DEVELOPMENT PRELIMINARY SITE PLAN

ABINGDON PLACE

CITY OF ALEXANDRIA, VIRGINIA

AREA TABULATIONS

TOTAL EXISTING SITE AREA = 0.9813 AC 42,746 SF

TOTAL PROPOSED SITE AREA = 0.9349 AC 40,723 SF (AFTER ALL DEDICATIONS)

TOTAL AREA OF TAX PARCELS = 0.9813 AC 42,746 SF

TOTAL EXISTING IMPERVIOUS AREA = 0.8013* AC 34,903* SF

TOTAL PROPOSED IMPERVIOUS AREA = 0.7057* AC 30,740* SF

TOTAL DISTURBED AREA = 1.0594 AC 46,149 SF

*NOTE: THE IMPERVIOUS AREA IS REPRESENTATIVE OF THE PARCEL AREA AFTER ALL DEDICATIONS HAVE OCCURRED.

ENVIRONMENTAL SITE ASSESSMENT

1. THERE ARE NO TIDAL WETLANDS, TIDAL SHORES, TRIBUTARY STREAMS, FLOODPLAINS, CONNECTED TIDAL WETLANDS, ISOLATED WETLANDS, HIGHLY ERODIABLE/PERMEABLE SOILS OR BUFFER AREAS ASSOCIATED WITH SHORES, STREAMS, OR WETLANDS LOCATED ON THE SITE. FURTHER, THERE ARE NO WETLAND PERMITS REQUIRED FOR THIS DEVELOPMENT PROJECT. ADDITIONALLY, THERE ARE NO KNOWN UNDERGROUND STORAGE TANKS OR AREAS OF SOIL OR GROUNDWATER CONTAMINATION ON THE SITE.
2. THE CITY OF ALEXANDRIA DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, OFFICE OF ENVIRONMENTAL QUALITY MUST BE NOTIFIED IF UNUSUAL OR UNANTICIPATED CONTAMINATION OR UNDERGROUND STORAGE TANKS, DRUMS, AND CONTAINERS ARE ENCOUNTERED AT THE SITE. IF THERE IS ANY DOUBT ABOUT PUBLIC SAFETY OR A RELEASE TO THE ENVIRONMENT, THE ALEXANDRIA FIRE DEPARTMENT MUST BE CONTACTED IMMEDIATELY BY CALLING 911. THE TANK OR CONTAINER'S REMOVAL, ITS CONTENTS, ANY SOIL CONTAMINATION AND RELEASES TO THE ENVIRONMENT WILL BE HANDLED IN ACCORDANCE WITH FEDERAL, STATE, AND CITY REGULATIONS.
3. ALL WELLS TO BE DEMOLISHED ON THIS PROJECT, INCLUDING MONITORING WELLS, MUST BE CLOSED IN ACCORDANCE WITH STATE WATER CONTROL BOARD (VSWCB) REQUIREMENTS. CONTACT THE ENVIRONMENTAL HEALTH SPECIALIST AND COORDINATE WITH THE ALEXANDRIA HEALTH DEPARTMENT AT 703-838-4400 EXT 267/255.
4. ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH THE EALEXANDRIA NOSIE CONTROL CODE TITLE 11, CHAPTER 5, WHICH PERMITS CONSTRUCTIONA CTIVITIES TO OCCUR BETWEEN THE FOLLOWING HOURS: MONDAY THROUGH FRIDAY FROM 7 AM TO 6 PM; SATURDAYS FROM 9 AM TO 6 PM; NO CONSTRUCTION ACTIVITIES ARE PERMITTED ON SUNDAYS.

   PILE DRIVING IS FURTHER RESTRICTED TO THE FOLLOWING HOURS: MONDAY THROUGH FRIDAY FROM 9 AM TO 6 PM AND SATURDAYS FROM 10 AM TO 4 PM.
5. THERE ARE NO KNOWN CONTAMINATED AREAS, CONTAMINATED SOILS OR ENVIRONMENTAL ISSUES ASSOCIATED WITH THIS SITE.
6. THIS PROJECT IS LOCATED WITHIN 1000' OF A FORMER SANITARY LANDFILL.

ENVIRONMENTAL PERMITS NOTES

ALL REQUIRED PERMITS FROM VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, ENVIRONMENTAL PROTECTION AGENCY, ARMY CORPS OF ENGINEERS, VIRGINIA MARINE RESOURCES MUST BE IN PLACE FOR ALL PROJECT CONSTRUCTION AND MITIGATION WORK PRIOR TO RELEASE OF THE FINAL SITE PLAN.

ARCHAEOLOGY NOTES

THE APPLICANT/DEVELOPER SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.

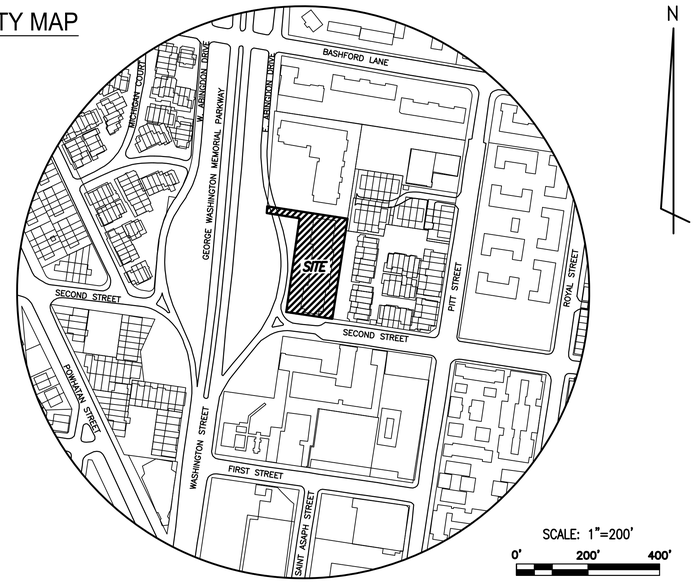
THE APPLICANT SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY. FAILURE TO COMPLY SHALL RESULT IN PROJECT DELAYS.

ALL REQUIRED ARCHAEOLOGICAL PRESERVATION MEASURES SHALL BE COMPLETED IN COMPLIANCE WITH SECTION 11-411 OF THE ZONING ORDINANCE.

GENERAL NOTES

1. PRIOR TO THE APPLICATION FOR NEW CERTIFICATE OF OCCUPANCY, THE APPLICANT SHALL SUBMIT A BUILDING PERMIT FOR A CHANGE OF USE. DRAWINGS PREPARED BY A LICENSED ARCHITECT OR PROFESSIONAL ENGINEER SHALL ACCOMPANY THE PERMIT APPLICATION. THE PLANS SHALL SHOW PROPOSED CONDITIONS AND PROVIDE DATA BY THE DESIGN PROFESSIONAL WHICH DETAILS HOW THE PROPOSED USE WILL COMPLY WITH THE CURRENT EDITION OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE FOR THE NEW USE IN THE AREA OF STRUCTURAL STRENGTH, MEANS OF EGRESS, PASSIVE AND ACTIVE FIRE PROTECTION, HEATING AND VENTILATING SYSTEMS, HANDICAPPED ACCESSIBILITY AND PLUMBING FACILITIES.
2. NEW CONSTRUCTION MUST COMPLY WITH THE CURRENT EDITION OF THE UNIFORM STATEWIDE BUILDING CODE (USBC).
3. BEFORE A BUILDING PERMIT CAN BE ISSUED ON ANY PROPOSED FUTURE ALTERATIONS, A CERTIFICATION IS REQUIRED FROM THE OWNER OR OWNER'S AGENT THAT THE BUILDING HAS BEEN INSPECTED BY A LICENSED ASBESTOS INSPECTOR FOR THE PRESENCE OF ASBESTOS.
4. A CERTIFICATE OF OCCUPANCY SHALL BE OBTAINED PRIOR TO ANY OCCUPANCY OF THE BUILDING OR PORTION THEREOF.
5. REQUIRED EXITS, PARKING, AND ACCESSIBILITY WITHIN THE BUILDING FOR PERSONS WITH DISABILITIES MUST COMPLY WITH USBC CHAPTER 11. HANDICAPPED ACCESSIBLE BATHROOMS SHALL ALSO BE PROVIDED.
6. TOILET FACILITIES FOR PERSONS WITH DISABILITIES: LARGER, DETAILED, DIMENSIONED DRAWINGS ARE REQUIRED TO CLARIFY SPACE LAYOUT AND MOUNTING HEIGHTS OF AFFECTED ACCESSORIES. INFORMATION ON DOOR HARDWARE FOR THE TOILET STALL IS REQUIRED (USBC 1109.2.2).
7. IF APPLICABLE, ENCLOSED PARKING GARAGES MUST BE VENTILATED IN ACCORDANCE WITH USBC 406.4.2. THE REQUIRED MECHANICAL VENTILATION RATE FOR AIR IS 0.75 CFM PER SQUARE FOOT OF THE FLOOR AREA (USBC 2801.1). IN AREAS WHERE MOTOR VEHICLES OPERATE FOR A PERIOD OF TIME EXCEEDING 10 SECONDS, THE VENTILATION RETURN AIR MUST BE EXHAUSTED. AN EXHAUST SYSTEM MUST BE PROVIDED TO CONNECT DIRECTLY TO THE MOTOR VEHICLE EXHAUST (USBC 2801.1).
8. ELECTRICAL WIRING METHODS AND OTHER ELECTRICAL REQUIREMENTS MUST COMPLY WITH NFPA 70, 2008.
9. IF APPLICABLE, THE PUBLIC PARKING GARAGE FLOOR MUST COMPLY WITH USBC 406.2.6 AND DRAIN THROUGH OIL SEPARATORS OR TRAPS TO AVOID ACCUMULATION OF EXPLOSIVE VAPORS IN BUILDING DRAINS OR SEWERS AS PROVIDED FOR IN THE PLUMBING CODE (USBC 2901). THIS PARKING GARAGE IS CLASSIFIED AS AN S-2, GROUP 2, PUBLIC GARAGE.
10. THIS PROJECT IS LOCATED IN A COMBINED SEWER AREA.
11. THIS SITE DOES NOT CONTAIN ANY AREAS PREVIOUSLY MAPPED AS MARINE CLAYS.

VICINITY MAP



TAX PARCEL NUMBERS: 044.04-05-02

PROJECT DESCRIPTION NARRATIVE

THE APPLICANT REQUESTS A DEVELOPMENT SITE PLAN (DSP) TO PERMIT THE REDEVELOPMENT OF THE EXISTING HOTEL INTO 19 TOWNHOUSE-STYLE CONDOMINIUM UNITS AND IMPROVED STREETSCAPE/OPEN SPACE. SITE ACCESS WILL BE PROVIDED VIA A PROPOSED ENTRANCE OFF OF NORTH SAINT ASAPH STREET (PRIVATE ALLEY).

REQUESTED APPLICATIONS AND MODIFICATIONS:

THIS DEVELOPMENT IS REQUESTING A:

- OPEN SPACE MODIFICATION
- YARD SETBACK MODIFICATIONS (FRONT, SIDE)
- REDUCTION IN TREE CANOPY COVER REQUIREMENT

BUILDING CODE ANALYSIS:

USE GROUP(S):	R-3 (MULTIFAMILY TOWNHOUSE)
TYPE OF CONSTRUCTION:	VB
NUMBER OF STORIES:	4
FLOOR AREA (GROSS):	58,112 SQ. FT.
BUILDING HEIGHT:	50.0'
FIRE SUPRESSION/DETECTION:	SPRINKLERED

COMPLETE STREETS INFORMATION:

	NEW	UPGRADED
CROSSWALKS (NUMBER)	3	N/A
STANDARD	3	N/A
HIGH VISIBILITY	N/A	N/A
CURB RAMPS	N/A	6
SIDEWALKS (LF)	N/A	446
BICYCLE PARKING (NUMBER SPACES)	20	N/A
PUBLIC/VISITOR	1	N/A
PRIVATE/GARAGE	19	N/A
BICYCLE PATHS (LF)	N/A	N/A
PEDESTRIAN SIGNALS	N/A	N/A

OWNER/DEVELOPER

OWNER:
CIA-COLONY INN LLC
3147 WOODLAND LANE
ALEXANDRIA, VA 22309
INSTRUMENT #120027595

DEVELOPER:
TOLL BROS., INC.
5162-A JACOBS CREEK PLACE
HAYMARKET, VA 20169
(703) 753-5663
CONTACT: MARK SIMMS

ARCHITECT:
RUST ORLING ARCHITECTS
1215 CAMERON STREET
ALEXANDRIA, VA 22314
(703) 836-3205
CONTACT: SCOTT FLEMING

PLAN PREPARED BY:
R.C. FIELDS & ASSOCIATES, INC.
730 S. WASHINGTON STREET
ALEXANDRIA, VA 22314
(703) 549-6422
CONTACT: ANDREA SPRUCH

ATTORNEY:
WALSH, COLUCCI, LUBELEY & WALSH, P.C
2200 CLARENDON BLVD, SUITE 1300
ARLINGTON, VIRGINIA 22201
(703) 528-4700
CONTACT: M. CATHARINE PUSKAR

LANDSCAPE ARCHITECT:
TWS DESIGN INC.
1835 CLOVERMEADOW DRIVE
VIENNA, VIRGINIA 22182
(703) 5938-0308
CONTACT: TINA WOODS-SMITH

ZONING TABULATIONS

1. TAX MAP #: #044.04-05-02
2. ZONE OF SITE: CD (COMMERCIAL DOWNTOWN)
3. USE: EXISTING HOTEL PROPOSED MULTIFAMILY RESIDENTIAL (TOWNHOUSE-STYLE CONDOMINUM)
4. TOTAL EX. LOT AREA: 42,746 SF (0.9813 AC.) MINIMUM LOT AREA: 23,655 SF (1,245 SF PER UNIT)
5. NUMBER OF DWELLINGS: 19 UNITS
6. NUMBER OF BEDROOMS: 3-4 PER UNIT (57-76 TOTAL)
7. UNITS PER ACRE: PERMITTED 35.0 PROPOSED 19.4 UNITS/ACRE
8. FLOOR AREA: GROSS 58,112 SQ. FT. NET 53,432 SQ. FT.
9. FLOOR AREA RATIO: PERMITTED 1.25 (53,432 SQ.FT.)
   EXISTING 0.64 (27,357 SQ.FT.)
   PROPOSED 1.25 (53,432 SQ.FT.)
10. * OPEN SPACE: REQUIRED: 17,099 SQ. FT. (40.0%)
    PROPOSED:
    GROUND LEVEL 9,366 SQ. FT. (21.9%)**
    ABOVE GRADE 3,874 SQ. FT. (9.1%)
    TOTAL 13,240 SQ. FT. (31.0%)
11. HEIGHT: ALLOWED: 50.0 FT
    PROPOSED:

UNIT 1:	50 FT	UNIT 8:	50 FT	UNIT 15:	45 FT
UNIT 2:	50 FT	UNIT 9:	50 FT	UNIT 16:	45 FT
UNIT 3:	50 FT	UNIT 10:	50 FT	UNIT 17:	45 FT
UNIT 4:	50 FT	UNIT 11:	50 FT	UNIT 18:	45 FT
UNIT 5:	50 FT	UNIT 12:	50 FT	UNIT 19:	45 FT
UNIT 6:	50 FT	UNIT 13:	50 FT		
UNIT 7:	50 FT	UNIT 14:	50 FT		

12. * YARDS: REQUIRED FRONT 0 FT SIDE 1:3 HEIGHT, 25 FT MIN REAR 1:1 HEIGHT, 25 FT MIN
    PROVIDED

	FRONT(WEST)	FRONT(SOUTH)	SIDE(NORTH)	SIDE(EAST)
BUILDING 1:	22.1 FT	159 FT	6.6 FT	69.7 FT
BUILDING 2:	15.2 FT	0.0 FT	141 FT	24.0 FT
BUILDING 3:	84.4 FT	64.0 FT	141 FT	20.8 FT
BUILDING 4:	90.0 FT	159 FT	6.5 FT	21.2 FT

13. FRONTAGE: REQUIRED 50 FT
    PROVIDED 430 FT
14. AVERAGE FINISHED GRADE:
    BUILDING 1: 32.32 BUILDING 2: 31.04 BUILDING 3: 31.65 BUILDING 4: 32.96
15. TRIP GENERATION: EXISTING 400 VPD PROPOSED 148 VPD
    EXISTING AM PEAK 26 AVTE PROPOSED AM PEAK 13 AVTE
    EXISTING PM PEAK 29 AVTE PROPOSED PM PEAK 45 AVTE
    (PER ITE STANDARDS) (PER ITE STANDARDS)
16. PARKING TABULATION: REQUIRED 1.0 SPACE/BEDROOM (UP TO 2 BDRMS) = 1.0 x 38 = 38 SPACES
    TOTAL REQUIRED 38 SPACES
    ADDITIONAL ALLOWED 1 SPACE/BDRM GREATER THAN 2 BDRMS = 19 SPACES
    TOTAL ALLOWED 57 SPACES
    PROVIDED 43 SPACES
    38 IN UNIT GARAGE (19 STANDARD & 19 COMPACT) & 5 COMPACT SURFACE
17. LOADING SPACES: REQUIRED N/A PROPOSED N/A

*** SEE REQUESTED APPLICATIONS/MODIFICATIONS FOR DETAILED INFORMATION (THIS SHEET)**
**** SEE SHEET 2 FOR OPEN SPACE EXHIBIT**

SHEET INDEX:

RC FIELDS & ASSOCIATES, INC.
ENGINEERING • LAND SURVEYING • PLANNING
730 S. Washington Street
Alexandria, Virginia 22314
www.rcfassoc.com
(703) 549-6422
PROJ. MANAGER: ANDREA SPRUCH
EMAIL: ASPRUCH@RCFASSOC.COM

SCALE: AS NOTED DATE: DEC. 2017 DRAWN: TJD
REV:

COMMONWEALTH OF VIRGINIA
ANDREA SPRUCH
Lic. No. 047863
FEBRUARY 13, 2018
PROFESSIONAL ENGINEER

REVISION APPROVED BY

NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

DEVELOPMENT
PRELIMINARY SITE PLAN
ABINGDON PLACE
CITY OF ALEXANDRIA, VIRGINIA

SHEET NAME: COVER SHEET

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. 2017-0014
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED
INSTRUMENT NO. DEED BOOK NO. DATE

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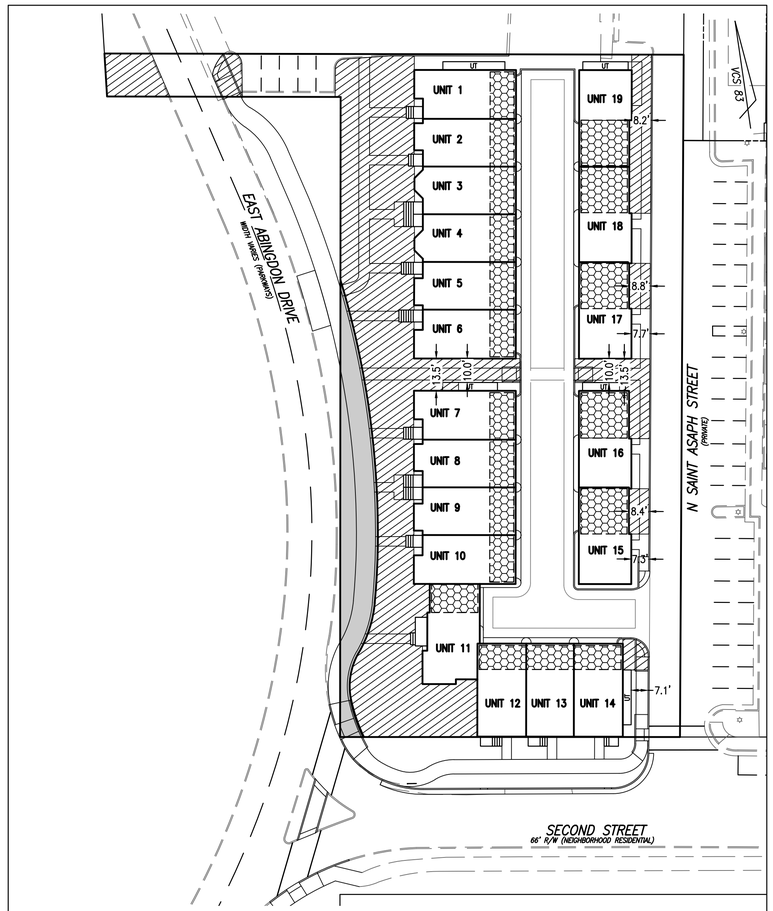


POST-DEDICATION GROUND LEVEL OPEN SPACE

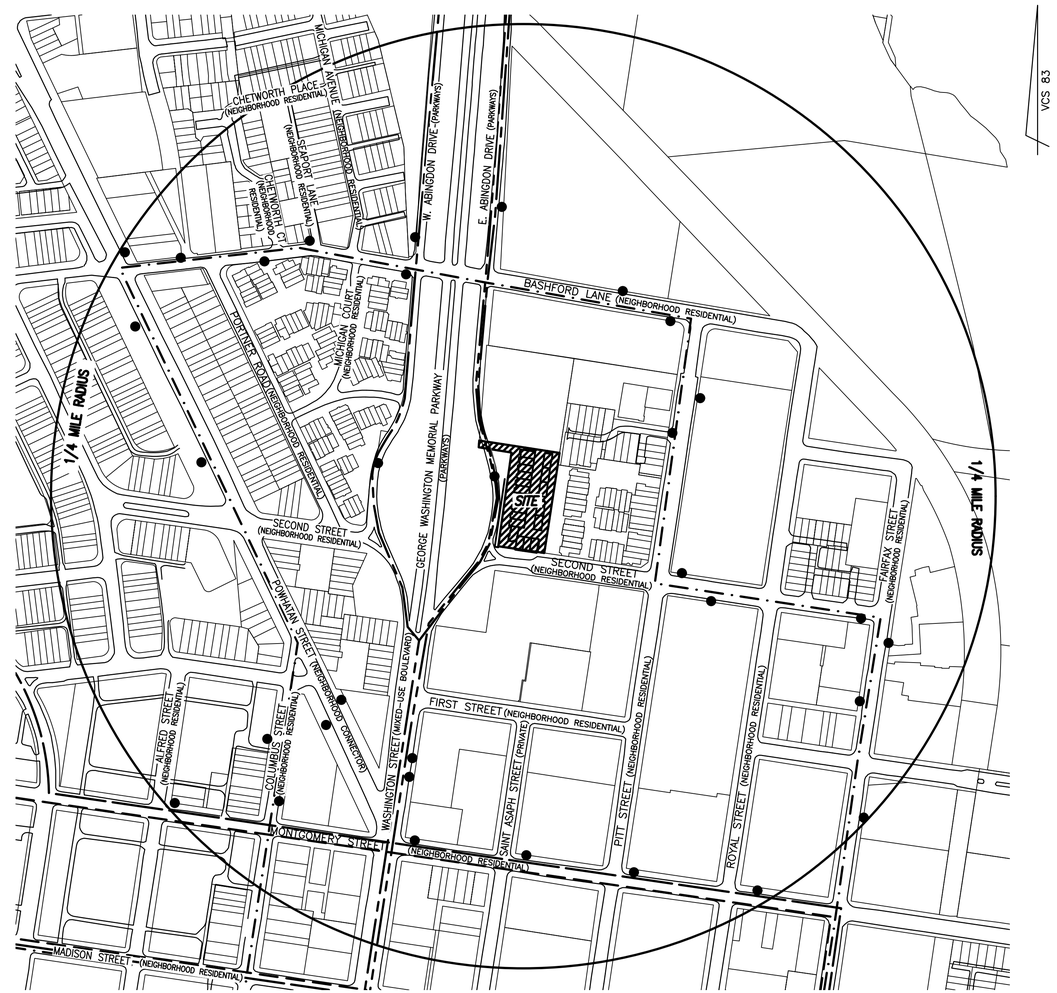
GROUND LEVEL OPEN SPACE TO BE DEDICATED

ABOVE GRADE OPEN SPACE

OPEN SPACE REQUIRED:	17,099 SF (40.0%)
GROUND LEVEL OPEN SPACE:	
PRE-DEDICATION GROUND LEVEL OPEN SPACE:	11,388 SF (26.6%)
GROUND LEVEL OPEN SPACE TO BE DEDICATED:	2,022 SF (4.7%)
FINAL GROUND LEVEL OPEN SPACE PROVIDED:	9,366 SF (21.9%)
ABOVE GRADE OPEN SPACE PROVIDED:	3,874 SF (9.1%)
TOTAL OPEN SPACE PROVIDED:	13,240 SF (31.0%)

0' 30' 60'

OPEN SPACE GRAPHIC
SCALE: 1" = 30'



CONTEXTUAL MAP
SCALE: 1" = 200'

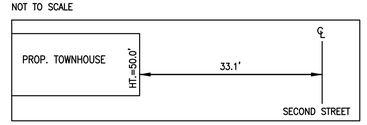
LEGEND:

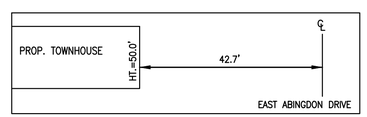
- BUS STOP
- DASH ROUTE AT2
- DASH ROUTE AT4
- DASH ROUTE AT5
- DASH ROUTE AT8
- WMATA ROUTE 11Y

SECTION 6-403 COMPLIANCE NOTE:

SECTION 6-403 STATES "IN ALL HEIGHT DISTRICTS, THE ALLOWABLE HEIGHT OF A BUILDING AT ANY POINT SHALL NOT EXCEED TWICE THE DISTANCE FROM THE FACE OF THE BUILDING AT THAT POINT TO THE CENTERLINE OF THE STREET FACING SUCH BUILDING." SEE DETAILS BELOW FOR SECTION SHOWING COMPLIANCE.

SECTION 6-403 DETAILS:
NOT TO SCALE





EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.

LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. INTERFERENCE OR DISRUPTION OF SAME WILL NOT BE THE RESPONSIBILITY OF THIS OFFICE.

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA.

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. 2017-0014
DIRECTOR — DATE
CHAIRMAN, PLANNING COMMISSION — DATE
DATE RECORDED _____
INSTRUMENT NO. — DEED BOOK NO. — DATE

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COMMONWEALTH OF VIRGINIA
ANDREA SPRUCH
Lic. No. 047863
FEBRUARY 13, 2018
PROFESSIONAL ENGINEER

DEVELOPMENT PRELIMINARY SITE PLAN
ABINGDON PLACE
1101 NORTH WASHINGTON STREET
CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

DESIGN: ACS
DRAWN: TJD
SCALE: AS NOTED
DATE: DEC. 2017

CONTEXTUAL PLAN

SHEET 2 OF 15
FILE: 12-109

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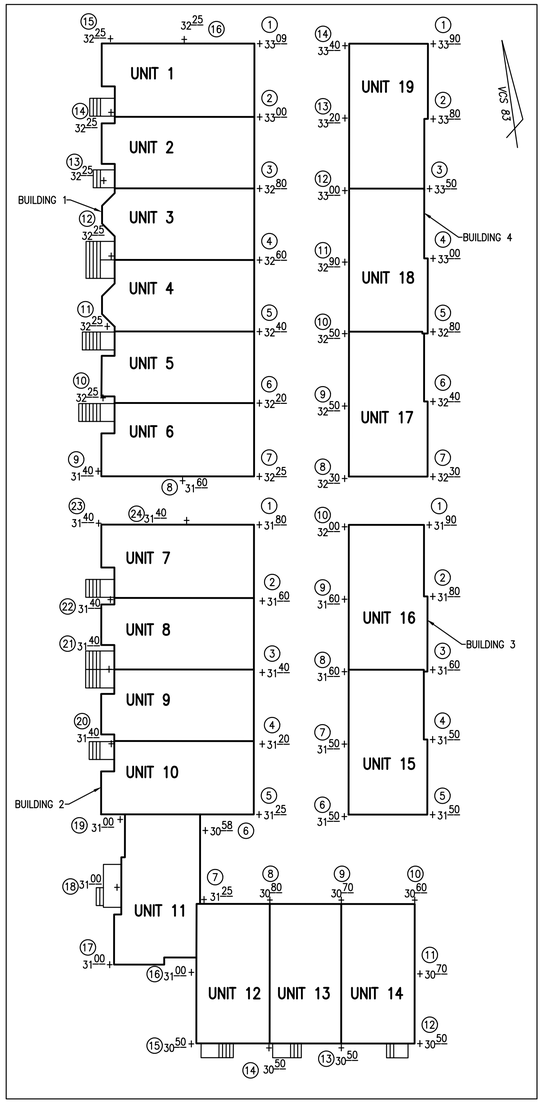


AVERAGE FINISHED GRADE DETAIL

SCALE: 1" = 20'

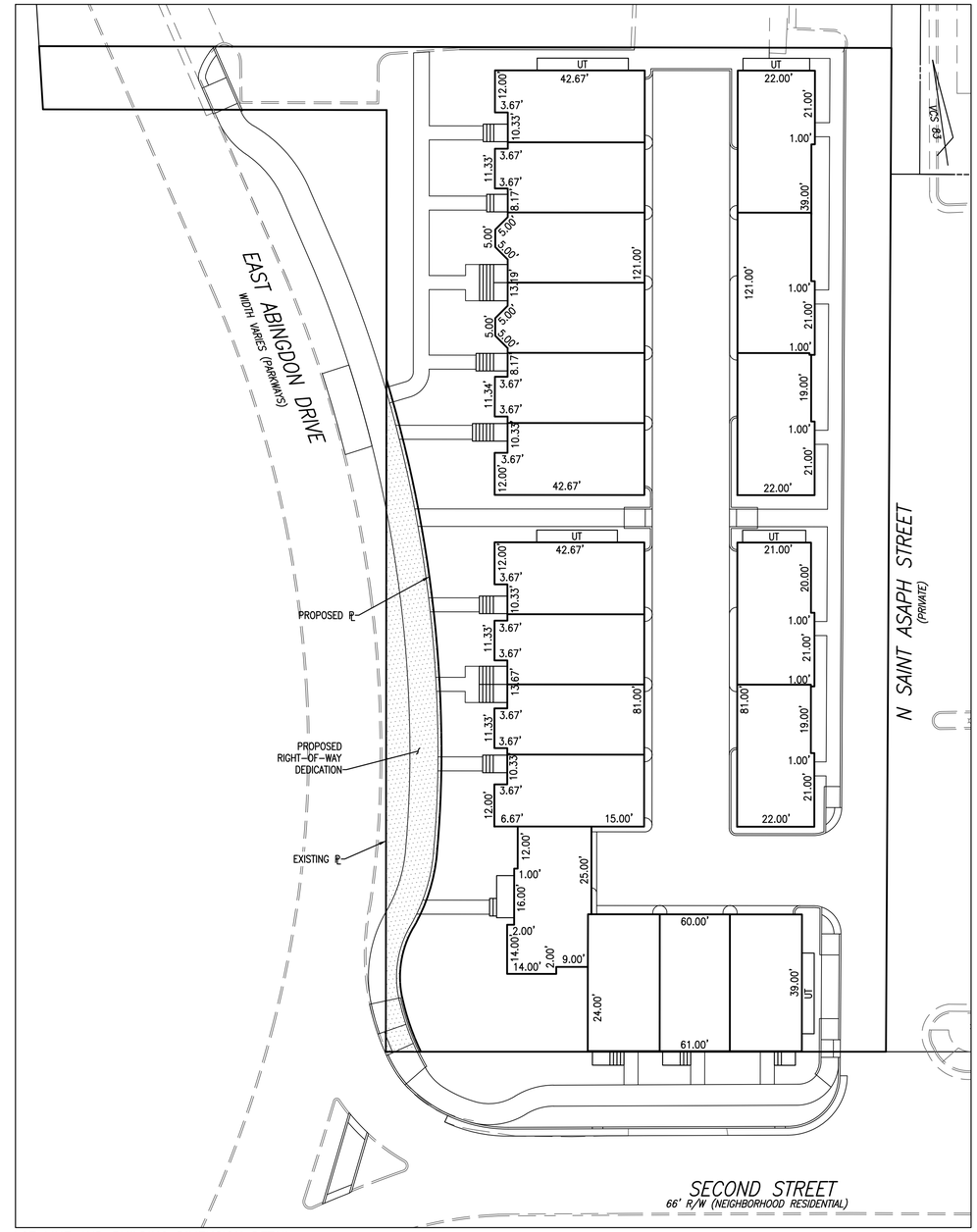
0' 20' 40'

Building 1	
Point	ELEV
1	33.09
2	33
3	32.8
4	32.6
5	32.4
6	32.2
7	32.25
8	31.6
9	31.4
10	32.25
11	32.25
12	32.25
13	32.25
14	32.25
15	32.25
16	32.25
AFG	32.32

Building 2	
Point	ELEV
1	31.8
2	31.6
3	31.4
4	31.2
5	31.25
6	30.58
7	31.25
8	30.8
9	30.7
10	30.6
11	30.7
12	30.5
13	30.5
14	30.5
15	30.5
16	31
17	31
18	31
19	31
20	31.4
21	31.4
22	31.4
23	31.4
24	31.4
AFG	31.04

Building 3	
Point	ELEV
1	31.9
2	31.8
3	31.6
4	31.5
5	31.5
6	31.5
7	31.5
8	31.6
9	31.6
10	32
AFG	31.65

Building 4	
Point	ELEV
1	33.9
2	33.8
3	33.5
4	33
5	32.8
6	32.4
7	32.3
8	32.3
9	32.5
10	32.5
11	32.9
12	33
13	33.2
14	33.4
AFG	32.96



LOT LINE AND BUILDING DIMENSION DETAIL

SCALE: 1" = 20'

0' 20' 40'

EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.

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DATE	REVISION

DESIGN: ACS
DRAWN: TJD
SCALE: AS NOTED
DATE: DEC. 2017

AVERAGE FINISHED GRADE AND LOT LINE DETAILS

SHEET 3 OF 15
FILE: 12-109

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TEXT LEGEND:

'= DEGREES
"= MINUTES (OR FEET)
"= SECONDS (OR INCHES)
%= PERCENT
#= NUMBER
@= AT
lbs.= POUNDS
A= ARC
AC.= ACRE
ADA = AMERICANS W/ DISABILITIES ACT
APPROX=APPROXIMATE
BC=BOTTOM OF CURB
BF= BASEMENT FLOOR
BLDG.= BUILDING
BM= BENCHMARK
BOL.= BOLLARD
CATV= CABLE UTILITY
CL= CLASS
CLEAR= CLEARANCE
CLF= CHAIN LINK FENCE
CMP = CORRUGATED METAL PIPE
C.I.= CURB INLET
C.O.= CLEAN OUT
CONC.= CONCRETE
C&G= CURB & GUTTER
DB= DEED BOOK
DIP= DUCTILE IRON PIPE
DOM= DOMESTIC
DSP= DEVELOPMENT SITE PLAN
DSUP= DEVELOPMENT SPECIAL USE PERMIT
DU= DWELLING UNIT
E= EAST
EBOX= ELECTRICAL BOX
ESMT.= EASEMENT
EP= EDGE OF PAVEMENT
EVE= EMERGENCY VEHICLE EASEMENT
EX=EXISTING
FDC= FIRE DEPT. CONNECTION
FF= FINISH FLOOR
FH= FIRE HYDRANT
FT.= FEET
GL = GROUND LIGHT
G/V= GAS VALVE
G/M= GAS METER
G.I.= GRATE INLET
H.C.= HEADER CURB
HCR= HANDICAP RAMP
HDCP.= HANDICAP
HDPE= HIGH DENSITY POLYETHYLENE
HPS= HIGH PRESSURE SODIUM
ICV= IRRIGATION CONTROL VALVE
IPF= IRON PIPE FOUND
INV.= INVERT
INSTR.= INSTRUMENT
L= LUMENS
LOC.= LOCATION
LP= LIGHT POLE
MAX.= MAXIMUM
MH= MANHOLE
MIN.= MINIMUM
MPH= MILES PER HOUR
MW= MONITORING WELL
N= NORTH
OHW= OVERHEAD WIRE
PN = PANEL
PG= PAGE
PP= POWER POLE
PROP= PROPOSED
PVC= POLYVINYL CHLORIDE
R= RADIUS
RCP= RE-ENFORCED CONCRETE PIPE
RELOC. = RELOCATED
RET.= RETAINING
RESID.= RESIDENTIAL
R/W= RIGHT-OF-WAY
S= SOUTH
SAN.= SANITARY SEWER
S.F.= SQUARE FEET
SQ.FT.= SQUARE FEET
STM.= STORM SEWER
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SUB= SUBDIVISION PLAN
TBR = TO BE REMOVED
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TC= TOP OF CURB
TOW = TOP OF WALL
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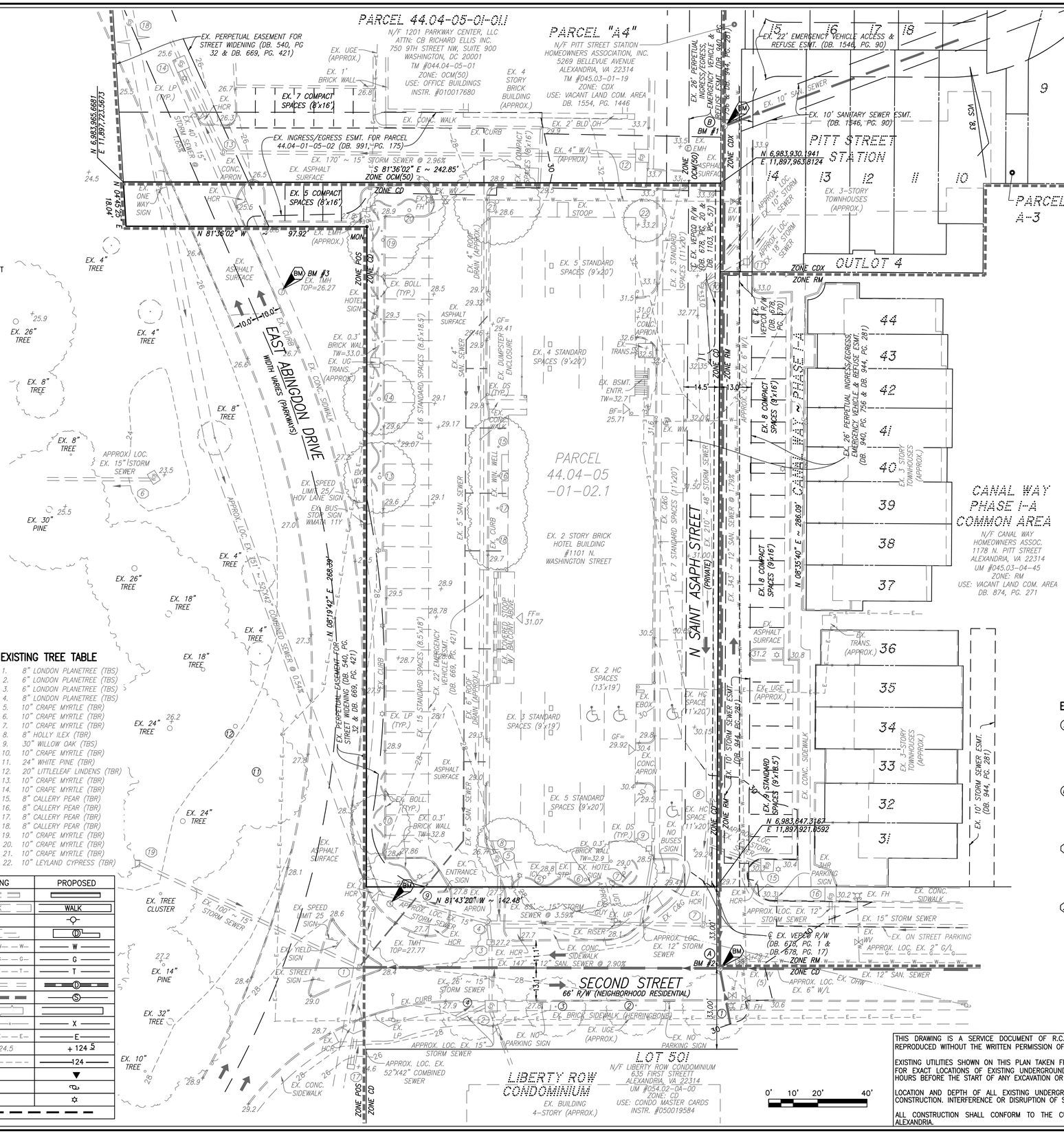
TYP= TYPICAL
UGE= UNDERGROUND ELECTRIC
UP= UTILITY POLE
VCS= VIRGINIA COORDINATE SYSTEM
VPD= VEHICLES PER DAY
W= WATT
W= WEST
W.S.E.= WATER SURFACE ELEVATION
WV= WATER VALVE
WM= WATER METER
W.W.= WINDOW WELL

EXISTING TREE TABLE

1. 8" LONDON PLANETREE (TBS)
2. 6" LONDON PLANETREE (TBS)
3. 6" LONDON PLANETREE (TBS)
4. 8" LONDON PLANETREE (TBS)
5. 10" CRAPE MYRTLE (TBR)
6. 10" CRAPE MYRTLE (TBR)
7. 10" CRAPE MYRTLE (TBR)
8. 8" HOLLY ILEX (TBR)
9. 30" WILLOW OAK (TBS)
10. 10" CRAPE MYRTLE (TBR)
11. 24" WHITE PINE (TBR)
12. 20" LITTLELEAF LINDENS (TBR)
13. 10" CRAPE MYRTLE (TBR)
14. 10" CRAPE MYRTLE (TBR)
15. 8" CALLERY PEAR (TBR)
16. 8" CALLERY PEAR (TBR)
17. 8" CALLERY PEAR (TBR)
18. 8" CALLERY PEAR (TBR)
19. 10" CRAPE MYRTLE (TBR)
20. 10" CRAPE MYRTLE (TBR)
21. 10" CRAPE MYRTLE (TBR)
22. 10" LEYLAND CYPRESS (TBR)

CIVIL LEGEND

ITEM	EXISTING	PROPOSED
CURB & GUTTER		
SIDEWALK	WALK	WALK
FIRE HYDRANT		
STRUCTURES	D	D
WATER MAINS	W	W
GAS MAINS	G	G
TELEPHONE LINES	T	T
STORM SEWER	D	D
SANITARY SEWER	S	S
PAVING		
FENCES	X	X
POWER LINES	E	E
SPOT ELEVATIONS	+ 124.5	+ 124.5
CONTOURS	124	124
BUILDING ENTRANCES	▽	▼
UTILITY POLE		
LIGHT POLE		
LIMITS OF DISTURBANCE		



GENERAL NOTES:

1. TAX MAP: #044.04-05-02
2. ZONE: CD
3. OWNER: CIA-COLONY INN LLC
   3147 WOODLAND LANE
   ALEXANDRIA, VA 22309
   INSTRUMENT #120027595

   DEVELOPER: TOLL BROS., INC
   5162A JACOBS CREEK PLACE
   HAYMARKET, VA 20169
4. TOPOGRAPHIC SURVEY WAS RUN BY THIS FIRM. VERTICAL DATUM USED = NAVD '88
   MONUMENT = CITY OF ALEXANDRIA GPS 44. ELEVATION = 29.43'

   BOUNDARY REFERENCED TO VIRGINIA COORDINATE SYSTEM, 1983. MONUMENTS USED:
   CITY OF ALEXANDRIA GPS #44. N = 6,983,605.74 E = 11,897,590.11
   CITY OF ALEXANDRIA GPS #500. N = 6,983,871.31 E = 11,898,947.54
5. TITLE COMMITMENT FURNISHED BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NO. 192001411, EFFECTIVE DATE AUGUST 1, 2012 AND IS RELIED UPON AS ACCURATE BY THE SURVEYOR.
6. PLAT SUBJECT TO RESTRICTIONS OF RECORD.
7. TOTAL SITE AREA = 42,746 S.F. OR 0.9813 AC.
8. THERE ARE NO RESOURCE PROTECTION AREAS (RPA'S), TIDAL WETLANDS, SHORES, TRIBUTARY STREAMS, FLOOD PLAINS, OR BUFFER AREAS FOR SHORES, WETLANDS, CONNECTED TIDAL WETLANDS, ISOLATED WETLANDS OR HIGHLY ERODIBLE/PERMEABLE SOILS LOCATED ON THIS SITE.
9. THERE ARE NO KNOWN CONTAMINATED AREAS, CONTAMINATED SOILS OR ENVIRONMENTAL ISSUES ASSOCIATED WITH THIS SITE. THIS SITE IS LOCATED WITHIN 1000' OF A FORMER SANITARY LANDFILL.
10. THE "GENERALIZED ALEXANDRIA SOILS MAP" IDENTIFIES THE SOILS FOR THIS SITE AS KEYPORT SILT LOAM. THE KEYPORT SILT LOAM OCCURS IN THE LOW, SMOOTH TERRACES ALONG THE POTOMAC RIVER. IT IS GENTLY UNDULATING WITH FAIRLY WELL ESTABLISHED DRAINAGE.

TOPOGRAPHIC NOTE:

THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF R.J. KELLER, LS FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED ON AUGUST 8, 2012; AND THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

EXISTING CONDITIONS SURVEY NOTES:

1. UTILITY INFORMATION, AS SHOWN ON THIS PLAN, IS TAKEN FROM THE RECORDS AND/OR FIELD SURVEY COMPLETED AND CANNOT BE GUARANTEED. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.
2. LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR/ENGINEER SHOULD DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS TO VERIFY EXACT LOCATION.

UTILITY OWNERSHIP NOTE:

- GAS: ALL GAS LINES SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY WASHINGTON GAS COMPANY. CONTACT: KEN McCONKEY 703-750-4756; ADDRESS: WASHINGTON GAS, 6801 INDUSTRIAL ROAD, SPRINGFIELD, VA 22151.
- ELECTRIC: ALL ELECTRIC UTILITIES SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY DOMINION VIRGINIA POWER. ANY RELOCATION OF EXISTING POLES AND LINES WILL BE COORDINATED WITH DOMINION VIRGINIA POWER. CONTACT: 1-866-366-4357; ADDRESS: DOMINION POWER, P.O. BOX 26666, RICHMOND, VA 23261.
- WATER: ALL EXISTING WATER LINES AND FIRE HYDRANTS SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY VIRGINIA AMERICAN WATER COMPANY (V.A.W.C.). EXISTING WATER SERVICES FROM METERS TO THE EXISTING BUILDINGS ARE OWNED AND MAINTAINED BY THE PROPERTY OWNER. PROPOSED WATER SERVICES FROM METERS TO THE PROPOSED BUILDINGS ARE OWNED AND MAINTAINED BY THE PROPERTY OWNER. CONTACT: NETWORK SUPERVISOR FOR THE SOUTHEAST REGION HAO (STEVEN) CHEN 703-706-3889; ADDRESS: VIRGINIA AMERICAN WATER COMPANY, 2223 DUKE STREET, ALEXANDRIA, VA 22314.
- SANITARY SEWER: ALL EXISTING AND PROPOSED SANITARY SEWER MAINS SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY THE CITY OF ALEXANDRIA. THE PROPOSED SANITARY LATERALS WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER. CONTACT: PUBLIC WORKS SERVICES, 2900 BUSINESS CENTER DRIVE, ALEXANDRIA, VA. TELEPHONE: 703-746-4357.
- STORM SEWER: ALL EXISTING AND PROPOSED STORM SEWER LOCATED IN THE PUBLIC RIGHT-OF-WAY SHOWN ON THIS PLAN IS OWNED AND MAINTAINED BY THE CITY OF ALEXANDRIA. ANY PROPOSED ON-SITE STORM SEWER WILL BE MAINTAINED BY THE PROPERTY OWNER. CONTACT: PUBLIC WORKS SERVICES, 2900 BUSINESS CENTER DRIVE, ALEXANDRIA, VA. TELEPHONE: 703-746-4357.
- TELEPHONE: ALL TELEPHONE LINES ARE OWNED BY VERIZON. CONTACT: SECTION MANAGER MIKE TYSINGER 804-772-6625; ADDRESS: VERIZON VIRGINIA, INC., 3011 HUNGARY SPRING ROAD, 2ND FLOOR, RICHMOND, VA 23228.

EXISTING SEWER SCHEDULE

(A) BENCHMARK #1
EX. SAN. MH
TOP=29.38
INV.IN=20.98(10",S)
INV.IN=20.68(12",N)
INV.IN=20.48(12",E)
INV.OUT=20.38(12")

(B) BENCHMARK #2
EX. SAN. MH
TOP=33.83
INV.IN=26.93(10",NE)
INV.IN=26.83(12",N)
INV.OUT=26.83(12")

(1) EX. COMB. MH
TOP=28.52
INV.IN=21.52(15",W)
INV.IN=16.12(12",E)
INV.IN=14.72(52",N)
INV.OUT=14.67(52"x42")

(2) EX. CURB INLET
TOP=27.61
INV.IN=22.31(15",S)
INV.IN=21.71(15",W)
INV.OUT=21.31(15")

(3) EX. GRATE INLET
TOP=27.16
INV.IN=22.06(15",N)
INV.OUT=20.96(15",S)

(4) EX. STORM MH
TOP=27.39
INV.IN=20.39(15",S)
INV.IN=19.39(15",E)
INV.OUT=19.29(15")

(5) EX. CURB INLET
TOP=26.96
INV.IN=22.76(8")
INV.OUT=22.46(15")

(6) EX. STORM INLET
TOP=23.54
INV.OUT=17.04(15")

(7) EX. STORM MH
TOP=29.31
INV.IN=22.61(15",E)
INV.IN=22.61(15",N)
INV.OUT=22.51(15")

(8) EX. STORM MH
TOP=29.92
PIPES BLOCKED

(9) EX. CURB INLET
TOP=28.85
INV.OUT=25.55(12")

(10) EX. STORM MH
TOP=32.99
INV.IN=27.39(18",NE)
INV.IN=24.69(10",N)
INV.OUT=24.59(48")

(11) EX. GRATE INLET
TOP=32.45
INV.IN=27.55(18")
INV.OUT=27.45(18")

(12) EX. CURB INLET
TOP=33.49
INV.OUT=26.79(15")

(13) EX. STORM MH
TOP=25.65
INV.IN=21.75(15")
INV.OUT=21.65(15")

(14) EX. CURB INLET
TOP=25.64
INV.IN=20.99(15")
INV.OUT=20.94(15")

(15) EX. CURB INLET
TOP=30.31
INV.OUT=26.31(12")

(16) EX. CURB INLET
TOP=30.29
INV.OUT=26.49(15")

(17) EX. GRATE INLET
TOP=24.61
INV.OUT=21.51(15")

(18) EX. COMB. MH
TOP=27.48
INV.IN=19.18(52")
INV.OUT=18.78(52")

(19) EX. GRATE INLET
TOP=25.10

EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.

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APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. 2017-0014
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ DATE _____

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www.rcfassoc.com
(703) 549-6422

COMMONWEALTH OF VIRGINIA
ANDREA SPRUCH
Lic. No. 047863
FEBRUARY 13, 2018
PROFESSIONAL ENGINEER

DEVELOPMENT PRELIMINARY SITE PLAN
ABINGDON PLACE
1101 NORTH WASHINGTON STREET
CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

DESIGN: ACS
DRAWN: TJD
SCALE: 1" = 20'
DATE: DEC. 2017

EXISTING CONDITIONS PLAN

SHEET 4 OF 15
FILE: 12-109

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TEXT LEGEND:

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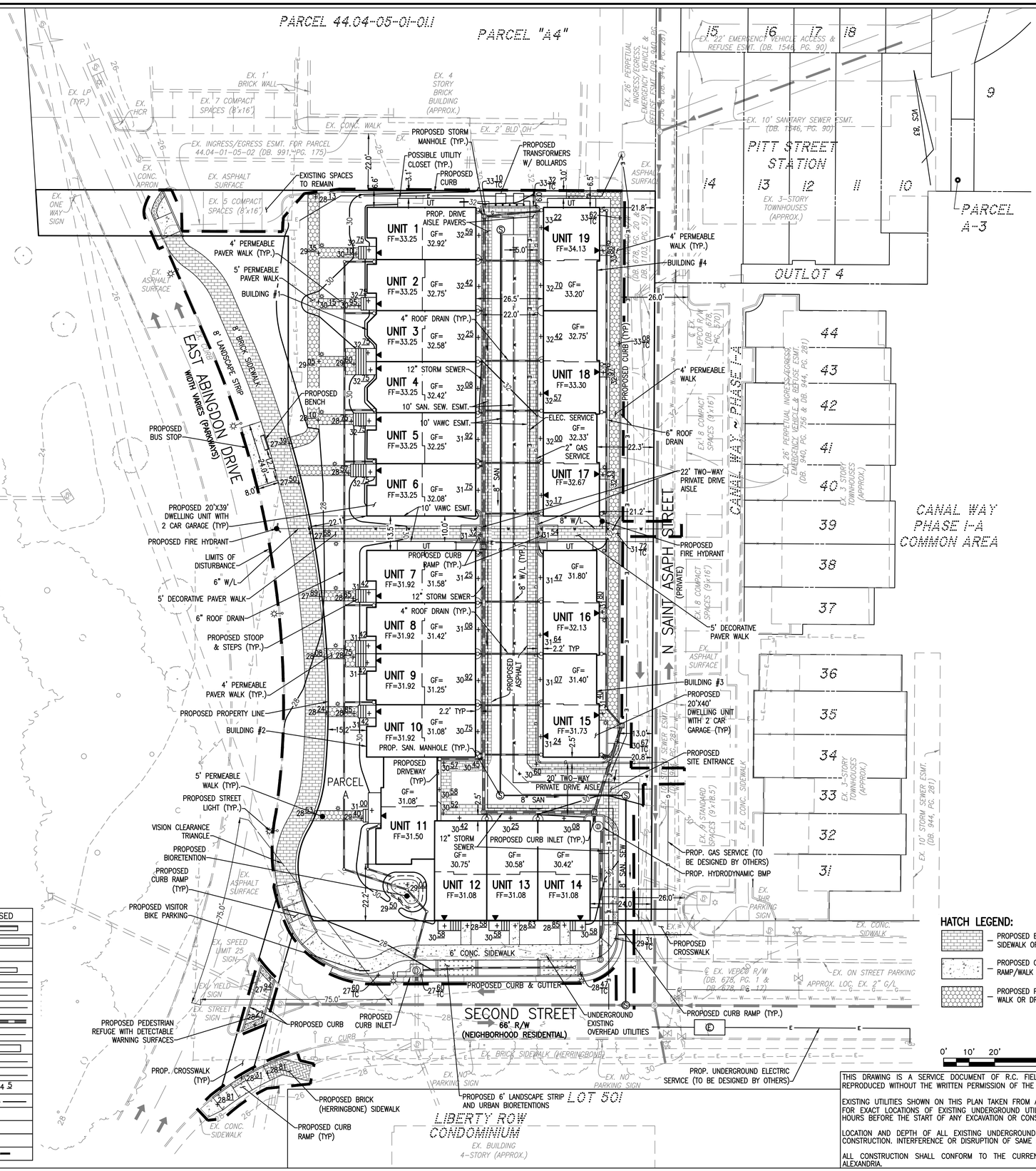
WM= WATER METER
W.W.= WINDOW WELL

CIVIL LEGEND

ITEM	EXISTING	PROPOSED
CURB & GUTTER		
SIDEWALK	WALK	WALK
FIRE HYDRANT		
STRUCTURES	D	D
WATER MAINS	W	W
GAS MAINS	G	G
TELEPHONE LINES	T	T
STORM SEWER	D	D
SANITARY SEWER	S	S
PAVING		
FENCES	X	X
POWER LINES	E	E
SPOT ELEVATIONS	+ 124.5	+ 124.5
CONTOURS	124	124
BUILDING ENTRANCES		
UTILITY POLE		
LIGHT POLE		
LIMITS OF DISTURBANCE		



GENERAL NOTES:

1. TAX MAP: #044.04-05-02
2. ZONE: CD
3. OWNER: CIA-COLONY INN LLC
   3147 WOODLAND LANE
   ALEXANDRIA, VA 22309
4. TOPOGRAPHIC SURVEY WAS RUN BY THIS FIRM. VERTICAL DATUM USED = NAVD '88
   MONUMENT = CITY OF ALEXANDRIA GPS 44. ELEVATION = 29.43'

   BOUNDARY REFERENCED TO VIRGINIA COORDINATE SYSTEM, 1983. MONUMENTS USED:
   CITY OF ALEXANDRIA GPS #44. N = 6,983,605.74 E = 11,897,590.11
   CITY OF ALEXANDRIA GPS #500. N = 6,983,871.31 E = 11,898,947.54
5. TITLE COMMITMENT FURNISHED BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NO. 192001411, EFFECTIVE DATE AUGUST 1, 2012 AND IS RELIED UPON AS ACCURATE BY THE SURVEYOR.
6. PLAT SUBJECT TO RESTRICTIONS OF RECORD.
7. TOTAL SITE AREA = 40,723 S.F. OR 0.9349 AC. (POST-DEDICATION)

SANITARY SEWER OUTFALL NARRATIVE:

THE EXISTING USE (HOTEL) PRODUCES AN AVERAGE DAILY FLOW OF APPROXIMATELY 25,480 GALLONS PER DAY (130 GPD/ROOM X 49 ROOMS X 4.0 PEAK FACTOR). THE PROPOSED USE (MULTIFAMILY) PRODUCES 22,800 GALLONS PER DAY (300 GPD/UNIT X 19 UNITS X 4.0 PEAK FACTOR). THE TOTAL FLOW FROM THE THE PROPOSED USE DECREASES THE AVERAGE DAILY FLOW BY 2,680 GPD THEREFORE NO SANITARY SEWER OUTFALL ANALYSIS IS REQUIRED.

FIRE HYDRANT FLOW INFORMATION:

(PROVIDED BY VIRGINIA AMERICAN WATER)
HYDRANT NUMBER: 1274 (SECOND STREET AND EAST ABINGDON STREET)

STATIC	=	49 PSI
RESIDUAL	=	39 PSI
FLOW	=	1,488 GPM
Q20	=	2,644 GPM

FIRE SERVICE NOTE:

FIRE TRUCK ACCESS AND TURNING MOVEMENTS ARE SHOWN ON SHEET 15. TWO FIRE HYDRANTS ARE PROPOSED, WHICH WILL BE USED TO SERVE THE PROPOSED DEVELOPMENT, ONE ON E. ABINGDON DRIVE AND ONE ON N. SAINT ASAPH STREET. SEE FLOW INFORMATION, THIS SHEET. A DETAILED FIRE SAFETY PLAN WILL BE INCLUDED WITH SUBSEQUENT SUBMISSIONS.

ARCHAEOLOGY NOTES:

THE APPLICANT/DEVELOPER SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.

THE APPLICANT SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY. FAILURE TO COMPLY SHALL RESULT IN PROJECT DELAYS.

ALL REQUIRED ARCHAEOLOGICAL PRESERVATION MEASURES SHALL BE COMPLETED IN COMPLIANCE WITH SECTION 11-411 OF THE ZONING ORDINANCE.

SEE THE UTILITY PLAN ON SHEET 6 FOR PROPOSED WATER SERVICE AND SANITARY LATERAL LOCATIONS

HATCH LEGEND:

- PROPOSED BRICK/DECORATIVE SIDEWALK OR DRIVE AISLE PAVERS
- PROPOSED CONCRETE RAMP/WALK
- PROPOSED PERMEABLE PAVER WALK OR DRIVE AISLE

0' 10' 20' 40'

THIS DRAWING IS A SERVICE DOCUMENT OF R.C. FIELDS & ASSOCIATES, INC. AND MAY NOT BE USED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER AND/OR LAND SURVEYOR.

EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.

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DATE	REVISION

DESIGN: ACS
DRAWN: TJD
SCALE: 1" = 20'
DATE: DEC. 2017

PRELIMINARY SITE PLAN

SHEET 5 OF 15
FILE: 12-109

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Tue, Feb 13 2018 - 11:58:42am

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WATER MAINS	W	W
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STORM SEWER	D	D
SANITARY SEWER	S	S
PAVING		
FENCES	X	X
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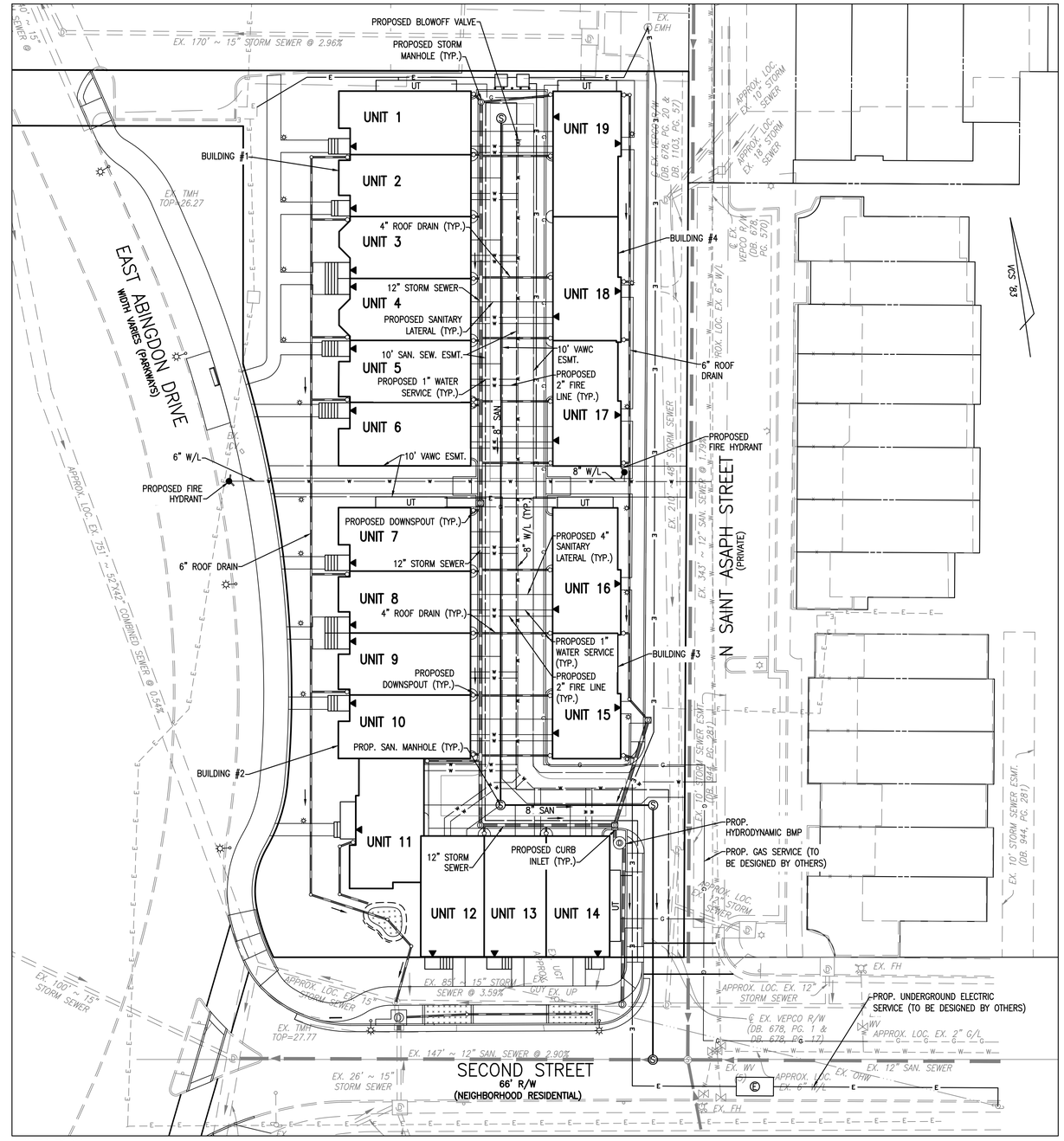
SPOT ELEVATIONS	+124.5	+124.5
CONTOURS	124	124
BUILDING ENTRANCES	▽	▼
UTILITY POLE		
LIGHT POLE		
LIMITS OF DISTURBANCE		



UTILITY PLAN
SCALE: 1" = 20'

0' 10' 20' 40'

WATER SERVICE NOTE

THE SIZING OF THE PROPOSED DOMESTIC WATER AND FIRE SERVICE MAY BE CHANGED DUE TO ACTUAL DESIGN CONSTRAINTS.

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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
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DIRECTOR — DATE
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COMMONWEALTH OF VIRGINIA
ANDREA SPRUCH
Lic. No. 047863
FEBRUARY 13, 2018
PROFESSIONAL ENGINEER

DEVELOPMENT PRELIMINARY SITE PLAN
ABINGDON PLACE
1101 NORTH WASHINGTON STREET
CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

DESIGN: ACS
DRAWN: TJD
SCALE: 1" = 20'
DATE: DEC. 2017

UTILITY PLAN

SHEET 6 OF 15
FILE: 12-109

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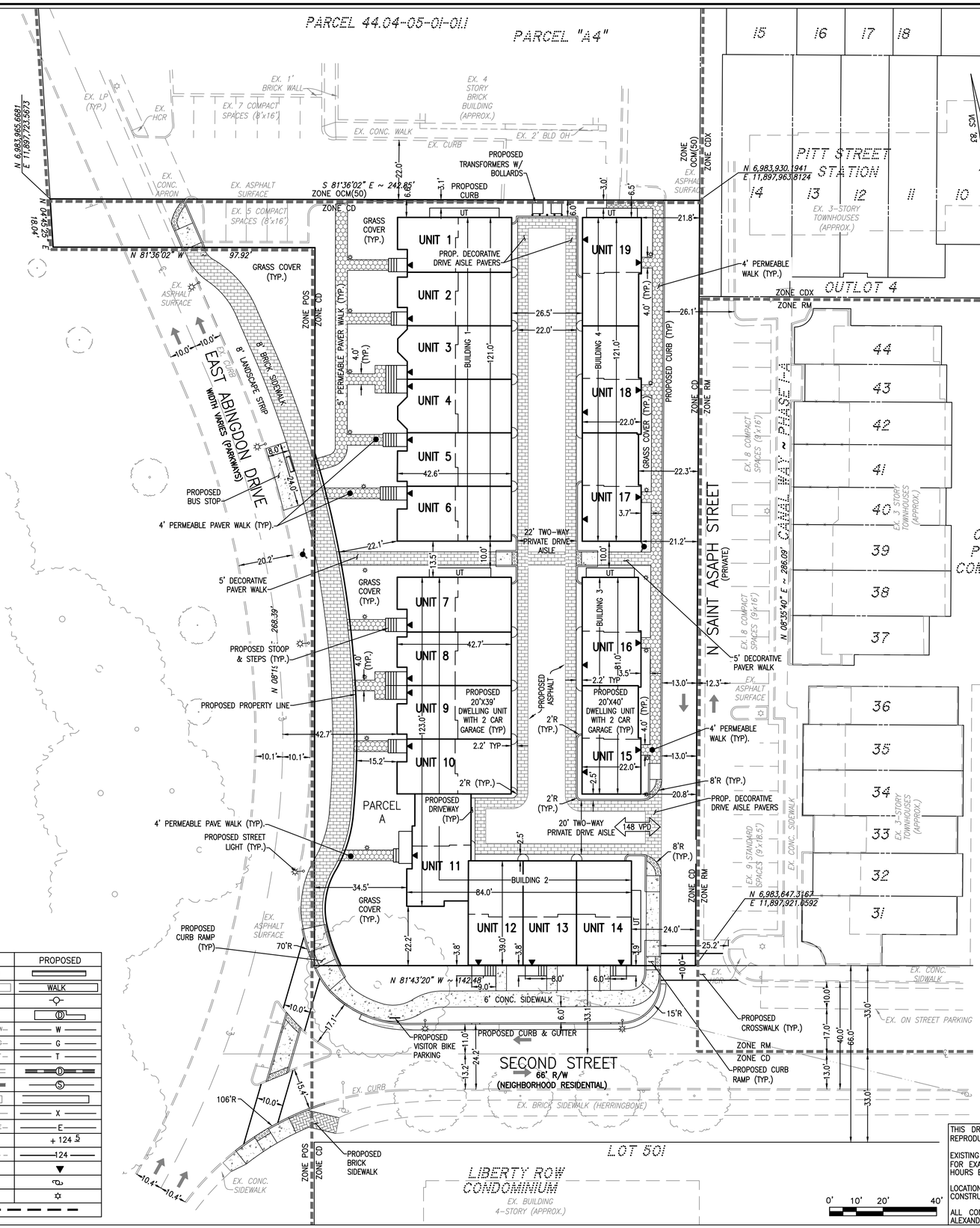
TEXT LEGEND:

'= DEGREES
"= MINUTES (OR FEET)
"= SECONDS (OR INCHES)
%= PERCENT
#= NUMBER
@= AT
lbs.= POUNDS
A= ARC
AC.= ACRE
ADA = AMERICANS W/ DISABILITIES ACT
APPROX=APPROXIMATE
BC=BOTTOM OF CURB
BF= BASEMENT FLOOR
BLDG.= BUILDING
BM= BENCHMARK
BOL.= BOLLARD
CATV= CABLE UTILITY
CL= CLASS
CLEAR= CLEARANCE
CLF= CHAIN LINK FENCE
CMP = CORRUGATED METAL PIPE
C.I.= CURB INLET
C.O.= CLEAN OUT
CONC.= CONCRETE
C&G= CURB & GUTTER
DB= DEED BOOK
DIP= DUCTILE IRON PIPE
DOM= DOMESTIC
DSP= DEVELOPMENT SITE PLAN
DSUP= DEVELOPMENT SPECIAL USE PERMIT
DU= DWELLING UNIT
E= EAST
EBOX= ELECTRICAL BOX
ESMT.= EASEMENT
EP= EDGE OF PAVEMENT
EVE= EMERGENCY VEHICLE EASEMENT
EX=EXISTING
FDC= FIRE DEPT. CONNECTION
FF= FINISH FLOOR
FH= FIRE HYDRANT
FT.= FEET
GL = GROUND LIGHT
G/V= GAS VALVE
G/M= GAS METER
G.I.= GRATE INLET
H.C.= HEADER CURB
HCR= HANDICAP RAMP
HDCP.= HANDICAP
HDPE= HIGH DENSITY POLYETHYLENE
HPS= HIGH PRESSURE SODIUM
ICV= IRRIGATION CONTROL VALVE
IPF= IRON PIPE FOUND
INV.= INVERT
INSTR.= INSTRUMENT
L= LUMENS
LOC.= LOCATION
LP= LIGHT POLE
MAX.= MAXIMUM
MH= MANHOLE
MIN.= MINIMUM
MPH= MILES PER HOUR
MW= MONITORING WELL
N= NORTH
OHW= OVERHEAD WIRE
PN = PANEL
PG= PAGE
PP= POWER POLE
PROP= PROPOSED
PVC= POLYVINYL CHLORIDE
R= RADIUS
RCP= RE-ENFORCED CONCRETE PIPE
RELOC. = RELOCATED
RET.= RETAINING
RESID.= RESIDENTIAL
R/W= RIGHT-OF-WAY
S= SOUTH
SAN.= SANITARY SEWER
S.F.= SQUARE FEET
SQ.FT.= SQUARE FEET
STM.= STORM SEWER
STR.= STRUCTURE
SUB= SUBDIVISION PLAN
TBR = TO BE REMOVED
TBS = TO BE SAVED
T.M.= TAX MAP
TMH= TELEPHONE MANHOLE
TC= TOP OF CURB
TOW = TOP OF WALL
TRAF.SIG.= TRAFFIC SIGNAL
TYP= TYPICAL
UGE= UNDERGROUND ELECTRIC
UP= UTILITY POLE
VCS= VIRGINIA COORDINATE SYSTEM
VPD= VEHICLES PER DAY
W= WATT
W= WEST
W.S.E.= WATER SURFACE ELEVATION
WV= WATER VALVE
WM= WATER METER
W.W.= WINDOW WELL

CIVIL LEGEND

ITEM	EXISTING	PROPOSED
CURB & GUTTER		
SIDEWALK	WALK	WALK
FIRE HYDRANT		
STRUCTURES	D	D
WATER MAINS	W	W
GAS MAINS	G	G
TELEPHONE LINES	T	T
STORM SEWER	D	D
SANITARY SEWER	S	S
PAVING		
FENCES	X	X
POWER LINES	E	E
SPOT ELEVATIONS	+124.5	+124.5
CONTOURS	124	124
BUILDING ENTRANCES		
UTILITY POLE		
LIGHT POLE		
LIMITS OF DISTURBANCE		



ARCHAEOLOGY NOTES:

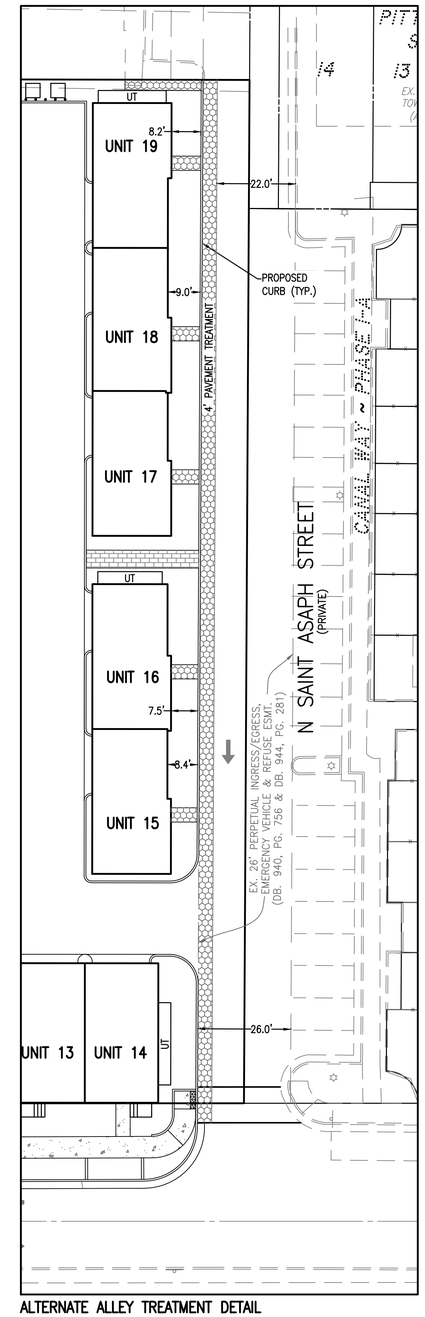
THE APPLICANT/DEVELOPER SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.

THE APPLICANT SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY. FAILURE TO COMPLY SHALL RESULT IN PROJECT DELAYS.

ALL REQUIRED ARCHAEOLOGICAL PRESERVATION MEASURES SHALL BE COMPLETED IN COMPLIANCE WITH SECTION 11-411 OF THE ZONING ORDINANCE.

LEGEND:

- PROPOSED BRICK/DECORATIVE SIDEWALK OR DRIVE AISLE PAVERS
- PROPOSED CONCRETE RAMP/WALK
- PROPOSED PERMEABLE PAVER WALK OR DRIVE AISLE
- ZONING DISTRICT BOUNDARY LINE



ALTERNATE ALLEY TREATMENT DETAIL

SCALE: 1" = 20'

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SITE DIMENSION PLAN

SHEET 7 OF 15
FILE: 12-109

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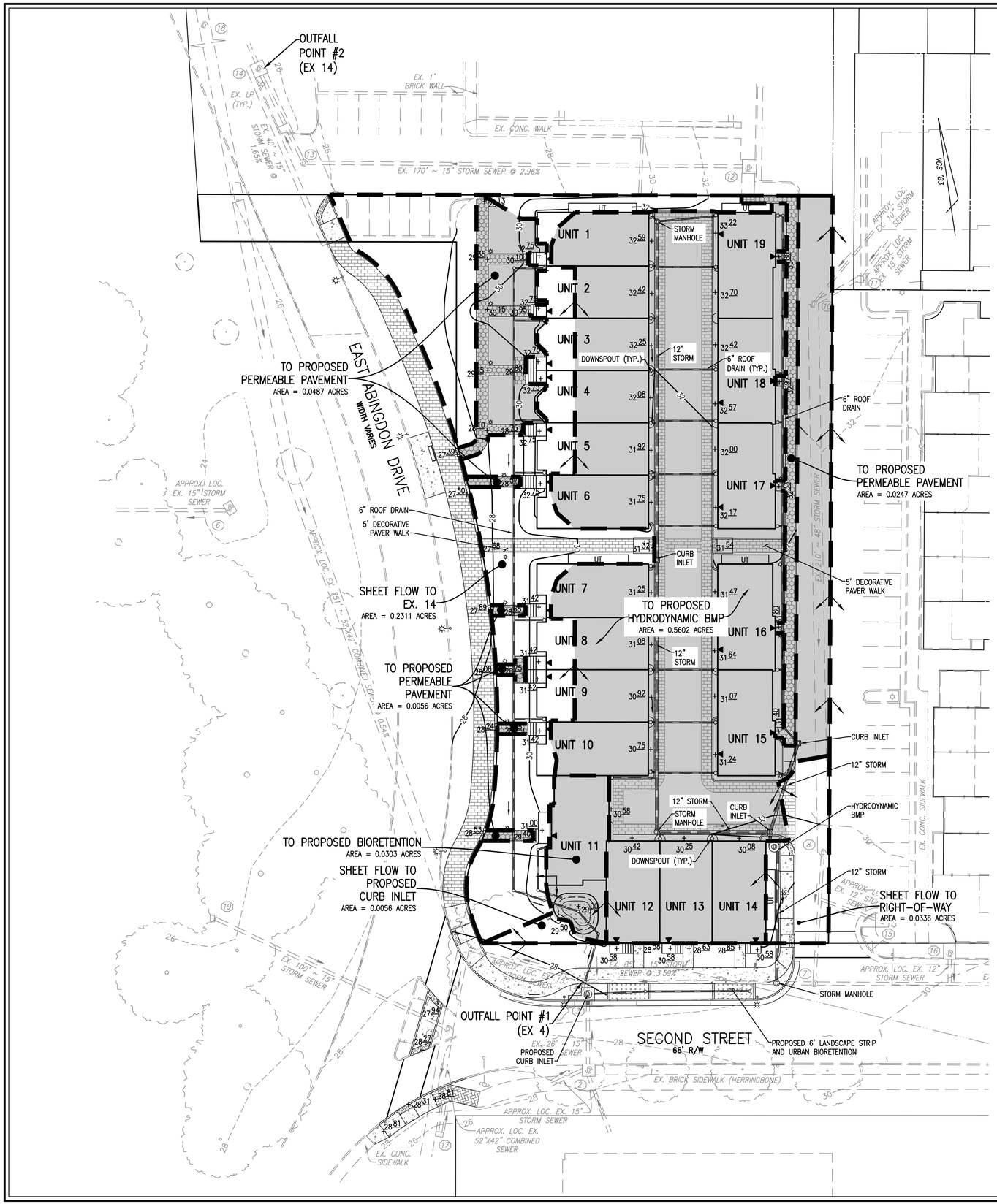

STORMWATER RUNOFF COMPUTATIONS:

VIRGINIA RUNOFF REDUCTION METHOD
(PER TR-20, TYPE II, 24-HOUR STORM COMPUTER USING HYDROCAD SOFTWARE)
(2-YR, 24-HR DEPTH=3.20 IN, 10-YR, 24-HR DEPTH=5.20 IN)

I. SITE AREA* = 40,723 SQ.FT. OR 0.9349 ACRES
EXISTING IMPERVIOUS AREA = 34,903 SQ.FT. OR 0.8013 ACRES
PROPOSED IMPERVIOUS AREA = 30,740 SQ.FT. OR 0.7057 ACRES

II. WEIGHTED CN CALCULATION

PRE-DEVELOPMENT CN = (80 X 0.1336 + 98 X 0.8013) ÷ 0.9349 = 95
POST-DEVELOPMENT CN = (80 X 0.2292 + 98 X 0.7057) ÷ 0.9349 = 94
POST-DEVELOPMENT CN AFTER RUNOFF REDUCTION (FROM VRRM) = 94

III. PEAK DISCHARGE FOR DESIGN STORMS (Tc = 5 MIN)

PRE-DEVELOPMENT
Q_2 PRE = 2.75 CFS
Q_{10} PRE = 4.64 CFS

POST-DEVELOPMENT
Q_2 POST = 2.69 CFS
Q_{10} POST = 4.59 CFS

IV. POST-DEVELOPMENT DECREASES

Q_2 DECREASE = 0.06 CFS
Q_{10} DECREASE = 0.05 CFS

V. DETENTION VOLUME
ESTIMATED DECREASE IN RUNOFF, THEREFORE NO DETENTION IS REQUIRED.

*NOTE: THE SITE AREA IS REPRESENTATIVE OF THE TOTAL PARCEL AREA AFTER ALL DEDICATIONS AND VACATIONS HAVE OCCURRED.

DETAILS OF THE PROPOSED BIORETENTION, PERVIOUS PAVER, HYDRODYNAMIC BMP AND TREE WELLS CAN BE FOUND ON SHEETS 9-11

WATER QUALITY/QUANTITY COMPLIANCE NARRATIVE:

THE 0.93 ACRE SITE IS LOCATED IN THE CSO-PENDLETON STREET WATERSHED. IN EXISTING CONDITIONS, THE SITE CONSISTS OF A HOTEL WITH ASSOCIATED PARKING AND A VERY LITTLE LANDSCAPED OPEN SPACE. THE MAJORITY OF THE SITE DRAINS SOUTH AND IS COLLECTED IN AN EXISTING UNDERGROUND STORM SEWER SYSTEM THAT IS CONVEYED TO THE SECOND STREET RIGHT-OF-WAY. THE REMAINING PORTION OF THE SITE SHEETS FLOWS NORTH AND IS COLLECTED IN AN EXISTING CURB INLET LOCATED IN THE EAST ABINGDON DRIVE RIGHT-OF-WAY.

THE REDEVELOPMENT OF THE PROJECT PROPOSES 19 TOWNHOUSE-STYLE CONDOMINIUM UNITS AND IMPROVED STREETSCAPE/OPEN SPACE. IN PROPOSED CONDITIONS, THE MAJORITY OF THE SITE WILL CONTINUE TO DRAIN SOUTH TO AN UNDERGROUND STORM SEWER SYSTEM THAT CONVEYS RUNOFF TO THE SECOND STREET RIGHT-OF-WAY. THE REMAINING PORTION OF THE SITE SHEETS FLOWS NORTH AND IS COLLECTED IN AN EXISTING CURB INLET LOCATED IN THE EAST ABINGDON DRIVE RIGHT-OF-WAY.

OVERALL IMPERVIOUS AREA WILL DECREASE WITH THE PROPOSED DEVELOPMENT (SEE STORMWATER RUNOFF COMPUTATIONS, THIS SHEET) WHICH GENERATES AN OVERALL DECREASE IN RUNOFF. DUE TO THE REDUCTION OF RUNOFF, ONSITE STORMWATER DETENTION IS NOT REQUIRED.

MULTIPLE BEST MANAGEMENT PRACTICE (BMP) FACILITIES ARE PROPOSED TO TREAT THE MAJORITY OF RUNOFF FROM PROPOSED IMPERVIOUS AREAS OF THE SITE (INCLUDING A BIORETENTION, PERMEABLE PAVEMENT, A HYDRODYNAMIC BMP, AND AN URBAN BIORETENTION IN THE PUBLIC RIGHT-OF-WAY). A CONTRIBUTION TO THE ALEXANDRIA WATER QUALITY IMPROVEMENT FUND WILL BE MADE FOR THE REMAINDER OF THE WATER QUALITY VOLUME NOT TREATED FOR THIS SITE.

COMPLIANCE NARRATIVES AND COMPUTATIONS PER CITY CODE SECTION 13-109E ARE PROVIDED ON SHEET 12.

PROJECT DESCRIPTION:

REDEVELOPMENT

DRAINAGE AREA	IMPERVIOUS	PERVIOUS	TOTAL
PROJECT AREA	0.7057	0.2292	0.9349
ON-SITE TREATED	0.5960	0.0705	0.6665
OFF-SITE TREATED	0.0000	0.0000	0.0000
TOTAL TREATED	0.5960	0.0705	0.6665
ON-SITE IMPERVIOUS AREAS DISCONNECTED BY A VEGETATIVE BUFFER	N/A		
TOTAL TREATED OR DISCONNECTED			0.6665

WATER QUALITY VOLUME DEFAULT:

PROPOSED IMPERVIOUS: 0.7057 AC
TREATMENT OF FIRST HALF INCH OF RUNOFF: 1,815 X 0.7057 = 1,281 CU. FT. WQV REQUIRED

WATER TREATMENT ON-SITE			
BMP TYPE	AREA TREATED BY BMP (ACRES)	IMPERVIOUS AREA TREATED BY BMP (ACRES)	BMP EFFICIENCY (%)
PERVIOUS PAVER*	0.0760	0.0464	25%
HYDRODYNAMIC BMP	0.5602	0.5285	20%
BIORETENTION	0.0303	0.0211	25%

TOTAL WQV TREATED: NO
WATER QUALITY VOLUME REQUIRED = 1,281 CU. FT.
WATER QUALITY VOLUME TREATED = 1,815 X 0.6665 = 1,210 CU. FT.
PERCENT OF WATER QUALITY VOLUME TREATED = 94.5%
DETENTION ON SITE: NO
PROJECT IS WITHIN WHICH WATERSHED? CSO – PENDLETON STREET
PROJECT DISCHARGES TO WHICH BODY OF WATER? POTOMAC RIVER

BMP SCHEDULE:

BMP FACILITY		AREA TREATED (ACRES)	IMPERVIOUS AREA TREATED (ACRES)	PERVIOUS AREA TREATED (ACRES)	TP REMOVAL EFFICIENCY	PHOSPHORUS REMOVED (LBS)	GEOGRAPHIC COORDINATES NORTHING	GEOGRAPHIC COORDINATES EASTING
PERVIOUS PAVERS	A	0.0760	0.0464	0.0296	25%	0.06	11897823.95	6983894.46
	B						11897820.75	6983839.77
	C						11897818.39	6983791.07
	D						11897816.13	6983768.52
	E						11897814.49	6983745.76
	F						11897807.28	6983705.22
	G						11897932.41	6983822.60
HYDRODYNAMIC BMP		0.5602	0.5285	0.0317	20%	0.23	11897906.38	6983686.75
BIORETENTION		0.0303	0.0211	0.0092	25%	0.03	11897827.68	6983672.91

EXISTING SEWER SCHEDULE

(A) BENCHMARK #1
EX. SAN. MH
TOP=29.38
INV.IN=20.98(10",S)
INV.IN=20.68(12",N)
INV.IN=20.48(12",E)
INV.OUT=20.38(12")

(B) BENCHMARK #2
EX. SAN. MH
TOP=33.83
INV.IN=26.93(10",NE)
INV.IN=26.83(12",N)
INV.OUT=26.83(12")

(1) EX. COMB. MH
TOP=28.52
INV.IN=21.52(15",W)
INV.IN=16.12(12",E)
INV.IN=14.72(52",N)
INV.OUT=14.67(52"x42")

(2) EX. CURB INLET
TOP=27.61
INV.IN=22.31(15",S)
INV.IN=21.71(15",W)
INV.OUT=21.31(15")

(3) EX. GRATE INLET
TOP=27.16
INV.IN=22.06(15",N)
INV.OUT=20.96(15",S)

(4) EX. STORM MH
TOP=27.39
INV.IN=20.39(15",S)
INV.IN=19.39(15",E)
INV.OUT=19.29(15")

(5) EX. CURB INLET
TOP=26.96
INV.IN=22.76(8")
INV.OUT=22.46(15")

(6) EX. STORM INLET
TOP=23.54
INV.OUT=17.04(15")

(7) EX. STORM MH
TOP=29.31
INV.IN=22.61(15",E)
INV.IN=22.61(15",N)
INV.OUT=22.51(15")

(8) EX. STORM MH
TOP=29.92
PIPES BLOCKED

EX. CURB INLET
TOP=28.85
INV.OUT=25.55(12")

EX. STORM MH
TOP=32.99
INV.IN=27.39(18",NE)

(10) INV.IN=24.69(10",N)
INV.OUT=24.59(48")

(11) EX. GRATE INLET
TOP=32.45
INV.IN=27.55(18")
INV.OUT=27.45(18")

(12) EX. CURB INLET
TOP=33.49
INV.OUT=26.79(15")

(13) EX. STORM MH
TOP=25.65
INV.IN=21.75(15")
INV.OUT=21.65(15")

(14) EX. CURB INLET
TOP=25.64
INV.IN=20.99(15")
INV.OUT=20.94(15")

(15) EX. CURB INLET
TOP=30.31
INV.OUT=26.31(12")

(16) EX. CURB INLET
TOP=30.29
INV.OUT=26.49(15")

(17) EX. GRATE INLET
TOP=24.61
INV.OUT=21.51(15")

(18) EX. COMB. MH
TOP=27.48
INV.IN=19.18(52")
INV.OUT=18.78(52")

(19) EX. GRATE INLET
TOP=25.10

HATCH LEGEND:

- PROPOSED BRICK/DECORATIVE SIDEWALK OR DRIVE AISLE PAVERS
- PROPOSED CONCRETE RAMP/WALK
- PROPOSED PERMEABLE PAVER WALK OR DRIVE AISLE
- PROPOSED AREA TO BE TREATED

0' 10' 20' 40'

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STORMWATER MANAGEMENT PLAN

SHEET 8 OF 15
FILE: 12-109

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PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER:	KELLY HEFNER 704-215-0743 KELLY.HEFNER@ADS-PIPE.COM
ADS SALES REP:	JIM CLARK 240-463-0124 JAMES.CLARK@ADS-PIPE.COM
PROJECT NO:	S082070

ADS®
ADVANCED DRAINAGE SYSTEMS, INC.

ABINGDON PLACE

ALEXANDRIA, VA

BAYSAVER BARRACUDA SPECIFICATIONS

MATERIALS AND DESIGN

CONCRETE STRUCTURES: DESIGNED FOR H-20 TRAFFIC LOADING AND APPLICABLE SOIL LOADS OR AS OTHERWISE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER. THE MATERIALS AND STRUCTURAL DESIGN OF THE DEVICES SHALL BE PER ASTM C857 AND ASTM C858.

48" HP MANHOLE STRUCTURES: MADE FROM AN IMPACT MODIFIED COPOLYMER POLYPROPYLENE MEETING THE MATERIAL REQUIREMENTS OF ASTM F2764. THE ECCENTRIC CONE REDUCER SHALL BE MANUFACTURED FROM POLYETHYLENE MATERIAL MEETING ASTM D3350 CELL CLASS 213320C. GASKETS SHALL BE MADE OF MATERIAL MEETING THE REQUIREMENTS OF ASTM F477.

SEPARATOR INTERNALS SHALL BE SUBSTANTIALLY CONSTRUCTED OF STAINLESS STEEL, POLYETHYLENE, OR OTHER THERMOPLASTIC MATERIAL APPROVED BY THE MANUFACTURER.

PERFORMANCE

THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.

THE STORMWATER TREATMENT UNIT INTERNALS SHALL CONSIST OF (1) SEPARATOR CONE ASSEMBLY, AND (1) SUMP ASSEMBLY WHICH INCLUDES (4) LEGS WITH "TEETH".

THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.

-OR -

THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH d_{50}=75 MICRON AND 200 MG/L INFLUENT CONCENTRATION.

-OR -

THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER CURRENT NJDEP/NJCAT HDS PROTOCOL .

MANUFACTURER

EACH STORMWATER TREATMENT SYSTEM SHALL BE A BARRACUDA SYSTEM AS MANUFACTURED BY BAYSAVER, LLC, 1030 DEER HOLLOW DR., MOUNT AIRY, MD 21771, PHONE (301) 829-6470, FAX (301) 829-3747, TOLL FREE 1-800-229-7283 (1-800-BAYSAVER), EMAIL INFO@BAYSAVER.COM

BARRACUDA MAINTENANCE

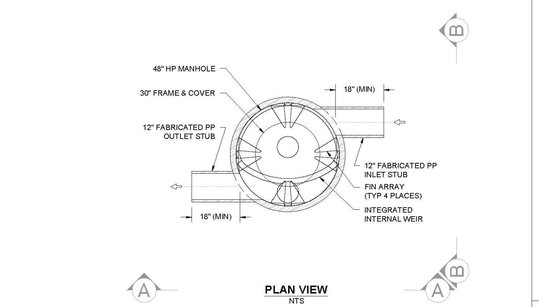
BARRACUDA SYSTEMS MUST BE INSPECTED AND MAINTAINED PERIODICALLY. INSPECTION IS MADE BY CHECKING THE DEPTH OF SEDIMENT IN EACH MANHOLE WITH A GRADE STICK OR SIMILAR DEVICE. MAINTENANCE IS REQUIRED WHEN THE SEDIMENT DEPTH IN EXCEEDS 20 INCHES. MINIMUM INSPECTION IS RECOMMENDED TWICE A YEAR TO MAINTAIN OPERATION AND FUNCTION OF THE UNIT.

MAINTENANCE INSTRUCTIONS

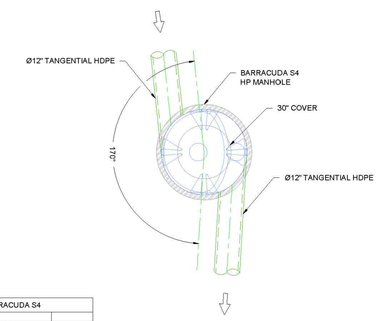
1. REMOVE THE MANHOLE COVER TO PROVIDE ACCESS TO THE POLLUTANT STORAGE. POLLUTANTS ARE STORED IN THE SUMP, BELOW THE BOWL ASSEMBLY VISIBLE FROM THE SURFACE. YOU'LL ACCESS THIS AREA THROUGH THE 10" DIAMETER ACCESS CYLINDER.
2. USE A VACUUM TRUCK OR OTHER SIMILAR EQUIPMENT TO REMOVE ALL WATER, DEBRIS, OILS AND SEDIMENT.
3. USE A HIGH PRESSURE HOSE TO CLEAN THE MANHOLE OF ALL THE REMAINING SEDIMENT AND DEBRIS. THEN, USE THE VACUUM TRUCK TO REMOVE THE WATER.
4. FILL THE CLEANED MANHOLE WITH WATER UNTIL THE LEVEL REACHES THE INVERT OF THE OUTLET PIPE.
5. REPLACE THE MANHOLE COVER.
6. DISPOSE OF THE POLLUTED WATER, OILS, SEDIMENT AND TRASH AT AN APPROVED FACILITY.
   - LOCAL REGULATIONS PROHIBIT THE DISCHARGE OF SOLID MATERIAL INTO THE SANITARY SYSTEM. CHECK WITH THE LOCAL SEWER AUTHORITY FOR AUTHORITY TO DISCHARGE THE LIQUID.
   - SOME LOCALITIES TREAT THE POLLUTANTS AS LEACHATE. CHECK WITH LOCAL REGULATORS ABOUT DISPOSAL REQUIREMENTS.
   - ADDITIONAL LOCAL REGULATIONS MAY APPLY TO THE MAINTENANCE PROCEDURE.

BARRACUDA INSTALLATION NOTES

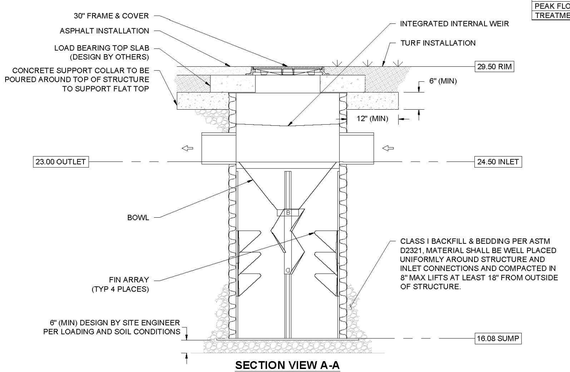
INSTALLATION OF THE STORMWATER TREATMENT UNIT(S) SHALL BE PERFORMED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH INSTRUCTIONS CAN BE OBTAINED BY CALLING ADVANCED DRAINAGE SYSTEMS AT (800) 821-6710 OR BY LOGGING ON TO WWW.ADS-PIPE.COM OR WWW.BAYSAVER.COM.



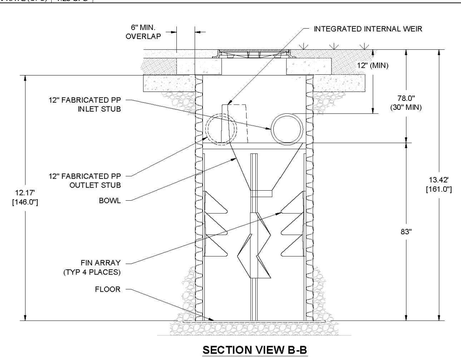
PLAN VIEW
NTS



BARRACUDA S4	
UNIT ID	
PEAK FLOW RATE (CFS)	6.25 CFS
TREATMENT FLOW RATE (CFS)	1.25 CFS



SECTION VIEW A-A
NTS



SECTION VIEW B-B
NTS

ABINGDON PLACE
ALEXANDRIA, VA
DATE: 12-08-17 DRAWN: VLW
PROJECT #: S082070 CHECKED: CJD

REV	DWN	CJD	DESCRIPTION

10320 Deer Hollow Drive
Mount Airy, MD 21771

1-800-BAYSAVER
1-800-229-7283

4640 TRUEMAN BLVD
HILLIARD, OH 43026

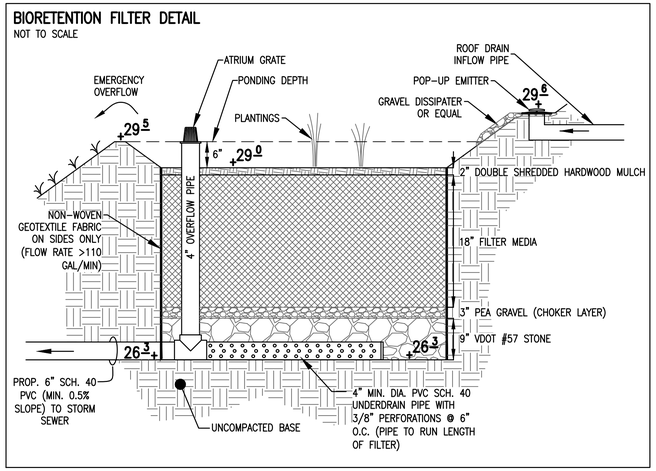
ADS
ADVANCED DRAINAGE SYSTEMS, INC.

NOT TO SCALE

SHEET 2 OF 2

BIORETENTION FILTER DETAIL

NOT TO SCALE



WATER QUALITY VOLUME CALCULATIONS:

TOTAL AREA TO BMP = 1,321 SQ.FT.
IMPERVIOUS AREA TO BMP = 920 SQ.FT. ("R_v" = 0.95)
PERVIOUS AREA TO BMP = 401 SQ.FT. ("R_v" = 0.25)

WATER QUALITY VOLUME REQUIRED:

T_V = (RV)(A)/12
WHERE:
A = AREA TO FACILITY (1,321 SF)
R_V = COMPOSITE RUNOFF COEFFICIENT
R_V = $\frac{[(0.25*401)+(0.95*920)]}{1321}$ = 0.74

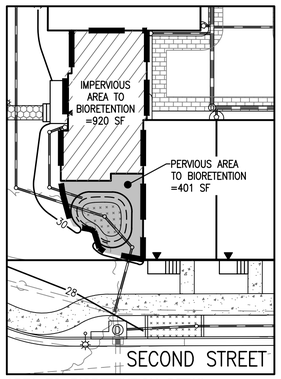
T_V = (0.74)(1321)/12 = **81.5 FT^3**

WATER QUALITY VOLUME PROVIDED:

$V = SA[D_p+(D_m)(N_m)+(D_g)(N_g)]$
WHERE:
V = VOLUME
SA = SURFACE AREA (75 SQ. FT.)
D_p = PONDING DEPTH (6")
D_m = DEPTH OF FILTER MEDIA (18")
N_m = VOID RATIO OF FILTER MEDIA (0.25)
D_g = DEPTH OF GRAVEL BED (12")
N_g = VOID RATIO OF GRAVEL BED (0.40)

V = 75[0.5+(1.5)(0.25)+(1.0)(0.40)] = **95.6 FT^3**

REQUIRED: **81.5 CU.FT.**
PROVIDED: **95.6 CU.FT.**



AREA TO BIORETENTION DETAIL
SCALE: 1" = 20'

PLANTING SCHEDULE FOR BIORETENTION

NO.	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
5	ILEX GLABRA	INKBERRY	3 GALLON CONTAINER	——
5	ITEA VIRGINICA	VIRGINIA SWEETSPIRE	3 GALLON CONTAINER	——

NOTE: SHRUBS TO BE PLANTED AT APPROXIMATELY 7.5 SQ.FT. PER SHRUB IN RELATION TO THE AVAILABLE SURFACE AREA OF THE FACILITY. ORNAMENTAL GRASSES MAY ALSO BE PLANTED INSIDE THE BIORETENTION AT THE OWNERS DISCRETION.

BAYSAVER TECHNOLOGIES®

Project Name: Abingdon Place — Date 12/19/2017
Location: Alexandria, VA
Site Designation:

Site Conditions

Rainfall Depth=	1 in	
Impervious Acreage=	0.54 ac	
Total Acreage=	0.58 ac	
Time of Concentration=	0.1 hr	
I=	93.1 %	
R_v(Runoff Coefficient)=	0.89	
WQ_v=	1869 cf	
q_u(Unit Peak Discharge)=	1000 csm/in	From Type II Chart
Q_o(Water Quality Storm)=	0.80 cfs	
Peak Flow	cfs	
BaySeparator Required	S4	
Provided peak treatment	1.25 cfs	
Provided peak bypass	6.25 cfs	

0' 10' 20' 40'

EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.

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COMMONWEALTH OF VIRGINIA
ANDREA SPRUCH
Lic. No. 047863
FEBRUARY 13, 2018
PROFESSIONAL ENGINEER

DEVELOPMENT PRELIMINARY SITE PLAN
ABINGDON PLACE
1101 NORTH WASHINGTON STREET
CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

DESIGN: ACS
DRAWN: TJD
SCALE: 1" = 20'
DATE: DEC. 2017

ONSITE BMP DESIGN AND DETAILS

SHEET 9 OF 15
FILE: 12-109

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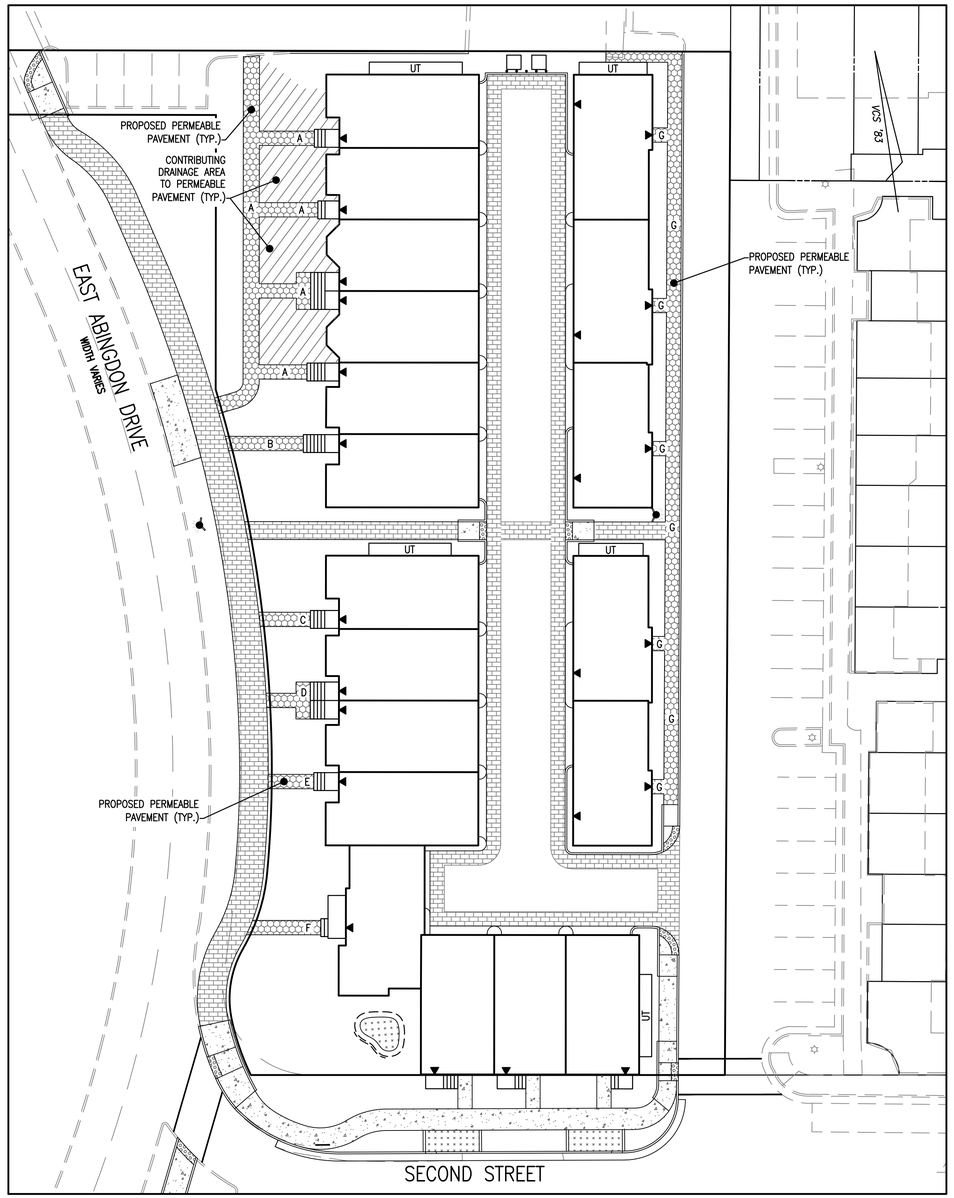
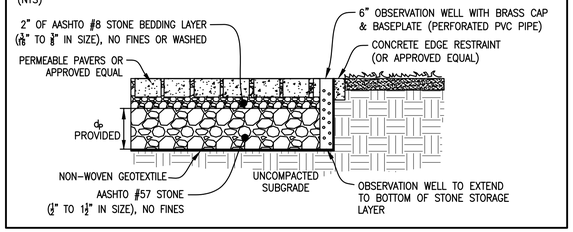


AREA TO PERMEABLE PAVEMENT DETAIL
SCALE: 1" = 20'

TYPICAL PERVIOUS PAVER DETAIL

(NTS)



WATER QUALITY VOLUME CALCULATIONS:

WATER QUALITY VOLUME REQUIRED:

$T_V = (R_V)(A)/12$

WHERE:

T_V = TREATMENT VOLUME (FT^3)
R_V = COMPOSITE RUNOFF COEFFICIENT
A = AREA TO FACILITY (SF)

DEPTH OF RESERVOIR LAYER:

$$d_p = \frac{\{(d_c*R)+P-(i/2*t_f)\}}{V_r}$$

$$d_{p-max} = \frac{(i/2)(t_d)}{V_r}$$

WHERE:

d_p = DEPTH OF RESERVOIR LAYER (FT)
d_c = DEPTH OF RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA FOR THE TREATMENT VOLUME (Tv/A_c)
R = RATIO OF CONTRIBUTING DRAINAGE AREA (A_c) TO PERMEABLE PAVEMENT SURFACE AREA (A_p) [A_c/A_p]
P = RAINFALL DEPTH (0.083 FT)
i = INFILTRATION RATE (ASSUME 0.5 FT/DAY)
t_f = TIME TO FILL THE RESERVOIR LAYER (0.083 DAY)
t_d = TIME TO DRAIN THE RESERVOIR LAYER (1 DAY)
V_r = VOID RATIO OF THE RESERVOIR LAYER (0.4)

Permeable Paver Section	A	B	C	D	E	F	G
R_v	0.50	0.95	0.95	0.95	0.95	0.95	0.95
A_c (SF)	1291.2	0.0	0.0	0.0	0.0	0.0	0.0
A_p (SF)	725.9	81.3	52.9	70.5	47.0	75.3	969.4
T_v (FT3)	84.0	6.4	4.2	5.6	3.7	6.0	76.7
d_c (FT)	0.083	0.083	0.083	0.083	0.083	0.083	0.083
R	1.78	0.00	0.00	0.00	0.00	0.00	0.00
P (FT)	0.083	0.083	0.083	0.083	0.083	0.083	0.083
i (FT/DAY)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
t_f (DAY)	0.083	0.083	0.083	0.083	0.083	0.083	0.083
t_d (DAY)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
V_r	0.4	0.4	0.4	0.4	0.4	0.4	0.4
d_p (FT)	**0.47**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**
d_{p-max} (FT)	**1.25**	**1.25**	**1.25**	**1.25**	**1.25**	**1.25**	**1.25**
d_p Provided (FT)	**0.67**	**0.67**	**0.67**	**0.67**	**0.67**	**0.67**	**0.67**

HATCH LEGEND:

— PROPOSED PERMEABLE PAVEMENT

— CONTRIBUTING DRAINAGE AREA TO PERMEABLE PAVEMENT

0' 10' 20' 40'

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ABINGDON PLACE
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DATE	REVISION

DESIGN: ACS
DRAWN: TJD
SCALE: 1" = 20'
DATE: DEC. 2017

ONSITE BMP DESIGN AND DETAILS

SHEET 10 OF 15
FILE: 12-109

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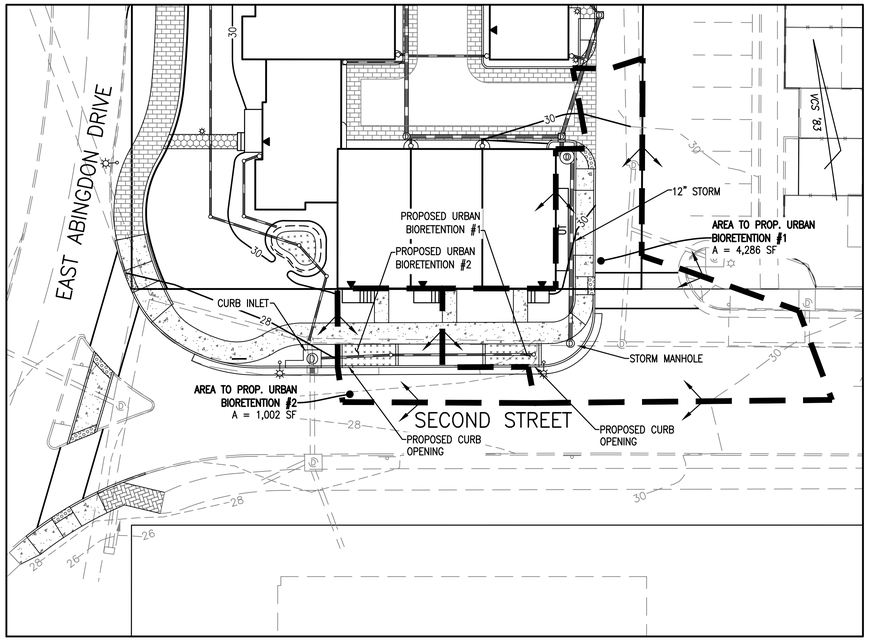
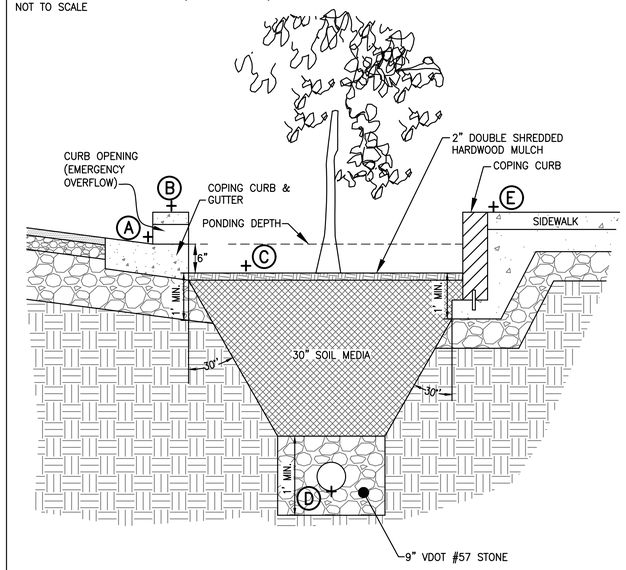


AREA TO URBAN BIORETENTION (TREE WELL) DETAIL

SCALE: 1" = 20'

URBAN BIORETENTION (TREE WELL) DETAIL

NOT TO SCALE



WATER QUALITY VOLUME CALCULATIONS:

WATER QUALITY VOLUME REQUIRED IS CALCULATED AS FOLLOWS:

T_V = (RV)(A)/12

WHERE:

A = AREA TO FACILITY (SF)

R_V = COMPOSITE RUNOFF COEFFICIENT

SURFACE AREA REQUIRED IS CALCULATED AS FOLLOWS:

SA = T_V/2.0 FT.

WHERE:

SA = SURFACE AREA (SQ. FT.)

T_V = REQUIRED TREATMENT VOLUME (FT^3)

PER SECTION 9-A-6.1 OF THE VA DEQ STORMWATER BMP CLEARINGHOUSE.

TREE WELL #1:

TOTAL AREA TO BMP = 4,286 SQ.FT.

IMPERVIOUS AREA TO BMP = 3,661 SQ.FT. ("R_V" = 0.95)

PERVIOUS AREA TO BMP = 625 SQ.FT. ("R_V" = 0.25)

WATER QUALITY VOLUME REQUIRED:

T_V = (RV)(A)/12

R_V = $\frac{[(0.25*625)+(0.95*3737)]}{4362}$ = 0.85

T_V = (0.85)(4286)/12 = **303.6 FT^3**

SURFACE AREA REQUIRED:

SA = 303.6/2 = **151.8 SF**

REQUIRED: **151.8 SF**

PROVIDED: **90.0 SF**

TREE WELL #2:

TOTAL AREA TO BMP = 1,002 SQ.FT.

IMPERVIOUS AREA TO BMP = 827 SQ.FT. ("R_V" = 0.95)

PERVIOUS AREA TO BMP = 175 SQ.FT. ("R_V" = 0.25)

WATER QUALITY VOLUME REQUIRED:

T_V = (RV)(A)/12

R_V = $\frac{[(0.25*175)+(0.95*827)]}{1002}$ = 0.83

T_V = (0.83)(1002)/12 = **69.3 FT^3**

SURFACE AREA REQUIRED:

SA = 69.3/2 = **34.7 SF**

REQUIRED: **34.7 SF**

PROVIDED: **90.0 SF**

URBAN BIORETENTION	SQ.FT. OF SURFACE AREA	ELEVATIONS				
		A	B	C	D	E
1	90.0	28.0	28.5	27.5	23.8	28.7
2	90.0	27.5	28.0	27.0	23.3	28.2

0' 10' 20' 40'

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OFFSITE BMP DESIGN AND DETAILS

SHEET 11 OF 15

FILE: 12-109

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Tue, Feb 13 2018 - 11:59:33am

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

◉ 2011 BMP Standards and Specifications ○ 2013 Draft BMP Standards and Specifications

ProjecA4:M67t Name:	Abingdon Place
Date:	2/8/2018
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)* → 1.06

Maximum reduction required:	*20%*
The site's net increase in impervious cover (acres) is:	*0*
Post-Development TP Load Reduction for Site (lb/yr):	*0.21*

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				0.14	0.14
Impervious Cover (acres)				0.80	0.80
					0.94

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				0.23	0.23
Impervious Cover (acres)				0.71	0.71
Area Check	OK.	OK.	OK.	OK.	0.94

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[1]
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	0.14	0.14
Weighted Rv(turf)	0.25	0.25
% Managed Turf	15%	15%
Impervious Cover (acres)	0.80	0.80
Rv(impervious)	0.95	0.95
% Impervious	85%	85%
Total Site Area (acres)	**0.94**	**0.94**
Site Rv	**0.85**	**0.85**

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.0663	0.0663
Pre-ReDevelopment Treatment Volume (cubic feet)	2,889	2,889
Pre-ReDevelopment TP Load (lb/yr)	**1.82**	**1.82**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	1.93	1.93
Baseline TP Load (lb/yr) (**0.41 lbs/acre/yr** applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		*0.39*

[1] *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 I shows load reduction requriement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final)

Post ReDev. & New Impervious	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	0.23
Weighted Rv (turf)	0.25
% Managed Turf	25%
Impervious Cover (acres)	0.71
Rv(impervious)	0.95
% Impervious	75%
Final Site Area (acres)	**0.94**
Final Post Dev Site Rv	**0.78**

Land Cover Summary-Post

Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	0.23
Weighted Rv (turf)	0.25
% Managed Turf	25%
ReDev. Impervious Cover (acres)	0.71
Rv(impervious)	0.95
% Impervious	75%
Total ReDev. Site Area (acres)	**0.94**
ReDev Site Rv	**0.78**

Land Cover Summary-Post

Post-Development New Impervious	
New Impervious Cover (acres)	0.00
Rv(impervious)	--

Treatment Volume and Nutrient Load

Final Post-Development Treatment Volume (acre-ft)	0.0607	**Post-ReDevelopment Treatment Volume (acre-ft)**	0.0607	**Post-Development Treatment Volume (acre-ft)**	--
Final Post-Development Treatment Volume (cubic feet)	2,646	**Post-ReDevelopment Treatment Volume (cubic feet)**	2,646	**Post-Development Treatment Volume (cubic feet)**	--
Final Post-Development TP Load (lb/yr)	**1.66**	**Post-ReDevelopment Load (TP) (lb/yr)***	**1.66**	**Post-Development TP Load (lb/yr)**	--
Final Post-Development TP Load per acre (lb/acre/yr)	1.77	Post-ReDevelopment TP Load per acre (lb/acre/yr)	1.77		
		Max. Reduction Required (Below Pre-ReDevelopment Load)	**20%**		
		TP Load Reduction Required for Redeveloped Area (lb/yr)	**0.21**	**TP Load Reduction Required for New Impervious Area (lb/yr)**	**0**

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**0.21**

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	12.99	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	11.89

Drainage Area A

CLEAR BMP AREAS

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)				0.23	0.23	0.25
Impervious Cover (acres)				0.71	0.71	0.95
				Total	0.94	

Total Phosphorus Available for Removal in D.A. A (lb/yr)	1.66
Post Development Treatment Volume in D.A. A (ft^3)	2,646

Stormwater Best Management Practices (RR = Runoff Reduction)

--Select from dropdown lists-

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft^3)	Runoff Reduction (ft^3)	Remaining Runoff Volume (ft^3)	Total BMP Treatment Volume (ft^3)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
3. Permeable Pavement (RR)													
3.a. Permeable Pavement #1 (Spec #7)	45		0.05	0	72	88	160	25	0.00	0.10	0.06	0.04	
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	40	0.01	0.02	0	32	49	81	25	0.00	0.05	0.03	0.02	
14. Manufactured Treatment Devices (no RR)													
14.a. Manufactured Treatment Device-Hydrodynamic	0	0.03	0.53	0	0	1,851	1,851	20	0.00	1.16	0.23	0.93	

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER (ac)	0.71	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	0.60	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	0.23	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.04	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft^3) 2,646

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft^3)	104	0	0	0	0	104
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	1.66	0.00	0.00	0.00	0.00	1.66
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.32	0.00	0.00	0.00	0.00	0.32
TP LOAD REMAINING (lb/yr)	1.34	0.00	0.00	0.00	0.00	1.34
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.66	0.00	0.00	0.00	0.00	0.66

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	1.66
TP LOAD REDUCTION REQUIRED (lb/yr)	0.21
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.32
TP LOAD REMAINING (lb/yr):	1.34
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00 **

** TARGET TP REDUCTION EXCEEDED BY 0.11 LB/YEAR **

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	11.89
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.66
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	11.24

Drainage Area A		A Soils	B Soils	C Soils	D Soils
Forest/Open Space -- undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00
	CN	30	55	70	77
Managed Turf -- disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.23
	CN	39	61	74	80
Impervious Cover	Area (acres)	0.00	0.00	0.00	0.71
	CN	98	98	98	98

Total Area (acres):	0.94
Runoff Reduction Volume (ft^3):	104

$CN_{(D.A. A)}$ 94

	1-year storm	2-year storm	10-year storm
$RV_{Developed}$ *(watershed-inch)* with no Runoff Reduction*	2.06	2.54	4.51
$RV_{Developed}$ *(watershed-inch)* with Runoff Reduction*	2.03	2.51	4.47
Adjusted CN*	94	94	94

STORM WATER QUALITY NARRATIVE (CITY CODE SECTION 13-109E COMPLIANCE):

THE PROPOSED REDEVELOPMENT (APPROXIMATELY 1.06 ACRES OF DISTURBANCE) GENERATES A NET DECREASE OF IMPERVIOUS AREA FROM PRE-DEVELOPMENT CONDITIONS. PER CITY CODE SECTION 13-109E-(2)(a), DEVELOPMENT OF PRIOR DEVELOPED LANDS DISTURBING GREATER THAN 1 ACRE AND RESULTING IN NO NET INCREASE IN IMPERVIOUS AREA MUST RESULT IN A 20% DECREASE IN PHOSPHORUS LOADING FROM THE PRE-DEVELOPMENT TOTAL PHOSPHORUS LOAD.

THE VIRGINIA RUNOFF REDUCTION METHOD WAS UTILIZED TO DETERMINE THE STORM WATER QUALITY MANAGEMENT PERFORMANCE REQUIREMENTS FOR THIS PROJECT. COMPUTATIONS PROVIDED ON THIS SHEET DEMONSTRATE A NET DECREASE OF IMPERVIOUS AREA. MULTIPLE BMP FACILITIES ARE ALSO PROPOSED WITH THIS DEVELOPMENT. THIS WILL RESULT IN A 26.4% ([1-(1.34/1.82)]*100% = 26.4%) REDUCTION OF PHOSPHOROUS LOAD FROM THE SITE WHICH IS GREATER THAN THE MINIMUM REQUIREMENT OF 20% (SEE SPREADSHEET ON THIS SHEET). THEREFORE, THE WATER QUALITY MANAGEMENT PERFORMANCE REQUIREMENTS FOR THE PROPOSED DEVELOPMENT PER CITY CODE SECTION 13-109E-(4)(a) HAVE BEEN MET.

IN ADDITION, 0.67 ACRES OF THE 0.71 ACRES OF ON-SITE IMPERVIOUS AREA IS PROPOSED TO BE TREATED WITH THIS DEVELOPMENT, WHICH MEETS THE WATER QUALITY DEFAULT VOLUME TREATMENT STANDARDS IN SECTION 13-110 OF THE ZONING ORDINANCE. A CONTRIBUTION TO THE ALEXANDRIA WATER QUALITY IMPROVEMENT FUND WILL BE MADE FOR THAT PORTION OF THE WATER QUALITY VOLUME NOT TREATED IN COMPLIANCE WITH CITY CODE SECTION 13-109E-(5) AND SECTION 13-110.

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ANDREA SPRUCH
Lic. No. 047863
FEBRUARY 13, 2018
PROFESSIONAL ENGINEER

DEVELOPMENT PRELIMINARY SITE PLAN
ABINGDON PLACE
1101 NORTH WASHINGTON STREET
CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

DESIGN: ACS
DRAWN: TJD
SCALE: NO SCALE
DATE: DEC. 2017

STORMWATER QUALITY COMPUTATIONS

SHEET 12 OF 15
FILE: 12-109

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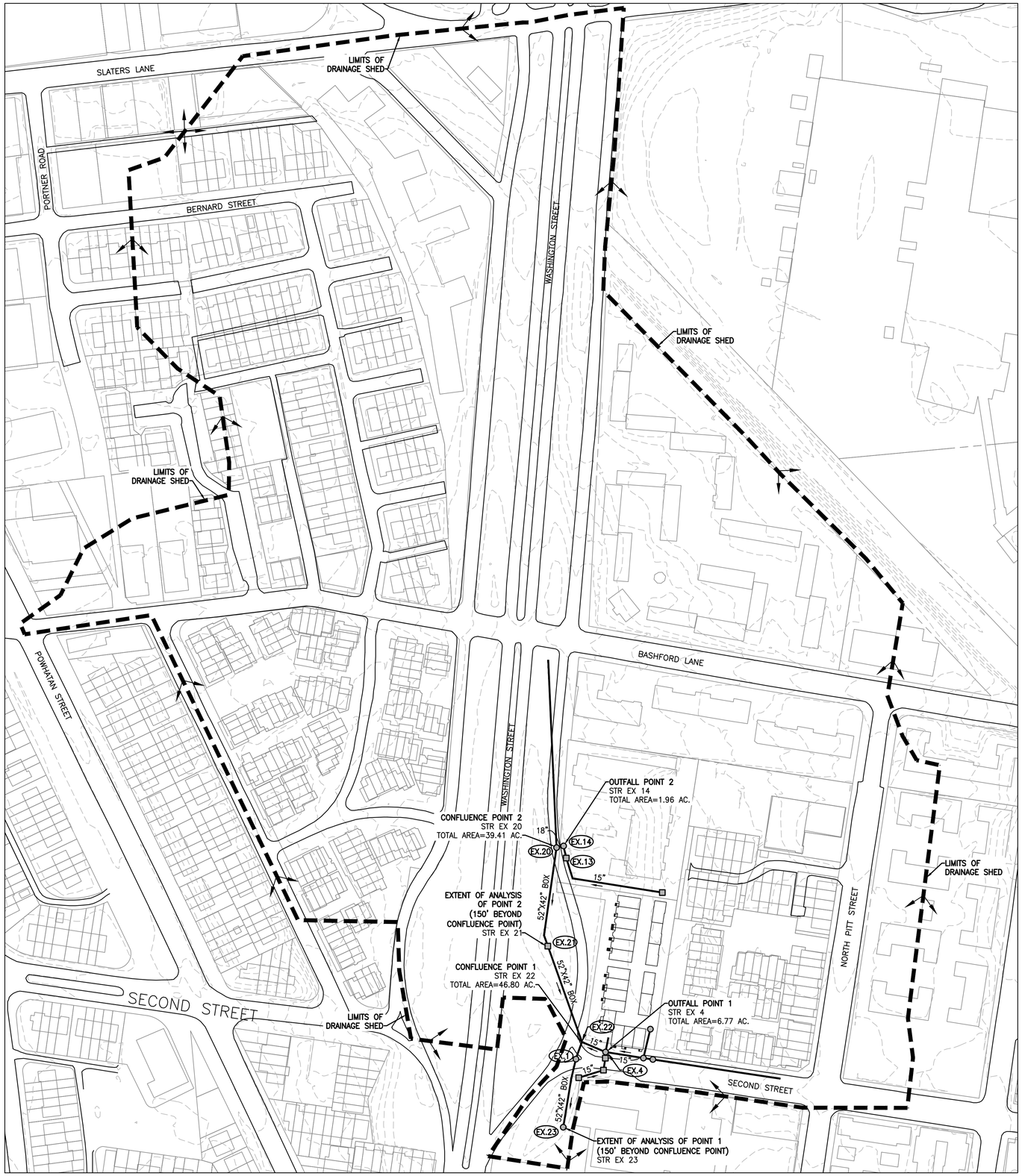

OUTFALL MAP
SCALE: 1" = 100'

0' 100' 200'

VCS '83

STORMWATER OUTFALL NARRATIVE:

PRE-DEVELOPMENT CONDITIONS:
THE 0.96 ACRE SITE IS LOCATED IN THE POTOMAC RIVER WATERSHED. IN EXISTING CONDITIONS, THE SITE CONSISTS OF A HOTEL WITH ASSOCIATED PARKING AND VERY LITTLE LANDSCAPED OPEN SPACE. THE PROJECT SITE HAS TWO OUTFALL POINTS.

OUTFALL #1: THE MAJORITY OF THE PROJECT SITE DRAINS TO THE EXISTING STORM SYSTEM IN THE SECOND STREET RIGHT-OF-WAY. RUNOFF FROM THE BUILDING AND THE MAJORITY OF THE SURFACE PARKING IS COLLECTED IN AN UNDERGROUND STORM SEWER SYSTEM THAT CONNECTS TO THE CITY MAINTAINED STORM SEWER SYSTEM LOCATED IN THE SECOND STREET RIGHT-OF-WAY. DRAINAGE IS CONVEYED WEST WHERE IS JOINS THE COMBINED SEWER SYSTEM WITHIN 15' OF THE PROJECT SITE. AT THIS POINT THE RUNOFF CONTINUES SOUTH IN THE EXISTING 52" X 42" COMBINED SEWER AND OUTFALLS TO THE POTOMAC RIVER.

OUTFALL #2: THE REMAINDER OF THE RUNOFF FROM THE PROJECT SITE EXITS THE PROPERTY AS NON-CONCENTRATED SHEET FLOW. A PORTION OF THE RUNOFF FROM THE PARKING LOT AND LANDSCAPED AREA FLOWS NORTHWEST TO THE EAST ABINGDON STREET RIGHT-OF-WAY AND IS COLLECTED BY STRUCTURE EX. 14. RUNOFF IS THEN CONVEYED NORTH VIA THE CITY MAINTAINED STORM SYSTEM WHERE IT JOINS THE EXISTING COMBINED SEWER SYSTEM APPROXIMATELY 75' FROM THE PROJECT SITE. DRAINAGE IS THEN CONVEYED SOUTH TO JOIN THE RUNOFF DESCRIBED IN OUTFALL #1 AND DISCHARGES TO THE POTOMAC RIVER.

POST-DEVELOPMENT CONDITIONS:
THE REDEVELOPMENT OF THE PROJECT PROPOSES 19 TOWNHOUSE-STYLE CONDOMINIUM UNITS AND IMPROVED STREETSCAPE/OPEN SPACE. OVERALL IMPERVIOUS AREA WILL DECREASE WITH THE PROPOSED CONSTRUCTION. THE SITE WILL MAINTAIN TWO OUTFALL POINTS AS IN PRE-DEVELOPMENT CONDITIONS.

OUTFALL #1: AS IN EXISTING CONDITIONS, RUNOFF FROM THE PROPOSED BUILDINGS AND THE PROPOSED DRIVE AISLE IS COLLECTED IN AN UNDERGROUND STORM SEWER SYSTEM THAT CONNECTS TO THE CITY MAINTAINED STORM SEWER SYSTEM LOCATED IN THE SECOND STREET RIGHT-OF-WAY. DRAINAGE IS CONVEYED WEST WHERE IS JOINS THE COMBINED SEWER SYSTEM WITHIN 15' OF THE PROJECT SITE. AT THIS POINT THE RUNOFF CONTINUES SOUTH IN THE EXISTING 52" X 42" COMBINED SEWER AND OUTFALLS TO THE POTOMAC RIVER.

OUTFALL #2: A SMALL PORTION OF RUNOFF FROM THE LANDSCAPED OPEN SPACE WEST OF THE PROPOSED BUILDINGS EXITS THE SITE AS SHEET FLOW AND IS CAPTURED BY AN EXISTING CURB INLET (STRUCTURE EX. 14) WITHIN THE EAST ABINGDON DRIVE RIGHT-OF WAY. THIS SYSTEM CONTINUES SOUTH VIA THE CITY MAINTAINED COMBINED SEWER TO JOIN THE RUNOFF FROM OUTFALL #1 AS IN EXISTING CONDITIONS.

CONCLUSION:
THE POINT OF OUTFALL FOR OUTFALL #1 IS THE PROPOSED CURB INLET (EX 4) LOCATED SOUTH OF THE PROPERTY WITHIN SECOND STREET. THE POINT OF OUTFALL FOR OUTFALL #2 IS THE EXISTING CURB INLET (EX 14) LOCATED NORTHWEST OF THE PROPERTY WITHIN EAST ABINGDON DRIVE. THE LIMITS OF ANALYSIS INCLUDES ANALYZING THE OUTFALL SYSTEM 150' BEYOND THE POINT WHERE THE OUTFALL DRAINAGE AREA IS JOINED BY ANOTHER WATERSHED GREATER THAN 90% OF THE OUTFALL DRAINAGE AREA (POINT OF CONFLUENCE). FOR OUTFALL #1 THE END OF ANALYSIS IS THE EXISTING MANHOLE (EX 23) LOCATED SOUTH OF SECOND STREET AND FOR OUTFALL #2 IS THE EXISTING MANHOLE (EX 20) LOCATED IN THE GRASS FIELD BETWEEN WASHINGTON STREET AND EAST ABINGDON DRIVE. OUTFALL ANALYSIS COMPUTATIONS AND DRAINAGE AREA MAP WILL BE PROVIDED WITH THE FINAL SITE PLAN SUBMISSION.

COMPUTATIONS SHOWN ON THIS SHEET DEMONSTRATE THAT THE EXISTING SYSTEM EXPERIENCES LOCALIZED FLOODING IN EXISTING CONDITIONS AND THAT THE PEAK FLOW RATE IS BEING REDUCED WITH THE PROPOSED DEVELOPMENT. THE FLOOD PROTECTION FOR THIS SITE IS THEREFORE IN COMPLIANCE WITH SECTION 13-109F(2)(b)(ii). DUE TO SITE DRAINAGE OUTFALLING TO AN EXISTING UNDERSIZED MANMADE STORM SEWER SYSTEM, NO OFFSITE IMPROVEMENTS TO THE SYSTEM ARE REQUIRED.

PER THE LIMITS OF ANALYSIS PER CITY CODE SECTION 13-109F-2(d)(i) AND REDUCED POST-DEVELOPMENT RUNOFF RATE FOR THE 10-YEAR, 24-HOUR STORM, THE PROJECT POST-DEVELOPMENT RUNOFF WILL NOT EXACERBATE ANY EXISTING DOWNSTREAM CAPACITY CONDITIONS.

STRUCTURE FROM	STRUCTURE TO	INC. DRAINAGE AREA (AC)	ACCUM. DRAINAGE AREA (AC)	CURVE NUMBER (CN)	RAINFALL DEPTH (IN)	T_C (MINUTES)	INCREMENTAL "Q" (CFS)	ACCUMULATED "Q" (CFS)	PIPE DIAMETER (IN)	SLOPE (%)	"n"	MAXIMUM "Q" (CFS)	MAXIMUM VELOCITY (FPS)	LENGTH OF RUN (FT)	UPPER INVERT	LOWER INVERT	FALL (FT)	NORMAL VELOCITY (FPS)	NORMAL DEPTH
EX14	EX20	1.96	1.96	87	5.20	5	8.52	**8.52**	18	9.98%	0.013	**33.18**	18.82	40.2	20.94	16.93	4.01	5.32	0.64
EX20	EX21	37.45	39.41	87	5.20	5	162.74	**171.26**	52X42	0.54%	0.013	**130.82**	8.89	197.7	16.93	15.86	1.07	5.32	0.64
EX21	EX22	0.62	40.03	87	5.20	5	2.69	**173.95**	52X42	0.54%	0.013	**130.39**	8.87	180.4	15.86	14.89	0.97	9.33	1.00
EX4	EX22	6.77	6.77	87	5.20	5	29.42	**29.42**	15	9.11%	0.013	**19.50**	15.93	48.3	19.29	14.89	4.40	9.33	1.00
EX22	EX1	0.00	46.80	87	5.20	5	0.00	**203.37**	52X42	0.54%	0.013	**130.63**	8.88	31.5	14.89	14.72	0.17	9.33	1.00
EX1	EX23	1.02	47.82	87	5.20	5	4.43	**207.80**	52X42	0.51%	0.013	**127.50**	8.67	163.4	14.67	13.83	0.84	9.33	1.00

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ANDREA SPRUCH
Lic. No. 047863
FEBRUARY 13, 2018
PROFESSIONAL ENGINEER

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DATE	REVISION

DESIGN: ACS
DRAWN: TJD
SCALE: 1" = 200'
DATE: DEC. 2017

OUTFALL ANALYSIS

SHEET 13 OF 15
FILE: 12-109

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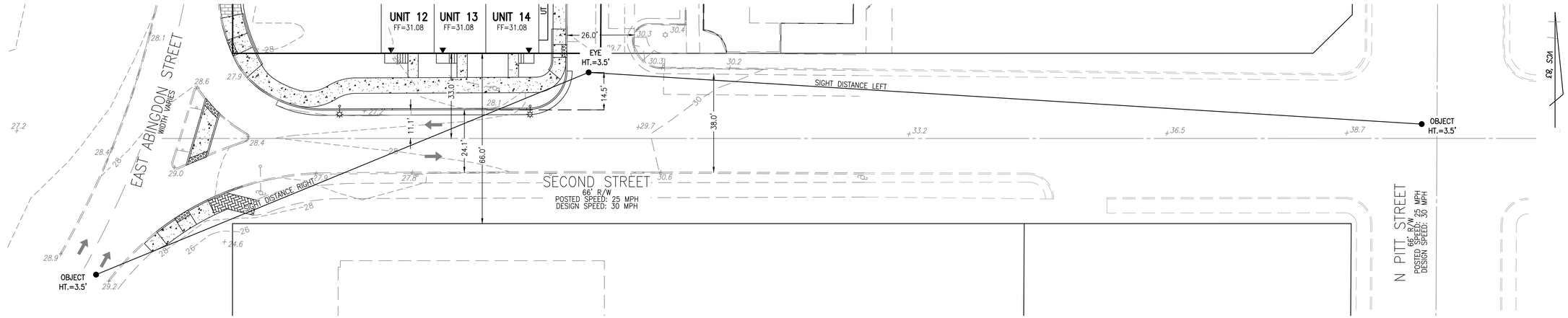


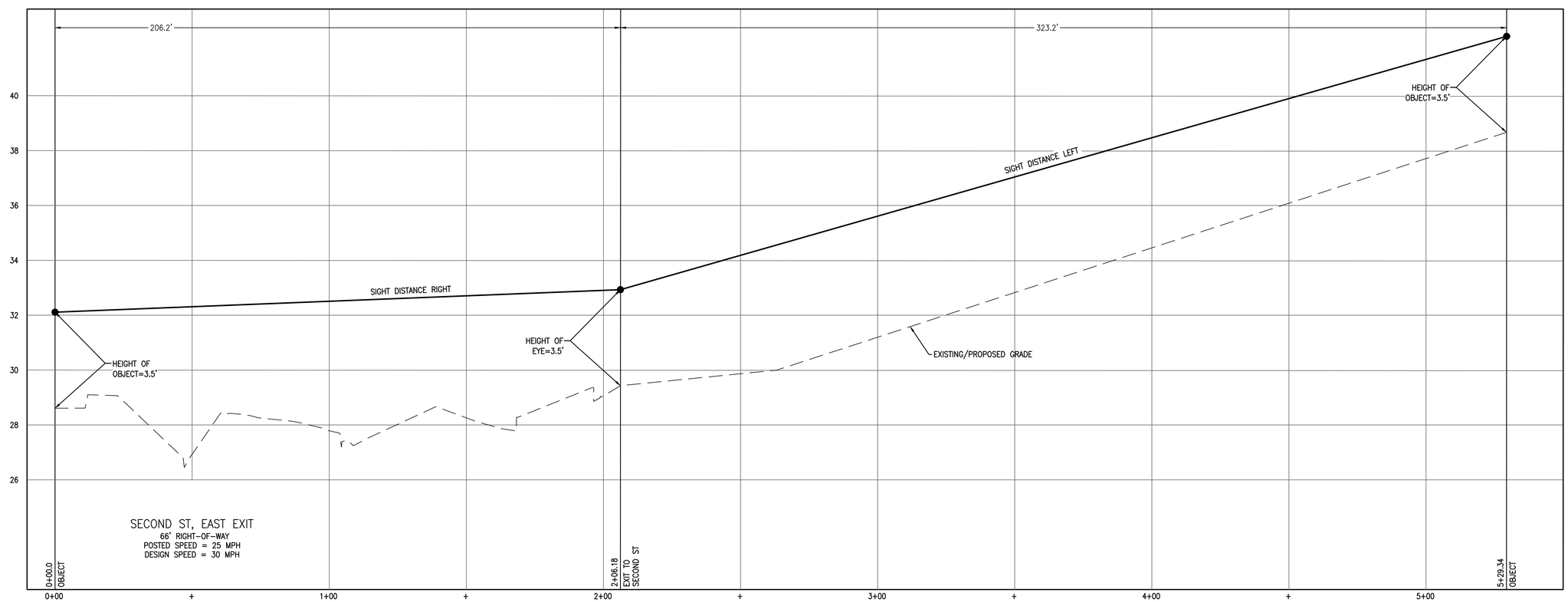
SIGHT DISTANCE PLAN

SCALE: 1" = 20'

PLAN VIEW SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.



SIGHT DISTANCE PROFILE

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

HORIZ. PROFILE SCALE

20 0 10 20

(IN FEET)
1 inch = 20 ft.

VERT. PROFILE SCALE

2 0 1 2

(IN FEET)
1 inch = 2 ft.

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SIGHT DISTANCE PLAN AND PROFILE

SHEET 14 OF 15
FILE: 12-109

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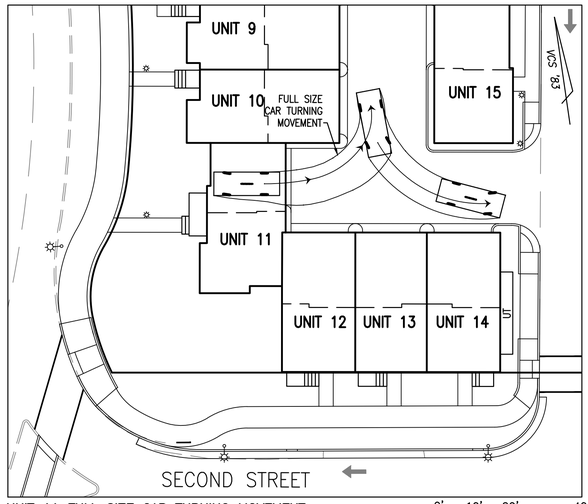
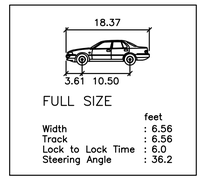
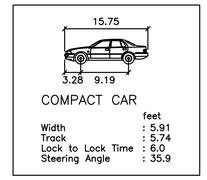


UNIT 11 FULL SIZE CAR TURNING MOVEMENT
SCALE: 1"=20'

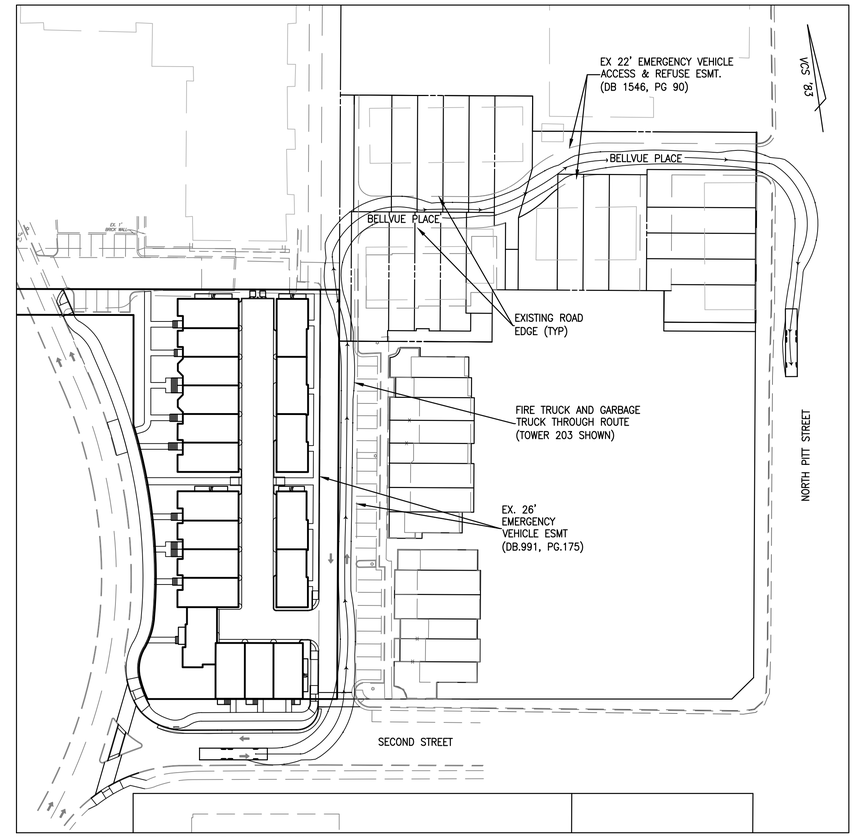
0' 10' 20' 40'



FULL SIZE CAR DETAIL
(NTS)



COMPACT CAR DETAIL
(NTS)



FIRE AND GARBAGE THROUGH-ROUTE GRAPHIC
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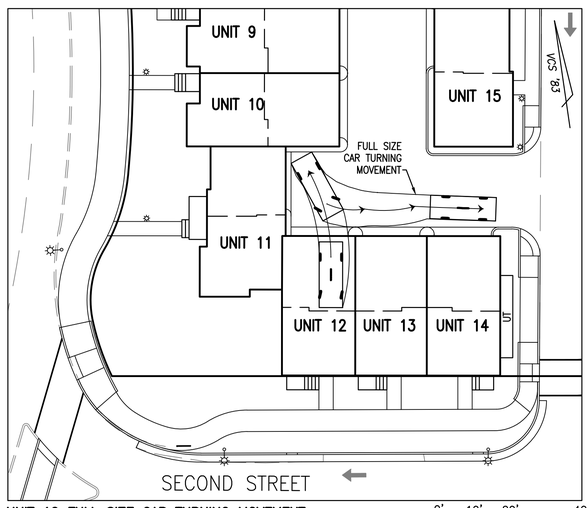
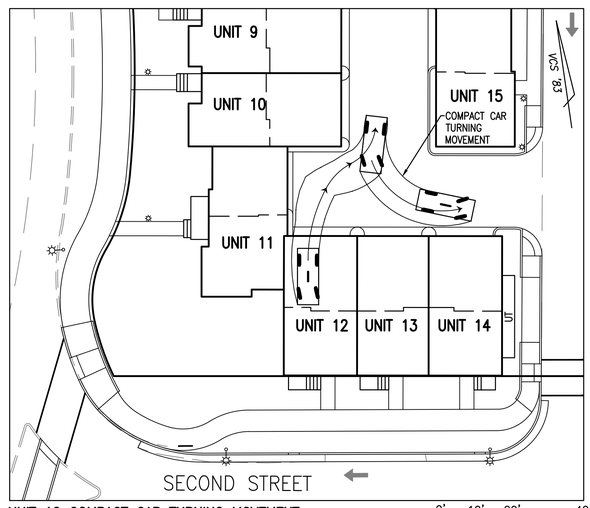


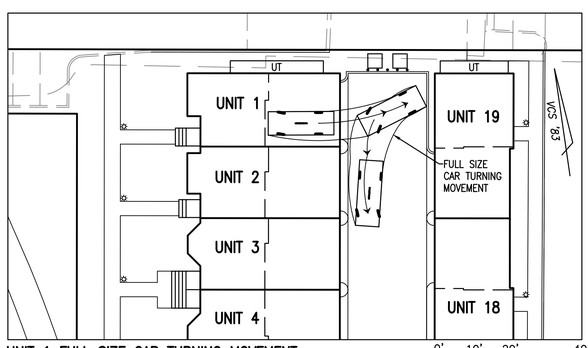
UNIT 12 FULL SIZE CAR TURNING MOVEMENT
SCALE: 1"=20'

0' 10' 20' 40'



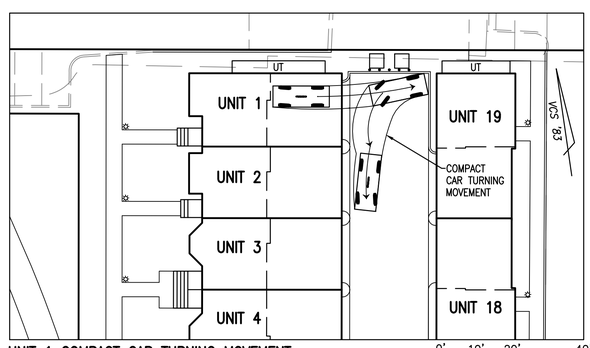
UNIT 12 COMPACT CAR TURNING MOVEMENT
SCALE: 1"=20'

0' 10' 20' 40'



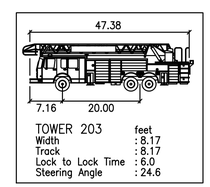
UNIT 1 FULL SIZE CAR TURNING MOVEMENT
SCALE: 1"=20'

0' 10' 20' 40'

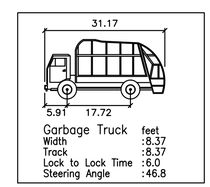


UNIT 1 COMPACT CAR TURNING MOVEMENT
SCALE: 1"=20'

0' 10' 20' 40'



FIRE TRUCK DETAIL
(NTS)



GARBAGE TRUCK DETAIL
(NTS)

0' 10' 20' 40'

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730 S. Washington Street
Alexandria, Virginia 22314
www.rcfassoc.com
(703) 549-6422

COMMONWEALTH OF VIRGINIA
ANDREA SPRUCH
Lic. No. 047863
FEBRUARY 13, 2018
PROFESSIONAL ENGINEER

DEVELOPMENT PRELIMINARY SITE PLAN
ABINGDON PLACE
1101 NORTH WASHINGTON STREET
CITY OF ALEXANDRIA, VIRGINIA

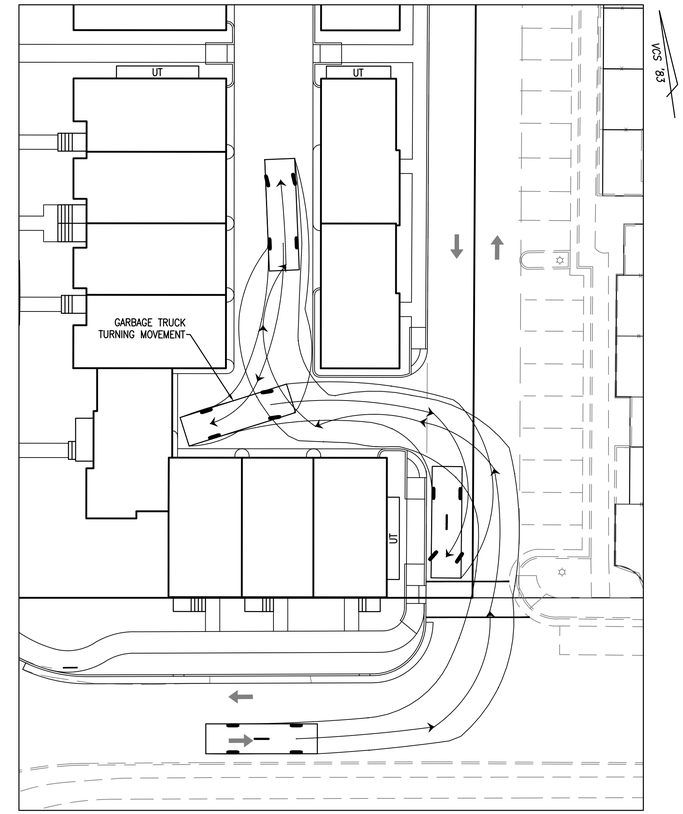
DATE	REVISION

DESIGN: ACS
DRAWN: TJD
SCALE: AS NOTED
DATE: DEC. 2017

TURNING MOVEMENTS

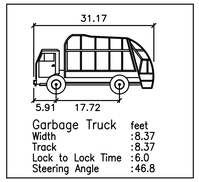
SHEET 15 OF 15
FILE: 12-109

J:\2012\12109\DWG\DELA\Preliminary\15-TURNING MOVEMENTS.dwg
Tue, Feb 13 2018 - 12:00:07pm



GARBAGE TRUCK TURNING MOVEMENT
SCALE: 1"=20'

0' 10' 20' 40'



GARBAGE TRUCK DETAIL
(NTS)

THIS DRAWING IS A SERVICE DOCUMENT OF R.C. FIELDS & ASSOCIATES, INC. AND MAY NOT BE USED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER AND/OR LAND SURVEYOR.

EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.

LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. INTERFERENCE OR DISRUPTION OF SAME WILL NOT BE THE RESPONSIBILITY OF THIS OFFICE.

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA.

APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. 2017-0014

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. DATE

R.C. FIELDS & ASSOCIATES, INC.
ENGINEERING • LAND SURVEYING • PLANNING
730 S. Washington Street
Alexandria, Virginia 22314
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FEBRUARY 13, 2018
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ABINGDON PLACE
1101 NORTH WASHINGTON STREET
CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

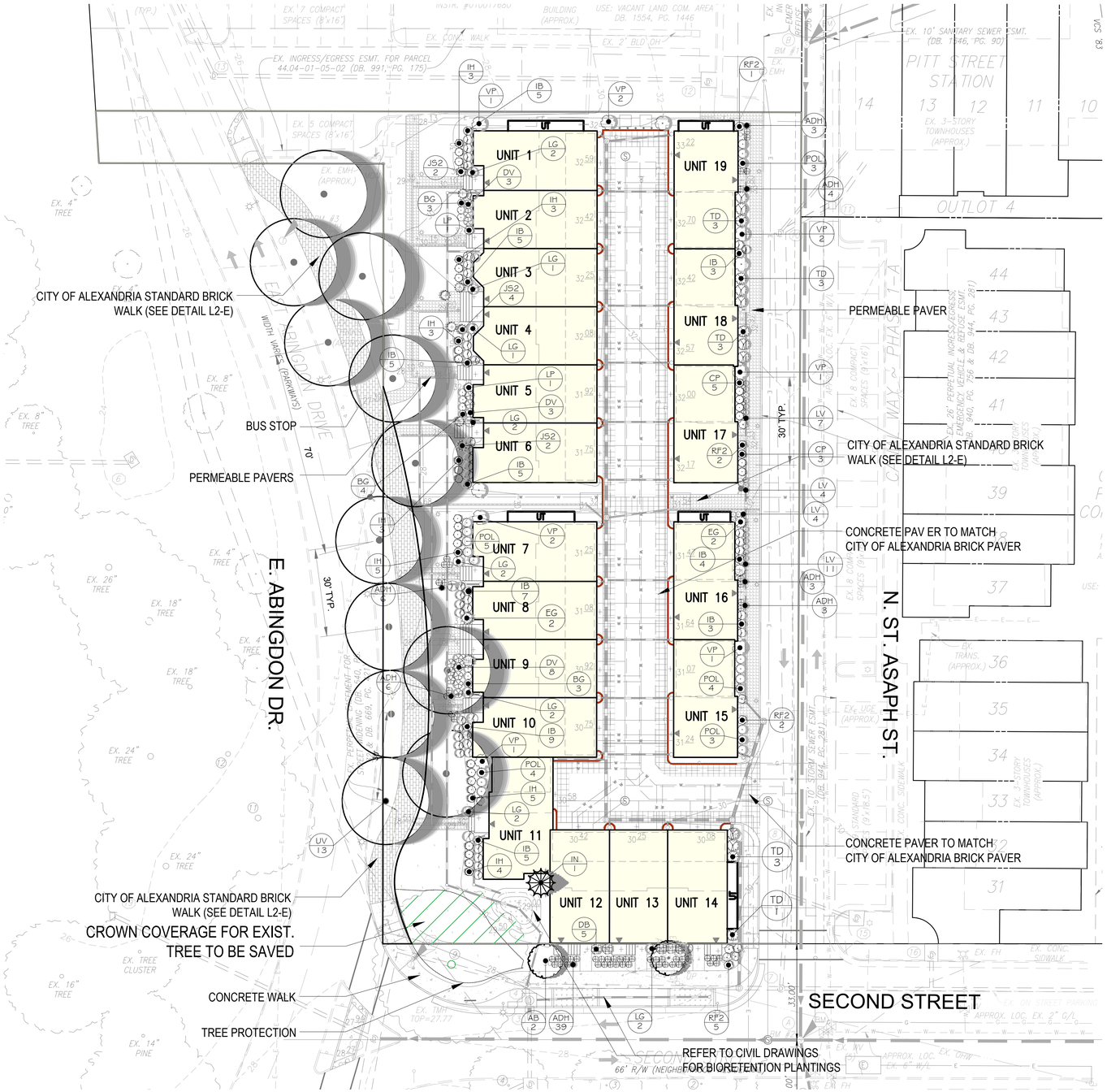
DESIGN: ACS
DRAWN: TJD
SCALE: 1" = 20'
DATE: DEC. 2017

TURNING MOVEMENTS

SHEET 15A OF 15
FILE: 12-109

J:\2012\12109\DWG\DELA\Preliminary\15-TURNING MOVEMENTS.dwg
Tue, Feb 13 2018 - 12:00:28pm

NOTE: SHIFT PLANTS AS NEEDED TO AVOID LIGHT POLES



LEGEND:

- TREE PROTECTION
- CONCRETE
- PERMEABLE PAVERS
  BELGARD AQUA ROC II (OR EQUIV.)
  COLOR: FOSSIL BEIGE
- CONCRETE PAVER
  BELGARD HOLLAND STONE (OR EQUIV.)
  COLOR: FOSSIL BEIGE
- BRICK PAVER
  CITY OF ALEXANDRIA STANDARD:
  OLD VIRGINIA #24, SHENANDOAH
  SERIES POPLAR FOREST RED RANGE
- INTEGRAL COLOR CONCRETE CURB
  COLOR TO MATCH CONCRETE PAVER

A

LANDSCAPE PLAN

SCALE: 1"=20'

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DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. 2017-0014
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED
INSTRUMENT NO. DEED BOOK NO. DATE

TWSDesign Inc.
Landscape Architecture
1835 Clovermeadow Drive
Vienna, Virginia 22182
703.938.0308 Fax.800.350.9226

COMMONWEALTH OF VIRGINIA
TINA WOODS-SMITH
No.000451
2/13/2018
LANDSCAPE ARCHITECT

TOLL BROTHERS, INC.
5162-A JACOBS CREEK PLACE
HAYMARKET, VA 20169
Contact: Mark Simms
Toll Brothers
America's Luxury Home Builder
Owner

N

0 10' 20' 40'

ABINGDON PLACE

City of Alexandria

Job Name

REVISIONS

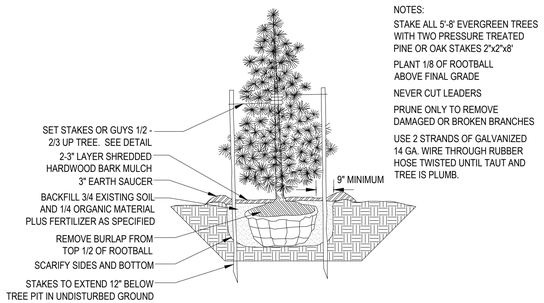
No.	Description	Date
6		
5		
4		
3		
2	PLANTING REVISIONS	2/13/2018
1	PAVER REVISIONS	1/19/2018

LANDSCAPE PLAN

Drawing Title

Project Number: AP-1
Scale: 1"=20'
Date: December 24, 2017

Sheet No. L1 of 3



NOTES:

STAKE ALL 5'-8' EVERGREEN TREES WITH TWO PRESSURE TREATED PINE OR OAK STAKES 2"x2"x8'

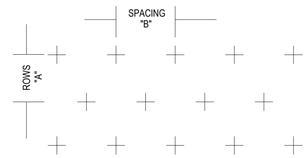
PLANT 1/8 OF ROOTBALL ABOVE FINAL GRADE

NEVER CUT LEADERS

PRUNE ONLY TO REMOVE DAMAGED OR BROKEN BRANCHES

USE 2 STRANDS OF GALVANIZED 14 GA. WIRE THROUGH RUBBER HOSE TWISTED UNTIL TAUT AND TREE IS PLUMB.

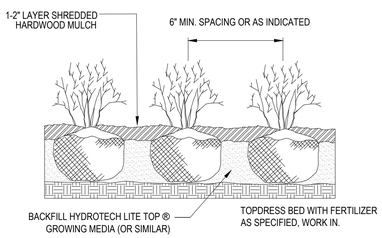
A EVERGREEN TREE PLANTING DETAIL



PLANT SPACING CHART

SPACING B	ROWS A	PLANTS PER SQ.FT.
6" O.C.	5.20" O.C.	4.61
8" O.C.	6.93" O.C.	2.60
10" O.C.	8.66" O.C.	1.66
12" O.C.	10.40" O.C.	1.15
15" O.C.	13.00" O.C.	0.73
18" O.C.	15.60" O.C.	0.51
24" O.C.	20.80" O.C.	0.29

B TRIANGULAR SPACING FOR SHRUBS AND GROUND COVER

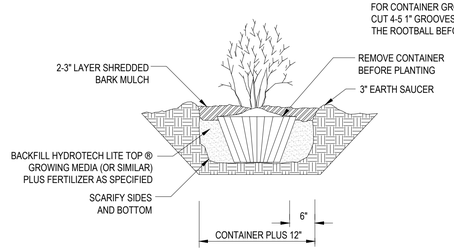


C GROUND COVER PLANTING DETAIL

NOTES:

PLANT 1/8 OF ROOTBALL ABOVE FINAL GRADE.

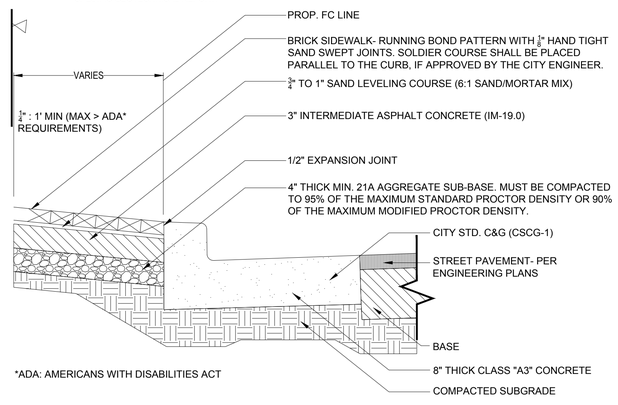
FOR CONTAINER GROWN SHRUBS CUT 4-5 1" GROOVES THE LENGTH OF THE ROOTBALL BEFORE PLANTING



D SHRUB PLANTING DETAIL

NOTES:

1. THE BRICK SHALL BE OLD VIRGINIA #24 EXTRUDED / WIRE CUT, MODULAR SIZE, SHENANDOAH SERIES POPLAR FOREST RED RANGE CONFORMING TO THE REQUIREMENTS OF ASTMC902 CLASS SX, TYPE I OR APPROVED EQUAL. THE BRICK SUBJECT TO HEAVY VEHICULAR TRAFFIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1272 OR APPROVED EQUAL.
2. THE EXPANSION JOINTS SHALL BE $\frac{1}{2}$" WIDE AND SHALL BE THE FULL THICKNESS OF THE BRICK LAYER, AND SHALL BE PRE-FORMED EXPANSION JOINT MATERIAL CONFORMING TO THE REQUIREMENTS OF ASTM D994 ASPHALT OR ASTM D1751 FIBRE. EXPANSION MATERIAL SHALL BE SECURED IN A MANNER THAT WILL PREVENT MOVEMENT OR DISPLACEMENT OF BRICK DURING PLACEMENT.
3. THE EXPANSION JOINTS SHALL BE PLACED PARALLEL TO THE CONCRETE CURB.
4. ALL STRUCTURAL ITEMS TO CONFORM TO THE LATEST EDITION OF UNIFORM STATEWIDE BUILDING CODE (USBC) REQUIREMENTS.
5. PRIOR TO CONSTRUCTION, ALL STRUCTURAL CROSS SECTIONS SHALL BE REVIEWED BY A QUALIFIED STRUCTURAL AND/OR GEOTECHNICAL ENGINEER, AND MODIFIED AS NECESSARY BASED ON THE SITE SPECIFIC GEOTECHNICAL REPORT.



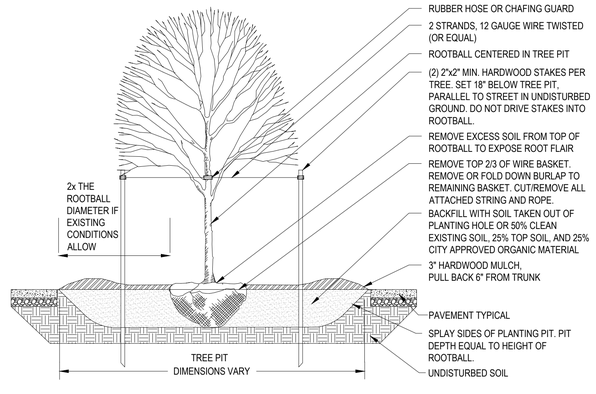
*ADA: AMERICANS WITH DISABILITIES ACT

E BRICK SIDEWALK DETAIL

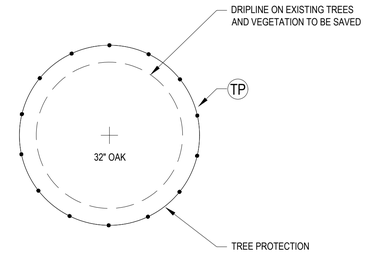
PRUNE TO REMOVE DAMAGED, DISEASED OR BROKEN BRANCHES.

DO NOT REMOVE MORE THAN 1/5 OF BRANCH SYSTEM. DO NOT CUT LEADER. TREE MUST RETAIN NATURAL CROWN SHAPE.

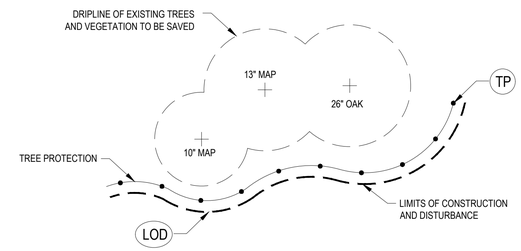
REMOVE ALL STAKES WITHIN THE REQUIRED PERIOD.



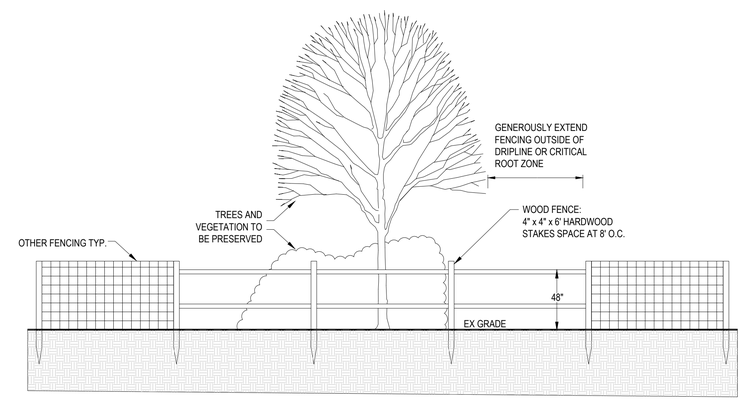
F TREE PLANTING IN R.O.W. ADJACENT TO PAVEMENT



PLAN VIEW: SINGLE SPECIMEN



PLAN VIEW: VEGETATION



G VEGETATION PROTECTION AND PRESERVATION DETAIL SECTION

CITY OF ALEXANDRIA FIGURE I-B TREE PROTECTION

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. 2017-0014
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
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TWSDesign Inc.
Landscape Architecture

1835 Clovermeadow Drive
Vienna, Virginia 22182
703.938.0308 Fax.800.350.9226

COMMONWEALTH OF VIRGINIA
TINA WOODS-SMITH
No.000451
2/13/2018
LANDSCAPE ARCHITECT

TOLL BROTHERS, INC.
5162-A JACOBS CREEK PLACE
HAYMARKET, VA 20169

Contact: Mark Simms

Toll Brothers
America's Luxury Home Builder

Owner

ABINGDON PLACE

City of Alexandria

Job Name

REVISIONS

No.	Description	Date
6		
5		
4		
3		
2		
1	PLANTING REVISIONS	2/13/18

LANDSCAPE PLAN

Drawing Title

Project Number: AP-1
Scale: NTS
Date: December 24, 2017

Sheet No. L2 of 3

REQUIRED LANDSCAPE NOTES:

1. All protection and preservation measures for existing vegetation, including maintenance shall be approved by the City Arborist in field prior to commencement of any site disturbing activity.

2. Specification for all plantings shall be in accordance with the current and most up to date edition of ANSI-Z60.1, "The American Standard for Nursery Stock" as produced by the American Association of Nurserymen; Washington, D.C.

3. The applicant has made suitable arrangements for pre-selection tagging, pre-contract growing, or is undertaking specialized planting stock development with a nursery or grower that is conveniently located to the project site, or other procedures that will ensure availability of specified materials. In the event that shortages and/or inability to obtain specified plantings occurs, remedial efforts including species changes, additional plantings and modification to the landscape plan shall be undertaken by the applicant. All remedial efforts shall, with prior approval by the city, be performed to the satisfaction of the Directors of Planning & Zoning, Parks & Cultural Activities and Transportation & Environmental Services.

4. In lieu of more strenuous specifications, all landscape related work shall be installed and maintained in accordance with the current and most up-to-date edition (at the time of construction) of "Landscape Specification Guidelines" as produced by the Landscape Contractors Association of Maryland, District of Columbia and Virginia; Gaithersburg Maryland.

5. Prior to commencement of landscape installation / planting operations, a pre-installation / construction meeting will be scheduled with the City's Arborist and Landscape Architects to review the scope of installation procedures and processes.

6. Maintenance for this project shall be performed in perpetuity, in compliance with City of Alexandria Landscape Guidelines and / or as conditioned by project approval.

7. A certification letter for tree wells, tree trenches and plantings above structure shall be provided by the project's Landscape Architect. The letter shall certify that all below grade construction is in compliance with approved drawings and specifications. The letter shall be submitted to the City Arborist and approved prior to the last and final Certificate of Occupancy for the project. The letter shall be submitted by the owner / applicant / successor and sealed and dated as approved by the project's Landscape Architect.

8. As-built drawings for this landscape and / or irrigation / water management system will be provided in compliance with City of Alexandria Landscape Guidelines. As-built drawings shall include clear identification of all variation(s) and changes from approved drawings including location, quantity and specification of all project elements.

SUPPLEMENTAL LANDSCAPE NOTES:

1. All street trees shall be pruned with a minimum of 6 feet of clear stem.

2. The landscape plantings shown on this plan are for the approximate placement of plant material on the site.

3. Prior to offering a final bid to perform the landscaping shown on this plan, the Landscape Contractor shall be responsible to notify the Owner of any conflicts between these notes and any subsequent Project Specification Booklet which may be provided to the Landscape Contractor.

4. The Landscape Contractor shall be responsible for all aspects of the final plant installation including, but not limited to:
   a. Confirmation of species availability or replacement in accordance with the procedures noted in paragraph #3 of the Required Landscape Notes found on this sheet.
   b. Confirmation of the location of all utilities.
   c. Adjustment of all landscaping as necessary to achieve an appropriate separation (as required by the City, Governing Agencies and / or the appropriate Utility Company) from all utilities and their easements.
   d. Notification of the Owner of any suspected conflict with an existing or proposed utility prior to planting.
   e. Creation of a maintenance program for all landscaping - the Landscape Contractor shall notify the Owner in writing of all maintenance obligations.

5. The Landscape Contractor shall work with the Owner to provide the appropriate sod and soil amendment requirements for this site. This shall not be the responsibility of TWS Design, Inc.

6. The plant materials specified on this plan are those which are referenced in the City of Alexandria Landscape Guidelines and / or are those found to be readily available at local plant sources. These plants have a proven track record of reliability in this area. A Landscape Contractor's failure to provide the appropriate pest control, disease control, enough water, proper fertilizing, proper soil amendments and favorable soil conditions is not under the control of TWS Design and are typically the cause of plant failure. Therefore, TWS Design shall not be responsible for the repair, replacement or maintenance of any landscaping.

7. The Owner of fee title to any property on which plant material has been established in accordance with this landscape plan shall be responsible for the repair, maintenance and replacement of plant material as required by the City of Alexandria once the guarantee period has expired.

8. Guarantee: During all phases of this work and for a period of one (1) year after "Final Acceptance", the Landscape Contractor shall replace at his sole expense any plants(s) which deteriorates in health and appearance so as to become a lesser specification and / or grade from that which was originally installed. All plant replacements shall be made with the same species, size and plant grade unless otherwise directed by the Owner. During the guarantee period, the Landscape Contractor shall periodically inspect the plantings and be responsible for notifying the Owner in writing of any changes he feels are necessary in the maintenance program. This arrangement will in no way relieve the Landscape Contractor of his responsibility to replace plantings that die during the guarantee period.

9. Acceptance: Upon completion of all plant installation specified on this plan, the Landscape Contractor shall provide written notice to the Owner requesting a final inspection to verify completion / acceptance of the work. All discrepancies will be noted and it will be the Landscape Contractor's obligation to remedy same, prior to "Final Acceptance". A "Final Acceptance" letter will be issued by the Owner and the plant guarantee period will commence with the date of said acceptance letter.

10. The Landscape Contractor shall be responsible for all watering of plants and sod until "Final Acceptance" after which the Landscape Contractor shall provide the Owner with a written maintenance program which addresses watering requirements.

11. The Owner shall be responsible for all regulatory approvals regarding the landscaping shown on this sheet.

A

NOTES

OFFSITE PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	CROWN COVERAGE	TOTAL
	AB	2	Acer rubrum `Bowhall` / Bowhall Maple	-	2-2.5" Cal	2 @ 500 SF PER TREE	1,000 SF
	UV	8	Ulmus americana `Valley Forge` / American Elm	-	2-2.5" Cal	8 @ 1,250 SF PER TREE	10,000 SF

SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	SIZE	FIELD2
	ADH	39	Azalea x `Dorothy Hayden` / Dorothy Hayden Azalea	18"-24"	
	DB	5	Distylium x `Blue Cascade` / Blue Cascade Distillium	24"-30"	
	LG	2	Lagerstroemia `Gamad I` / Cherry Dazzle Crape Myrtle	24"-30"	
	RF2	5	Rosa x `Flower Carpet Pink` / Pink Flower Carpet Rose	3 gal	

ONSITE PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	CROWN COVERAGE	TOTAL
	UV	4	Ulmus americana `Valley Forge` / American Elm	-	2-2.5" Cal		4 @ 1,250 SF PER TREE	5,000 SF

EVERGREEN TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	CROWN COVERAGE	TOTAL
	IN	1	Ilex x `Nellie R Stevens` / Nellie Stevens Holly	-		8`	1 @ 250 SF PER SHRUB	250 SF

SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	SIZE	FIELD2	FIELD3	CROWN COVERAGE	TOTAL
	ADH	25	Azalea x `Dorothy Hayden` / Dorothy Hayden Azalea	18"-24"				
	BG	10	Buxus x `Green Gem` / Green Gem Boxwood	18"-24"			10 @ 2 SF PER SHRUB	20 SF
	CP	8	Cephalotaxus harringtonia prostrata / Prostrate Plum Yew	24"-30"			8 @ 2 SF PER SHRUB	16 SF
	DV	14	Distylium x `Vintage Jade` / Vintage Jade Distylium	24"-30"			14 @ 2 SF PER SHRUB	28 SF
	EG	4	Elaeagnus x ebbingei `Gilt Edge` / Ebbing Silverberry	30"-36"			4 @ 2 SF PER SHRUB	8 SF
	IH	26	Ilex crenata `Helerii` / Heler Japanese Holly	24"-30"			26 @ 2 SF PER SHRUB	52 SF
	IB	51	Ilex x meserveae `Blue Princess` TM / Blue Princess Holly	24"-30"			51 @ 2 SF PER SHRUB	102 SF
	JS2	8	Juniperus chinensis sargentii / Sargent Juniper	24"-30"			8 @ 2 SF PER SHRUB	16 SF
	LG	12	Lagerstroemia `Gamad I` / Cherry Dazzle Crape Myrtle	24"-30"			12 @ 2 SF PER SHRUB	24 SF
	LP	2	Loropetalum chinense `Peack` / Purple Pixie Loropetalum	18"-24"				
	POL	19	Prunus laurocerasus `Otto Luyken` / Luykens Laurel	24"-30"			19 @ 2 SF PER SHRUB	38 SF
	RF2	5	Rosa x `Flower Carpet Pink` / Pink Flower Carpet Rose	3 gal				
	TD	13	Taxus x media / Dense Yew	30"-36"			13 @ 2 SF PER SHRUB	26 SF
	VP	10	Viburnum x pragense / Prague Viburnum	30"-36"			10 @ 2 SF PER SHRUB	20 SF

ANNUALS/PERENNIALS	CODE	QTY	BOTANICAL NAME / COMMON NAME	SIZE	FIELD2	FIELD3
	LV	22	Liriope muscari `Variegata` / Variegated Lily Turf	4" pot		

SITE AREA:	40,724 SF
CROWN COVERAGE REQUIRED @ 25%:	10,181 SF
TREE SAVE CROWN COVERAGE:	650 SF
ONSITE CROWN COVERAGE PROVIDED:	
TREES	5,250 SF
SHRUBS	442 SF
TOTAL CROWN COVERAGE:	6,342 SF
PERCENTAGE OF CROWN COVERAGE PROVIDED:	15.6%
OFFSITE CROWN COVERAGE NOT INCLUDED:	11,000 SF
DISTURBED SITE AREA:	46,768 SF

B

PLANT TABULATION

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. 2017-0014
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
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ABINGDON PLACE

City of Alexandria

Job Name

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6		
5		
4		
3		
2		
1	PLANTING REVISIONS	2/13/18

LANDSCAPE PLAN

Drawing Title

Project Number: AP-1
Scale: NTS
Date: December 24, 2017

Sheet No. L3 of 3

C

WEST ELEVATION (N. WASHINGTON ST. / EAST ABINGTON DR.)

3/32" = 1'-0"

B

EAST ELEVATION (N. SAINT ASAPH ST.)

3/32" = 1'-0"

A

SOUTH ELEVATION (SECOND ST.)

3/32" = 1'-0"

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SITE PLAN NO. 2017-0014

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

COMMONWEALTH OF VIRGINIA
RUSTY ORLING
3940
02/13/18
ARCHITECT

RUST | ORLING
ARCHITECTURE

1215 CAMERON STREET
ALEXANDRIA, VA
22314

T - 703.836.3205
F - 703.548.4779
admin@rustorling.com
www.rustorling.com

1101 N. Washington Street

Alexandria, Virginia

17.024

REVISIONS

DATE	DESCRIPTION

PRELIMINARY SITE PLAN
02.13.18

EXTERIOR ELEVATIONS

SHEET NO.

A1.1

C

EAST ELEVATION (ALLEY)
3/32" = 1'-0"

B

WEST ELEVATION (ALLEY)
3/32" = 1'-0"

A

NORTH ELEVATION
3/32" = 1'-0"

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CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

COMMONWEALTH OF VIRGINIA
JOHN M. RUST
3940
02/13/18
ARCHITECT

RUST | ORLING
ARCHITECTURE

1215 CAMERON STREET
ALEXANDRIA, VA
22314

T - 703.836.3205
F - 703.548.4779
admin@rustorling.com
www.rustorling.com

1101 N. Washington Street

Alexandria, Virginia

17.024

REVISIONS

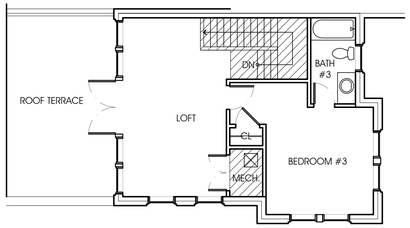
DATE	DESCRIPTION

PRELIMINARY
SITE PLAN
02.13.18

EXTERIOR
ELEVATIONS

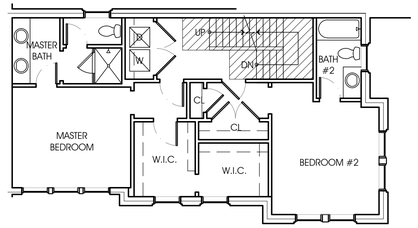
SHEET NO.

A1.2



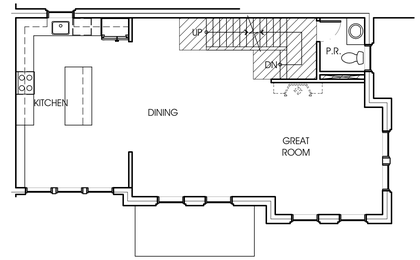
FOURTH FLOOR

DEDUCTIONS: 91 SQ. FT.



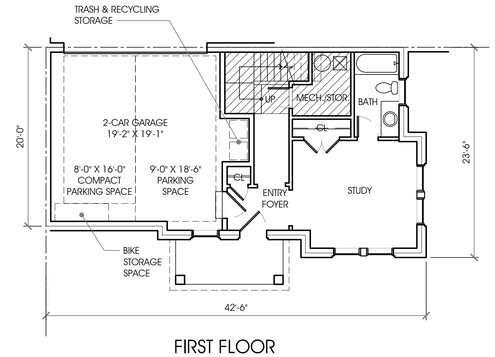
THIRD FLOOR

DEDUCTIONS: 83 SQ. FT.



SECOND FLOOR

DEDUCTIONS: 81 SQ. FT.



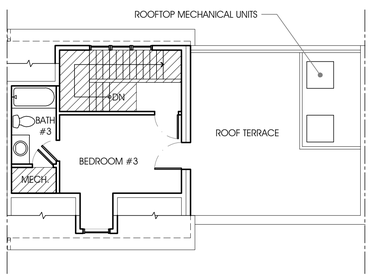
FIRST FLOOR

DEDUCTIONS: 95 SQ. FT.

C

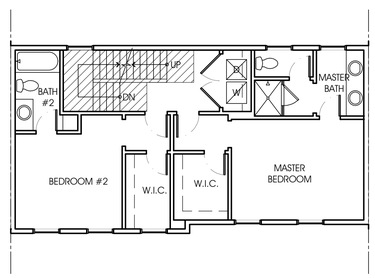
FLOOR PLANS - UNIT 11

1/8"=1'-0"



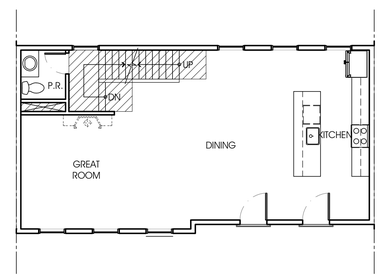
FOURTH FLOOR

DEDUCTIONS: 92 SQ. FT.



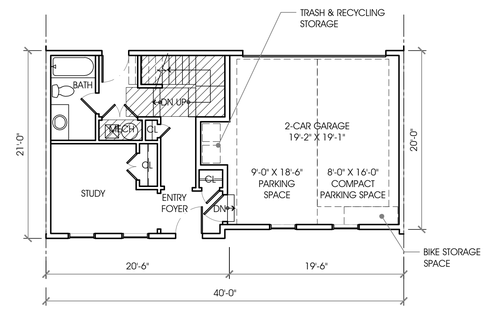
THIRD FLOOR

DEDUCTIONS: 83 SQ. FT.



SECOND FLOOR

DEDUCTIONS: 81 SQ. FT.



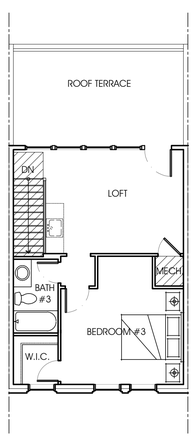
FIRST FLOOR

DEDUCTIONS: 80 SQ. FT.

B

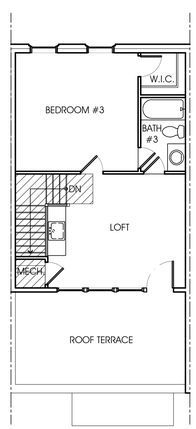
FLOOR PLANS - UNITS 15-19

1/8"=1'-0"



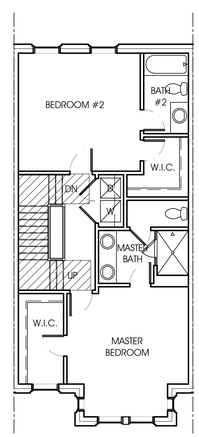
FOURTH FLOOR (ALTERNATE)
UNITS 1, 6-7, 10, 12-14

DEDUCTIONS: 49 SQ. FT.



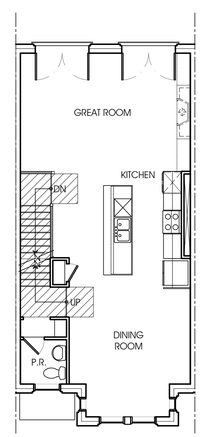
FOURTH FLOOR (TYP)
UNITS 2-5, 8-9

DEDUCTIONS: 59 SQ. FT.



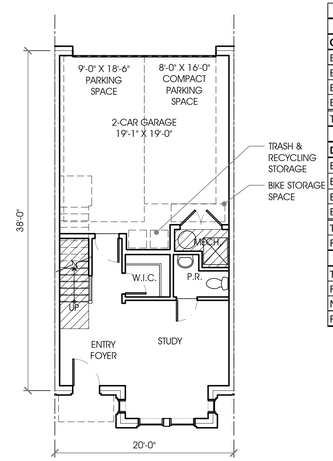
THIRD FLOOR (TYP)

DEDUCTIONS: 74 SQ. FT.



SECOND FLOOR (TYP)

DEDUCTIONS: 80 SQ. FT.



FIRST FLOOR (TYP)

DEDUCTIONS: 53 SQ. FT.

Proposed Floor Area (sq. ft)					
Gross Floor Area	Floor 1	Floor 2	Floor 3	Floor 4	Total
Building A (Units 1-6)	5,050	4,950	4,950	3,462	18,412
Building B (Units 7-14)	6,794	6,614	6,614	4,705	24,727
Building C (Units 15-16)	1,788	1,743	1,743	739	6,013
Building D (Units 17-19)	2,656	2,604	2,604	1,096	8,960
Total					58,112
Deductions	Floor 1	Floor 2	Floor 3	Floor 4	Total
Building A (Units 1-6)	318	480	444	334	1,576
Building B (Units 7-14)	466	641	601	454	2,162
Building C (Units 15-16)	160	162	166	184	672
Building D (Units 17-19)	240	243	249	276	1,008
Total Potential Deductions					5,418
Reduction Factor					9.32%
Total Required Deductions					4,680
Reduction Factor					8.05%
Net Floor Area					53,432
FAR					1.25

A

FLOOR PLANS - UNITS 1-10, 12-14

1/8"=1'-0"

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. 2017-0014

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

COMMONWEALTH OF VIRGINIA
JOHN M. RUST
3940
02/13/18
ARCHITECT

RUST | ORLING
ARCHITECTURE

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Street
Alexandria, Virginia

17.024

REVISIONS

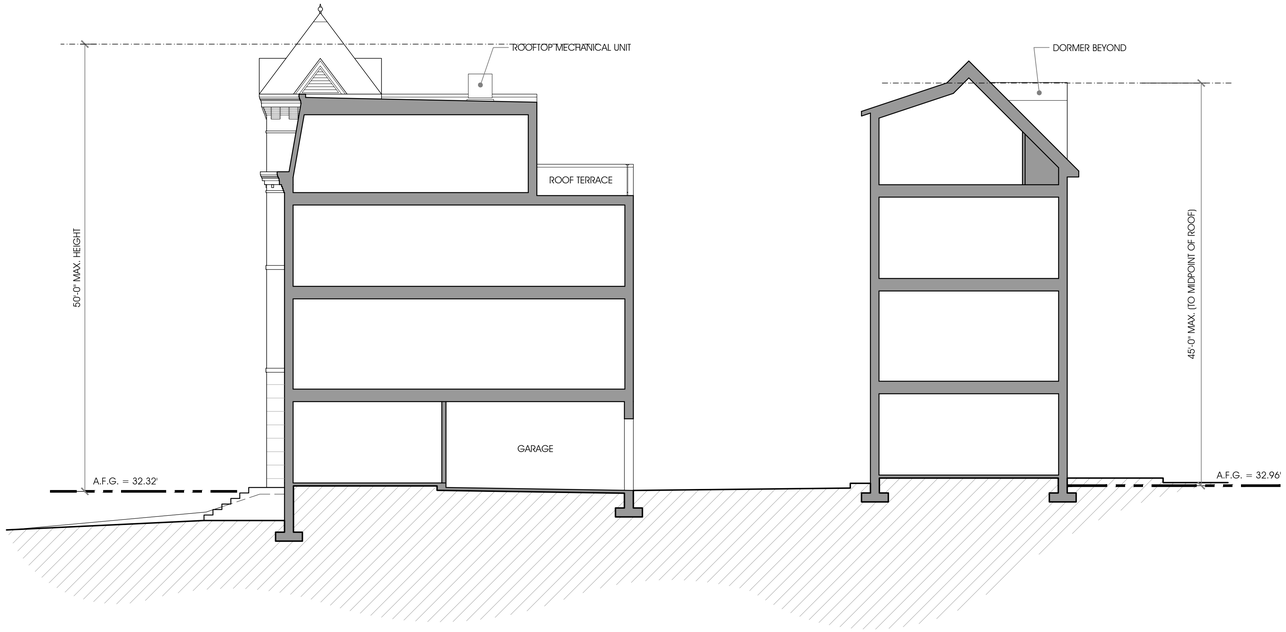
DATE	DESCRIPTION

PRELIMINARY
SITE PLAN
02.13.18

FLOOR
PLANS & FAR
CALCULATIONS

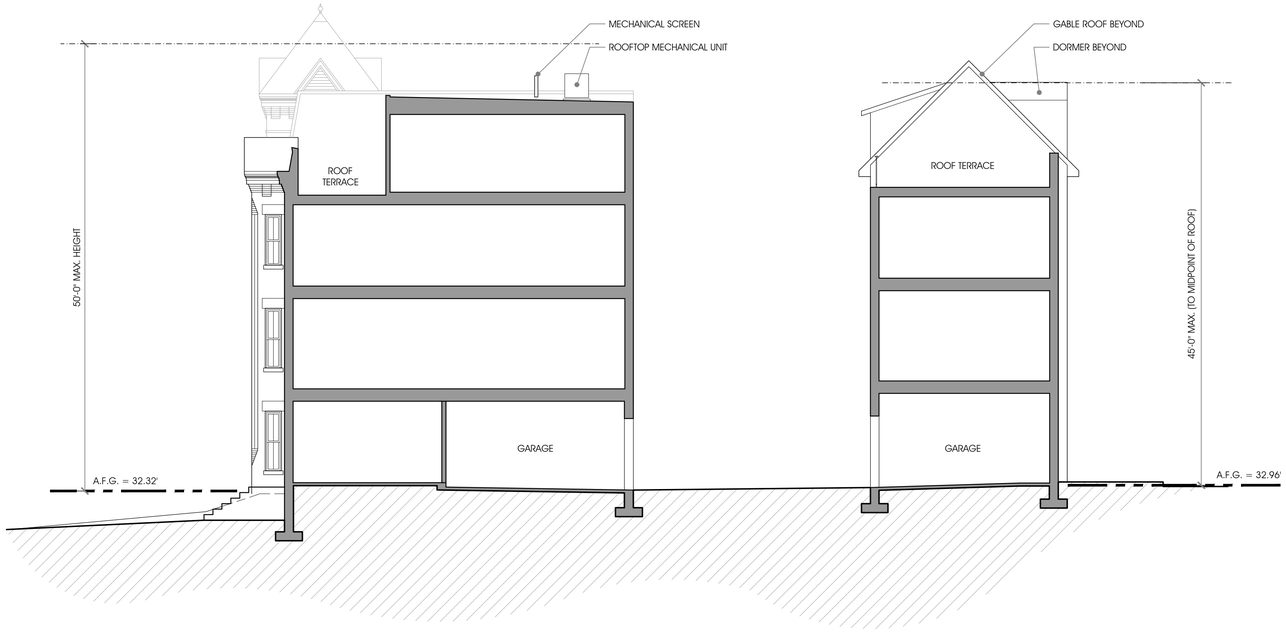
SHEET NO.

A1.3



B

BUILDING SECTION
1/8"=1'-0"



A

BUILDING SECTION
1/8"=1'-0"

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. 2017-0014

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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02/13/18
ARCHITECT

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Alexandria, Virginia

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REVISIONS

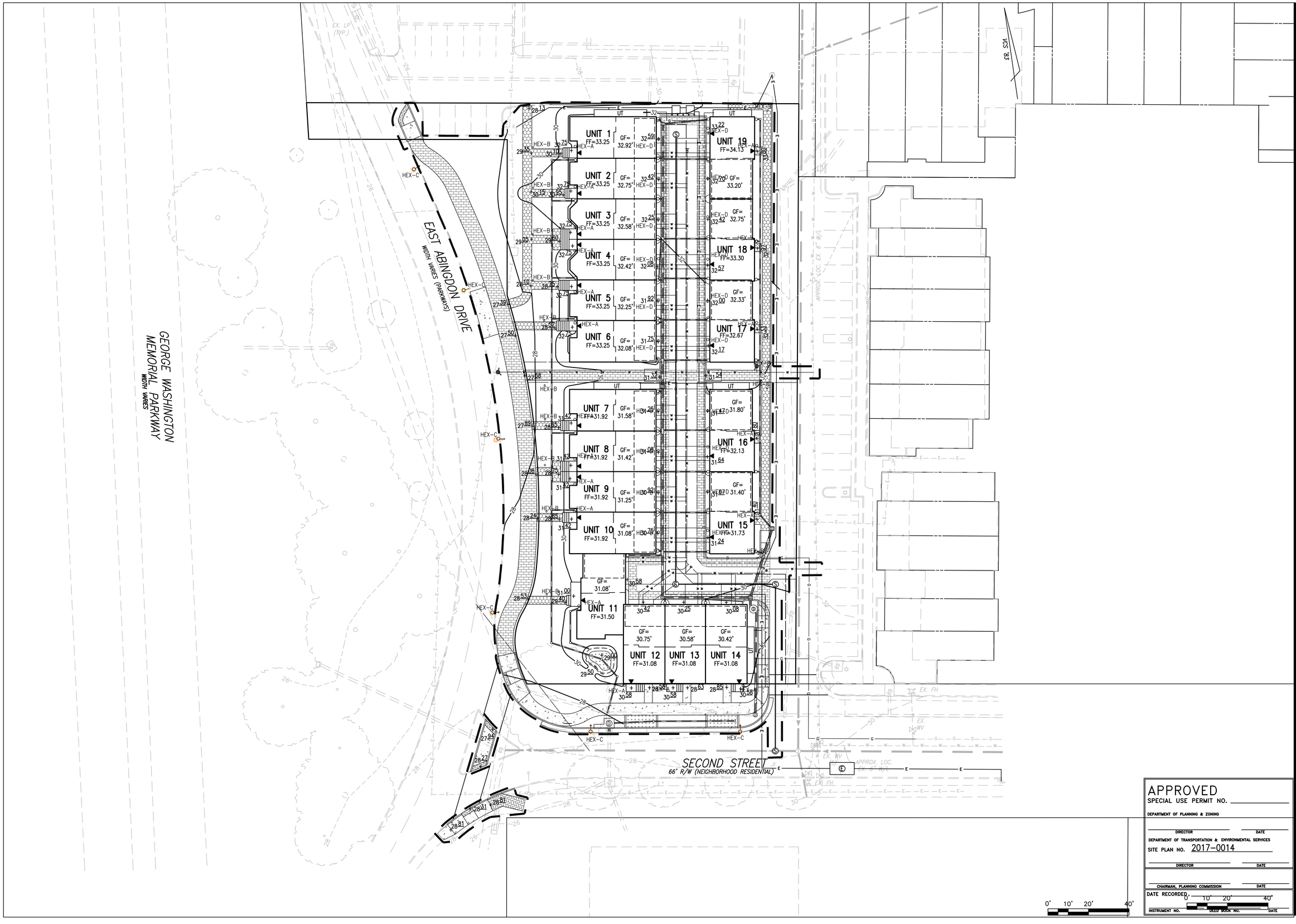
DATE	DESCRIPTION

PRELIMINARY SITE PLAN
02.13.18

BUILDING SECTIONS

SHEET NO.

A1.4



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Hartranft Lighting Design

1101 N. Washington Street

Alexandria, Virginia

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REVISIONS

DATE	DESCRIPTION

PRELIMINARY SITE PLAN
12.18.17

EXTERIOR LIGHTING - LAYOUT

SHEET NO.

LP01

APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. 2017-0014

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED

INSTRUMENT NO. DEED BOOK NO. DATE

HARTRANFT LIGHTING DESIGN, LLC
Andrea Hartranft andrea@adhlighting.com
Kathleen Moser katy@adhlighting.com

ARCHITECTURAL LIGHTING FIXTURE SCHEDULE

REVISION: REV # NO. MM DD YYYY

PROJECT: Abingdon

PROJECT #:

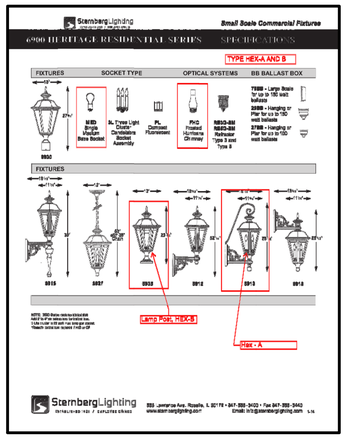
DATE: 12.13.2017

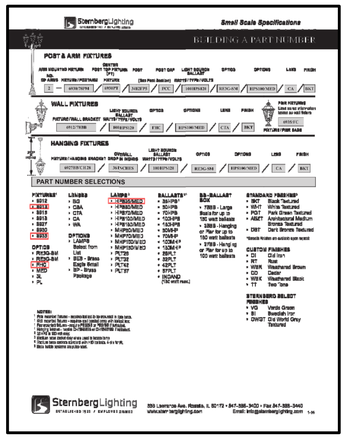
NOTES

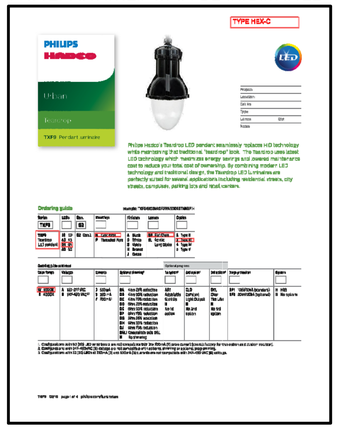
1. SHOULD THE CONTRACTOR WISH TO HAVE PRODUCTS OTHER THAN THOSE SPECIFIED CONSIDERED, THE ITEMS MUST BE SUBMITTED (14) DAYS IN ADVANCE OF THE BID. FAILURE TO SUBMIT WITHIN THAT DEADLINE CONSTITUTES A GUARANTEE THAT THE SPECIFIED PRODUCTS WILL BE SUPPLIED.
2. CONTRACTOR SHALL PROVIDE A COMPLETE LIST OF ALL LAMPS WHICH WILL BE FURNISHED ON THE PROJECT. THIS LIST SHALL BE ORGANIZED ALPHABETICALLY BY LUMINAIRE TYPE INDICATED ON THE LUMINAIRE SCHEDULE, AND INCLUDE THE MANUFACTURER AND EXACT MODEL ORDERING CODE OF EACH LAMP.
3. THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL 10% OF ALL LAMPS LISTED AT PROJECT TURN OVER. LAMPS ARE FOR SPARE REPLACEMENT LAMPS. LIST OF SPARE LAMPS TO BE INCLUDED IN SUBMITTAL DOCUMENTATION.
4. ALL EMERGENCY AND EXIT LIGHTING SHALL BE DESIGNED AND SPECIFIED BY THE ELECTRICAL ENGINEER
5. 0-10V DIMMING REQUIRES 5 WIRES.
6. CONFIRM WITH ARCHITECT THE EXACT MOUNTING HEIGHT AFF
7. CONTRACTOR MUST PROVIDE UNIT PRICING TO THE ARCHITECT- FOR EACH FIXTURE TYPE COMPLETE WITH ALL ACCESSORIES AND LAMP.

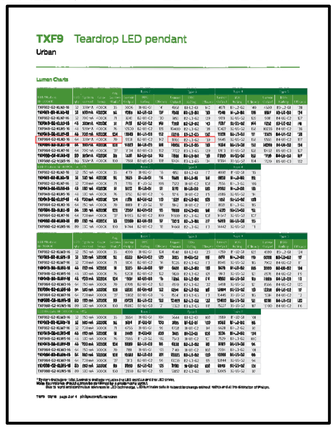
FIXTURE TYPE	DESCRIPTION	LAMP	MANUFACTURER	CATALOG NUMBER	POWER SUPPLY	SYSTEM WATTS	VOLTS	CONE	APER. SIZE	MOUNTING: SURFACE	MOUNTING: FINISH	MOUNTING: RECESSED	MOUNTING: DEPTH	NOTES
HEX-A	SCONCE AT ENTRY	1 - GC REPLACEMENT LED, 97965 10A18DIM/830, 1150 L, 3000K	STERNBERG LIGHTING	6913 FHC HPS35MED	DIMMABLE	10	BY EE	N/A	N/A	X				CONFIRM FINISH
HEX-B	POST LIGHT	1 - GC REPLACEMENT LED, 97965 10A18DIM/830, 1150 L, 3000K	STERNBERG LIGHTING	6935 FHC HPS35MED	DIMMABLE	10	BY EE	N/A	N/A	X				CONFIRM FINISH
HEX-C	POLE LIGHT ON STREET	INTERGRAL LED, 9705 L, 3000K	PHILIPS HADCO	TXF9 64 G2 N GF 3 W	INTERGRAL	70	BY EE	N/A	N/A	X				CONFIRM FINISH
HEX-D	SCONCE AT BACK ENTRY	1 - GC REPLACEMENT LED, 97965 10A18DIM/830, 1150 L, 3000K	STERNBERG LIGHTING	4016 MED HPS35MED	DIMMABLE	10	BY EE	N/A	N/A	X				CONFIRM FINISH

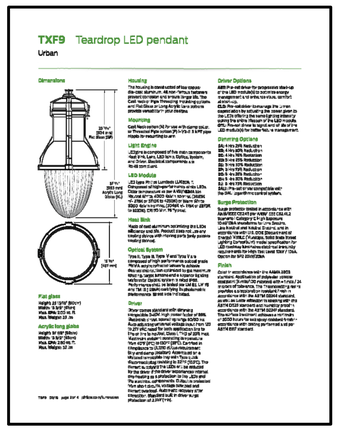
NOTE: FIXTURES CAN BE SUBSITUTED WITH EQUIVALENT, APPROVED BY THE BAR

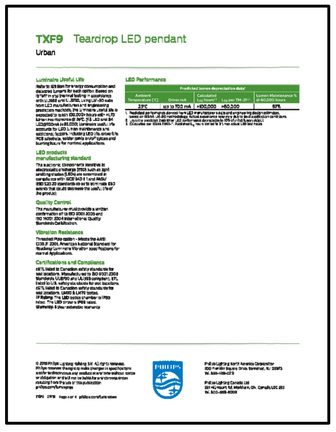


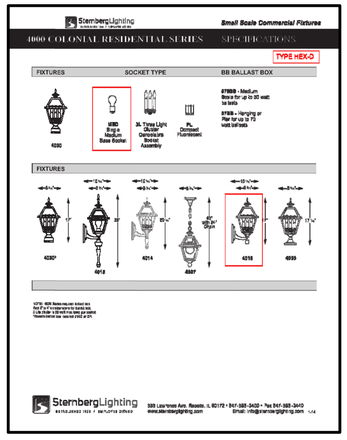


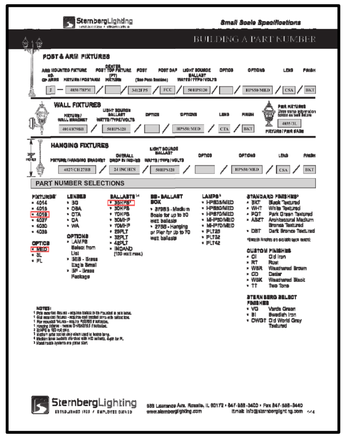












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Hartranft Lighting Design

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Alexandria, Virginia

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REVISIONS

DATE	DESCRIPTION

PRELIMINARY SITE PLAN
12.18.17

EXTERIOR LIGHTING - SCHEDULE AND CUT SHEETS

SHEET NO.
LP02

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. 2017-0014
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. DATE