GENERAL DEVELOPMENT PLAN PHASE II: N29 RESIDENCES

CITY OF FAIRFAX, VIRGINIA

SHEET INDEX

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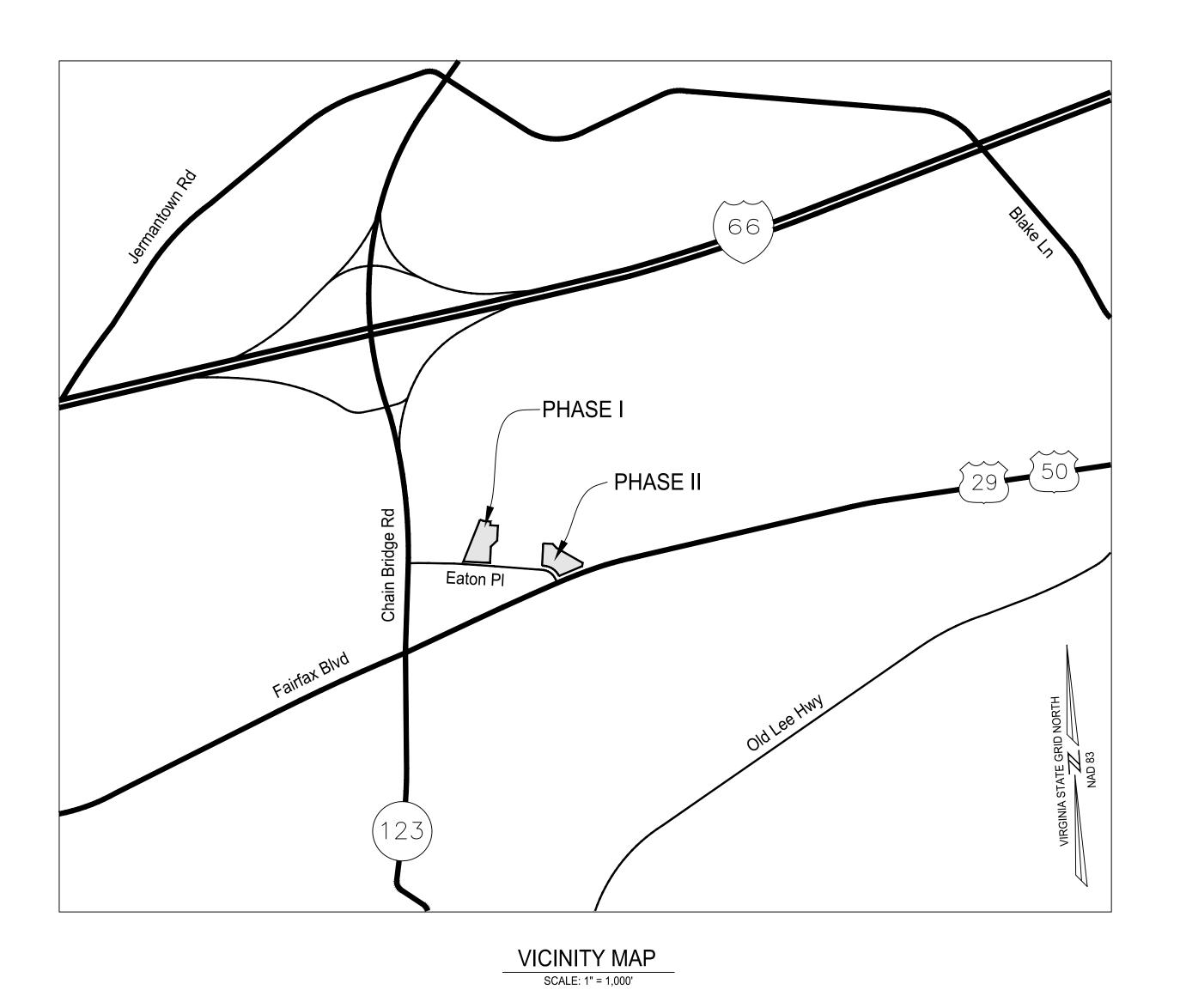
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PROJECT TEAM:

CONTRACT PURCHASER / APPLICANT CAPITAL CITY REAL ESTATE 3000 K STREET, NW SUITE 270 WASHINGTON, DC, 20007

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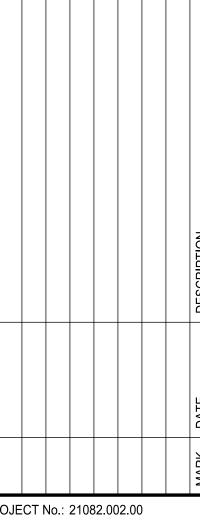
SUBMISSIONS

SUBMISSION 1: JULY 15, 2022

christo Consulta 4035 ridge top road



ERAL DEVELOPMENT PLAN



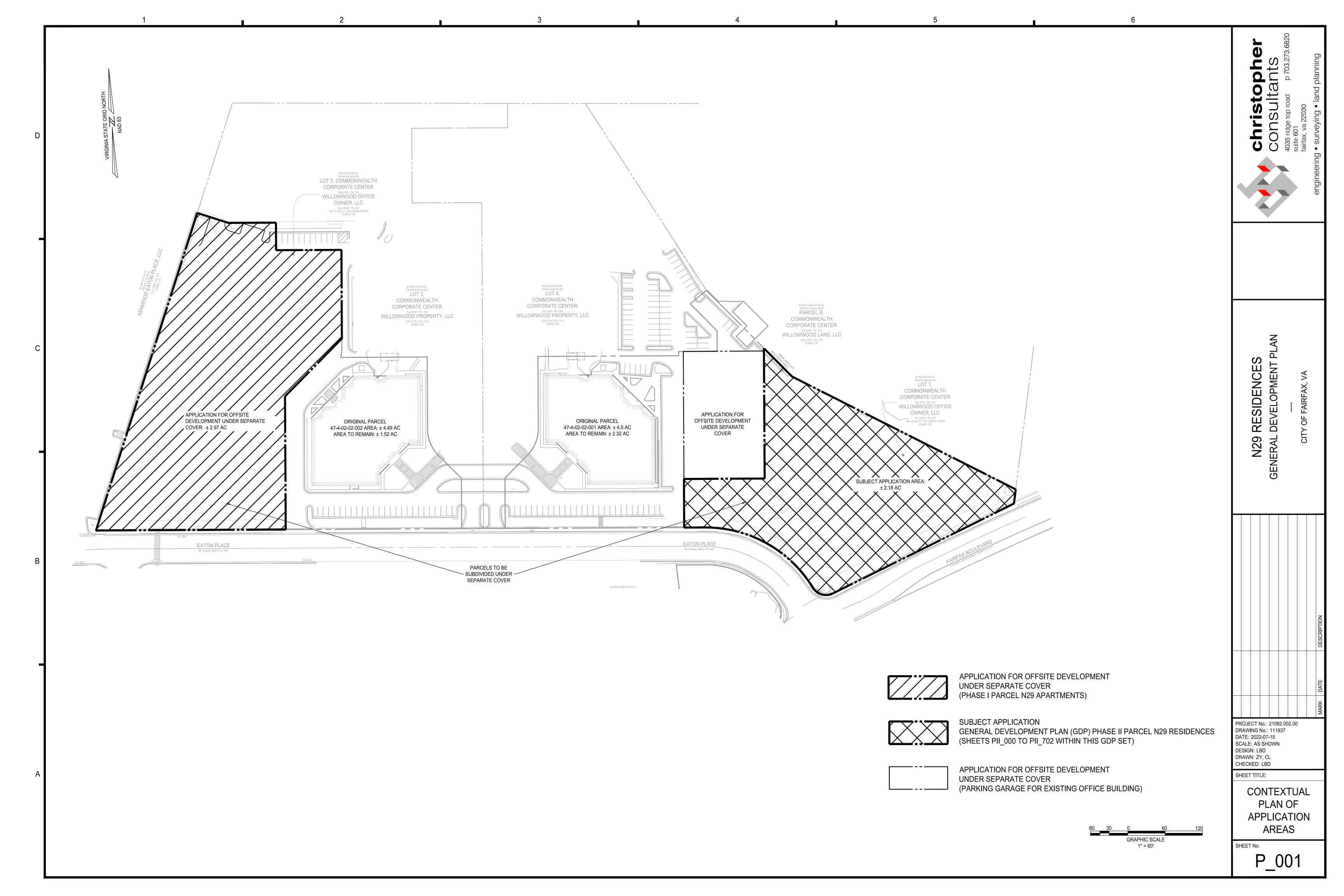
PROJECT No.: 21082.002.00 DRAWING No.: 111937 DATE: 2022-07-15 SCALE: N/A DESIGN: LBD DRAWN: ZY CHECKED: LBD

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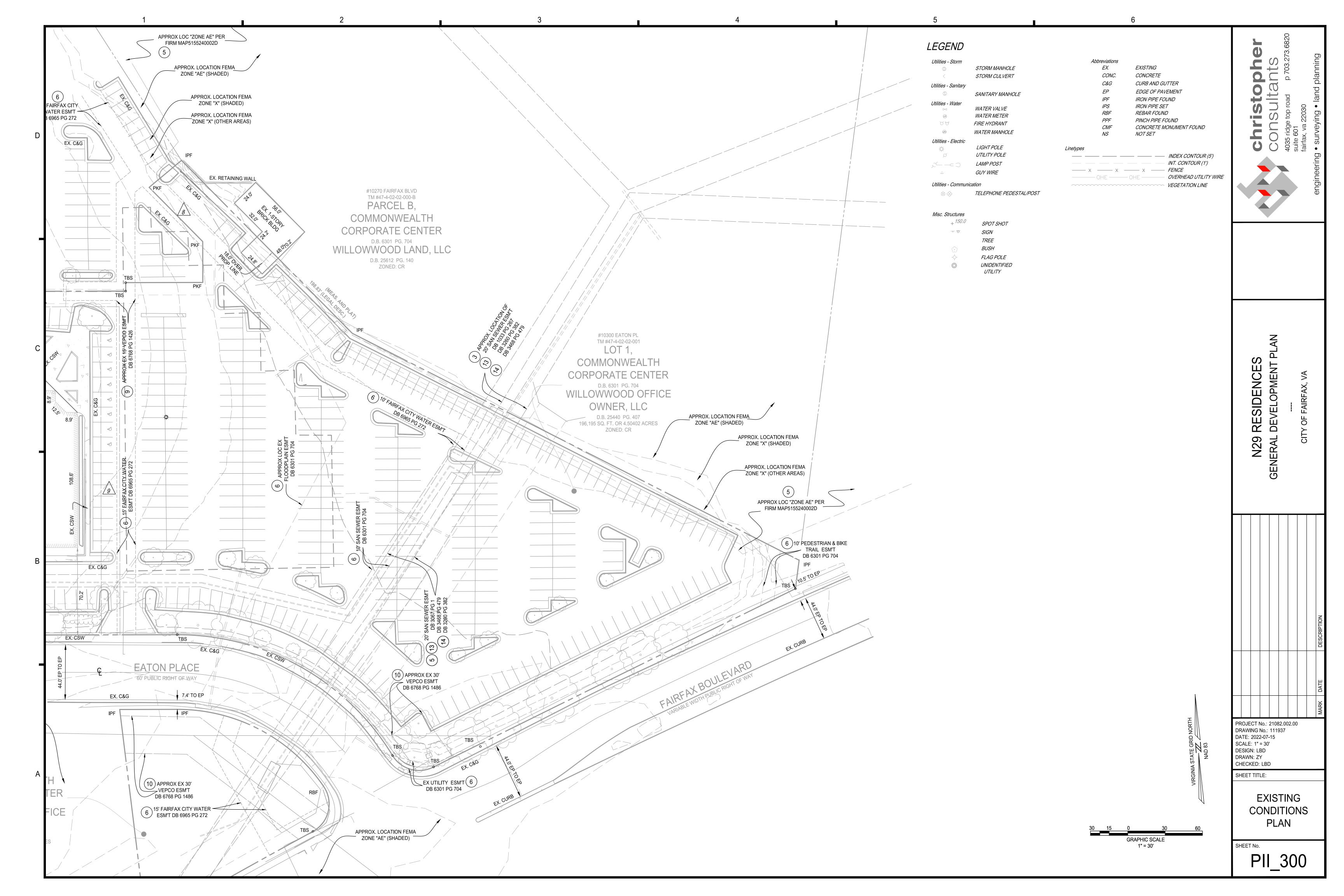
COVER SHEET

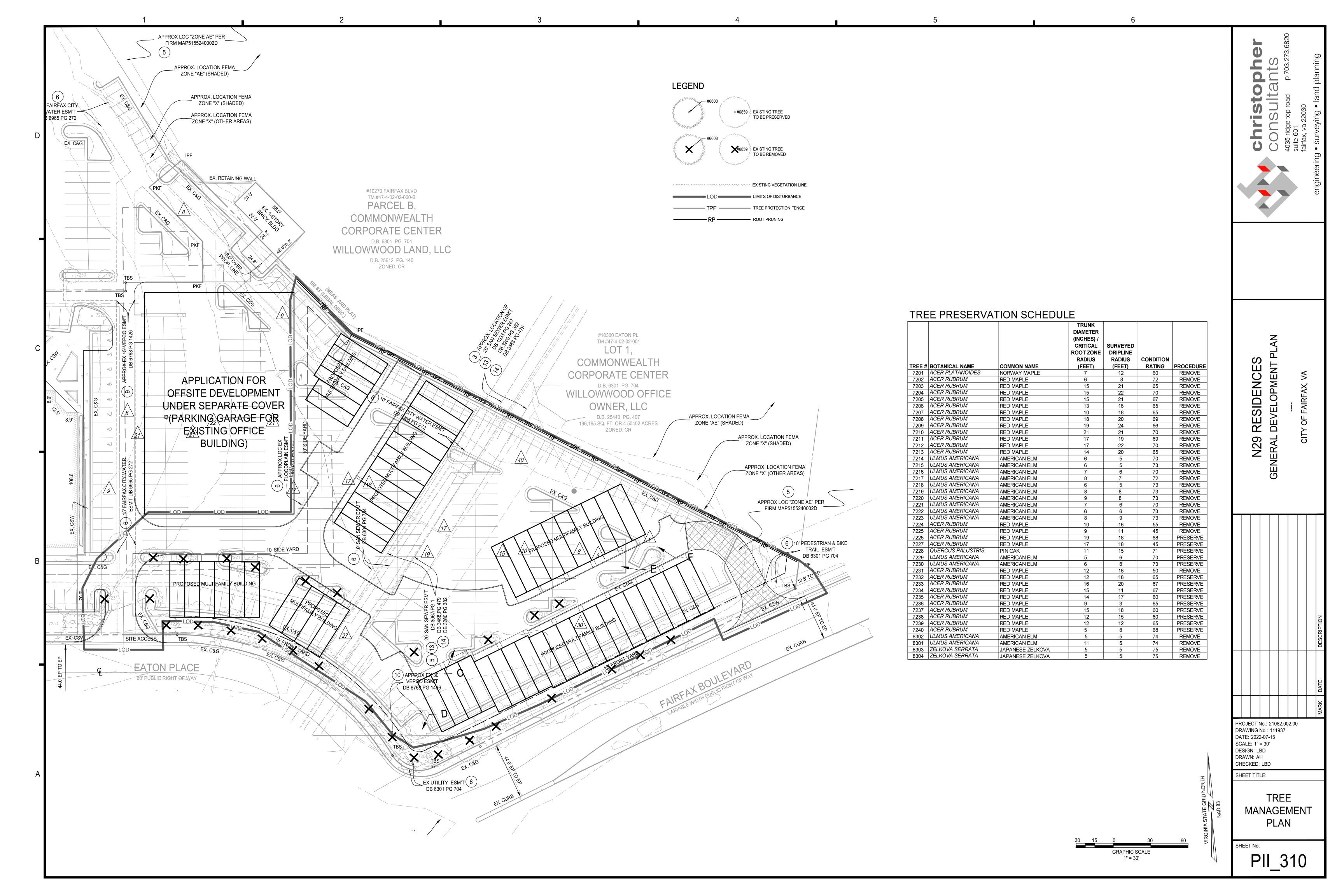
SHEET No.

P_000



GENERAL NOTES: 0 1. THE SUBJECT PROPERTY SHOWN IS A PORTION (± 2.18 AC) THAT WILL BE SUBDIVIDED FROM THE FOLLOWING PARCEL RECORDED IN THE LAND RECORDS OF FAIRFAX CITY, VIRGINIA AS FOLLOWS: <u>ADDRESS</u> EXISTING ZONING 47-4-02-02-001 WILLOWWOOD OFFICE OWNER, LLC 10300 EATON PLACE CR (COMMERCIAL RETAIL) ± 4.5 ACRES 2. THIS GDP SUBMISSION IS AN APPLICATION TO REZONE THE SUBJECT PROPERTY FROM CR (COMMERCIAL RETAIL) TO CU (COMMERCIAL URBAN) DISTRICT. THE DEVELOPMENT PROGRAM ON THE SUBJECT PROPERTY WILL INCLUDE MULTI-FAMILY HOUSING. THE REMAINDER OF THE ORIGINAL PARCEL WILL REMAIN ZONED CR AS EXISTING OFFICE USE, AND WILL NOT BE PART OF THIS APPLICATION. THERE WILL BE AN APPLICATION UNDER SEPARATE COVER FOR AN OFFSITE PARKING GARAGE ON THE ORIGINAL PARCEL. 3. HORIZONTAL DATUM SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM (VCS) 1983 - NORTH AS ESTABLISHED FROM A CURRENT GPS SURVEY. VERTICAL DATUM SHOWN HEREON IS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29) (GEOID-18) AS ESTABLISHED FROM A CURRENT GPS SURVEY. 4. THE PHYSICAL IMPROVEMENTS AND TOPOGRAPHY SHOWN HEREON ARE BASED UPON A FIELD SURVEY CONDUCTED BY CHRISTOPHER CONSULTANTS, LTD BETWEEN THE DATES OF MARCH 22 AND MAY 5, 2022. 5. NO CERTIFICATION HAS BEEN MADE AS TO THE LOCATIONS OF UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO ELECTRIC, GAS, TELEPHONE, CATV, WATER, SANITARY AND STORM SEWERS. 6. NO GEOTECHNICAL, SUBSURFACE, FIELD REVIEWS, RESEARCH, AGENCY OR GOVERNMENTAL RECORD REVIEWS, OR OTHER INVESTIGATIONS HAVE BEEN MADE FOR THE PURPOSE OF LOCATING, OR DETERMINING THE EXISTENCE OF HAZARDOUS MATERIALS, OR OTHER ENVIRONMENTAL CONCERNS ON SITE IN THE PERFORMANCE OF CHRISTOPHER CONSULTANTS, LTD SERVICES FOR THE PROJECT AS SHOWN HEREON. 7. NO CERTIFICATION HAS BEEN MADE AS TO THE LOCATIONS OF UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO ELECTRIC, GAS, TELEPHONE, CATV, WATER, SANITARY AND STORM SEWERS. 8. DURING THE PROCESS OF PHYSICAL SURVEY NO INDICATIONS OF A CEMETERY WERE FOUND. NO FURTHER INSPECTION OF THIS PROPERTY HAS BEEN MADE FOR POSSIBLE CEMETERIES. 9. STORM AND SANITARY INVERTS, PIPE SIZES AND MATERIALS HAVE BEEN DETERMINED THROUGH THE USE OF A SEWER VIDEO CAMERA OPERATED BY THIS FIRM ON THE DATE OF APRIL 20th, 2022. 10. THE LIMITS OF THE UNDERGROUND BMP FACILITY SHOWN HERON ARE APPROXIMATE AND BASED OFF OF A PLAN TITLED "WILLOWWOOD PLAZA SITE PLAN PHASE ONE" WITH A REVISION DATE OF NOVEMBER 10th, 1986. 11. THE AREA SHOWN HEREON IS LOCATED ON THE FLOOD INSURANCE RATE MAP (FIRM), NO. 5155240002D, WITH AN EFFECTIVE DATE OF 06/02/2006 AND A REVISION DATE OF 10/11/2019. BY GRAPHIC DEPICTION ONLY, THE PROPERTY SHOWN HEREON IS SHOWN IN: FLOOD ZONE "AE" (SPECIAL FLOOD HAZARD AREAS - SHADED), AREAS WITH BASE FLOOD ELEVATION (BFE) OR • FLOOD ZONE "X" (OTHER AREAS OF FLOOD HAZARD - SHADED), 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF OPMENT LESS THAN ONE SQUARE MILE. • FLOOD ZONE "X" (OTHER AREAS), AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN. A FIELD SURVEY WAS NOT PERFORMED TO DETERMINE THE FLOOD ZONES LISTED HEREON. AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THIS DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY. 12. THE SUBJECT PROPERTY IS CURRENTLY SERVED BY PUBLIC WATER AND PUBLIC SEWER PROVIDED BY CITY OF FAIRFAX AND FAIRFAX WATER. 13. THIS DEVELOPMENT PROPOSAL IS COMPATIBLE WITH THE EXISTING DEVELOPMENT IN THE VICINITY OF THIS SITE. NO ADVERSE EFFECTS TO NEIGHBORING PROPERTIES ARE ANTICIPATED WITH THIS PROJECT. 14. NOTWITHSTANDING THE IMPROVEMENTS AND TABULATIONS SHOWN ON THIS PLAN, THE APPLICANT RESERVES THE RIGHT TO MAKE MINOR MODIFICATIONS TO THE FINAL DESIGN, TO COMPLY WITH FINAL ENGINEERING AND NEW CRITERIA AND REGULATIONS WHICH MAY BE ADOPTED BY THE CITY OF FAIRFAX SUBSEQUENT TO THE SUBMISSION OF THIS APPLICATION, PROVIDED THAT SUCH MODIFICATIONS ARE SUBSTANTIALLY CONSISTENT WITH THE APPROVED DEVELOPMENT PLAN AND COMMITMENTS AND SUBJECT TO THE DETERMINATIONS OF THE DIRECTOR OF DEVELOPMENT AND PLANNING. 15. THE PROPOSED BUILDING FOOTPRINTS AND SITE IMPROVEMENTS SHOWN HEREIN ARE PRELIMINARY. THE PROPOSED SQUARE FOOTAGE FOR THE PROPOSED BUILDINGS IS APPROXIMATE ONLY AND MAY BE SUBJECT TO MINOR REVISIONS AT THE TIME OF SITE PLAN, SUBJECT TO MARKET CONDITIONS, BUT SUBSTANTIALLY CONSISTENT WITH THE APPROVED DEVELOPMENT PLAN. 16. SITE LIGHTING WITHIN THE PROJECT SITE AREA (I.E. ALONG SIDEWALKS AND PATHWAYS) WILL BE DETERMINED DURING FINAL SITE PLAN REVIEW AND SHALL BE IN GENERAL CONFORMANCE WITH SECTION 4.8 OF THE ZONING ORDINANCE AND SECTION 2.10 OF THE PUBLIC FACILITIES MANUAL. 17. ONSITE STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES SHALL BE PROVIDED AS REQUIRED BY CITY REGULATIONS AT THE TIME OF FINAL SITE PLAN. DETENTION TO PROVIDE THE REQUIRED STORMWATER QUANTITY CONTROLS AND ONSITE BEST MANAGEMENT PRACTICES (BMPs) TO MEET THE STORMWATER QUALITY REQUIREMENTS ARE SHOWN ON SHEETS WITHIN THIS PLAN SET. 18. ALL SIGNAGE WILL BE IN CONFORMANCE WITH SECTION 4.6 OF THE ZONING ORDINANCE. 19. TO THE BEST KNOWLEDGE OF THE ENGINEER AND APPLICANT, THIS DEVELOPMENT PLAN CONFORMS TO ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS, WITH THE FOLLOWING MODIFICATIONS AND WAIVERS: A. A MODIFICATION OF THE ZONING ORDINANCE SECTION 3.6.2 REQUIREMENT OF 24 DU/AC MAXIMUM DENSITY. B. A MODIFICATION OF THE ZONING ORDINANCE SECTION 3.6.2 REQUIREMENT OF 50% BUILD-TO-LINE. C. A MODIFICATION OF THE ZONING ORDINANCE SECTION 4.2.4.B.1 REQUIREMENTS FOR TANDEM PARKING. D. A MODIFICATION OF THE ZONING ORDINANCE SECTION 4.2.9.B. REQUIREMENTS FOR LOADING SPACES. E. A MODIFICATION OF THE ZONING ORDINANCE SECTION 4.5.7.D REQUIREMENT FOR TERMINAL LANDSCAPE ISLANDS. F. A WAIVER OF PUBLIC FACILITIES MANUAL SECTION 401-01 REQUIREMENT THAT A TYPICAL CURB AND GUTTER STREET BE PROVIDED ON PRIVATE ACCESSWAYS THAT ARE LESS THAN THIRTY (30) FEET FROM FACE OF CURB TO FACE OF CURB (OR EDGE OF PAVEMENT). PROJECT No.: 21082.002.00 DRAWING No.: 111937 DATE: 2022-07-15 SCALE: N/A DESIGN: LBD DRAWN: ZY, CL CHECKED: LBD SHEET TITLE: PARCEL DIVIDER SHEET





- 1.1. THE REQUIREMENTS OF THE CITY OF FAIRFAX ZONING ORDINANCE AND PUBLIC FACILITIES MANUAL SHALL BE FOLLOWED. 1.2. ALL TREE PRESERVATION ACTIVITIES SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN ISA CERTIFIED
- 1.3. ALL TREE WORK PERFORMED SHALL MEET OR EXCEED THE MOST RECENT INDUSTRY STANDARDS, AS PUBLISHED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA).

2. PRE-CONSTRUCTION

- 2.1. PRIOR TO THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL HAVE THE LIMITS OF CLEARING AND GRADING CLEARLY MARKED IN THE FIELD WITH FLAGGING. THESE LIMITS SHALL NOT EXCEED THOSE SHOWN ON THE APPROVED PLANS. 2.2. AFTER LIMITS HAVE BEEN STAKED, THE CONTRACTOR SHALL REQUEST A PRE-CONSTRUCTION MEETING WITH CITY OF FAIRFAX
- 2.3. DURING THE PRE-CONSTRUCTION MEETING, THE LIMITS MAY BE ADJUSTED TO BETTER PRESERVE OR REMOVE TREES IMPACTED BY CONSTRUCTION ACTIVITIES.

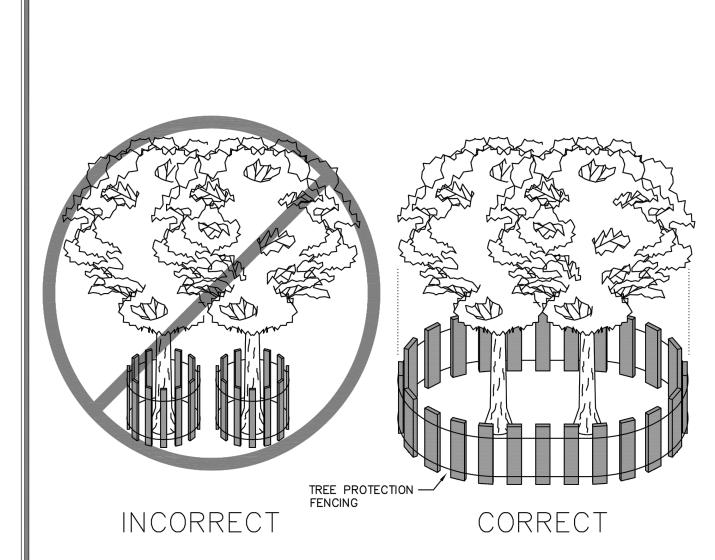
3. INSTALLATION OF TREE PROTECTION MEASURES

AND PROJECT ARBORIST.

- 3.1. ROOT PRUNING: PRIOR TO CONSTRUCTION, ROOT PRUNING SHALL BE COMPLETED AT THE LIMITS. ROOT PRUNING SHALL BE TO THE DEPTH OF EIGHTEEN (18) TO TWENTY-FOUR (24) INCHES AND SHALL BE ACCOMPLISHED BY USING A TRENCHER, VIBRATING PLOW OR BY HAND. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH REMOVED SOIL. WHEN EXCAVATING ALL TREE ROOTS GREATER THAN 1 INCH IN DIAMETER THAT ARE EXPOSED AND/OR DAMAGED SHALL BE TRIMMED CLEANLY, AND COVERED WITH ORGANIC MULCH, TOPSOIL, OR OTHER SUITABLE MATERIAL TO PREVENT THE EXPOSED ROOTS FROM DRYING
- 3.2. TREE PROTECTION FENCING: IMMEDIATELY FOLLOWING ROOT PRUNING, TREE PROTECTION FENCING SHALL BE COMPLETED AT THE LIMITS. TREE PROTECTION FENCING SHALL BE INSTALLED PER TREE PRESERVATION PLAN AND SHALL CONSIST OF EITHER OF THE FOLLOWING MATERIALS:
- 3.2.1. FOURTEEN (14) GAUGE WELDED WIRE MESH THAT IS A MINIMUM OF FOUR (4) FOOT TALL. THE MESH SHALL BE ATTACHED TO SIX (6) FOOT TALL, TWO-INCH (2") STEEL U-CHANNEL ANCHOR POSTS DRIVEN EIGHTEEN (18) INCHES INTO THE GROUND. THE POSTS SHALL BE PLACED NO FURTHER THAN TEN (10) FEET APART.
- 3.2.2. SUPER SILT FENCE
- 3.3. TREE PROTECTION SIGNAGE: BILINGUAL SIGNS STATING "TREE PRESERVATION AREA KEEP OUT" SHALL BE AFFIXED TO THE TREE PRESERVATION FENCE AT LEAST EVERY 50 FEET IMMEDIATELY FOLLOWING TREE PROTECTION FENCING INSTALLATION.
- 3.4. CITY OF FAIRFAX SHALL BE NOTIFIED AND GIVEN THE OPPORTUNITY TO INSPECT THE SITE TO ASSURE THAT ALL TREE PROTECTION DEVICES HAVE BEEN CORRECTLY INSTALLED. IF IT IS DETERMINED THAT THE FENCING HAS NOT BEEN INSTALLED CORRECTLY, NO CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE FENCING IS INSTALLED CORRECTLY, AS DETERMINED BY CITY OF FAIRFAX.
- 3.5. TREES BEING REMOVED SHALL NOT BE FELLED, PUSHED OR PULLED INTO TREE PRESERVATION AREAS. EQUIPMENT OPERATORS SHALL NOT CLEAN ANY PART OF THEIR EQUIPMENT BY SLAMMING AGAINST THE TRUNKS OF TREES TO BE
- 3.6. TREES ON THE EDGE OF THE LIMITS OF CLEARING AND GRADING SHALL BE CUT DOWN BY HAND WITH A CHAIN SAW. REMAINING STUMPS SHALL EITHER BE LEFT IN PLACE OR GROUND DOWN WITH A STUMP GRINDER.
- 3.7. TREES INDICATED WILL BE MULCHED WITH WOOD CHIPS GENERATED FROM ON SITE CLEARING OR TREE REMOVAL AND PRUNING OPERATIONS WHEN POSSIBLE. SHREDDED HARDWOOD MULCH FROM OFFSITE MAY BE UTILIZED IF APPROVED BY PROJECT ARBORIST. MULCH SHALL BE SPREAD IN A UNIFORM DEPTH OF THREE (3") INCHES BY HAND. MULCH SHALL BE PLACED IN AREAS AS INDICATED ON APPROVED PLANS.

4. CONSTRUCTION

- 4.1. DURING CLEARING AND GRADING OPERATIONS AND THROUGHOUT CONSTRUCTION, NO ACTIVITY SHALL BE PERMITTED IN TREE SAVE AREAS WITHOUT AUTHORIZATION FROM OWNER, ARBORIST, OR CITY OF FAIRFAX . PRECLUDED ACTIVITIES INCLUDE:
- 4.1.1. FELLING OF TREES INTO PRESERVATION AREAS OR OPERATION OF HEAVY MACHINERY IN SAVE AREAS TO FELL TREES ON THE PERIMETER OF PRESERVATION AREAS.
- 4.1.2. OPERATION OF HEAVY EQUIPMENT OR MACHINERY OF ANY KIND IN PRESERVATION AREAS FOR ANY PURPOSE.
- 4.1.3. PLACEMENT OF EXCESS SOIL, FILL, OR MATERIALS OF ANY KIND IN PRESERVATION AREAS.
- 4.1.4. PLACEMENT OF ANY CONSTRUCTION MATERIALS OF ANY KIND IN PRESERVATION AREAS.
- 4.1.5. PARKING OR STORING EQUIPMENT OR VEHICLES IN PRESERVATION AREAS.
- 4.1.6. DUMPING CHEMICALS OR CONCRETE WASHOUT IN PRESERVATION AREAS.
- 4.1.7. BURNING OF ANY MATERIAL OR DEBRIS IN PRESERVATION AREAS OR WITHIN 200 FEET OF PRESERVATION AREAS.
- 4.1.8. TRENCHING, GRADING, EXCAVATING FOR ANY PURPOSE IN PRESERVATION AREAS.
- 4.2. ALL EXISTING TRASH AND/OR DEBRIS ON SITE SHALL BE REMOVED AT THE TIME OF DISTURBANCE. INDIVIDUAL TREES AND FORESTED AREAS DESIGNATED TO BE PRESERVED SHALL BE PROTECTED AND MANAGED TO ENSURE TREE SURVIVAL DURING ALL PHASES OF DEMOLITION, CLEARING AND GRADING, AND CONSTRUCTION. IN ADDITION TO PROTECTING TREES, ALL UNDERSTORY PLANTS, LEAF LITTER AND SOIL CONDITIONS FOUND IN FORESTED AREAS DESIGNATED TO BE LEFT PRESERVED SHALL BE PROTECTED.
- 4.3. TREES TO REMAIN LOCATED ALONG THE LIMITS OF CLEARING AND GRADING SHALL BE PRUNED DURING CLEARING OPERATIONS TO AVOID MECHANICAL DAMAGE. THIS SHALL BE ADMINISTRATED UNDER THE SUPERVISION OF AN ISA CERTIFIED
- 4.4. ANY DAMAGE INFLICTED TO THE ABOVE OR BELOW-GROUND PORTIONS OF THE TREES SHOWED TO BE PRESERVED SHALL BE REPAIRED IMMEDIATELY PER ISA STANDARDS.
- 4.5. ALL PRUNING SHALL CONFORM TO THE LATEST EDITION OF ANSI A300 (PART 1) PRUNING STANDARDS. DISEASED LIMBS SHALL BE REMOVED OR TREATED AT THE DISCRETION OF THE ARBORIST. WHILE PRUNING, THE ARBORIST SHALL MAKE NOTE OF ANY CONDITIONS WHICH AFFECT THE HEALTH OR CONDITION OF THE TREE AND RECOMMEND CORRECTIVE TREATMENT FOR THESE CONDITIONS. VINE REMOVAL SHALL BE INCLUDED IN ALL PRUNING ACTIVITIES. UNDER NO CIRCUMSTANCES SHALL THE INTERIOR OF TREES BE STRIPPED OF FOLIAGE. SUCKERS, EPICORMIC BRANCHING, OR OTHER LIVE GROWTH. INTERIOR GROWTH MAY BE THINNED AS NECESSARY TO REMOVE BRANCHES DAMAGED DURING OPERATIONS. DEBRIS FROM PRUNING SHALL BE CHIPPED AND DEPOSITED INTO THE TREE SAVE AREA AND SPREAD BY HAND TO A UNIFORM THICKNESS OR BE REMOVED FROM SITE.

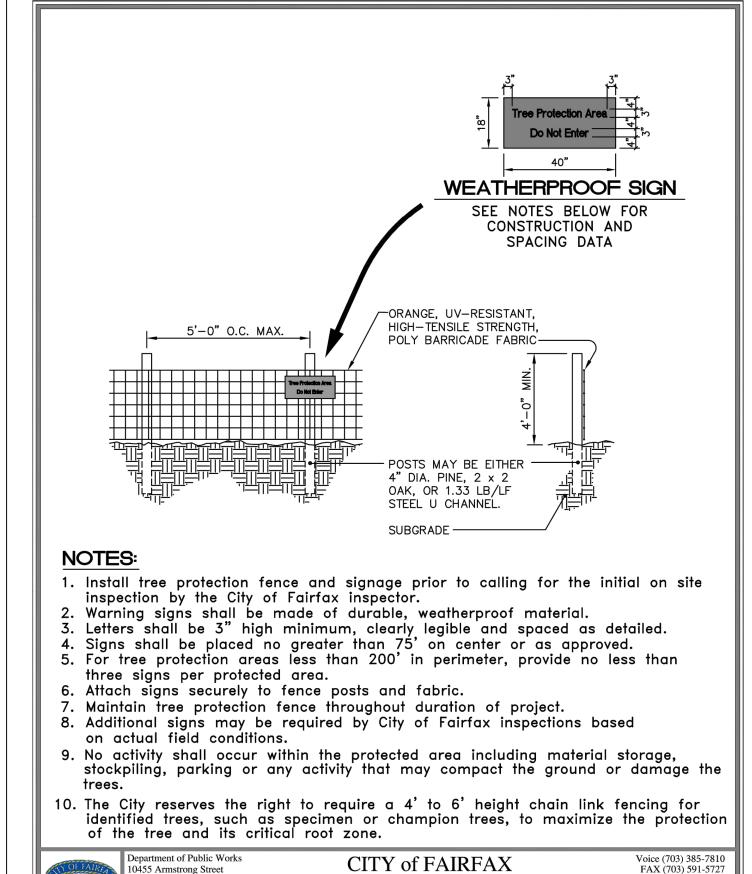


BARRIER INSTALLED AT THE DRIP LINE OF TREE BRANCHES

NOTES:

- . Precautions shall be taken to prevent and minimize damage to trees. In such cases repair any damage to crown, trunk or root system
- A. Repair roots by cleanly cutting off the damaged areas. Spread **-peat-mess** or moist topsoil over exposed roots.
- B. Repair damage to bark by trimming around the damaged area as shown in
- Detail 8.10. Taper the cut to provide drainage. C. Cut off damaged tree limbs above the tree collar at the trunk or main branch. Use three separate cuts as shown in Detail 8.10 to avoid peeling bark from healthy areas of tree.

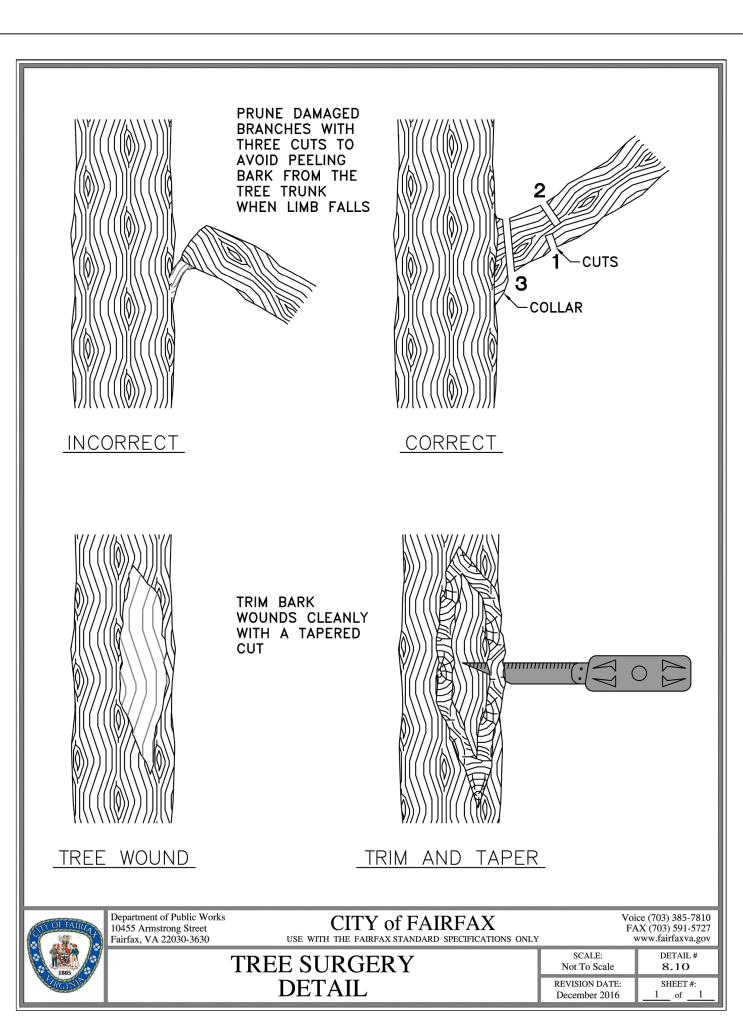
| ON OF FAIRIA | Department of Public Works 10455 Armstrong Street Fairfax, VA 22030-3630 | CITY of FAIRFAX USE WITH THE FAIRFAX STANDARD SPECIFICATIONS ONLY | Voice (703) 385-7810 FAX (703) 591-5727 www.fairfaxva.gov | | |
|--------------|--|---|---|-----------------|--|
| 1805 | STANDARD TREE | | SCALE: Not To Scale | DETAIL# 8.09 | |
| RCISIS | PROT | TECTION DETAIL | REVISION DATE: December 2016 | SHEET #: | |

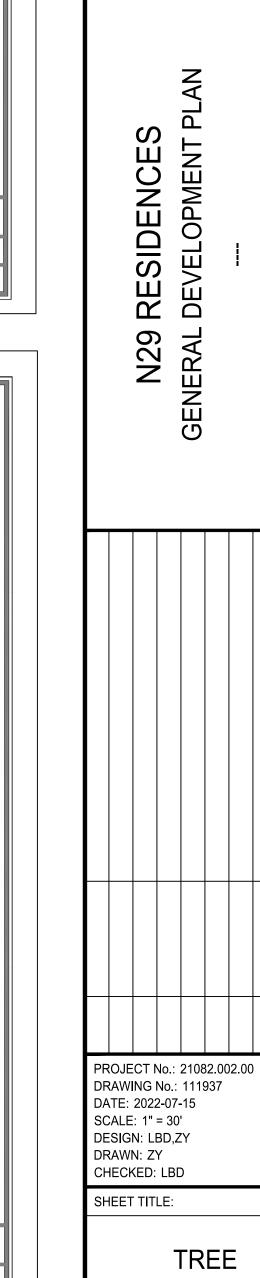


STANDARD TREE

PROTECTION DETAIL

0455 Armstrong Street





www.fairfaxva.gov

Not To Scale

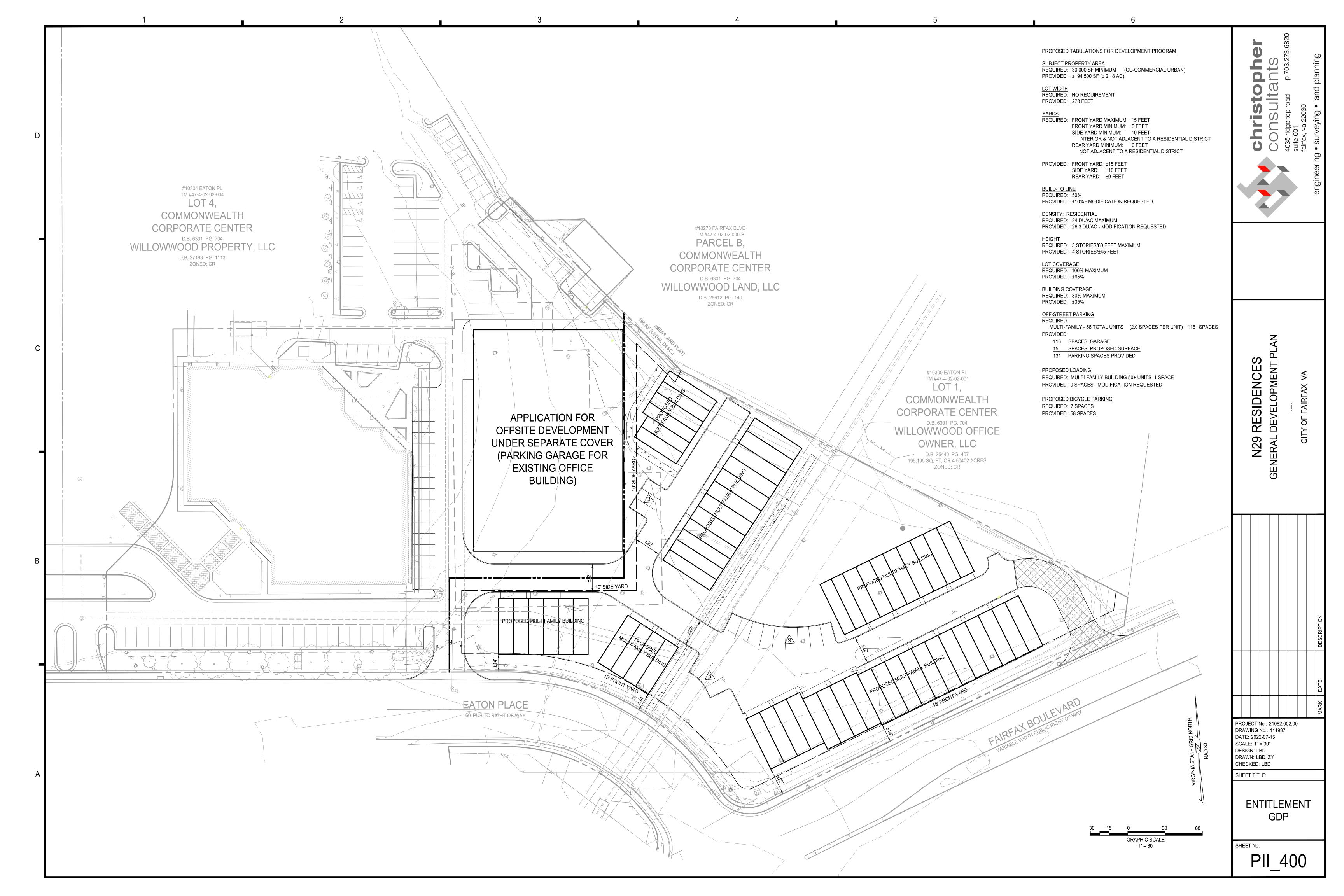
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December 2016

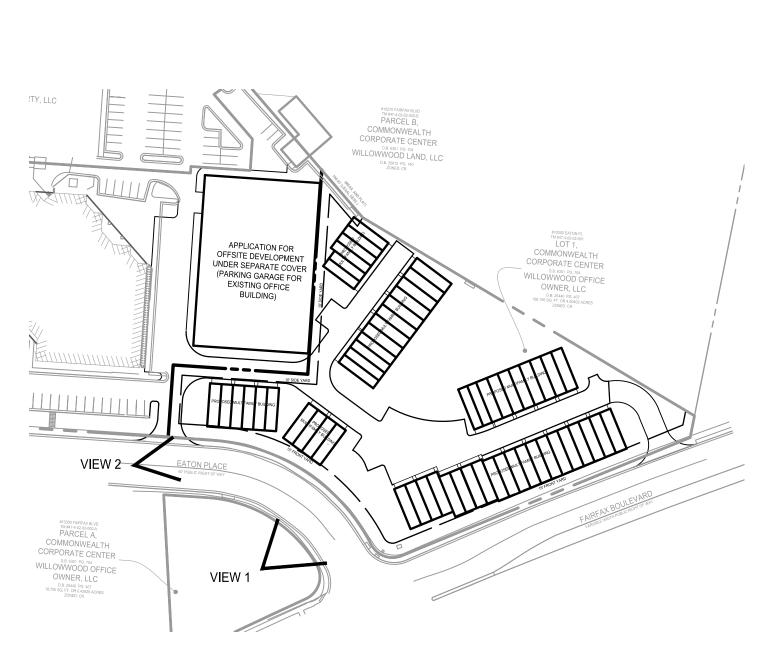
OPMENT

DESIGN: LBD,ZY DRAWN: ZY CHECKED: LBD SHEET TITLE: TREE **MANAGEMENT NOTES & DETAILS**

PII 311







hickok cole

NOTE: THE GRAPHICS, SHOWN ON THIS SHEET, ARE CONCEPTUAL IN NATURE AND ILLUSTRATE THE GENERAL CHARACTER OF THE BUILDINGS AND PROJECT SITE. THESE DRAWINGS ARE NOT INTENDED TO REPRESENT FINAL BUILDING DESIGN OR TO BE INTERPRETED AS A COMMITMENT TO FINAL DESIGN OF THE PROJECT. FINAL DESIGN WILL BE DETERMINED AT THE TIME OF FINAL SITE PLAN SUBMISSION.

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N29 RESIDENCES
GENERAL DEVELOPMENT PLAN

DECT No.: 21082.000

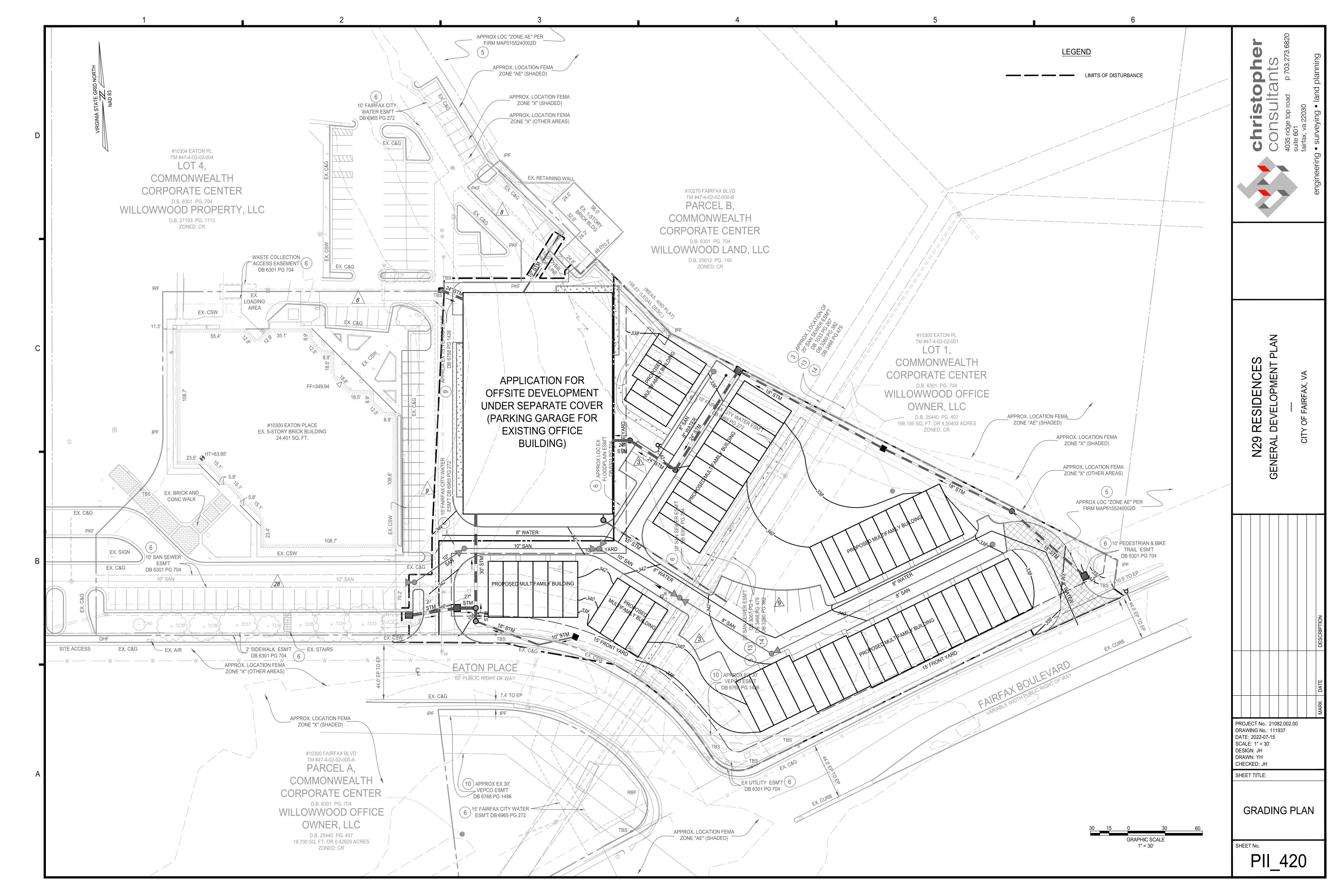
PROJECT No.: 21082.002.00
DRAWING No.: 111937
DATE: 2022-07-15
SCALE: AS SHOWN
DESIGN: BY OTHERS
DRAWN: BY OTHERS
CHECKED: BY OTHERS

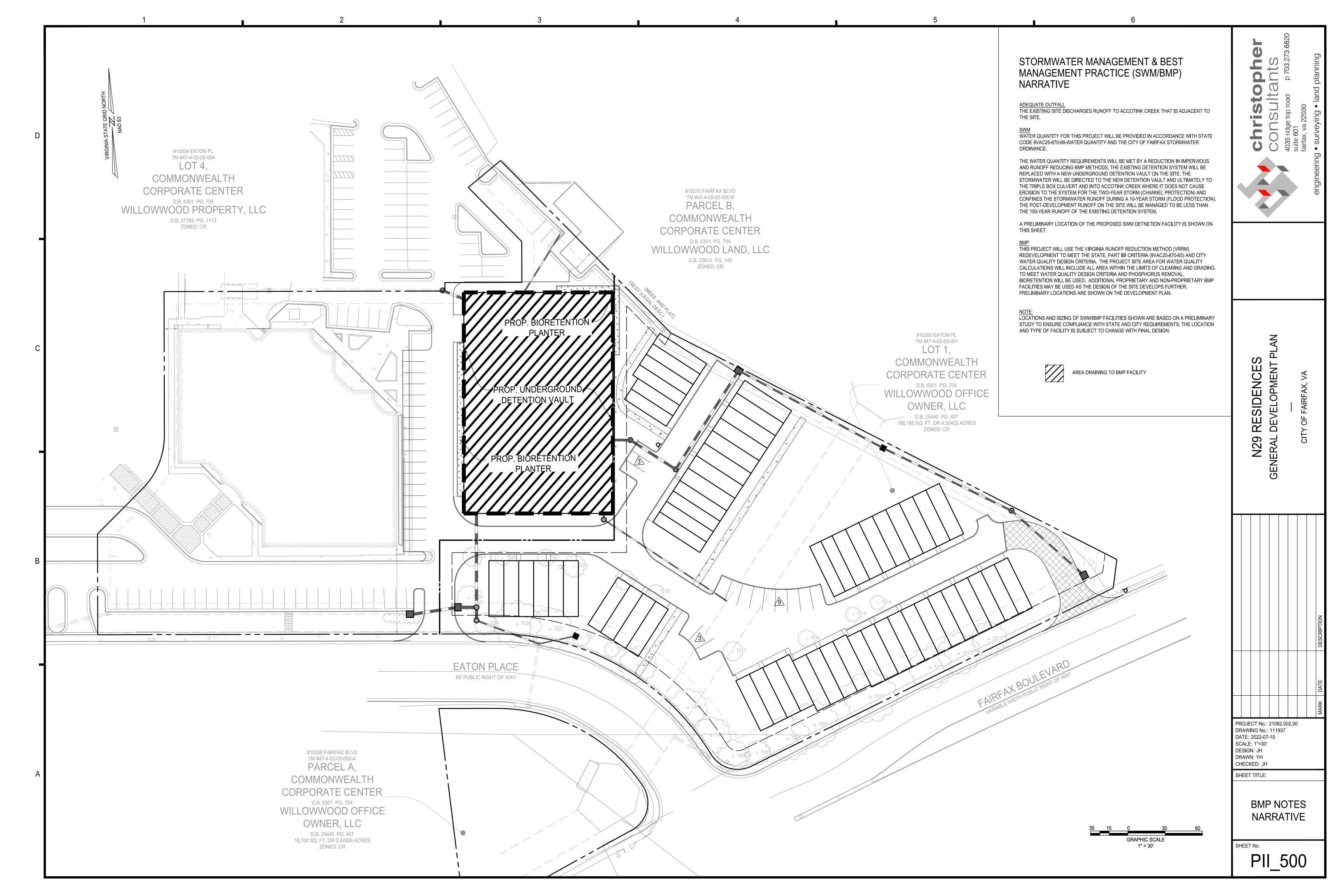
SHEET TITLE:

ILLUSTRATIVE BUILDING GRAPHICS

SHEET No.

PII_410





Post-Development Requirement for Site Area

Nitrogen Loads (Informational Purposes Only)

0.26

Final Post-Development TN Load

(Post-ReDevelopment & New Impervious) (lb/yr)

34.46

TP Load Reduction Required (lb/yr)

40.74

| Total Site Area (acres) | 2.96 | 2.96 |
|--|---------------|--------|
| Site Rv | 0.84 | 0.84 |
| Treatment Volume and | d Nutrient Lo | ad |
| Pre-ReDevelopment Treatment Volume (acre-ft) | 0.2081 | 0.2081 |
| Pre-ReDevelopment Treatment Volume (cubic feet) | 9,064 | 9,064 |
| Pre-ReDevelopment TP Load (lb/yr) | 5.69 | 5.69 |
| Pre-ReDevelopment TP Load per acre (lb/acre/yr) | 1.92 | 1.92 |
| Baseline TP Load (lb/yr) (0.41 lbs/acre/yr applied to pre-redevelopmen pervious land proposed for new impervio | 1.21 | |

¹Adjusted 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).

Pre-ReDevelopment TN Load (lb/yr)

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 (Final) | | Land Cover Summ | Land Cover Summary-Post | | Land Cover Summary-Post | | |
|--|------------|---|-------------------------|-------------------------------|-------------------------|--|--|
| Post ReDev. & New | Impervious | Post-ReDevelor | oment | Post-Development New Impervio | | | |
| Forest/Open Space Cover (acres) | 0.00 | Forest/Open Space Cover (acres) | 0.00 | | | | |
| Weighted Rv(forest) | 0.00 | Weighted Rv(forest) | 0.00 | | | | |
| % Forest | 0% | % Forest | 0% | | | | |
| Managed Turf Cover (acres) | 1.00 | Managed Turf Cover (acres) | 1.00 | | | | |
| Weighted Rv (turf) | 0.25 | Weighted Rv (turf) | 0.25 | | | | |
| % Managed Turf | 34% | % Managed Turf | 34% | | | | |
| Impervious Cover (acres) | 1.96 | ReDev. Impervious Cover (acres) | 1.96 | New Impervious Cover (acres) | 0.00 | | |
| Rv(impervious) | 0.95 | Rv(impervious) | 0.95 | Rv(impervious) | | | |
| % Impervious | 66% | % Impervious | 66% | | | | |
| Final Site Area (acres) | 2.96 | Total ReDev. Site Area (acres) | 2.96 | | | | |
| Final Post Dev Site Rv | 0.71 | ReDev Site Rv | 0.71 | | | | |
| (acre-ft) | | (acre-ft) | | (acre-ft) | | | |
| (acre-ft) Final Post-Development | | (acre-ft) Post-ReDevelopment | | (acre-ft) Post-Development | | | |
| Treatment Volume (cubic feet) | 7,667 | Treatment Volume (cubic feet) | 7,667 | Treatment Volume (cubic feet) | | | |
| | | Post-ReDevelopment | | Post-Development TP | _ | | |
| Final Post- Development TP Load (lb/yr) | 4.82 | Load (TP) (lb/yr)* | 4.82 | Load (lb/yr) | | | |
| Development TP Load | 1.63 | | 1.63 | Load (lb/yr) | | | |
| Development TP Load (lb/yr) Final Post-Development TP Load per acre | | (lb/yr)* Post-ReDevelopment TP Load per acre | | Load (lb/yr) | | | |
| Development TP Load (lb/yr) Final Post-Development TP Load per acre | | (lb/yr)* Post-ReDevelopment TP Load per acre (lb/acre/yr) Max. Reduction Required (Below Pre- | 1.63 | Load (lb/yr) | | | |

Drainage Area A

Drainage Area A Land Cover (acres)

Practice

2.i. To Stormwater Planter,

Urban Bioretention (Spec #9, Appendix A)

2. Rooftop Disconnection (RR)

A Soils **D** Soils **Totals Land Cover Rv** C Soils 0.00 0.00 Forest/Open Space (acres) 0.00 0.00 Managed Turf (acres) 0.49 0.95 Impervious Cover (acres) Total 0.49

Reduction Credit Area Cover Credit

Stormwater Best Management Practices (RR = Runoff Reduction)

CLEAR BMP AREAS

0.00

Total Phosphorus Available for Removal in D.A. A (lb/yr) Post Development Treatment Volume in D.A. A (ft³)

--Select from dropdown lists--Remaining **Downstream Practice to be Employed** Volume (ft³) Efficiency (%) Practices (lb) to Practice (lb) Practice (lb)

0.58

0.48

Site Results (Water Quality Compliance)

Runoff Volume Treatment

1,690

1,014

Reduction (ft³)

| ı | | | | | | |
|--------------------------------|--------|--------|--------|--------|--------|------------|
| 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) | 0.49 | 0.00 | 0.00 | 0.00 | 0.00 | OK. |
| IMPERVIOUS COVER TREATED (ac) | 0.49 | 0.00 | 0.00 | 0.00 | 0.00 | OK. |
| MANAGED TURF AREA (ac) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | OK. |
| MANAGED TURF AREA TREATED (ac) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | OK. |
| AREA CHECK | OK. | OK. | OK. | OK. | OK. | |

Site Treatment Volume (ft³) 7,667

Area (acres) Practice (ft³)

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) | 676 | 0 | 0 | 0 | 0 | 676 |
| TP LOAD AVAILABLE FOR REMOVAL (lb/yr) | 1.06 | 0.00 | 0.00 | 0.00 | 0.00 | 1.06 |
| TP LOAD REDUCTION ACHIEVED (lb/yr) | 0.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.58 |
| TP LOAD REMAINING (lb/yr) | 0.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.48 |
| | | | | | | |
| NITROGEN LOAD REDUCTION ACHIEVED (lb/yr) | 4.86 | 0.00 | 0.00 | 0.00 | 0.00 | 4.86 |

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr) 4.82 TP LOAD REDUCTION REQUIRED (lb/yr) TP LOAD REDUCTION ACHIEVED (lb/yr) REMAINING TP LOAD REDUCTION REQUIRED (lb/yr): 0.00 **

** TARGET TP REDUCTION EXCEEDED BY 0.32 LB/YEAR **

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr) 34.46 NITROGEN LOAD REDUCTION ACHIEVED (lb/yr) REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr) 29.60

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N29 RESIDENCES
NERAL DEVELOPMENT PI

PROJECT No.: 21082.002.00 DRAWING No.: 111937 DATE: 2022-07-15 SCALE: N/A DESIGN: JH DRAWN: YH CHECKED: JH

SHEET TITLE:

CALCULATIONS

