ATTACHMENT 03

NAVY FEDERAL CREDIT UNION HQ2 ATM ADDITION

1007 ELECTRIC AVE VIENNA, VIRGINIA 22180

OWNER:
NAVY DEDERAL CREDIT UNION (NFCU)
820 FOLLIN LANE, SE
VIENNA, VA 22180
703.206.3984 / CONTACT: TIM MARKLE

ARCHITECT:
ASD, INC.
3030 CLARENDON BLVD, SUITE 350
ARLINGTON, VA 22201
404.688.3318 / CONTACT : EVAN BURCH

CIVIL ENGINEER
DEWBERRY
8401 ARLINGTON BLVD
FAIRFAX, VA 22031
703.849.0497 / CONTACT: TIM CULLEITON

LANDSCAPE
DEWBERRY
8401 ARLINGTON BLVD
FAIRFAX, VA 22031
703.840.1900 / CONTACT: JACK STORY

STRUCTURAL ENGINEER
DEWBERRY
8401 ARLINGTON BLVD
FAIRFAX, VA 22031
919.424.3754 / CONTACT: JOE WOLHAR

ELECTRICAL ENGINEER
DEWBERRY
8401 ARLINGTON BLVD
FAIRFAX, VA 22031
703.645.9711 / CONTACT: RAY HOLDENER

LOW VOLTAGE,SECURITY,TELECOM
NEWCOMB & BOYD
303 PEACHTREE CENTER AVE NE SUITE 525
ATLANTA, GA 30303
404.293.5577 / CONTACT: MATT HOLLAND

ISSUED FOR: FXX PERMIT RESUBMISSION
ISSUE DATE: 04/30/25

ASD | SKY

COMMONWEALTH OF VIRGINIA
EVAN BURCH
Lic. No. 401020014
ARCHITECT

NAVY FEDERAL CREDIT UNION

00000.00

G0.00

CODE ANALYSIS

I. AUTHORITIES HAVING JURISDICTION:

A. JURISDICTION	TOWN OF VIENNA / FAIRFAX COUNTY	
B. PLANNING	CONTACT: JILL G. COOPER – 703–246–4800	
C. FIRE MARSHAL	CONTACT: JOHN WALSER – 703–246–4800	

II. APPLICABLE BUILDING CODES:

A. BUILDING/DWELLING CODE	2021 VIRGINIA CONSTRUCTION CODE
B. PLUMBING CODE	2021 VIRGINIA PLUMBING CODE
C. MECHANICAL CODE:	2021 VIRGINIA MECHANICAL CODE
D. ELECTRICAL CODE:	2021 VIRGINIA ELECTRICAL CODE
E. FIRE CODE	2021 VIRGINIA FIRE CODE
F. GAS CODE	2021 VIRGINIA GAS CODE
G. ENERGY CODE	2021 VIRGINIA ENERGY CONSERVATION CODE
H. LIFE SAFETY CODE	2021 VIRGINIA CONSTRUCTION CODE
I. ACCESSIBILITY:	2017 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES (ICC / ANSI A117.1)

IV. GENERAL BUILDING FEATURES: :

A. CONSTRUCTION TYPE:	TYPE V–B	VIRGINIA CONSTRUCTION CODE, TABLE 601
B. BUILDING HEIGHT:	15'–4"	VIRGINIA CONSTRUCTION CODE, TABLE 504.3
C. NO. OF STORIES:	1	VIRGINIA CONSTRUCTION CODE, TABLE 504.4
D. BUILDING AREA:	1148 SF	VIRGINIA CONSTRUCTION CODE, TABLE 506.2
E. NO. EXITS PER FLOOR:	–	
F. FIRE RESISTANCE RATINGS FOR BUILDING ELEMENTS:		
1. PRIMARY STRUCTURAL FRAME	0	VIRGINIA CONSTRUCTION CODE, TABLE 601
2. BEARING WALLS:		
a. EXTERIOR	0	
b. INTERIOR	0	
3. NON BEARING WALLS + PARTITIONS		
a. EXTERIOR		
1. IF LESS THAN 5 FEET	0	
2. IF BETWEEN 5 FEET AND 10 FEET	0	
3. IF OVER 30 FEET	0	
4. NON BEARING WALLS + PARTITIONS		
b. INTERIOR	N/A	
5. FLOOR CONSTRUCTION	N/A	
6. ROOF CONSTRUCTION:	0	
7. CORRIDOR / TENANT SEPARATION	N/A	
8. SHAFT ENCLOSURES	N/A	
G. ELEVATOR LOBBY:	N/A	
H. HORIZONTAL EXIT:	N/A	
J. EXIT ACCESS CORRIDORS:	N/A	

V. OCCUPANCY CLASSIFICATION

A. CLASSIFICATION TYPE:	U – UTILITY AND MISCELLANEOUS	VIRGINIA CONSTRUCTION CODE, 312.1
B. CONSTRUCTION AREA:	1148 SF	
C. OCCUPANT LOAD:	UNNOCUPIED	
D. FIXTURE REQUIREMENTS:	N/A	

VI. EGRESS REQUIREMENTS

A. MAXIMUM TRAVEL DISTANCE	100'
B. MAXIMUM DEAD END CORRIDOR	N/A
C. COMMON PATH OF TRAVEL	N/A
D. EXIT SEPARATION	N/A
E. MINIMUM OPENING OF EXIT DOORS	N/A
F. MINIMUM EXIT RAMP / STAIR WIDTH	N/A
G. MINIMUM CORRIDOR WIDTH	N/A
H. EGRESS CAPACITY (WIDTH PER PERSON)	N/A

PROJECT DESCRIPTION

This project includes the addition of a new two–way drive–through ATM located in the front yard setback of the existing NFCU HQ2 building. The site is a grass field with sparse trees. We propose to build a new driveway to accommodate the ATMS and a fabric tensile structure to provide shade and cover from the weather.

The new driveway approach will accommodate up to twelve stacked vehicles within the new drive area without backing up onto the campus roadways or parking lots.

These two new ATMs are intended to replace the two existing ATMs on the HQ1 building site. The existing ATMs are anticipated to be removed as soon as the new ones are constructed.

A Special Use Variance will be required by the Zoning Department to allow drive–through ATMs to be located in the front yard setback of the property.

Refer to BZA–25136 Variance Request that was submitted on 3/28/25 and approved by Town of Vienna Board of Zoning Appeals on 4/16/25.

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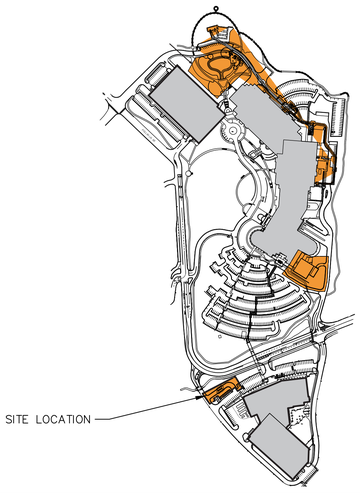
INDEX OF DRAWINGS

ARCHITECTURAL SYMBOLS

NN/A–N.NN	ELEVATION INDICATOR: ELEV.NUMBER – SHEET NUMBER	NAME	ROOM TAG
NN A–N.NN	SECTION INDICATOR: DRAWING NUMBER / SHEET NUMBER	1	REVISION NUMBER
NN A–N.NN	ENLARGED PLAN/DETAIL: DRAWING NUMBER / SHEET NUMBER	1	CODED NOTE
0'–0" A.F.F. B.O. CEILING	ELEVATION HEIGHT INDICATOR: HEIGHT / DESCRIPTION	1	MILLWORK NOTE
ALIGN	ALIGN ELEMENTS	–	DOOR & ROOM NUMBER / DOOR TYPE | HARDWARE SET
1	WINDOW TYPE SYMBOL	1	EQUIPMENT NOTE
		1	WALL TYPE NOTE

KEY PLAN



LOCATION MAP

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NAVY FEDERAL CREDIT UNION
HQ2 ATM ADDITION

1007 ELECTRIC AVE
VIENNA, VIRGINIA 22180

COMMONWEALTH OF VIRGINIA
EVAN BURCH
Lic. No. 401020014
ARCHITECT

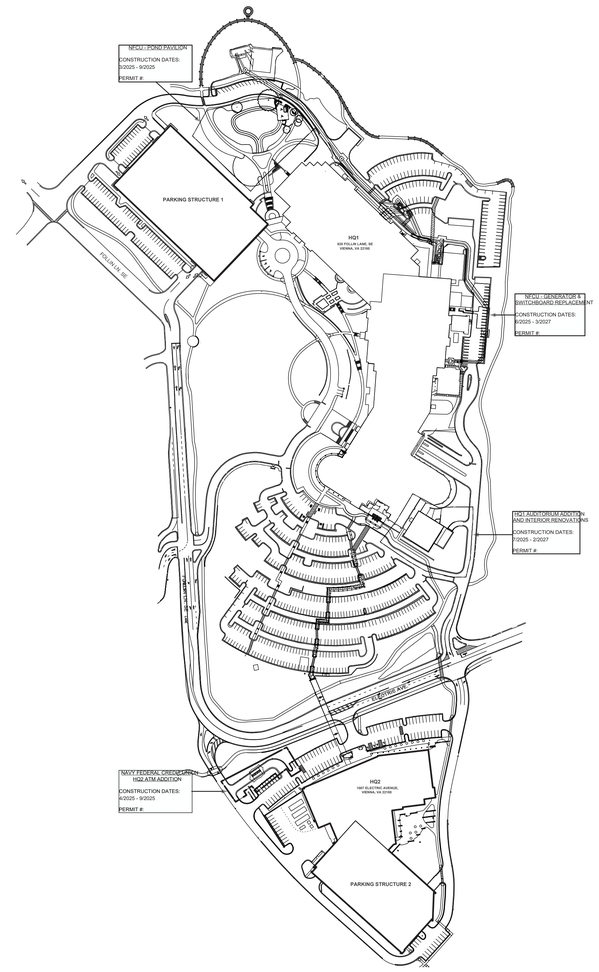
NO:	DATE:	REMARKS:
5	04.30.25	FFX PERMIT RESUBMISSION
4	04.28.25	ASI 1
3	04.24.25	CONFORMED SET
2	04.02.25	ADDENDUM #2
1	03.24.25	ADDENDUM #1
0	01.24.25	PRICING AND PERMIT

REVISIONS:

DRAWING TITLE:
GENERAL PROJECT INFORMATION SHEET

PROJECT NO.:	ISSUE DATE:
71498.00	01.24.2025
DRAWN BY: JLV	CHECKED BY: GC

SHEET NUMBER:
G0.01



NORTH

1 CAMPUS SITE PLAN

SCALE: 1:2000

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NAVY FEDERAL CREDIT UNION HQ2 ATM ADDITION

1007 ELECTRIC AVE
VIENNA, VIRGINIA 22180

COMMONWEALTH OF VIRGINIA
EVAN BURCH
Lic. No. 401020014
ARCHITECT

NO:	DATE:	REMARKS:
0	01.24.2025	PRICING AND PERMIT

REVISIONS:

DRAWING TITLE:
NFCU CAMPUS DEVELOPMENT PLAN

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JLV	GC

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A1.01

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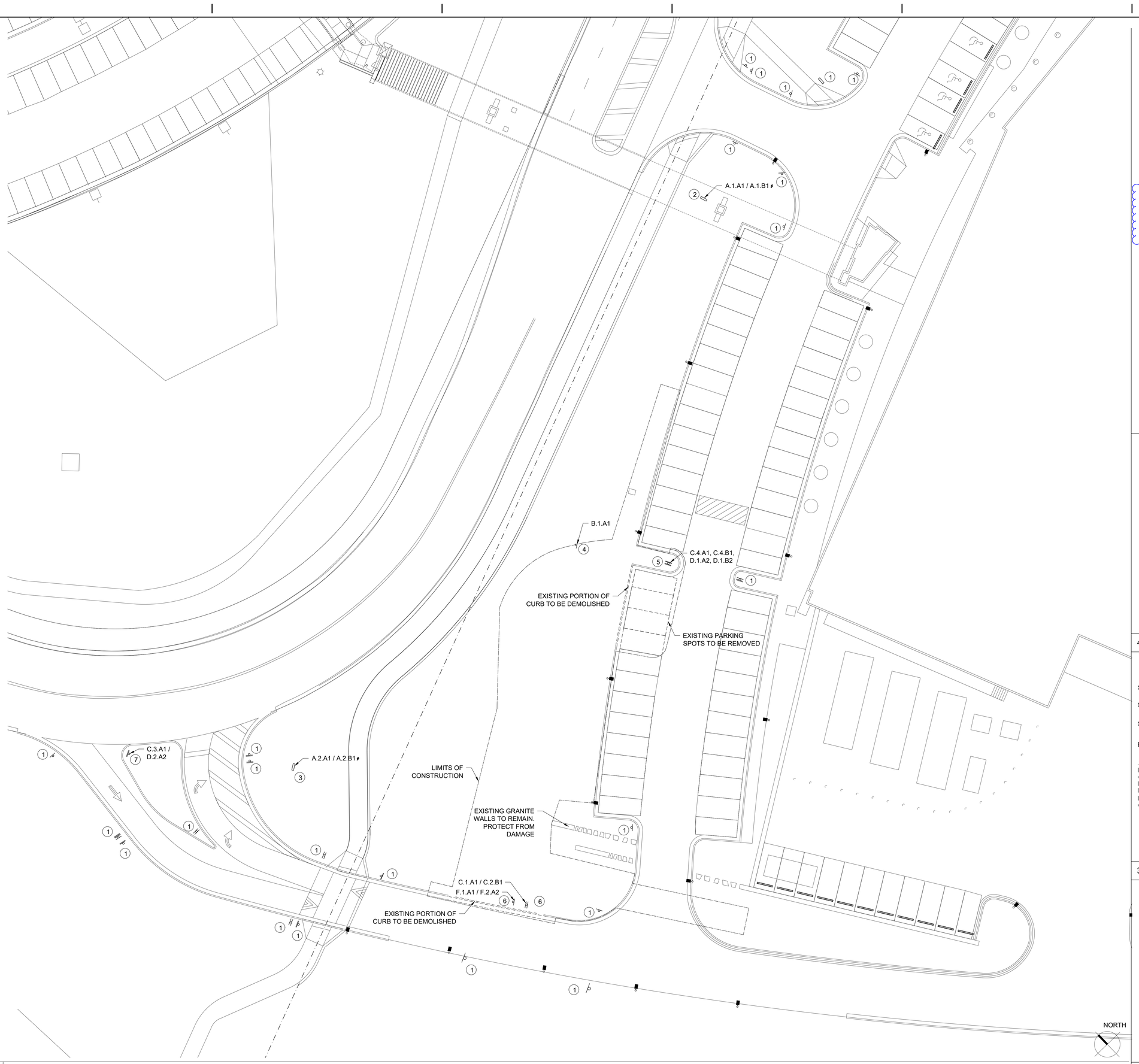

1 DEMO PLAN

SCALE: 1/16" = 1'-0"

SIGNAGE TO BE SUBMITTED SEPARATELY FOR APPROVAL

1. EXISTING SIGN AND POLE TO REMAIN
2. EXISTING MONUMENT SIGN TO REMAIN. CLEAN AND PREP FOR IN-PLACE ALTERATIONS
3. EXISTING SIGN BOX TO BE RELOCATED. REMOVE AND SALVAGE BOX FOR REINSTALLATION IN NEW LOCATION. CLEAN AND PREP FOR NEW ALTERATIONS. DEMOLISH EXISTING CONCRETE BASE. EXISTING ELECTRICAL POWER CIRCUIT TO REMAIN AND BE EXTENDED TO NEW SIGN LOCATION
4. EXISTING SIGN AND POLE TO BE RELOCATED. REMOVE AND SALVAGE SIGN AND POLE FOR REINSTALLATION IN NEW LOCATION TO BE DIRECTED BY OWNER
5. REMOVE EXISTING SIGNS AND POLE. RETURN TO OWNER FOR ATTIC STOCK. REINSTALL ONE "SMOKE-FREE CAMPUS" TYPE D ONTO EXISTING POLE IN OPPOSITE ISLAND
6. EXISTING SIGNS AND POLE TO BE RELOCATED. REMOVE AND SALVAGE SIGNS AND POLE FOR REINSTALLATION IN NEW LOCATION
7. EXISTING POLE AND C.3 SIGN TO REMAIN. REMOVE AND DEMOLISH "DELIVERY ENTRANCE" SIGN

4 DEMO PLAN CODED NOTES (1) CODED NOTE

A . 1 . A1

SIGN TYPE:	A	B	C	D	E	F
SIGN NUMBER:	1	2	3	4	5	
SIGN SIDE:	A1	A2	B1	B2		
ELECTRICAL:	⚡					

A MONUMENT SIGN
B SINGLE SIGN WITH POLE
C VEHICULAR DIRECTIONAL SIGN
D SLOGAN SIGNAGE
E STOP SIGN
F PEDESTRIAN SIGN
G VISITOR PARKING SIGN

3 SIGNAGE LEGEND

SYMBOL	DESCRIPTION	REMARKS
———	EXISTING ITEM TO REMAIN	
– – – –	EXISTING ITEM TO BE DEMOLISHED	

2 DEMOLITION PLAN LEGEND

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NAVY FEDERAL CREDIT UNION
HQ2 ATM ADDITION

1007 ELECTRIC AVE
VIENNA, VIRGINIA 22180

COMMONWEALTH OF VIRGINIA
EVAN BURCH
Lic. No. 401020014
ARCHITECT

NO:	DATE:	REMARKS:
0	01.24.2025	PRICING AND PERMIT

REVISIONS:

DRAWING TITLE:
ARCHITECTURAL AND SIGNAGE DEMOLITION PLAN

PROJECT NO:	ISSUE DATE:
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DRAWN BY: JLV	CHECKED BY: GC

SHEET NUMBER:
A2.01

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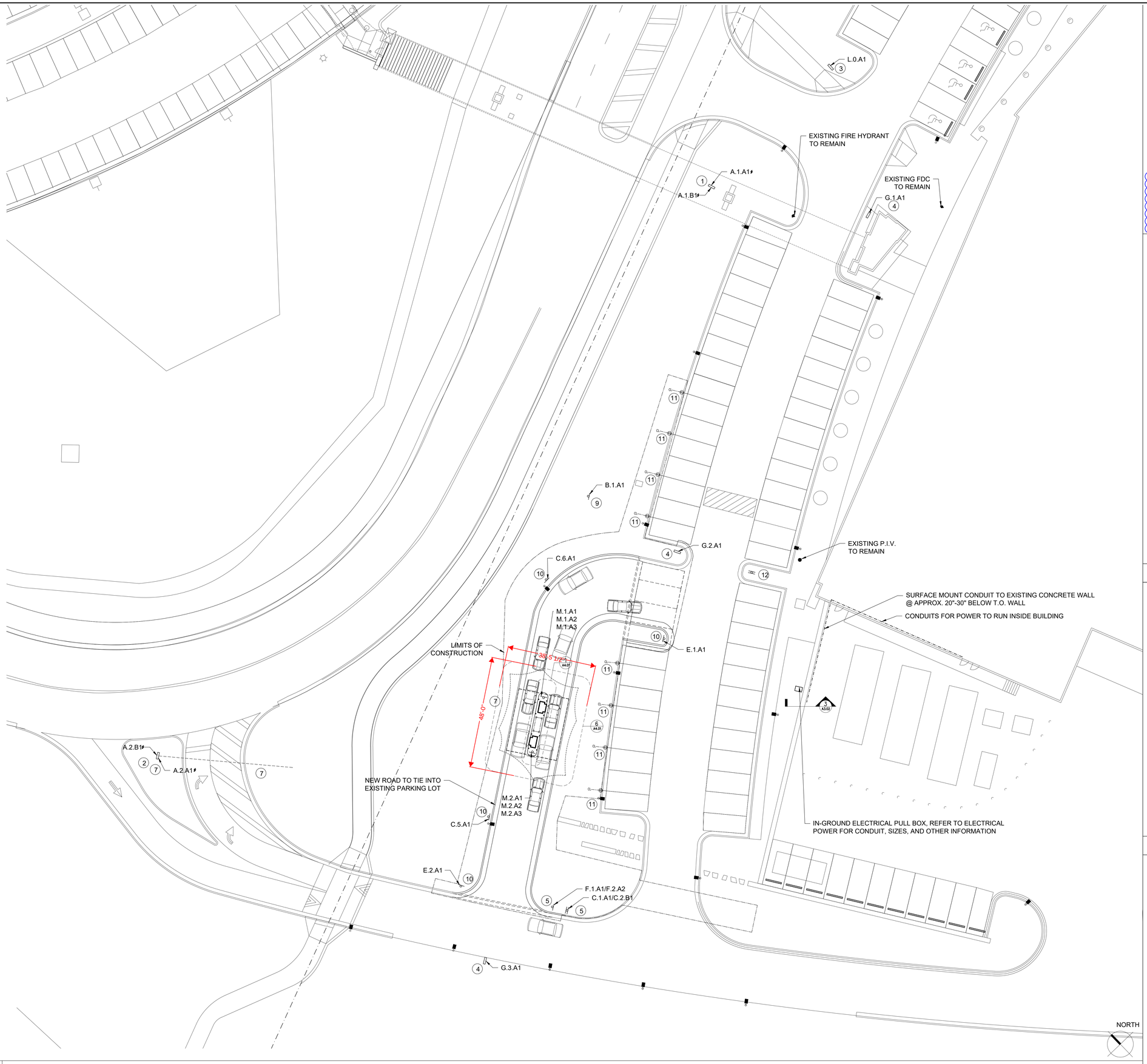


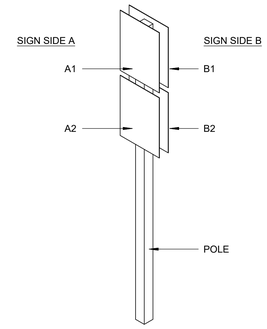
1 SITE PLAN

SCALE: 1/16" = 1'-0"

SIGNAGE TO BE SUBMITTED SEPARATELY FOR APPROVAL

1. INSTALL NEW SURFACE MOUNTED ACRYLIC BAND SIGN TO EACH SIDE OF EXISTING SIGN. BAND TO BE 8" HIGH BY WIDTH OF SIGN AND INSTALLED AT 4" ABOVE BOTTOM OF BOX SIGN
2. INSTALL NEW SURFACE MOUNTED ACRYLIC BAND SIGN TO EACH SIDE OF RELOCATED SIGN. BAND TO BE 12" HIGH BY WIDTH OF SIGN AND INSTALLED AT 4" ABOVE BOTTOM OF BOX SIGN
3. EXISTING BOX SIGN TO BE COPIED FOR NEW TYPE L SIGNS
4. NEW BOX SIGN AND CONCRETE BASE IN EXISTING PLANTED AREA
5. REINSTALL EXISTING POLE AND SIGNS IN NEW LOCATION TO BE STAKED BY ARCHITECT
6. INSTALL NEW TENSILE STRUCTURE PER SHEET 7/A3.01
7. INSTALL NEW CONCRETE FOUNDATION AND REINSTALL RELOCATED MONUMENT SIGN, EXTEND EXISTING POWER CIRCUIT TO NEW LOCATION
8. REINSTALL SIGN IN LOCATION DIRECTED BY OWNER
9. INSTALL NEW SIGN AND POLE
10. INSTALL EXISTING SIGN AND POLE FROM OWNER'S ATTIC STOCK
11. FUTURE EV CHARGING STATION, REFER TO ELECTRICAL
12. REINSTALL "SMOKE FREE CAMPUS" SIGN ON THIS POLE. REFER TO NOTE 5 ON A1.01

4 PLAN CODED NOTES — (1) CODED NOTE



3 SIGN SIDE DIAGRAM

A . 1 . A1

SIGN TYPE:	A	B	C	D	E	F
SIGN NUMBER:	1	2	3	4	5	
SIGN SIDE:	A1	A2	B1	B2		
ELECTRICAL:	⚡					

FUTURE ELECTRIC VEHICLE CHARGING STATION: EV

- A MONUMENT SIGN
- B SINGLE SIGN WITH POLE
- C VEHICULAR DIRECTIONAL SIGN
- D SLOGAN SIGNAGE
- E STOP SIGN
- F PEDESTRIAN SIGN
- G VISITOR PARKING SIGN

2 SIGNAGE LEGEND

ASD | SKY

NAVY FEDERAL CREDIT UNION
HQ2 ATM ADDITION

1007 ELECTRIC AVE
VIENNA, VIRGINIA 22180

COMMONWEALTH OF VIRGINIA
EVAN BURCH
Lic. No. 401020014
ARCHITECT

NO:	DATE:	REMARKS:
0	01.24.2025	PRICING AND PERMIT

REVISIONS:

DRAWING TITLE:
ARCHITECTURAL AND SIGNAGE SITE PLAN

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DRAWN BY:	CHECKED BY:
JLV	GC

SHEET NUMBER:
A3.01

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DRAWING KEYED NOTES :

1. APPROXIMATE LOCATION OF NEW EVSE PANEL. REFER TO DETAIL 2 FOR ADDITIONAL INFORMATION.

2. APPROXIMATE LOCATION OF EXISTING PANEL INTENDED TO SERVE NEW OUTDOOR ATM. REFER TO DETAIL 2 FOR ADDITIONAL INFORMATION.

3. LOCATION OF NEW OUTDOOR ATM. REFER TO ARCHITECTURAL DRAWING A3.01 FOR LOCATIONS, DIMENSIONS, AND ADDITIONAL INFORMATION. COORDINATE WITH ATM REQUIREMENTS, SERVICE ENTRY LOCATIONS, ETC.

2

4. ROUTE (2) SETS OF CONDUIT FROM ATM LOCATION INTO THE EXISTING BUILDING FOR UPS POWER WIRING. THE CONDUIT SHALL BE ROUTED IN THE FOLLOWING MANNER: ROUTE (2) NEW SETS OF CONDUIT FROM EXISTING UPS POWER PANEL UPWL-1A TO THE NEW ATM LOCATION. COORDINATE CONDUIT PATHWAY IN THE FIELD PER FIELD CONDITIONS. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM ON DRAWING E6.01 AND PANEL SCHEDULES ON DRAWING E.701 FOR FEEDER AND CONDUIT SIZES. COORDINATE WITH ATM REQUIREMENTS, SERVICE ENTRY LOCATIONS, ETC.

5. CIRCUIT (2) NEW SECURITY CAMERAS WITHIN THE CANOPY LIGHTING STRUCTURE TO EXISTING UPS POWER PANEL UPWL-1A. ROUTE (1) CONDUIT FROM THE NEW SECURITY CAMERA LOCATION TO THE EXISTING UPS POWER PANEL UPWL-1A WITHIN THE EXISTING BUILDING. COORDINATE CONDUIT PATHWAY IN THE FIELD PER FIELD CONDITIONS. CONTRACTOR TO COORDINATE WITH THE SECURITY INSTALLER TO DETERMINE SECURITY CAMERA LOCATION WITHIN THE ATM CANOPY LIGHTING STRUCTURE. REFER TO DETAIL 11 ON DRAWING E5.01 FOR ADDITIONAL INFORMATION. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM ON DRAWING E6.01 AND PANEL SCHEDULES ON DRAWING E7.01 FOR FEEDER AND CONDUIT SIZES.

6. ROUTE (2) NEW CONDUIT FROM OUTDOOR PULL BOX TO EACH OF THE (8) FUTURE EVSE HAND HOLES INDICATED. INSTALL CONDUITS VIA DIRECTIONAL DRILLING BELOW EXISTING PARKING LOT AREA AND SIDEWALKS; REFER TO DETAIL 9 ON DRAWING E5.01. CONDUIT DEPTH IN PARKING LOT TO BE A MINIMUM DEPTH OF 24" PER NEC TABLE 300.5. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM ON DRAWING E6.01 AND PANEL SCHEDULES ON DRAWING E7.01 FOR FEEDER AND CONDUIT SIZES.

7. ROUTE (16) NEW CONDUITS FROM OUTDOOR PULL BOX TO THE NEW ELECTRICAL POWER PANEL EVSE WITHIN THE EXISTING BUILDING. INSTALL CONDUITS IN VIA DIRECTIONAL DRILLING BELOW EXISTING PARKING LOT AREA AND SIDEWALKS. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM AND PANEL SCHEDULES ON DRAWING E.601 FOR FEEDER AND CONDUIT SIZES.

8. PROVIDE NEW HANDHOLE FOR FUTURE EVSE. REFER TO KEYED NOTE 5, DETAIL 1 ON E6.01 FOR SIZING AND ADDITIONAL INFORMATION.

9. PROVIDE NEW 36" X 36" X 16" (MINIMUM SIZE INDICATED PER NEC) OUTDOOR PULL BOX FOR ROUTING OF CONDUIT FOR FUTURE EVSE HANDHOLES AND NEW ATM UNITS. ONLY POWER CONDUCTORS WILL BE CONTAINED WITHIN THIS BOX. NO DATA CONDUCTORS ARE INTENDED.

10. NEW LOCATION OF RELOCATED EXTERIOR ILLUMINATED SIGN BY OWNER. EXTEND EXISTING CIRCUIT PREVIOUSLY SERVING THE EXTERIOR SIGN FROM THE PREVIOUS SIGN LOCATION TO THE NEW LOCATION INDICATED. MATCH/EXTEND WIRING AND RACEWAY TO FACILITATE THE NEW LOCATION. INSTALL CONDUITS VIA DIRECTIONAL DRILLING BELOW EXISTING STREET AND SIDEWALKS. THE CONDUIT DEPTH IN THE DRIVEWAY IS TO BE A MINIMUM DEPTH OF 24" PER NEC TABLE 300.5.

11. PREVIOUS LOCATION OF RELOCATED ILLUMINATED EXTERIOR SIGN BY OWNER. PROVIDE A NEW IN-GROUND RATED HANDHOLE AT THE EXISTING SIGN LOCATION FOR EXISTING WIRE TERMINATION AND FOR EXTENDING THE EXISTING CIRCUIT TO THE NEW SIGNAGE LOCATION AS REQUIRED BY KEYED NOTE 10.

2

12. NEW TYPE H 120V EXTERIOR LAMP FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR. ROUTE (1) CONDUIT FROM THE NEW LAMP POST LOCATION TO THE EXISTING CIRCUIT CURRENTLY SERVING EXTERIOR LIGHTING FIXTURES WITHIN THE AREA INDICATED. MATCH EXISTING BUILDING SITE EXTERIOR LAMP BASIS OF DESIGN. CONNECT TO EXISTING CONTROLS SERVING EXISTING LIGHTING FIXTURES WITHIN THE AREA INDICATED. COORDINATE CONDUIT PATHWAY IN THE FIELD PER FIELD CONDITIONS BELOW GRADE. CONFIRM CIRCUIT DOES NOT EXCEED 16 AMPS. PER AS-BUILT DOCUMENTATION, THIS PANEL SHOULD BE PANEL GPH, WITH EXISTING LIGHTING CONTROLS BEING PROVIDED BY MASTER LIGHTING CONTROL PANEL LCP1. PROVIDE 24", ROUND CONCRETE BASE FOR 3" POLE WITH CAP. REFER TO DETAIL 10 ON DRAWING E5.01 FOR ADDITIONAL INFORMATION. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM AND PANEL SCHEDULES ON DRAWING E.601 FOR FEEDER AND CONDUIT SIZES. REFER TO THE LUMINAIRE SCHEDULE ON DRAWING E7.01 FOR ADDITIONAL LIGHTING FIXTURE INFORMATION.

13. PROVIDE 120V WEATHERPROOF DUPLEX RECEPTACLE FOR CONNECTION TO OUTDOOR TELECOM ENCLOSURE AND MEDIA CABINET. ROUTE (1) NEW CONDUIT FROM EXISTING UPS POWER PANEL UPWL-1A WITHIN EXISTING BUILDING HQ2 TO THE NEW OUTDOOR TELECOM ENCLOSURE AND MEDIA CABINET LOCATION. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM ON DRAWING E6.01 AND PANEL SCHEDULES ON DRAWING E7.01 FOR FEEDER AND CONDUIT SIZES.

14. APPROXIMATE LOCATION OF NEW ATM CANOPY LIGHTING STRUCTURE BY OTHERS. ROUTE (1) CONDUIT FROM THE NEW CANOPY LIGHTING STRUCTURE TO PANEL GPH WITHIN THE EXISTING BUILDING. COORDINATE CONDUIT PATHWAY IN THE FIELD PER FIELD CONDITIONS BELOW GRADE. CONNECT TO EXISTING CONTROLS SERVING EXISTING LIGHTING FIXTURES WITHIN THE AREA INDICATED. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY CONTACTORS, RELAYS, INTERFACE DEVICES, PROGRAMMING REQUIRED FOR A COMPLETE, OPERATIONAL INSTALLATION. REFER TO DETAIL 11 ON DRAWING E5.01 FOR ADDITIONAL INFORMATION. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM ON E6.01 AND PANEL SCHEDULES ON E7.01 FOR FEEDER AND CONDUIT SIZES. REFER TO THE LUMINAIRE SCHEDULE ON DRAWING E7.01 FOR ADDITIONAL INFORMATION ON THE TYPE L LIGHTING FIXTURES INDICATED. COORDINATE WITH THE CANOPY STRUCTURE FABRICATOR AND STRUCTURAL CONTRACTOR AS REQUIRED.

15. ROUTE (1) CONDUIT FROM ATM LOCATION INTO THE EXISTING BUILDING FOR UPS POWER WIRING. THE CONDUIT SHALL BE ROUTED IN THE FOLLOWING MANNER: ROUTE (1) NEW CONDUIT FROM EXISTING UPS POWER PANEL UPWL-1A TO THE NEW ATM LOCATION. COORDINATE CONDUIT PATHWAY IN THE FIELD PER FIELD CONDITIONS INSIDE THE SPACE AND BELOW GRADE. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM ON DRAWING E6.01 AND PANEL SCHEDULES ON DRAWING E7.01 FOR FEEDER AND CONDUIT SIZES.

16. ROUTE (2) CONDUIT FROM THE NEW CANOPY LIGHTING STRUCTURE TO PANEL GPH WITHIN THE EXISTING BUILDING. COORDINATE CONDUIT PATHWAY IN THE FIELD PER FIELD CONDITIONS BELOW GRADE. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM ON DRAWING E6.01 AND PANEL SCHEDULES ON E7.01 FOR FEEDER AND CONDUIT SIZES. COORDINATE WITH THE CANOPY STRUCTURE FABRICATOR AND STRUCTURAL CONTRACTOR AS REQUIRED.

17. ROUTE (1) CONDUIT FROM THE NEW SECURITY CAMERA LOCATION TO THE EXISTING UPS POWER PANEL UPWL-1A WITHIN THE EXISTING BUILDING. COORDINATE CONDUIT PATHWAY IN THE FIELD PER FIELD CONDITIONS. CONTRACTOR TO COORDINATE WITH THE SECURITY INSTALLER TO DETERMINE SECURITY CAMERA LOCATION WITHIN THE ATM CANOPY LIGHTING STRUCTURE. REFER TO DETAIL 11 ON DRAWING E5.01 FOR ADDITIONAL INFORMATION. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM ON DRAWING E6.01 AND PANEL SCHEDULES ON DRAWING E7.01 FOR FEEDER AND CONDUIT SIZES. COORDINATE WITH THE CANOPY STRUCTURE FABRICATOR AND STRUCTURAL CONTRACTOR AS REQUIRED.

18. PROVIDE NEW IN-GROUND RATED JUNCTION BOX FOR ROUTING NEW FEEDERS AND CONDUIT TO NEW ATM CANOPY STRUCTURE.

19. PROVIDE NEW 36" X 36" X 16" WALL MOUNTED NEMA 4 EXTERIOR RATED HOFFMAN BOX FOR ROUTING OF CONDUIT TO BE INSTALLED VIA DIRECTIONAL DRILLING. PROVIDE HINGED, LATCHABLE/LOCKABLE RAIN TIGHT COVER. ONLY POWER CONDUCTORS WILL BE CONTAINED WITHIN THIS BOX. NO DATA CONDUCTORS ARE INTENDED.

20. THE INDICATED CONDUITS, LOCATED BETWEEN THE EXTERIOR RATED HOFFMAN BOX AND THE POINT OF PENETRATION INTO THE EXISTING BUILDING, ARE TO BE ROUTED HIGH ON THE EXPOSED BACK OF THE RETAINING WALL ON THE GENERATOR SIDE, ABOVE THE EXISTING SOUND PANELS. CONDUIT WILL THEN DROP DOWN BEHIND THE SOUND PANELS BEFORE PENETRATING THE RETAINING WALL AT THE LOCATION INDICATED IN KEYED NOTE 19 ABOVE. SOUND PANELS TO BE REMOVED AS NEEDED TO ACCOMMODATE CONDUIT INSTALLATION, AND THEN REINSTALLED FOLLOWING CONSTRUCTION.

21. CONDUITS INSTALLED UNDER THE EXISTING PARKING LOT, DRIVEWAY, AND SIDEWALKS SHALL BE INSTALLED USING DIRECTIONAL DRILLING SO AS TO AVOID HAVING TO CUT THE PARKING LOT, DRIVEWAY, AND SIDEWALKS. TRENCHING SHALL NOT BE ALLOWED UNLESS SPECIFICALLY STATED IN WRITING BY THE OWNER. IF TRENCHING IS PERFORMED, THE PARKING LOT, DRIVEWAY, AND SIDEWALKS SHALL BE RESTORED TO MATCH EXISTING TO THE SATISFACTION OF THE OWNER.

22. CONDUITS INSTALLED ALONG THE EXTERIOR SURFACE OF THE EXISTING BUILDING ARE TO BE INSTALLED ALONG THE PRECAST JUST BELOW THE FIRST FLOOR WINDOWS. COORDINATE WITH NFCU AND ARCHITECT PRIOR TO COMMENCING.

23. CONDUITS INSTALLED ALONG THE EXTERIOR SURFACE OF THE EXISTING BUILDING WILL DROP AT THE LOCATION INDICATED, TO A HEIGHT BELOW THE TOP OF THE RETAINING WALL. COORDINATE WITH NFCU AND ARCHITECT PRIOR TO COMMENCING.

24. APPROXIMATE LOCATION OF NEW SECURITY CAMERAS WITHIN THE CANOPY LIGHTING STRUCTURE, DENOTED BY SUBSCRIPT "C" AND REFERENCE WITHIN KEYED NOTE 5 ABOVE.

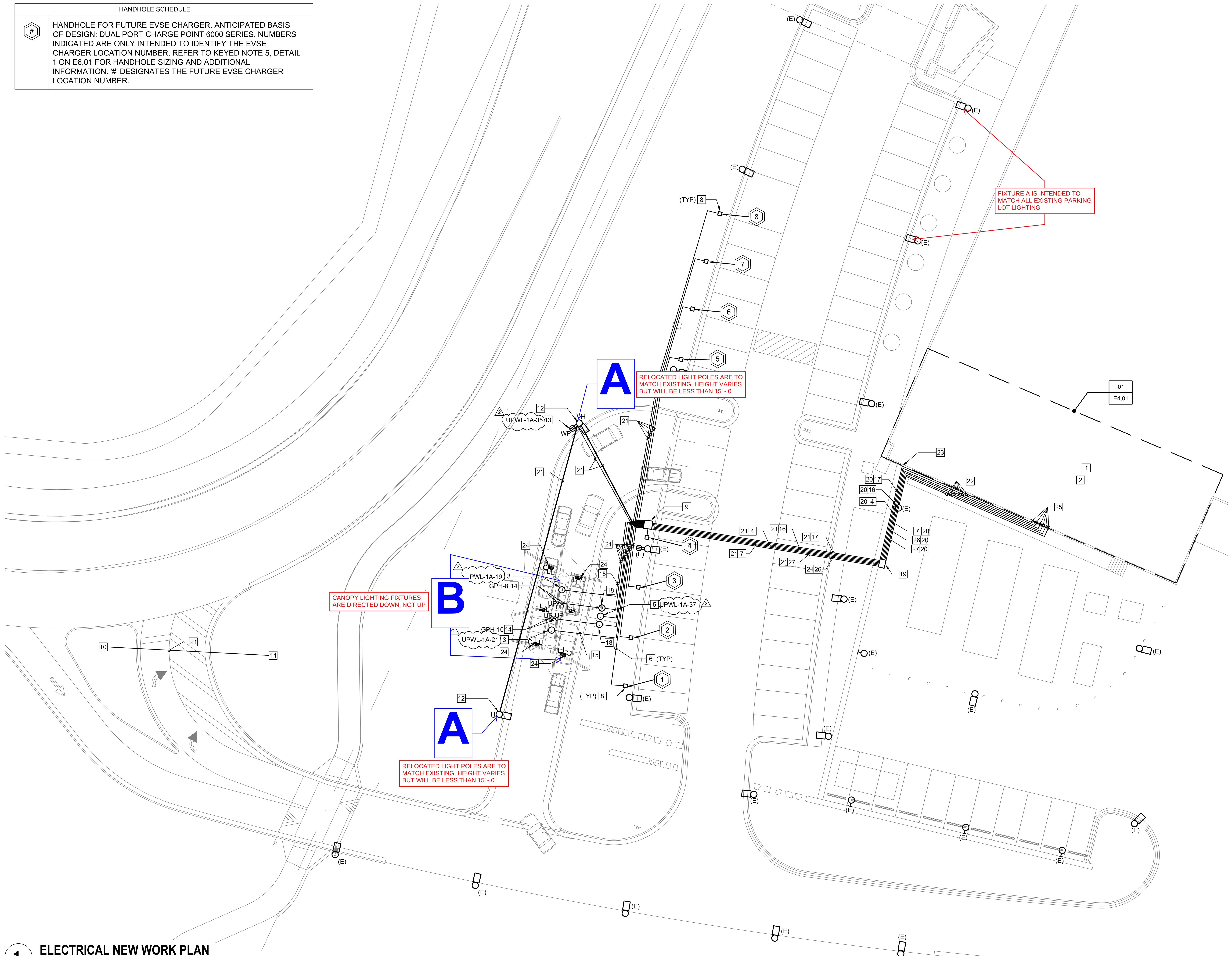
25. NEW KEYED NOTE: ALL CONDUITS PENETRATING THE RETAINING WALL BELOW GRADE SHALL BE SEALED BETWEEN THE OUTER SIDE OF THE CONDUIT AND THE CONCRETE WITH SUITABLE WATERPROOF WATER SEALANT AS APPROVED BY THE ARCHITECT.

2

26. ROUTE (1) CONDUIT FROM THE NEW 120V WEATHERPROOF TELECOM ENCLOSURE DUPLEX RECEPTACLE TO THE EXISTING UPS POWER PANEL UPWL-1A WITHIN THE EXISTING BUILDING. COORDINATE CONDUIT PATHWAY IN THE FIELD PER FIELD CONDITIONS. REFER TO THE ELECTRICAL DISTRIBUTION DIAGRAM ON DRAWING E6.01 AND PANEL SCHEDULES ON DRAWING E7.01 FOR FEEDER AND CONDUIT SIZES.

27. ROUTE (2) NEW 1-1/4" CONDUITS FROM OUTDOOR PULL BOX TO THE NEW ELECTRICAL POWER PANEL EVSE WITHIN THE EXISTING BUILDING. INSTALL CONDUITS VIA DIRECTIONAL DRILLING BELOW EXISTING PARKING LOT AREA AND SIDEWALKS.

HANDHOLE SCHEDULE	
#	HANDHOLE FOR FUTURE EVSE CHARGER. ANTICIPATED BASIS OF DESIGN: DUAL PORT CHARGE POINT 6000 SERIES. NUMBERS INDICATED ARE ONLY INTENDED TO IDENTIFY THE EVSE CHARGER LOCATION NUMBER. REFER TO KEYED NOTE 5, DETAIL 1 ON E6.01 FOR HANDHOLE SIZING AND ADDITIONAL INFORMATION. '#' DESIGNATES THE FUTURE EVSE CHARGER LOCATION NUMBER.



1 ELECTRICAL NEW WORK PLAN

SCALE: 1/8" = 1'-0"

NEW WORK PLAN DRAWING GENERAL NOTES :

1. FIXTURES AND DEVICES INDICATED WITH AN '(N)' ARE NEW.

2. ALL FIXTURES AND DEVICES INDICATED ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE. FIXTURES INDICATED WITH AN '(E)' ARE ALSO EXISTING TO REMAIN. FIXTURES AND DEVICES TO MAINTAIN CONNECTION TO EXISTING CIRCUITS. CONTRACTOR MAY RE-USE FIXTURES (LIGHTS OR EXIT SIGNS), PROVIDED THEY ARE DEEMED IN ACCEPTABLE QUALITY BY THE OWNER AND ARCHITECT.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANNING, LAYING OUT, COORDINATING, AND INSTALLING THE NEW ELECTRICAL CIRCUITING IN A MANNER THAT IS AS CLEAR AND CONCISE AS FEASIBLE. THE INTENT IS FOR THE CIRCUITING BETWEEN FIXTURES AND OTHER DEVICES TO BE MANAGEABLE AND CLEAR TO NFCU FACILITIES AND CONTRACTORS IN THE FUTURE SHOULD TRACING AND REPAIR BE NECESSARY. THE CONTRACTOR SHALL PREPARE AND SUBMIT FOR REVIEW BY NFCU, THE ARCHITECT, AND THE ENGINEER, A DETAILED SHOP DRAWING SHOWING THE ROUTING/LOCATIONS, SIZES (CONDUIT AND WIRING), PANEL NAME/CIRCUIT NUMBER, AND DEPTH BELOW GRADE. THE CONTRACTOR SHALL NOT INSTALL ANY BURIED CONDUIT OR WIRING UNTIL SUCH SHOP DRAWING HAS BEEN RETURNED TO THE CONTRACTOR AND DEEMED READY TO PROCEED.

4. SEE ELECTRICAL DISTRIBUTION DIAGRAM ON DRAWING E6.01 FOR INFORMATION REGARDING FEEDER SIZING.

5. CONDUIT ROUTING INDICATED ON PLANS IS DIAGRAMMATIC ONLY. EXACT ROUTING TO BE COORDINATED WITH FIELD CONDITIONS AND BETWEEN ALL TRADES.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE. CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY PRIOR TO DEMOLITION OR EXCAVATION

7. CONTRACTOR SHALL ERECT ALL NECESSARY PROTECTIVE DEVICES AROUND THE LIMITS OF CONSTRUCTION AND PROVIDE PEDESTRIAN AND VEHICULAR TRAFFIC CONTROL MEASURES DURING CONSTRUCTION AS NEEDED.

8. DIRECTIONAL DRILL UNDER EXISTING CURBS AND SIDEWALKS TO EXTENT POSSIBLE TO MINIMIZE DISTURBANCE.

9. WHERE THE NEW EQUIPMENT LOCATIONS INTERFERE WITH EXISTING BUSHES, THE CONTRACTOR SHALL REMOVE BUSHES INCLUDING ROOTS, BACKFILL WITH SUITABLE SOIL, AND REPLACE WITH SOD. COORDINATE ALL WORK WITH NFCU, ARCHITECT, AND LANDSCAPE ARCHITECT PRIOR TO ANY WORK THAT IMPACTS LANDSCAPING.

10. CONTRACTOR SHALL COORDINATE SUBSURFACE UTILITY MARKOUT PRIOR TO BEGINNING WORK.

11. CONTRACTOR SHALL SUBMIT A DETAILED PROPOSED WORK PLAN FOR THE INSTALLATION OF UNDERGROUND CONDUIT PRIOR TO CONSTRUCTION START. REFER TO DRAWING E1.01 FOR REQUIREMENTS AND INFORMATION.

12. THESE DRAWINGS INDICATE A PROPOSED BASIS OF DESIGN PATH AND MEANS OF EXTENDING NEW CONDUITS/CIRCUITS FROM ONE SIDE OF THE PAVED AREA (INCLUDING SIDEWALK) AND THE OTHER SIDE, NAMELY DIRECTIONAL DRILLING, WITH PULL BOXES ON EACH END. THE INTENT OF THE BASIS OF DESIGN IS TO AVOID CUTTING, TRENCHING, AND PATCHING THE PAVED AREA. THE OWNER, ARCHITECT, AND ENGINEER WILL CONSIDER SUGGESTIONS OFFERED BY THE CONTRACTOR IN THE BIDDING PHASE FOR ALTERNATE PATH(S) AND/OR MEANS OF EXTENDING NEW CONDUITS/CIRCUITS FROM ONE SIDE TO THE OTHER SIDE. ALL SUCH SUGGESTIONS SHALL BE COMPLETE WITH DETAILED DESCRIPTION AND DIAGRAM/DRAWING OF THE CONTRACTOR'S PROPOSED ROUTING AND MEANS, IMPACT ON PROJECT SCHEDULE, AND IMPACT ON BID COST (WHETHER DEDUCTIVE OR ADDITIVE). THE CONTRACTOR SHALL NOT PROCEED WITH A PATH OR MEANS OTHER THAN THE BASE BID WITHOUT THE OWNER'S WRITTEN APPROVAL. ANY ALTERNATE PATH AND MEANS THAT INVOLVES CUTTING, TRENCHING, AND PATCHING THE PAVED AREA SHALL BE REQUIRED TO RESTORE THE PAVED AREA SURFACE AND APPEARANCE TO MATCH EXISTING TO THE APPROVAL OF THE OWNER WHO RESERVES THE RIGHT TO REJECT ANY WORK. BY PROPOSING AN ALTERNATE APPROACH, THE CONTRACTOR ACCEPTS THESE REQUIREMENTS AND CONDITIONS. REFER TO THE SPECIFICATIONS AND GENERAL CONDITIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS APPLICABLE TO ALTERNATE APPROACHES.

13. ALL EXPOSED WORK SHALL BE FULLY PRESENTED TO AND APPROVED BY NFCU PRIOR TO COMMENCING ANY OF THE WORK. THIS INCLUDES, BUT IS NOT LIMITED TO, CONDUITS AND OTHER ITEMS INSTALLED ON THE EXTERIOR OF THE BUILDING AND ON THE RETAINING WALL. IN ADDITION, ALL LOCATIONS OF INGROUND BOXES AND OTHER DEVICES SHALL BE APPROVED BY NFCU AND THE ARCHITECT PRIOR TO COMMENCING THE INSTALLATION.

14. CONTRACTOR SHALL SUBMIT 1/8" SCALE SHOP DRAWING SET INCLUDING ALL INTENDED INSTALLATION METHODS, CONDUIT RUNS, PULL BOXES, AND OTHER PERTINENT INFORMATION.

SITE LIGHTING

THE FOLLOWING SHEETS SHOW LIGHT FIXTURE CUTSHEETS AND FOOTCANDLES FOR EACH FIXTURE

Dewberry Architects Inc.
2835 Brandywine Road
Suite 100
Atlanta, GA 30341-4015
678.530.0022
GA Lic. No. PEF002398 (6/30/2020)

ASD | SKY
3030 Clarendon Blvd.
Suite 350
Arlington, VA 22201
T 703.876.9600
www.asdsky.com

NAVY FEDERAL CREDIT UNION HQ2 ATM ADDITION

1007 ELECTRIC AVE
VIENNA, VA 22180

Dewberry®
Dewberry Engineers Inc.
8401 Arlington Boulevard
Fairfax, VA 22031
703 698 9440 Phone
703 849 4881 Fax

COMMONWEALTH OF VIRGINIA
RAYMOND S. HOLDENER
Lic. No. 0402020062
PROFESSIONAL ENGINEER

NO:	DATE:	REMARKS:
2	4/2/2025	ADDENDUM 2
1	3/13/2025	ISSUED FOR PERMIT AND PRICING
0	1/24/2025	ISSUED FOR PERMIT AND PRICING

REVISIONS:

DRAWING TITLE:
ELECTRICAL NEW WORK PLAN

PROJECT NO.:	ISSUE DATE:
50184423	04.02.25
DRAWN BY:	CHECKED BY:
CB	RH

SHEET NUMBER:
E1.01

A

POLE LIGHTING (2 NEW TO MATCH ALL EXISTING INCLUDING HEIGHT (LESS THAN 15' - 0"), LUMEN OUTPUT, SPREAD, ETC.

Submitted by Chesapeake Lighting		Catalog Number:	Type:
CapitalTristate THE ELECTRICAL DISTRIBUTOR OF CHOICE	Job Name: (new) NAVY FEDERAL CREDIT UNION - HDQ CAMPUS DEVELOPMENT	GLEON-AE-02-LED-E1-SL4-BZ-700/ LS/HSS-BZ Notes:	H1 PROJECT16-69677

McGraw-Edison

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

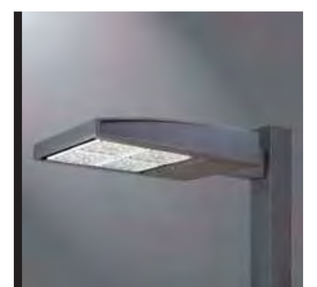
Optics
Patented, high-efficiency injection-molded AccuLED Optics technology. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT 70 CRI. Optional 6000K CCT and 3000K CCT.

Electrical
LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Standard with 0-10V dimming. Shipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 530mA and 700mA drive currents.

Mounting
STANDARD ARM MOUNT: Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during assembly. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall mount bracket option. 3G vibration rated. QUICK MOUNT ARM: Arm is bolted directly to the pole and the fixture slides onto the quick mount arm and is secured via a single fastener, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the quick mount arm enables wiring of the fixture without having to access the driver compartment. A knock-out enables round pole mounting.

Finish
Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

Warranty
Five-year warranty.

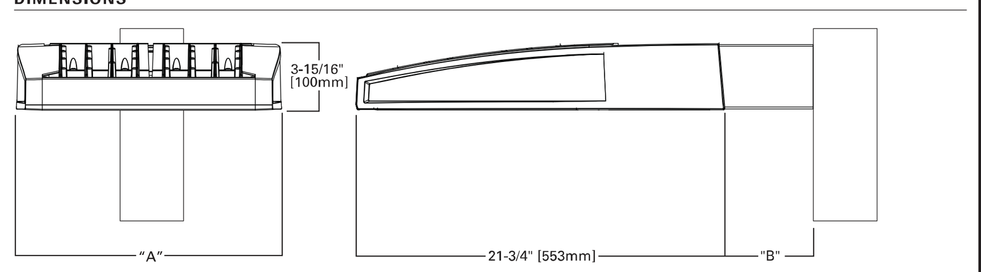


GLEON
GALLEON LED

1-10 Light Squares
Solid State LED

AREA/SITE LUMINAIRE

DIMENSIONS



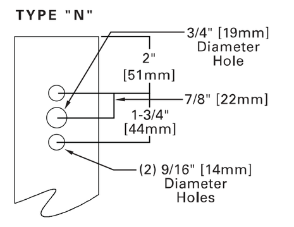
DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length [1]	Weight with Arm (lbs.)	EPA with Arm [2] (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. 2. EPA calculated with optional arm length.

DRILLING PATTERN

TYPE "N"



CERTIFICATION DATA
UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
IP66 Rated
DesignLights Consortium™ Qualified*

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

EATON Powering Business Worldwide

*www.designlights.org

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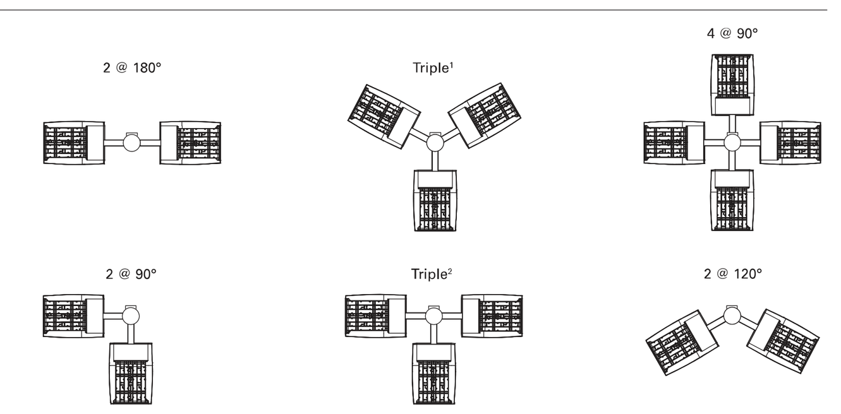
2016-01-29 10:56:52

Submitted by Chesapeake Lighting		Catalog Number:	Type:
CapitalTristate THE ELECTRICAL DISTRIBUTOR OF CHOICE	Job Name: (new) NAVY FEDERAL CREDIT UNION - HDQ CAMPUS DEVELOPMENT	GLEON-AE-02-LED-E1-SL4-BZ-700/ LS/HSS-BZ Notes:	H1 PROJECT16-69677

GLEON GALLEON LED

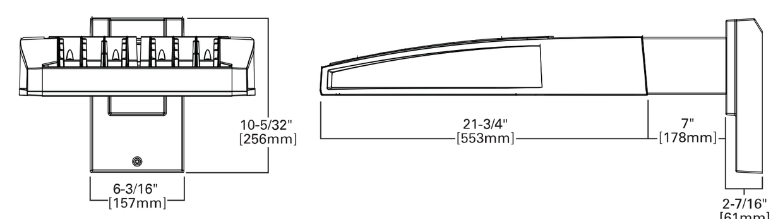
ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AE-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AE-10	16" Extended Arm (Required)	16" Extended Arm (Required)

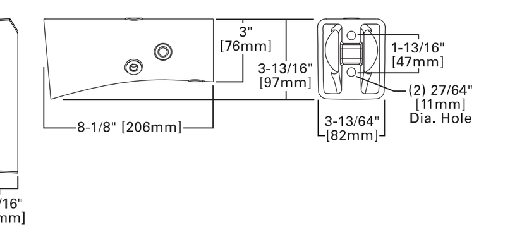


NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. 2 Round poles are 3 @ 90°.

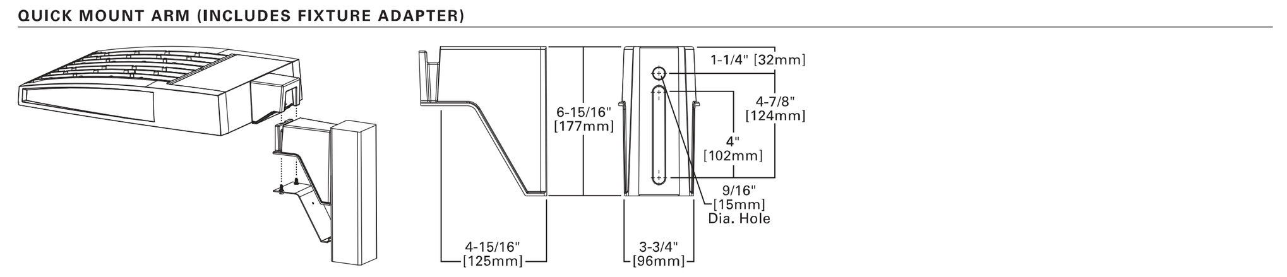
STANDARD WALL MOUNT

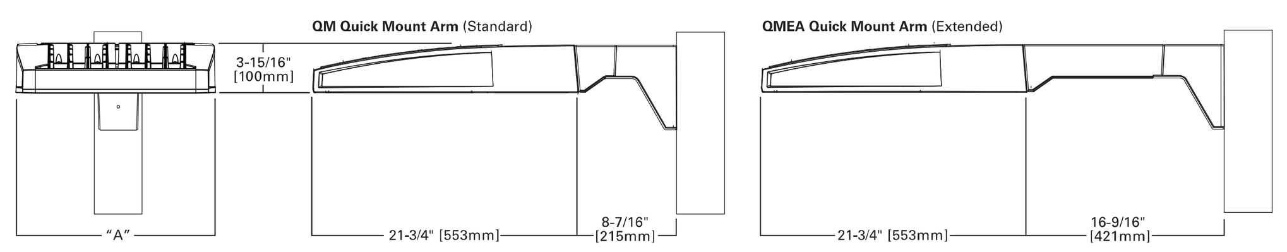


MAST ARM MOUNT



QUICK MOUNT ARM (INCLUDES FIXTURE ADAPTER)





QUICK MOUNT ARM DATA

Number of Light Squares [1, 2]	"A" Width	Weight with QM Arm (lbs.)	Weight with QMEA Arm (lbs.)	EPA (Sq. Ft.)
1-4	15-1/2" (394mm)	35 (15.91 kgs.)	38 (17.27 kgs.)	1.11
5-6 [3]	21-5/8" (549mm)	46 (20.91 kgs.)	49 (22.27 kgs.)	
7-8	27-5/8" (702mm)	56 (25.45 kgs.)	59 (26.82 kgs.)	

NOTES: 1 QM option available with 1-8 light square configurations. 2 QMEA option available with 1-6 light square configurations. 3 QMEA arm to be used when mounting two fixtures at 90° on a single pole.

EATON Powering Business Worldwide

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

Specifications and dimensions subject to change without notice.

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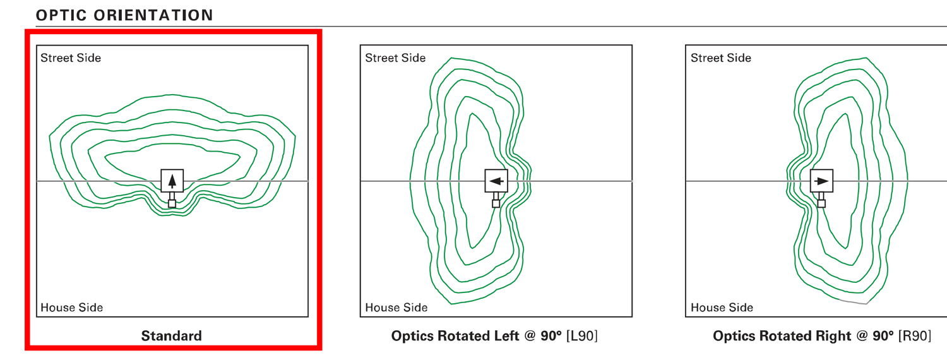
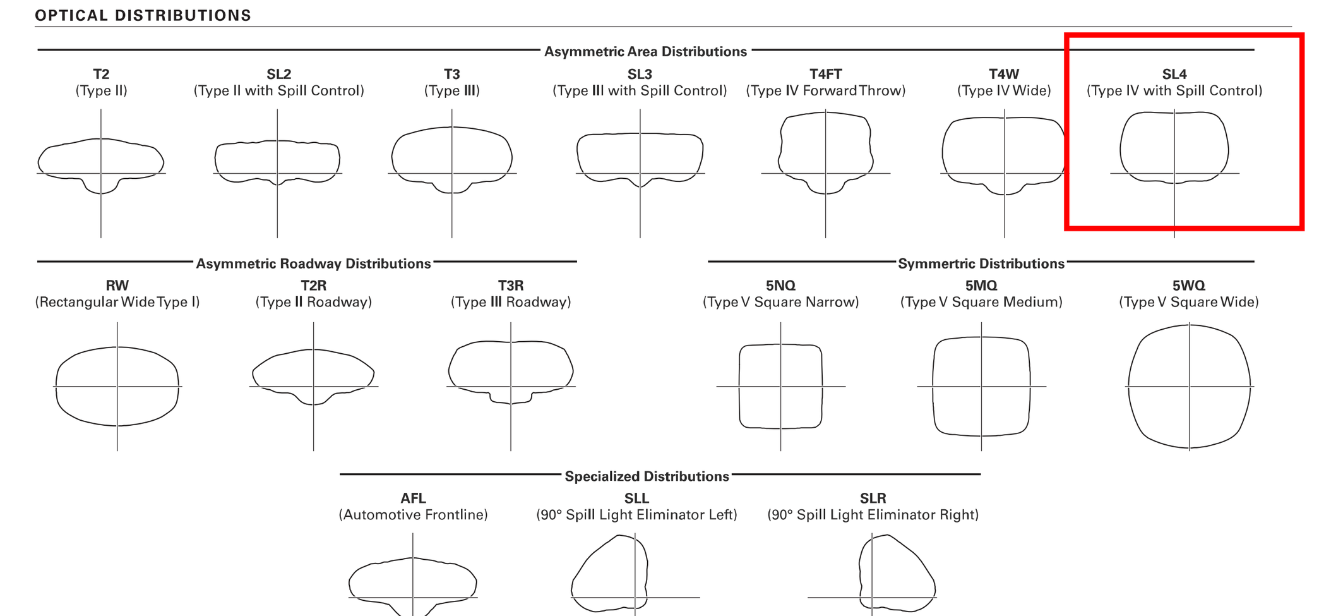
Submitted by Chesapeake Lighting		Catalog Number:	Type:
CapitalTristate THE ELECTRICAL DISTRIBUTOR OF CHOICE	Job Name: (new) NAVY FEDERAL CREDIT UNION - HDQ CAMPUS DEVELOPMENT	GLEON-AE-02-LED-E1-SL4-BZ-700/ LS/HSS-BZ Notes:	H1 PROJECT16-69677

GLEON GALLEON LED

OPTIC ORIENTATION



OPTICAL DISTRIBUTIONS



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1121 Highway 74 South
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Submitted by Chesapeake Lighting		Catalog Number:	Type:
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GLEON GALLEON LED

NOMINAL POWER AND LUMENS (700MA)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Drive Current		700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA
Nominal Power (Watts)		38	72	105	138	176	210	243	276	314	348
Input Current @ 120V (A)		0.32	0.59	0.86	1.14	1.45	1.72	2	2.28	2.58	2.86
Input Current @ 208V (A)		0.21	0.36	0.51	0.67	0.87	1.02	1.18	1.34	1.53	1.69
Input Current @ 240V (A)		0.19	0.32	0.45	0.59	0.77	0.90	1.04	1.18	1.35	1.49
Input Current @ 277V (A)		0.20	0.29	0.40	0.51	0.69	0.80	0.91	1.02	1.20	1.31
Optics											
T2	Lumens	3,854	7,531	11,237	14,847	18,395	22,013	26,033	29,497	32,904	36,430
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T2R	Lumens	4,091	7,995	11,929	15,762	19,529	23,370	27,638	31,316	34,932	38,676
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3	Lumens	3,928	7,676	11,453	15,133	18,750	22,437	26,534	30,065	33,537	37,132
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T3R	Lumens	4,015	7,846	11,707	15,469	19,166	22,936	27,124	30,733	34,283	37,957
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
T4FT	Lumens	3,951	7,720	11,519	15,221	18,858	22,567	26,688	30,240	33,732	37,347
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	3,900	7,620	11,370	15,024	18,615	22,276	26,343	29,849	33,296	36,864
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL2	Lumens	3,847	7,518	11,217	14,821	18,364	21,975	25,988	29,447	32,847	36,368
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL3	Lumens	3,927	7,675	11,451	15,131	18,747	22,434	26,531	30,061	33,533	37,126
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	Lumens	3,731	7,292	10,880	14,376	17,812	21,315	25,208	28,562	31,861	35,275
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5
5NQ	Lumens	4,051	7,916	11,811	15,606	19,336	23,139	27,365	31,006	34,587	38,294
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3
5MQ	Lumens	4,125	8,062	12,029	15,894	19,692	23,565	27,869	31,577	35,224	38,999
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
5WQ	Lumens	4,136	8,083	12,061	15,936	19,745	23,628	27,943	31,661	35,318	39,103
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
SLL/SLR	Lumens	3,451	6,744	10,063	13,296	16,474	19,714	23,314	26,416	29,467	32,625
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
RW	Lumens	4,014	7,844	11,704	15,465	19,162	22,930	27,118	30,726	34,274	37,948
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
AFL	Lumens	4,029	7,873	11,747	15,522	19,231	23,014	27,216	30,838	34,399	38,086
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

EATON Powering Business Worldwide

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

Specifications and dimensions subject to change without notice.

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*HEIGHT OF FIXTURE TO MATCH EXISTING (NOT TO EXCEED 15' - 0")
*ALL LIGHTING FIXTURES ARE TO BE DIMMABLE
*EXISTING POLE LIGHTING IS 3500K (COLOR TEMP)

EXISTING POLE LIGHT(~10' - 0")

Submitted by Chesapeake Lighting		Catalog Number:	Type:
CapitalTristate THE ELECTRICAL DISTRIBUTOR OF CHOICE	Job Name: (new) NAVY FEDERAL CREDIT UNION - HDQ CAMPUS DEVELOPMENT	GLEON-AE-02-LED-E1-SL4-BZ-700/ LS/HSS-BZ Notes:	H1 PROJECT16-69677

GLEON GALLEON LED

ORDERING INFORMATION

Sample Number: GLEON-AE-04-LED-E1-T3-GM-700

Product Family [1, 2]	Light Engine	Number of Light Squares [3]	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	AE=1A Drive Current	01=1 02=2 03=3 04=4 05=5 06=6 07=7 [4] 08=8 [4] 09=9 [5] 10=10 [5]	LED=Solid State Light Emitting Diodes	E1=(120-277V) 347=347V [6] 480=480V [6, 7]	T2=Type II T2R=Type II Roadway T3=Type III T3R=Type III Roadway T4FT=Type IV Forward Throw T4W=Type IV Wide 5NQ=Type V Narrow 5MQ=Type V Square Medium 5WQ=Type V Square Wide SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right RW=Rectangular Wide Type I AFL=Automotive Frontline	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm [8] MA=Mast Arm Adapter [9] WM=Wall Mount QM=Quick Mount Arm (Standard Length) [10] QMEA=Quick Mount Arm (Extended Length) [11]

Options (Add as Suffix)	Accessories (Order Separately)
2L=Two Circuits [12, 13] 7030=70 CRI / 3000K [14] 8030=80 CRI / 3000K [15] 7050=70 CRI / 5000K [15] 7060=70 CRI / 6000K [14] 530=Drive Current Factory Set to 530mA [16] 700=Drive Current Factory Set to 700mA [16] P=Button Type Photocontrol (120, 208, 240 or 277V) PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle R=NEMA Twistlock Photocontrol Receptacle HA=50°C High Ambient [13, 17] MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height [18, 19, 20, 21, 22] MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [18, 19, 20, 21, 22] MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [18, 19, 20, 21] MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range) [18, 19, 20, 21, 25] MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height [18, 19, 20, 21, 22, 26] MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height [18, 19, 20, 21, 23, 26] MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height [18, 19, 20, 21, 24, 26] MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height (Wide Range) [18, 19, 20, 21, 25, 26] MS-L08=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height [18, 19, 20, 21, 22] MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [18, 19, 20, 21, 23] MS-L40=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height [18, 19, 20, 21, 24] MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height (Wide Range) [18, 19, 20, 25] DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [27] DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [27] L90=Optics Rotated 90° Left R90=Optics Rotated 90° Right MT=Factory Installed Mesh Top TH=Tool-less Door Hardware LCF=Light Square Trim Plate Painted to Match Housing [28] HSS=Factory Installed House Side Shield [29] CE=CE Marking [30]	OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor [31] GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares GLEON-QM=Quick Mount Arm Kit [10] GLEON-QM-EA=Quick Mount Extended Length Arm Kit [11] LS/HSS=Field Installed House Side Shield [29, 32] BZ

NOTES:
1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium™ Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Standard 4000K CCT and minimum 70 CRI.
4. Not compatible with extended quick mount arm (QMEA).
5. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
6. Requires the use of a step down transformer when combined with MS/DIM, MS/X or DIMRF.
7. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
8. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
9. Factory installed.
10. Maximum 8 light squares.
11. Maximum 6 light squares.
12. 2L is not available with MS/X or MS/DIM at 347V or 480V. 2L in AE-02 through AE-04 requires a larger housing, normally used for AE-05 or AE-06. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
13. Not available with LumaWatt wireless sensors.
14. Extended lead times apply. Use dedicated IES files for 3000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website.
15. Extended lead times apply. For 8030, factor 7030 IES files x .92 (8% lumen loss). For 7050, use 7060 IES files.
16. 1 Amp standard. Use dedicated IES files for 530mA and 700mA when performing layouts. These files are published on the Galleon luminaire product page on the website.
17. 50°C lumen maintenance data applies to 530mA and 700mA drive currents.
18. Consult factory for more information.
19. Utilizes internal step-down transformer when 347V or 480V is selected.
20. The FSIR-100 accessory is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
21. Not available with HA option.
22. Approximately 22' detection diameter at 8' mounting height.
23. Approximately 40' detection diameter at 20' mounting height.
24. Approximately 60' detection diameter at 40' mounting height.
25. Approximately 100' detection diameter at 40' mounting height.
26. Replace X with number of light squares operating in low output mode.
27. LumaWatt wireless sensors are factory installed only requiring network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information.
28. Not available with house side shield (HSS).
29. Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected.
30. CE is not available with the DIMRF, MS, MS/X, MS/DIM, P, R or PER7 options. Available in 120-277V only.
31. This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
32. One required for each Light Square.

EATON Powering Business Worldwide

Eaton
1121 Highway 74 South
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B

CANOPY LIGHTING

DENALI LED (INTEGRAL) — IP66 RATED

DATE: | PROJECT: | TYPE:

CATALOG NUMBER LOGIC:

*Accommodates up to 2 lens/shielding media.

**120V only.

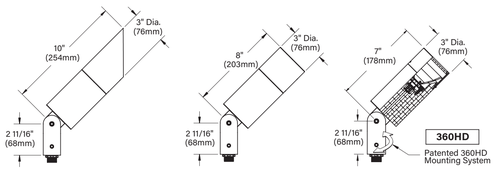
CATALOG NUMBER LOGIC		
Example: DE - LED - TR - x98 - SP - BZW - 9 - 11 - A - NON - 120 - 25		
MATERIAL		
Aluminum		
SERIES		
DE - Denali		
SOURCE		
LED - Chip on Board (COB) Technology		
HOUSING		
TR - Integral Driver		
LED TYPE		
x98 - 13W/2700K/80CRI	x101 - 13W/2700K/90CRI	✓
x99 - 13W/3000K/80CRI	x102 - 13W/3000K/90CRI	✓
x103 - 13W/3500K/80CRI	x104 - 13W/3500K/90CRI	✓
x100 - 13W/4000K/80CRI	x121 - 13W/4000K/90CRI	✓
x122 - 21W/2700K/80CRI	x126 - 21W/2700K/90CRI	✓
x123 - 21W/3000K/80CRI	x127 - 21W/3000K/90CRI	✓
x124 - 21W/3500K/80CRI	x128 - 21W/3500K/90CRI	✓
x125 - 21W/4000K/80CRI	x129 - 21W/4000K/90CRI	✓
OPTICS		
SP - Spot (17°)	FL - Flood (45°)	WFL - Wide Flood (55°)
FINISH (See page 3 for full-color swatches)		
Standard Finishes (BZP, BZW, BLP, BLW, WHP, WHW, SAP, VER)		
Premium Finish (ABP, AMG, AQW, BCM, BGE, BPP, CAP, CMG, CRM, HUG, NBP, OCP, RMG, SDS, SMG, TXF, WCP, WIR)		
Also available in RAL Finishes		
LENS TYPE*		
9 - Clear (Standard)		
12 - Soft Focus	13 - Rectilinear	
SHIELDING*		
11 - Honeycomb Baffle		
CAP STYLE		
A - 45°		
B - 90°		
C - Flush		
D - 45° Less Weephole (Downward Aiming Only)		
E - 90° Less Weephole (Downward Aiming Only)		
CONTROLS		
NON - Non Dimming		
ELV - Dimming Driver (For use with Electronic Low Voltage Dimmer)**		
INC - Dimming Driver (For use with incandescent dimmer)**		
010 - 0-10V Dimming Driver (Dimming ≤3-100%)		
INPUT VOLTAGE		
120 - 120 VAC		
277 - 277 VAC		

TITLE 24, JA8 COMPLIANT

10/27/2023 SKU-1245 P1
SUB-2783-00

DENALI LED (INTEGRAL) — IP66 RATED

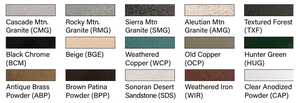
DATE: | PROJECT: | TYPE:



STANDARD FINISHES

Click Here to view larger, full-color swatches of all available finishes on our website.

PREMIUM FINISHES



B-K LIGHTING | MADE IN THE USA | 559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

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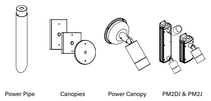
10/27/2023 SKU-1245 P1
SUB-2783-00

DENALI LED (INTEGRAL) — IP66 RATED

DATE: | PROJECT: | TYPE:

Accessories (Configure separately)



Power Pipe | Canopies | Power Canopy | PM2DI & PM3J

SPECIFICATIONS

ELECTRICAL	WATTAGE	13W or 21W LED
	LED	COB technology and modular design with electrical quick disconnects allow for easy field upgrade and maintenance. LM-80 certified. Title 24, JA8 compliant options available. Minimum 50,000 hour rated life at 70% of initial lumens (L70).
	COLOR MANAGEMENT	COB technology delivers natural white light. Exact color point conformity exceeds ANSI C78.377 standard. Module exceeds 80 CRI (RA>80, R9≥6). Color point uniformity 2 SDCM color control for 2700K-4000K CCT.
	WIRING	INC/ELV Wiring: 3 Wire, 18GA, Stranded, XLPE, 125°C, 300V, UL3265 rated wire 0-10 Wiring: 5 Wire, (3) 18GA and (2) 22GA, Stranded, XLPE, 125°C, 300V, UL3265 rated wire
	DRIVER	Incandescent/ELV Control Option Driver: Dimming driver for use with standard incandescent or electronic low voltage dimmers (10-100% range), 120VAC only. 0-10 Control Option Driver: Dimming driver for use with standard 0-10V dimmers (≤3-100% dim. range), 120-277VAC. With [1] 440mA (13W) / 700mA (21W), 50/60Hz. >0.9 Power Factor, (INC/ELV)10.0A/(0-10) <250mA in-rush current , .20%THD (nominal at 120VAC full load). Output over-voltage, overcurrent, and short circuit protection with auto recovery. Class 2 power supply; FCC47CFR Part 15 Compliant Class B (120VAC)/Class A (277VAC).
PHYSICAL	MATERIALS	Furnished in copper-free aluminum (6061-T6).
	BODY	Unibody design with enclosed, water-proof wireway and integral heat sink is fully machined from solid billet. Anti-condensation and corrosion vent equalizes fixture pressure and eliminates potential for damage to internal components.
	KNUCKLE	360HD Mounting System features a mechanical taperlock, allowing full 180° vertical adjustment without the use of aim-limiting serrated teeth. High temperature, silicone 'O' Ring provides water-tight seal and compressive resistance to maintain fixture position. Design withstands 73 lbs. static load prior to movement for optical alignment with a ½" pipe thread for mounting. Biaxial source control additionally provides 360° horizontal rotation in addition to vertical adjustment. Aim & Lock technology allows precision adjustment without the redundant tightening and loosening of knuckle screw.
	CAP	Fully machined and accommodates two (2) lens or louver media.
	LENS	Shock-resistant, tempered glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment.
	HARDWARE	Tamper-resistant, stainless steel hardware. 360HD hardware is black oxide treated for additional corrosion resistance.
	OPTICS	Interchangeable optics permit changes in the field.
	FINISH	StarGuard, our 15-stage chromate-free process, cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating and is RoHS compliant.
	WARRANTY	5-year limited warranty.
	CERTIFICATION & LISTING	UL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHS compliant components. Suitable for indoor or outdoor use, in wet locations, and for installation within 4' of the ground. IP66 Rated. Made in the USA with sustainable processes.

TITLE 24, JA8 | cULus LISTED | RoHS | MADE IN THE USA

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10/27/2023 SKU-1245 P1
SUB-2783-00

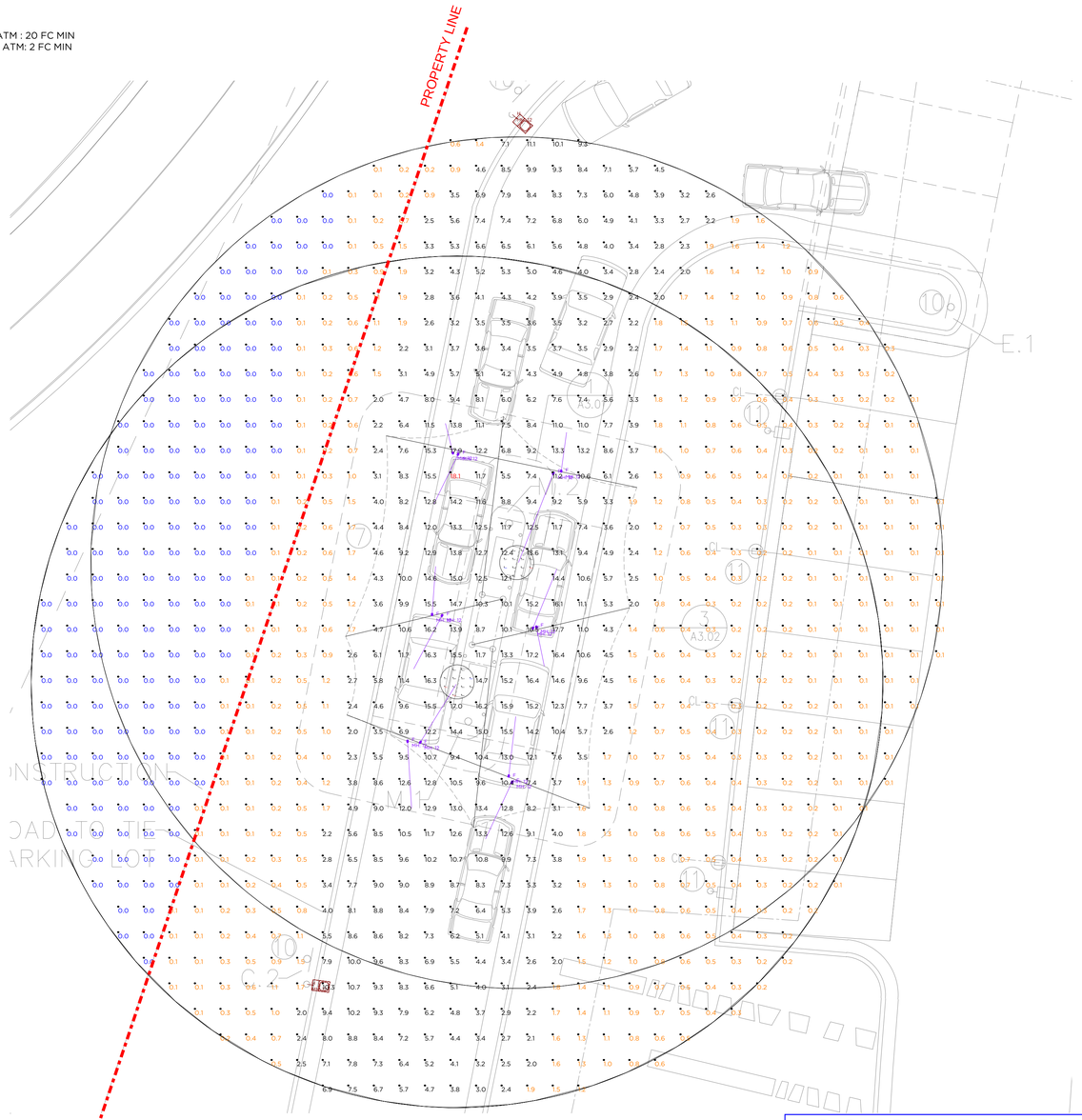
CANOPY LIGHTING FIXTURES ARE DIRECTED DOWN, NOT UP

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	[MANUFAC]	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
	2	H	Single	COOPER LIGHTING SOLUTIONS - McGRAW-EDISON (FORMERLY EATON)	GLEON-AE-02-LED-E1-SL4-BZ-700-HSS	0.900	9489	85	170
	12	F	Single	B-K Lighting INC	DE-LED-TR-X125-WFL-9-C-PROTOTYPE(4000K)	0.900	1627	21.7766	261.319

Calculation Summary									
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	Grid Z
ATM 1 - 2FT RADIUS ZONE	Illuminance	Fc	13.43	14.3	12.5	1.07	1.14	1	0
ATM 2 - 2FT RADIUS ZONE	Illuminance	Fc	16.45	17.2	15.2	1.08	1.13	1	0
ATM ZONE	Illuminance	Fc	2.96	18.1	0.0	N.A.	N.A.	3	0
ATM 1 - 50FT RADIUS ZONE	Illuminance	Fc	3.52	18.1	0.0	N.A.	N.A.		
ATM 2 - 50FT RADIUS ZONE	Illuminance	Fc	3.52	18.1	0.0	N.A.	N.A.		

NOTES:
- WHEN THE LLF IS NOT 0.9 OR 1.0 THEN THE WATTAGE INFORMATION WILL NOT BE CORRECT
- FIXTURE LOCATIONS AS PROPOSED
- FIXTURE GLARE HAS NOT BEEN FACTORED INTO THE LAYOUT CONSIDERATION
- EXSITING AREA FIXTURES ARE ON 7" ARMS AS SPECIFIED

TARGET:
ATM
- WITHIN 2' OF ATM : 20 FC MIN
- WITHIN 50' OF ATM: 2 FC MIN



PHOTOMETRY
Scale: 1 inch= 8 Ft.

FOOTCANDLE STUDY

- CANOPY LIGHTING FIXTURES ARE DIRECTED DOWN, NOT UP
- INCLUDES EXISTING LIGHT POLES ON SITE

SESCO LIGHTING

Sales Rep: Summer Cassese
Office: Atlanta, GA
Contact No: (770) 449-7045
Processed By: J.Garner
Filename: 01-27-2025 NAVY FEDERAL CREDIT UNION ATMS.AGI

Navy Federal Credit Union
ATM Addition

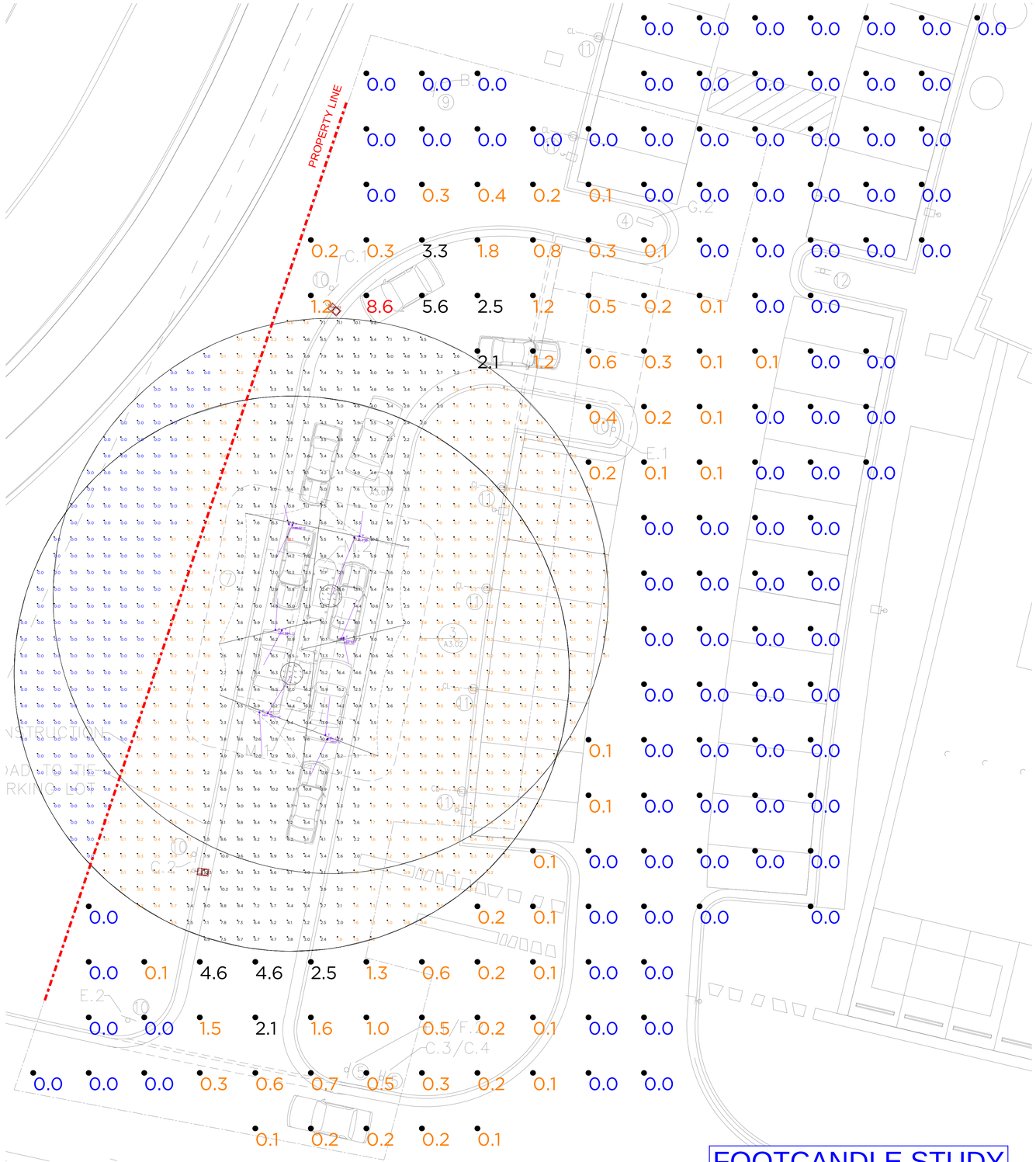
Date:6/3/2025

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	[MANUFAC]	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
	2	H	Single	COOPER LIGHTING SOLUTIONS - McGRAW-EDISON (FORMERLY EATON)	GLEON-AE-02-LED-E1-SL4-BZ-700-HSS	0.900	9489	85	170
	12	F	Single	B-K Lighting INC	DE-LED-TR-X125-WFL-9-C-PROTOTYPE(4000K)	0.900	1627	21.7766	261.319

Calculation Summary									
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	Grid Z
ADDITIONAL SITE	Illuminance	Fc	0.35	8.6	0.0	N.A.	N.A.	10	0
ATM 1 - 2FT RADIUS ZONE	Illuminance	Fc	13.43	14.3	12.5	1.07	1.14	1	0
ATM 2 - 2FT RADIUS ZONE	Illuminance	Fc	16.45	17.2	15.2	1.08	1.13	1	0
ATM ZONE	Illuminance	Fc	2.96	18.1	0.0	N.A.	N.A.	3	0
ATM 1 - 5OFT RADIUS ZONE	Illuminance	Fc	3.52	18.1	0.0	N.A.	N.A.		
ATM 2 - 5OFT RADIUS ZONE	Illuminance	Fc	3.52	18.1	0.0	N.A.	N.A.		

NOTES:
- WHEN THE LLF IS NOT 0.9 OR 1.0 THEN THE WATTAGE INFORMATION WILL NOT BE CORRECT
- FIXTURE LOCATIONS AS PROPOSED
- FIXTURE GLARE HAS NOT BEEN FACTORED INTO THE LAYOUT CONSIDERATION
- EXSITING AREA FIXTURES ARE ON 7' ARMS AS SPECIFIED

TARGET:
ATM
- WITHIN 2' OF ATM : 20 FC MIN
- WITHIN 50' OF ATM: 2 FC MIN



PHOTOMETRY
Scale: 1 inch= 10 Ft.

- CANOPY LIGHTING FIXTURES ARE DIRECTED DOWN, NOT UP
- INCLUDES EXISTING LIGHT POLES ON SITE AND EXTENTS

FOOTCANDLE STUDY

SESCO LIGHTING

Sales Rep: Summer Cassese
Office: Atlanta, GA
Contact No: (770) 449-7045
Processed By: J.Garner
Filename: 01-27-2025 NAVY FEDERAL CREDIT UNION ATMS.AGI

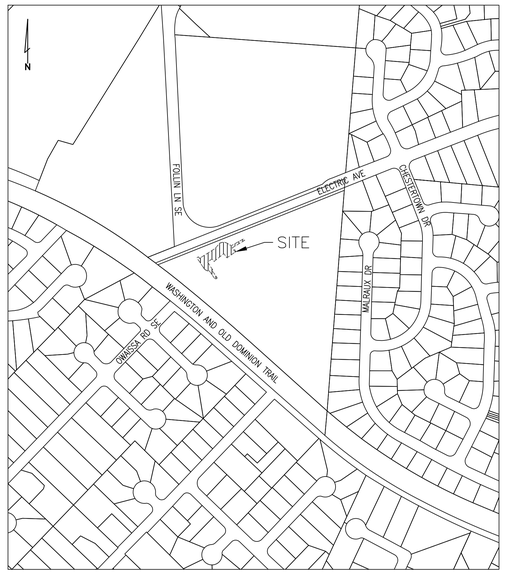
Navy Federal Credit Union
ATM Addition

Date:6/3/2025

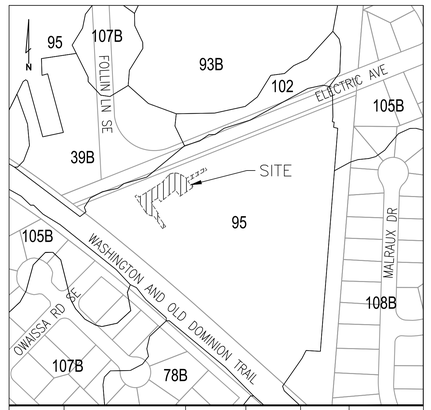
SITE PLAN
NAVY FEDERAL CREDIT UNION
ATM RELOCATION

Town of Vienna, Virginia

VICINITY MAP
SCALE 1"=300'



SOILS MAP
SCALE 1"=200'



SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
39B	GLENELG SILT LOAM	GOOD	GOOD	HIGH	I
95	URBAN LAND	N/A	N/A	N/A	IVB
102	WHEATON LOAM	GOOD	FAIR	HIGH	IVB

IS THE SITE LOCATED ON NATURALLY OCCURRING ASBESTOS (NOA) SOIL?
YES ☐ NO ☒

(SOIL INFORMATION PER FAIRFAX COUNTY MAPPING)

OWNER INFORMATION:

TAX MAP #:	0393 ((2)) 3C
SITE ADDRESS	1007 ELECTRIC AVE VIENNA, VA 22180
OWNER:	NAVY FEDERAL CREDIT UNION DB 24392 PG 0503

SHEET INDEX

ZONING TABULATION:

SITE AREA: 469,047 SF OR 10.77 AC
ZONING: CORPORATE PARK DISTRICT (CP)
EXISTING USE: PROFESSIONAL OFFICE

ZONING REQUIREMENTS	REQUIRED	EXISTING
MAXIMUM BUILDING HEIGHT:	45 FT	44.88 FT
MINIMUM YARD REQUIREMENTS :		
FRONT-	50 FT	124.21 FT
SIDE-	50 FT	104.19 FT
REAR-	50 FT	107.26 FT
MAXIMUM OPEN SPACE:	30% MIN	24.9%

PARKING TABULATION:

PARKING REQUIRED:

OFFICE:	234,391 SF
	RATE: 1SP/200 SF
	(BASED ON TOWN OF VIENNA CODE 18-130 C,H)
	234,291 / 200 = 1,172 SP
TOTAL PARKING REQUIRED:	1,172 SP
TOTAL PARKING PROVIDED:	
PRE-DEVELOPMENT:	1,184 SP
POST-DEVELOPMENT:	1,180 SP
H/C PARKING:	
REQUIRED:	22 SP INCLUDING 3 VAN
PROVIDED:	22 SP INCLUDING 6 VAN

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Suite 350
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NAVY FEDERAL CREDIT UNION HQ2 ATM ADDITION

1007 ELECTRIC AVE
VIENNA, VA 22180

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703 849 4881 Fax

COMMONWEALTH OF VIRGINIA
TIMOTHY CHARLES CULLETON
Lic. No. 20112
6/6/2025
PROFESSIONAL ENGINEER

NO:	DATE:	REMARKS:
2	6/6/2025	SITE PLAN REVIEW
1	TBD	ASI 01
0	1/24/2025	ISSUED FOR PERMIT AND PRICING

REVISIONS:

DRAWING TITLE:
COVER SHEET

PROJECT NO:	ISSUE DATE:
50184423	25.06.06
DRAWN BY:	CHECKED BY:

SHEET NUMBER:
C-001

ABBREVIATIONS

A	A	AREA OR ARC
	AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
	AC	ACRE
	ACC	ACCESS DOOR
	ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
	ARCH	ARCHITECTURAL
	ASPH	ASPHALT
	ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B	BB	BOTTOM OF LINE
	BC	BOTTOM OF CURB
	BF	BASEMENT FLOOR
	BLD	BUILDING
	BLDG	BUILDING
	BM	BENCHMARK
	BOV	BLOW OFF VALVE
	BRK	BRICK
	BRL	BUILDING RESTRICTION LINE
	BW	BOTTOM OF WALL
C	C	COEFFICIENT OF RUNOFF
	CATV	CABLE TELEVISION
	CC	CENTER TO CENTER
	CFS (Q)	CUBIC FEET PER SECOND
	CH	CHORD
	CG	CURB AND GUTTER
	CIP	CAST IRON PIPE
	℄	CENTERLINE
	CON	CONCRETE PAD
	CONC	CONCRETE
	CO	CLEAN OUT
	CONT.	CONTINUATION
	CS	CURB STOP
	CSP	CONCRETE STOOP
	CSW	CONCRETE SIDEWALK
	CT	COURT
	CN	(RUNOFF) CURVE NUMBER
D	d	DEPTH
	DA	DRAINAGE AREA
	DB	DEED BOOK
	DETL	DETAIL
	DI	DROP INLET
	DIP	DUCTILE IRON PIPE
	DOM	DOMESTIC
	DR	DRIVE
	DTL	DETAIL
	DWA	ASPHALT DRIVEWAY
	DWC	CONCRETE APRON
	DWG	DRAWING
	D/W	DRIVE WAY
	△	DELTA
E	E	RATE OF SUPERELEVATION IN FEET PER FOOT
	EC	EROSION CONTROL
	ESMT	EASEMENT
	EG	EDGE OF GUTTER
	ELEV	ELEVATION
	EP	EDGE OF PAVEMENT
	ES	END SECTION
	EW	END WALL
	EX	EXISTING
	EXIST	EXISTING
	ELEC	ELECTRICAL
	EBL	EAST BOUND LANE
F	F	FIRE LINE
	FAR	FLOOR AREA RATIO
	FC	FACE OF CURB
	FDC	FIRE DEPARTMENT CONNECTION (SIAMESE)
	FW	FAIRFAX WATER
	FF	FIRST FLOOR
	FFE	FINISHED FLOOR ELEVATION
	FG	FINISHED GRADE
	FH	FIRE HYDRANT
	FP	FLOOD PLAIN
	FCPA	FAIRFAX COUNTY PARK AUTHORITY
	FOY	FOYER
	FPS	FEET PER SECOND
	FT	FEET
G	G	GAS
	GF	GARAGE FLOOR
	GFA	GROSS FLOOR AREA
	Gr.	GRADE
	GR	GUARD RAIL
H	HC	HANDICAPPED PARKING SPACE
	HGL	HYDRAULIC GRADE LINE
	HP	HIGH POINT
	HR	HAND RAIL
	HT	HEIGHT
I	I	RAINFALL INTENSITY
	ID	INSIDE DIAMETER
	IN	INCH
	INV	INVERT
	IP	IRON PIPE
	IPF	IRON PIPE FOUND
	IPS	IRON PIPE SET
J	JB	JUNCTION BOX
K	K	SIGHT DISTANCE COEFFICIENT
L	L	LENGTH
	LAT	LATERAL
	LL	LOWER LEVEL
	LP	LOW POINT
	LS	LOADING SPACE
	LCG	LIMITS OF CLEARING & GRADING
M	M	MONUMENT FOUND
	MECH	MECHANICAL
	MH	MANHOLE
	MI	MILE
	MS	MEDIAN STRIP
	MSL	MEAN SEA LEVEL
	MIN	MINIMUM
	MAX	MAXIMUM
N	N/F	NOW OR FORMERLY
	NFA	NET FLOOR AREA
	NO., #	NUMBER
	NBL	NORTH BOUND LANE
O	OC	ON CENTER
	OD	OUTSIDE DIAMETER
	OH	OVERHEAD
P	P	PERIMETER
	PC	POINT OF CURVATURE
	PCC	POINT OF COMPOUND CURVES
	PCEP	POINT OF CURVE EDGE OF PAVEMENT
	PCTC	POINT OF CURVATURE TOP OF CURB
	PFM	PUBLIC FACILITIES MANUAL
	PG	PAGE
	PGL	POINT OF GRADE LINE
	PI	POINT OF INTERSECTION
	PL	PROPERTY LINE
	PMP	OLD PUMP
	PRC	POINT OF REVERSE CURVES
	PRELIM	PRELIMINARY
	PROP, PR	PROPOSED
	PT	POINT OF TANGENCY
	PVMT	PAVEMENT
	PVT	POINT OF VERTICAL TANGENT
	P&P	PLAN AND PROFILE
	PSI	POUNDS PER SQUARE INCH
Q	Q	AMOUNT OF RUNOFF
R	R	RADIUS
	RCP	REINFORCED CONCRETE PIPE
	RD	ROAD
	RESTR.	RESTRAINED (VALVE)
	RET	RETAINING
	REV	REVISION
	RR	RAILROAD
	RTE, RT	ROUTE
	R/W	RIGHT OF WAY
	RGP	ROUGH GRADING PLAN
	ROM	REMOTE OUTSIDE MONITOR
S	SAN	SANITARY
	SD	SIGHT DISTANCE
	SECT	SECTION
	SEW	SEWER
	SHT	SHEET
	SF	SQUARE FEET
	SP	SITE PLAN
	SPEC	SPECIFICATION
	ST	STREET
	STA	STATION
	STD	STANDARD
	STM	STORM
	SVC	SERVICE
	S/W	SIDE WALK
	Sx	CROSS SLOPE
T	T	TANGENT
	TB	TEST BORE
	TBR	TO BE REMOVED
	TC	TOP OF CURB
	TCAN	TRASH CAN
	TEL	TELEPHONE
	TP	TEST PIT
	TB	TOP OF BANK
	TW	TOP OF WALL
U	UD	UNDER DRAIN
	UG	UNDERGROUND
	UL	UPPER LEVEL
	UP	UTILITY POLE
V	V	VELOCITY
	VA	VAN ACCESSIBLE
	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
	VF	VERTICAL FOOT
W	W\M	WATER MAIN
	W\L	WATER LINE
	WBL	WEST BOUND LANE
	WSEL	WATER SURFACE ELEVATION
X		
Y	YI	YARD INLET
	YR	YEAR
Z	Z	SIDE SLOPES

LEGEND

ADDITIONAL LEGEND INFORMATION PROVIDED ON APPLICABLE SHEETS

- PROPOSED IMPROVEMENTS BY OTHERS
- EXISTING INTERMEDIATE CONTOUR — 86
- EXISTING CONTOUR INDEX — 200
- PROPOSED CONTOUR — 86
- EXISTING EDGE OF PAVEMENT — EX. E.P.
- PROPOSED EDGE OF PAVEMENT — PROP. E.P.
- PROPOSED HEADER CURB
- EXISTING CURB
- PROPOSED CURB & GUTTER
- PROPOSED CG-6 — CG-6
- TRANSITION FROM CG-6 TO CG-6R — CG-6 / CG-6R
- EXISTING WATERLINE W/TEE — W
- PROPOSED WATERLINE W/TEE — W
- EXISTING TELEPHONE LINE — T
- PROPOSED TELEPHONE LINE — T
- EXISTING STORM SEWER — EX. 15" RCP — SD
- PROPOSED STORM SEWER — 23 — 15" RCP — 24
- EXISTING SANITARY SEWER — SS — SS
- PROPOSED SANITARY SEWER — SS — A — SS
- EXISTING ELECTRIC SERVICE — E — E
- PROPOSED ELECTRIC SERVICE — E
- EXISTING GAS LINE — G — G
- PROPOSED GAS LINE — G
- PROPERTY LINE
- EASEMENT LINE
- CENTER LINE — 10+00 — 11+00
- LIMITS OF CLEARING & GRADING
- EXISTING SPOT ELEVATIONS — ×12.0
- PROPOSED SPOT ELEVATION — +12.0
- EXISTING TREE LINE
- EXISTING TREE W/TRUNK DIAMETER — 12"DIM.
- EXISTING TREE W/DRIPLINE
- PROPOSED TREE
- FLOW LINE OF SWALE
- FENCE LINE
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER VALVE — W
- PROPOSED WATER VALVE — W
- WATER METER (SINGLE & DOUBLE)
- STREET SIGN (SEE SIGNAGE PLAN)
- PARKING INDICATOR INDICATES THE NUMBER OF PARKING SPACES — 9
- TEST PIT
- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT
- PROPOSED TRAFFIC SIGNAL (APPROX. LOCATIONS)

GENERAL NOTES

ADDITIONAL DESIGN AND CONSTRUCTION NOTES ARE PROVIDED IN APPLICABLE SECTIONS.

1. ALL CONSTRUCTION SHALL CONFORM TO TOWN OF VIENNA AND VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
2. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE MOST CURRENT APPLICABLE FEDERAL, STATE , AND LOCAL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED TO, ENVIRONMENTAL PROTECTION AGENCY (EPA), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), VIRGINIA OCCUPATIONAL AND SAFETY HEALTH COMPLIANCE PROGRAM (VOSH ENFORCEMENT), VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS), AND NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH).
3. WHEN DURING THE COURSE OF CONSTRUCTION, ANY OBJECT OF AN UNUSUAL NATURE IS ENCOUNTERED, THE CONTRACTOR SHALL CEASE WORK IN THAT AREA AND IMMEDIATELY NOTIFY THE PROPER AUTHORITY, TOWN OF VIENNA AND/OR THE ARCHITECT/ENGINEER.
4. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN IN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
5. ALL UTILITIES WHICH WILL BE PLACED UNDER EXISTING PUBLIC STREETS SHALL BE BORED OR JACKED, UNLESS PERMISSION TO OPEN CUT IS OBTAINED FROM VDOT.
6. CONTROLLED FILLS MUST BE COMPACTED TO 95% AS DETERMINED PER STANDARD PROCTOR AASHTO T-99 OR ASTM D 698. DENSITY MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER AND THE RESULTS SUBMITTED TO TOWN OF VIENNA PRIOR TO FOOTING CONSTRUCTION.
7. ALL FILL SOILS UNDER EXPANDED PAVED AREAS SHALL BE COMPACTED TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM SPECIFICATION D-698 STANDARD PROCTOR METHOD, WITHIN + OR - 2% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED RIGHT-OF-WAY AND ALL PARKING LOTS; PRIVATE STREETS; PARKING BAYS; CURB AND GUTTER; AND SIDEWALKS ADJACENT TO STREETS AND PARKING LOTS (NOT INTENDED TO INCLUDE LEADWALKS), WITH UPPER 1.0 FT. COMPACTED TO 100% OF THE MAXIMUM DRY DENSITY PER ASTM D-698.
8. ALL STREET CUT AND PATCH WORK IN PUBLIC RIGHT-OF-WAY REQUIRED FOR UTILITIES INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH TOWN OF VIENNA AND VDOT STANDARDS AND SPECIFICATIONS.
9. A SMOOTH GRADE SHALL BE MAINTAINED FROM EDGE OF PAVEMENT OF EXISTING ROAD TO PROPOSED CURB AND GUTTER AND/OR PROPOSED PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER ON THE ROADWAY. REMOVE AND RECONSTRUCT EXISTING PAVEMENT AND/OR CURB AS DICTATED BY FIELD CONDITIONS TO PROVIDE POSITIVE DRAINAGE AT TIE-IN-POINTS.
10. PROPOSED SIDEWALKS MUST BE CONSTRUCTED WITH UD3 UNDERDRAINS WHEN LONGITUDINAL GRADES ARE 3% OR GREATER UNLESS SOIL TEST CONFIRM THAT THEY ARE NOT NEEDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION (APPLIES TO SIDEWALK IN RIGHT-OF-WAY ONLY).
11. THE DEVELOPER WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STREET AND UTILITIES WHICH OCCURS AS A RESULT OF HIS CONSTRUCTION PROJECT WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.
12. COMPACTION OF BACKFILL IN UTILITY TRENCHES SHALL BE IN ACCORDANCE WITH TOWN OF VIENNA & V.D.O.T. STANDARDS & SPECIFICATIONS.
13. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO GRAVE SITES OR BURIAL PLOTS ON THIS PROPERTY.
14. THERE ARE NO DOWNSTREAM IMPOUNDMENTS IN THE INFLUENCE AREA OF THE PROPOSED DEVELOPMENT.
15. THIS PLAN COMPLIES FULLY WITH THE AMENDED CHESAPEAKE BAY PRESERVATION ORDINANCE PER THE JULY 7, 2003 BOARD POLICY FOR THE TREATMENT OF APPROVED AND PENDING PLANS OF DEVELOPMENT, WITH AN EFFECTIVE DATE OF NOVEMBER 18, 2003 AND WITH REVISIONS ADOPTED BY THE BOARD WITH AN EFFECTIVE DATE OF JULY 12, 2005.
16. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING AND/OR SIGNALIZATION PLAN TO THE VDOT LAND DEVELOPMENT SECTION A MINIMUM OF 30 DAYS PRIOR TO PERMIT APPLICATION. THE DEVELOPER SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.
17. ALL RETAINING WALLS 3' AND GREATER IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT.
18. ALL ROOF DRAINS AND NON-STANDARD PIPE WILL BE CONSTRUCTED UNDER A SEPARATE PLUMBING PERMIT PER IBC INTERNATIONAL PLUMBING CODE.
19. LIGHTING FOR THIS PROJECT SHALL BE IN COMPLIANCE WITH TOWN OF VIENNA CODE OF ORDINANCE, CHAPTER 18, ARTICLE 5A, DIVISION 4 LIGHTING. ALL EXTERIOR LIGHTING FIXTURES PROPOSED WITH THIS PLAN SHALL BE FULL CUT-OFF OR DIRECTIONALLY SHIELDED TYPES. △2
20. ALL ADA ACCESSIBILITY IMPROVEMENTS PROPOSED/SHOWN ON THIS PLAN, INCLUDING BUT NOT LIMITED TO PARKING SPACES, AISLES, ROUTES, AND SLOPES, COMPLY WITH THE 2010 ASA STANDARDS FOR ACCESSIBLE DESIGN AND THE 2012 USBC.

TOWN OF VIENNA GENERAL NOTES

1. A PRE-CONSTRUCTION MEETING MUST BE HELD PRIOR TO THE START OF CONSTRUCTION. CALL 703-255-6384 TO SCHEDULE THE PRE-CONSTRUCTION MEETING.
2. ALL CONSTRUCTION GENERATED DEBRIS MUST BE HAULED AWAY BY THE CONTRACTOR OR OWNER.
3. PRIOR TO THE REMOVAL OF ANY TOWN TREES (TREES WITHIN THE RIGHT OF WAY), THE APPLICANT OR THEIR REPRESENTATIVE SHALL CONTACT THE TOWN OF VIENNA ARBORIST AT 703-255-6360 TO COORDINATE HAVING THE TOWN ARBORIST ONSITE DURING ALL TOWN TREE REMOVAL.
4. TREE PROTECTION FOR ANY TOWN TREE, AS SHOWN ON PLAN, MUST BE INSTALLED PRIOR TO ANY SITE WORK.
5. IT IS UNLAWFUL TO PERFORM ANY CONSTRUCTION ABOVE FOUNDATION CORNERS PRIOR TO APPROVAL OF SETBACKS. WORK COMPLETED IN VIOLATION OF THIS REQUIREMENT IS SUBJECT TO DEMOLITION.
6. ALL DUMPSTERS/PODS ARE TO BE PLACED ON PRIVATE PROPERTY.
7. FRONT ELEVATION CHECKS ARE REQUIRED.
8. WALL CHECK SURVEYS ARE REQUIRED AND MUST BE SUBMITTED PRIOR TO CONSTRUCTION ABOVE FOUNDATION CORNERS.
9. A CERTIFICATE OF OCCUPANCY IS REQUIRED PRIOR TO OCCUPANCY. ALL REQUIRED DOCUMENTATION AND INSPECTIONS MUST BE SUBMITTED/COMPLETED BEFORE THE TOWN OF VIENNA WILL ISSUE A CERTIFICATE OF OCCUPANCY.
10. EXISTING SANITARY SEWER LATERALS ARE TYPICALLY CAPPED AT OR NEAR THE PROPERTY LINE. THE REUSE OF THE PORTION OF THE EXISTING SANITARY SEWER LATERAL BETWEEN THE TOWN OWNED SEWER MAIN AND THE CAPPED END MAY BE ALLOWED PROVIDING THAT A LICENSED PLUMBER CERTIFIES THAT THE EXISTING PIECE OF PIPE IS GRADED PROPERLY AND IN LIKE NEW CONDITION. THE REUSE OF A PORTION OF THE EXISTING LATERAL DOES NOT IMPLY THAT THE TOWN IS WARRANTING THE CONDITION IN ANY WAY.

SURVEY NOTES

1. THE SITE SHOWN HERON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 AS COMPUTED FROM FIELD RUN BOUNDARY AND HORIZONTAL AND VERTICAL CONTROL SURVEY .
2. THE SITE SHOWN HERON IS REFERENCED TO THE NATIONAL VERTICAL DATUM 1929
3. THE BOUNDARY INFORMATION SHOWN HEREON, FROM EXISTING RECORDS, WAS COMPILED BY DEWBERRY ENGINEERS INC.
4. EXISTING TOPOGRAPHIC AND PLANIMETRIC INFORMATION WAS COMPILED FROM FIELD RUN SURVEY BY DEWBERRY ENGINEERS INC DATED 9-18-2024.
4. EXISTING STORM AND SANITARY UTILITY INFORMATION WAS COMPILED FROM FIELD SURVEY BY DEWBERRY ENGINEERS INC DATED 9-18-2024.

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COMMONWEALTH OF VIRGINIA
TIMOTHY CHARLES CULLETON
Lic. No. 20112
6/6/2025
PROFESSIONAL ENGINEER

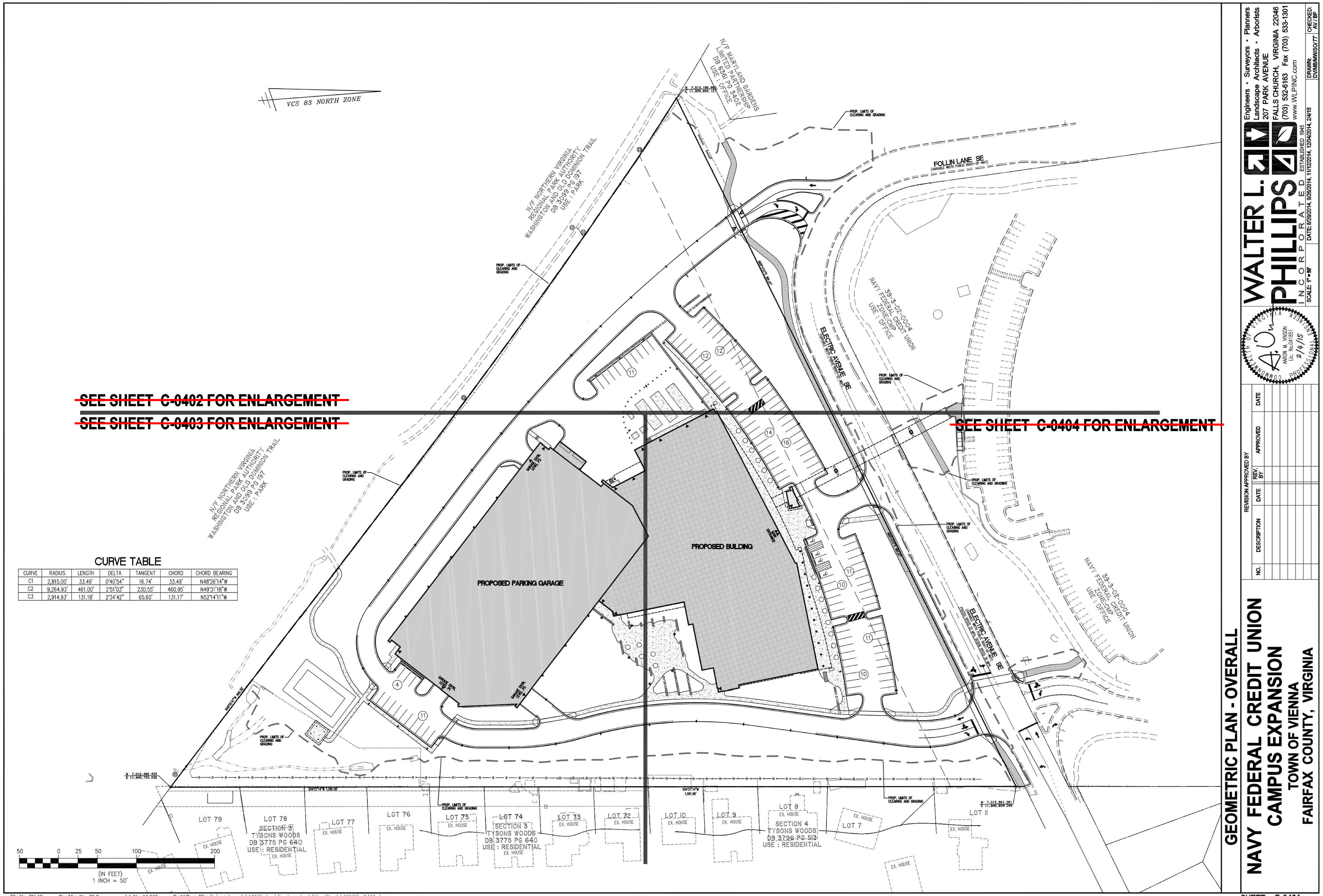
NO.	DATE:	REMARKS:
2	6/6/2025	SITE PLAN REVIEW
1	TBD	ASI 01
0	1/24/2025	ISSUED FOR PERMIT AND PRICING

REVISIONS:

DRAWING TITLE:
ABBREVIATIONS NOTES AND LEGEND

PROJECT NO:	ISSUE DATE:
50184423	25.06.06
DRAWN BY:	CHECKED BY:

SHEET NUMBER:
C-002



CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	TANGENT	CHORD	CHORD BEARING
C1	2,815.00'	33.49'	0°40'54"	16.74'	33.49'	N48°26'14"W
C2	9,264.93'	461.00'	2°51'03"	230.55'	460.95'	N49°31'18"W
C3	2,914.93'	131.18'	2°34'42"	65.60'	131.17'	N52°14'11"W

File No. FK-19 Tax Map No. 39-3 Job No. 14-012 Cadd Dwg. File: Q:\sdskproj\14012\dwg\Engineering\Site Plan\14012C-0401.dwg

NOTE:
1. FOR INFORMATION ONLY
2. DRAWING TAKEN FROM APPROVED SITE PLAN FOR NAVY FEDERAL CREDIT UNION CAMPUS EXPANSION DATED 2-4-2015

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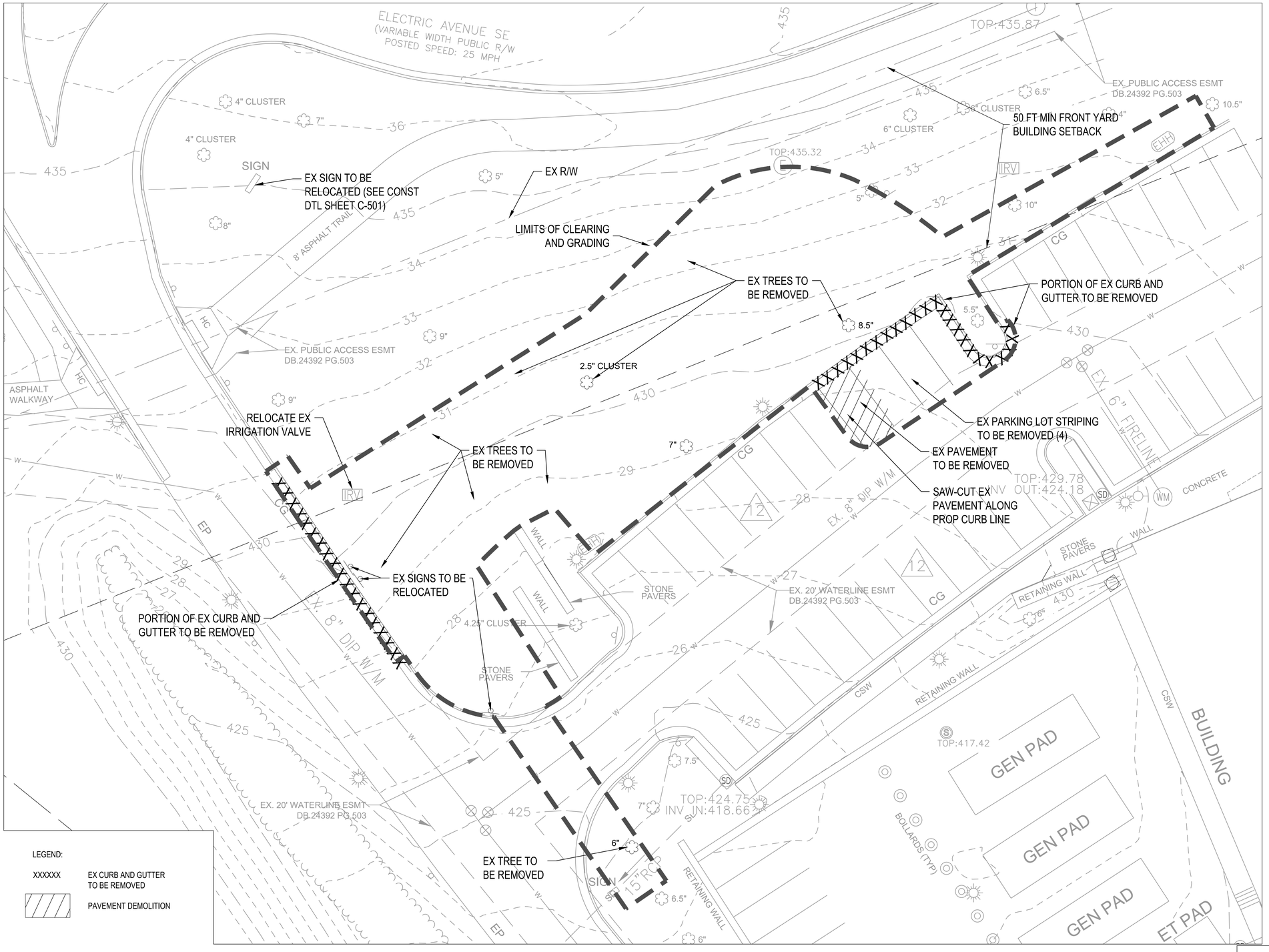
REVISIONS:

DRAWING TITLE:
PROPERTY MAP

PROJECT NO.: 50184423
ISSUE DATE: 25.06.06
DRAWN BY:
CHECKED BY:
SHEET NUMBER:
C-100



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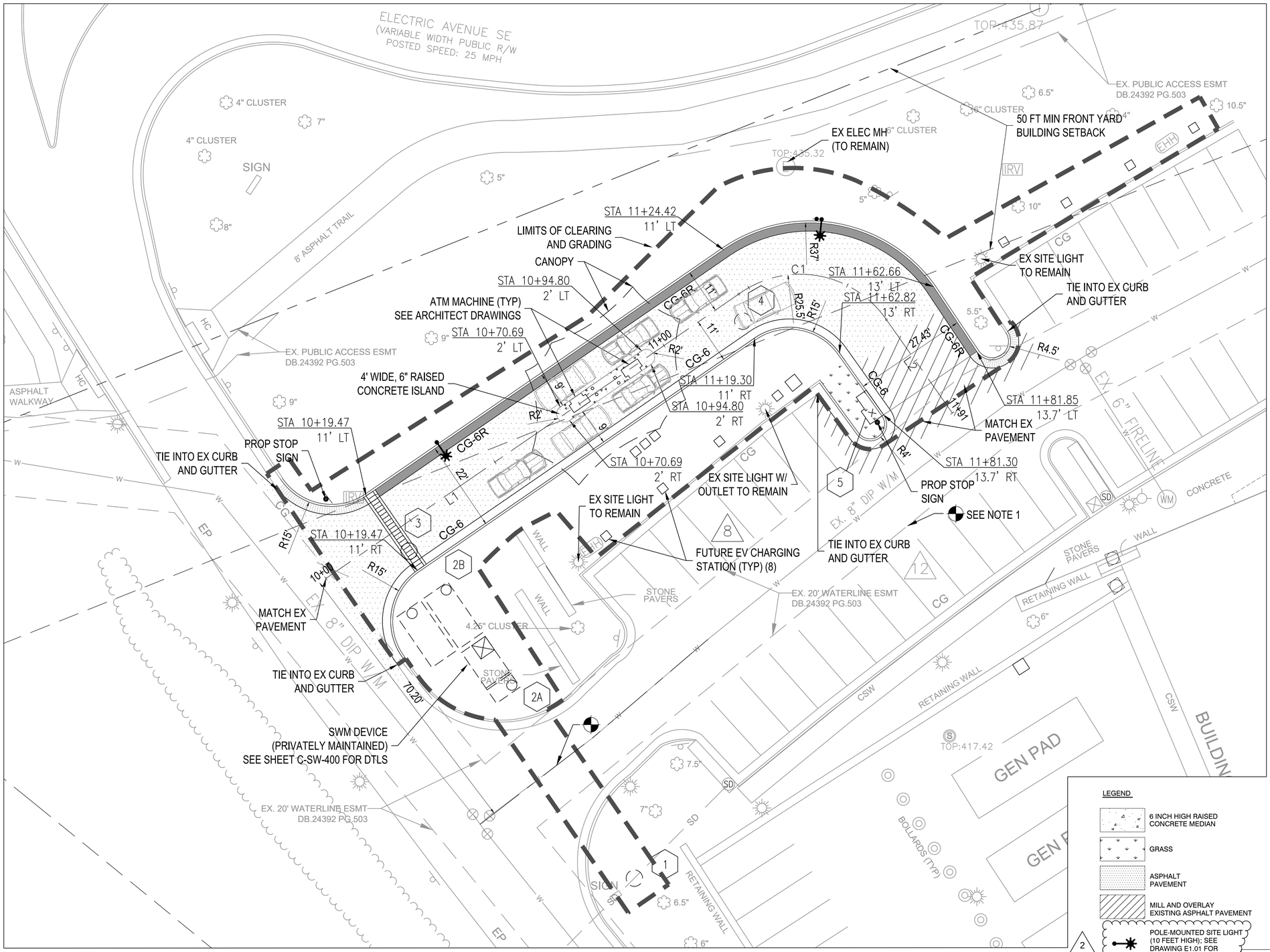
REVISIONS:

DRAWING TITLE:
EXISTING CONDITIONS AND DEMO PLAN

PROJECT NO.:	ISSUE DATE:
50184423	25.06.06
DRAWN BY:	CHECKED BY:

SHEET NUMBER:
C-101



NOTE:

1. CONTRACTOR SHALL TEST PIT EXISTING 8-INCH DIP WATERMAIN PRIOR TO INSTALLATION OF ELECTRICAL CONDUIT BY DIRECTIONAL BORE. TARGET FOR DIRECTIONAL BORE 4.5 FEET ABOVE SERVICE YARD SLAB.

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SITE PLAN

PROJECT NO.:	ISSUE DATE:
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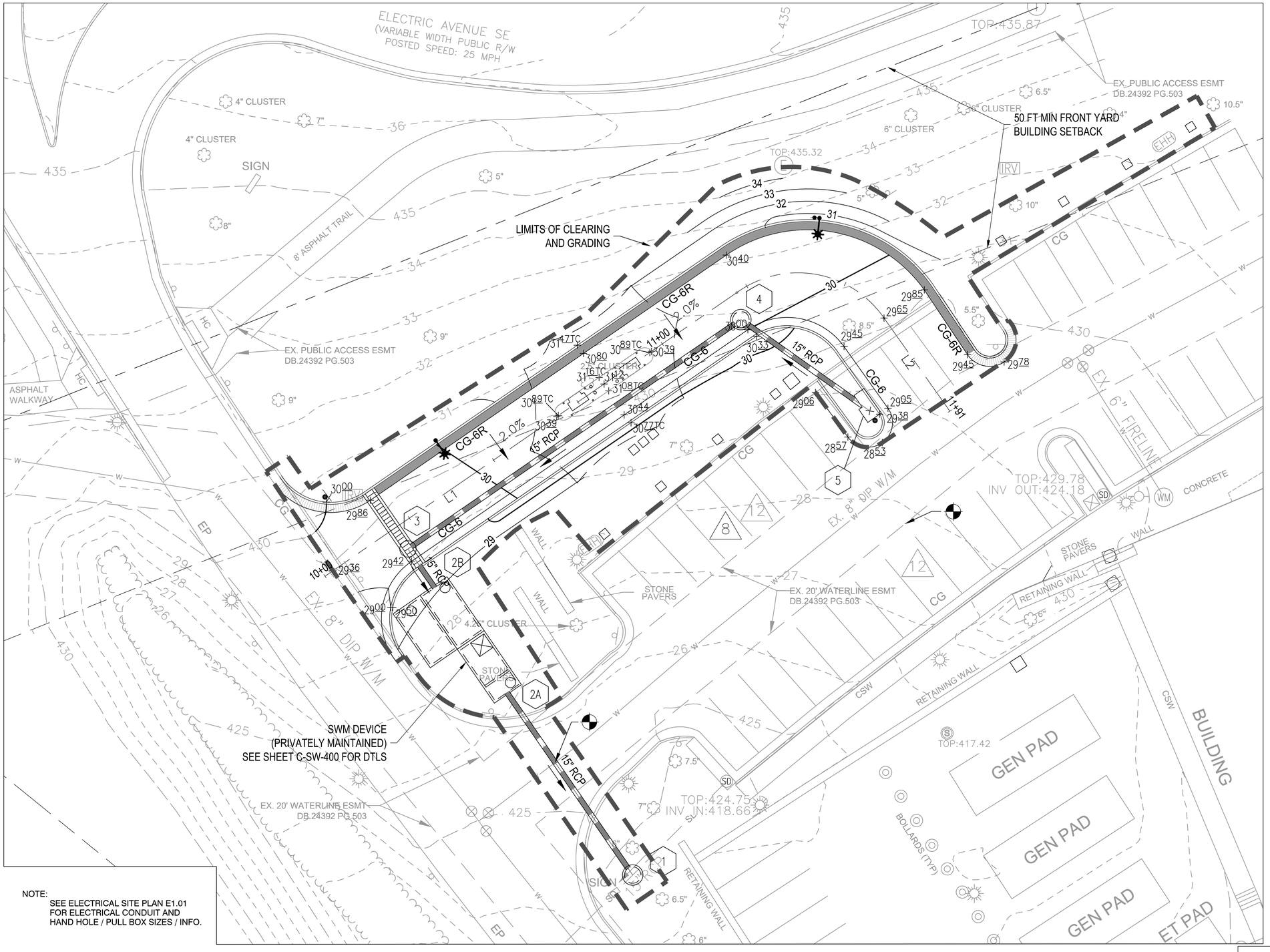
DRAWN BY:	CHECKED BY:

SHEET NUMBER:
C-102



NOTE:
SEE ELECTRICAL SITE PLAN E1.01
FOR ELECTRICAL CONDUIT AND
HAND HOLE / PULL BOX SIZES / INFO.

VCS-83

10 0 10
SCALE IN FEET

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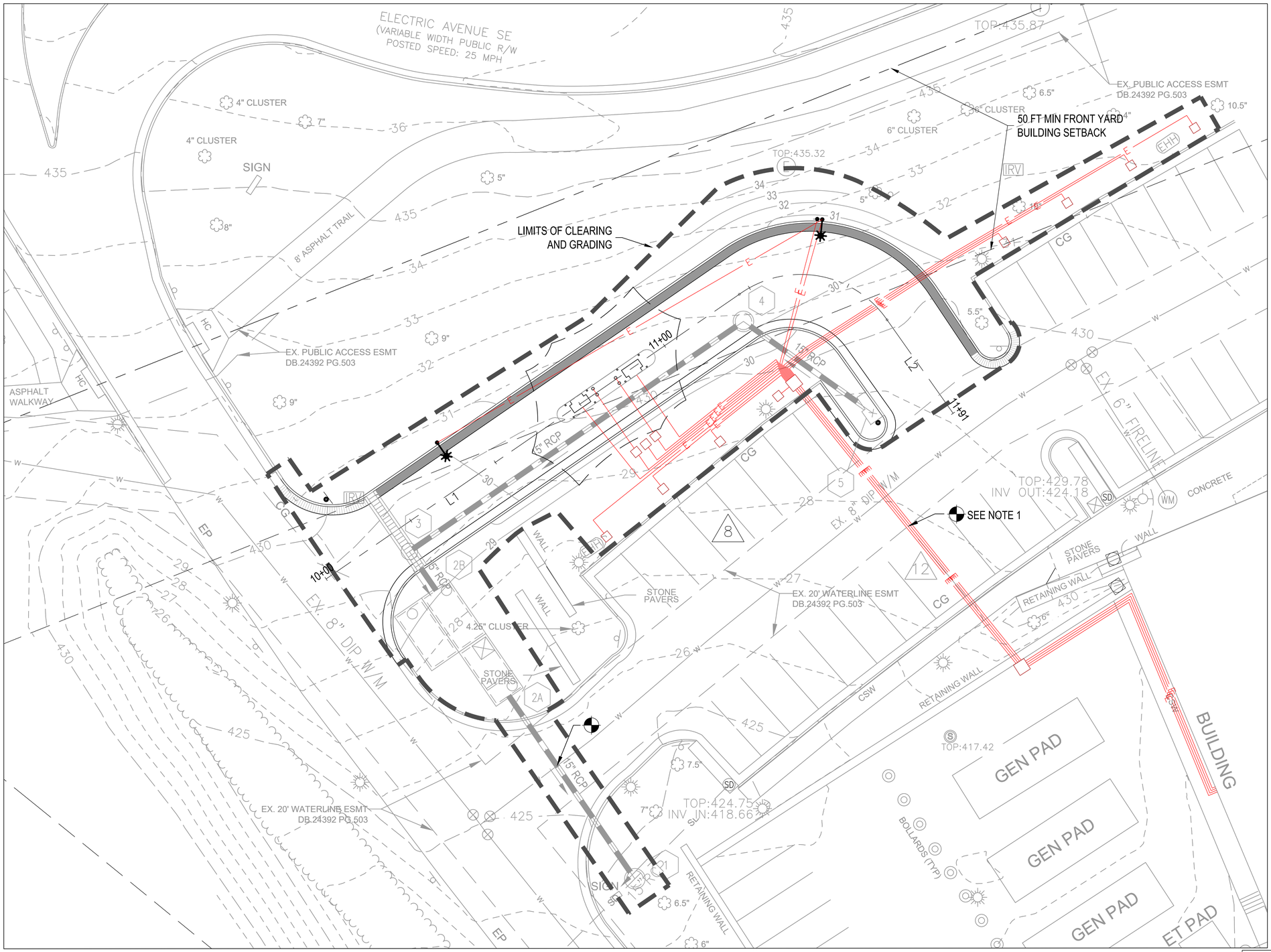
NO:	DATE:	REMARKS:
2	6/6/2025	SITE PLAN REVIEW
1	TBD	ASI 01
0	1/24/2025	ISSUED FOR PERMIT AND PRICING

REVISIONS:

DRAWING TITLE:
GRADING AND DRAINAGE PLAN

PROJECT NO.:	ISSUE DATE:
50184423	25.06.06
DRAWN BY:	CHECKED BY:

SHEET NUMBER:
C-103



NOTE:

1. CONTRACTOR SHALL TEST PIT EXISTING 8-INCH DIP WATERMAIN PRIOR TO INSTALLATION OF ELECTRICAL CONDUIT BY DIRECTIONAL BORE. TARGET FOR DIRECTIONAL BORE 4.5 FEET ABOVE SERVICE YARD SLAB.

2. REFER TO DRAWING E1.01 FOR ELECTRICAL DETAILS

LEGEND

- E — PROP UNDERGROUND ELECTRIC LINE
- W — EX UNDERGROUND WATERMAIN
- PROP ELECTRIC HANDHOLE

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NAVY FEDERAL CREDIT UNION HQ2 ATM ADDITION

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Dewberry

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8401 Arlington Boulevard
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703 698 9440 Phone
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COMMONWEALTH OF VIRGINIA
TIMOTHY CHARLES CULLESTON
Lic. No. 20112
6/6/2025
PROFESSIONAL ENGINEER

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UTILITY PLAN

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SHEET NUMBER:
C-104

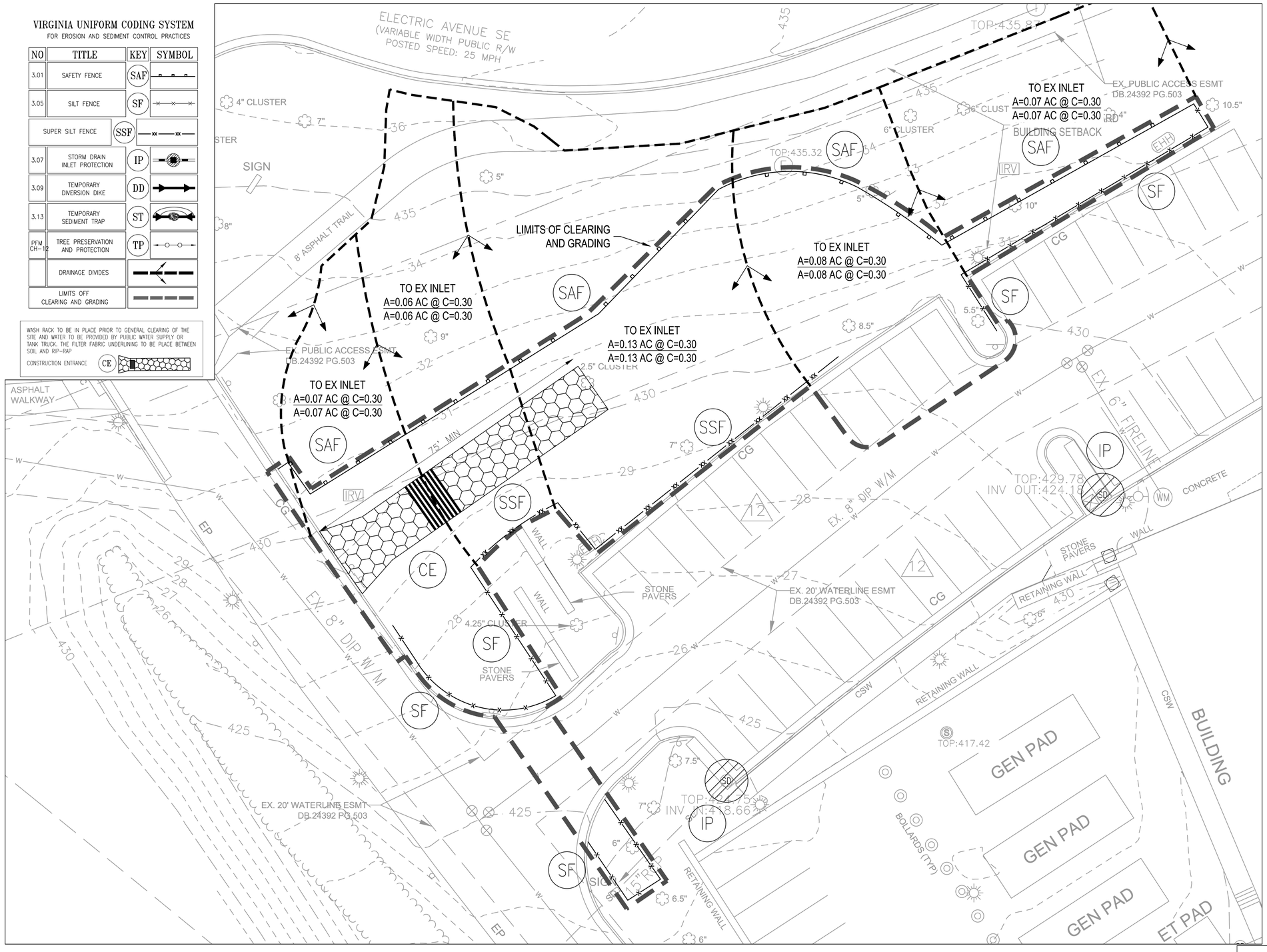
VIRGINIA UNIFORM CODING SYSTEM

FOR EROSION AND SEDIMENT CONTROL PRACTICES

NO	TITLE	KEY	SYMBOL
3.01	SAFETY FENCE	SAF	
3.05	SILT FENCE	SF	
	SUPER SILT FENCE	SSF	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.09	TEMPORARY DIVERSION DIKE	DD	
3.13	TEMPORARY SEDIMENT TRAP	ST	
PFM CH-12	TREE PRESERVATION AND PROTECTION	TP	
	DRAINAGE DIVIDES		
	LIMITS OFF CLEARING AND GRADING		

WASH RACK TO BE IN PLACE PRIOR TO GENERAL CLEARING OF THE SITE AND WATER TO BE PROVIDED BY PUBLIC WATER SUPPLY OR TANK TRUCK. THE FILTER FABRIC UNDERLINING TO BE PLACE BETWEEN SOIL AND RIP-RAP

CONSTRUCTION ENTRANCE CE



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REVISIONS:

DRAWING TITLE:
EROSION & SEDIMENT CONTROL PHASE I

PROJECT NO.:	ISSUE DATE:
50184423	25.06.06
DRAWN BY:	CHECKED BY:

SHEET NUMBER:
C-201

VIRGINIA UNIFORM CODING SYSTEM

FOR EROSION AND SEDIMENT CONTROL PRACTICES

NO	TITLE	KEY	SYMBOL
3.01	SAFETY FENCE	SAF	
3.05	SILT FENCE	SF	
	SUPER SILT FENCE	SSF	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.09	TEMPORARY DIVERSION DIKE	DD	
3.13	TEMPORARY SEDIMENT TRAP	ST	
PFM CH-12	TREE PRESERVATION AND PROTECTION	TP	
	DRAINAGE DIVIDES		
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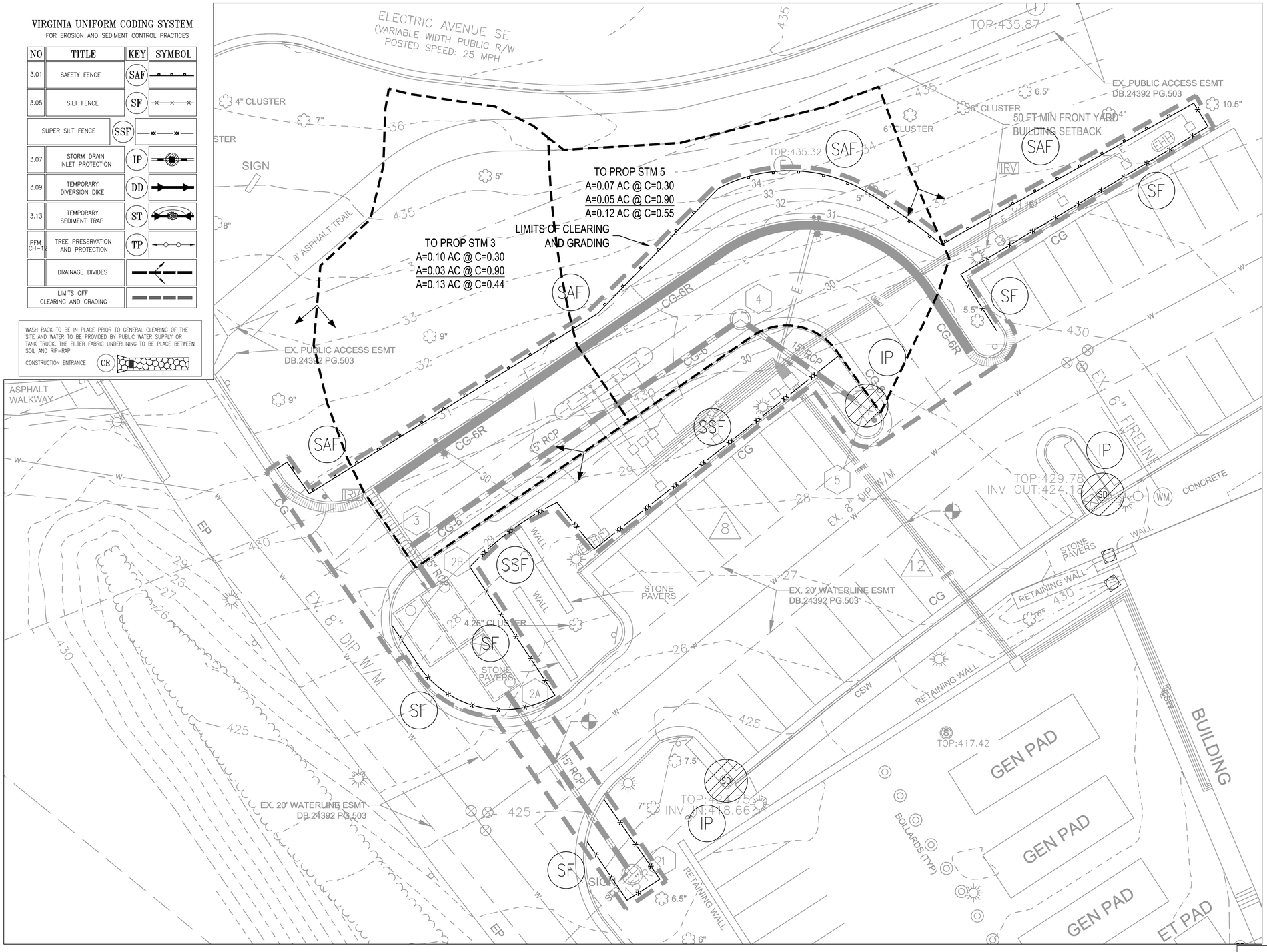
CONSTRUCTION ENTRANCE CE



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DRAWING TITLE:
EROSION & SEDIMENT CONTROL PHASE II

PROJECT NO.:	ISSUE DATE:
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SHEET NUMBER:
C-202

MINIMUM STANDARDS

MS-1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN 7 DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. (SEE TEMPORARY AND PERMANENT SEEDING TABLES ON SHEET C-204)

MS-2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

MS-3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE, AND WILL INHIBIT EROSION.

MS-4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

MS-5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS-6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA, AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.

B. SURFACE RUNOFF FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY SEDIMENT BASINS. THE MINIMUM STORAGE CAPACITY FOR A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL APPLY TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

MS-7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

MS-8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, OR SLOPE DRAIN STRUCTURE.

MS-9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS-10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

MS-11. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

MS-12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT, AND STABILIZE THE WORK AREA TO THE GREATEST POSSIBLE EXTENT DURING CONSTRUCTION. NON-ERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON-ERODIBLE COVER MATERIALS.

MS-13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NON-ERODIBLE MATERIAL SHALL BE PROVIDED.

MS-14. ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS-15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

MS-16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION. (GENERAL LAND CONSERVATION NOTE #4)
E. RE-STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

MS-17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

MS-18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM. TRAPPED SEDIMENT AND DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

MS-19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION, AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY, AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:

A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE, OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
I. THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
II. (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS; AND
(B) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
(C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.

C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
I. IMPROVE THE CHANNEL TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR
II. IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES; OR
III. DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL, OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR
IV. PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION, OR OTHER MEASURES TO PREVENT DOWNSTREAM EROSION SATISFACTORY TO THE PLAN-APPROVING AUTHORITY.
D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT OF THE SUBJECT PROJECT.
F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH MAINTENANCE REQUIREMENTS OF THE FACILITY AND DESIGNATE THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATERS PLACED AT THE OUTFALL OF THE DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABLE TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
I. INCREASED VOLUMES OF SHEET FLOWS CAUSING EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
J. IN APPLYING THESE STORMWATER RUNOFF CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL, OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT AS A WHOLE SHALL BE TREATED AS A SINGLE PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT STATE SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EXECUTED IN A MANNER THAT MINIMIZES THE IMPACT ON THE PHYSICAL, CHEMICAL, AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS, AND OTHER STATE WATERS.

GENERAL LAND CONSERVATION NOTES

11-0406.1 (38-93-PFM) NO DISTURBED AREA WHICH IS NOT ACTIVELY BEING WORKED SHALL REMAIN DENUDED FOR MORE THAN 14 CALENDAR DAYS UNLESS OTHERWISE AUTHOR-IZED BY THE DIRECTOR.

11-0406.2 ALL E&S CONTROL MEASURES APPROVED WITH THE PHASE I E&S CONTROL PLAN SHALL BE PLACED AS THE FIRST STEP IN GRADING.

11-0406.3 (38-93-PFM) ALL STORM AND SANITARY SEWER LINES NOT IN STREETS SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS AFTER BACKFILL. NO MORE THAN 500' (150 M) SHALL BE OPEN AT ANY ONE TIME.

11-0406.4 (38-93-PFM) ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES SHALL BE COMPACTED, SEEDED AND MULCHED WITHIN 14 DAYS AFTER BACKFILL.

11-0406.5 (38-93-PFM) ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS SHALL BE SEEDED AND MULCHED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY (AS SOON AS POSSIBLE BUT NO LATER THAN 48 HR) AFTER COMPLETION OF GRADING. STRAW OR HAY MULCH IS REQUIRED. ALL SOIL STOCKPILES SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS AFTER GRADING.

11-0406.6 DURING CONSTRUCTION, ALL STORM SEWER INLETS SHALL BE PROTECTED BY SEDIMENT TRAPS, MAIN-TAINED AND MODIFIED DURING CONSTRUCTION PROGRESS AS REQUIRED.

11-0406.7 ANY DISTURBED AREA NOT COVERED BY § 11-0406.1 AND NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 1, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW MULCH AT THE RATE OF 2 TONS/ACRE (4483 KG/HA) AND OVER-SEEDED BY APRIL 15.

11-0406.8 AT THE COMPLETION OF ANY PROJECT CON-STRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PROJECT PROPOSES THE CONSTRUCTION OF TWO (2) ATM MACHINES BELOW AN OVERHEAD CANOPY WITH A TWO-LANE ROADWAY THAT ACCOMMODATES VEHICULAR ACCESS TO THE ATM'S. FOUR (4) EXISTING PARKING SPACES WILL BE IMPACTED WITH THE NEW ROADWAY CONSTRUCTION.

EXISTING SITE CONDITIONS

THE ATM'S AND ACCESS ROADWAY WILL BE LOCATED ON AN EXISTING GRASS-COVERED/LANDSCAPED OPEN SPACE LOCATED BETWEEN THE SURFACE PARKING SERVING THE EXISTING OFFICE BUILDING AND ELECTRIC AVENUE, THE SITE FRONTAGE ROAD.

ADJACENT AREAS

THE PROJECT SITE IS BORDERED BY AN EXISTING SURFACE PARKING LOT TO THE SOUTH, THE PARCEL ACCESS DRIVE TO THE WEST, AND AN 8-FOOT WIDE ASPHALT TRAIL THAT RUNS PARALLEL TO ELECTRIC AVENUE TO THE NORTH.

OFF-SITE AREAS

IMPACTS TO OFFSITE AREAS ARE NOT PROPOSED WITH THIS SITE PLAN.

SOILS

A SOILS MAP WITH SOIL TYPE DESCRIPTIONS AND DATA IS PROVIDED ON THE COVER SHEET, SHEET C-001.

CRITICAL AREAS

THERE ARE NO CRITICAL AREAS ASSOCIATED WITH THIS PLAN.

EROSION AND SEDIMENT CONTROL MEASURES

1. SILT FENCE BARRIER – 3.05
   SILT FENCE SEDIMENT BARRIERS WILL BE INSTALLED DOWNSLOPE OF AREAS WITH MINIMAL GRADES TO FILTER SEDIMENT-LADEN SHEET FLOW AS INDICATED ON THE PLANS.
2. TEMPORARY CONSTRUCTION ENTRANCE – 3.02
   A TEMPORARY CONSTRUCTION ENTRANCE WITH A WASH RACK SHALL BE INSTALLED AS SHOWN ON THE PLAN. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE ENTERING EXISTING ASPHALT PARKING LOTS AND TRAVELWAYS LOCATED ON THE PARCEL.
3. STORM DRAIN INLET PROTECTION – 3.07
   ALL STORM SEWER INLETS AND CULVERTS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS AND CULVERTS.
4. TREE PROTECTION – 3.38
   TREE PROTECTION SHALL BE PROVIDED AS SHOWN ON THE PLAN TO ENSURE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL. SEE DETAIL SHEET 14. THE INSTALLATION OF TREE PROTECTION FENCING, INCLUDING SUPER SILT FENCE IF IT IS TO BE USED AS TREE PROTECTION FENCING, SHALL BE INSTALLED UNDER THE SUPERVISION OF A CERTIFIED ARBORIST, AND ACCOMPLISHED IN A MANNER THAT DOES NOT HARM EXISTING VEGETATION THAT IS TO BE PRESERVED (SEE DETAIL ON SHEET –)

STORMWATER RUNOFF CONSIDERATIONS

STORMWATER RUNOFF WILL DRAIN THROUGH ITS NATURAL PATH THROUGH THE PROPOSED EROSION AND SEDIMENT CONTROLS.

MANAGEMENT STRATEGIES (PHASE I)

1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
2. CLEAR ONLY THE AREAS AS SHOWN ON EROSION AND SEDIMENT CONTROL PHASE I PLAN FOR THE INSTALLATION OF PERIMETER CONTROLS SUCH AS SILT FENCE, TREE PROTECTION, CONSTRUCTION ENTRANCE, ETC.

MANAGEMENT STRATEGIES (PHASE II)

1. PHASE II OF THE EROSION AND SEDIMENT CONTROL PROGRAM MAY BEGIN ONLY AFTER CONTRACTOR FIRST OBTAINS AN APPROPRIATE APPROVAL FROM THE SITE INSPECTOR.
2. GRADING OPERATIONS MAY COMMENCE ONCE PERIMETER CONTROLS, DIVERSIONS AND TRAPPING MEASURES ARE INSTALLED TO THE SATISFACTION OF THE SITE INSPECTOR.
3. STORM SEWER PIPE SYSTEM IS TO BE INSTALLED –.
4. AREAS THAT ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.
5. FOR VEGETATIVE STABILIZATION OF ALL DENUDED AREAS SEE EROSION AND SEDIMENT CONTROL MAINTENANCE PROGRAM.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
7. AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY EROSION & SILTATION CONTROLS WILL BE CLEANED UP AND REMOVED AT THE DIRECTION OF THE SITE INSPECTOR.

GENERAL EROSION & SEDIMENT CONTROL NOTES

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.
2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ON WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO , OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
9. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
10. THE INSTALLATION OF UTILITIES ON SLOPES 4:1 AND STEEPER SHALL BE PERFORMED IN ACCORDANCE WITH LINEAR PROJECT NOTES, THIS SHEET.
11. THERE ARE NO STOCKPILES PROPOSED WITH THIS PLAN.

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COMMONWEALTH OF VIRGINIA
TIMOTHY CHARLES CULLEITON
Lic. No. 20112
6/6/2025
PROFESSIONAL ENGINEER

NO:	DATE:	REMARKS:
2	6/6/2025	SITE PLAN REVIEW
1	TBD	ASI 01
0	1/24/2025	ISSUED FOR PERMIT AND PRICING

REVISIONS:

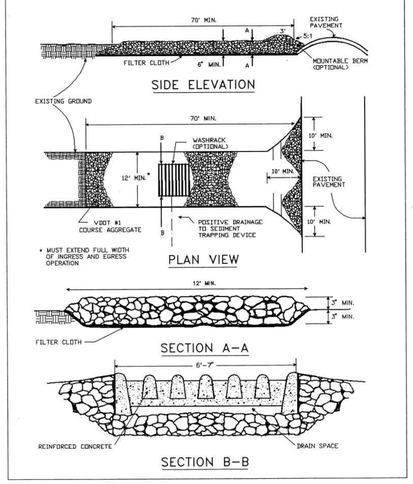
DRAWING TITLE:
EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT NO.:	ISSUE DATE:
50184423	25.06.06
DRAWN BY:	CHECKED BY:

SHEET NUMBER:
C-203

1992 3.02

STONE CONSTRUCTION ENTRANCE



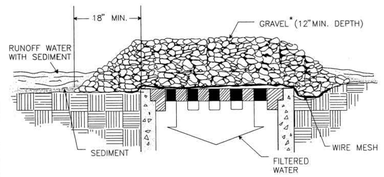
Source: Adapted from 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC

Plate 3.02-1

III - 9

1992 3.07

GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

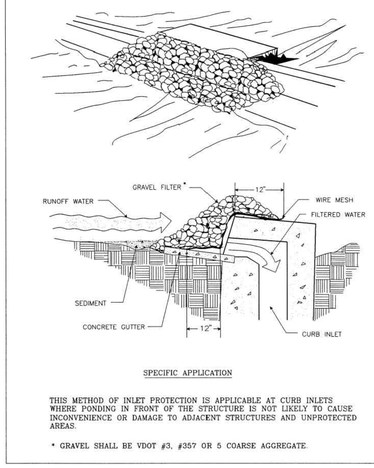
Source: Va. DSWC

Plate 3.07-2

III - 36

1992 3.07

GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.

Source: Va. DSWC

Plate 3.07-6

III - 41

NOTE:
THE EROSION AND SEDIMENT CONTROL DETAILS SHOWN WITHIN THIS PLAN SET ARE INTENDED TO PROVIDE A REFERENCE TO THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE GRAPHIC DETAILS PROVIDED HAVE BEEN EXTRACTED FROM THE VESCH. CONTRACTOR SHOULD VERIFY FAMILIARITY WITH THE VESCH AND THE TEXT ASSOCIATED WITH THE REFERENCED DETAILS.

REFER TO EROSION AND SEDIMENT CONTROL NARRATIVE FOR ADDITIONAL INFORMATION

1992 3.32

TABLE 3.32-D
SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA

	Total Lbs. Per Acre
Minimum Care Lawn	
- Commercial or Residential	175-200 lbs.
- REBEL TALL FESCUE	95-100%
- Improved Perennial Ryegrass	0-5%
- Kentucky Bluegrass	0-5%
High-Maintenance Lawn	200-250 lbs.
- REBEL TALL FESCUE	100%
General Slope (3:1 or less)	
- REBEL TALL FESCUE	128 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
	150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	
- REBEL TALL FESCUE	108 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
- White and/or Red Clover	20 lbs.
	150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below:
February 16th through April ..... Annual Rye
May 1st through August 15th ..... Foxtail Millet
August 16th through October ..... Annual Rye
November through February 15th ..... Winter Rye

III - 303

1992 3.31

Mulching

1. Seedings made in fall for winter cover and during hot and dry summer months shall be mulched according to MULCHING, Std. & Spec. 3.35, except that hydromulches (fiber mulch) will not be considered adequate. Straw mulch should be used during these periods.

2. Temporary seedings made under favorable soil and site conditions during optimum spring and fall seeding dates may not require mulch.

Re-seeding

Areas which fail to establish vegetative cover adequate to prevent rill erosion will be re-seeded as soon as such areas are identified.

TABLE 3.31-B

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS

"QUICK REFERENCE FOR ALL REGIONS"

Planting Dates	Species	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Lolium multi-florum) & Cereal (Winter) Rye (Secale cereale)	50 - 100
Feb. 16 - Apr. 30	Annual Ryegrass (Lolium multi-florum)	60 - 100
May 1 - Aug 31	German Millet (Setaria italica)	50

Source: Va. DSWC

III - 287

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EROSION AND SEDIMENT CONTROL DETAILS

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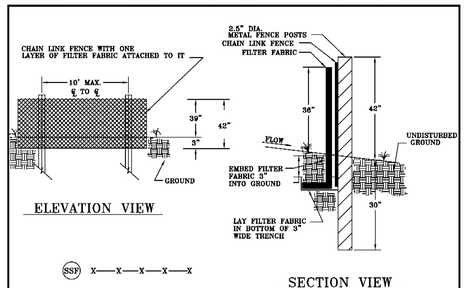
SHEET NUMBER:
C-204

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



ELEVATION VIEW

SECTION VIEW

SUPER SILT FENCE
NO SCALE

FENCING

Chain link fence must be 39" above grade with 3" embedded for a total fabric width of 42". The post must be 42" above grade with 30" placed below grade (without concrete) for a total length of 72".

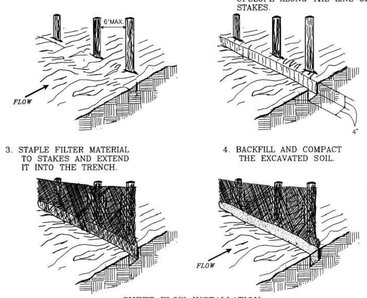
NOTES

1. Chain link fence must be fastened securely to fence posts with wire ties.
2. Filter fabric must be fastened securely to chain link fence with ties spaced horizontally 24" at the top and midsection.
3. Physical properties of the filter fabric must conform to the latest edition of THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK.
4. When two sections of filter fabric adjoin each other, they must be overlapped by 6".
5. Maintenance must be performed as needed and material must be removed when sediment build-up reaches 50% of the height of the super silt fence.

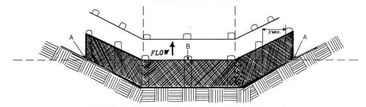
Ref. Sec. 11-0106.2, 11-0106.2A	SUPER SILT FENCE NO SCALE	PLATE NO.	STD. NO.
Rev. 1-00, 2011 Reprint, 2018 Reprint		5-11	

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)

1. SET THE STAKES.
2. EXCAVATE A 4"X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.
3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



SHEET FLOW INSTALLATION
(PERSPECTIVE VIEW)



POINTS A SHOULD BE HIGHER THAN POINT B.

DRAINAGEWAY INSTALLATION
(FRONT ELEVATION)

Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant

Plate 3.05-2

NOTE:
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REFER TO EROSION AND SEDIMENT CONTROL NARRATIVE FOR ADDITIONAL INFORMATION

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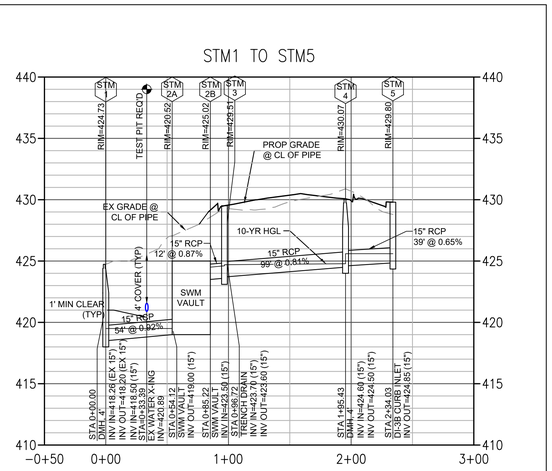
C-205



STORM SEWER DESIGN COMPUTATIONS

OUTLET FROM	OUTLET TO	INC. DRAINAGE AREA	ACCUM. DRAINAGE AREA (AC.)	"C" COEFFICIENT	INCREMENTAL CA	ACCUMULATED CA	TIME TO INLET (MIN)	"I" (IN/HR)	INCREMENTAL "Q" (CFS)	ACCUMULATED "Q" (CFS)	PIPE DIAMETER (IN.)	SLOPE (%)	"n"	MAXIMUM "Q" (CFS)	"V" VELOCITY (FPS)	LENGTH OF RUN (FT)	FLOW TIME (MIN)	UPPER INVERT	LOWER INVERT	FALL (FT)	REMARKS
5	4	0.12	0.12	0.55	0.07	0.07	5.0	6.78	0.45	**0.45**	15	0.65%	0.013	5.21	2.45	39.0	0.26523	424.85	424.60	0.25	
4	3	-	-	-	-	-	5.0	6.78	-	**0.45**	15	0.81%		5.81	2.73	99.0	0.60384	424.50	423.70	0.80	TRENCH DRAIN
3	2B	0.13	0.25	0.44	0.06	0.12	5.0	6.78	0.48	**0.93**	15	0.87%		6.03	3.52	12.0	0.05685	423.60	423.50	0.10	SWM VAULT IN
2A	1	-	-	-	-	-	5.0	6.78	-	**0.93**	15	0.92%		6.20	3.62	54.0	0.24878	419.00	418.50	0.50	SWM VAULT OUT

HYDRAULIC GRADE LINE COMPUTATIONS

INLET STATION	OUTLET WSE	D_O (in)	Q_O	L_o	S_f	H_f	JUNCTION LOSS												FINAL H	INLET WSE	RIM ELEV
							Vo	H_O	Q_i	V_i	Q_i*V_i	$V_i^2/2g$	H_i	ANGLE	H_Δ	H_t	1.3 H_t	0.5 H_t			
2A	419.50	15	0.93	54.0	0.0002	0.011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	420.52
3	424.50	15	0.93	12.0	0.0002	0.003	3.52	0.05	0.45	2.73	1.22	0.12	0.04	90	0.08	0.17	0.22	0.11	0.11	424.61	429.32
4	424.70	15	0.45	99.0	0.0000	0.005	2.73	0.03	0.45	2.45	1.10	0.09	0.03	70	0.06	0.12	0.15	0.08	0.08	424.78	430.24
5	425.60	15	0.45	39.0	0.0000	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	429.80

STORM WATER INLET COMPUTATIONS

NUMBER	TYPE	THROAT	STATION	SIDE OF STREET	DRAINAGE AREA	"C" COEFFICINT	INCREMENTAL CA	"I"	INCREMENTAL Q	Q CARRY OVER	Qt GUTTER FLOW	S_O GUTTER SLOPE	S_X CROSS SLOPE	T SPREAD	W	W/T	S_W	S_W/S_X	E_O	A	$S_W=a(12W)$	S_e(FT/FT)= $S_X+S_WE_O$	LT OR P EFFECTIVE LENGTH	L/LT D	E OR H	Q: INTERCEPTED D/H	QB CARRY OVER	T SPREAD @ SAG	REMARKS
				LT OR RT	AC			IN/HR	CFS	CFS	CFS	FT/FT	FT/FT	FT	FT		FT/FT						FT		FT	CFS	CFS	FT	
5	DI-3B	6	2+34.03	RT	0.12	0.55	0.07	6.78	0.45	-	0.45	0.015	0.02	**4.572**	2.0	0.44	0.353	17.67	0.99	2.0	0.083	0.10	6.46	0.93	0.99	0.44	0.00	-	

H: 1" = 50'
1 INCH

V: 1" = 5'
1 INCH

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STORM SEWER PROFILES

PROJECT NO.:	ISSUE DATE:
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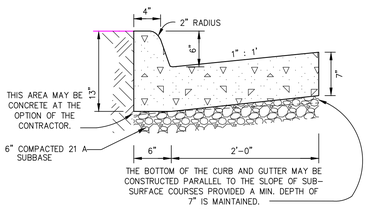
SHEET NUMBER:
C-301



NOTES :

THIS CURB IS TO BE USED WHEN DESIGN SPEED IS 40 MPH OR LESS ON RURAL HIGHWAYS AND 45 MPH OR LESS IN DEVELOPED URBAN & SUBURBAN AREAS.

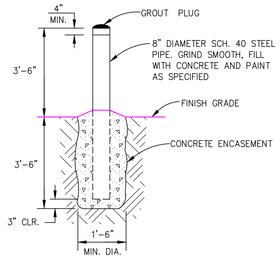
CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.

THIS ITEM MAY BE PRECAST OR CAST IN PLACE.

DETAIL PER VDOT ROAD AND BRIDGE STANDARDS STD. No. 201.03

COMBINATION 6" CURB AND GUTTER CG-6

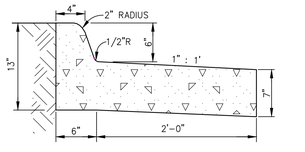
NOT TO SCALE



GUARD POST

NOT TO SCALE

BOLLARD



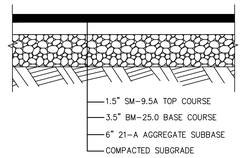
NOTES :

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST. IN PLACE. 4000 PSI IF PRECAST

REVERSE 6" CURB AND GUTTER CG-6R

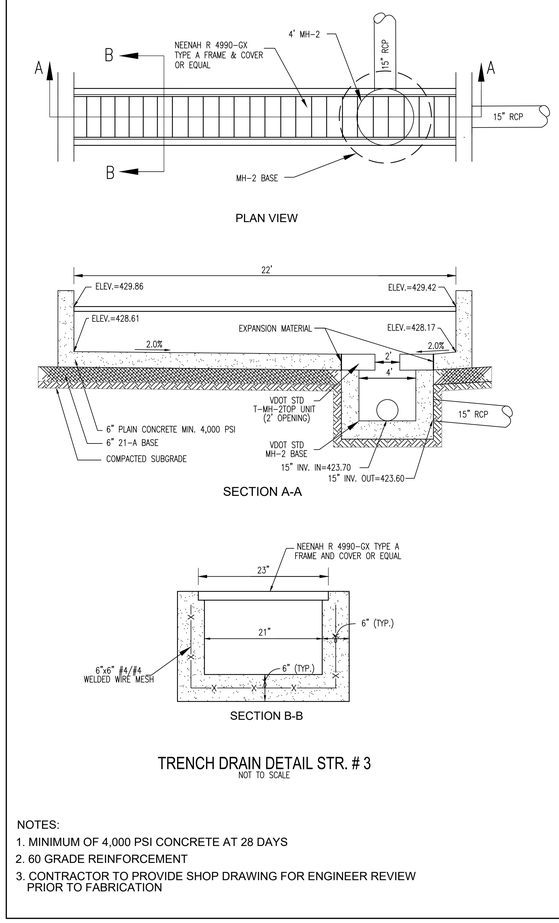
NOT TO SCALE

DETAIL PER FAIRFAX COUNTY PFM PLATE No. 9-7



ON-SITE TYPICAL SECTION

NOT TO SCALE

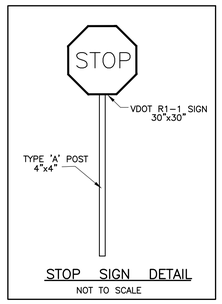


TRENCH DRAIN DETAIL STR. # 3

NOT TO SCALE

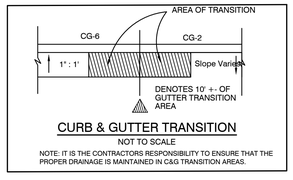
NOTES:

1. MINIMUM OF 4,000 PSI CONCRETE AT 28 DAYS
2. 60 GRADE REINFORCEMENT
3. CONTRACTOR TO PROVIDE SHOP DRAWING FOR ENGINEER REVIEW PRIOR TO FABRICATION



STOP SIGN DETAIL

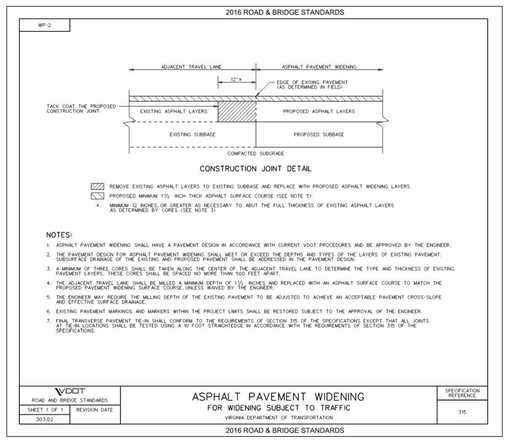
NOT TO SCALE



CURB & GUTTER TRANSITION

NOT TO SCALE

NOTE: IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE PROPER DRAINAGE IS MAINTAINED IN C&G TRANSITION AREAS.



2 REMOVED PROPOSED SIGNAGE DETAIL

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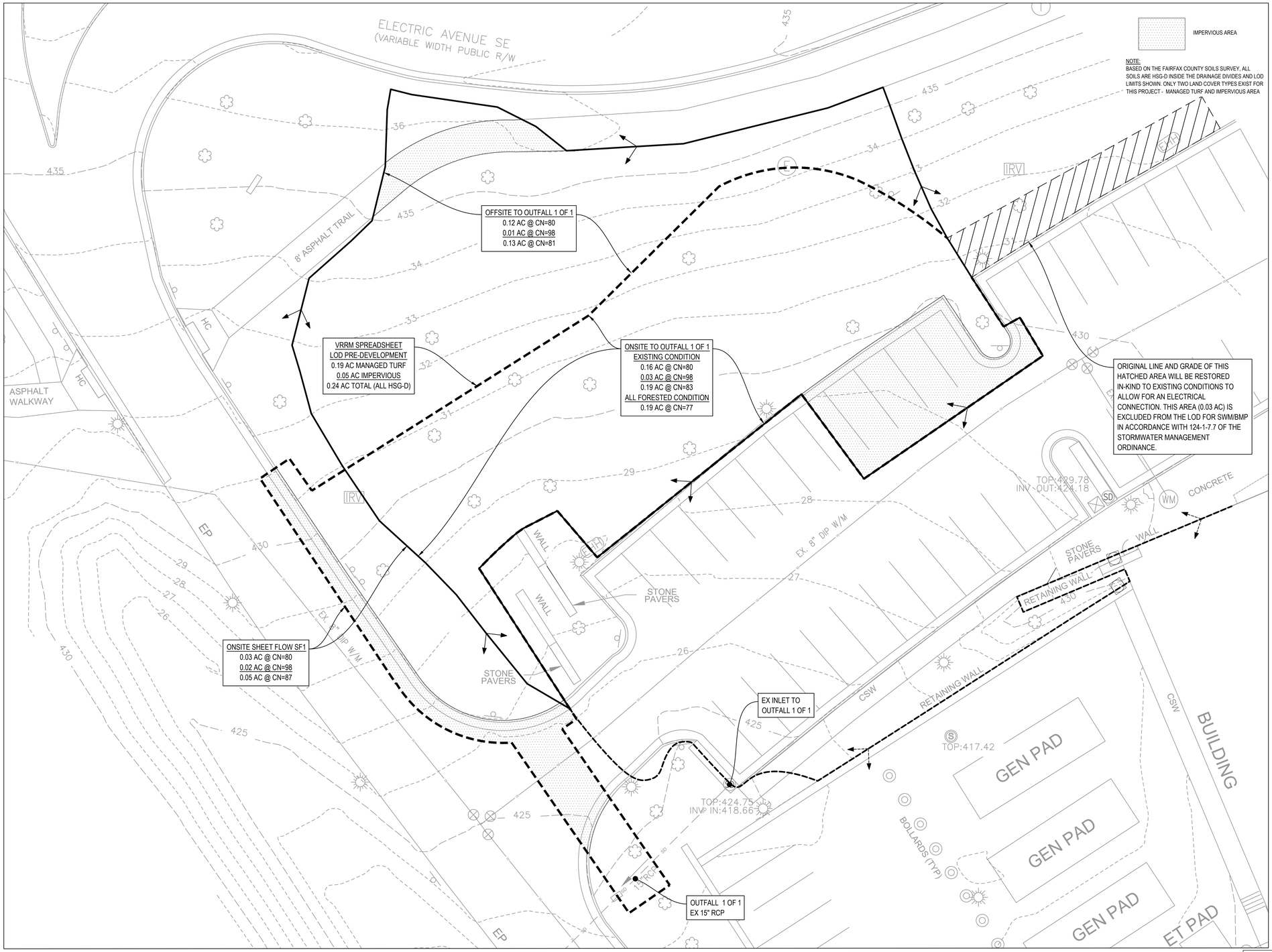

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SWM DRAINAGE MAP (PRE DEVELOPMENT)

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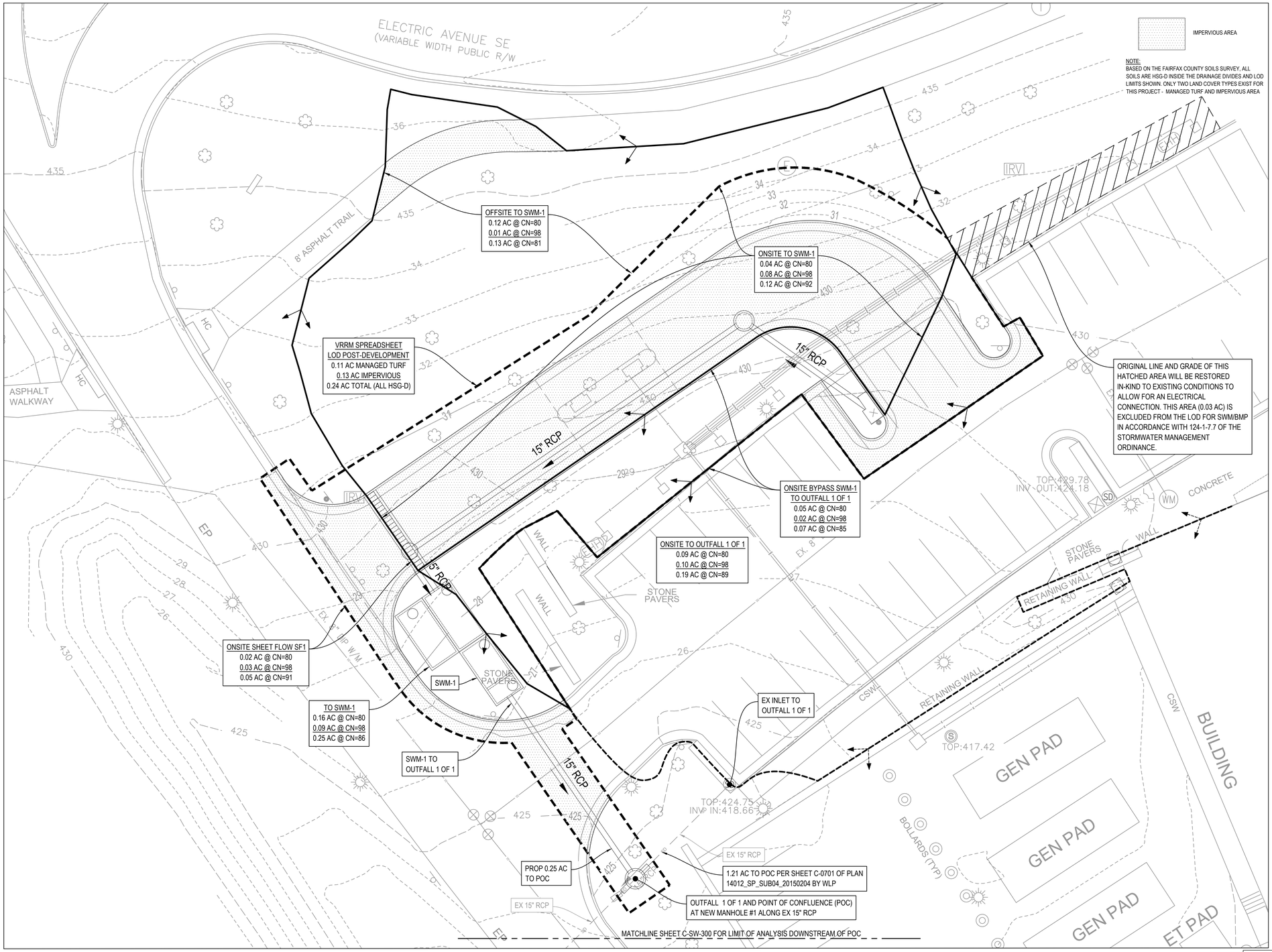
C-SW-200



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SWM DRAINAGE MAP
(POST-DEVELOPMENT)

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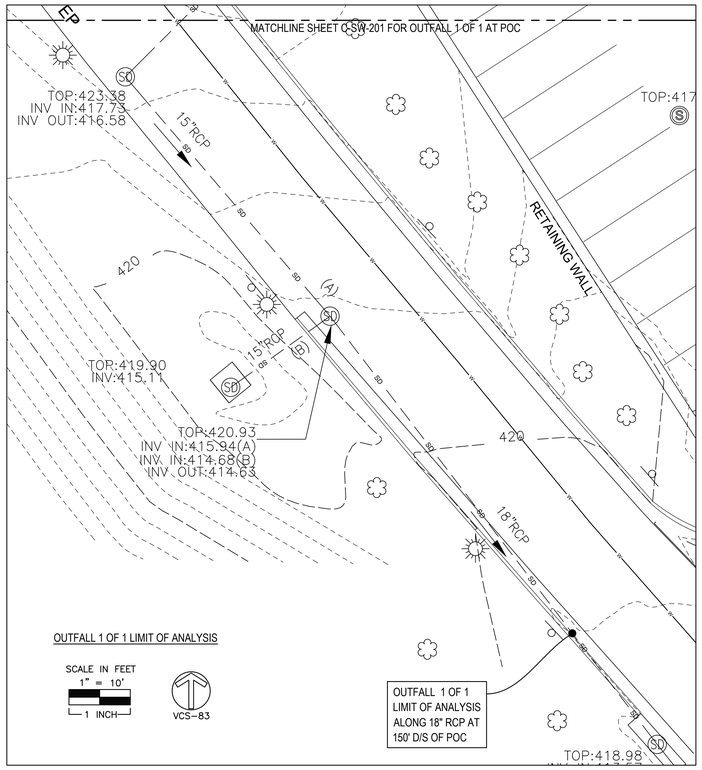
C-SW-201



STORMWATER MANAGEMENT PLAN NARRATIVE

THE LIMITS OF DISTURBANCE (LOD) FOR THIS PROJECT IS APPROXIMATELY 0.27 AC. OF THIS AREA, APPROXIMATELY 0.24 AC REQUIRES WATER QUALITY AND WATER QUANTITY CONTROLS IN ACCORDANCE WITH ARTICLE 4 OF THE FAIRFAX COUNTY STORMWATER MANAGEMENT ORDINANCE (SWMO) AND CHAPTER 6 OF THE PUBLIC FACILITIES MANUAL (PFM). THE REMAINING 0.03 AC IS NOT INCLUDED IN ACCORDANCE WITH SECTION 124-1-7.7 OF THE SWMO. SEE SHEETS C-SW-200 AND C-SW-201 FOR THE SWM/BMP LOD ASSUMED FOR THIS SITE PLAN.

HYDROLOGY WAS DEVELOPED USING NRCS METHODOLOGIES AND HEC-1. THE NOAA-C RAINFALL DISTRIBUTION FROM THE PFM WAS USED TO GENERATE PROJECT HYDROGRAPHS PER SWMO 124-4-6. THE TIME STEP USED FOR ALL HEC-1 MODELS IN THIS PLAN IS 1 MINUTE

II. WATER QUALITY (SWMO 124-4-3) (BMP NARRATIVE)

BECAUSE THE DISTURBED AREA CONSISTS OF NEW DEVELOPMENT ON PRIOR DEVELOPED LANDS, THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) RE-DEVELOPMENT COMPLIANCE SPREADSHEET WAS USED TO SHOW WATER QUALITY COMPLIANCE IN ACCORDANCE WITH ARTICLE 4.

AS CALCULATED BY THE VRRM WORKSHEET (SEE SHEET C-SW-301), THE TOTAL PROJECT LOAD REDUCTION REQUIRED FOR PHOSPHORUS IS 0.06 LB. AS ALLOWED UNDER 124-4-5(B)(2), THIS REDUCTION WILL BE MET BY PURCHASING OFFSITE NUTRIENT CREDITS. A NUTRIENT CREDIT AVAILABILITY LETTER FOR 0.08 LB IS PROVIDED ON THIS SHEET. THIS PROJECT IS LOCATED IN HUC CODE 02070010.

III. WATER QUANTITY (SWMO 124-4-4) (SWM AND ADEQUATE OUTFALL NARRATIVE)

DESCRIPTION OF OUTFALLS

THERE IS ONE (1) OUTFALL THAT RECEIVE CONCENTRATED FLOW FROM THE PROJECT. THIS IS IDENTIFIED AS OUTFALL 1 OF 1.

OUTFALL 1: DISCHARGES INTO ACCOTINK CREEK WATERSHED. LOD CONTRIBUTING DRAINAGE AREA TO THIS OUTFALL IS 0.19 AC. RECEIVING CONVEYANCE SYSTEM CONSISTS OF CLOSED STORM SEWER.

CHANNEL AND FLOOD PROTECTION

OUTFALL 1: CHANNEL AND FLOOD PROTECTION IS SATISFIED FOR THIS OUTFALL USING THE DETENTION METHOD. THE DETENTION METHOD IS SATISFIED USING A PROPOSED STORMCAPTURE® DETENTION SYSTEM.

LIMITS OF ANALYSIS

OUTFALL 1: LIMIT OF ANALYSIS PER 124-4-4.B.6.C AND 124-4-4.C.6.D FOR CHANNEL AND FLOOD PROTECTION, RESPECTIVELY. LIMIT OF ANALYSIS IS AT A POINT 150 FT DOWNSTREAM OF THE POINT OF CONFLUENCE (SEE THIS SHEET).

100-YEAR FLOODING

THERE ARE NO FAIRFAX COUNTY OR FEMA 100-YEAR FLOODPLAINS ESTABLISHED INSIDE THE PROJECT LOD. THERE ARE ALSO NO KNOWN DWELLINGS OR BUILDINGS CONSTRUCTED UNDER AN APPROVED BUILDING PERMIT THAT HAVE BEEN FLOODED BY THE 100-YEAR STORM BETWEEN THE PROJECT SITE AND LIMIT OF ANALYSIS FOR OUTFALL 1 OF 1.

DETENTION

2- AND 10-YR DETENTION IS PROVIDED FOR THE PROJECT:

TOTAL PROJECT	2-YR PEAK DISCHARGE	10-YR PEAK DISCHARGE
EXISTING CONDITIONS	0.61 CFS	1.23 CFS
PROPOSED CONDITIONS	0.42 CFS	0.69 CFS
DETENTION PROVIDED	0.19 CFS	0.54 CFS

SHEET FLOW

THERE IS ONE SMALL AREA OF SHEET FLOW. THIS IS IDENTIFIED AS SF1 (0.05 AC.). THE EXISTING AND POST-DEVELOPED 10-YR RUNOFF FROM SF1 ARE 0.23 CFS AND 0.24 CFS, RESPECTIVELY. UNDER DEVELOPED CONDITIONS, SF1 RUNOFF LEAVES THE LOD ONTO EXISTING PAVEMENT. IT IS NOT ANTICIPATED THAT THIS SMALL AREA AND DISCHARGE OF SHEET FLOW WILL CAUSE ANY DOWN-GRADIENT EROSION AND/OR FLOODING PROBLEMS.

ADEQUACY CONCLUSION

IT IS THE OPINION OF THE ENGINEER THAT ALL REQUIREMENTS OF 124-4-4 (WATER QUANTITY) AND PFM HAVE BEEN MET AND THAT OUTFALL 1 OF 1 AND AREAS OF SHEET FLOW PROPOSED WITH THIS PLAN ARE ADEQUATE. NO DOWNSTREAM STRUCTURES WILL BE IMPACTED.

IV. MAINTENANCE

THE PROPOSED STORMCAPTURE® FACILITY WILL BE PRIVATELY OWNED AND MAINTAINED. OPERATION, MAINTENANCE AND INSPECTION REQUIREMENTS FOR THE STORMCAPTURE® WILL BE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS AS PROVIDED ON SHEET C-SW-402.

res

Date: December 3, 2024

To: Scott Clarke, PE
Senior Associate, Senior Project Manager
Dewberry

From: Amy Staley
Credit Sales Manager
Resource Environmental Solutions

Subject: Potomac Watershed – Nutrient Credit Availability

Project Reference: Navy Federal Credit Union - ATM Relocation, 0.08 Credits Requested; HUC 02070010

This letter is to confirm the availability of 0.08 authorized nutrient credits ("Nutrient Credits") from one or more of Resource Environmental Solutions' ("RES") Potomac nutrient bank facilities for use by permit applicants within the Potomac watershed, including HUC 02070010, to compensate for nutrient loadings in excess of state or local regulations, as per Virginia Code § 62.1-44.15:35 and § 62.1-44.19:14 and Virginia Administrative Code 9 VAC 25-820-10 et seq. These Nutrient Credits are generated and managed under the terms of the Banking Instruments known as the Whispering Hills Nutrient Reduction Implementation Plan ("NRIP").

Please feel free to contact me if you have any questions.

Sincerely,

Amy Staley
Credit Sales Manager
astaley@res.us | 919.209.1055

RES.US

Town of Vienna Stormwater Management Facility Maintenance Agreement

THIS AGREEMENT, made this _____ day of _____, _____, by and between _____

_____
Insert Full Name of Owners(s)

hereinafter called "Landowner," and the Town Council of the Town of Vienna, Virginia, hereinafter called "Town:"

WITNESSETH:

WHEREAS, the Landowner is the owner of certain real property, more particularly described as:

Property Description / Location: _____

_____

_____

_____

_____ _____
Address Tax Map Number

As recorded by Deed in the land records of Fairfax County, Virginia, in Deed Book _____ at Page _____, hereinafter called the "Property;" and

WHEREAS, the Landowner has engaged in a land disturbing activity on the Property that is regulated under Chapter 23 of the Town Code; and

WHEREAS, Site Plan/Subdivision Plan Name _____, hereinafter called the "Plan" and expressly made part of this agreement, provides for management of stormwater within the confines of the Property in accordance with a stormwater management plan approved by the Town; and

WHEREAS, the Town and the Landowner agree that the health, safety, and welfare of the residents of the Town of Vienna, Virginia require that stormwater management facilities be constructed and maintained on the property; and

WHEREAS, the Town requires that stormwater management facilities be constructed and adequately maintained by the Landowner.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereby agree as follows:

1. The Landowner shall construct stormwater management facilities in accordance with the Plan, the stormwater management plan, and other plans approved by the Town and in compliance with all applicable laws and regulations promulgated pursuant to the Code of Virginia § 62.1-44.15:27 and 9VAC25-870 (Virginia Stormwater Management Program Regulations).

2. The Landowner shall maintain the stormwater management facilities in good working order so that the facilities are performing their design functions as described and shown on the Plan and in the Virginia Stormwater BMP Clearinghouse and in accordance with the specific maintenance requirements noted in the Stormwater Facility Maintenance Manual attached hereto as Attachment A.

3. The Landowner shall submit a Private Stormwater Management Facility Inspection and Maintenance Report to the Town on a frequency of no less than once every five years or upon written notice from the Town. The inspection report shall be signed and sealed by a qualified professional engineer or surveyor unless the Stormwater Facility Maintenance Manual explicitly provides otherwise.

4. The Landowner hereby grants permission to the Town, its authorized agents and employees, to enter on the Property to inspect the stormwater management facilities whenever it deems necessary. Except in cases of emergency, the Town shall make a reasonable attempt to notify the Landowner prior to entering the Property.

5. If the Landowner fails to adequately maintain the stormwater management facilities in accordance with the Plan and the Virginia Stormwater BMP Clearinghouse and in accordance with the specific maintenance requirements noted in the Stormwater Facility Maintenance Manual, or if the Landowner fails to submit a Private Stormwater Management Facility Inspection and Maintenance Report when due in accordance with this Agreement, the Town and its agents shall have the right, but not the obligation, to enter onto the Property and perform any inspection, replacement, repair and maintenance as the Town deems necessary. The Landowner shall reimburse the Town the costs of the inspection, replacement, repair, and maintenance of the stormwater management facilities performed by the Town within 10 days of receipt of an invoice by the Town. This provision shall not be construed to allow the Town to erect any building or structure on the Property without obtaining written approval of the Landowner. It is expressly understood and agreed that the Town is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Town.

6. The Landowner shall not alter the stormwater management facilities without prior written approval of the Town.

7. The intent of this Agreement is to ensure the proper maintenance of stormwater management facilities by the Landowner; provided, however, that this Agreement shall not be deemed to create or affect any additional liability on any party for damage alleged to result from or be caused by stormwater drainage.

8. The Landowner, its executors, administrators, assigns, and any other successors in interest, shall indemnify and hold harmless the Town and its agents and employees

for any and all damages, accidents, casualties, occurrences or claims that might arise or be asserted against the Town from the construction, presence, existence, or maintenance of stormwater management facilities by the Landowner or the Town. In the event a claim is asserted against the Town, its agents or employees, the Town shall promptly notify the Landowner and the Landowner shall defend at his own expense any suit based on such claim. If any judgment or claims against the Town, its agents or employees is allowed, the Landowner shall pay all costs and expenses in connection therewith.

9. This Agreement shall be recorded among the land records of Fairfax County, Virginia, and shall constitute a covenant running with the land and shall be binding on the Landowner, its administrators, executors, assigns, heirs and any other successors in interest.

IN WITNESS of all of which, the parties hereto have caused this Agreement to be executed under seal on their behalf.

_____ _____
Signature Landowner Signature Landowner

_____ _____
Print Name Print Name

_____ _____
Print Title Print Title

Address: (Print): _____

_____

STATE OF _____

COUNTY/CITY OF _____

I, _____, Notary Public in and for the State and County/City aforesaid, do hereby certify that _____, whose name(s) is (are) signed to the foregoing Agreement, this day personally appeared before me in my State and County/City aforesaid and acknowledged the same.

Given under my hand this _____ day of _____, _____.

My commission expires: _____ _____
Notary Public

TOWN COUNCIL, TOWN OF VIENNA, VIRGINIA

By: _____
Director of Public Works, Town of Vienna

COMMONWEALTH OF VIRGINIA
COUNTY OF FAIRFAX

This _____ day of _____, _____, appeared before me in my State and County aforesaid, _____ Director of Public Works, and acknowledged his signature.

My commission expires: _____ _____
Notary Public

Approved to Form

_____
Town Attorney

ASD | SKY
3030 Clarendon Blvd.
Suite 350
Arlington, VA 22201
T 703.876.9600
www.asdsky.com

NAVY FEDERAL CREDIT UNION HQ2 ATM ADDITION

1007 ELECTRIC AVE
VIENNA, VA 22180

Dewberry
Dewberry Engineers Inc.
8401 Arlington Boulevard
Fairfax, VA 22031
703 698 9440 Phone
703 849 4881 Fax

COMMONWEALTH OF VIRGINIA
TIMOTHY CHARLES CULLETON
Lic. No. 20112
6/6/2025
PROFESSIONAL ENGINEER

NO.	DATE:	REMARKS:
2	6/6/2025	SITE PLAN REVIEW
1	TBD	ASI 01
0	1/24/2025	ISSUED FOR PERMIT AND PRICING

REVISIONS:

DRAWING TITLE:
SWM NARRATIVE

PROJECT NO.:	ISSUE DATE:
50184423	25.06.06
DRAWN BY:	CHECKED BY:

SHEET NUMBER:
C-SW-300

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - **Version 4.1**

CLEAR ALL *(Ctrl+Shift+R)*

data input cells
constant values
calculation cells
final results

Project Name: NAVY FEDERAL CREDIT UNION - ATM RELOCATION
Date:
Linear Development Project? No

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 0.24

Maximum reduction required:	*10%*
The site's net increase in impervious cover (acres) is:	*0.08*
Post-Development TP Load Reduction for Site (lb/yr):	*0.06*

Check:
BMP Design Specifications List: 2024 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 (acres) -- undisturbed, protected forest or reforested land				0.00	0.00
Mixed Open (acres) -- undisturbed/infrequently maintained grass or shrub land				0.00	0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed				0.19	0.19
Impervious Cover (acres)				0.05	0.05
					0.24

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest or reforested land				0.00	0.00
Mixed Open (acres) -- undisturbed/infrequently maintained grass or shrub land				0.00	0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed				0.11	0.11
Impervious Cover (acres)				0.13	0.13
Area Check	OK.	OK.	OK.	OK.	0.24

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**0.06**

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	2.33
Final Post-Development TN Load	2.59

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre		
Pre-ReDevelopment	**Listed**	**Adjusted[1]**
Forest Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
Weighted Loading Rate(forest)	0.00	0.00
% Forest	0%	0%
Mixed Open Cover (acres)	0.00	0.00
Weighted Rv(mixed)	0.00	0.00
Weighted Loading Rate(mixed)	0.00	0.00
% Mixed Open	0%	0%
Managed Turf Cover (acres)	0.19	0.11
Weighted Rv(turf)	0.25	0.25
Weighted Loading Rate(turf)	0.85	0.85
% Managed Turf	79%	69%
Impervious Cover (acres)	0.05	0.05
Rv(impervious)	0.95	0.95
Weighted Loading Rate(impervious)	0.86	0.86
% Impervious	21%	31%
Total Site Area (acres)	**0.24**	**0.16**
Site Rv	**0.40**	**0.47**

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.0079	0.0063
Pre-ReDevelopment Treatment Volume (cubic feet)	345	272
Pre-ReDevelopment TP Load (lb/yr)	**0.20**	**0.14**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	0.85	0.85
Baseline TP Load (lb/yr) (0.26 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		*0.04*

[1] *Adjusted Land Cover Summary:*
Pre ReDevelopment land cover minus pervious land cover (forest, mixed open 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, 0.26 lbs/acre/year).

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final)	
Post ReDev. & New Impervious	
Forest Cover (acres)	0.00
Weighted Rv(forest)	0.00
Wgt. Ld. Rate(forest)	0.00
% Forest	0%
Mixed Open Cover (acres)	0.00
Weighted Rv(mixed)	0.00
Wgt. Ld. Rate(mixed)	0.00
% Mixed Open	0%
Managed Turf Cover (acres)	0.11
Weighted Rv (turf)	0.25
Wgt. Ld. Rate(turf)	0.85
% Managed Turf	46%
Impervious Cover (acres)	0.13
Rv(impervious)	0.95
Wgt. Ld. Rate(imperv.)	0.86
% Impervious	54%
Final Site Area (acres)	**0.24**
Final Post Dev Site Rv	**0.63**

Land Cover Summary-Post	
Post-ReDevelopment	
Forest Cover (acres)	0.00
Weighted Rv(forest)	0.00
Wgt. Ld. Rate(forest)	0.00
% Forest	0%
Mixed Open Cover (acres)	0.00
Weighted Rv(mixed)	0.00
Wgt. Ld. Rate(mixed)	0.00
% Mixed Open	0%
Managed Turf Cover (acres)	0.11
Weighted Rv (turf)	0.25
Wgt. Ld. Rate(turf)	0.85
% Managed Turf	69%
ReDev. Impervious Cover (acres)	0.05
Rv(impervious)	0.95
Wgt. Ld. Rate(imperv.)	0.86
% Impervious	31%
Total ReDev. Site Area (acres)	**0.16**
ReDev Site Rv	**0.47**

Land Cover Summary-Post	
Post-Development New Impervious	
New Impervious Cover (acres)	0.08
Rv(impervious)	0.95

Treatment Volume and Nutrient Load

Final Post-Development Treatment Volume (acre-ft)	0.0126	**Post-ReDevelopment Treatment Volume (acre-ft)** 0.0063	**Post-Development Treatment Volume (acre-ft)** 0.0063
Final Post-Development Treatment Volume (cubic feet)	548	**Post-ReDevelopment Treatment Volume (cubic feet)** 272	**Post-Development Treatment Volume (cubic feet)** 276
Final Post-Development TP Load (lb/yr)	**0.20**	**Post-ReDevelopment Load (TP) (lb/yr)*** **0.14**	**Post-Development TP Load (lb/yr)** **0.07**
Final Post-Development TP Load per acre (lb/acre/yr)	0.85	**Post-ReDevelopment TP Load per acre (lb/acre/yr)** 0.85	
		Max. Reduction Required (Below Pre-ReDevelopment Load) 10%	
		TP Load Reduction Required for Redeveloped Area (lb/yr) **0.01**	**TP Load Reduction Required for New Impervious Area (lb/yr)** **0.05**

ASD | SKY
3030 Clarendon Blvd.
Suite 350
Arlington, VA 22201
T 703.876.9600
www.asdsky.com

NAVY FEDERAL CREDIT UNION HQ2 ATM ADDITION

1007 ELECTRIC AVE
VIENNA, VA 22180

Dewberry
Dewberry Engineers Inc.
8401 Arlington Boulevard
Fairfax, VA 22031
703 698 9440 Phone
703 849 4881 Fax

COMMONWEALTH OF VIRGINIA
TIMOTHY CHARLES CULLETON
Lic. No. 20112
6/6/2025
PROFESSIONAL ENGINEER

NO:	DATE:	REMARKS:
2	6/6/2025	SITE PLAN REVIEW
1	TBD	ASI 01
0	1/24/2025	ISSUED FOR PERMIT AND PRICING

REVISIONS:

DRAWING TITLE:
VRRM SPREADSHEET

PROJECT NO.: 50184423
ISSUE DATE: 25.06.06
DRAWN BY:
CHECKED BY:

SHEET NUMBER:
C-SW-301

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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X       XXXXX   X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                      HEC-1 INPUT                                        PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID       NAVY FEDERAL CREDIT UNION ATM SITE
  2           ID       FAIRFAX COUNTY, VIRGINIA
  3           ID       FAIRFAX COUNTY PFM RAINFALL DEPTHS
  4           ID       1-, 2-, AND 10-YR STORMS
              *DIAGRAM
  5           IT       1                    1500
  6           IO       5
              *
              *            1-YR      2-YR      10-YR
  7           JR    PREC    2.62    3.17    4.87
              *
              * ****** START PRE-DEVELOPMENT CONDITIONS ******
  8           KK    Qoff
  9           KM  OFFSITE TO OUTFALL 1 OF 1
              * 0.13 AC @ RCN=81 @ TC=5 MIN
 10           KO                                      21
 11           BA  0.0002
 12           PB     1.0
              * NOAA ATLAS C RAINFALL DISTRIBUTION
 13           IN       6
 14           PC       0  0.0013  0.0023  0.0034  0.0044  0.0055  0.0065  0.0076  0.0087  0.0098
 15           PC  0.0109  0.0121  0.0132  0.0143  0.0155  0.0167  0.0178   0.019  0.0202  0.0214
 16           PC  0.0226  0.0238  0.0251  0.0263  0.0276  0.0288  0.0301  0.0314  0.0327   0.034
 17           PC  0.0353  0.0366  0.0379  0.0393  0.0406   0.042  0.0434  0.0447  0.0461  0.0475
 18           PC  0.0489  0.0504  0.0518  0.0532  0.0547  0.0562  0.0576  0.0591  0.0606  0.0621
 19           PC  0.0636  0.0651  0.0667  0.0682  0.0697  0.0713  0.0729  0.0745   0.076  0.0776
 20           PC  0.0793  0.0809  0.0826  0.0843  0.0861  0.0879  0.0898  0.0916  0.0936  0.0955
 21           PC  0.0975  0.0996  0.1017  0.1038   0.106  0.1082  0.1104  0.1127   0.115  0.1174
 22           PC  0.1198  0.1223  0.1247  0.1273  0.1298  0.1324  0.1351  0.1378  0.1405  0.1432
 23           PC  0.1461   0.149  0.1521  0.1554  0.1588  0.1623   0.166  0.1699  0.1739   0.178
 24           PC  0.1823  0.1868  0.1914  0.1961   0.201  0.2061  0.2117  0.2179  0.2247  0.2321
 25           PC    0.24   0.249  0.2591  0.2702  0.2825  0.2955  0.3157   0.337  0.3662  0.4067
 26           PC  0.4766  0.5933  0.6338   0.663  0.6843  0.7045  0.7176  0.7298  0.7409   0.751
 27           PC    0.76  0.7679  0.7753  0.7821  0.7883  0.7939   0.799  0.8039  0.8086  0.8132
 28           PC  0.8177   0.822  0.8261  0.8301   0.834  0.8377  0.8412  0.8446  0.8479   0.851
 29           PC   0.854  0.8568  0.8595  0.8622  0.8649  0.8676  0.8702  0.8727  0.8753  0.8778
 30           PC  0.8802  0.8826   0.885  0.8873  0.8896  0.8918   0.894  0.8962  0.8983  0.9004
 31           PC  0.9025  0.9045  0.9064  0.9084  0.9103  0.9121  0.9139  0.9157  0.9174  0.9191
 32           PC  0.9208  0.9224   0.924  0.9256  0.9271  0.9287  0.9303  0.9318  0.9334  0.9349
 33           PC  0.9364  0.9379  0.9394  0.9409  0.9424  0.9439  0.9453  0.9468  0.9482  0.9496
 34           PC  0.9511  0.9525  0.9539  0.9553  0.9566   0.958  0.9594  0.9607  0.9621  0.9634
 35           PC  0.9647   0.966  0.9673  0.9686  0.9699  0.9712  0.9724  0.9737  0.9749  0.9762
 36           PC  0.9774  0.9786  0.9798   0.981  0.9822  0.9834  0.9845  0.9857  0.9868  0.9879
 37           PC  0.9891  0.9902  0.9913  0.9924  0.9935  0.9945  0.9956  0.9967  0.9977  0.9987
 38           PC       1
 39           LS              81
 40           UD    0.05
              *
 41           KK    Qpre
 42           KM  PRE-DEVELOPED SITE TO OUTFALL 1 OF 1 (ASSUME FORESTED CONDITION)
              * 0.19 AC @ RCN=77 @ TC=10 MIN
 43           KO                                      21
 44           BA  0.0003
 45           LS              77
 46           UD     0.1
              *
 47           KK     SF1
 48           KM  PRE-DEVELOPED SHEET FLOW
              * 0.05 AC @ RCN=87 @ TC=5 MIN
 49           KO                                      21
 50           BA  7.8E-5
 51           LS              87
 52           UD    0.05
              *
 53           KK     Qex
 54           KM  TOTAL PRE-DEVELOPED RUNOFF INCLUDING SHEET FLOW
 55           KO                                      21
 56           HC       3
              * ****** END PRE-DEVELOPMENT CONDITIONS ******
              * ****** BEGIN POST-DEVELOPMENT CONDITIONS ******

 57           KK   SWM-1
 58           KM  ONSITE + OFFSITE TO OUTFALL 1 OF 1 THRU PROPOSED SWM-1
              * 0.25 AC @ RCN=86 @ TC=5 MIN
 59           KO                                      21
 60           BA  0.00039
 61           LS              86
 62           UD    0.05
              *
 63           KK   SWM-1
 64           KM  ROUTE THRU PROPOSED SWM-1
              *
 65           KO                                      21
 66           RS       1    ELEV     419
              * SURFACE AREA (AC) OF SWM STORAGE
 67           SA   0.004   0.004
              * ELEVATION (FT) OF SWM STORAGE
 68           SE     419     425
              * 2 INCH ORIFICE AT INV. 419.00
 69           SL  419.08   0.022     0.6     0.5
              * 7 FT WEIR AT EL. 424.50
 70           SS   424.5       7       3     1.5
              *
 71           KK      BP
 72           KM  ONSITE TO OUTFALL 1 OF 1 THAT BYPASSES PROPOSED SWM-1
              * 0.07 AC @ RCN=85 @ TC=5 MIN
 73           KO                                      21
 74           BA  0.000109
 75           LS              85
 76           UD    0.05
              *
 77           KK   Qpost
 78           KM  TOTAL POST-DEVELOPED RUNOFF TO OUTFALL 1 OF 1
 79           KO                                      21
 80           HC       2
              *
 81           KK     SF1
 82           KM  POST-DEVELOPED SHEET FLOW
              * 0.05 AC @ RCN=91 @ TC=5 MIN
 83           KO                                      21
 84           BA  7.8E-5
 85           LS              91
 86           UD    0.05
              *
 87           KK   Qprop
 88           KM  TOTAL POST-DEVELOPED RUNOFF INCLUDING SHEET FLOW
 89           KO                                      21
 90           HC       2
              * ****** END POST DEVELOPMENT  ******
 91           ZZ
```

```
              SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   8       Qoff
            .
            .
  41        .        Qpre
            .          .
            .          .
  47        .          .          SF1
            .          .            .
            .          .            .
  53       Qex.......................
            .
            .
  57        .       SWM-1
            .          V
            .          V
  63        .       SWM-1
            .          .
            .          .
  71        .          .           BP
            .          .            .
            .          .            .
  77        .       Qpost...........
            .          .
            .          .
  81        .          .          SF1
            .          .            .
            .          .            .
  87        .       Qprop...........
```

```
        PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
                     FLOWS IN CUBIC FEET PER SECOND,  AREA IN SQUARE MILES
                                   TIME TO PEAK IN HOURS

                                                      RATIOS APPLIED TO PRECIPITATION
 OPERATION       STATION     AREA    PLAN              RATIO 1  RATIO 2  RATIO 3
                                                         2.62     3.17     4.87
                                                        1-YR              2-YR              10-YR
 HYDROGRAPH AT
+                  Qoff       .00     1    FLOW          0.18     0.25     0.50
                                           TIME         12.12    12.12    12.12

 HYDROGRAPH AT
+                  Qpre       .00     1    FLOW          0.17     0.26     0.55
                                           TIME         12.15    12.15    12.15

 HYDROGRAPH AT
+                   SF1       .00     1    FLOW          0.10     0.13     0.23
                                           TIME         12.12    12.12    12.12

  3 COMBINED AT
+                   Qex       .00     1    FLOW          0.43     0.61     1.23     TOTAL EXISTING RUNOFF INCLUDING SHEET FLOW
                                           TIME         12.12    12.12    12.12

 HYDROGRAPH AT
+                 SWM-1       .00     1    FLOW          0.35     0.47     0.85
                                           TIME         12.12    12.12    12.12

 ROUTED TO
+                 SWM-1       .00     1    FLOW          0.11     0.14     0.20
                                           TIME         12.25    12.28    12.33

                                      ** PEAK STAGES IN FEET **
                                      1    STAGE       420.26   420.83   422.90     WSELs IN STORMCAPTURE, SWM-1
                                           TIME         12.30    12.33    12.38

 HYDROGRAPH AT
+                    BP       .00     1    FLOW          0.11     0.15     0.28
                                           TIME         12.12    12.12    12.12

  2 COMBINED AT
+                 Qpost       .00     1    FLOW          0.21     0.27     0.44
                                           TIME         12.12    12.12    12.12

 HYDROGRAPH AT
+                   SF1       .00     1    FLOW          0.11     0.15     0.24
                                           TIME         12.12    12.12    12.12

  2 COMBINED AT
+                 Qprop       .00     1    FLOW          0.32     0.42     0.69     TOTAL PROPOSED RUNOFF INCLUDING SHEET FLOW
                                           TIME         12.12    12.12    12.12


 *** NORMAL END OF HEC-1 ***
```

DETENTION METHOD SUMMARY

To Outfall	Storm Event	P	DA ACRES		DA RCN		Runoff Depth (d)		Runoff Volume (RV)		Q_{PRE}	Q_{EB}	Q_{OFF}	Q_{ALLOW}	Q_{POST}	Comments
			PRE	POST	PRE	POST	PRE	POST	PRE	POST						
		(IN)	(AC)	(AC)			(IN)	(IN)	(AC-IN)	(AC-IN)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	
1 OF 1	1-YR	2.62	0.19	0.19	77.00	89.00	0.82	1.56	0.16	0.30	0.17	0.09	0.18	0.27	0.21	$Q_{POST} \leq Q_{ALLOW}$ (1-YR ENERGY BALANCE SATISFIED)
1 OF 1	2-YR	3.17	0.19	0.19	77.00	89.00	1.19	2.05	0.23	0.39	0.26	0.15	0.25	0.40	0.27	$Q_{POST} \leq Q_{ALLOW}$ (2-YR ENERGY BALANCE SATISFIED)
1 OF 1	10-YR	4.87	0.19	0.19	77.00	89.00	2.52	3.65	0.48	0.69	0.55	0.38	0.50	0.88	0.44	$Q_{POST} \leq Q_{ALLOW}$ (10-YR ENERGY BALANCE SATISFIED)

PRE = Pre-development (Forested Conditions)
POST = Post-development
EB = Energy Balance (concentrated flow only)
P = 24-hour rainfall depth
DA = Disturbed area subject to EB
RCN = Runoff curve number subject to EB
d = depth of runoff subject to EB

RV = Runoff volume from disturbed area
Q_{PRE} = Pre-development peak flow rate (from disturbed areas to be developed as concentrated flow)
Q_{EB} = Energy balance peak flow rate
Q_{OFF} = Peak flow rate from undisturbed areas (offsite areas)
Q_{ALLOW} = Allowable release rate ($Q_{EB}+Q_{OFF}$)
Q_{POST} = Post-development peak flow rate to outfall
$d = (P-0.2S)^2/(P+0.8S)$; where $S=1000/CN-10$
RV = DA X d
$Q_{EB} = Q_{PRE-CF} \times RV_{PRE}/RV_{POST}$

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Lic. No. 20112
6/6/2025
PROFESSIONAL ENGINEER

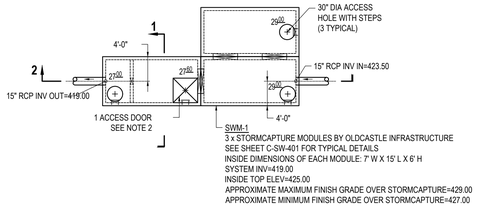
NO:	DATE:	REMARKS:
2	6/6/2025	SITE PLAN REVIEW
1	TBD	ASI 01
0	1/24/2025	ISSUED FOR PERMIT AND PRICING

REVISIONS:

DRAWING TITLE:
SWM COMPUTATIONS

PROJECT NO.: 50184423
ISSUE DATE: 25.06.06
DRAWN BY:
CHECKED BY:

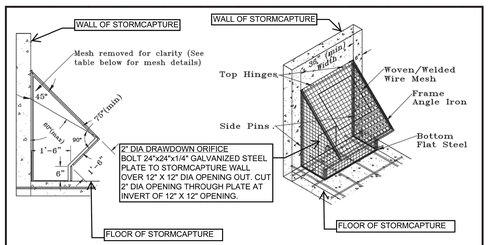
SHEET NUMBER:
C-SW-302



NOTES:

1. PRECAST SWM DEVICE SHOWN HEREON IS A STORMCAPTURE® DETENTION SYSTEM MANUFACTURED BY OLDCASTLE INFRASTRUCTURE. ALTERNATE PRECAST DETENTION STRUCTURES MAY BE CONSIDERED BY THE CONTRACTOR BUT ANY CHANGES MADE TO THIS APPROVED SITE PLAN WILL REQUIRE A SITE PLAN REVISION TO FAIRFAX COUNTY FOR REVIEW AND APPROVAL.
2. PROVIDE 4'X4' OPENING AND DRILLED STEPS TO ACCOMMODATE A 4'X4' DRAINAGE ACCESS DOOR. DOOR SHALL BE FLUSH TO FINISHED GRADE, HEAVY DUTY TO WITHSTAND VEHICULAR TRAFFIC (MIN. H-20 LOADING), HINGED WITH LIFT HANDLE, AND LOCKABLE.
3. SEE STORM PROFILES FOR PIPE LENGTHS, PIPE SLOPES AND CONTINUATION OF STORM SEWER.
4. ALL ACCESS HOLE RIM ELEVATIONS SHOWN ARE APPROXIMATE. FINAL RIM ELEVATIONS SHALL BE ADJUSTED TO MATCH FINISH GRADE WITH NO PONDING.
5. REQUIRED MINIMUM LOAD RATING FOR ALL STRUCTURES IS HS-20.
6. NON-SHRINK GROUT PER ASTM C1107 SHALL BE USED FOR ALL PIPE CONNECTIONS TO THE STORMCAPTURE® FACILITY.
7. ORIFICE PLATE SHALL BE ¼" THICK STAINLESS STEEL OR EQUAL. PLATE TO BE SECURED TO CONCRETE WALL WITH HILTI ANCHOR BOLTS OR EQUAL. PLATE MUST BE DESIGNED BY MANUFACTURER TO BE WATERTIGHT AGAINST CONCRETE WALL AND REMOVABLE FOR MAINTENANCE.

SCALE IN FEET
1" = 10'
1 INCH



Trash Rack – Riser Isometric View

Mesh Details

Component → / Trash Rack Width ↓	Frame Angle Iron	Bottom Flat Steel	Woven/Welded Wire Mesh	Steel Rod for Grate
36"	1½"X1½"X¼"	1½"X¼"	¼"	
between 36" - 60"	2"X2"X¼"	2"X¼"	¾"	
60" and larger	3"X3"X⅜"	3"X⅜"	⅝"	⅝"

Min. Mesh Opening Size
1"

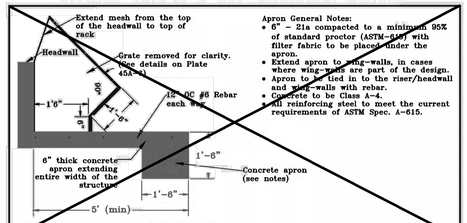
Trash Rack General Notes:
- 3' minimum trash rack width is required where available.
- Trash rack/mounting components to be Hot-dip galvanized.
- All mounting hardware to be stainless steel and threads to be coated in anti-siese.
- Minimum ½ " x 3 " mounting bolts to be used for trash rack.
- Trash racks to be mounted using top hinge or side pin connection as per details shown in Plate 45B-6. All hinged/pinned trash racks to have locking mechanism. Mechanism to be installed on the upper half to minimize potential to become inaccessible due to submergence under water/sediment.
- Mesh opening size to be ½ of the diameter/width of orifice being protected, but not smaller than minimum mesh opening size provided in table above.

Additional Notes

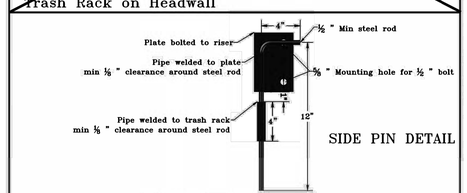
Trash Racks 60" and wider:
- Large trash racks may be painted with dark anti-corrosive paint, in lieu of galvanizing.
- Additional structural reinforcements to be added to trash rack frame as deemed necessary to support all anticipated loads.
- A 3' x 3' (min) access door with locking mechanism to be installed on front face.

Trash Racks mounted on Headwalls:
- In case of space restrictions at headwalls, use 2' min width of trash rack.
- Add wire mesh on the back of trash rack to the top of headwall as shown in Plate 45B-6.

	LOW FLOW/BMP DRAWDOWN DEVICE	PLATE NO.	1 OF 2	



Trash Rack on Headwall

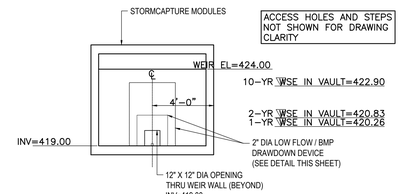


SIDE PIN DETAIL

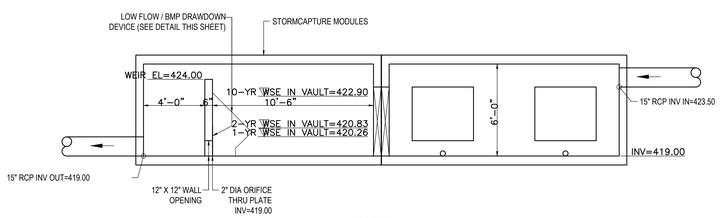
TOP HINGE DETAIL

	LOW FLOW/BMP DRAWDOWN DEVICE (MOUNTING DETAILS)	PLATE NO.	2 OF 2	

NOT TO SCALE



SECTION 1-1



SECTION 2-2

SCALE IN FEET
1" = 4'
1 INCH

STORMCAPTURE® TYPICAL DETAILS

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SWM DETAILS

PROJECT NO.:	ISSUE DATE:
50184423	25.06.06
DRAWN BY:	CHECKED BY:

SHEET NUMBER:
C-SW-400

GENERAL NOTES:

THE STORMCAPTURE SYSTEM BY OLDCASTLE STORMWATER SOLUTIONS IS PART OF THE STORMWATER MANAGEMENT SYSTEM FOR THE RESPECTIVE SITE, AS PREPARED BY THE PROJECT DESIGN ENGINEER. IT IS THE RESPONSIBILITY OF THE DESIGN ENGINEER TO DETERMINE DESIGN FLOW RATES, PRE-TREATMENT AND POST-TREATMENT REQUIREMENTS, STORAGE VOLUME, AND ENSURE THE FINAL DESIGN MEETS ALL CONVEYANCE AND STORAGE REQUIREMENTS. SYSTEM DESIGN AND TYPE, SOIL ANALYSIS, LOADING REQUIREMENTS, COVER HEIGHT AND MODULE SIZE DETERMINE THE FOUNDATION TYPE AND REQUIREMENTS AS STATED HEREIN. ANY VARIATIONS FOUND DURING CONSTRUCTION FROM THE SITE AND SYSTEM ANALYSIS MUST BE REPORTED TO THE PROJECT DESIGN ENGINEER. THE PROJECT DESIGN ENGINEER IS RESPONSIBLE FOR OBTAINING A GEOTECHNICAL ENGINEERING REPORT VERIFYING THE BEARING CAPACITY STATED IN DESIGN NOTES.

DESIGN NOTES:

1. DESIGN LOADINGS:
   A. AASHTO HS20-44 W/ IMPACT.
   B. DEPTH OF COVER = 6" TO 5'-0".
   C. ASSUMED WATER TABLE = BELOW BOTTOM.
   D. EQUIVALENT FLUID PRESSURE = 45 PCF.
   E. LATERAL LIVE LOAD SURCHARGE = 80 PSF.
   F. NO LATERAL SURCHARGE FROM ADJACENT STRUCTURES.
2. CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 6,000 PSI.
3. STEEL REINFORCEMENT: REBAR, ASTM A-615, GRADE 60.
4. CEMENT: ASTM C-150 SPECIFICATION.
5. STORMCAPTURE MODULE TYPE = DETENTION.
6. REQUIRED BASE LAYER DEPTH = 2" SAND BEDDING LAYER.
7. REQUIRED NATIVE ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSF.
8. REFERENCE STANDARDS:
   A. ASTM C 890
   B. ASTM C 891
   C. ASTM C 913
9. LESS THAN 6" OR GREATER THAN 5'-0" OF COVER REQUIRES CUSTOM STRUCTURAL DESIGN AND MAY REQUIRE THICKER SUBGRADE.

INSTALLATION NOTES:

STORMCAPTURE MODULES ARE TO BE INSTALLED IN ACCORDANCE WITH ASTM C891, INSTALLATION OF UNDERGROUND PRECAST UTILITY STRUCTURES. PROJECT PLAN AND SPECIFICATIONS MUST BE FOLLOWED ALONG WITH ANY APPLICABLE REGULATIONS.

1. PLAN LINE, GRADE AND ELEVATIONS MUST BE FOLLOWED.
2. WHERE SPECIFIED, AN 8 OZ. NON-WOVEN GEOTEXTILE FABRIC MUST BE USED AS A SEPARATION LAYER AROUND THE STORMCAPTURE SYSTEM.
3. PENETRATIONS IN THE GEOTEXTILE MAY ONLY BE MADE WITH SMOOTH WALL PIPES. MAKE PENETRATIONS FOR ALL OUTLETS BEFORE MAKING PENETRATIONS FOR ANY INLETS.
4. SUBGRADE MATERIALS, IF SPECIFIED, SHALL BE CLEAN, DURABLE CRUSHED AGGREGATE COMPACTED AS DIRECTED BY THE ENGINEER. OLDCASTLE RECOMMENDS SIZE 5, 56, OR 57 (PER ASTM C33).
5. DESIGNATED EMBEDDED LIFTERS MUST BE USED. USE PROPER RIGGING TO ASSURE ALL LIFTERS ARE EQUALLY ENGAGED WITH A MINIMUM 60 DEGREE ANGLE ON SLINGS AS NOTED AND IN ACCORDANCE WITH OLDCASTLE LIFTING PROCEDURES.
6. MODULES MUST BE PLACED AS CLOSE TOGETHER AS POSSIBLE, AND GAPS SHALL NOT BE GREATER THAN 3/4". ALL EXTERIOR SYSTEM JOINTS SHALL BE COVERED WITH A MIN. 8" JOINT WRAP ON SIDES AND TOP (CS-212 CONSEAL OR EQUIVALENT). IN A CLAMSHELL DESIGN INSTALL ONE ROW CS-102 CONSEAL (OR EQUIVALENT) BETWEEN PRECAST PIECES.
7. AUTHORIZATION SHALL BE GIVEN BY THE PROJECT ENGINEER OR DESIGNATED PERSON PRIOR TO PLACEMENT ON BACKFILL FOR THE SYSTEM. CARE MUST BE TAKEN DURING PLACEMENT OF BACKFILL NOT TO DISPLACE MODULES OR JOINT WRAP. BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY OR AS SPECIFIED, AND SHALL NOT BE COMPACTED WITHIN 6" OF MODULE.
8. CONSTRUCTION EQUIPMENT EXCEEDING DESIGN LOADING SHALL NOT BE ALLOWED ON STRUCTURE.
9. TERMADUCTS TO BE KNOCKED OUT AT SPECIFIED LOCATIONS IN FIELD BY OTHERS. SEE SITE LAYOUT FOR LOCATIONS.

INLETS AND RISERS:

ALL PIPE INLETS SHALL EXTEND INSIDE MODULE A MINIMUM OF 4". PLACE A NON-SHRINK, NON-METALIC GROUT, MIN. 3,000 PSI IN ANNULAR SPACE TO ELIMINATE ALL VOIDS.

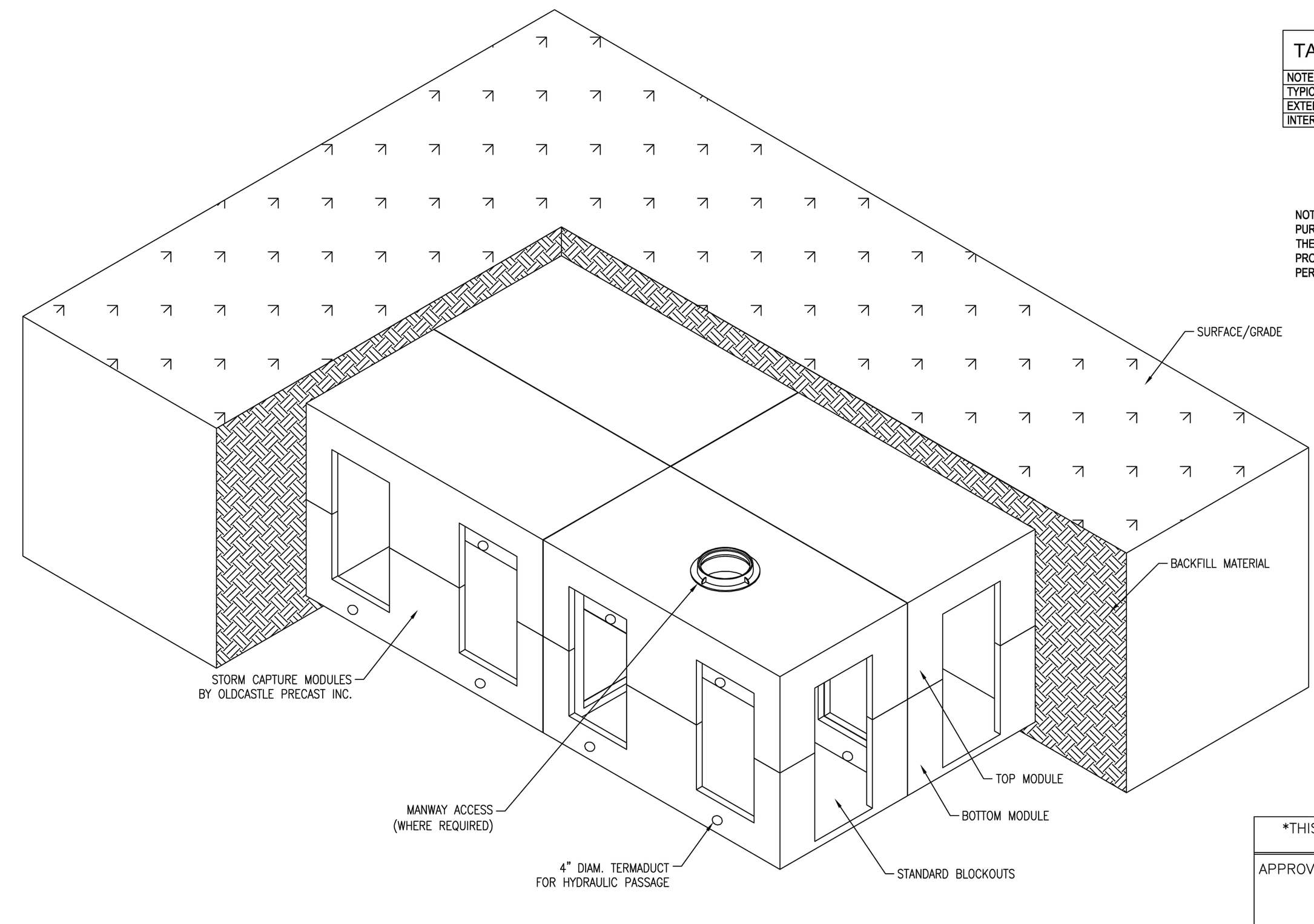
REVISIONS

REVISION	DATE	SHEETS	DESCRIPTION OF REVISION

STORMCAPTURE®

TABLE OF CONTENTS

NOTE: THIS VIEW IS FOR ILLUSTRATION PURPOSES ONLY TO SHOW FEATURES OF THE SYSTEM. ACTUAL LAYOUT VARIES BY PROJECT, SEE SITE PLAN LAYOUT. ALL PERIMETER WALLS ARE SOLID.



TYPICAL ISO VIEW
N.T.S.

THIS MUST BE FILLED OUT BEFORE MANUFACTURING BEGINS
APPROVED W/ NO EXCEPTIONS TAKEN
APPROVED AS NOTED
REVISE AND RESUBMIT

- PRELIMINARY -
NOT FOR CONSTRUCTION

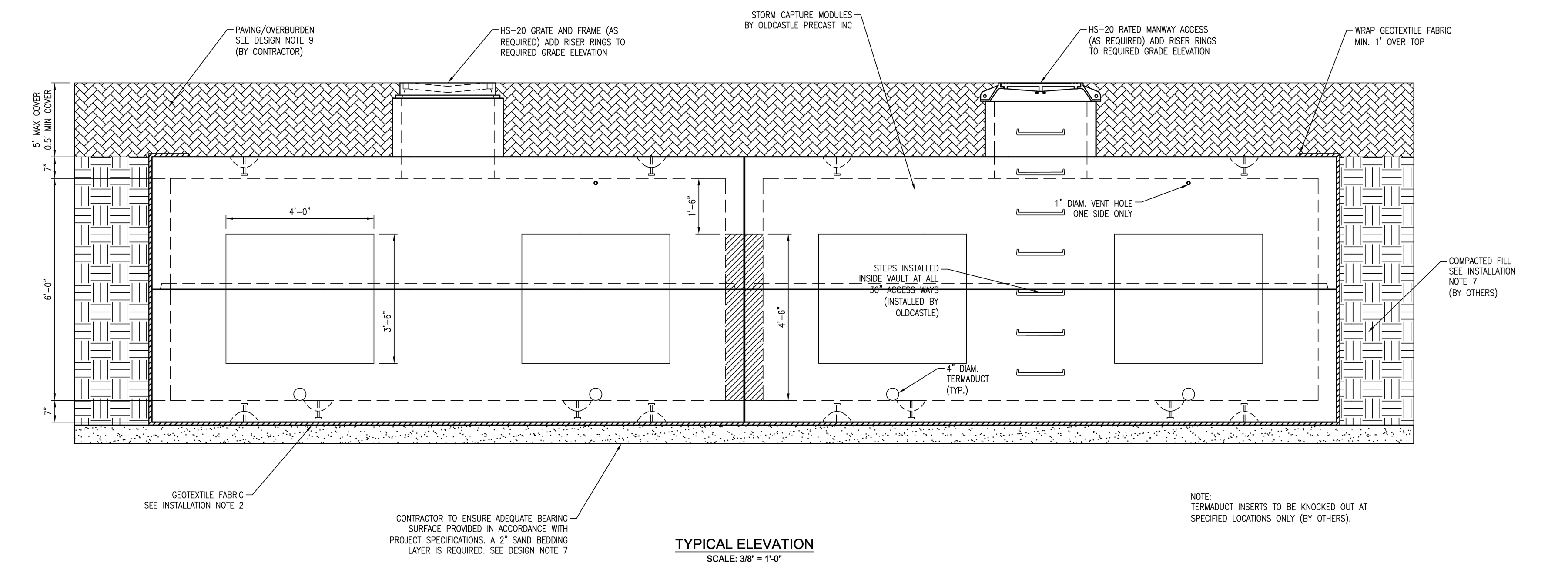
SIGNATURE DATE

Oldcastle® Stormwater Solutions

STORMCAPTURE
GENERAL ISO

SC2 - 6 ft clamshell — SHEET 1 OF 4

STORMCAPTURE®



TYPICAL ELEVATION
SCALE: 3/8" = 1'-0"

NOTE: TERMADUCT INSERTS TO BE KNOCKED OUT AT SPECIFIED LOCATIONS ONLY (BY OTHERS).

- PRELIMINARY -
NOT FOR CONSTRUCTION

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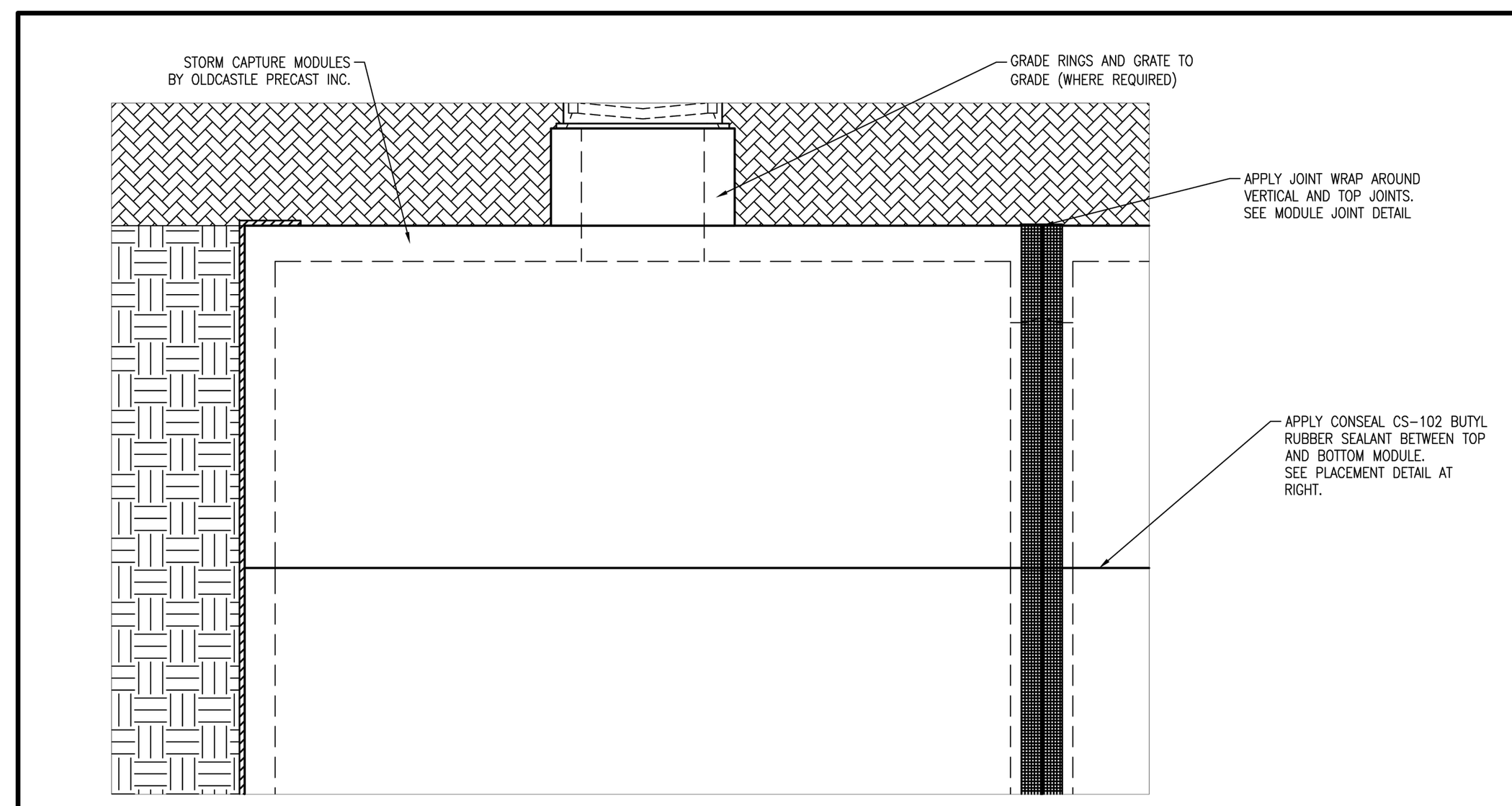
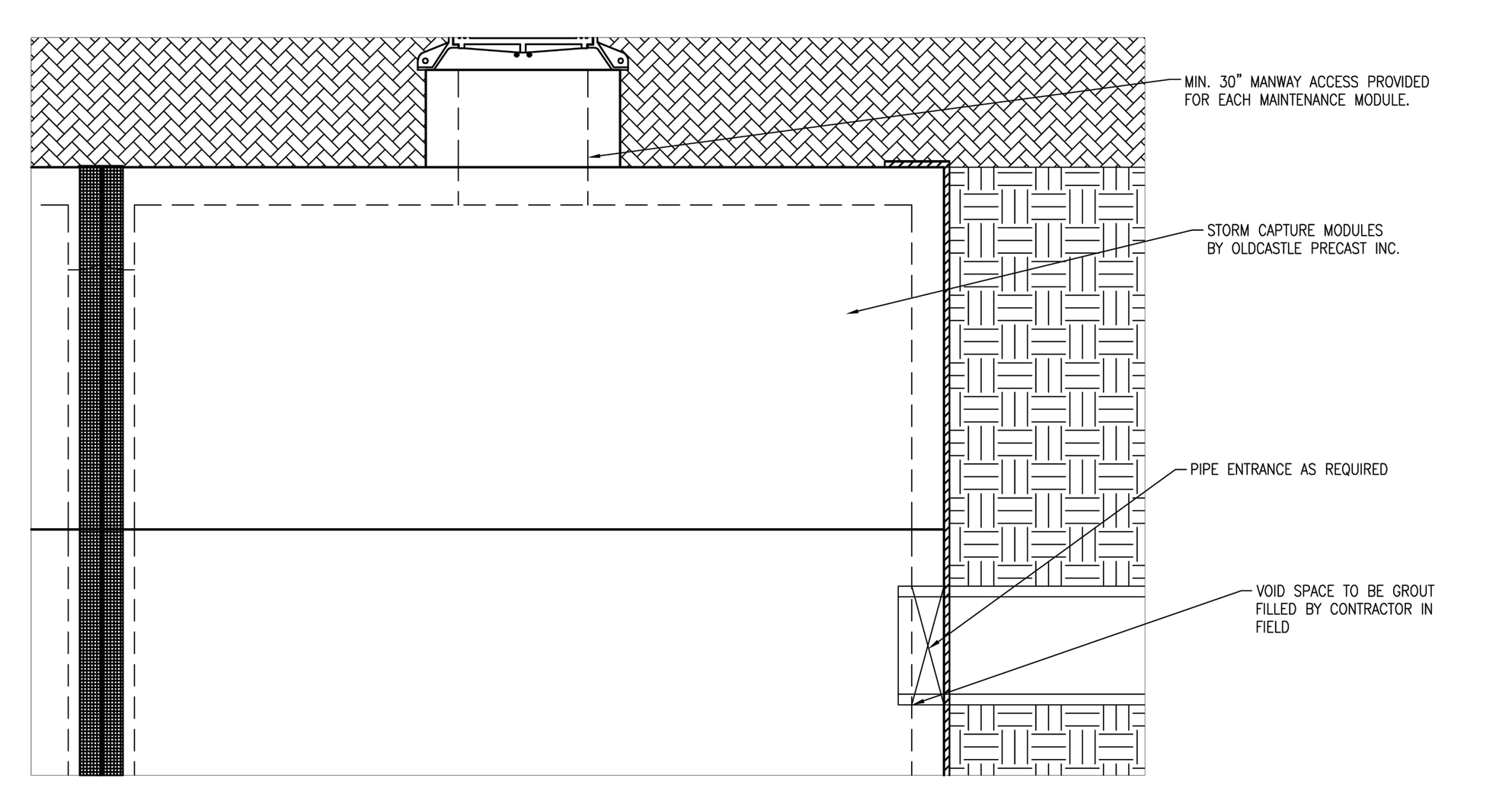
STORMCAPTURE
TYPICAL ELEVATION

SC2 - 6 ft clamshell — SHEET 2 OF 4

STORMCAPTURE®

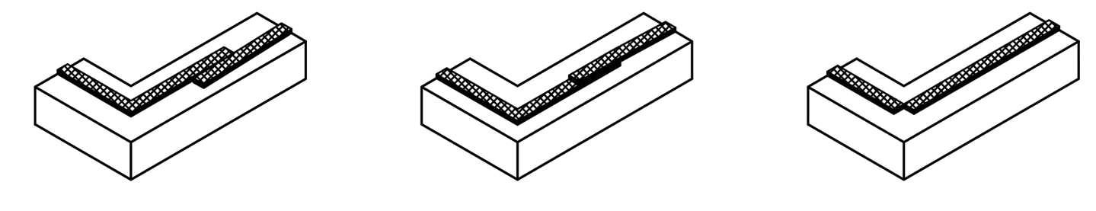


GRATED INLET DETAIL
SCALE: 3/8" = 1'-0"



MANWAY ACCESS DETAIL
SCALE: 3/8" = 1'-0"

KEYWAYS MUST BE FREE OF DIRT, ROCKS, AND WATER. ROCKS AND DIRT PREVENT THE VAULT SECTIONS FROM SEATING AND SEALING PROPERLY. REMOVE ALL PROTECTIVE PAPER FROM RUBBER SEALANT MATERIAL. SPLICE RUBBER SEALANT MATERIAL WITH A "SIDE BY SIDE" JOINT, AWAY FROM CORNERS. CORNER SPLICING WILL NOT SEAL PROPERLY.

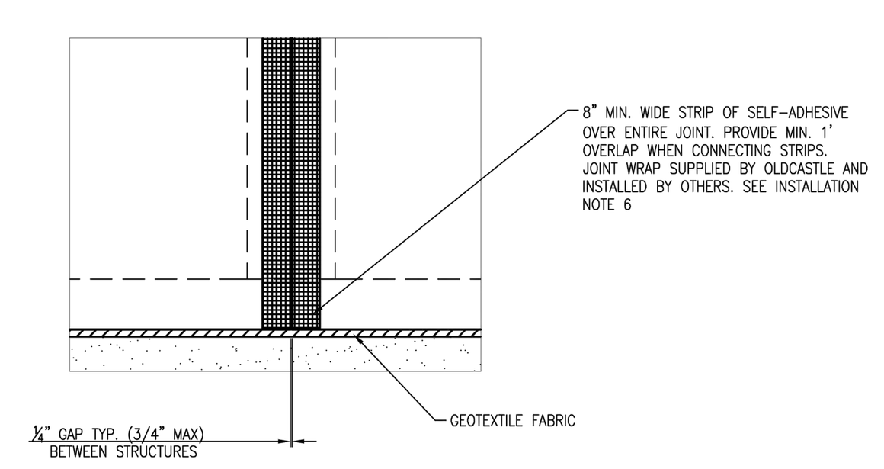


CORRECT – INSTALL RUBBER SEALANT MATERIAL AT THE OUTER EDGE OF THE KEYWAY. RUBBER SEALANT SHOULD BE CONTINUOUS AROUND CORNERS.

INCORRECT – DO NOT OVERLAP THE RUBBER SEALANT MATERIAL AT SPLICE.

INCORRECT – DO NOT SPLICE RUBBER SEALANT MATERIAL AT A CORNER. RUBBER SEALANT SHOULD BE CONTINUOUS AROUND CORNERS.

CONSEAL CS-102 BUTYL RUBBER SEALANT PLACEMENT DETAIL
NTS



MODULE JOINT DETAIL
SCALE: 1/2" = 1'-0"

- PRELIMINARY -
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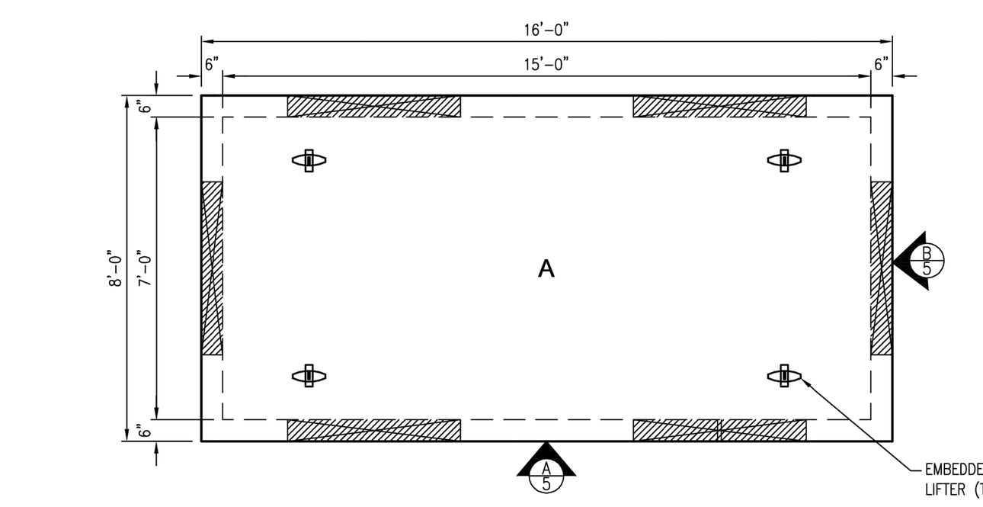
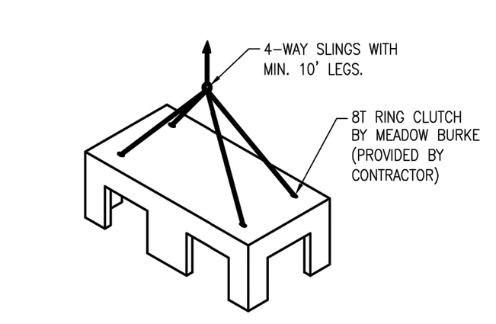
STORMCAPTURE
EXTERIOR DETAILS

SC2 - 6 ft clamshell — SHEET 3 OF 4

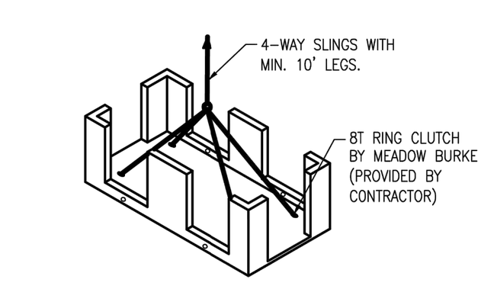
STORMCAPTURE®



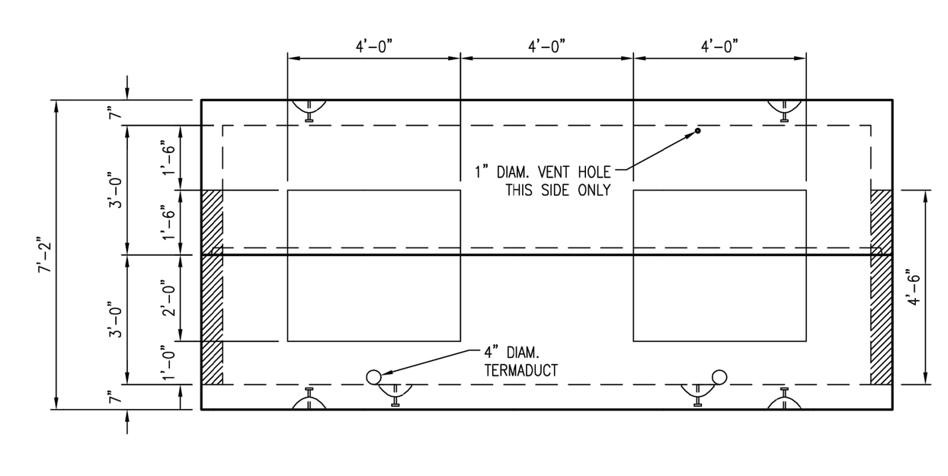
STORM CAPTURE PLAN VIEW
SCALE: 1/4" = 1'-0"



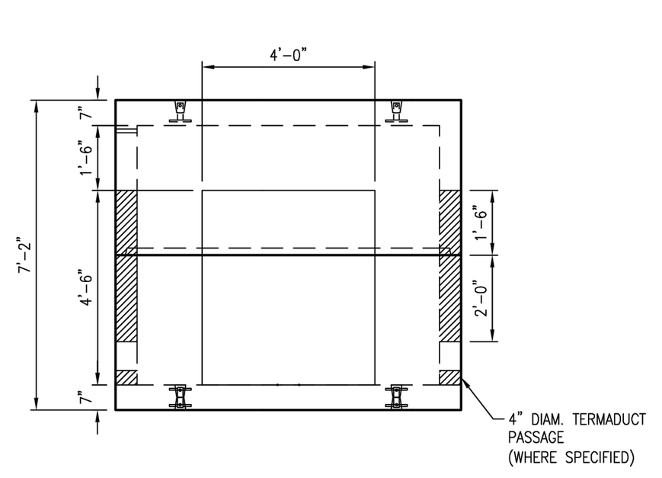
TOP MODULE LIFTING DETAIL
N.T.S.



BOTTOM MODULE LIFTING DETAIL
N.T.S.



VIEW A
SCALE: 1/4" = 1'-0"



VIEW B
SCALE: 1/4" = 1'-0"

- PRELIMINARY -
NOT FOR CONSTRUCTION

Oldcastle® Stormwater Solutions

STORMCAPTURE
INTERIOR DETAILS

SC2 - 6 ft clamshell — SHEET 4 OF 4

FOR INFORMATION ONLY

STORMCAPTURE®
TYPICAL
DETAILS

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0	1/24/2025	ISSUED FOR PERMIT AND PRICING

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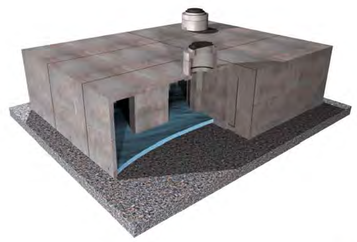
Oldcastle Infrastructure
A CRH COMPANY

STORMCAPTURE®

Inspection and Maintenance Guide



Water

Description

The StormCapture® system is an underground, modular, structural precast concrete storage system for stormwater detention, retention, infiltration, harvesting and reuse, and water quality volume storage. The system's modular design utilizes multiple standard precast concrete units with inside dimensions of 7 feet by 15 feet (outside dimensions of 8 feet by 16 feet) to form an underground storage system. The inside height of the StormCapture system can range from 2 feet to 14 feet. This modular design provides limitless configuration options for site-specific layouts.

StormCapture components can be provided as either open-bottom modules to promote infiltration or closed-bottom modules for detention. In some cases, StormCapture modules can be placed in a checkerboard configuration for an even more efficient design. A Link Slab, with a footprint of 9 feet by 17 feet, is then used to bridge each space without a module.

The standard StormCapture design incorporates lateral and longitudinal passageways between modules to accommodate internal stormwater conveyance throughout the system. These passageways may be classified as either a "window configuration" with standard 12-inch tall sediment baffles extending up from the floor of the module to the bottom of the window, or a "doorway configuration" without the sediment baffles. The function and drainage rate of a StormCapture system depends on site-specific conditions and requirements.

Stormwater typically enters the StormCapture system through an inlet pipe. Grated inlets can also be used for direct discharge into the system. The StormCapture system is rated for H-20 traffic loading with limited cover. Higher load requirements can also be accommodated. In addition, StormCapture systems are typically equipped with a limited number of maintenance modules that provide access to the system for ongoing inspection and maintenance.

Function

The StormCapture system is primarily used to manage water quantity by temporarily storing stormwater runoff from impervious surfaces to prevent flooding, slow down the rate at which stormwater leaves the site, and reduce receiving stream erosion. In addition, the StormCapture system can be used to capture stormwater runoff for water quality treatment. Regardless of how the StormCapture system is used, some sedimentation may occur in the modules during the time water is stored.

Configurations

The configuration of the StormCapture systems may vary, depending on the water quality and/or quantity requirements of the site. StormCapture configurations for detention, retention/infiltration, and retention/harvesting are described below.

Detention

StormCapture Detention systems are designed with a closed bottom to detain stormwater runoff for controlled discharge from the site. This design may incorporate a dead storage sump and a permanent pool of water if the outlet pipe is higher than the floor elevation. Discharge from the system is typically controlled by an outlet orifice and/or outlet weir to regulate the rate of stormwater leaving the system. StormCapture Detention systems are typically designed with silt-tight joints, however when conditions exist that require a StormCapture system to be watertight, the system may be wrapped in a continuous, impermeable geomembrane liner. If the StormCapture Detention system includes Link Slabs, a liner must be used to detain water since the chambers under each Link Slab have no floor slab. In this case, care must be taken by maintenance personnel not to damage the exposed liner beneath each Link Slab.

Retention/Infiltration

StormCapture Retention/Infiltration systems are designed with an open bottom to allow for the retention of stormwater onsite through infiltration into the base rock and surrounding soils. For infiltration systems, the configuration of the base of the StormCapture system may vary, depending on the needs of the site and the height of the system. Some systems may use modules that have fully open bottoms with no concrete floor, while other systems may use modules that incorporate floor openings in the base of each module. These are typically 24-inch by 24-inch openings. For open-bottom systems, concrete splash pads may be installed below inlet grate openings and pipe inlets to prevent erosion of base rock. A StormCapture Infiltration system may have an elevated discharge pipe for peak overflow.

Retention/Harvesting

StormCapture Retention/Harvesting systems are similar to detention systems using closed-bottom modules, but stormwater is typically retained onsite for an extended period of time and later reused for non-potable applications or irrigation. For rainwater harvesting systems, an impermeable geomembrane liner is typically installed around the modules to provide a water-tight system.

Inspection and Maintenance Overview

State and local regulations typically require all stormwater management systems to be inspected on a regular basis and maintained as necessary to ensure performance and protect downstream receiving waters. Inspections should be used to evaluate the conditions of the system. Based on these inspections, maintenance needs can be determined. Maintenance needs vary by site and system. Using this Inspection & Maintenance Guide, qualified maintenance personnel should be able to provide a recommendation for maintenance needs. Requirements may range from minor activities such as removing trash, debris or pipe blockages to more substantial activities such as vacuuming and removal of sediment and/or non-draining water. Long-term maintenance is important to the operation of the system since it prevents excessive pollutant buildup that may limit system performance by reducing the operating capacity and increasing the potential for scouring of pollutants during periods of high flow.

Only authorized personnel shall inspect and/or enter a StormCapture system. Personnel must be properly trained and equipped before entering any underground or confined space structure. Training includes familiarity with and adherence to any and all local, state and federal regulations governing confined space access and the operation, inspection, and maintenance of underground structures.

Inspection and Maintenance Frequency

The StormCapture system should be inspected on a regular basis, typically twice per year, and maintained as required. The maintenance frequency will be driven by the amount of runoff and pollutant loading encountered by a given system. Local jurisdictions may also dictate inspection and maintenance frequencies.

Inspection Equipment

The following equipment is helpful when conducting StormCapture inspections:

- Recording device (pen and paper form, voice recorder, iPad, etc.)
- Suitable clothing (appropriate footwear, gloves, hardhat, safety glasses, etc.)
- Traffic control equipment (cones, barricades, signage, flagging, etc.)
- Manhole hook or pry bar
- Confined space entry equipment, if needed
- Flashlight
- Tape measure
- Measuring stick or sludge sampler
- Long-handled net (optional)

Inspection Procedures

A typical StormCapture system provides strategically placed access points that may be used for inspection. StormCapture inspections are usually conducted visually from the ground surface, without entering the unit. This typically limits inspection to the assessment of sediment depth, water drain down, and general condition of the modules and components, but a more detailed assessment of structural condition may be conducted during a maintenance event.

To complete an inspection, safety measures including traffic control should be deployed before the access covers are removed. Once the covers have been removed, the following items should be inspected and recorded (see form provided at the end of this document) to determine whether maintenance is required:

- Observe inlet and outlet pipe penetrations for blockage or obstruction.
- If possible, observe internal components like baffles, flow control weirs or orifices, and steps or ladders to determine whether they are broken, missing, or possibly obstructed.
- Observe, quantify, and record the sediment depths within the modules.
- Retrieve as much floating trash as possible with a long-handled net. If a significant amount of trash remains, make a note in the Inspection & Maintenance Log.
- For infiltration systems, local regulations may require monitoring of the system to ensure drain down is occurring within the required permit time period (typically 24 to 72 hours). If this is the case, refer to local regulations for proper inspection procedure.

Maintenance Indicators

Maintenance should be scheduled if any of the following conditions are identified during the inspection:

- Inlet or outlet piping is blocked or obstructed.
- Internal components are broken, missing, or obstructed.
- Accumulation of more than six inches of sediment on the system floor or in the sump, if applicable.
- Significant accumulation of floating trash and debris that cannot be retrieved with a net.
- The system has not drained completely after it hasn't rained for one to three days, or the drain down does not meet permit requirements.
- Any hazardous material is observed or reported.

Maintenance Equipment

The following equipment is helpful when conducting StormCapture maintenance:

- Suitable clothing (appropriate footwear, gloves, hardhat, safety glasses, etc.)
- Traffic control equipment (cones, barricades, signage, flagging, etc.)
- Manhole hook or pry bar
- Confined space entry equipment, if needed
- Flashlight
- Tape measure
- Vacuum truck

Maintenance Procedures

Maintenance should be conducted during dry weather when no flow is entering the system. Confined space entry is usually required to maintain the StormCapture. Only personnel that are OSHA Confined Space Entry trained and certified may enter underground structures. Once safety measures such as traffic control have been deployed, the access covers may be removed and the following activities may be conducted to complete maintenance:

- Remove trash and debris using an extension on the end of the boom hose of the vacuum truck. Continue using the vacuum truck to completely remove accumulated sediment. Some jetting may be necessary to fully evacuate sediment from the system floor or sump. Jetting is acceptable in systems with solid concrete floors or base slabs (referred to as closed-bottom systems). However, jetting is not recommended for open-bottom systems with a gravel foundation since it may cause bedding displacement, undermining of the foundation, or internal disturbance.
- All material removed from the system during maintenance must be disposed of in accordance with local regulations. In most cases, the material may be handled in the same manner as disposal of material removed from sumped catch basins or manholes.
- Inspect inlet and outlet pipe penetrations for cracking and other signs of movement that may cause leakage.
- Inspect the concrete splash pads (applicable for open-bottom systems only) for proper function and placement.
- Inspect the system for movement of modules. There should be less than 3/4-inch spacing between modules.
- Inspect the general interior condition of modules for concrete cracking or deterioration. If the system consists of horizontal joints as part of the modules, inspect those joints for leakage, displacement or deterioration.

Be sure to securely replace all access covers, as appropriate, following inspection and/or maintenance. If the StormCapture modules or any of the system components show significant signs of cracking, spalling, or deterioration or if there is evidence of excessive differential settlement between modules, contact Oldcastle Infrastructure at **800-579-8819.**

StormCapture Inspection & Maintenance Log

Refer to as-built records for details about system size and location onsite

Location_____

System Configuration: Inspection Date_____

☐ Detention ☐ Infiltration ☐ Retention/Harvesting

Inlet or Outlet Blockage or Obstruction ☐ Yes ☐ No	**Notes:**
Condition of Internal Components ☐ Good ☐ Damaged ☐ Missing	**Notes:**
Sediment Depth Observed ☐ Inches of Sediment: _____	**Notes:**
Trash and Debris Accumulation ☐ Significant ☐ Not Significant	**Notes:**
Drain Down Observations ☐ Appropriate Time Frame ☐ Inappropriate Time Frame	**Notes:**

Maintenance Requirements

☐ Yes - Schedule Maintenance ☐ No - Inspect Again in _____ Months

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STORMCAPTURE® TYPICAL DETAILS

Oldcastle Infrastructure
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STORMCAPTURE®

Installation Manual

Water

INTRODUCTION

StormCapture (shown in **Figure 1**) is a total stormwater management system. The highly-configurable module has many solutions for detention, retention, infiltration, treatment and harvesting. Multiple modules can be arranged into endless formations to meet the needs of even the most challenging sites. The rectangular design facilitates rapid and easy installation, plus stress-free maintenance. The precast concrete provides long-term reliability and low lifecycle costs.

The engineer of record is responsible for reviewing and approving the system design, storage volume, required depth of cover, vehicular loading, water table elevation, backfill material and soil bearing capacity. Any variations found during construction to those stated on the plans must be reported to the engineer and Oldcastle Infrastructure.

FIGURE 1

FIGURE 2

StormCapture System During Installation Process

SITE PREPARATION

TIMING

- Excavation and subgrade shall be completed prior to StormCapture delivery.

EXCAVATION** - See **Figures 3 & 4

- Depth
  Concrete invert: Depth of fill* + Module outside height + 2" subgrade depth
  Open bottom: Depth of fill* + Module outside height + subgrade depth**
  ** 6" minimum, 5' maximum, unless otherwise noted*
  *** Subgrade depth determined in accordance with StormCapture Tech Note SC-01*
- Excavation shall be large enough to allow access around structure for backfilling and compaction equipment.
- Trench sloping shall follow OSHA requirements.
- To prevent excessive water pressure build up on the outside of the modules, the site must be prepared and graded for proper drainage around the StormCapture system.
- Dewatering is required when water level is above bottom of subgrade.

SUBGRADE** - See **Figures 3 & 4

1. Native soil shall be level and compacted adequately to allow for required bearing capacity on design documents.
2. Add 2" of sand for leveling purposes.
3. Geotextile fabric and containment membrane liner.
   - An 8 oz. non-woven geotextile fabric must be used as a separation layer around the StormCapture system.
   - When the project requires a containment membrane liner, a layer of 8 oz. non-woven geotextile fabric must be used on both the inside and outside face of the liner.
   - Install containment membrane liner per manufacturer's recommendations.
4. Aggregate bearing layer - *See **Figure 3***
   - Open-bottom modules only are required to be placed on a crushed aggregate bearing layer to a depth in accordance with StormCapture Tech Note SC-01. Material shall be clean, durable crushed aggregate compacted as directed by the engineer of record. Oldcastle recommends size 5, 56 or 57 (per ASTM C33).
   - Extend aggregate bearing layer a minimum of 1' around the system perimeter.
   - Aggregate bearing layer must be level and compacted prior to module placement.
   - An 8 oz. non-woven geotextile fabric must be used as a separation layer around the aggregate material and StormCapture system.

***Note:** Further investigation by a geotechnical engineer may be required where there are concerns with seasonally high water table, and/or poor soil conditions such as low allowable bearing capacity, permafrost and seasonal freeze/thaw cycles.*

FIGURE 3

1-Piece Module - With Liner

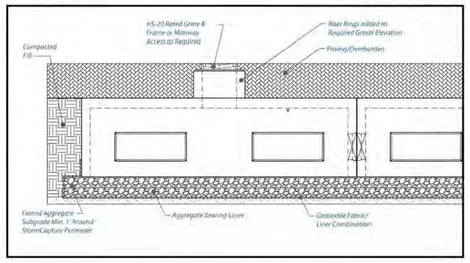
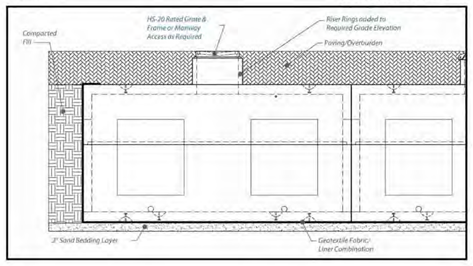


FIGURE 4

2-Piece Module - With Liner



DELIVERY & INSTALLATION

StormCapture modules are to be installed in accordance with ASTM C891-90, Installation of Underground Precast Utility Structures. Project plan and specifications must be followed along with any applicable regulations.

TIMING

- Plan for first delivery of StormCapture modules after site preparation is completed.
- Individual pieces can be installed in as little as 10 minutes.

DELIVERY

- Verify that equipment can handle module weights as noted on construction documents prior to delivery.
- StormCapture modules will be delivered on flatbed trucks.

HANDLING

- StormCapture modules are lifted by the designed embedded lifers at points provided by Oldcastle (**Figure 5**).
- Designed embedded lifters must be used. Use proper rigging to assure all lifters are equally engaged with a minimum 60° angle on slings (**Figure 6**).
- Special lifting clutches are required and shall be coordinated with the producing plant.
- Always follow safety protocols for handling StormCapture modules during installation as illustrated on this page.
- Never stand under load (**Figure 7**).
- Never place hands in the lift gear (**Figure 8**).
- Never place hands under load (**Figure 9**).

PLACEMENT

- Use the plan line, grade and elevations shown on the construction documents to install the modules. The sand bedding or aggregate bearing layer must be level.
- Modules must be placed as close together as possible with gaps no greater than 3/4".
- All vertical & top joints shall be covered with an 8" minimum width self-adhesive joint wrap as shown in **Figure 10**.
- Horizontal joints between modules or slabs shall be sealed with Conseal CS-102 butyl rubber sealant as shown in **Figure 11**.
- Seal pipe penetrations to containment membrane liner with pipe boots per liner manufacturer's recommendations.

FIGURE 6

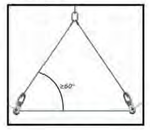


FIGURE 5

EMBEDDED LIFTERS

FIGURE 7

NEVER UNDER LOAD

FIGURE 8

NO HAND IN LIFT GEAR

FIGURE 9

NO HAND UNDER LOAD

FIGURE 10

Sealed Joints Between Modules

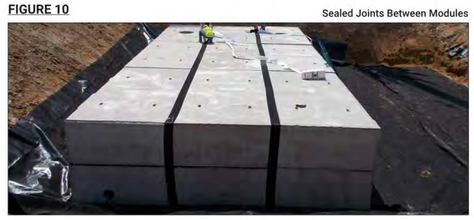
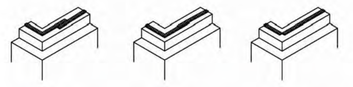


FIGURE 11

Keyways must be free of dirt, rocks and water. Rocks and dirt prevent the vault sections from seating and sealing properly. Remove all protective paper from rubber sealant material. Splice rubber sealant material with a "side by side" joint, away from corners. Corner splicing will not seal properly.



CORRECT - Install rubber sealant material at the outer edge of the keyway. Rubber sealant should be continuous around corners.

INCORRECT - Do not overlap the rubber sealant material at splice.

INCORRECT - Do not overlap the rubber sealant material at a corner. Rubber sealant should be continuous around corners.

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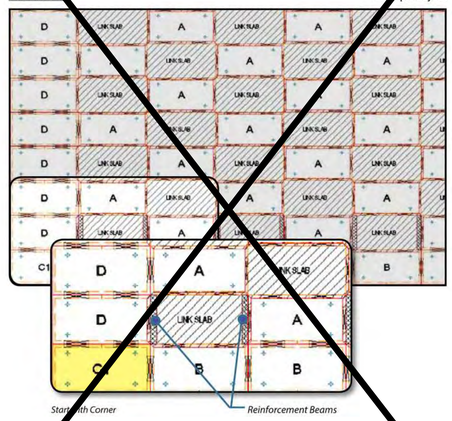
STORMCAPTURE® TYPICAL DETAILS

LinkSlab® Procedure

These procedures reference the diagram below. This diagram is not indicative of all site layouts. Refer to the site plan for the project specific configuration.

FIGURE 12 Example Layout

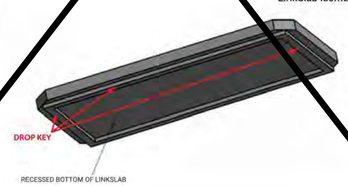


LinkSlab Procedure

Maintaining proper line and grade is critical to installation. A qualified surveyor on the site with proper equipment is recommended to ensure a square, level and straight layout. Subgrade must be compacted.

1. Start in the corner of the layout and place the first bottom module C1.
2. Place adjacent bottom modules B, B, D, D. Be sure to set the corners square and straight (from C1 up with D modules, and from C1 right with B modules).
3. Where called out on plans, place reinforcement beams between the modules where the LinkSlab will sit (between B and A). Reinforcement beams may not be required at all locations. Also refer to the project specific configuration.
4. Place interior modules A, A.
   - Check the distance between pieces when there is a gap for a LinkSlab. Both bottom corners should be between 8' and 8'-1 ¼".
5. Place Conseal CS-102 at the horizontal joints.
6. Place top modules (C1, B, B, D, D, A, A).
   - Check the distance between pieces when there is a gap for a LinkSlab. Both top corners should be 8' and 8'-1 ¼".
7. Place Conseal CS-102 for the horizontal LinkSlab joints on D, A, A and B.
8. Place the LinkSlab. Ensure that it fits tightly between all adjacent modules. The drop key should fit inside the adjacent modules. Do not allow the LinkSlab to rest on the drop key.
   - Ensure surface contact with the bottom of the LinkSlab and the top of the adjacent modules. Reset adjacent modules as necessary to correct the problem.
9. Continue placing adjacent modules and LinkSlabs.
   - Oldcastle Infrastructure recommends placing each LinkSlab as soon as the supporting modules are in place to ensure proper fit.
10. Continue installation procedure as recommended in the StormCapture Installation Manual.

FIGURE 13 LinkSlab Isometric View



Backfill

Once all modules are in place with joints sealed and geotextile fabric wrapped, the StormCapture system shall be inspected by the engineer of record or an accepted representative. Upon approval, backfilling can begin.

- Do not compact within 6" of module to avoid damaging the system. Care shall be taken during placement of backfill not to displace modules, joint wrap, containment membrane liner or geotextile fabric.
- Backfilling shall be in 1' lifts with proper compaction between lifts. Typical backfill shall be compacted to 95% standard proctor density or as specified.
- Expansive soil material shall not be used as backfill around the structure.
- Compaction shall be adequate to support expected loads on top of the system and surrounding area. Consult with geotechnical engineer for the project.
- Once installed, StormCapture modules are ready for paving or overburden material (**Figure 14**).
- Finished grading, paving and landscaping shall be per construction documents.
- Construction equipment exceeding design loading shall not be allowed on structure. Consult Oldcastle Infrastructure if unsure.
- Contact Oldcastle Infrastructure and the engineer of record if the live loads are greater than HS-20.
- Track vehicles including D-4 type dozers or lighter are permitted.

FIGURE 14 Backfill

Installation Is Now Complete

Project specific conditions may apply. Please refer to design documents for any special circumstances regarding installation or infiltration. ***Oldcastle Infrastructure is not liable for installation.***

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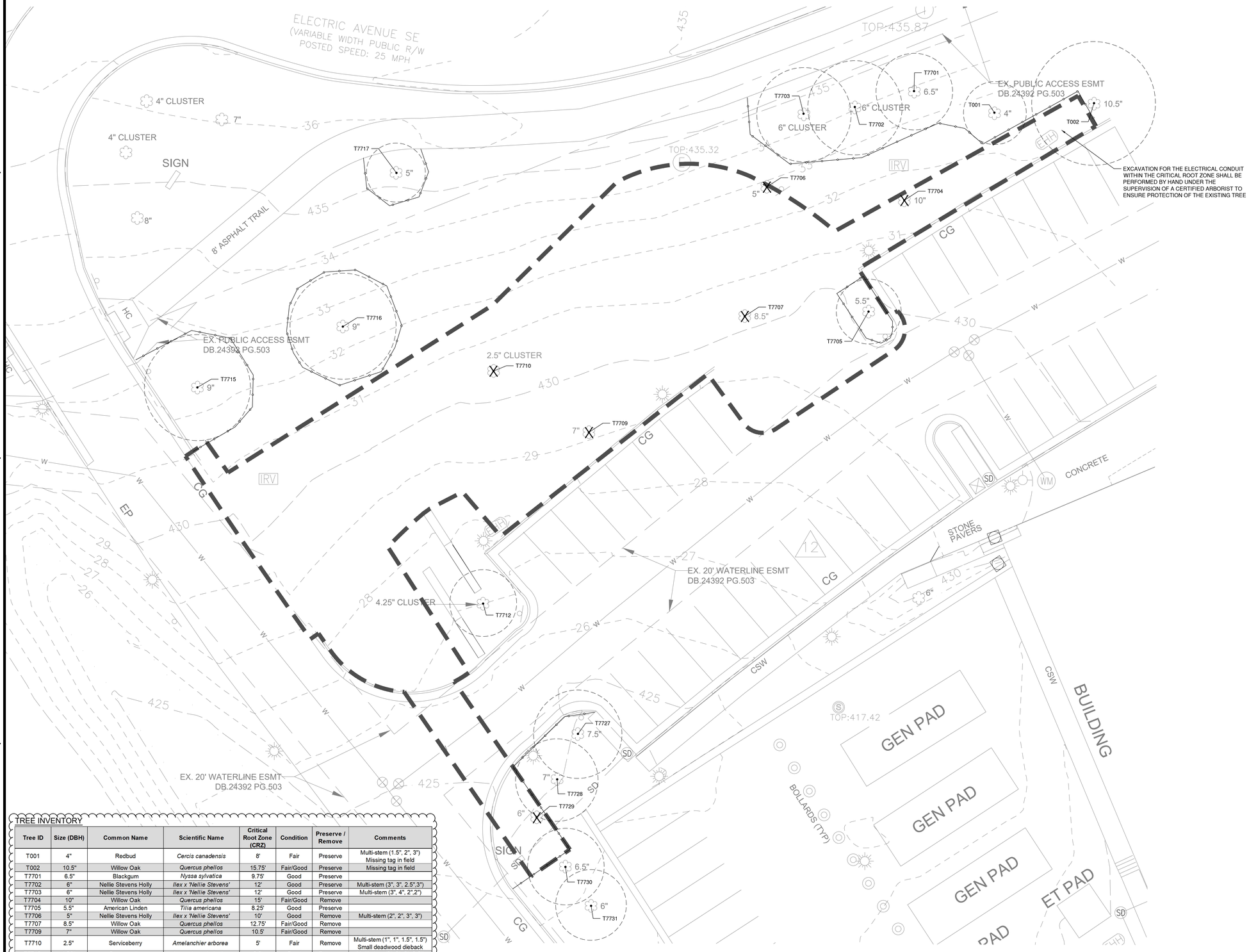
TREE INVENTORY LEGEND

EXISTING TREE W/CRITICAL ROOT ZONE (TO REMAIN)

EXISTING TREE (TO BE REMOVED)

TREE PROTECTION FENCE *SEE L-201 FOR ADDITIONAL INFORMATION*

PLAN PREPARED BY: JANICE M. CENA, PLA
ISA CERTIFIED ARBORIST No. MA-4469A



10 0 10
SCALE IN FEET

N

TREE INVENTORY

Tree ID	Size (DBH)	Common Name	Scientific Name	Critical Root Zone (CRZ)	Condition	Preserve / Remove	Comments
T001	4"	Redbud	*Cercis canadensis*	8'	Fair	Preserve	Multi-stem (1.5", 2", 3") Missing tag in field
T002	10.5"	Willow Oak	*Quercus phellos*	15.75'	Fair/Good	Preserve	Missing tag in field
T7701	6.5"	Blackgum	*Nyssa sylvatica*	9.75'	Good	Preserve	
T7702	6"	Nellie Stevens Holly	*Ilex x 'Nellie Stevens'*	12'	Good	Preserve	Multi-stem (3", 3", 2.5",3")
T7703	6"	Nellie Stevens Holly	*Ilex x 'Nellie Stevens'*	12'	Good	Preserve	Multi-stem (3", 4", 2",2")
T7704	10"	Willow Oak	*Quercus phellos*	15'	Fair/Good	Remove	
T7705	5.5"	American Linden	*Tilia americana*	8.25'	Good	Preserve	
T7706	5"	Nellie Stevens Holly	*Ilex x 'Nellie Stevens'*	10'	Good	Remove	Multi-stem (2", 2", 3", 3")
T7707	8.5"	Willow Oak	*Quercus phellos*	12.75'	Fair/Good	Remove	
T7709	7"	Willow Oak	*Quercus phellos*	10.5'	Fair/Good	Remove	
T7710	2.5"	Serviceberry	*Amelanchier arborea*	5'	Fair	Remove	Multi-stem (1", 1", 1.5", 1.5") Small deadwood dieback
T7712	4.25"	Crapemyrtle	*Lagerstroemia indica*	8.5'	Good	Preserve	Multi-stem (2", 2", 2", 2.5")
T7715	9"	Willow Oak	*Quercus phellos*	13.5'	Fair/Good	Preserve	
T7716	9"	Willow Oak	*Quercus phellos*	13.5'	Fair	Preserve	Small deadwood dieback
T7717	5"	Blackgum	*Nyssa sylvatica*	7.5'	Good	Preserve	
T7727	7.5"	American Linden	*Tilia americana*	11.25'	Good	Preserve	
T7728	7"	Japanese Cryptomeria	*Cryptomeria japonica*	10.5'	Fair/Good	Preserve	
T7729	6"	Japanese Cryptomeria	*Cryptomeria japonica*	9'	Fair/Good	Remove	
T7730	6.5"	Japanese Cryptomeria	*Cryptomeria japonica*	9.75'	Fair/Good	Preserve	
T7731	6"	Willow Oak	*Quercus phellos*	9'	Good	Preserve	

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0	1/24/2025	ISSUED FOR PRICING AND PERMIT

REVISIONS:

DRAWING TITLE:

EXISTING TREE INVENTORY

PROJECT NO.:	ISSUE DATE:
50184423	25.06.06
DRAWN BY:	CHECKED BY:

SHEET NUMBER:

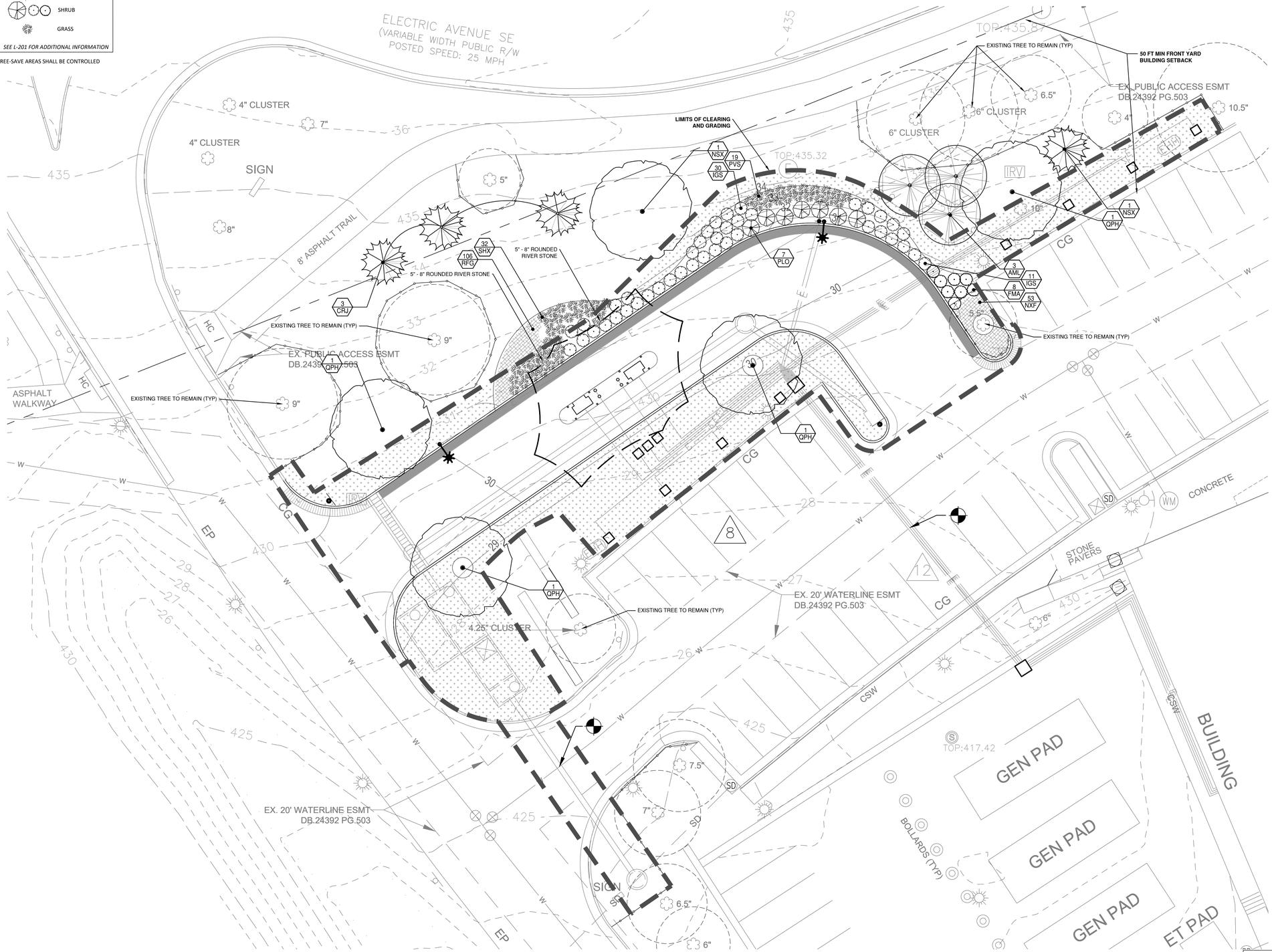
L-100

PLANTING LEGEND

- LAWN
- GROUNDCOVER / PERENNIALS
- DECORATIVE RIVER STONE
- EXISTING TREE (TO REMAIN)
- CANOPY TREE
- UNDERSTORY TREE
- SHRUB
- GRASS
- TREE PROTECTION FENCE

SEE L-201 FOR ADDITIONAL INFORMATION

NOTES:
1. ALL INVASIVE PLANTS AND VINES WITHIN TREE-SAVE AREAS SHALL BE CONTROLLED AND REMOVED FROM TREES.



SCALE IN FEET: 10 0 10

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COMMONWEALTH OF VIRGINIA
JOHN B. STORY JR.
Lic. No. 1522
06.06.25
LANDSCAPE ARCHITECT

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DRAWING TITLE:
TREE PRESERVATION AND LANDSCAPE PLAN

PROJECT NO.:	ISSUE DATE:
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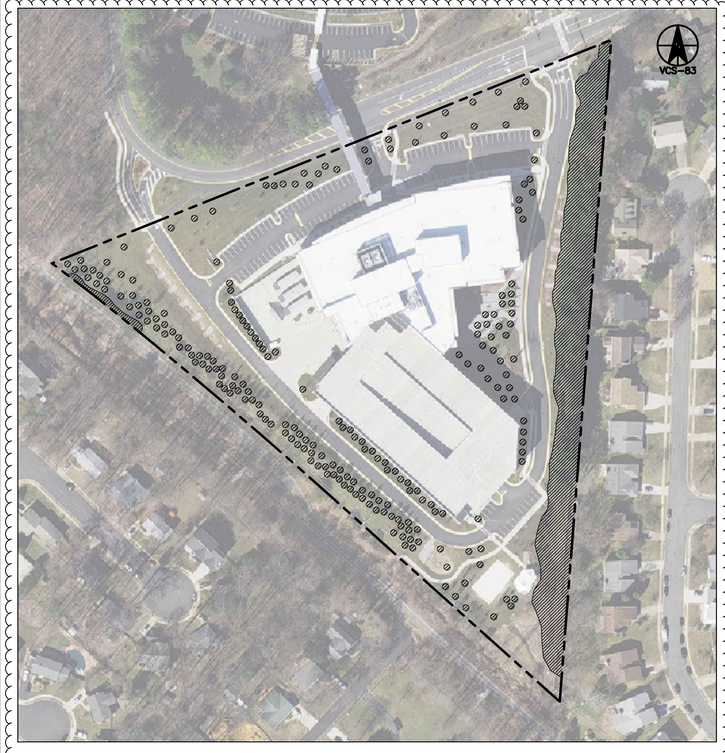
L-101

PLANT SCHEDULE

QTY	KEY	LATIN NAME	COMMON NAME	SIZE	ROOT CONDITION	20-YEAR CCA PER TREE (SF)	TOTAL CCA PROVIDED (SF)
Trees							
3	AML	Amelanchier arborea	Downy Serviceberry	2 - 2 1/2" cal.	B&B - 3 STEM	150	450
3	CRJ	Cryptomeria japonica	Japanese Cryptomeria	8' ht.	B&B	150	450
1	INX	Ilex x 'Nellie Stevens'	Nellie Stevens Holly	8' ht.	B&B	200	200
1	NSX	Nyssa sylvatica	Blackgum	2 - 2 1/2" cal.	B&B	250	250
4	QPH	Quercus phellos 'Hightower'	Hightower Willow Oak	2 - 2 1/2" cal.	B&B	300	1,200
12							**2,550**
Shrubs							
8	FMA	Fothergilla major 'Mt Airy'	Mt Airy Fothergilla	3 gal.			
41	IGS	Ilex glabra 'Shamrock'	Shamrock Inkberry	3 gal.			
7	PLO	Prunus laurocerasus 'Otto Luyken'	Otto Luyken Cherry Laurel	3 gal.			
Perennials and Grasses							
53	NXF	Nepeta x faassenii 'Walker's Low'	Walker's Low Catmint	1 gal.	18" o.c.		
19	PVS	Panicum virgatum	Switchgrass	1 gal.	18" o.c.		
106	RFG	Rudbeckia fulgida 'Goldstrum'	Goldstrum Black-Eyed Susan	1 qt.	12" o.c.		
32	SHX	Sporobolus heterolepsis	Prairie Dropseed	1 gal.	24" o.c.		
Turf 4,110 sf							
		Tall fescue blend					
Decorative Stone 11 sf							
		Earth Tones (grey, brown, blue and red)	Rounded River Stone	5"-8"			

Canopy Coverage Analysis		
Instructions: Cells shaded green are for user inputs. For issues contact TOV Urban Forester.		
Row	**Project Address and/or Munis #:**	
A1	Gross site area sq. ft.	469,048
A2	Pre-development canopy coverage sq. ft.	87,678
A3	Percentage of gross site area covered by existing tree canopy (A2/A1)	18.7%
A4	Zone	CP
A5	Percentage of 20-year Tree Canopy required for site (see zoning chart)	10%
A6	Minimum 20-year Tree Canopy required for site sq. ft. (A1xA5)	46,905
A7	Tree Preservation Target (minimum tree canopy area required via tree preservation) sq. ft. (A3xA6)	8,768
A8	Tree canopy that will be provided through tree preservation sq. ft.	85,278
A10	Has the Tree Preservation Target minimum been met? (A8> or =A7)	Yes
A11	If No, then submit a request to deviate from the Tree Preservation Target. Including a site-specific explanation of why the Tree Preservation Target cannot be met. Provide sheet number where deviation request is located.	Narrative
B1	Canopy from retained trees that qualify for credit sq. ft. (A8)	85,278
	Multipliers - if the tree qualifies, may use both tree preservation multipliers. Canopy credits will only be given to trees with trunks that are fully located on the development site.	
B2	Tree Preservation multiplier 1.25 (B1x0.25)	21,320
B3	Forest Communities multiplier 1.5 (B1x0.5) (see 17-1003(d))	0
B4	Total preserved canopy including multipliers sq. ft. (B1+B2+B3)	106,598
C1	Canopy area that must be met with tree planting (A6-B4)	-59,693
C2	Tree Canopy area to be met through tree planting with multipliers (See Sheet Planting Plan:N1)	2,550
D1	Total canopy area provided through tree preservation sq. ft. (B4)	106,598
D2	Total canopy area provided through tree planting sq. ft (C2)	2,550
D3	Total 20 year canopy coverage provided (D1+D2)	109,148
D4	Total minimum 20 year canopy coverage required (A6)	46,905
D5	Are canopy coverage requirements met?	Yes
D6	If No, then submit a request to contribute to the Tree Fund to cover the unmet portion of the required minimum tree canopy coverage.	Narrative

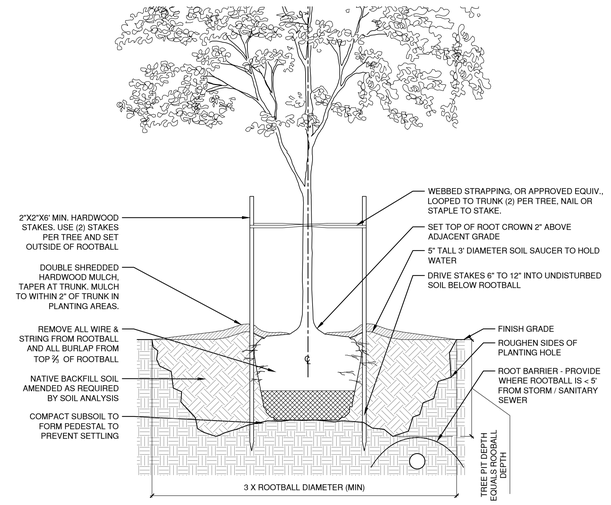


SCALE:1"=100'

TREE CANOPY COVERAGE KEY

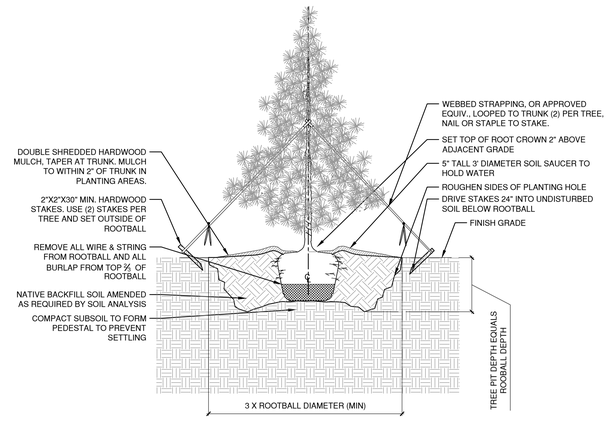
EXISTING TREE CANOPY

PROPERTY LINE



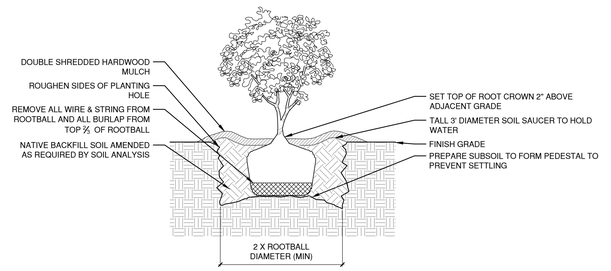
1 TREE PLANTING

Scale: NTS



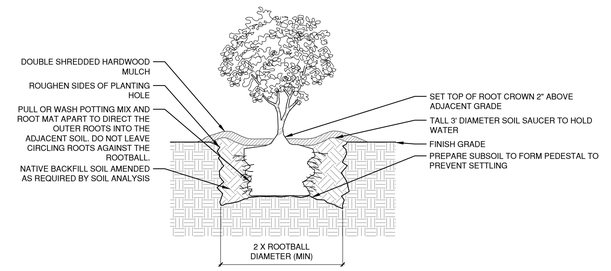
2 EVERGREEN TREE PLANTING

Scale: NTS



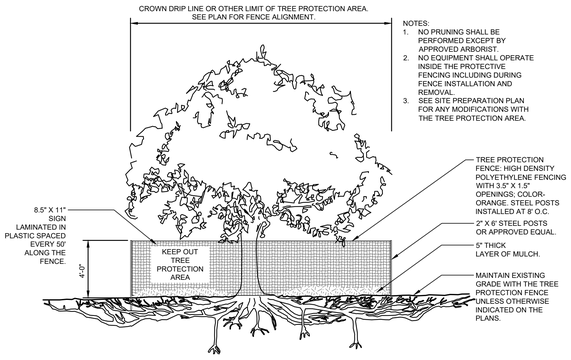
3 B&B SHRUB PLANTING

Scale: NTS



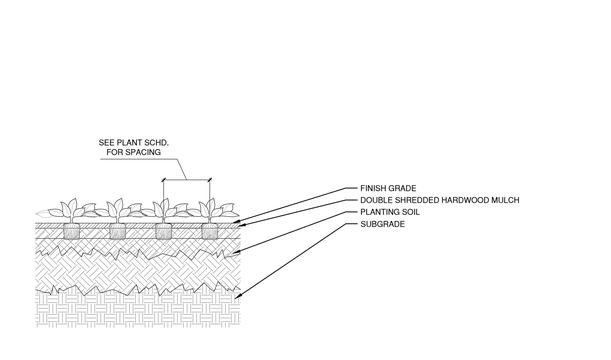
4 CONTAINER SHRUB PLANTING

Scale: NTS



5 TREE PROTECTION

Scale: NTS



6 PERENNIAL PLANTING

Scale: NTS

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LANDSCAPE SCHEDULE & DETAILS

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L-201

GENERAL NOTES

1. THE CONTRACTOR SHALL FULLY ACQUAINT HIMSELF/HERSELF WITH THE CONDITIONS OF THE CONTRACT, LOCAL CONDITIONS RELATING TO THE LOCATION, ACCESSIBILITY AND GENERAL CHARACTER OF THE CONSTRUCTION SITE AND LOCAL LABOR CONDITIONS SO THAT HE/SHE UNDERSTANDS THE NATURE, EXTENT, DIFFICULTIES AND RESTRICTIONS RELATED TO THE EXECUTION OF THE WORK.
2. CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL GOVERNING ORDINANCES, CODES AND REGULATIONS.
3. CONTRACTOR SHALL VERIFY DIMENSIONS, GRADES, LEVELS, BOUNDARIES AND CONSTRUCTION INDICATED ON CONTRACT DRAWINGS BEFORE PROCEEDING WITH THE WORK AND SHALL IMMEDIATELY BRING ANY DISCREPANCIES TO THE OWNER AND ARCHITECT.
4. ALL MATERIALS SHALL COMPLY WITH APPLICABLE CODES, ORDINANCES AND REGULATIONS.
5. DIMENSIONS, NOTES, FINISHES AND FIXTURES SHOWN ON TYPICAL PLANS, SECTIONS OR DETAILS SHALL APPLY TO SIMILAR, SYMMETRICAL OR OPPOSITE PLANS, SECTIONS OR DETAILS.
6. DO NOT SCALE DRAWINGS. NUMERICAL DIMENSIONS SUPERSEDE SCALED DIMENSIONS. CONSULT THE ARCHITECT FOR DIMENSIONS NOT INDICATED OR IN ERROR.
7. CONTRACTOR SHALL NOT MAKE OR CAUSE TO BE MADE OR PERMIT A SUBCONTRACTOR TO MAKE ANY CHANGE TO WHAT IS SPECIFIED IN THE CONTRACT DOCUMENTS WITHOUT SPECIFIC AUTHORIZATION OF THE ARCHITECT.
8. THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. SAFETY, CARE FOR ADJACENT PROPERTIES DURING CONSTRUCTION, COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SAFETY AND COMPLIANCE WITH THE REQUIREMENTS SPECIFIED IN THE OWNER AGREEMENT IS AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
9. FOR THE MEANS AND METHODS OF CONSTRUCTION OF THIS PROJECT, CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, AND SAFETY PROCEDURES AND FOR COORDINATING ALL PORTIONS OF WORK.
10. ALL WORK SHALL BE COMPLETED TO AT LEAST THE STANDARDS ESTABLISHED FOR THE INDUSTRY OR TRADE FOR A PARTICULAR ITEM. ANY QUESTIONS RELATED TO QUALITY SHALL BE ADDRESSED TO THE ARCHITECT PRIOR TO THE SUBMISSION OF BIDS OR THE ORDERING, FABRICATION, INSTALLATION OR STORAGE OF THESE ITEMS.

GENERAL LANDSCAPE NOTES

1. LANDSCAPE WORK SHALL INCLUDE, BUT IS NOT LIMITED TO, THE SUPPLYING OF ALL PLANT MATERIALS SPECIFIED, THE FURNISHING OF ALL LABOR, EQUIPMENT, WATER, ELECTRICITY, EQUIPMENT AND ALL MATERIALS CALLED. THE WORK SHALL INCLUDE MAINTAINING OF ALL PLANTS AND PLANTING AREAS UNTIL FINAL ACCEPTANCE BY THE OWNER. THE CONTRACTOR SHALL ASSIGN A QUALIFIED PROJECT MANAGER AND FIELD SUPERVISOR TO WORK DIRECTLY WITH THE ARCHITECT AND SUPERVISE THE WORK AT ALL TIMES THROUGH FINAL OWNER ACCEPTANCE.
2. ALL LANDSCAPE WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.
3. PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. VERIFICATION OF EXISTING CONDITIONS IS THE RESPONSIBILITY OF THE CONTRACTOR. THIS INCLUDES BUT IS NOT LIMITED TO: SOIL CONDITIONS, UTILITIES (UNDERGROUND AND ABOVE GROUND) EXISTING STRUCTURES, ETC.
5. THE CONTRACTOR SHOULD BE COMPLETELY FAMILIAR WITH LANDSCAPE PLANS PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES, POTENTIAL PROBLEMS, ETC. SHOULD BE MADE KNOWN TO THE ARCHITECT PRIOR TO COMMENCEMENT OF WORK.
6. ALL REASONABLE SAFEGUARDS ARE TO BE TAKEN IN ORDER TO PROTECT EXISTING STRUCTURES, PAVEMENT, FURNISHINGS, LAWN AND LANDSCAPING. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE THAT OCCURS AS A RESULT OF CONTRACTOR NEGLIGENCE.
7. EXISTING AND PROPOSED DRAINAGE PATTERNS ARE NOT TO BE DISTURBED BY THE CONTRACTOR IN A WAY THAT IS INCONSISTENT WITH THE LANDSCAPE PLANS.
8. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK TO BE PERFORMED WITH THE WORK OF OTHER SUBCONTRACTORS ON THE SITE, INCLUDING SCHEDULING AND PHYSICAL INTERFERENCE.
9. THE CONTRACTOR MUST CONFIRM THE AVAILABILITY OF ALL SPECIFIED PLANT MATERIAL PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL ARRANGE FOR APPROVAL OF PLANT MATERIALS BY THE ARCHITECT VIA FIELD VISITS/TAGGING AND OR SUBMISSION OF PHOTOS OF ALL TREES AT THE DISCRETION OF THE ARCHITECT.
10. ALL PLANT MATERIAL SHALL MEET OR EXCEED THE AMERICAN STANDARDS FOR NURSERY STOCK AS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN AND APPROVED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE INC.
11. ALL PLANT MATERIAL SIZES SPECIFIED ARE MINIMUM SIZES. ALL CONTAINER AND TREE CALIPER SIZES ARE MINIMUM. CONTAINER OR CALIPER SIZE MAY BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZE SPECIFIED.
12. ALL PLANT MATERIAL SHALL BE SUBJECT TO APPROVAL AT THE JOB SITE BY THE ARCHITECT PRIOR TO INSTALLATION. WHEN DELIVERED PLANT MATERIAL DOES NOT COMPLY WITH THE REQUIREMENTS, THE ARCHITECT RESERVES THE RIGHT TO REJECT SUCH PLANTS AND REQUIRE THE CONTRACTOR TO REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED AND FOUND TO BE ACCEPTABLE. THE CONTRACTOR SHALL REMOVE REJECTED PLANTS AND MATERIALS FROM THE PLANTING SITE WITHIN 72 HOURS AND REPLACE WITH ACCEPTABLE MATERIALS.
13. THE TOWN OF VIENNA URBAN FORESTER SHALL INSPECT AND APPROVE ALL PLANTS REQUIRED ON THE APPROVED SITE PLAN BEFORE INSTALLATION. ADDITIONALLY, THE INSTALLATION LOCATION AND THE CLIMACTIC CONDITIONS SHALL BE EVALUATED AND APPROVED BEFORE INSTALLATION.
14. NO PLANT SUBSTITUTIONS WILL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT. ANY SUBSTITUTIONS MUST BE SUBMITTED IN WRITING ACCOMPANIED BY PICTURES OR SAMPLES FOR APPROVAL BY THE ARCHITECT PRIOR TO INSTALLATION.
15. ALL SHRUB BEDS SHALL BE TILLED TO MINIMUM DEPTH OF 12".
16. ALL LAWN AREAS SHALL BE TILLED TO A MINIMUM DEPTH OF 6".
17. PLANTING BEDS TO BE SEPARATED FROM LAWN AREAS WITH METAL EDGING (1/8" X 5-1/2" MIN.) AS SPECIFIED OR 4" DEEP EXCAVATED TRENCH. THE TRENCH SHALL HAVE A VERTICAL FACE AGAINST THE LAWN AREA, AND A GENTLY TAPERED EDGE LEADING INTO THE SHRUB BED.
18. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SOIL IN ALL PLANTED AREAS IS OF AN APPROPRIATE TYPE AND CONSISTENCY FOR PLANTING AND AT THE CORRECT PH. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING SOIL SUITABILITY, AND ANY NECESSARY AMENDMENTS SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING EXISTING VEGETATION AS REQUIRED AND PREPARING PLANTING AREAS PRIOR TO INSTALLATION OF PLANT MATERIALS.
20. THE LANDSCAPE CONTRACTOR SHALL TEST THE SITE SOILS TO VERIFY THAT THEY ARE ACCEPTABLE FOR PROPER GROWTH OF PLANT MATERIALS AND ADEQUATE DRAINAGE IN PLANT BEDS AND PLANTERS. THE LANDSCAPE CONTRACTOR SHALL COORDINATE THE LOCATION, AND PROCUREMENT OF EXISTING ON-SITE SOIL SAMPLES WITH THE ARCHITECT. REPRESENTATIVE SAMPLES SHALL BE SUBMITTED TO A CERTIFIED TESTING LABORATORY FOR ANALYSIS. THE FINDINGS, TOGETHER WITH RECOMMENDATIONS FOR AMENDING THE SOILS SHALL BE REVIEWED AND APPROVED BY THE OWNER AND ARCHITECT PRIOR TO DELIVERY AND INSTALLATION OF PLANT MATERIALS AT THE JOB.
21. THE LANDSCAPE CONTRACTOR SHALL ENSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS. VERTICAL DRILLING THROUGH HARDPAN AND COMPACTED FILL SHALL BE ACCOMPLISHED TO ENSURE DRAINAGE.
22. ALL PLANTING BEDS SHALL BE STAKED AND OR PAINTED BY THE CONTRACTOR FOR APPROVAL BY THE ARCHITECT PRIOR TO PLANT INSTALLATION. TREES SHALL BE LOCATED WITH STAKES OR FLAGS FOR APPROVAL BY THE ARCHITECT PRIOR TO INSTALLATION.
23. ALL PROPOSED TREES SHALL BE INSTALLED EITHER ENTIRELY IN OR ENTIRELY OUT OF PLANTING BEDS. PLANTING BED OUTLINES SHALL NOT BE OBSTRUCTED AND SHALL BE SMOOTH AND FLOWING. IF TREES ARE LOCATED OUTSIDE PLANTING BEDS IN SOD AREAS, MAINTAIN A MINIMUM 3' WIDE OFFSET.
24. PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE LANDSCAPE CONTRACTOR. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.
25. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE AMOUNT OF SOD OR SEED REQUIRED TO INSTALL LAWN AREAS ACCORDING TO THE LANDSCAPE PLANS. ANY ADDITIONAL SOD OR SEEDED AREAS ADDED TO THE PLANS DURING THE INSTALLATION PROCESS SHALL BE PROVIDED BY THE CONTRACTOR AT A MUTUALLY AGREED UPON SQ. FT. UNIT COST. AREAS TO BE SODDED OR SEEDED SHALL BE AMENDED PER SOILS REPORT TO PROVIDE REQUIRED NUTRIENTS AND SOIL PH OF BETWEEN 6.0 AND 7.0.
26. ALL LAWN AREAS WITHIN THE PROJECT'S BOUNDARY SHALL BE SODDED OR SEEDED WITH A SUN/SHADE SOD OR SEED MIX AS FOLLOWS:
    a. SHADOW/SHADE
        - SIMMONS CREEPING RED FESCUE 24.73%
        - VIKING H2O HARD FESCUE 24.19%
        - AMBROSE CHEWINGS FESCUE 23.23%
        - PALMER III PERENNIAL RYEGRASS 22.96%
    b. SUN
        - TITANIUM G I S TALL FESCUE 34.59%
        - VALKYRIE I S TALL FESCUE 34.48%
        - DYNAMITE G I S 29.40%
27. TOPSOIL FOR ALL LAWN AREAS SHALL BE RAKED SMOOTH TO FINISH GRADE, STABILIZED AND FREE OF RUTS, MOUNDS, RIDGES AND STONES / DEBRIS GREATER THAN 1 INCH.
28. SATISFACTORY TURF:
    a. SODDED: AT END OF MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIABLE TURF HAS BEEN ESTABLISHED, FREE OF WEEDS, OPEN JOINTS, BARE AREAS, AND SURFACE IRREGULARITIES.
    b. SEEDED: AT END OF MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF TURF HAS BEEN ESTABLISHED, FREE OF WEEDS, SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90% OVER ANY 10 SQUARE FOOT AREA AND BARE SPOTS NOT EXCEEDING 5 BY 5 INCHES.
29. PLANTS SHALL BE INSTALLED WHEN WEATHER AND SOIL CONDITIONS ARE CONDUCIVE TO PLANTING. GENERALLY, PLANTS SHALL NOT BE INSTALLED WHEN THE SOIL IS FROZEN, OR SATURATED WITH WATER, OR DURING TIMES OF SUMMER DROUGHT.
    a. SPRING PLANTING SEASON: MARCH 1 - JUNE 15
    b. FALL PLANTING SEASON: SEPTEMBER 115 - DECEMBER 31
30. TREE INSTALLATION SHALL COMPLY WITH THE LATEST VERSION OF ANSI A300 PART 6 TREE PLANTING BEST MANAGEMENT PRACTICES AND THE VIRGINIA COOPERATIVE EXTENSIONS TREE AND SHRUB PLANTING GUIDELINES PUBLICATION 430-295.
31. STAKING OF TREES SHALL BE REQUIRED IF DEEMED APPROPRIATE BY THE TOWN OF VIENNA URBAN FORESTER. WHEN REQUIRED, STAKING WILL BE INSTALLED TO MEET ANSI A300 STANDARDS.
32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY AND PLUMB CONDITION OF ALL INSTALLED PLANT MATERIALS AND REPLACING ANY DAMAGED PLANT MATERIAL. WITH PLANTS OF EQUAL KIND, SIZE AND CONDITION AT NO ADDITIONAL COST TO THE OWNER. NO CHAINS OR CABLES ATTACHED TO THE TRUNK SHALL BE USED WHEN INSTALLING PLANT MATERIALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS AND TREES FROM FALLING OR BEING BLOWN OVER, AND TO REPLACE ALL PLANTS WHICH ARE DAMAGED DUE TO INADEQUATE GUYING OR STAKING, AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL REMOVE ALL STAKING MATERIALS THE END OF THE WARRANTY PERIOD AND DISPOSE OFFSITE.
33. ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" LAYER OF MULCH AS SPECIFIED. ALL TREES SHALL RECEIVE A 3-INCH THICK LAYER OF MULCH IN A 6-FOOT DIAMATER RING SURROUNDING THE TREE, WITH A 6-INCH GAP FROM THE TRUNK. THE LANDSCAPE SCOPE OF WORK INCLUDES MULCHING AS AN INTEGRAL PART THE PROJECT AND NOT AS A SEPARATE COST ITEM.
34. ALL PLANT MATERIALS SHALL RECEIVE ADEQUATE WATERING BY THE CONTRACTOR AS REQUIRED UNTIL FINAL ACCEPTANCE BY OWNER.
35. ALL EXISTING PLANT BEDS TO REMAIN WITHIN THE CONSTRUCTION LIMIT LINE SHALL BE LEFT UNDISTURBED. EXISTING TREES TO REMAIN, AS NOTED ON THE DRAWINGS SHALL BE LEFT UNDISTURBED AND PROTECTED BY BARRICADES ERECTED AT THE PERIMETER OF THE TREE DRIPLINE(S) OR AS SPECIFIED ON THE TREE PRESERVATION DRAWINGS. NO VEHICLE SHALL TRAVERSE THIS AREA NOR SHALL ANY STORAGE OF MATERIALS OR EQUIPMENT BE PERMITTED WITHIN THE AREA OF THE TREE DRIPLINE(S). ANY EXISTING PLANT BEDS OR TREES DAMAGED BY CONSTRUCTION ACTIVITY SHALL BE REPLACED BY THE RESPONSIBLE PARTY AT THEIR OWN EXPENSE.
36. NO TREES SHALL BE PLANTED WITHIN DESIGNATED UTILITY CORRIDORS, PUBLIC RIGHTS OF WAY (WITHOUT RIGHTS OF WAY UTILIZATION PERMIT) NOR ANY PLANTS LOCATED WITHIN FOUR FEET (4') OF ANY SWALE CENTERLINE IDENTIFIED ON THE DRAWINGS. FIELD ADJUST AS NECESSARY AND REVIEW ADJUSTMENTS WITH THE ARCHITECT PRIOR TO INSTALLATION.
37. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING EFFECTIVE TRAFFIC CONTROL AND REMOVAL OF ALL DEBRIS AND EXCAVATED BACKFILL OFF-SITE ON A DAILY BASIS AT NO ADDITIONAL COST TO THE OWNER.
38. QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWING SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE ARCHITECT ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. THE ARCHITECT'S ESTIMATES ARE ONLY AN AID FOR CLARIFICATION OF UNITS AND A CHECK FOR THE CONTRACTOR TO COMPARE WITH HIS OWN ESTIMATES. DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. NO EXTRA COMPENSATION SHALL BE ALLOWED FOR EXTRA QUANTITIES NECESSARY TO COMPLETE THE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF PLANT MATERIAL ACCORDING TO DRAWINGS.
39. ALL PLANTS SHALL BE WARRANTED TO REMAIN ALIVE AND HEALTHY AND IN THRIVING CONDITION FOR ONE YEAR FROM THE DATE OF JOB ACCEPTANCE. PLANTS SHALL BE SPECIMEN QUALITY. PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF.
40. HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO THE MAIN BODY OF THE PLANT AND NOT FROM BRANCH TIP TO TIP. IF A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND NOT LESS THAN 50 PERCENT OF THE PLANTS SHALL BE AS LARGE AS THE MAXIMUM SIZE SPECIFIED.
41. SHADE TREES SHALL BE STRAIGHT UNLESS OTHERWISE SPECIFIED. SEE SPECIFICATIONS FOR FERTILIZER AND AMENDMENT ADDITIVES.
42. TREES SHALL BE PLANTED AT THE HEIGHT OF THE SURROUNDING GRADE WITH THE ROOTS FLARES VISIBLE. THE TRUNK FLARE DEPTH FOR ALL TREES SHOULD BE VISIBLE AT +/- 2" ABOVE GRADE.
43. ALL B&B TREES SHALL BE 100% ROOT PRUNED AT OR AFTER THE MIDPOINT OF THEIR LIFESPAN IN THE NURSERY. CONTRACTOR RESPONSIBLE FOR OBTAINING INFORMATION REGARDING NURSERY GROWING PRACTICES AND PROVISION OF THIS INFORMATION TO THE ARCHITECT.
44. ALL PLANTS SHALL HAVE THEIR CONTAINER REMOVED BEFORE PLANTING. FOR BALLED AND BURLAPPED TREES, A MINIMUM OF THE TOP HALF OF THE WIRE BASKET AND BURLAP SHALL BE CUT AWAY AND REMOVED FROM THE PLANTING HOLE. ALL TWINE, ROPE, TRUNK PROTECTION, TAGS, RIBBON, ETC. SHALL BE REMOVED FROM THE TREES AND PLANTING HOLES.
45. ALL B&B TREES SHALL BE MOVED WITH STRAPPING CONNECTED TO WIRE BASKET ONLY, NEVER ATTACHED DIRECTLY TO TREE TRUNK. CONTAINER PLANTS SHALL BE MOVED IN A WAY THAT IS COMPLETELY SUPPORTED BY THE CONTAINER, NOT THE TREE TRUNK.
46. ALL TREES TO BE INSTALLED WITH MOST ATTRACTIVE SIDE FACING PREDOMINANT POINT OF VISIBILITY.
47. CONTRACTOR TO ENSURE ALL TREE ROOTS BE STURDILY ESTABLISHED IN BALL THAT HAS BEEN TIGHTLY WRAPPED AND SECURELY TIED WITH TWINE OR WIRE, OR PINNED.
48. TREES SPECIFIED TO HAVE CLEAR TRUNK HEIGHT TO BE PURCHASED FROM THE NURSERY WITH SAID CLEAR TRUNK HEIGHT, NOT FIELD-PRUNED BY CONTRACTOR.

TREE PROTECTION STANDARDS

1. A PRE-CONSTRUCTION MEETING WITH THE TOWN OF VIENNA'S URBAN ARBORIST SHALL BE HELD ONSITE SO THAT THE ARBORIST CAN EXPLAIN PROTECTION MEASURES TO OPERATORS, CONSTRUCTION SUPERVISORS, AND/OR CONTRACTOR'S REPRESENTATIVES.
2. CONTRACTOR SHALL STAKE CLEARING LIMITS ONSITE IN ORDER TO FACILITATE LOCATION FOR TRENCHING AND FENCING INSTALLATION FOR TREE PROTECTION.
3. TREE PROTECTION MEASURES SHALL BE INSTALLED AS SHOWN ON PLANS BEFORE ANY SITE WORK INCLUDING DEMOLITION, GRADING, AND TREE REMOVAL.
4. THE USE OF HEAVY EQUIPMENT IS STRICTLY PROHIBITED WITHIN TREE PRESERVATION AREAS, INCLUDING FOR THE PURPOSE OF REMOVING UNWANTED TREES. STRUCTURES, PADS, ETC. SHALL BE REMOVED BY HAND.
5. THE SEQUENCE FOR TREE PRESERVATION MEASURES, IF REQUIRED, SHALL BE IN THIS ORDER: ROOT PRUNING TRENCHING, TREE PROTECTION FENCING, TREE PRUNING AND CHEMICAL TREATMENT, AERATION SYSTEMS INSTALLED. THESE MEASURES SHALL BE DIRECTED INTHE FIELD BY THE CONSTRUCTION SUPERVISOR.
6. TREE PROTECTION FENCING SHALL BE MAINTAINED BY THE CONTRACTOR THROUGH DURATION OF CONSTRUCTION. NO ALTERATION SHALL OCCUR WITHOUT PRIOR APPROVAL BY A TOWN REPRESENTATIVE.
7. CRITICAL ROOT ZONE SHALL BE DEFINED AS 1.5' RADIUS PER 1" OF DBH (DIAMETER AT BREAST HEIGHT), WHICH SHALL BE MEASURED AT A HEIGHT OF 4.5' FROM HIGHEST POINT OF GROUND AT BASE OF TRUNK.
8. PROTECTION PROVIDED SHALL CONSIST OF FENCING AROUND THE TREE TO THE DRIP LINE, AND ENCLOSED AREAS SHALL BE KEPT FREE OF ALL SOIL, EQUIPMENT, AND CONSTRUCTION MATERIAL STORAGE, WHICH INCLUDES FINAL GRADING AND LANDSCAPING EFFORTS.
9. ROOT PRUNING REQUIREMENTS: UNLESS OTHERWISE INSTRUCTED BY THE TOWN'S ARBORISTS, ROOT PRUNING MUST BE PERFORMED WHEN LIMITS OF DISTURBANCE FALL WITHIN CRITICAL ROOT ZONE OF TREES TO BE SAVED. ROOTS SHALL BE PRUNED TO A MINIMUM DEPTH OF 12" AT OR BEFORE THE LIMITS OF DISTURBANCE.
10. TREES THAT ARE DETERMINED BY THE TOWN ARBORIST TO BE IN "POOR" CONDITION SHALL NOT COUNT TOWARD CANOPY COVERAGE CALCULATIONS.
11. ALL PRUNING SHALL BE DONE IN ACCORDANCE WITH CURRENT AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A300 PRUNING STANDARDS. SPIKES SHALL NOT BE USED TO CLIMB LIVE TREES UNLESS THE TREE IS BEING REMOVED.
12. TREE PROTECTION AREAS SHALL HAVE NON-NATIVE INVASIVE VINES REMOVED OR SEVERED AND TREATED TO PREVENT REGROWTH AS DEEMED NECESSARY BY THE TOWN OF VIENNA URBAN FORESTER.
13. REMOVAL OF ANY TREE PRESERVATION MEASURE SHALL BE APPROVED BY THE TOWN OF VIENNA URBAN FORESTER IN WRITING PRIOR TO ANY REMOVAL.

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06.06.25
LANDSCAPE ARCHITECT

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LANDSCAPE NOTES

PROJECT NO.:	ISSUE DATE:
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