster'	Foster's Holly	4	60	70	Preserve	-
87	Ilex attenuata Foster'	Foster's Holly	4	60	70	Preserve	-
88	Ilex attenuata Foster'	Foster's Holly	4	60	70	Preserve	-
89	Morus alba	White Mulberry	4	50	40	Remove	-
90	Morus alba	White Mulberry	4	60	40	Remove	-
91	Amandier arborea	Downey Serviceberry	2	60	60	Remove	-
92	Amandier arborea	Downey Serviceberry	3			Off-5se	
93	Amandier arborea	Downey Serviceberry	3			Off-5se	
94	Amandier arborea	Downey Serviceberry	3			Off-5se	
95	Amandier arborea	Downey Serviceberry	3			Off-5se	
96	Tilia cordata	Littleleaf Linden	1.5			Off-5se	
97	Amandier arborea	Downey Serviceberry	3			Off-5se	
98	Amandier arborea	Downey Serviceberry	3			Off-5se	
99	Quercus rubra	Red Oak	2.0	60	70	Remove	-
100	Fyrus atrovirens	White Pine	1.6	60	50	Remove	-
101	Cercis canadensis	Redbud	4	60	70	Remove	-
102	Ilex opaca	American Holly	4	60	70	Remove	-
103	Cercis canadensis	Redbud	1.1	60	70	Remove	-
104	Cercis canadensis	Redbud	9	60	70	Remove	-
105	Cercis canadensis	Redbud	0	70	70	Remove	-
106	Thuja occidentalis	Arborvitae	6	60	60	Remove	-
107	Thuja occidentalis	Arborvitae	6	60	60	Remove	-
108	Thuja occidentalis	Arborvitae	4	60	60	Remove	-
109	Thuja occidentalis	Arborvitae	4	60	60	Remove	-
110	Thuja occidentalis	Arborvitae	4	60	60	Remove	-
111	Quercus phellos	Willow Oak	1.0	70	70	Preserve	Public ROW
112	Quercus phellos	Willow Oak	1.0	70	70	Preserve	Public ROW

**Notes:**  
 1. Condition Rating based on formula provided by the Guide for Plant Appraisal published by the ISA.  
 Condition Rating: 90-100 Excellent, 70-89 Good, 50-69 Fair, 25-49 Poor, 05-24 Very Poor  
 2. Species Rating based on formula provided by the Guide for Plant Appraisal published by the ISA.  
 3. Off site trees included in this inventory had critical root zones located in or on adjacent property.  
 4. All trees with a minimum 2" D.B.H. were rated.  
 5. \* The locations of trees 100-110 are approximate based on adjacent surveyed tree locations and have not been surveyed.

# PLANTING TABULATIONS

## BUFFER YARD (PER Z.O. SECTION 48-1183)

BUFFER YARD 'A' TO R-1A ZONING DISTRICT

LINEAR FEET OF BUFFER YARD: 198'  
 TYPE OF BUFFER YARD REQUIRED: TYPE 'D' OR TYPE 'E'  
 BUFFER YARD PROVIDED: TYPE E - 15' WIDTH  
 CANOPY TREES REQUIRED: 8 TREES (4 PER 100 L.F.)  
 CANOPY TREES PROVIDED: 9 TREES (2 EXISTING / 7 PROPOSED)  
 LARGE SHRUBS REQUIRED: 50 SHRUBS (25 PER 100 L.F.)  
 LARGE SHRUBS PROVIDED: 50 SHRUBS (12 EXISTING / 38 PROPOSED)  
 SCREENING ELEMENT REQUIRED: 6 FOOT HIGH SOLID WOOD FENCE  
 SCREENING ELEMENT PROVIDED: EXISTING 6 FOOT HIGH BRICK SCREEN WALL / PROPOSED 6 FOOT HIGH SOLID WOOD FENCE

## SUGGESTED STREETScape PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	HEIGHT/SIZE	CALIPER	CONDITION/REMARKS
<b>LARGE DECIDUOUS TREES</b>					
QP	QUERCUS PHELLOS	WILLOW OAK		2.5" CAL. MIN.	B&B
<b>SHRUBS</b>					
IG	ILEX GLABRA	INKBERRY HOLLY		30" MIN.	CONT.
JH	JUNIPERUS HORIZONTALIS	CREeping JUNIPER		6"-12" MIN.	CONT.
PL	PRUNUS LAUROCERASUS 'SCHIPKAENSIS'	CHERRY LAUREL		30" MIN.	CONT.
<b>GROUNDCOVER</b>					
HC	HYPERICUM CALYGINUM	ST. JOHN'S WORT		1 GAL.	CONT.
LM	LIRIOPE MUSCARI 'BIG BLUE'	LILYTURF		1 GAL.	CONT.

## SUGGESTED BUFFER YARD PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	CONDITION/REMARKS
<b>LARGE DECIDUOUS TREES</b>					
AR	ACER RUBRUM	RED MAPLE		2" CAL. MIN.	B&B
GT	GLEDITSIA TRIACANTHOS	THORNLESS HONEY LOCUST		2" CAL. MIN.	B&B
PA	PLANTANUS X ACERIFOLIA	LONDON PLANETREE		2" CAL. MIN.	B&B
QP	QUERCUS PALUSTRIS	PIN OAK		2" CAL. MIN.	B&B
<b>EVERGREEN TREES</b>					
IO	ILEX OPACA	AMERICAN HOLLY		6" MIN.	B&B
JV	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR		6" MIN.	B&B
<b>SHRUBS</b>					
CA	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	24"-30"		CONT.
IG	ILEX GLABRA	INKBERRY HOLLY	24"-30"		CONT.
IT	ITEA VIRGINICA	VIRGINIA SWEETSPiRE	24"-30"		CONT.
IV	ILEX VERTICILLATA	WINTERBERRY	24"-30"		CONT.
JS	JUNIPERUS CHINENSIS 'PFITZERIANA'	PFITZER JUNIPER	24"-30"		CONT.
KL	KALMIA LATIFOLIA	MOUNTAIN LAUREL	24"-30"		CONT.
MP	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	24"-30"		CONT.
PL	PRUNUS LAUROCERASUS 'SCHIPKAENSIS'	CHERRY LAUREL	24"-30"		CONT.
RR	ROSA 'RADRAZZ'	KNOCKOUT ROSE	24"-30"		CONT.
VP	VIBURNUM X PRAGENSE	PRAGUE VIBURNUM	24"-30"		CONT.

# GENERAL LANDSCAPE NOTES

## MATERIALS

- THE TREES AND SHRUBS THAT ARE PLANTED SHALL BE OF THE SPECIES AND SIZE SPECIFIED ON THE APPROVED PLANS UNLESS SUBSTITUTIONS ARE APPROVED BY THE CITY.
- ALL TREE AND SHRUB SIZES SHALL MEET THE STANDARDS SPECIFIED IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S AMERICAN STANDARD FOR NURSERY STOCK, (ANSI Z60.1).

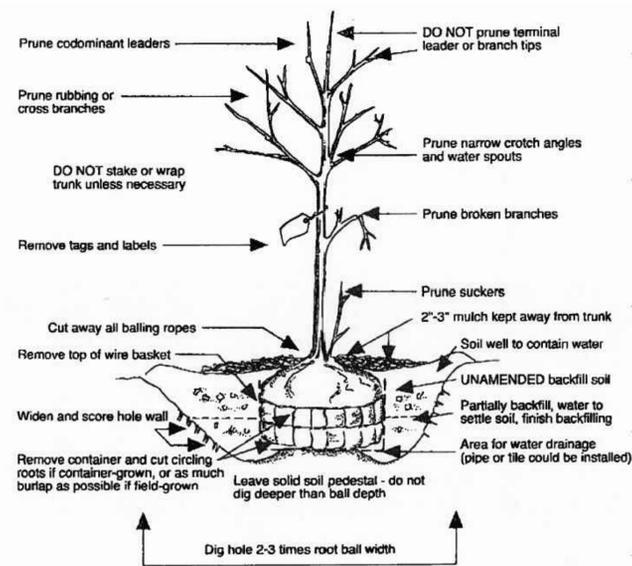
## DELIVERY AND TEMPORARY STORAGE

- PLANTS SHALL BE PROTECTED DURING DELIVERY TO PREVENT DESICCATION OF LEAVES.
- TREES AND SHRUBS SHOULD BE PLANTED ON DAY OF DELIVERY. IF THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT UNPLANTED PLANTS BY KEEPING THEM IN SHADE, WATERED AND PROTECTED WITH SOIL, MULCH OR OTHER ACCEPTABLE MATERIAL.
- TREES AND SHRUBS SHALL NOT REMAIN UNPLANTED FOR MORE THAN TWO WEEKS.

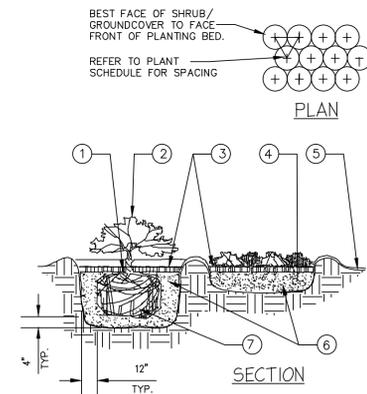
## PLANTING OF NURSERY STOCK

- ALL TREES AND SHRUBS SHALL BE PLANTED AS SPECIFIED IN THE LATEST EDITION OF THE "TREE AND SHRUB PLANTING GUIDELINES" PREPARED BY THE VIRGINIA COOPERATIVE EXTENSION, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY.
- IF PLANTING IN AREAS THAT HAVE BEEN PREVIOUSLY COMPACTED, THE SOIL SHALL BE PROPERLY PREPARED (TILLED AND AMENDED AS NEEDED BASED ON SOIL SAMPLES) TO A DEPTH OF 1 FOOT (0.3 METERS), PRIOR TO INSTALLATION OF LANDSCAPE MATERIAL. SOIL WITHIN INDIVIDUAL PLANTING HOLES SHALL NOT BE AMENDED.
- THE STAKING AND CUYING OF TREES IS NOT REQUIRED EXCEPT WHERE SITE CONDITIONS WARRANT THEIR USE. EXAMPLES OF CONDITIONS WHERE THESE METHODS MAY BE NECESSARY INCLUDE: PLANTING IN WINDY LOCATIONS, ON STEEP SLOPES, OR WHERE VANDALISM MAY BE A CONCERN. ALL STAKES AND GUY'S MUST BE REMOVED WITHIN ONE YEAR OF PLANT INSTALLATION.
- ALL TREES AND SHRUBS SHALL BE MULCHED AFTER PLANTING, TO A MINIMUM DEPTH OF 2 INCHES (5.1 CENTIMETERS), BUT NO MORE THAN 3 INCHES (7.6 CENTIMETERS), WITH AN APPROPRIATE MULCH MATERIAL SUCH AS PINE BARK, PINE NEEDLES, WOOD CHIPS OR SHREDDED BARK. MULCH SHALL COVER THE ENTIRE ROOT AREA AND SAUCER; HOWEVER, MULCH SHALL NOT BE PLACED WITHIN 6 INCHES (15.3 CENTIMETERS) OF THE TRUNK.

# TREE PLANTING



# SHRUB/GROUNDCOVER PLANTING



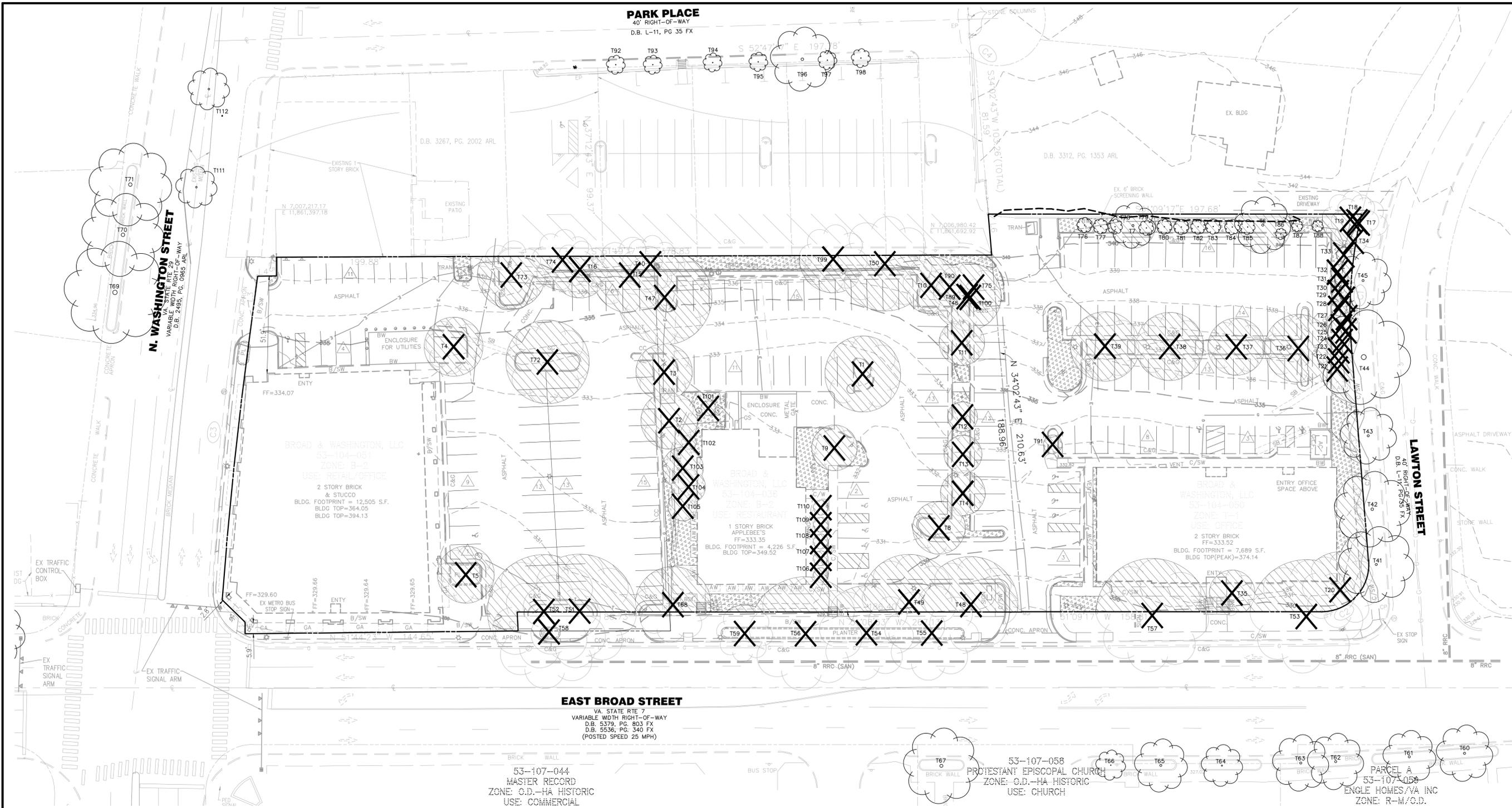
- TOP OF SHRUB ROOTBALLS TO BE PLANTED 1" - 2" HIGH WITH SOIL MOUNDING UP TO THE TOP OF ROOTBALL.
- WHEN USED IN MASSES- PRUNE ALL SHRUBS TO ACHIEVE A UNIFORM MASS/HEIGHT.
- 4" MINIMUM OF HARDWOOD BARK MULCH COMPACTED OR AS SPECIFIED.
- EXCAVATE ENTIRE BED SPECIFIED FOR GROUNDCOVER BED.
- 4" MINIMUM OF TOPSOIL TO BRING TO FINISHED GRADE (SEE GRADING PLAN).
- PREPARED PLANTING SOIL AS SPECIFIED. NOTE: WHEN GROUND-COVERS AND SHRUBS USED IN MASSES ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED.
- SCAFFY ROOTBALL SIDES AND BOTTOM.

LANDSCAPE SCHEDULE, NOTES, DETAILS AND EXISTING TREE INVENTORY  
**BROAD & WASHINGTON**  
 CITY OF FALLS CHURCH, VIRGINIA

PLAN STATUS	
06/26/17	5th SUBMISSION
05/26/17	4th SUBMISSION
03/20/17	3rd SUBMISSION
12/16/15	2nd SUBMISSION
DATE	DESCRIPTION
MT	KF
DESIGN	DRAWN
	CHKD
SCALE	H: 1" = 20'
	V:
JOB No.	8366-01-001
DATE	June 2015
FILE No.	8366-D-RZ-001



Bowman Consulting Group, Ltd.  
 14020 Thunderbolt Place  
 Suite 300  
 Chantilly, Virginia 20151  
 Phone: (703) 464-1000  
 Fax: (703) 481-4920  
 www.bowmanconsulting.com  
 © Bowman Consulting Group, Ltd.

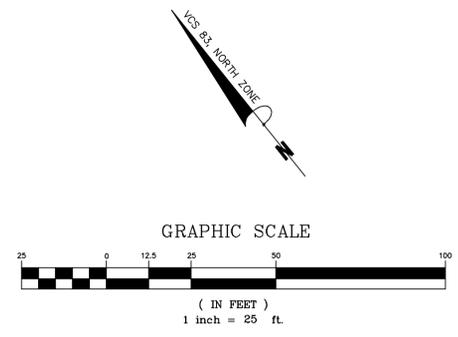


COVER TYPE					
KEY	COVER TYPE	COMMON SPECIES TYPE	SUCCESION STAGE	CONDITION	TOTAL AREA
	DEVELOPED LAND	N/A	N/A	N/A	1.85 AC.
	LANDSCAPE TREE CANOPY	SEE TREE INVENTORY	VARIES	FAIR/GOOD	0.74 AC.
	MISC. (SHRUB AND GROUND COVER)	N/A	N/A	FAIR/GOOD	0.09 AC.

TOTAL SITE AREA: 2.68 AC.

**LEGEND**

-  EXISTING INDIVIDUAL TREE TO BE REMOVED (SEE TREE INVENTORY TABLE C12.0)
-  EXISTING INDIVIDUAL TREE TO REMAIN (SEE TREE INVENTORY TABLE C12.0)



Bowman Consulting Group, Ltd.  
14020 Thunderbolt Place  
Suite 300  
Charlottesville, Virginia 22911  
Phone: (703) 464-1000  
Fax: (703) 481-9720  
www.bowmanconsulting.com  
© Bowman Consulting Group, Ltd.

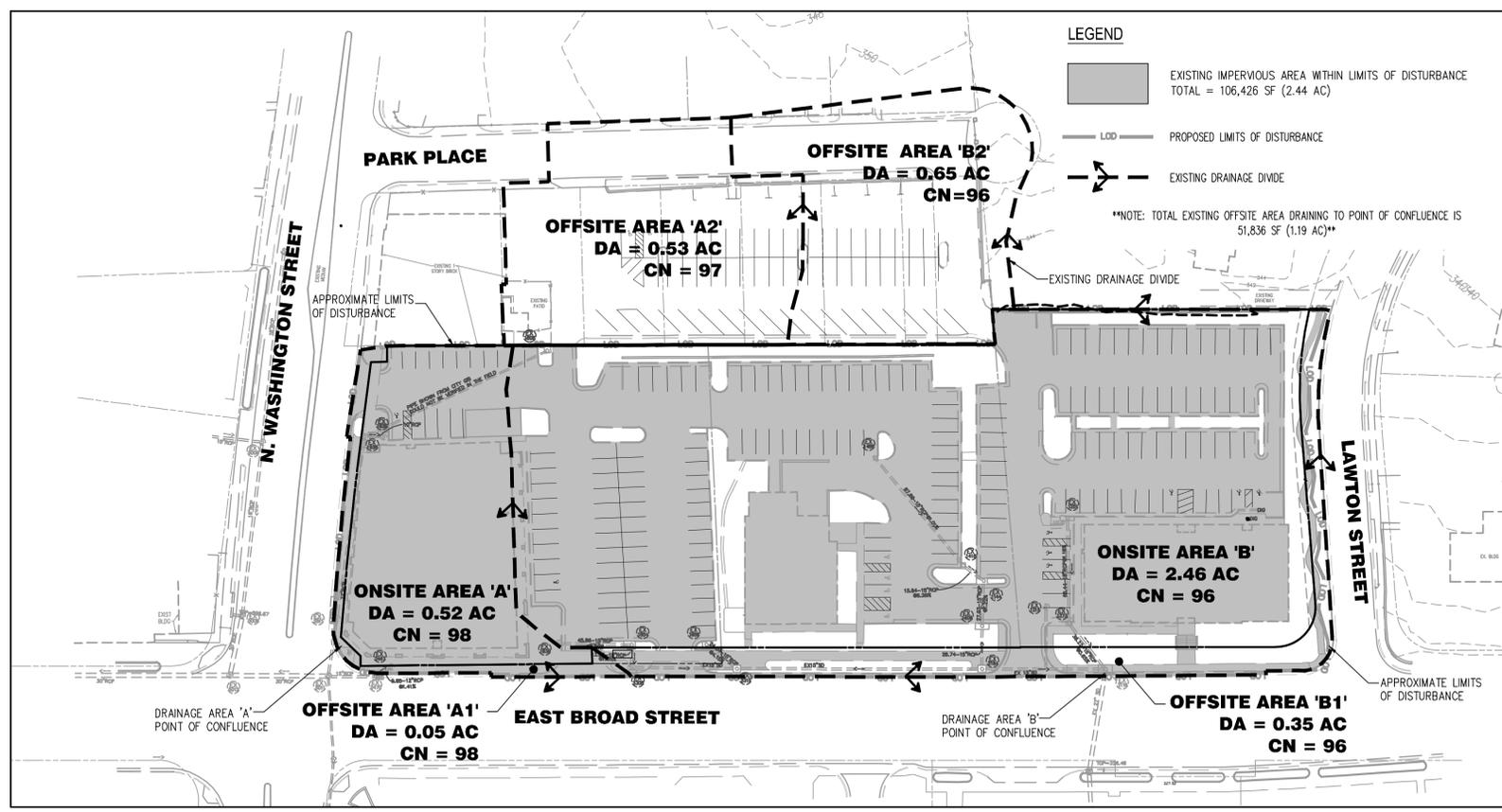
EXISTING VEGETATIVE MAP  
**BROAD & WASHINGTON**  
CITY OF FALLS CHURCH, VIRGINIA

53-107-044  
MASTER RECORD  
ZONE: O.D.-HA HISTORIC  
USE: COMMERCIAL

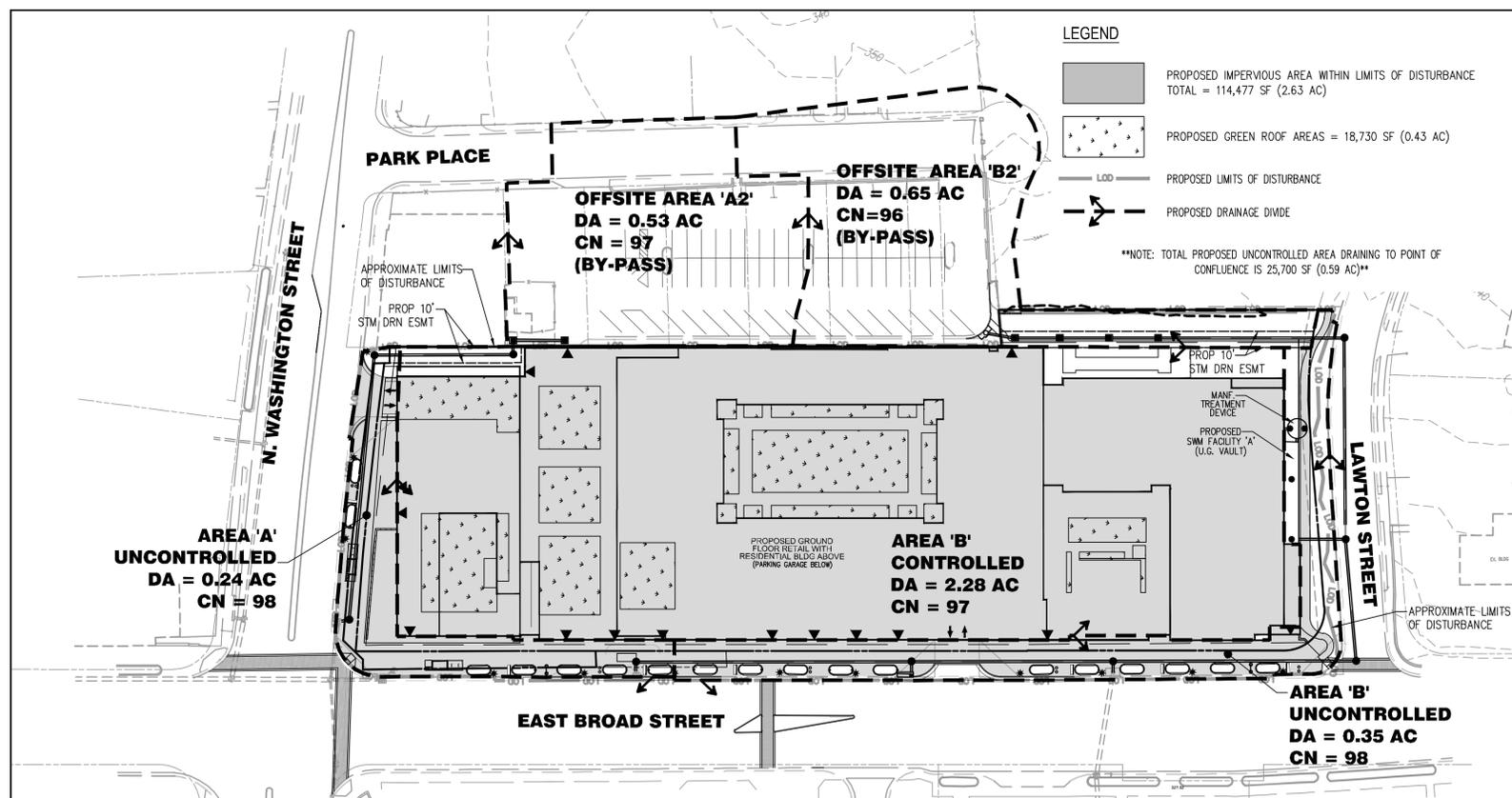
53-107-058  
PROTESTANT EPISCOPAL CHURCH  
ZONE: O.D.-HA HISTORIC  
USE: CHURCH

PARCEL A  
53-107-058  
ENGLE HOMES/VA INC  
ZONE: R-M/O.D.

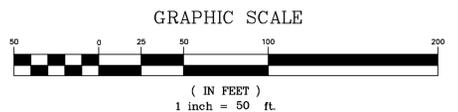
PLAN STATUS		
06/26/17	5th SUBMISSION	
05/26/17	4th SUBMISSION	
03/20/17	3rd SUBMISSION	
12/16/15	2nd SUBMISSION	
DATE	DESCRIPTION	
MT	KF	MT
DESIGN	DRAWN	CHKD
SCALE	H: 1" = 25'	V:
JOB No. 8366-01-001		
DATE : June 2015		
FILE No. 8366-D-RZ-001		
SHEET C13.0		



PRE-DEVELOPMENT PERVIOUS/IMPERVIOUS AREA MAP



POST-DEVELOPMENT PERVIOUS/IMPERVIOUS AREA MAP



**STORMWATER MANAGEMENT/BMP NARRATIVE:**

**SITE LOCATION:**

THE SITE IS LOCATED IN THE CITY OF FALLS CHURCH, VIRGINIA, ALONG THE NORTH SIDE OF BROAD EAST BROAD STREET. IT IS GENERALLY BOUNDED BY NORTH WASHINGTON STREET TO THE NORTH, EXISTING PARKING LOT AND RESIDENTIAL USE TO THE EAST, LANTION STREET TO THE SOUTH, AND EAST BROAD STREET TO THE WEST.

**EXISTING CONDITIONS:**

THE 2.68 ACRE SITE IS CURRENTLY DIVIDED INTO THREE PARCELS. THE COLLECTIVE PARCELS CONTAIN A TWO-STORY BRICK RETAIL/OFFICE BUILDING, A ONE-STORY APPLEBEE'S RESTAURANT, A TWO-STORY BRICK OFFICE BUILDING, AND THEIR RESPECTIVE SURFACE PARKING LOTS.

THE EXISTING SITE GENERALLY DRAINS TOWARDS EAST BROAD STREET WHERE RUNOFF IS CAPTURED AND CONVEYED INTO THE PUBLIC STORM DRAIN NETWORK. THERE IS A HIGH POINT ALONG EAST BROAD STREET THAT DIVERTS RUNOFF INTO TWO SEPARATE PUBLIC STORM SYSTEMS. FOR COMPUTATIONAL PURPOSES, THE DRAINAGE AREAS TO THESE TWO POINTS OF CONFLUENCE HAVE BEEN CALLED DRAINAGE AREAS 'A' AND 'B'.

DRAINAGE AREA 'A' IS ALMOST ENTIRELY IMPERVIOUS. IT FLOWS TOWARDS NORTH WASHINGTON STREET, WHERE RUNOFF IS CARRIED DOWNSTREAM TO EAST BROAD STREET. FROM THERE, CAPTURED STORMWATER IS CONVEYED NORTHWEST ALONG EAST BROAD STREET AND AWAY FROM THE SITE. DRAINAGE AREA 'B' ENCOMPASSES THE MAJORITY OF THE SITE WITH SOME OFFSITE RUNOFF FLOWING THROUGH THE SITE FROM THE NORTHEAST. IT CONVERGES AT A SAG INLET (EX STRUCTURE 2116) ALONG EAST BROAD STREET WITHIN THE RIGHT OF WAY ADJACENT TO THE EXISTING TWO STORY OFFICE BUILDING. DRAINAGE AREA 'B' IS APPROXIMATELY 85% IMPERVIOUS.

THE TOTAL EXISTING LIMITS OF LAND DISTURBANCE OF 2.95 ACRES CONTAIN APPROXIMATELY 2.44 IMPERVIOUS ACRES OF SURFACE AREA AND WITH 0.51 EXISTING ACRES OF URBAN OPEN SPACE WITH VERY LITTLE GRASS COVER. DETAILED INFORMATION ON THE PIPE CAPACITY CURRENTLY IN THE CLOSED CONDUIT SYSTEM WITHIN N. WASHINGTON AND E. BROAD STREETS WAS NOT AVAILABLE AT THIS TIME. THE EXISTING PIPES ARE ASSUMED TO BE FLOWING AT 80% CAPACITY.

**RE-DEVELOPMENT CONDITIONS:**

THE EXISTING PARKING LOT AND BUILDINGS WILL BE DEMOLISHED AND THE SITE RE-DEVELOPED AS A GROUND FLOOR RETAIL BUILDING WITH AN UNDERGROUND PARKING FACILITY BELOW AND RESIDENTIAL UNITS AND OFFICE ABOVE, GARAGE ENTRANCES, FRONTAGE IMPROVEMENTS ALONG EAST BROAD STREET AND NORTH WASHINGTON STREET.

THE IMPERVIOUS AREA WITHIN THE LIMITS OF LAND DISTURBANCE WILL INCREASE BY 0.22 ACRES AS A RESULT OF THE RE-DEVELOPMENT. EXISTING OFF-SITE DRAINAGE DIVIDES HAVE BEEN HONORED TO THE MAXIMUM EXTENT POSSIBLE, PRESERVING THE SAME POINTS OF CONFLUENCE FOR DRAINAGE AREAS 'A' AND 'B'.

THE MAJORITY OF THE SITE WILL BE CAPTURED AND TREATED BY MANUFACTURED BEST MANAGEMENT PRACTICES (BMPs) TO BE LOCATED IN PROXIMITY TO THE PROPOSED UNDERGROUND SWM VAULT FACILITY LOCATED ADJACENT TO THE EAST SIDE OF THE BUILDING STRUCTURE. THIS AREA IS NOTED AS "CONTROLLED" AREA WITHIN THE POST-DEVELOPMENT PERVIOUS/IMPERVIOUS AREA MAP ON THIS SHEET.

**WATER QUANTITY:**

SITE RUNOFF WITHIN DRAINAGE AREA 'B' WILL INCREASE WITH RE-DEVELOPMENT. IT WILL BE DETAINED WITHIN AN UNDERGROUND DETENTION FACILITY, (I.E. MAXCHAMBER OR APPROVED EQUIVALENT), WHICH WILL RELEASE STORMWATER THROUGH A CONTROL STRUCTURE DESIGNED TO MEET THE CITY OF FALLS CHURCH STORMWATER DISCHARGE REQUIREMENTS. THE MAXIMUM ALLOWABLE RELEASE RATE, BASED ON THE EXISTING PEAK FLOW, SUBTRACTING THE UNCONTROLLED POST-DEVELOPMENT PEAK FLOW, IS 8.10 CFS FOR THE 2-YEAR STORM AND 12.76 CFS FOR THE 10-YEAR STORM. THE PROPOSED UNDERGROUND DETENTION FACILITY ON-SITE WILL BE DESIGNED TO MITIGATE STORMWATER GENERATED BY THE RE-DEVELOPMENT IN EXCESS OF THE ALLOWABLE DISCHARGE. THE PROPOSED DESIGN WILL INCLUDE A 2-YEAR DETENTION VOLUME OF 3,926 CF AND A 10-YEAR DETENTION VOLUME OF 6,292 CF. SEE STORMWATER QUANTITY COMPUTATIONS ON THIS SHEET.

SITE RUNOFF WITHIN DRAINAGE AREA 'A' WILL DECREASE WITH RE-DEVELOPMENT AND THEREFORE REQUIRES NO DETENTION. SEE STORMWATER QUANTITY COMPUTATIONS ON THIS SHEET.

**WATER QUALITY/BMP NARRATIVE:**

WATER QUALITY FOR THIS SITE CAN BE ACHIEVED USING LEVEL 2 GREEN ROOF, AS WELL AS A MANUFACTURED TREATMENT DEVICE LOCATED WITHIN PROXIMITY TO THE UNDERGROUND DETENTION STRUCTURE. THE SIZE, TYPE AND LOCATION OF BMPs ARE SUBJECT TO CHANGE AND WILL BE DESIGNED AND PROVIDED WITH THE FINAL ENGINEERING SITE PLAN APPLICATION. THESE STORMWATER PRACTICES WILL BE DESIGNED TO REMOVE THE REQUIRED 1.43 TP/YR. SEE SHEET C15.0 FOR SUMMARY OF THE VIRGINIA RUNOFF REDUCTION SPREADSHEET COMPUTATIONS.

SR Falls Church Assemlage  
Fairfax County, Virginia

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period			
	1-yr (hr)	2-yr (cfs)	10-yr (cfs)	10-yr (hr)
SUBAREAS	1.86	2.27	3.51	
Pre A	11.93	11.93	11.93	
Pre B	7.67	9.46	14.89	
11.93	11.93	11.92		
Post A	9.76	9.94	1.47	
11.93	11.93	11.92		
Post B c	7.38	8.95	13.95	
11.92	11.93	11.93		
Post B u	0.95	1.22	2.01	
11.93	11.93	11.93		

**SWM Water Quantity Energy Balance** RAINFALL DATA FROM NOAA ATLAS (VIENNA/TYSONS CORNER)

Worksheet  
DRAINAGE AREA (acre): 2.95

	2-year Storm		10-year Storm	
	PRE	POST (adjusted)	PRE	POST (adjusted)
P (rainfall depth, in)	3.17	3.17	4.87	4.87
CN	96.00	97.00	96.00	97.00
S=1000/CN-10	0.42	0.31	0.42	0.31
0.25	0.08	0.06	0.08	0.06
RV=(P-0.25) <sup>2</sup> /(P-0.25)+S	2.72	2.83	4.40	4.52

MANMADE CHANNEL CONTROL (Q <sub>c</sub> )		FLOOD CONTROL (Q <sub>10</sub> )	
Q <sub>pre-development</sub> (cfs)	8.24	Q <sub>pre-development</sub> (cfs)	12.88
Q <sub>Post Development</sub> (cfs)	8.95	Q <sub>Post Development</sub> (cfs)	13.95
RVPost Development (with runoff reduction)	2.82	RVPost Development (with runoff reduction)	4.52
Q <sub>allowable</sub> (cfs)	8.24	Q <sub>allowable</sub> (cfs)	12.88

Q <sub>allowable</sub> /Q <sub>Post Development</sub>	0.92	Q <sub>allowable</sub> /Q <sub>Post Development</sub>	0.92
V <sub>s</sub> /V <sub>r</sub>	0.13	V <sub>s</sub> /V <sub>r</sub>	0.13
V <sub>s</sub>	0.37	V <sub>s</sub>	0.59
Storage required (cf)	3926	Storage required (cf)	6292

**VIRGINIA RUNOFF REDUCTION METHOD:**

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 3.0

BMP Design Specifications List: 2013 Draft Std. & Specs

**Site Summary**

Total Rainfall (in):	43
Total Disturbed Acreage:	2.95

**Site Land Cover Summary**

Pre-Development Land Cover (acres)	A Soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.00	0.51	0.51	17
Impervious Cover (acres)	0.00	0.00	0.00	2.44	2.44	83
					2.95	100

Post-Development Land Cover (acres)	A Soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.00	0.32	0.32	11
Impervious Cover (acres)	0.00	0.00	0.00	2.63	2.63	89
					2.95	100

Site Tn and Land Cover Nutrient Loads	Final Post-Development (Post-Development & New Impervious)	Post-Development	Post-Development (New Impervious)	Adjusted Pre-Development
Site Tn	0.87	0.87	0.95	0.87
Treatment Volume (ft <sup>3</sup> )	9,360	8,705	655	8,705
TP Load (lb/yr)	5.88	5.47	0.41	5.47

Pre-Development TP Load per acre (lb/acre/yr)	Final Post-Development TP Load per acre (lb/acre/yr)	Post-Development TP Load per acre (lb/acre/yr)
1.98	1.99	1.98

Total TP Load Reduction Required (lb/yr)	1.43	1.09	0.33
--	------	------	------

TP Load (lb/yr)	Final Post-Development Load (Post-Development & New Impervious)	Pre-Development
TN Load (lb/yr)	42.07	39.90

**Site Compliance Summary**

Maximum % Reduction Required Below Pre-Development Load	20%
---	-----

Total Runoff Volume Reduction (ft <sup>3</sup> )	890
Total TP Load Reduction Achieved (lb/yr)	1.43
Total TN Load Reduction Achieved (lb/yr)	3.99
Remaining Post Development TP Load (lb/yr)	4.45
Remaining TP Load Reduction (lb/yr) Required	0.00

**\*\* TARGET TP REDUCTION EXCEEDED BY 0.01 LB/YEAR \*\***

**Drainage Area Summary**

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Impervious Cover (acres)	2.28	0.00	0.00	0.00	0.00	2.28
Total Area (acres)	2.28	0.00	0.00	0.00	0.00	2.28

**Drainage Area Compliance Summary**

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Reduced (lb/yr)	1.43	0.00	0.00	0.00	0.00	1.43
TN Load Reduced (lb/yr)	3.99	0.00	0.00	0.00	0.00	3.99

**Drainage Area A Summary**

Land Cover Summary	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.00	0.00	0.00	0
Impervious Cover (acres)	0.00	0.00	0.00	2.28	2.28	100
					2.28	

**BMP Selections**

Practice	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	BMP Treatment Volume (ft <sup>3</sup> )	TP Load from Upstream Practices (lbs)	Untreated TP Load to Practice (lbs)	TP Removed (lb/yr)	TP Remaining (lb/yr)	Downstream Treatment to be Employed
1.b. Vegetated Roof #2 (spec #5)		0.43	1,482.86		0.93	0.56	0.37	14.a. MTD - Hydrodynamic
14.a. Manufactured Treatment Device-Hydrodynamic		1.85	6,572.87	0.37	4.00	0.88	3.50	

Total Impervious Cover Treated (acres)	2.28
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. (lb/yr)	1.43
Total TN Load Reduction Achieved in D.A. (lb/yr)	3.99

**Runoff Volume and CN Calculations**

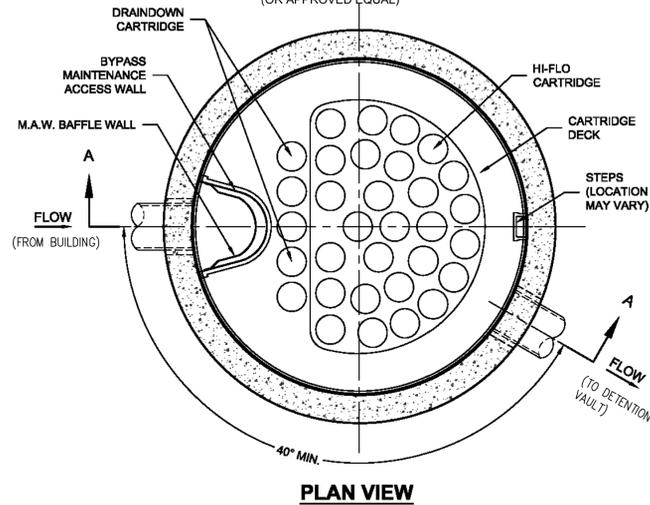
Target Rainfall Event (in)	1-year storm	2-year storm	10-year storm
	2.62	3.17	4.87

Drainage Areas	RV & CN	Drainage Area A	Drainage Area B	Drainage Area C	Drainage Area D	Drainage Area E
CN		98	0	0	0	0
RR (ft <sup>3</sup> )		890	0	0	0	0
1-year return period	RV w/ RR (w-in)	2.28	0.00	0.00	0.00	0.00
	RV w/ RR (w-in) CN adjusted	97	0	0	0	0
2-year return period	RV w/ RR (w-in)	2.94	0.00	0.00	0.00	0.00
	RV w/ RR (w-in) CN adjusted	97	0	0	0	0
10-year return period	RV w/ RR (w-in)	4.63	0.00	0.00	0.00	0.00
	RV w/ RR (w-in) CN adjusted	97	0	0	0	0

**EXAMPLE-MANUFACTURED TREATMENT DEVICE (MTD):**

www.contechES.com  
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069  
800-338-1122 513-845-7000 513-845-7993 FAX

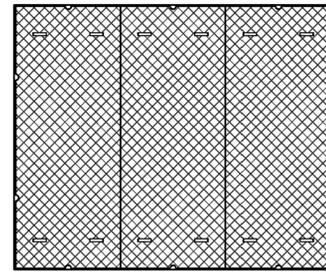
**JELLYFISH JF12**  
**STANDARD DETAIL**  
**ONLINE CONFIGURATION**  
(OR APPROVED EQUAL)



**JELLYFISH DESIGN NOTES**

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN. Ø120" MANHOLE JELLYFISH PEAK TREATMENT CAPACITY IS 5.26 CFS, AND MAXIMUM BYPASS CAPACITY IS 8.00 CFS. IF THE SITE CONDITIONS EXCEED TOTAL CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION	64"	40"	27"	15"
CARTRIDGE DEPTH	64"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	7'-5"	8'-3"	5'-2"	4'-2"
FLOW RATE HIGH-FLO / DRAINDOWN (cfs) (per cart)	0.18 / 0.09	0.13 / 0.065	0.09 / 0.045	0.05 / 0.025
MAX. CARTS HIGH-FLO/DRAINDOWN	19 / 4			
MAX. BYPASS (cfs)	8.00			
MAX. TREATMENT (cfs)	5.26	3.95	2.63	1.45
MAX. TREATMENT AND BYPASS (cfs) (TOTAL CAPACITY)	13.26	11.95	10.63	9.45



**SITE SPECIFIC DATA REQUIREMENTS**

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs)	*
BYPASS FLOW RATE (cfs)	*
PEAK FLOW RATE (cfs)	*
RETURN PERIOD OF PEAK FLOW (yrs)	*
# OF CARTRIDGES REQUIRED (HF / DD)	**
CARTRIDGE SIZE	*

PIPE DATA:	I.E.	MATL	DIA	SLOPE %	HGL
INLET #1	*	*	*	*	*
INLET #2	*	*	*	*	*
OUTLET	*	*	*	*	*

SEE GENERAL NOTES 6-10 FOR INLET AND OUTLET HYDRAULIC AND SIZING REQUIREMENTS.

RIM ELEVATION	*
ANTI-FLOTATION BALLAST	WIDTH * HEIGHT *

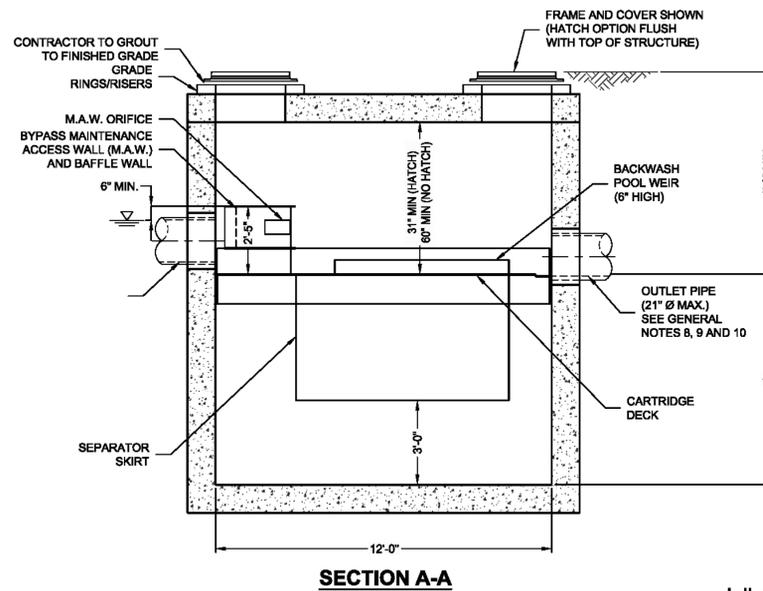
NOTES/SPECIAL REQUIREMENTS:  
\* PER ENGINEER OF RECORD

**FRAME AND COVER**  
(DIAMETER VARIES)  
N.T.S.

**HATCH**  
(84" x 102" CAST INTO SLAB)  
N.T.S.  
(OPTIONAL)

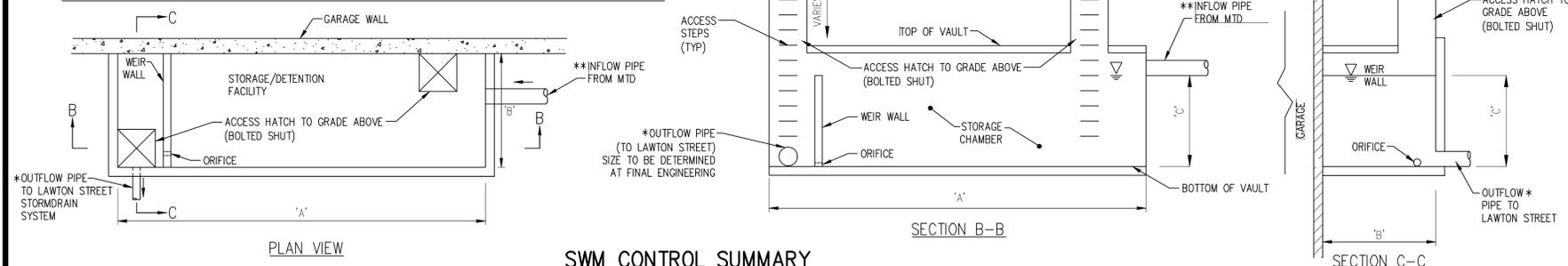
- GENERAL NOTES:**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
  - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.contechES.com
  - JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
  - STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 3', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
  - STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
  - INLET HGL NOT TO EXCEED 6" BELOW THE TOP OF THE M.A.W. DURING THE PEAK DESIGN STORM, OR 10-YEAR STORM (WHICHEVER IS GREATER).
  - INLET PIPE INVERT ELEVATION VARIES FROM 0' TO 6" MAXIMUM ABOVE THE OUTLET PIPE INVERT.
  - OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
  - THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
  - THE DIFFERENCE IN THE INLET AND OUTLET PIPE ELEVATIONS FOR RETROFIT INSTALLATIONS TO EXISTING STORM DRAIN PIPES SHALL BE EQUAL TO THE SLOPE OVER THE DIAMETER OF THE MANHOLE; NOT THE EXCEED 6" IN VERTICAL DIFFERENTIAL BETWEEN INLET AND OUTLET PIPES.
  - NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
  - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE (LIFTING CLUTCHES PROVIDED)
  - CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT)
  - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
  - CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (866) 740-3318.



**Jellyfish Filter**  
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENT NO. 8,287,728 & 8,211,818 & US 8,123,886; OTHER INTERNATIONAL PATENTS PENDING  
(OR APPROVED EQUAL)

**EXAMPLE-UNDERGROUND DETENTION VAULT:**



**NOTES:**

- FINAL NUMBER, SHAPE, SIZE, LOCATION, AND DESIGN OF SWM VAULTS ARE SUBJECT TO CHANGE AT THE TIME OF FINAL ENGINEERING.
- STRUCTURAL DESIGN AND REINFORCING FOR VAULTS IS TO BE DEMONSTRATED ON STRUCTURAL ENGINEERING PLANS.
- PUMPS (IF NECESSARY) SHALL BE INTEGRATED INTO VAULTS AT THE TIME OF FINAL ENGINEERING ON A CASE BY CASE BASIS.
- APPLICANT RESERVES THE RIGHT, AT FINAL SITE PLAN, TO UTILIZE MULTIPLE FACILITIES PER SITE IF NEEDED.

**SWM CONTROL SUMMARY**

VAULT ID	REQUIRED VOLUME (CF)	LENGTH (FT)	WIDTH (FT)	STORAGE DEPTH (FT)	VOLUME PROVIDED (CF)
FACILITY 'A'	6292	63	10	10	6300

\*OUTFLOW MAY BE PUMPED TO THE GRAVITY SYSTEM WITHIN LAWTON STREET.

\*\*FINAL NUMBER AND LOCATION OF INFLOW PIPES TO BE DETERMINED BY BUILDING AND PLUMBING DESIGN.

**NOTE:**

1. THIS PLAN IS INTENDED FOR INFORMATION ONLY TO DEMONSTRATE POTENTIAL METHODS OF RAINWATER COLLECTION FOR STORM WATER MANAGEMENT. FINAL METHODS, MEANS, LOCATIONS, SIZES AND SPECIFIC FACILITIES WILL VARY WITH FINAL ENGINEERING DESIGN, AS ALLOWED BY THE REQUIREMENTS OF THE CITY OF FALLS CHURCH.

CONCEPTUAL SWM AND BMP NOTES AND DETAILS

**BROAD & WASHINGTON**  
CITY OF FALLS CHURCH, VIRGINIA

**Bowman CONSULTING**

Bowman Consulting Group, Ltd.  
14020 Thunderbolt Place  
Suite 300  
Charlottesville, Virginia 22915  
Phone: (703) 464-1000  
Fax: (703) 481-9720  
www.bowmanconsulting.com  
© Bowman Consulting Group, Ltd.

DATE	DESCRIPTION
06/26/17	5th SUBMISSION
05/26/17	4th SUBMISSION
03/20/17	3rd SUBMISSION
12/16/15	2nd SUBMISSION

PLAN STATUS	DATE	DESCRIPTION
DESIGN	KG	BG
DRAWN	KG	CHKD
SCALE	H: N/A	V:
JOB No.	8366-01-001	
DATE	June 2015	
FILE No.	8366-D-RZ-001	