HOLLY HILLS DEVELOPMENT

PHASE I FINAL ARB SITE PLAN

APPROVED INITIAL SITE PLAN (SDP202400042)

RIVANNA MAGISTERIAL DISTRICT

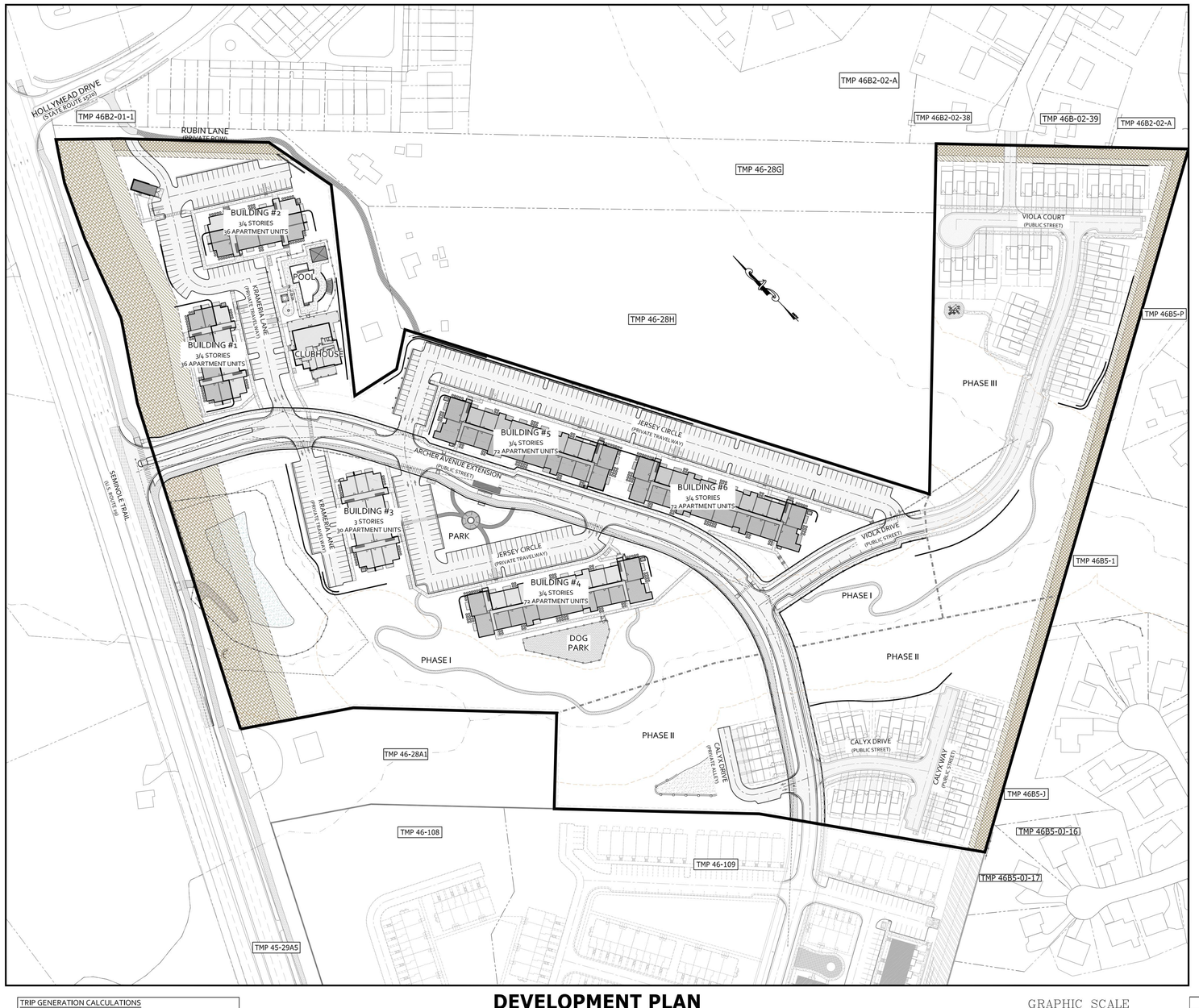
ALBEMARLE COUNTY, VIRGINIA

PROJECT SITE INFO

LOCATION:	SEMINOLE TRAIL, SOUTH OF HOLLYMEAD DRIVE
EXISTING USE:	VACANT
PROPOSED USE:	RESIDENTIAL APARTMENT BUILDINGS
TOTAL ACREAGE:	30.821 ACRES
DEVELOPER:	STONY POINT DEVELOPMENT GROUP 200 GARRETT STREET, SUITE O CHARLOTTESVILLE, VA 22902 DOMINION REALTY PARTNERS, LLC 501 FAYETTEVILLE STREET, SUITE 100 RALEIGH, NC 27601
SURVEYOR:	LINCOLN SURVEYING 632 BERKMAR CIRCLE CHARLOTTESVILLE, VA 22901
ENGINEER:	COLLINS ENGINEERING 200 GARRETT STREET, SUITE K CHARLOTTESVILLE, VA 22902

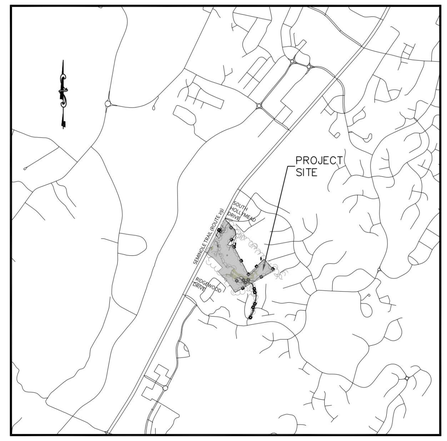
PARCEL INFO

OWNER:	BIRCKHEAD, FRANCES B & WILLARD HOWARD BIRCKHEAD FAMILY TRUST ETAL 1313-B E MARKET STREET CHARLOTTESVILLE, VA 22902
TMP:	04600-00-00-028B0
ADDRESS:	2947 SEMINOLE TRAIL
DB/PG:	WB128/719
ZONING:	PRD (PLANNED RESIDENTIAL)
ACREAGE:	2.97 ACRES
TMP:	04600-00-00-028I0
ADDRESS:	N/A
DB/PG:	WB128/719
ZONING:	PRD (PLANNED RESIDENTIAL)
ACREAGE:	1.63 ACRES
TMP:	04600-00-00-028K0
ADDRESS:	N/A
DB/PG:	WB128/719
ZONING:	PRD (PLANNED RESIDENTIAL)
ACREAGE:	2.53 ACRES
TMP:	04600-00-00-028J0
ADDRESS:	N/A
DB/PG:	WB128/719
ZONING:	PRD (PLANNED RESIDENTIAL)
ACREAGE:	13.84 ACRES
OWNER:	OLD PALMYRA HOTEL, LLC 2121 WISTERIA DRIVE CHARLOTTESVILLE, VA 22911
TMP:	04600-00-00-028F0
ADDRESS:	2986 RUBIN LANE
DB/PG:	4693/632
ZONING:	PRD (PLANNED RESIDENTIAL)
ACREAGE:	1.27 ACRES
TMP:	04600-00-00-028L0
ADDRESS:	2931 RUBIN LANE
DB/PG:	4693/642
ZONING:	PRD (PLANNED RESIDENTIAL)
ACREAGE:	0.88 ACRES
OWNER:	WALL, REBECCA 200 MAYFIELD LANE WAYNESBORO, VA 22980
TMP:	04600-00-00-028E0
ADDRESS:	N/A
DB/PG:	5194/159
ZONING:	PRD (PLANNED RESIDENTIAL)
ACREAGE:	2.61 ACRES
OWNER:	ZOULIS, CYNTHIA THERAPHIA 8309 COLEBROOK ROAD RICHMOND, VA 23227
TMP:	04600-00-00-028A0
ADDRESS:	N/A
DB/PG:	650/507
ZONING:	PRD (PLANNED RESIDENTIAL)
ACREAGE:	5.09 ACRES



DEVELOPMENT PLAN

SCALE: 1" = 100'



VICINITY MAP

SCALE: 1" = 2,000'

Sheet List Table	
Sheet Number	Sheet Title
1	COVER
2	GENERAL PROJECT NOTES
2A	REZONING & SPECIAL EXCEPTION
3	EXISTING CONDITIONS
4	OVERALL DEVELOPMENT PLAN
4A	SITE PLAN
4B	SITE PLAN
4C	SITE PLAN
4D	SITE PLAN
5A	UTILITY PLAN
5B	UTILITY PLAN
5C	UTILITY PLAN
5D	UTILITY PLAN (OMITTED)
5E	OFFSITE UTILITY PLAN
6A	GRADING & DRAINAGE PLAN
6B	GRADING & DRAINAGE PLAN
6C	GRADING & DRAINAGE PLAN
6D	GRADING & DRAINAGE PLAN
7	ROAD PROFILES
8	ROAD PROFILES
9	ROAD PROFILES
10	NOTES & DETAILS
11	NOTES & DETAILS
12	DRAINAGE MAP
13	CULVERT DRAINAGE MAP
14	DRAINAGE PROFILES
15	DRAINAGE PROFILES
16	DRAINAGE PROFILES
17	DRAINAGE CALCULATIONS
18	DRAINAGE CALCULATIONS
19	DRAINAGE CALCULATIONS
20	SANITARY SEWER PROFILES
21	SANITARY SEWER PROFILES
22	UTILITY PROFILES
23	UTILITY PROFILES
24	SIGHT DISTANCE PROFILES
25	SIGHT DISTANCE PROFILES
26	SIGHT DISTANCE PROFILES
LL-1	LIGHTING PLAN
LL-2	LIGHTING PLAN
LL-3	LIGHTING PLAN
LL-4	LIGHTING NOTES & DETAILS
L1.0	LANDSCAPE SCHEDULE
L1.1	LANDSCAPE PLAN
L1.2	LANDSCAPE PLAN
L1.3	LANDSCAPE PLAN
L1.4	LANDSCAPE PLAN
L1.5	LANDSCAPE PLAN
L1.6	LANDSCAPE NOTES AND DETAILS
48 (OF 49)	TOTAL SHEETS

TRIP GENERATION CALCULATIONS

TRIP GENERATION BASED ON ITE TRIP GENERATION MANUAL, 11TH EDITION - 390 TOTAL PROPOSED DWELLING UNITS
318 APARTMENT UNITS (CODE 220)
72 TOWNHOUSE UNITS (CODE 220)

TOTAL ADT:	2,628 VPD	(1,314 ENTER / 1,314 EXIT)
TOTAL AM PEAK:	156 VPH	(37 ENTER / 119 EXIT)
TOTAL PM PEAK:	199 VPH	(126 ENTER / 73 EXIT)

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 inch = 100 ft.

APPROVALS	DATE
DEPARTMENT OF COMMUNITY DEVELOPMENT	
PLANNER/ZONING	
ENGINEER	
INSPECTIONS	
ARB	
DEPARTMENT OF FIRE RESCUE	
ALBEMARLE COUNTY SERVICE AUTHORITY	
VIRGINIA DEPARMENT OF TRANSPORTATION	
HEALTH DEPARTMENT	

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: COVER

JOB NO. 232220

SCALE: AS SHOWN

SHEET NO. 1

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

GENERAL PROJECT NOTES:

OWNERS: 04600-00-00-028A0 ZOULIS, THERAPHIA CYNTHIA & PETER A 8309 COLEBROOK ROAD CHARLOTTESVILLE, VA 22902

04600-00-00-028B0, 04600-00-00-028I00, 04600-00-00-028K0, & 04600-00-00-028J0 BIRCKHEAD, FRANCIS B & WILLARD HOWARD - BIRCKHEAD FAMILY TRUST ETAL 1312-B EAST MARKET STREET CHARLOTTESVILLE, VA 22902

04600-00-00-028F0 OLD PALMYRA HOTEL LLC 2121 WISTERIA DRIVE CHARLOTTESVILLE, VA 22911

04600-00-00-028E0 WALL, REBECCA 200 MAYFIELD LANE WAYNESBORO, VA 22980

DEVELOPER: STONY POINT DEVELOPMENT GROUP & 200 GARRETT STREET, SUITE O CHARLOTTESVILLE, VA 22902

DOMINION REALTY PARTNERS LLC 501 FAYETTEVILLE STREET, SUITE 100 RALEIGH, NC 27601

ENGINEER: COLLINS ENGINEERING 200 GARRETT STREET, SUITE K CHARLOTTESVILLE, VA 22902

PROJECT LOCATION: EAST OF SEMINOLE TRAIL (ROUTE 29) BETWEEN HOLLYMEAD DRIVE (SOUTH) AND ASHWOOD BOULEVARD

MAGISTERIAL DISTRICT: RIVANNA

TAX MAP & ZONING:

46-28A (5.083 AC) D.B. 650, PG. 507 PRD (RESIDENTIAL)	46-28B (2.434 AC) W.B.128, PG. 719 PRD (RESIDENTIAL)	46-28E (2.611 AC) D.B. 5394, PG. 159 PRD (RESIDENTIAL)	46-28F (1.272 AC) D.B. 4693, PG. 632 PRD (RESIDENTIAL)
46-28I (1.607 AC) W.B.128, PG. 719 PRD (RESIDENTIAL)	46-28J (13.872 AC) W.B.128, PG. 719 PRD (RESIDENTIAL)	46-28K (2.531 AC) W.B.128, PG. 719 PRD (RESIDENTIAL)	46-28L (0.881 AC) D.B. 4693, PG. 642 PRD (RESIDENTIAL)

TOTAL PROJECT AREA: 30.291 ACRES
- PHASE I: 830,876 SF (19.074 ACRES) - THIS SITE PLAN ONLY
- PHASE II: 224,732 SF (5.159 ACRES) - FUTURE SITE PLAN
- PHASE III: 263,935 SF (6.059 ACRES) - FUTURE SITE PLAN

PROPOSED ZONING: PLANNED RESIDENTIAL DEVELOPMENT (PRD) - (ZMA2023-00012 - APPROVED BY THE BOS ON 6/5/2024) NOTE: THE PROPERTIES SHALL STILL COMPLY WITH EXISTING ZONING OVERLAY DISTRICTS - MANAGED SLOPES OVERLAY DISTRICT, PRESERVED SLOPES OVERLAY DISTRICT, ENTRANCE CORRIDOR OVERLAY DISTRICT, & AIRPORT IMPACT AREA OVERLAY DISTRICT. THIS PROPERTY IS ALSO SUBJECT TO A SPECIAL EXCEPTION REQUEST (SE2023-00044) APPROVED ON 6/5/2024 - MODIFICATION TO THE STEPBACK REQUIREMENT.

TOPOGRAPHY: BOUNDARY SURVEY PREPARED BY LINCOLN SURVEYING IN AUGUST, 2023. FIELD VERIFIED BY COLLINS ENGINEERING IN AUGUST, 2023. TOPOGRAPHIC SURVEY IS FROM LINCOLN SURVEYING, JANUARY 2024.

EXISTING VEGETATION: MOSTLY WOODED

DATUM: NAVD 1988

BURIAL SITES: NO KNOWN CEMETERIES ON THE PROPERTIES

GROSS/NET DENSITY: ALLOWABLE DENSITY (PER APPROVED REZONING) = 10 DUA (MIN) & 13 DUA (MAX) / 320 UNITS (MIN) & 410 UNITS (MAX)

PROPOSED UNITS:
PHASE I - 318 APARTMENT UNITS
GROSS DENSITY: 318 UNITS / 19.074 ACRES= 16.67 DUA NET DENSITY: 318 UNITS / 9.234 ACRES = 34.44 DUA
PHASE II - 30 TOWNHOUSE UNITS (FUTURE PHASE)
GROSS DENSITY: 30 UNITS / 5.159 ACRES= 5.82 DUA NET DENSITY: 30 UNITS / 1.569 ACRES = 19.12 DUA
PHASE III - 42 TOWNHOUSE UNITS (FUTURE PHASE)
GROSS DENSITY: 42 UNITS / 6.059 ACRES= 6.93 DUA NET DENSITY: 42 UNITS / 1.329 ACRES = 31.60 DUA
TOTAL = 390 DWELLING UNITS
GROSS DENSITY: 390 UNITS / 30.291 ACRES = 12.87 DUA NET DENSITY: 390 UNITS / 12.132 ACRES = 32.15 DUA
(TOTAL PROPOSED DENSITY (GROSS): 12.87 DUA)

PROPOSED USES: PHASE I - 318 APARTMENT UNITS TOTAL (204 - ONE BEDROOM UNITS & 114 - TWO-THREE BEDROOM UNITS)
BUILDING #1 - 3/4 STORIES (36 APARTMENT UNITS) BUILDING #4 - 3/4 STORIES (72 APARTMENT UNITS)
BUILDING #2 - 3/4 STORIES (36 APARTMENT UNITS) BUILDING #5 - 3/4 STORIES (72 APARTMENT UNITS)
BUILDING #3 - 3 STORIES (30 APARTMENT UNITS) BUILDING #6 - 3/4 STORIES (72 APARTMENT UNITS)
PHASE II - 30 TOWNHOUSE UNITS TOTAL (FUTURE SITE PLAN)
PHASE III - 42 TOWNHOUSE UNITS TOTAL (FUTURE SITE PLAN)

PHASING: THIS DEVELOPMENT MAY BE CONSTRUCTED IN 3 DIFFERENT PHASES. PHASES 2 & 3 SHALL FOLLOW PHASE 1 CONSTRUCTION.

PARKING: PARKING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 18.4.12 OF THE ALBEMARLE COUNTY ZONING ORDINANCE AND AS APPROVED BY THE ALBEMARLE COUNTY ZONING DEPARTMENT. A PARKING REDUCTION IS INCLUDED WITH THE SITE PLAN FOR A PROPOSED 15% PARKING REDUCTION WITHIN THE APARTMENT COMPLEX.

PARKING REQUIRED:
PHASE I ONLY (APARTMENT COMPLEX):
(1.5) PARKING SPACES PER 1-BEDROOM UNIT = 1.5 * 188 UNITS = 282 PARKING SPACES
(2) PARKING SPACES PER 2 OR 3 BEDROOM UNIT = 2 * 130 UNITS = 260 PARKING SPACES
TOTAL PARKING SPACES REQUIRED (PER ZONING ORDINANCE) = 542 PARKING SPACES
TOTAL PARKING SPACES REQUIRED PER PARKING REDUCTION REQUEST = 461 SPACES (15% REDUCTION)

PARKING PROVIDED:
468 SURFACE PARKING SPACES (INCLUDING (12) ADA HANDICAP SPACES & (3) VAN ACCESSIBLE ADA HANDICAP SPACES)

TOTAL PARKING SPACES PROVIDED (PHASE I - APARTMENTS) = 468 PARKING SPACES TOTAL
(NOTE: 1. THIS REFLECTS A 14% PARKING REDUCTION. OVERALL, A 15% PARKING REDUCTION HAS BEEN REQUESTED WITH THE FINAL SITE PLAN DUE TO THE AVAILABILITY OF TRANSIT AND ACCESS TO SURROUNDING SERVICE AREAS.
2. PHASES 2 & 3 WILL INCLUDE DRIVEWAY AND GARAGE PARKING AREAS FOR THE PROPOSED UNITS + ON-STREET GUEST PARKING.)

FIRE & RESCUE: THE PROJECT SHALL CONFORM WITH THE ALBEMARLE COUNTY FIRE AND RESCUE REGULATIONS FOR FIRE PROTECTION AND ACCESS TO THE SITE. A MINIMUM OF (1) DRIVE LANE ADJACENT TO EACH OF THE BUILDINGS SHALL BE 26' IN WIDTH FOR FIRE PROTECTION IF THE BUILDINGS ARE TALLER THAN 30 FEET IN HEIGHT TO THE EAVE OF THE ROOFS.

UTILITIES: COUNTY WATER AND SEWER

WATERSHED: SOUTH FORK RIVANNA RIVER WATERSHED

STREAM BUFFER: 100' WPO STREAM BUFFER EXIST ON THE PROPERTY ALONG ANY PERENNIAL STREAMS- SEE SHEET 3 FOR THE LOCATION OF THE STREAM BUFFER. THESE BUFFERS SHALL BE MANAGED IN ACCORDANCE WITH THE ALBEMARLE COUNTY WATER PROTECTION ORDINANCE.

PRESERVED/MANAGED SLOPES: BOTH PRESERVED AND MANAGED SLOPES EXIST ON THE PROPERTY - SEE EXISTING CONDITIONS FOR THE LOCATION OF THE STEEP SLOPES.

FLOODPLAIN: THERE IS NO 100 YEAR FLOODPLAIN LOCATED ON THE PROPERTY PER FEMA MAP ID 51003C0280D DATED FEBRUARY 4, 2005. IN ADDITION, THERE ARE NO STATE OR FEDERAL DAM BREAK INUNDATION ZONES LOCATED ON THE PROPERTY.

AGRICULTURAL/FOREST DISTRICT: NONE

INGRESS/EGRESS: THE ENTRANCE TO THE PROPERTY IS PROPOSED ALONG ROUTE 29. IN ADDITION, THE SITE SHALL CONNECT TO ARCHER AVENUE EXTENDED AT THE SOUTHERN BOUNDARY. THERE IS ALSO A PROPOSED PEDESTRIAN/ BICYCLE CONNECTION TO RUBIN LANE AND A FUTURE EMERGENCY ACCESS CONNECTION TO DERBY LANE.

BUILDING HEIGHTS: THE MAXIMUM BUILDING HEIGHT SHALL BE 4 STORIES WITH A BUILDING HEIGHT NOT TO EXCEED 48 FEET. NOTE: 1. APPURTENANCES INCLUDING PERGOLAS, TRELLISES, AND STAIRWELLS FOR THE ROOFTOP ACCESS MAY EXTEND TO A HEIGHT OF 54' FOR THE ROOFTOP ACCESSORIES.

PROPOSED BUILDING HEIGHT TO EAVE OF THE ROOF: 29' - 10" +/-
NOTE: IF EAVE HEIGHTS EXCEED 30' IN HT., THEN THE ROADWAY OR TRAVELWAY WILL PROVIDE A 26' MIN. FIRE LANE FROM F/C-F/C.
NOTE: A SPECIAL EXCEPTION REQUEST (SE2023-00044) WAS APPROVED FOR RELIEF OF THE REQUIRED 15' STEPBACK FOR BUILDINGS GREATER THAN 3 STORIES OR 40' IN HEIGHT.

SETBACKS: BUILDING SETBACKS:
5' MIN. & 30' MAX. FRONT YARD BUILDING SETBACK
5' MIN. & NO MAX. SIDE YARD BUILDING SETBACK (10' MIN. BUILDING SEPARATION)
20' MIN. & NO MAX. REAR YARD BUILDING SETBACK

PARKING SETBACKS:
5' MIN. FRONT YARD PARKING SETBACK
6' MIN. SIDE YARD PARKING SETBACK
6' MIN. REAR YARD PARKING SETBACK

BUILDING FOOTPRINT: NO MINIMUM OR MAXIMUM BUILDING FOOTPRINTS. BUILDING FOOTPRINTS ARE SUBJECT TO COMPLIANCE WITH THE BUILDING ENVELOPES AS SHOWN ON THE APPROVED ZMA APPLICATION PLAN.

LOT SIZE: NO MINIMUM LOT SIZE AND NO MAXIMUM LOT SIZE.

PUBLIC STREETS & TRAVELWAYS: CURB & GUTTER

FIRE FLOW: CLASS I - FRAME TYPE CONSTRUCTION (IBC TYPE V-A) - FACTOR = 1.5
GROSS GROUND FLOOR AREA = 4,617 SF
GROSS FLOOR AREA OF OTHER FLOORS = 36,932 SF
TOTAL GROSS BUILDING AREA = 41,549 SF
REQUIRED ISO FIRE FLOW = 3,657
NEEDED FIRE FLOW (50% REDUCTION FOR AUTOMATIC SPRINKLERS) = 1,750 GPM

LAND DEDICATED TO PUBLIC USE: PHASE I SHALL INCLUDE 2.64 ACRES OF LAND DEDICATED TO PUBLIC USE FOR PUBLIC RIGHT OF WAY, AND FUTURE PHASES II AND III SHALL INCLUDE A TOTAL OF 1.65 ACRES OF LAND DEDICATED TO PUBLIC USE FOR PUBLIC RIGHT OF WAY. SEE SHEET 4 FOR DETAILS

OPEN SPACE: SEE SHEET 4 FOR AREAS OF DEDICATION FOR OPEN SPACE, BUFFERS, AND RECREATIONAL AREAS.

IMPERVIOUS AREAS:

	PHASE I	PHASE II (FUTURE)	PHASE III (FUTURE)
ROADS	60,733 SF	25,224 SF	43,367 SF
PARKING AREAS	133,945 SF		
SIDEWALK & CONCRETE	73,770 SF	3,488 SF	9,335 SF
BUILDINGS	108,457 SF	29,720 SF	41,420 SF
TOTAL	376,905 SF	58,432 SF	94,122 SF

BUILDING ARCHITECTURE: BUILDINGS AND HOUSES SHALL INCLUDE A VARIETY OF ARCHITECTURAL MATERIALS AND COLORS, PORCHES, PROJECTIONS, AND OTHER ELEMENTS THAT WILL CREATE A COHESIVE APPEARANCE AND WILL PROVIDE ARTICULATED FEATURES AND DETAILING TO ADD VISUAL INTEREST AND ELIMINATE BLANK WALLS. THE BUILDING MATERIALS PALETTE SHALL INCLUDE BRICK AND HARDY PLANK, OR SIMILAR QUALITY MATERIALS.

LIGHTING: ALL PROPOSED LUMINAIRES WILL MEET THE OUTDOOR LIGHTING STANDARDS SPECIFIED IN SECTION 4.17 OF THE ALBEMARLE COUNTY ZONING ORDINANCE. THE FINAL SITE PLAN SHALL INCLUDE A LIGHTING PLAN THAT COMPLIES WITH THE ALBEMARLE COUNTY ZONING ORDINANCE.

STORMWATER MANAGEMENT: THE SITE DEVELOPMENT COMPLIES WITH VA DEQ AND ALBEMARLE COUNTY REQUIREMENTS FOR WATER PROTECTIONS, INCLUDING WATER QUALITY AND WATER QUANTITY REQUIREMENTS.COMMON OPEN SPACE: 25% OPEN SPACE SHALL BE PROVIDED WITH THE PROJECT. COMMON OPEN SPACE SHALL INCLUDE THE AMENITY AREAS, GREEN SPACE, AND THE BUFFERS AROUND THE PERIMETER OF THE PROJECT. PEDESTRIAN PATHWAYS MAY BE INSTALLED THROUGHOUT THE GREEN SPACE AREAS. THE ACTIVE RECREATION AREAS ENVISION GRASS FIELDS, TOT LOTS, A DOG PARK, FIRE PIT, AND/OR MEETING/CIVIC SPACES. ALL AMENITIES SHALL BE DETERMINED WITH THE FINAL SITE PLAN AND IN ACCORDANCE WITH SECTION 4.16 OF THE ALBEMARLE COUNTY CODE. NOTE, AMENITIES MAY BE SUBSTITUTED TO MEET THE RECREATIONAL REQUIREMENTS. ALL PROJECT AMENITIES MUST BE COMPLETED PRIOR TO 50% OF THE UNITS RECEIVING CERTIFICATE OF OCCUPANCIES. THE PROPOSED OPEN SPACE AREAS MAY BE EXPANDED DURING THE DESIGN PHASES TO ALLOW FOR ADDITIONAL AREA TO ACCOMMODATE ADDITIONAL RECREATIONAL ACTIVITIES, UTILITIES, STORMWATER MANAGEMENT, AND EROSION CONTROL MEASURES, AS NECESSARY FOR THE DEVELOPMENT. SEE SHEET 4 FOR OPEN SPACE ANALYSIS FOR THIS PROPOSED DEVELOPMENT.

BUFFERS & LANDSCAPING:
1. ROUTE 29 BUFFER: A 100' WIDE FORESTED BUFFER SHALL BE MAINTAINED ALONG ROUTE 29. A 30' PORTION OF THE BUFFER (ADJACENT TO THE DEVELOPMENT AREA) MAY BE DISTURBED FOR GRADING WITHIN THE DEVELOPMENT, AND SHALL BE REPLANTED WITH A MIXTURE OF DECIDUOUS AND EVERGREEN SHRUBS AND TREES IN ACCORDANCE WITH ALBEMARLE COUNTY STANDARDS FOR BUFFER PLANTINGS. THE BUFFER MAY BE REDUCED OR MODIFIED IN THE LOCATION OF THE EXISTING VDOT STORMWATER MANAGEMENT FACILITY. LANDSCAPING WILL BE ADDED AROUND THE SWM FACILITY AS PERMITTED BY COUNTY, VDOT, AND DEQ REGULATIONS.
2. 20' PERIMETER UNDISTURBED BUFFER: A 20' NATURAL UNDISTURBED BUFFER WILL BE PROVIDED ALONG THE EASTERN AND NORTHERN BOUNDARIES ADJACENT TO THE EXISTING HOLLYMEAD AND FOREST LAKES NEIGHBORHOODS, AS SHOWN ON THE APPLICATION PLAN. ANY PORTION OF THE PERIMETER BUFFER THAT IS NOT CURRENTLY WOODED SHALL BE PLANTED AND SCREENED WITH A MIXTURE OF DECIDUOUS AND EVERGREEN SHRUBS AND TREES IN ACCORDANCE WITH ALBEMARLE COUNTY STANDARDS FOR BUFFER PLANTINGS.
3. 10' PERIMETER LANDSCAPING BUFFER: AN ADDITIONAL LANDSCAPING BUFFER SHALL BE PROVIDED ALONG THE EASTERN AND NORTHERN BOUNDARIES ADJACENT TO THE EXISTING HOLLYMEAD AND FOREST LAKES NEIGHBORHOODS, AS SHOWN ON THE APPLICATION PLAN. THIS BUFFER WILL BE ADJACENT TO THE 20' PERIMETER UNDISTURBED BUFFER. THE 10' LANDSCAPING BUFFER MAY BE WITHIN THE REAR YARD SETBACKS OF THE DEVELOPMENT. GRADING AND RETAINING WALLS ARE PERMITTED WITHIN THE LANDSCAPING BUFFER AREA. FENCING MAY ALSO BE INSTALLED WITHIN THE LANDSCAPING PERIMETER BUFFER (BETWEEN THE PERIMETER LANDSCAPING BUFFER AND THE PERIMETER UNDISTURBED BUFFER). ALL BUFFER PLANTINGS IN THIS AREA SHALL BE A MIXTURE OF DECIDUOUS AND EVERGREEN PLANTS AND SHALL BE PLANTED IN ACCORDANCE WITH ALBEMARLE COUNTY STANDARDS FOR BUFFER PLANTINGS.
NOTE: ALL PLANTINGS WILL CONFORM TO CURRENT ANSI STANDARDS FOR NURSERY STOCK. INSTALLATION AND MAINTENANCE OF THE LANDSCAPE BUFFERS WILL BE THE RESPONSIBILITY OF THE DEVELOPER, AND THE APPROPRIATE EASEMENTS AND MAINTENANCE AGREEMENTS SHALL BE RECORDED DURING THE SITE PLAN PROCESS. GRADING SHALL BE ALLOWED WITHIN THE PERIMETER LANDSCAPING BUFFER AREAS AND WITHIN 30' OF THE ROUTE 29 BUFFER. UTILITIES AND RETAINING WALLS MAY BE INSTALLED WITHIN THE PERIMETER LANDSCAPING BUFFER AREA. UTILITY CROSSINGS ARE PERMITTED WITHIN THE PERIMETER UNDISTURBED BUFFER AREAS. ALL BUFFERS SHALL MEET THE STANDARDS IN SECTION 32.7.9.7 OF THE ALBEMARLE COUNTY ZONING ORDINANCE.

ROADWAY CONSTRUCTION

GENERAL CONSTRUCTION NOTES

1. CONSTRUCTION INSPECTION OF ALL PROPOSED ROADS WITHIN THE DEVELOPMENT WILL BE MADE BY THE COUNTY. THE CONTRACTOR MUST NOTIFY THE DEPARTMENT OF COMMUNITY DEVELOPMENT (296-5832) 48 HOURS IN ADVANCE OF THE START OF CONSTRUCTION.
2. UPON COMPLETION OF FINE GRADING AND PREPARATION OF THE ROADBED SUBGRADE, THE CONTRACTOR SHALL HAVE CBR TESTS PERFORMED ON THE SUBGRADE SOIL. THREE (3) COPIES OF THE TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY. IF A SUBGRADE SOIL CBR OF 10 OR GREATER IS NOT OBTAINABLE, A REVISED PAVEMENT DESIGN SHALL BE MADE BY THE DESIGN ENGINEER AND SUBMITTED WITH THE TEST RESULTS FOR APPROVAL.
3. SURFACE DRAINAGE AND PIPE DISCHARGE MUST BE RETAINED WITHIN THE PUBLIC RIGHT-OF-WAY OR WITHIN EASEMENTS PRIOR TO ACCEPTANCE BY THE COUNTY. ALL DRAINAGE OUTFALL EASEMENTS ARE TO BE EXTENDED TO A BOUNDARY LINE OR A NATURAL WATERCOURSE.
4. GUARDRAIL LOCATIONS ARE APPROXIMATE. EXACT LENGTH, LOCATION AND APPROPRIATE END TREATMENTS WILL BE FIELD VERIFIED AT THE TIME OF CONSTRUCTION. ADDITIONAL GUARDRAIL MAY BE REQUIRED AT LOCATIONS NOT SHOWN WHEN, IN THE OPINION OF THE COUNTY ENGINEER, OR DESIGNEE, IT IS DEEMED NECESSARY. WHEN GUARDRAIL IS REQUIRED, IT SHALL BE INSTALLED FOUR (4) FEET OFFSET FROM THE EDGE OF PAVEMENT TO THE FACE OF GUARDRAIL, AND ROADWAY SHOULDER WIDTHS SHALL BE INCREASED TO SEVEN (7) FEET.
5. WHERE URBAN CROSS SECTIONS ARE INSTALLED, ALL RESIDENTIAL DRIVEWAY ENTRANCES SHALL CONFORM TO VDOT CG-9(A, B OR C).
6. WHERE RURAL CROSS SECTIONS ARE INSTALLED, ALL RESIDENTIAL DRIVEWAY ENTRANCES SHALL CONFORM TO VDOT STANDARD PE-1.
7. COMPLIANCE WITH THE MINIMUM PAVEMENT WIDTH, SHOULDER WIDTH AND DITCH SECTIONS, AS SHOWN ON THE TYPICAL PAVEMENT SECTION DETAIL, SHALL BE STRICTLY ADHERED TO.
8. ROAD PLAN APPROVAL FOR SUBDIVISIONS IS SUBJECT TO FINAL SUBDIVISION PLAT VALIDATION. SHOULD THE FINAL PLAT FOR THIS PROJECT EXPIRE PRIOR TO SIGNING AND RECORDATION, THEN APPROVAL OF THESE PLANS SHALL BE NULL AND VOID.
9. ALL SIGNS OR OTHER REGULATORY DEVICES SHALL CONFORM WITH THE VIRGINIA MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES AND THE ALBEMARLE COUNTY ROAD NAMING AND PROPERTY NUMBERING ORDINANCE AND MANUAL.
10. TRAFFIC CONTROL OR OTHER REGULATORY SIGNS OR BARRICADES SHALL BE INSTALLED BY THE DEVELOPER WHEN, IN THE OPINION OF THE COUNTY ENGINEER, OR DESIGNEE, THEY ARE DEEMED NECESSARY IN ORDER TO PROVIDE SAFE AND CONVENIENT ACCESS.
11. THE SPEED LIMITS TO BE POSTED ON SPEED LIMIT SIGNS ARE 5 MPH BELOW THE DESIGN SPEED, OR AS DETERMINED BY VDOT FOR PUBLIC ROADS.
12. VDOT STANDARD CD-1 OR CD-2 CROSS-DRAINS UNDER TO BE INSTALLED UNDER THE SUBBASE MATERIAL AT ALL CUT AND FILL TRANSITIONS AND GRADE SAG POINTS AS SHOWN ON THE ROAD PROFILES.
13. A VIDEO CAMERA INSPECTION IS REQUIRED FOR ALL STORM SEWERS AND CULVERTS THAT ARE DEEMED INACCESSIBLE TO VDOT OR COUNTY INSPECTIONS. THE VIDEO INSPECTION SHALL BE CONDUCTED IN ACCORDANCE WITH VDOT'S VIDEO CAMERA INSPECTION PROCEDURE AND WITH A VDOT OR COUNTY INSPECTOR PRESENT.

GRADING

1. THE LATEST EDITION OF THE ROAD & BRIDGE SPECIFICATIONS, THE ROAD & BRIDGE STANDARDS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS SHALL GOVERN THE MATERIAL AND CONSTRUCTION METHODS OF THIS PROJECT.
2. WHERE UNSUITABLE MATERIAL IS ENCOUNTERED IN THE ROADWAY, IT SHALL BE REMOVED FROM THE ENTIRE ROAD RIGHT OF WAY WIDTH AND REPLACED WHERE NECESSARY WITH SUITABLE MATERIAL TO THE SATISFACTION OF THE ENGINEER.
3. ALL GROWTH OF TREES AND VEGETATION SHALL BE CLEARED AND GRUBBED FOR THE ENTIRE EASEMENT. OTHER TREES AND VEGETATION WHICH OBSTRUCT SIGHT DISTANCES AT ROAD INTERSECTIONS SHALL BE REMOVED.
4. ALL VEGETATION AND OVERBURDEN TO BE REMOVED FROM SHOULDER TO SHOULDER PRIOR TO THE CONSTRUCTION OF THE SUBGRADE..

ALBEMARLE COUNTY

GENERAL CONSTRUCTION NOTES

1. PRIOR TO ANY CONSTRUCTION WITHIN ANY EXISTING PUBLIC RIGHT-OF-WAY, INCLUDING CONNECTION TO ANY EXISTING ROAD, A PERMIT SHALL BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT). THIS PLAN AS DRAWN MAY NOT ACCURATELY REFLECT THE REQUIREMENTS OF THE PERMIT. WHERE ANY DISCREPANCIES OCCUR THE REQUIREMENTS OF THE PERMIT SHALL GOVERN.
2. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO CURRENT SPECIFICATIONS AND STANDARDS OF VDOT UNLESS OTHERWISE NOTED.
3. EROSION AND SILTATION CONTROL MEASURES SHALL BE PROVIDED IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLAN AND SHALL BE INSTALLED PRIOR TO ANY CLEARING, GRADING OR OTHER CONSTRUCTION.
4. ALL SLOPES AND DISTURBED AREAS ARE TO BE FERTILIZED, SEEDED, AND MULCHED.
5. THE MAXIMUM ALLOWABLE SLOPE IS 2:1 (HORIZONTAL:VERTICAL). WHERE REASONABLY OBTAINABLE, LESSER SLOPES OF 3:1 OR BETTER TO BE ACHIEVED.
6. PAVED, RIP-RAP, OR STABILIZATION MAT LINED DITCH MAY BE REQUIRED WHEN IN THE OPINION OF THE COUNTY ENGINEER, OR DESIGNEE, IT IS DEEMED NECESSARY IN ORDER TO STABILIZE A DRAINAGE CHANNEL.
7. ALL TRAFFIC CONTROL SIGNS SHALL CONFORM WITH THE VIRGINIA MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES.
8. UNLESS OTHERWISE NOTED, ALL CONCRETE PIPES SHALL BE REINFORCED CONCRETE PIPE-CLASS III.
9. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION MUST COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFE PART 1926).

CONSTRUCTION FIRE PREVENTION NOTES

1. SMOKING SHALL BE PROHIBITED IN AREAS WHERE SMOKING MAKES CONDITIONS SUCH AS TO MAKE SMOKING A HAZARD AND THESE AREAS SHALL BE DESIGNATED WITH NO SMOKING SIGNS PER VIRGINIA STATEWIDE FIRE PREVENTION CODE.
2. AREAS WHERE SMOKING CAN OCCUR, SHALL HAVE APPROPRIATE RECEPTACLES FOR DISCARDED SMOKING MATERIALS PER VIRGINIA STATEWIDE FIRE PREVENTION CODE.
3. PER THE VIRGINIA STATEWIDE FIRE PREVENTION CODE, VEHICULAR ACCESS FOR FIREFIGHTING SHALL BE PROVIDED AT ALL CONSTRUCTION AND DEMOLITION SITES, PROVIDE ACCESS TO WITHIN 100 FT. OF TEMPORARY OR PERMANENT FIRE DEPARTMENT CONNECTIONS, AND HAVE NO OVERHEAD WIRING OR OTHER OVERHEAD OBSTRUCTIONS LOWER THAN 13FT 6 INCHES; THIS ACCESS MAY BE VIA PERMANENT OR TEMPORARY ROAD, BUT SHALL BE CAPABLE OF SUPPORTING FIRE APPARATUS IN ALL WEATHER CONDITIONS.
4. CONTRACTOR SHALL ENSURE THE STREET NUMBERS ARE ALWAYS VISIBLE FROM THE FRONTAGE STREET DURING CONSTRUCTION PER THE VIRGINIA STATEWIDE FIRE CODE.
5. AN APPROVED WATER SUPPLY FOR FIREFIGHTING OPERATIONS SHALL BE IN PLACE AND AVAILABLE AS SOON AS COMBUSTIBLE MATERIALS ARRIVE ON SITE.
6. WASTE AND COMBUSTIBLE DEBRIS SHALL BE REMOVED FROM THE BUILDING AT THE END OF EACH DAY AND DISPOSED OF IN ACCORDANCE WITH THE VIRGINIA STATEWIDE FIRE CODE.
7. FIRE EXTINGUISHERS SHALL BE PROVIDED, WITH NOT LESS THAN ONE APPROVED FIRE EXTINGUISHER AT EACH STAIRWELL, ON ALL FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE ACCUMULATED, IN EVERY STORAGE AND CONSTRUCTION SHED AND IN ARES OF SPECIAL; HAZARD, SUCH AS WHERE FLAMMABLE AND COMBUSTIBLE LIQUIDS ARE STORED OR USED, IN ACCORDANCE WITH THE VIRGINIA STATEWIDE FIRE CODE.
8. OPERATIONS INVOLVING THE USE OF CUTTING AND WELDING SHALL COMPLY WITH THE VIRGINIA STATEWIDE FIRE PREVENTION CODE AND SHALL REQUIRE A PERMIT FROM THE ALBEMARLE COUNTY FIRE MARSHAL'S OFFICE.

DRAINAGE

1. ALL PIPE CULVERTS, EXCEPT PRIVATE ENTRANCES, SHOWN HEREON ARE TO BE RCP WITH A MINIMUM COVER OF ONE (1) FOOT.
2. STANDARD UNDERDRAINS (CD-1 OR CD-2 OR UD-4'S) TO BE PROVIDED AS INDICATED ON THE PLANS, OR WHERE FIELD CONDITIONS INDICATE.
3. ALL DRIVEWAY ENTRANCE PIPES SHALL BE A MINIMUM OF TWENTY (20) FEET IN LENGTH AND HAVE A MINIMUM DIAMETER OF FIFTEEN (15) INCHES AND SHALL BE PLACED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTAION SPECIFICATIONS UNLESS OTHERWISE NOTED ON PLANS.
4. ALL DRAINAGE EASEMENT SHALL BE CLEARED AND GRADED TO THE SATISFACTION OF THE ENGINEER. DRAINAGE EASEMENTS SHALL EXTEND TO A POINT DEEMED AS NATURAL WATER COURSE.

PAVEMENT

1. AN ACTUAL COPY OF THE CBR REPORT IS TO BE SUBMITTED PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE MATERIAL. IF THE SSV VALUES ARE LESS THAN 10, THE DEVELOPER WILL BE REQUIRED TO SUBMIT FOR ENGINEERS APPROVAL THE PROPOSED METHOD OF CORRECTION.
2. SUBGRADE MUST BE APPROVED BY THE ENGINEER FOR GRADE, TEMPLATE AND COMPACTION BEFORE BASE IS PLACED.
3. TEST REPORTS ON SELECT MATERIALS MUST BE SUBMITTED SHOWING THE MATERIAL MEETS REQUIRED GRADATION FOR TYPE I, II, OR III PRIOR TO PLACING AGGREGATE BASE.
4. THE REQUIREMENTS TO PUGMILL AGGREGATE BASE WILL BE WAIVED IN THE EVENT THAT THE SURFACE COURSE IS BEGINNING AT THE COMPLETION OF THE INSTALLATION OF THE AGGREGATE BASE. IN THE EVENT THAT THE SURFACE COURSE IS APPLIED PRIOR TO 60 DAYS, THE PUGMILL REQUIREMENT WILL APPLY.
5. THE USE OF AN AGGREGATE SPREADER IS REQUIRED WHEN PLACING AGGREGATE BASE.
6. BASE MUST BE APPROVED BY ENGINEER FOR DEPTH, TEMPLATE, AND COMPACTION BEFORE SURFACE TREATMENT IS APPLIED.
7. PRIME COAT MUST BE APPLIED TO BASE MATERIAL PRIOR TO PLACEMENT OF ASPHALT (PRIME COAT RC-250 @ 0.3 GAL./SQ. YD.).
8. BITUMINOUS SURFACE TO BE APPLIED IN ACCORDANCE WITH CURRENT VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
9. ENCROACHMENT: POSTS, WALLS, SIGNS, OR SIMILAR ORNAMENTAL STRUCTURES THAT DO NOT ENHANCE A ROADWAY'S CAPACITY OR TRAFFIC SAFETY, SHALL NOT BE PERMITTED WITHIN THE RIGHT OF WAY. ONLY THOSE STRUCTURES SPECIFICALLY AUTHORIZED BY PERMIT ISSUED BY VIRGINIA DEPARTMENT OF TRANSPORTATION MAY BE LOCATED WITHIN THE STREETS RIGHT OF WAY.

INSPECTIONS

NOTE - MANDATORY INSPECTIONS ARE REQUIRED AT THE FOLLOWING PHASES:
i. INSTALLATION OF ANY ENCLOSED DRAINAGE SYSTEM BEFORE IT IS COVERED.
ii. INSTALLATION OF ANY ENCLOSED UTILITY PLACEMENTS WITHIN THE RIGHT-OF-WAY BEFORE BEING COVERED.
iii. CONSTRUCTION OF THE CUTS AND FILLS, INCLUDING FIELD DENSITY TESTS, BEFORE PLACEMENT OF ROADBED BASE MATERIALS.
iv. A FINAL PAVEMENT DESIGN, BASED ON ACTUAL SOIL CHARACTERISTICS AND CERTIFIED TESTS, SHALL BE COMPLETED AND APPROVED BEFORE THE PAVEMENT STRUCTURE IS PLACED.
v. PLACEMENT OF BASE MATERIALS, INCLUDING STONE DEPTHS, CONSISTENT WITH THE APPROVED PAVEMENT DESIGN, PRIOR TO PLACEMENT OF THE PAVING COURSE OR COURSES, FOLLOWED BY FIELD DENSITY AND MOISTURE TESTS AND THE PLACEMENT OF A PAVING COURSE AS SOON AS POSSIBLE.
vi. CONSTRUCTION OF PAVEMENT, INCLUDING DEPTH AND DENSITY, UPON COMPLETION AS PART OF THE FINAL INSPECTION.
vii. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING VDOT A MINIMUM OF ONE WEEK PRIOR TO EACH OF THE ABOVE PHASES OF CONSTRUCTION TO SCHEDULE AN INSPECTION.
viii. FAILURE OF THE CONTRACTOR TO SCHEDULE THESE INSPECTIONS WILL REQUIRE ADDITIONAL TESTING OF THE ROADS AT THE DISCRETION OF VDOT OR MAY LEAD TO THE ROADS NOT BEING ELIGIBLE FOR STATE MAINTENANCE.

FIRE DEPARTMENT NOTES

1. PROGRAM SUPERINTENDENT. THE OWNER SHALL DESIGNATE A PERSON TO BE THE FIRE PREVENTION PROGRAM SUPERINTENDENT WHO SHALL BE RESPONSIBLE FOR THE FIRE PREVENTION PROGRAM AND ENSURE THAT IT IS CARRIED OUT THROUGH COMPLETION OF THE PROJECT. THE FIRE PREVENTION PROGRAM SUPERINTENDENT SHALL HAVE THE AUTHORITY TO

County of Albemarle
Community Development Department - Planning

Rebecca Ragsdale
rragsdale@albemarle.org
Telephone: (434) 296-5832 ext.3226

June 27, 2024

Steven Blaine
Woods Rogers Vandeveer & Black
123 East Main Street, 5th Floor
Charlottesville, VA 22902

RE: ZMA202300012 Holly Hills Action Letter

Dear Mr. Blaine,

On June 5, 2024, the Board of Supervisors took action on the above noted Zoning Map Amendment on Tax Map Parcel Numbers 046000000028A0; 046000000028B0; 046000000028I0; 046000000028J0; 046000000028K0; 046000000028E0; 046000000028F0 and 046000000028L0 in the Rivanna District.

The Zoning Map Amendment was approved by the Board's adoption of the attached Ordinance No. 24-A(11).

Please be advised that although the Albemarle County Board of Supervisors took action on the project noted above, no uses on the property may lawfully begin until all applicable approvals have been received and conditions have been met. This includes:

- **compliance with the approved ZONING MAP AMENDMENT; and**
- **approval of and compliance with a SITE PLAN.**

Should you have questions regarding the above-noted action, please contact me.

Sincerely,
Rebecca Ragsdale
Planning Manager

Cc: Scott Collins
Collins Engineering
scott@collins-engineering.com

Dominion Realty Partners, LLC
101 N. 5th Street, Suite B
Richmond VA 23219
mcampbell@drp-llc.com

Peter Zoulis & Cythia Zoulis
8309 Colebrook Rd
Richmond VA 23227

ORDINANCE NO. 24-A(11)
ZMA 2023-00012

AN ORDINANCE TO AMEND THE ZONING MAP FOR PARCELS 04600-00-00-028A0, 04600-00-00-028B0, 04600-00-00-028E0, 04600-00-00-028F0, 04600-00-00-028I0, 04600-00-00-028J0, 04600-00-00-028K0, AND 04600-00-00-028L0

WHEREAS, an application was submitted to rezone Parcels 04600-00-00-028A0, 04600-00-00-028B0, 04600-00-00-028E0, 04600-00-00-028F0, 04600-00-00-028I0, 04600-00-00-028J0, 04600-00-00-028K0, and 04600-00-00-028L0 from R-1 Residential to Planned Residential Development (PRD); and

WHEREAS, on April 9, 2024, after a duly noticed public hearing, the Planning Commission recommended approval of ZMA 2023-00012;

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of the County of Albemarle, Virginia, that upon consideration of the transmittal summary and staff report prepared for ZMA 2023-00012 and their attachments, including the Project Narrative last revised December 18, 2023 and the information presented at the public hearings, any written comments received, the material and relevant factors in Virginia Code § 15.2-2284 and County Code § 18-19.1, and for the purposes of public necessity, convenience, general welfare, and good zoning practices, the Board hereby approves ZMA 2023-00012 with the Project Narrative entitled "Holly Hills Zoning Map Amendment Application Narrative," last revised on December 18, 2023.

* * *

I, Claudette K. Borgersen, do hereby certify that the foregoing writing is a true, correct copy of a Resolution duly adopted by the Board of Supervisors of Albemarle County, Virginia, by a vote of six to zero, as recorded below, at a meeting held on June 5, 2024.

Clerk, Board of County Supervisors

	Aye	Nay
Mr. Andrews	Y	___
Mr. Gallaway	Y	___
Ms. LaPisto-Kirtley	Y	___
Ms. Mallek	Y	___
Ms. McKeel	Y	___
Mr. Pruitt	Y	___

County of Albemarle
Community Development Department - Planning

Rebecca Ragsdale
rragsdale@albemarle.org
Telephone: (434) 296-5832 ext. 3226

June 27, 2024

Steven Blaine
Woods Rogers Vandeveer & Black
123 East Main Street, 5th Floor
Charlottesville, VA 22902
steven.blaine@wrvblaw.com

RE: SE202300044 Holly Hills Stepback Waiver Action Letter

Dear Mr. Blaine,

On June 5, 2024, the Board of Supervisors took action on the above noted Special Exception on Tax Map Parcel Numbers 046000000028A0; 046000000028B0; 046000000028I0; 046000000028J0; 046000000028K0; 046000000028E0; 046000000028F0 and 046000000028L0 in the Rivanna District.

The Special Exception was approved by the Board's adoption of the attached Resolution.

Please be advised that although the Albemarle County Board of Supervisors took action on the project noted above, no uses on the property may lawfully begin until all applicable approvals have been received and conditions have been met. This includes:

- **compliance with the approved SPECIAL EXCEPTION.**

Should you have questions regarding the above-noted action, please contact me.

Sincerely,
Rebecca Ragsdale
Planning Manager

Cc: Scott Collins
Collins Engineering
scott@collins-engineering.com

Old Palmyra Hotel LLC
2121 Wisteria Dr
Charlottesville VA 22911

Frances B. and Willard Howard Birkhead Family Trust
1312 B East Market St
Charlottesville VA 22902

RESOLUTION TO APPROVE SE2023-00044
HOLLY HILLS STEPBACK WAIVER

WHEREAS, upon consideration of the staff reports prepared for SE2023-00044 Holly Hills Stepback Waiver and the attachments thereto, including staff's supporting analysis, any comments received, and all relevant factors in Albemarle County Code §§ 18-4.19, 18-8.2, and 18-33.9, the Albemarle County Board of Supervisors hereby finds that the proposed waiver:

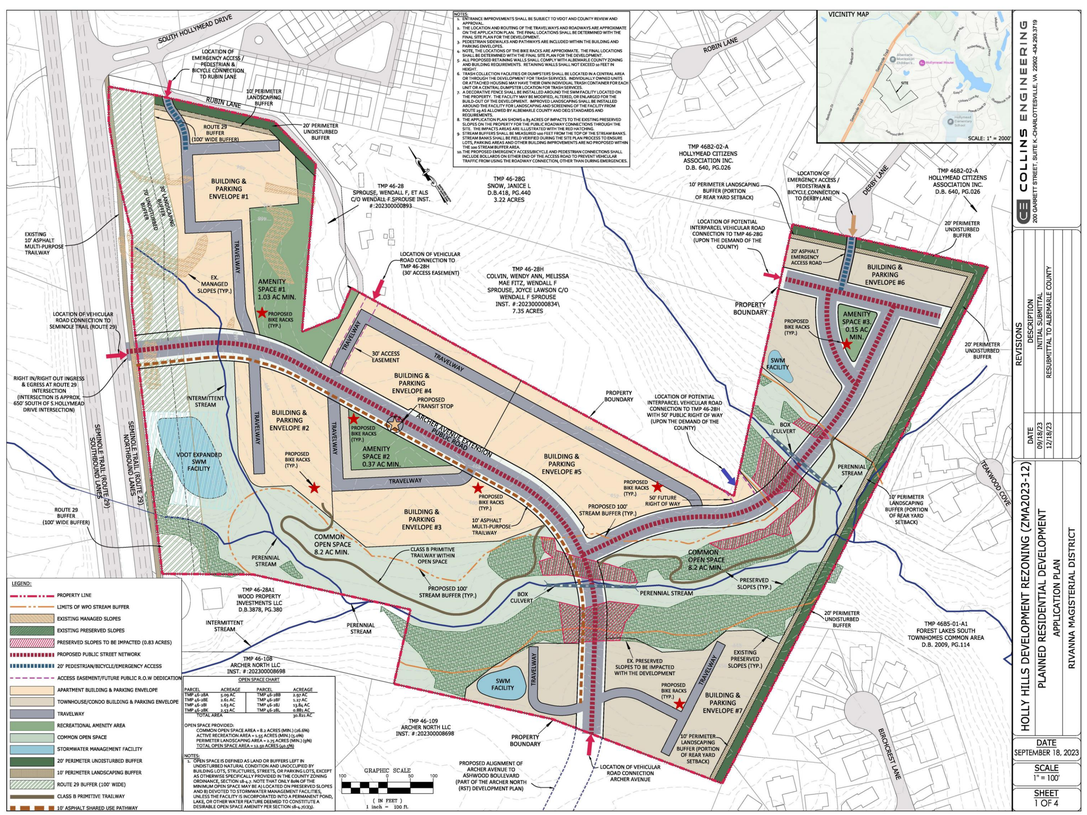
(i) would be consistent with the intent and purposes of the planned development district under the particular circumstances, and satisfy all other applicable requirements of County Code § 18-8;
(ii) would be consistent with planned development design principles; and
(iii) would not adversely affect the public health, safety, or general welfare.

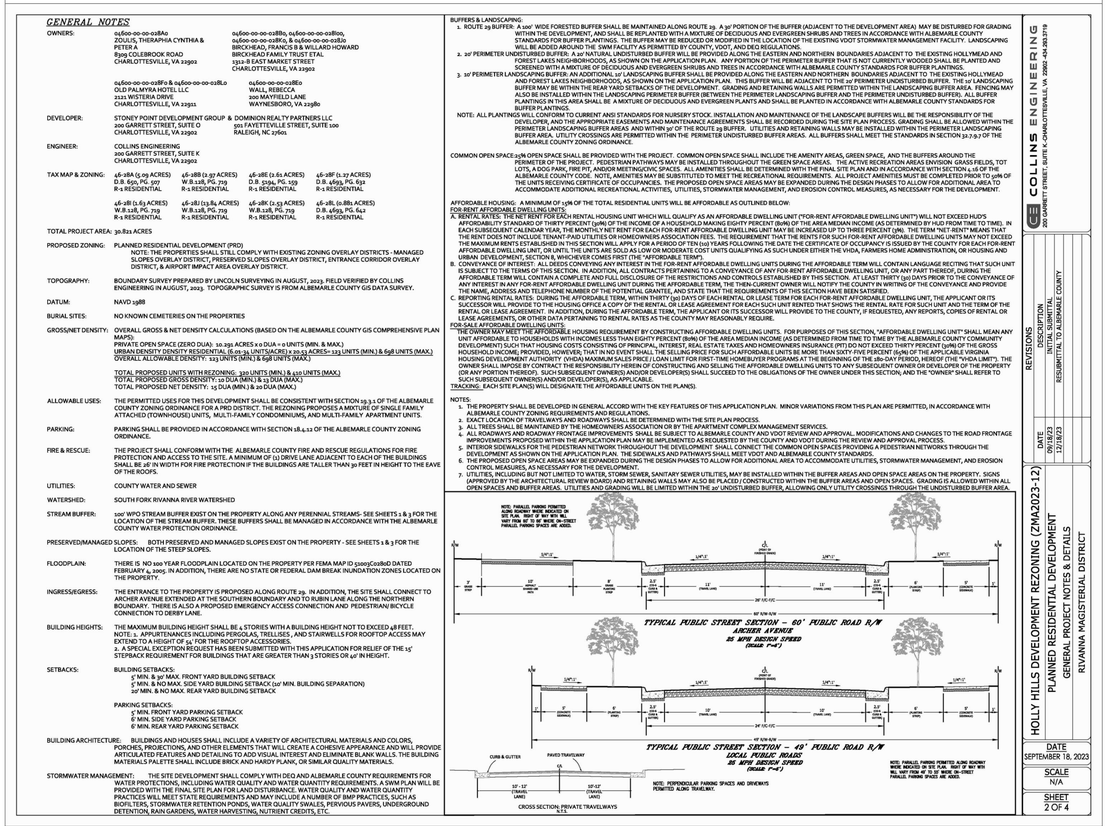
NOW, THEREFORE, BE IT RESOLVED that the Albemarle County Board of Supervisors hereby approves a special exception to waive the 15-foot stepback requirement of County Code § 18-4.19.5 on Parcels 04600-00-00-028A0, 04600-00-00-028B0, 04600-00-00-028E0, 04600-00-00-028F0, 04600-00-00-028I0, 04600-00-00-028J0, 04600-00-00-028K0, and 04600-00-00-028L0.

I, Claudette K. Borgersen, do hereby certify that the foregoing writing is a true, correct copy of a Resolution duly adopted by the Board of Supervisors of Albemarle County, Virginia, by a vote of six to zero, as recorded below, at a meeting held on June 5, 2024.

Clerk, Board of County Supervisors

	Aye	Nay
Mr. Andrews	Y	___
Mr. Gallaway	Y	___
Ms. LaPisto-Kirtley	Y	___
Ms. Mallek	Y	___
Ms. McKeel	Y	___
Mr. Pruitt	Y	___





COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
REZONING & SPECIAL EXCEPTION

JOB NO. 232220
SCALE N/A
SHEET NO. 2A

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

HOLLYMEAD DRIVE

AREA OF DEMOLITION (CURB & GUTTER) FOR PROPOSED ENTRANCE IMPROVEMENTS

RUBIN LANE
20' PRIVATE R.O.W. (DB 327, PG 117)

111.165'
N45° 44' 54.97"W

258.159'
N43° 32' 02.08"W

EXISTING GRAVEL TO BE DEMOLISHED

TMP 46-28F
1.272 ACRES

EXISTING STRUCTURES TO BE DEMOLISHED

TREE PROTECTION FENCING (TYP.)

EXISTING LOT LINE TO BE VACATED (TYP.)

S49° 53' 36.15"E
318.066'

EXISTING OVERHEAD ELECTRIC TO REMAIN

EXISTING 42" MAPLE TO BE PRESERVED

INV IN: 24" RCP 477.99 (NORTH)
OUT: 30" RCP 477.83 (SOUTH)

S50° 20' 22.53"W
48.866'

DRAINAGE EASEMENT
D.B. 968 P. 274 (EX.13)
D.B. 1082 P. 680 (EX.11)
D.B. XX P. 268-269 (EX.13)

EXISTING STRUCTURES TO BE DEMOLISHED (TYP.)

TREE PROTECTION FENCING (TYP.)

EXISTING ROUTE 29 STORM DRAINAGE OUTFALL

INV 465.41

BENCHMARK
TOP OF STORM
ELEV. = 481.43

INTERMITTENT STREAM

DRAINAGE EASEMENT
D.B. 4719 P. 198 (EX.14)
H.W.P.B. XV P. 399-400

TMP 46-28B
2.434 ACRES
TRACT 2

LIMITS OF DISTURBANCE

BEGIN EXISTING STORM DEMO AND REROUTING

EXISTING STRUCTURES TO BE DEMOLISHED

EXISTING TREE TO BE REMOVED (TYP.)

EXISTING LOT LINE TO BE VACATED (TYP.)

EXISTING STREAM CENTERLINE (INTERMITTENT STREAM)

EXISTING FENCELINE (TYP.)

SEMINOLE TRAIL (U.S. ROUTE 29) PUBLIC R.O.W.

AREA OF DEMOLITION (CURB, GUTTER, STORM SEWER, PATHWAY) FOR PROPOSED TURN LANE AND ENTRANCE IMPROVEMENTS

INV 460.16 RCP

INV 460.24 RCP

EXISTING ROUTE 29 STORM DRAINAGE OUTFALL

EXISTING VDOT STORMWATER MANAGEMENT BASIN

D.B. 4919 P. 487 (EX.15)
D.B. 4712 P. 82 (EX.15)
H.W.P.B. XV P. 339-344

RISER 458.48
2" ORIFICE 453.61
6" SLOT 456.77
OUT: 18" RCP 446.00

78" RCP

INV 443.64

EXISTING OUTFALL TO REMAIN

INV 446.88

60" RCP

EXISTING 100' WPO STREAM BUFFER

TMP 46-28A
5.083 ACRES
TRACT 1

END EXISTING STORM DEMO AND REROUTING

EXISTING ROUTE 29 STORM DRAINAGE OUTFALL

TMP 46-28A1
WOOD PROPERTY INVESTMENTS, LLC
D.B. 3878 P. 380
D.B. 650 P. 509 PLAT
USE: RETAIL STORE

TMP 46-108
SEMINOLE TRAIL, LLC
D.B. 5228 P. 557
D.B. 527 P. 180 PLAT
USE: VACANT COMMERCIAL LAND

D.B. 298 P. 470 (EX.8)
D.B. 326 P. 91 (EX.5A) (EX.7A)
D.B. 327 P. 117 (EX.7A)
D.B. 547 P. 103 (EX.5A) (EX.7A)
D.B. 392 P. 29 (EX.8) (EX.5A) (EX.7A)
D.B. 414 P. 234 (EX.8) (EX.5A)
D.B. 462 P. 473 (EX.8) (EX.16) (EX.5A) (EX.7A)
D.B. 555 P. 568 (EX.8) (EX.9A) (EX.7A)

N10° 40' 16.01"W
130.711'

N45° 44' 59.70"E
141.171'

TMP 46-28C
JANICE SNOW
W.B. 63 P. 427
D.B. 416 P. 440
D.B. 326 P. 92 PLAT
USE: RESIDENCE

EXISTING MANAGED SLOPES (TYP.)

TMP 46-28
0.846 ACRES

N38° 35' 45.95"E
367.855'

EXISTING MANAGED SLOPES (TYP.)

S56° 55' 01.81"W
69.880'

TMP 46-28I
1.607 ACRES
TRACT 3

N56° 55' 01.81"E
3.930'

N36° 07' 29.98"E
46.040'

EXISTING TREELINE (TYP.)

TREE PROTECTION FENCING (TYP.)

N77° 42' 47.57"W
86.050'

EXISTING PIPE TO BE REMOVED

S77° 40' 58.38"E
236.580'

EXISTING LOT LINE TO BE VACATED (TYP.)

EXISTING STRUCTURES TO BE DEMOLISHED

TMP 46-28G
JANICE SNOW
W.B. 63 P. 427
D.B. 416 P. 440
D.B. 326 P. 92 PLAT
USE: RESIDENCE

EXISTING GRAVEL TO BE DEMOLISHED

S77° 42' 47.57"E
14.248'

N27° 31' 36.80"W
284.189'

TMP 46-28H
ESTATE OF FRANKLIN RUEBEN SPROUSE
WILL INST.2023-770
W.B. 157 P. 233
W.B. 149 P. 745
D.B. 471 P. 409
D.B. 347 P. 103, 104 PLAT
USE: RESIDENCE

PROPERTY BOUNDARY

EXISTING STRUCTURES TO BE DEMOLISHED

TMP 46-28L
0.885 ACRES
TRACT 8

S49° 09' 28.19"E
207.700'

S18° 27' 58.01"W
167.018'

N41° 36' 42.89"E
105.515'

668.560'
N27° 36' 27.72"W

EXISTING TREELINE (TYP.)

EXISTING STRUCTURES TO BE DEMOLISHED

TMP 46-28E
2.611 ACRES
TRACT 6

TMP 46-28K
2.531 ACRES
TRACT 5

S13° 45' 16.18"W
449.137'

S18° 18' 14.81"W
427.457'

EXISTING LOT LINE TO BE VACATED (TYP.)

EXISTING LOT LINE TO BE VACATED (TYP.)

PROPOSED IMPACTS TO EXISTING PRESERVED SLOPES FOR PUBLIC IMPROVEMENTS

EXISTING 100' STREAM BUFFER

TREE PROTECTION FENCING (TYP.)

EXISTING FENCELINE (TYP.)

LIMITS OF DISTURBANCE

N11° 53' 11.38"W
616.313'

429.262'
N60° 14' 46.00"W

EXISTING 100' STREAM BUFFER

EXISTING PRESERVED SLOPES (TYP.)

EXISTING PRESERVED SLOPES (TYP.)

EXISTING PIPE TO REMAIN

36" CMP

S43° 30' 22.02"E
352.601'

S55° 42' 41.28"E
198.858'

PERENNIAL STREAM

PROPERTY BOUNDARY

166.076'
S46° 29' 27.42"W

S43° 36' 19.85"E
355.414'

EXISTING PRESERVED SLOPES (TYP.)

TMP 46-109
SEMINOLE TRAIL, LLC
D.B. 5228 P. 553
D.B. 527 P. 180 PLAT
USE: RESIDENTIAL

LIMITS OF DISTURBANCE

S35° 21' 51.89"E
396.679'

TREE PROTECTION FENCING (TYP.)

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

TMP 46B2-02--39
BARRY K. MORRIS & LISA A. MEYER
D.B. 2801 P. 726
D.B. 531 P. 307 PLAT

TMP 46B2-02--38
S. MEGHAN DITTMAR-CRIDER
D.B. 3551 P. 350
D.B. 531 P. 307 PLAT
USE: RESIDENCE

LOT 39
ADDITION ONE
SECTION TWO
HOLLYMEAD

DERBY LANE
S.R. 1528
PUBLIC R.O.W.

LOT 39
ADDITION ONE
SECTION TWO
HOLLYMEAD
USE: RESIDENCE

OPEN SPACE
ADDITION ONE
SECTION TWO
HOLLYMEAD

TMP 46B2-02--A
HOLLYMEAD CITIZENS ASSOCIATION, INC.
D.B. 640 P. 26
D.B. 531 P. 307 PLAT
USE: OPEN SPACE

SSMH #1
RIM=467.74

SSMH #2
RIM=466.05

EX. 8" PVC SAN. SEWER

437.695'
N43° 48' 03.41"W

TREE PROTECTION FENCING (TYP.)

LIMITS OF DISTURBANCE

607.548'
S46° 04' 42.80"W

TREE PROTECTION FENCING (TYP.)

LIMITS OF DISTURBANCE

OPEN SPACE
BLOCK
TEAKWOOD PHASE 2
FOREST LAKES SOUTH

TMP 46B5--P
FOREST LAKES COMMUNITY ASSOCIATION, INC.
D.B. 2009 P. 110
D.B. 1729 P. 306 PLAT
USE: OPEN SPACE

PROPOSED IMPACTS TO EXISTING PRESERVED SLOPES FOR PUBLIC IMPROVEMENTS

PERENNIAL STREAM

PROPOSED IMPACTS TO EXISTING PRESERVED SLOPES FOR PUBLIC IMPROVEMENTS

N51° 09' 21.62"E
1268.923'

COMMON AREA
BLOCK J
TEAKWOOD PHASE 2
FOREST LAKES SOUTH

LIMITS OF DISTURBANCE

TREE PROTECTION FENCING (TYP.)

TMP 46B5--I
FOREST LAKES COMMUNITY ASSOCIATIN, INC.
D.B. 3531 P. 198
D.B. 3531 P. 201 PLAT
USE: OPEN SPACE

SSMH #9
RIM=427.87

PROPOSED IMPACTS TO EXISTING PRESERVED SLOPES FOR PUBLIC IMPROVEMENTS

TMP 46-28J
13.872 ACRES
TRACT 4

EXISTING 100' STREAM BUFFER

LIMITS OF DISTURBANCE

PROPOSED IMPACTS TO EXISTING PRESERVED SLOPES FOR PUBLIC IMPROVEMENTS

PROPERTY BOUNDARY

COMMON AREA
BLOCK J
TEAKWOOD PHASE 2
FOREST LAKES SOUTH

TMP 46B5--J
FOREST LAKES COMMUNITY ASSOCIATIN, INC.
D.B. 2009 P. 110
D.B. 1675 P. 248 PLAT
D.B. 1642 P. 383 PLAT
USE: OPEN SPACE

TMP 46B5--OJ-16
RYAN NEIL MACHPHERSON & SHARIN APOSTOLOU MACHPHERSON
INST.#2022-4431
INST.#2023-2415
D.B. 1642 P. 383 PLAT
USE: RESIDENTIAL

TMP 46B5--OJ-17
RONALD W. BLEAU & ANNE P. BLEAU
INST.#2022-3328
D.B. 1675 P. 248 PLAT
USE: RESIDENTIAL

LOT 16
BLOCK J
TEAKWOOD PHASE 2
FOREST LAKES SOUTH

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
EXISTING CONDITIONS

JOB NO. 232220
SCALE 1" = 60'
SHEET NO. 3

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, including, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

PROJECT NOTES:

AFFORDABLE HOUSING: FIFTEEN PERCENT (15%) OF THE CONSTRUCTED UNITS SHALL BE AFFORDABLE HOUSEHOLDS MAKING UP TO 80% OF THE AREA MEDIAN INCOME FOR A PERIOD OF TEN (10) YEARS. SEE SHEET 2A FOR MORE INFORMATION.
TOTAL NUMBER OF UNITS = 318 APARTMENT UNITS
TOTAL AFFORDABLE UNITS = 318 UNITS * 15% = 48 UNITS
THE AFFORDABLE UNITS SHALL BE SPREAD OUT OVER THE APARTMENT COMPLEX DISTRIBUTED THROUGHOUT THE (6) BUILDINGS. THE AFFORDABLE UNITS SHALL BE INDICATED IN EACH BUILDING AT THE TIME OF BUILDING PERMITS. IN ADDITION, THE AFFORDABLE UNITS FOR PHASES II AND III MAY BE ACHIEVED WITH FOR RENT APARTMENT UNITS WITHIN PHASE I. THE SITE PLANS FOR PHASES II AND III SHALL INDICATE THE LOCATION OF THE AFFORDABLE UNITS FOR THESE PHASES OF DEVELOPMENT.

LAND DEDICATED TO PUBLIC USE: PHASE I SHALL INCLUDE 2.64 ACRES OF LAND DEDICATED TO PUBLIC USE FOR PUBLIC RIGHT OF WAY, INCLUDING ARCHER AVENUE EXTENSION & A PORTION OF VIOLA DRIVE. FUTURE PHASE II SHALL INCLUDE 0.47 ACRES OF LAND DEDICATED TO PUBLIC USE FOR PUBLIC RIGHT OF WAY (CALYX DRIVE & CALYX WAY), AND FUTURE PHASE III SHALL INCLUDE 1.18 ACRES OF LAND DEDICATED TO PUBLIC USE FOR PUBLIC RIGHT OF WAY (VIOLA DRIVE & VIOLA COURT).

IMPERVIOUS AREAS/LAND AREAS:	PHASE I (TOTAL AREA)	PHASE II (TOTAL AREA)	PHASE III (TOTAL AREA)
ROW DEDICATION:	2.64 ACRES	0.47 ACRES	1.18 ACRES
DEVELOPMENT AREA:	9.234 ACRES	1.569 ACRES	1.329 ACRES
RECREATIONAL AREA:	1.60 ACRES	0.0 ACRES	0.15 ACRES
BUFFER AREA:	2.00 ACRES	0.32 ACRES	0.80 ACRES
OPEN SPACE AREA :	3.60 ACRES	2.80 ACRES	2.60 ACRES
TOTAL AREA:	19.0.74 ACRES	5.159 ACRES	6.059 ACRES

ADA ACCESSIBLE ROUTE:

OPEN SPACE CHART

PARCEL	ACREAGE	PARCEL	ACREAGE
TMP 46-28A	5.09 AC	TMP 46-28B	2.97 AC
TMP 46-28E	2.61 AC	TMP 46-28F	1.27 AC
TMP 46-28I	1.63 AC	TMP 46-28J	13.84 AC
TMP 46-28K	2.53 AC	TMP 46-28L	0.881 AC
TOTAL AREA			30.821 AC

OPEN SPACE PROVIDED:
COMMON OPEN SPACE AREA = 9.00 ACRES (MIN.) (29.2%)
AREA #1 = 3.40 ACRES
AREA #2 = 0.20 ACRES
AREA #3 = 1.70 ACRES
AREA #4 = 1.10 ACRES
AREA #5 = 1.80 ACRES
AREA #6 = 0.80 ACRES
ACTIVE RECREATION (AMENITY) AREA = 1.75 ACRES (MIN.) (5.7%)
AREA #1 =1.06 ACRES
AREA #2 =0.33 ACRES
AREA #3 =0.15 ACRES
AREA #4 =0.21 ACRES
PERIMETER LANDSCAPING AREA = 3.12 ACRES (MIN.) (10.1%)
AREA #1 =0.06 ACRES
AREA #2 =0.74 ACRES
AREA #3 =0.15 ACRES
AREA #4 =1.24 ACRES
AREA #5 =0.20 ACRES
AREA #6 =0.41 ACRES
AREA #7 =0.32 ACRES
TOTAL OPEN SPACE AREA = 13.87 ACRES (45.0%)

NOTES:
1. OPEN SPACE IS DEFINED AS LAND OR BUFFERS LEFT IN UNDISTURBED NATURAL CONDITION AND UNOCCUPIED BY BUILDING LOTS, STRUCTURES, STREETS, OR PARKING LOTS, EXCEPT AS OTHERWISE SPECIFICALLY PROVIDED IN THE COUNTY ZONING ORDINANCE, SECTION 18-4.7. NOTE THAT ONLY 80% OF THE MINIMUM OPEN SPACE MAY BE A) LOCATED ON PRESERVED SLOPES AND B) DEVOTED TO STORMWATER MANAGEMENT FACILITIES, UNLESS THE FACILITY IS INCORPORATED INTO A PERMANENT POND, LAKE, OR OTHER WATER FEATURE DEEMED TO CONSTITUTE A DESIRABLE OPEN SPACE AMENITY PER SECTION 18-4.7(C)(3).

HOLLYMEAD DRIVE (STATE ROUTE 1520)
RUBIN LANE (PRIVATE ROW)
20' UNDISTURBED LANDSCAPE BUFFER
10' LANDSCAPE BUFFER
BUFFER SPACE #3. 0.15 AC MIN.
COMMON OPEN SPACE #2 0.20 AC MIN.
30' LANDSCAPE BUFFER
20' UNDISTURBED LANDSCAPE BUFFER
BUFFER SPACE #4. 1.24 AC MIN.
BUILDING #2 3/4 STORIES 36 APARTMENT UNITS
POOL
KRAMERIA LANE (PRIVATE TRAVELWAY)
BUILDING #1 3/4 STORIES 36 APARTMENT UNITS
AMENITY SPACE #1 1.06 AC MIN. CLUBHOUSE
BUILDING SETBACK, TYPICAL
JERSEY CIRCLE (PRIVATE TRAVELWAY)
BUILDING #5 3/4 STORIES 72 APARTMENT UNITS
BUILDING #6 3/4 STORIES 72 APARTMENT UNITS
ARCHER AVENUE EXTENSION (PUBLIC STREET)
AMENITY SPACE #2 0.33 AC MIN.
POCKET PARK
BUILDING #3 3 STORIES 30 APARTMENT UNITS
BUILDING #4 3/4 STORIES 72 APARTMENT UNITS
AMENITY SPACE #4. 0.21 AC MIN.
DOG PARK
SEMINOLE TRAIL (U.S. ROUTE 29)
BUFFER SPACE #5 0.20 AC MIN.
WET POND
BUFFER SPACE #6 0.41 AC MIN.
PHASE I
COMMON OPEN SPACE #1 3.40 AC MIN.
COMMON OPEN SPACE #3 1.70 AC MIN.
PORTION OF PHASE II DEVELOPMENT AREA, 2.04 AC.
RIDGE CREST DRIVE (PRIVATE TRAVELWAY)
59.5' ROW
CALYX DRIVE (PUBLIC STREET)
44' ROW
CALYX WAY (PUBLIC STREET)
49' ROW
VIOLA DRIVE (PUBLIC STREET)
COMMON OPEN SPACE #5 1.80 AC MIN.
COMMON OPEN SPACE #4 1.10 AC MIN.
BUFFER SPACE #7 0.32 AC MIN.
PORTION OF PHASE II DEVELOPMENT AREA, 3.12 AC.
BUILDING SETBACK, TYPICAL
VIOLA COURT (PUBLIC STREET)
BUFFER SPACE #1. 0.06 AC MIN.
BUFFER SPACE #2. 0.74 AC MIN.
TOT LOT
AMENITY SPACE #3. 0.15 AC MIN.
PHASE III DEVELOPMENT AREA, 6.05 AC.
COMMON OPEN SPACE #6 0.80 AC MIN.
DERBY LANE (STATE ROUTE 1528)
ARCHER NORTH IMPROVEMENTS, EXTENDING TO PROPERTY LINE. (ARCHER NORTH IMPROVEMENTS ARE PROPOSED UNDER A SEPARATE SET OF PLANS)

TMP 46B2-01-12-E
HOLLYMEAD CITIZENS ASSOCIATION, INC.
D.B. 3267 P. 2789

TMP 46B2-01-12-D
CHRISTINE E. PERSON, & DEBORAH L. PERSON
D.B. 1402 P. 208

TMP 46B2-01-12-C
CARLTON RAY ABRAMS & KAMERON WITT
D.B. 4911 P. 1885

TMP 46B2-01-12-A
DYLAN MICAIAH MOORE & MEGHAN ELIZABETH MOORE
INST #2022-2896

TMP 46B2-01-11-F
HOLLYMEAD CITIZENS ASSOCIATION, INC.
D.B. 5189 P. 633

TMP 46B2-01-11-E
PRASANNA C. ANABATHULA & SUNEETHA ANABATHULA
D.B. 5228 P. 1

TMP 46B2-01-11-D
FAUPEL LEE SMITH & TRACY LEE SMITH
D.B. 4911 P. 1885

TMP 46B2-01-11-C
CALVARY CHAPEL OF CHARLOTTESVILLE
D.B. 2519 P. 2

TMP 46B2-01-11-B

TMP 46B2-01-11-A

TMP 46-28G
JANICE SNOW
W.B. 63 P. 427
D.B. 418 P. 440
D.B. 326 P. 92 PLAT
USE: RESIDENCE

D.B. 298 P. 470 (EX.8)
D.B. 326 P. 91 (EX.5A) (EX.7A)
D.B. 327 P. 117 (EX.7A
D.B. 347 P. 103 (EX.5A) (EX.7A)
D.B. 392 P. 29 (EX.8) (EX.5A) (EX.7A)
D.B. 414 P. 234 (EX.8) (EX.5A)
D.B. 462 P. 473 (EX.8) (EX.16) (EX.5A) (EX.7A)
D.B. 555 P. 568 (EX.8) (EX.5A) (EX.7A)

TMP 46-28H
ESTATE OF FRANKLIN RUEBEN SPROUSE
WILL INST.2023-770
W.B. 157 P. 233
W.B. 149 P. 745
D.B. 471 P. 409
D.B. 347 P. 103, 104 PLAT
USE: RESIDENCE

TMP 46-28A1
WOOD PROPERTY INVESTMENTS, LLC
D.B. 3878 P. 380
D.B. 650 P. 509 PLAT

TMP 46--108
SEMINOLE TRAIL, LLC
D.B. 5228 P. 557
D.B. 527 P. 180 PLAT

TMP 46B2--02--39
BARRY K. MORRIS & LISA A. MEYER
D.B. 2801 P. 726
D.B. 531 P. 307 PLAT

TMP 46B2-02--38
S. MEGHAN DITTMAR-CRIDER
D.B. 3551 P. 352
D.B. 531 P. 307 PLAT

LOT 38 ADDITION ONE SECTION TWO HOLLYMEAD

LOT 39 ADDITION ONE SECTION TWO HOLLYMEAD

OPEN SPACE ADDITION ONE SECTION TWO HOLLYMEAD

TMP 46B2-02--A
HOLLYMEAD CITIZENS ASSOCIATION, INC.
D.B. 640 P. 26
D.B. 531 P. 307 PLAT

TMP 46B5--J
FOREST LAKES COMMUNITY ASSOCIATIN, INC.
D.B. 2009 P. 110
D.B. 1675 P. 248 PLAT
D.B. 1642 P. 383 PLAT

TMP 46B5--0J--16
RYAN NEIL & SHARIN APOSTOLOU MACHPHERSON
INST.#2022-6431
INST.#2023-2415
D.B. 1642 P. 383 PLAT

TMP 46B5--0J--17
RONALD W. BUREAU & ANNIE P. BUREAU
INST.#2022-3328
D.B. 1675 P. 248 PLAT

TMP 46B5--P
FOREST LAKES COMMUNITY ASSOCIATIN, INC.
D.B. 2009 P. 110
D.B. 1729 P. 306 PLAT

OPEN SPACE LOT J TEAKWOOD PLACE 2 FOREST LAKES SOUTH

COMMON AREA LOT A TEAKWOOD PLACE 2 FOREST LAKES SOUTH

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

LOT AREA CHART

PHASE II LOT NUMBER	PHASE II LOT AREA (SQ FT)	PHASE III LOT NUMBER	PHASE III LOT AREA (SQ FT)
1	2,065	31	2,640
2	1,620	32	1,920
3	1,620	33	1,911
4	1,618	34	1,888
5	2,206	35	1,861
6	2,679	36	2,515
7	1,775	37	2,670
8	1,731	38	1,803
9	2,760	39	1,818
10	2,657	40	1,851
11	1,891	41	1,900
12	1,994	42	1,966
13	3,199	43	3,363
14	2,640	44	2,365
15	1,760	45	1,720
16	1,760	46	1,720
17	1,760	47	1,720
18	1,760	48	2,370
19	2,640	49	2,360
20	2,640	50	1,720
21	1,760	51	1,720
22	1,760	52	1,720
23	1,760	53	2,370
24	3,329	54	2,360
25	2,689	55	1,720
26	1,939	56	1,720
27	1,925	57	1,720
28	1,869	58	2,584
29	1,764	59	2,902
30	2,453	60	1,732
		61	1,918
		62	2,257
		63	3,010
		64	2,447
		65	1,780
		66	1,780
		67	2,599
		68	3,345
		69	1,773
		70	1,773
		71	1,773
		72	2,690

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN
SHEET TITLE: OVERALL DEVELOPMENT PLAN
JOB NO. 232220
SCALE 1" = 60'
SHEET NO. 4

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

PROJECT NOTES:

AFFORDABLE HOUSING: FIFTEEN PERCENT (15%) OF THE CONSTRUCTED UNITS SHALL BE AFFORDABLE HOUSEHOLDS MAKING UP TO 80% OF THE AREA MEDIAN INCOME FOR A PERIOD OF TEN (10) YEARS. SEE SHEET 2A FOR MORE INFORMATION.
TOTAL NUMBER OF UNITS = 318 APARTMENT UNITS
TOTAL AFFORDABLE UNITS = 318 UNITS * 15% = 48 UNITS
THE AFFORDABLE UNITS SHALL BE SPREAD OUT OVER THE APARTMENT COMPLEX DISTRIBUTED THROUGHOUT THE (6) BUILDINGS. THE AFFORDABLE UNITS SHALL BE INDICATED IN EACH BUILDING AT THE TIME OF BUILDING PERMITS. IN ADDITION, THE AFFORDABLE UNITS FOR PHASES II AND III MAY BE ACHIEVED WITH FOR RENT APARTMENT UNITS WITHIN PHASE I. THE SITE PLANS FOR PHASES II AND III SHALL INDICATE THE LOCATION OF THE AFFORDABLE UNITS FOR THESE PHASES OF DEVELOPMENT.

LAND DEDICATED TO PUBLIC USE: PHASE I SHALL INCLUDE 2.64 ACRES OF LAND DEDICATED TO PUBLIC USE FOR PUBLIC RIGHT OF WAY, INCLUDING ARCHER AVENUE EXTENSION & A PORTION OF VIOLA DRIVE. FUTURE PHASE II SHALL INCLUDE 0.47 ACRES OF LAND DEDICATED TO PUBLIC USE FOR PUBLIC RIGHT OF WAY (CALYX DRIVE & CALYX WAY), AND FUTURE PHASE III SHALL INCLUDE 1.18 ACRES OF LAND DEDICATED TO PUBLIC USE FOR PUBLIC RIGHT OF WAY (VIOLA DRIVE & VIOLA COURT).

IMPERVIOUS AREAS/LAND AREAS:	PHASE I (TOTAL AREA)	PHASE II (TOTAL AREA)	PHASE III (TOTAL AREA)
ROW DEDICATION:	2.64 ACRES	0.47 ACRES	1.18 ACRES
DEVELOPMENT AREA:	9.234 ACRES	1.569 ACRES	1.329 ACRES
RECREATIONAL AREA:	1.60 ACRES	0.0 ACRES	0.15 ACRES
BUFFER AREA:	2.00 ACRES	0.32 ACRES	0.80 ACRES
OPEN SPACE AREA :	3.60 ACRES	2.80 ACRES	2.60 ACRES
TOTAL AREA:	19.0.74 ACRES	5.159 ACRES	6.059 ACRES

ADA ACCESSIBLE ROUTE:

OPEN SPACE CHART

PARCEL	ACREAGE	PARCEL	ACREAGE
TMP 46-28A	5.09 AC	TMP 46-28B	2.97 AC
TMP 46-28E	2.61 AC	TMP 46-28F	1.27 AC
TMP 46-28I	1.63 AC	TMP 46-28J	13.84 AC
TMP 46-28K	2.53 AC	TMP 46-28L	0.881 AC
TOTAL AREA			30.821 AC

OPEN SPACE PROVIDED:
COMMON OPEN SPACE AREA = 9.00 ACRES (MIN.) (29.2%)
AREA #1 = 3.40 ACRES
AREA #2 = 0.20 ACRES
AREA #3 = 1.70 ACRES
AREA #4 = 1.10 ACRES
AREA #5 = 1.80 ACRES
AREA #6 = 0.80 ACRES
ACTIVE RECREATION (AMENITY) AREA = 1.75 ACRES (MIN.) (5.7%)
AREA #1 =1.06 ACRES
AREA #2 =0.33 ACRES
AREA #3 =0.15 ACRES
AREA #4 =0.21 ACRES
PERIMETER LANDSCAPING AREA = 3.12 ACRES (MIN.) (10.1%)
AREA #1 =0.06 ACRES
AREA #2 =0.74 ACRES
AREA #3 =0.15 ACRES
AREA #4 =1.24 ACRES
AREA #5 =0.20 ACRES
AREA #6 =0.41 ACRES
AREA #7 =0.32 ACRES
TOTAL OPEN SPACE AREA = 13.87 ACRES (45.0%)

NOTES:
1. OPEN SPACE IS DEFINED AS LAND OR BUFFERS LEFT IN UNDISTURBED NATURAL CONDITION AND UNOCCUPIED BY BUILDING LOTS, STRUCTURES, STREETS, OR PARKING LOTS, EXCEPT AS OTHERWISE SPECIFICALLY PROVIDED IN THE COUNTY ZONING ORDINANCE, SECTION 18-4.7. NOTE THAT ONLY 80% OF THE MINIMUM OPEN SPACE MAY BE A) LOCATED ON PRESERVED SLOPES AND B) DEVOTED TO STORMWATER MANAGEMENT FACILITIES, UNLESS THE FACILITY IS INCORPORATED INTO A PERMANENT POND, LAKE, OR OTHER WATER FEATURE DEEMED TO CONSTITUTE A DESIRABLE OPEN SPACE AMENITY PER SECTION 18-4.7(C)(3).

HOLLYMEAD DRIVE (STATE ROUTE 1520)
RUBIN LANE (PRIVATE ROW)
20' UNDISTURBED LANDSCAPE BUFFER
10' LANDSCAPE BUFFER
BUFFER SPACE #3. 0.15 AC MIN.
COMMON OPEN SPACE #2 0.20 AC MIN.
30' LANDSCAPE BUFFER
20' UNDISTURBED LANDSCAPE BUFFER
BUFFER SPACE #4. 1.24 AC MIN.
BUILDING #2 3/4 STORIES 36 APARTMENT UNITS
POOL
KRAMERIA LANE (PRIVATE TRAVELWAY)
BUILDING #1 3/4 STORIES 36 APARTMENT UNITS
AMENITY SPACE #1 1.06 AC MIN. CLUBHOUSE
BUILDING SETBACK, TYPICAL
JERSEY CIRCLE (PRIVATE TRAVELWAY)
BUILDING #5 3/4 STORIES 72 APARTMENT UNITS
BUILDING #6 3/4 STORIES 72 APARTMENT UNITS
ARCHER AVENUE EXTENSION (PUBLIC STREET)
AMENITY SPACE #2 0.33 AC MIN.
POCKET PARK
BUILDING #3 3 STORIES 30 APARTMENT UNITS
BUILDING #4 3/4 STORIES 72 APARTMENT UNITS
AMENITY SPACE #4. 0.21 AC MIN.
DOG PARK
SEMINOLE TRAIL (U.S. ROUTE 29)
BUFFER SPACE #5 0.20 AC MIN.
WET POND
BUFFER SPACE #6 0.41 AC MIN.
PHASE I
COMMON OPEN SPACE #1 3.40 AC MIN.
COMMON OPEN SPACE #3 1.70 AC MIN.
PORTION OF PHASE II DEVELOPMENT AREA, 2.04 AC.
RIDGE CREST DRIVE (PRIVATE TRAVELWAY)
ARCHER NORTH IMPROVEMENTS, EXTENDING TO PROPERTY LINE.
(ARCHER NORTH IMPROVEMENTS ARE PROPOSED UNDER A SEPARATE SET OF PLANS)
DERBY LANE (STATE ROUTE 1528)
BUFFER SPACE #1. 0.06 AC MIN.
BUFFER SPACE #2. 0.74 AC MIN.
VIOLA COURT (PUBLIC STREET)
TOT LOT
AMENITY SPACE #3. 0.15 AC MIN.
PHASE III DEVELOPMENT AREA, 6.05 AC.
COMMON OPEN SPACE #6 0.80 AC MIN.
VIOLA DRIVE (PUBLIC STREET)
COMMON OPEN SPACE #5 1.80 AC MIN.
COMMON OPEN SPACE #4 1.10 AC MIN.
BUFFER SPACE #7 0.32 AC MIN.
PORTION OF PHASE II DEVELOPMENT AREA, 3.12 AC.
CALYX DRIVE (PUBLIC STREET)
CALYX WAY (PUBLIC STREET)
44' ROW
49' ROW
59.5' ROW

TMP 46B2-01-12-E DAVID & CHRISTINE HOUSE D.B. 3886 P. 488
TMP 46B2-01-12-D CHRISTINE E. PERSON & D.B. 1402 P. 208
TMP 46B2-01-12-C CARLTON ROY ABRAMS & KAREN WYE D.B. 3889 P. 685
TMP 46B2-01-12-B KAMERON WYE D.B. 3889 P. 685
TMP 46B2-01-12-A DYLAN MICAIAH MOORE & CHRISTINA MARIA MOORE INST #2022-2896
TMP 46B2-01-11-F MICHAEL & ANABELA PRAIANA C. ANABELA D.B. 5189 P. 633
TMP 46B2-01-11-E TIMOTHY D. & PAULA LEE SMITH D.B. 2531 P. 1
TMP 46B2-01-11-C JOSEPH & ANNE MARIE D.B. 2531 P. 1
TMP 46B2-01-11-B
TMP 46B2-01-11-A
D.B. 298 P. 470 (EX.8)
D.B. 326 P. 91 (EX.5A) (EX.7A)
D.B. 327 P. 117 (EX.7A
D.B. 347 P. 103 (EX.5A) (EX.7A)
D.B. 392 P. 29 (EX.8) (EX.5A) (EX.7A)
D.B. 414 P. 234 (EX.8) (EX.5A)
D.B. 462 P. 473 (EX.8) (EX.16) (EX.5A) (EX.7A)
D.B. 555 P. 568 (EX.8) (EX.5A) (EX.7A)
TMP 46-28G JANICE SNOW W.B. 63 P. 427 D.B. 418 P. 440 D.B. 326 P. 92 PLAT USE: RESIDENCE
TMP 46-28H ESTATE OF FRANKLIN RUEBEN SPROUSE WILL INST.2023-770 W.B. 157 P. 233 W.B. 149 P. 745 D.B. 471 P. 409 D.B. 347 P. 103, 104 PLAT USE: RESIDENCE
TMP 46B2-02-39 BARRY K. MORRIS & LISA A. MEYER D.B. 2801 P. 726 D.B. 531 P. 307 PLAT
TMP 46B2-02-38 S. MEGHAN DITTMAR-CRIDER D.B. 3551 P. 352 D.B. 531 P. 307 PLAT
LOT 38 ADDITION ONE SECTION TWO HOLLYMEAD
LOT 39 ADDITION ONE SECTION TWO HOLLYMEAD
OPEN SPACE ADDITION ONE SECTION TWO HOLLYMEAD
TMP 46B2-02-A HOLLYMEAD CITIZENS ASSOCIATION, INC. D.B. 640 P. 26 D.B. 531 P. 307 PLAT
TMP 46B5-P FOREST LAKES COMMUNITY ASSOCIATION, INC. D.B. 2009 P. 110 D.B. 1709 P. 306 PLAT
OPEN SPACE TEAKWOOD PHASE 2 FOREST LAKES SOUTH
COMMON AREA TEAKWOOD PHASE 2 FOREST LAKES SOUTH
TMP 46B5--J FOREST LAKES COMMUNITY ASSOCIATIN, INC. D.B. 2009 P. 110 D.B. 1675 P. 248 PLAT D.B. 1642 P. 383 PLAT
TMP 46B5--0J-16 RYAN NEIL & SHARIN APOSTOLOU MACHPHERSON INST.#2022-6431 INST.#2023-2415 D.B. 1642 P. 383 PLAT
TMP 46B5--0J-17 RONALD W. BUREAU & ANNIE P. BUREAU INST.#2022-3328 D.B. 1675 P. 248 PLAT
TMP 46-28A1 WOOD PROPERTY INVESTMENTS, LLC D.B. 3878 P. 380 D.B. 650 P. 509 PLAT
TMP 46--108 SEMINOLE TRAIL, LLC D.B. 5228 P. 557 D.B. 527 P. 180 PLAT

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

LOT AREA CHART

PHASE II LOT NUMBER	PHASE II LOT AREA (SQ FT)	PHASE III LOT NUMBER	PHASE III LOT AREA (SQ FT)
1	2,065	31	2,640
2	1,620	32	1,920
3	1,620	33	1,911
4	1,618	34	1,888
5	2,206	35	1,861
6	2,679	36	2,515
7	1,775	37	2,670
8	1,731	38	1,803
9	2,760	39	1,818
10	2,657	40	1,851
11	1,891	41	1,900
12	1,994	42	1,966
13	3,199	43	3,363
14	2,640	44	2,365
15	1,760	45	1,720
16	1,760	46	1,720
17	1,760	47	1,720
18	1,760	48	2,370
19	2,640	49	2,360
20	2,640	50	1,720
21	1,760	51	1,720
22	1,760	52	1,720
23	1,760	53	2,370
24	3,329	54	2,360
25	2,689	55	1,720
26	1,939	56	1,720
27	1,925	57	1,720
28	1,869	58	2,584
29	1,764	59	2,902
30	2,453	60	1,732
		61	1,918
		62	2,257
		63	3,010
		64	2,447
		65	1,780
		66	1,780
		67	2,599
		68	3,345
		69	1,773
		70	1,773
		71	1,773
		72	2,690

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN
SHEET TITLE: OVERALL DEVELOPMENT PLAN
JOB NO. 232220
SCALE 1" = 60'
SHEET NO. 4

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

SITE PLAN NOTE LEGEND:

- A TIE-IN TO EXISTING CURB
- B PROPOSED VDOT STD. CG-2 CURB
- C PROPOSED VDOT STD. CG-6 CURB
- D TIE INTO EXISTING PAVEMENT
- E PROPOSED VDOT STD. CG-12 RAMP
- F PROPOSED RETAINING WALL (RIVER RED COLOR OR EQUAL)
- G PROPOSED 10' ASPHALT SHARED-USE PATHWAY
- H PROPOSED CONCRETE SIDEWALK
- I PROPOSED STOP SIGN
- J PROPOSED STREET SIGN
- K PROPOSED PUBLIC RIGHT-OF-WAY (8' ARCHER AVE. PLANTING STRIP ADJACENT TO ASPHALT PED. PATH, OTHERWISE 6' PLANTING STRIP)
- L PROPOSED 16' DEEP PARKING SPACE WITH 2' GRASS OVERHANG
- M PROPOSED ON-STREET PARKING SPACE (8' x 20')
- N PROPOSED CONCRETE HANDICAP ACCESSIBLE ADA RAMP WITH HANDRAILS
- O PROPOSED CONCRETE STEPS WITH HANDRAILS
- P PROPOSED BUILDING ENTRANCE
- Q PROPOSED MILL & OVERLAY (VDOT STD. WP-2) ON EXISTING RTE 29 TURN LANE
- R PROPOSED HANDICAP PARKING SIGN
- S PROPOSED BICYCLE RACK
- T PROPOSED 'NO PARKING - FIRE LANE' SIGN
- U PROPOSED CG-9D ENTRANCE
- V PROPOSED PARKING & BUILDING SETBACKS (SEE SHEET 1 FOR MIN. DISTANCES)
- W PROPOSED 2' WIDE ADA DETECTABLE SURFACE ACROSS 7.5' x 30' BUS CONC. BOARDING PLATFORM
- X PROPOSED BUS STOP w/ SHELTER & BENCH - SHELTER SHALL MEET CAT DESIGN STANDARDS
- Y PROPOSED SPEED LIMIT SIGN
- Z PROPOSED 5' WIDE CLASS B PRIMITIVE TRAILWAY
- AA PROPOSED CAR CHARGING STATIONS
- AB PROPOSED ELECTRICAL TRANSFORMER PAD
- AC PROPOSED VDOT STD. HR-1, PATHWAY RAILING ADJACENT TO SLOPES

SITE NOTES

1. CONTRACTOR SHALL OBTAIN A VDOT WORK PERMIT PRIOR TO ANY CONSTRUCTION WITHIN THE VDOT RIGHT OF WAY. VDOT TO REVIEW AND APPROVE THE PERMIT AND MAINTENANCE OF TRAFFIC PLAN PRIOR TO THE START OF ANY CONSTRUCTION WITHIN THE VDOT RIGHT OF WAY.
2. EXISTING AND PROPOSED DUMPSTERS ON SITE SHALL COMPLY WITH APPLICABLE COUNTY REQUIREMENTS. DUMPSTERS SHALL BE SCREENED AND NOT BE VISIBLE FROM RIGHT-OF-WAY.
3. ALL SIDEWALK WITHIN THE LIMITS OF THE DEVELOPMENT SHALL BE PRIVATE SIDEWALKS AND SHALL BE PRIVATELY MAINTAINED.
4. ALL SIDEWALKS AND WALKWAYS SHALL HAVE A MINIMUM CLEAR WIDTH OF 5', EXCEPT WHERE NOTED ON THE SITE PLAN.
5. ALL WALKWAY CROSSINGS SHALL MEET MINIMUM ADA ACCESSIBILITY STANDARDS AND SHALL HAVE A CROSS SLOPES OF 2% OR LESS.
6. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE INSTALLED CONSISTENT WITH MUTCD STANDARDS.
7. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE FROM PARKING TO AN ACCESSIBLE ENTRANCE.
8. ALL SIGNS IDENTIFYING ACCESSIBLE PARKING SPACES SHALL BE AT LEAST 60 INCHES ABOVE THE GROUND/SURFACE (FROM BOTTOM OF SIGN) AND GUIDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. ACCESSIBLE VAN PARKING SPACES SHALL CONTAIN THE DESIGNATION 'VAN ACCESSIBLE'.
9. RAMPS OVER 30" IN ELEVATION CHANGE REQUIRE HANDRAILS.
10. PER 502.6 OF THE 2010 ADA DESIGN STANDARDS ACCESSIBLE PARKING SPACE IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1, AND SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN THE DESIGNATION "VAN ACCESSIBLE".
11. PER ADA 502.4 PARKING SPACES AND ACCESS AISLES SHALL COMPLY WITH 302, SLOPES NOT STEEPER THAN 2% SHALL BE PERMITTED.
12. PER ADA 403.3 THE RUNNING SLOPE OF AN ACCESSIBLE ROUTE SHALL BE 5% OR LESS. SLOPES OVER 5% WILL REQUIRE A RAMP.
13. PER ADA 206.2.2 AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, FACILITIES, ELEMENTS AND SPACES ON THE SAME SITE.
14. ALL PARKING SPACES SHALL BE 9'x18', EXCEPT AS NOTED.
15. HANDICAP PARKING SPACES SHALL BE 8'x18', EXCEPT AS NOTED.
16. ALL HANDICAP PARKING SPACES SHALL BE INDICATED WITH A SIGN.

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)

1 inch = 30 ft.

NOTES:

1. CONTRACTOR SHALL PROVIDE ENGINEER SURVEY WORKSHEETS OF ALL ROADWAYS, MANHOLE TOPS AND DRAINAGE STRUCTURES PRIOR TO INSTALLATION OF E/P, DRAINAGE, OR UTILITIES TO COLLINS ENGINEERING FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. COLLINS ENGINEERING SHALL VERIFY ALL SURVEY SHEETS TO ENSURE POSITIVE DRAINAGE AND PROPER ELEVATIONS FOR CONSTRUCTION.
2. WALLS WITH HEIGHT OF 30" OR GREATER SHALL REQUIRE HANDRAILS - SEE NOTES & DETAILS SHEET.
3. A KNOX BOX WILL BE REQUIRED ON EACH BUILDING. THE LOCATION OF THE KNOW BOX CAN BE COORDINATED WITH THE FIRE MARSHAL'S OFFICE.
4. MECHANICAL EQUIPMENT FOR THE APARTMENT BUILDINGS AND CLUBHOUSE SHALL BE SCREENED WHEN LOCATED WITHIN THE ENTRANCE CORRIDOR.
5. ALL PROPOSED RETAINING WALLS SHALL COMPLY WITH ALBEMARLE COUNTY ZONING AND BUILDING REQUIREMENTS. RETAINING WALLS SHALL NOT EXCEED 10 FEET IN HEIGHT.
6. BUS TRANSIT STOPS, SHELTERS, BOARDING, AND ALIGHTING AREAS SIGNS AND BENCHES SHALL COMPLY TO THE REQUIREMENTS LISTED IN CHAPTER 3, SECTION R309 OF THE U.S. ACCESS BOARD PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).

GENERAL PROJECT NOTES:

1. CONTRACTOR SHALL VERIFY ALL ROAD CONNECTIONS, INCLUDING RECENTLY CONSTRUCTED AREAS, VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL CONFIRM ALL UTILITY, DRAINAGE, AND ROAD CONNECTIONS, AND SHALL NOTIFY ENGINEER OF ANY TIE-IN ISSUES OR DISCREPANCIES.
3. 1 REPRESENTS ONE PROPOSED PARKING SPACE.
4. OVERHEAD WIRING OR OTHER OBSTRUCTIONS SHALL BE HIGHER THAN 15'-6".
5. ALL PAVEMENT SHALL BE CAPABLE OF SUPPORTING FIRE APPARATUS WEIGHING 85,000 LBS.
6. CONTRACTOR SHALL ENSURE ALL ON-SITE UTILITIES, ABOVE AND BELOW GROUND, SERVICING ADJACENT PROPERTIES SHALL CONTINUE TO SERVICE THE ADJACENT PROPERTIES THROUGHOUT CONSTRUCTION AND UPON COMPLETION OF THE PROJECT TO THE FULLEST EXTENT POSSIBLE.
7. SEE EXISTING CONDITIONS FOR COMPLETE PROJECT BOUNDARY DIMENSIONS AND METES AND BOUNDS.
8. CURB RADII SHOWN, REPRESENTED WITH AN 'R', DIMENSION THE FACE OF CURB.
9. ALL RETAINING WALLS GREATER THAN 3 FEET IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT. WALLS EXCEEDING 4 FEET IN HEIGHT REQUIRE A STAMPED ENGINEERED DESIGN FOR THE WALLS SYSTEM.
10. BUILDINGS OR STRUCTURES BUILT BEFORE JANUARY 1, 1985 MUST HAVE AN ASBESTOS SURVEY PERFORMED IN ORDER TO APPLY FOR A DEMOLITION PERMIT. ASBESTOS REMOVAL PERMITS ARE REQUIRED IF POSITIVE FOR SUCH. CONTACT VDOLI FOR ADDITIONAL REQUIREMENTS AND PERMITS FOR DEMOLITION PROJECTS.
11. ALL PRIVATE TRAVELWAYS SHALL BE OWNED AND MAINTAINED BY THE APARTMENT COMPLEX. NO PUBLIC AGENCY, INCLUDING VDOT AND THE COUNTY OF ALBEMARLE WILL BE RESPONSIBLE FOR MAINTAINING THE TRAVELWAYS WITHIN THE APARTMENT COMPLEX.
12. ALL PUBLIC WATER AND SANITARY SEWER FACILITIES SHALL BE DEDICATED TO PUBLIC USE AND THE EASEMENTS FOR THOSE FACILITIES, AS IDENTIFIED ON THIS PLAN, SHALL BE DEDICATED TO THE ALBEMARLE COUNTY SERVICE AUTHORITY. THE ONSITE SANITARY SEWER IS A PRIVATE UTILITY AND NO EASEMENTS ARE REQUIRED.
13. ALL PRIVATE YARD DRAIN DESIGN INFORMATION (INCLUDING INVERTS OF THE SYSTEM) SHALL BE PROVIDED BY THE CIVIL ENGINEER DURING CONSTRUCTION.
14. THE TRASH COMPACTOR AREA SHALL ALSO INCLUDE A RECYCLING BIN FOR THE APARTMENT COMPLEX.
15. SEE FINAL SITE PLAN FOR DESIGN OF THE CONCRETE STEPS AND RAMPS.
16. ALL RECREATIONAL AREAS AND AMENITIES SHALL BE LOCATED ALONG AN ACCESSIBLE ADA RAMP (AS SHOWN ON THE SITE PLAN).

VDOT NOTES:

1. VDOT WILL ONLY MAINTAIN WITHIN DRAINAGE EASEMENTS TO THE EXTENT NECESSARY TO PROTECT THE ROADWAY FROM FLOODING OR DAMAGE.
2. A MOT PLAN SHALL BE PROVIDED PRIOR TO THE START OF CONSTRUCTION FOR ANY WORK ON EXISTING ROADWAYS THAT HAVE BEEN ACCEPTED BY VDOT. CURRENTLY, THE EXISTING ROADWAY INTERSECTIONS FOR THIS DEVELOPMENT ARE UNDER CONSTRUCTION AND HAVE NOT YET BEEN ACCEPTED BY VDOT. NO MOT PLAN IS REQUIRED AT THIS TIME FOR THE IMPROVEMENTS AT THE ENTRANCES.
3. A TRAFFIC MAINTENANCE PLAN (TMP) IS REQUIRED FOR THE WORK LOCATED WITHIN VDOT RIGHT-OF-WAY. THE TMP SHALL BE PREPARED BY AN ADVANCED WORK ZONE CERTIFIED PERSON, CERTIFICATION CARD AND VERIFICATION NUMBER IS REQUIRED ON THE TMP SUBMITTAL.
4. ACCESS FOR LOCAL TRAFFIC AND EMERGENCY VEHICLES WILL NEED TO BE MAINTAINED AT ALL TIMES FOR WORK WITHIN THE RIGHT OF WAY.
5. LANDSCAPING PLANTS AND TREES ADJACENT TO THE SIGHT DISTANCE TRIANGLE SHALL BE MAINTAINED IN AREA BETWEEN 2 AND 7 FEET ABOVE THE GROUND AS A CLEAR ZONE TO PRESERVE SIGHT LINES AND ACCOMMODATE PEDESTRIANS. THE APARTMENT COMPLEX MANAGEMENT COMPANY WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SIGHT LINES.

ADA ACCESSIBLE ROUTE:

HOLLYMEAD DRIVE (STATE ROUTE 1520)

RUBIN LANE (PRIVATE ROW)

ARCHER AVENUE EXTENSION (PUBLIC STREET)

KRAMERIA LANE (PRIVATE TRAVELWAY)

SEMINOLE TRAIL (U.S. ROUTE 29)

TMP 46B2-01-1 HOLLYMEAD TOWNHOUSE CITIZENS ASSOCIATION, INC. D.B. 4830 P. 678

TMP 46B2-01-12-E M. ANN LAING D.B. 3886 P. 488

TMP 46B2-01-12-D BRYANT L. ROBINSON & CHRISTINE E. ROBINSON D.B. 5400 P. 206

TMP 46B2-01-12-C CAITLIN RUTH ABRAMS D.B. 5225 P. 588

TMP 46B2-01-12-B KAMERON MIZE INST.#2023-5985

TMP 46B2-01-12-A DYLAN MICAIAH MYHRE & GINTY ELIZABETH LEIVA MYHRE INST.#2022-2896

TMP 46B2-01-11-F ALLISON E. BENNETT D.B. 5189 P. 633

TMP 46B2-01-11-E SATHISH JANABATHULA & PRASANNA JANABATHULA D.B. 5657 P. 705

TMP 46B2-01-11-D ZACHARY DAVID SMITH & KALIFA LAEL SMITH D.B. 5542 P. 317

TMP 46B2-01-11-C LESCO, INCORPORATED D.B. 2378 P. 535

TMP 46B2-01-11-A

TMP 46B2-01-11-B

D.B. 298 P. 470 (EX.8)
D.B. 326 P. 91 (EX.5A) (EX.7A)
D.B. 327 P. 117 (EX.7A
D.B. 347 P. 103 (EX.5A) (EX.7A)
D.B. 392 P. 29 (EX.8) (EX.5A) (EX.7A)
D.B. 414 P. 234 (EX.8) (EX.5A)
D.B. 462 P. 473 (EX.8) (EX.16) (EX.5A) (EX.7A)
D.B. 555 P. 568 (EX.8) (EX.5A) (EX.7A)

REMOVE EXISTING BOLLARDS FOR FIRE ACCESS TURN-AROUND AREA. ONCE RUBIN LANE IS CONNECTED TO THE EMERGENCY ACCESS ROAD, EMERGENCY VEHICLES CAN EXIT THE SITE THROUGH THE EMERGENCY ACCESS ROAD IN LIEU OF THE TURN-AROUND

PROPOSED PEDESTRIAN/BICYCLE CONNECTION w/ REMOVABLE BOLLARDS COMPATIBLE w/KNOX BOX LOCKING SYSTEM

PROPOSED LANDSCAPE BUFFER AREA

20' UNDISTURBED LANDSCAPE BUFFER

10' LANDSCAPE BUFFER

PROPOSED PEDESTRIAN/BICYCLE CONNECTION w/ REMOVABLE BOLLARDS COMPATIBLE w/KNOX BOX LOCKING SYSTEM

PROPOSED TRASH COMPACTOR 4.2' HIGH BRICK ENCLOSURE w/ 12' x 17' CONCRETE APRON AND ROOF, SEE ARCHITECTURAL PLANS FOR DETAILS. ENCLOSURE TO MATCH BLDG ARCHITECTURE

TRASH COMPACTOR

12'x17' CONC. DUMPSTER PAD (MIN.)

150' FIRE ACCESS LANE

LIMITS OF EXISTING TREE PRESERVATION AREA

(6' CONC. S/W)

BUILDING #2
3/4 STORIES
(36 UNITS)

3 STORIES
4 STORIES

(6) 6" STEPS

(5' CONC.)

(5' CONC. S/W)

EXISTING PEDESTRIAN PATH

CONTRACTOR TO REMOVE EXISTING ENTRANCE ON ROUTE 29 & CONNECT THE PEDESTRIAN PATH & CG-6 WITH NEW CG-6 & ASPHALT PEDESTRIAN PATH

70' UNDISTURBED LANDSCAPE BUFFER

30' LANDSCAPE BUFFER

LIMITS OF EXISTING TREE PRESERVATION AREA

70' UNDISTURBED LANDSCAPE BUFFER

EXISTING PEDESTRIAN PATH

BUILDING #1
3/4 STORIES
(36 UNITS)

3 STORIES
4 STORIES

LIMITS OF EXISTING TREE PRESERVATION AREA

TIE-IN TO EXISTING ASPHALT PEDESTRIAN PATHWAY

PROPOSED VDOT STD. CROSSWALK

PROPOSED VDOT STD. MS-2 RAISED GRASS MEDIAN.

DISTANCE TO NEAREST INTERSECTION (HOLLYMEAD DRIVE) = 634'

SIGHT DISTANCE=280'

SIGHT DISTANCE=210'

SIGHT DISTANCE=590' (50 MPH DESIGN SPEED)

5' MIN. FRONT SETBACK

30' MAX. FRONT SETBACK

6' SIDE SETBACK

LIMITS OF EXISTING TREE PRESERVATION AREA

(6' CONC. S/W)

(6) 6" STEPS

(5' CONC. S/W)

PROPOSED POOL MAINTENANCE BUILDING & BATHROOMS

PROPOSED POOL

POOL

PROPOSED PERGOLA

PROPOSED GRILLING STATION

PROPOSED FENCE

PROPOSED FIRE PIT

DECK

CLUBHOUSE

DECK

(P) MAIL KIOSK INSIDE CLUBHOUSE

(6) 6" STEPS

MATCHLINE SEE SHEET 4B

MATCHLINE SEE SHEET 4B

30' PRIVATE ACCESS EASEMENT RESERVED FOR FUTURE ACCESS TO ADJACENT PROPERTY. PRIVATE ACCESS EASEMENT FROM ARCHER AVENUE EXTENSION TO PROPERTY LINE

PROPOSED 30' PRIVATE ACCESS EASEMENT

LIMITS OF EXISTING TREE PRESERVATION AREA

(6) 6" STEPS

3 STORIES
4 STORIES

PROPOSED VDOT STD. CROSSWALK

PROPOSED VDOT STD. CROSSWALK

PROPOSED VDOT STD. CROSSWALK

SCOTT R. COLLINS
Lic. No. 035791
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: SITE PLAN

JOB NO. 232220

SCALE 1" = 30'

SHEET NO. 4A

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

SITE PLAN NOTE LEGEND:

- A TIE-IN TO EXISTING CURB
- B PROPOSED VDOT STD. CG-2 CURB
- C PROPOSED VDOT STD. CG-6 CURB
- D TIE INTO EXISTING PAVEMENT
- E PROPOSED VDOT STD. CG-12 RAMP
- F PROPOSED RETAINING WALL (RIVER RED COLOR OR EQUAL)
- G PROPOSED 10' ASPHALT SHARED-USE PATHWAY
- H PROPOSED CONCRETE SIDEWALK
- I PROPOSED STOP SIGN
- J PROPOSED STREET SIGN
- K PROPOSED PUBLIC RIGHT-OF-WAY (8' ARCHER AVE. PLANTING STRIP ADJACENT TO ASPHALT PED. PATH, OTHERWISE 6' PLANTING STRIP)
- L PROPOSED 16' DEEP PARKING SPACE WITH 2' GRASS OVERHANG
- M PROPOSED ON-STREET PARKING SPACE (8' x 20')
- N PROPOSED CONCRETE HANDICAP ACCESSIBLE ADA RAMP WITH HANDRAILS
- O PROPOSED CONCRETE STEPS WITH HANDRAILS
- P PROPOSED BUILDING ENTRANCE
- Q PROPOSED MILL & OVERLAY (VDOT STD. WP-2) ON EXISTING RTE 29 TURN LANE
- R PROPOSED HANDICAP PARKING SIGN
- S PROPOSED BICYCLE RACK
- T PROPOSED 'NO PARKING - FIRE LANE' SIGN
- U PROPOSED CG-9D ENTRANCE
- V PROPOSED PARKING & BUILDING SETBACKS (SEE SHEET 1 FOR MIN. DISTANCES)
- W PROPOSED 2' WIDE ADA DETECTABLE SURFACE ACROSS 7.5' x 30' BUS CONC. BOARDING PLATFORM
- X PROPOSED BUS STOP w/ SHELTER & BENCH - SHELTER SHALL MEET CAT DESIGN STANDARDS
- Y PROPOSED SPEED LIMIT SIGN
- Z PROPOSED 5' WIDE CLASS B PRIMITIVE TRAILWAY
- AA PROPOSED CAR CHARGING STATIONS
- AB PROPOSED ELECTRICAL TRANSFORMER PAD
- AC PROPOSED VDOT STD. HR-1, PATHWAY RAILING ADJACENT TO SLOPES

SITE NOTES

1. CONTRACTOR SHALL OBTAIN A VDOT WORK PERMIT PRIOR TO ANY CONSTRUCTION WITHIN THE VDOT RIGHT OF WAY. VDOT TO REVIEW AND APPROVE THE PERMIT AND MAINTENANCE OF TRAFFIC PLAN PRIOR TO THE START OF ANY CONSTRUCTION WITHIN THE VDOT RIGHT OF WAY.
2. EXISTING AND PROPOSED DUMPSTERS ON SITE SHALL COMPLY WITH APPLICABLE COUNTY REQUIREMENTS. DUMPSTERS SHALL BE SCREENED AND NOT BE VISIBLE FROM RIGHT-OF-WAY.
3. ALL SIDEWALK WITHIN THE LIMITS OF THE DEVELOPMENT SHALL BE PRIVATE SIDEWALKS AND SHALL BE PRIVATELY MAINTAINED.
4. ALL SIDEWALKS AND WALKWAYS SHALL HAVE A MINIMUM CLEAR WIDTH OF 5', EXCEPT WHERE NOTED ON THE SITE PLAN.
5. ALL WALKWAY CROSSINGS SHALL MEET MINIMUM ADA ACCESSIBILITY STANDARDS AND SHALL HAVE A CROSS SLOPES OF 2% OR LESS.
6. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE INSTALLED CONSISTENT WITH MUTCD STANDARDS.
7. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE FROM PARKING TO AN ACCESSIBLE ENTRANCE.
8. ALL SIGNS IDENTIFYING ACCESSIBLE PARKING SPACES SHALL BE AT LEAST 60 INCHES ABOVE THE GROUND/SURFACE (FROM BOTTOM OF SIGN) AND INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. ACCESSIBLE VAN PARKING SPACES SHALL CONTAIN THE DESIGNATION 'VAN ACCESSIBLE'.
9. RAMPS OVER 30" IN ELEVATION CHANGE REQUIRE HANDRAILS.
10. PER 502.6 OF THE 2010 ADA DESIGN STANDARDS ACCESSIBLE PARKING SPACE IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1, AND SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN THE DESIGNATION "VAN ACCESSIBLE".
11. PER ADA 502.4 PARKING SPACES AND ACCESS AISLES SHALL COMPLY WITH 302, SLOPES NOT STEEPER THAN 2% SHALL BE PERMITTED.
12. PER ADA 303.3 THE RUNNING SLOPE OF AN ACCESSIBLE ROUTE SHALL BE 5% OR LESS. SLOPES OVER 5% WILL REQUIRE A RAMP.
13. PER ADA 206.2.2 AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, FACILITIES, ELEMENTS AND SPACES ON THE SAME SITE.
14. ALL PARKING SPACES SHALL BE 9'x18', EXCEPT AS NOTED.
15. HANDICAP PARKING SPACES SHALL BE 8'x18', EXCEPT AS NOTED.
16. ALL HANDICAP PARKING SPACES SHALL BE INDICATED WITH A SIGN.

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)

1 inch = 30 ft.

HOLLYMEAD DRIVE (STATE ROUTE 1520)

TMP 46B2-01--1 HOLLYMEAD TOWNHOUSE CITIZENS ASSOCIATION, INC. D.B. 4830 P. 678

TMP 46B2-01--12-E M. ANN LAING D.B. 3886 P. 488

TMP 46B2-01--12-D BRYANT L. ROBINSON & CHRISTINE E. ROBINSON D.B. 5400 P. 206

TMP 46B2-01--12-C CAITLIN RUTH ABRAMS D.B. 5225 P. 588

TMP 46B2-01--12-B KAMERON MIZE INST.#2023-5985

TMP 46B2-01--12-A DYLAN MICAIAH MYHRE & CINTY ELIZABETH LEIVA MYHRE INST.#2022-2896

TMP 46B2-01--11-F ALLISON E. BENNETT D.B. 5189 P. 633

TMP 46B2-01--11-E SATHISH JANABATHULA & PRASANNA ANABATHULA D.B. 5657 P. 705

TMP 46B2-01--11-D ZACHARY DAVID SMITH & KALFA LAEL SMITH D.B. 5542 P. 317

TMP 46B2-01--11-C LESCO, INCORPORATED D.B. 2378 P. 535

TMP 46B2-01--11-A

TMP 46B2-01--11-B

D.B. 298 P. 470 (EX.8)
D.B. 326 P. 91 (EX.5A) (EX.7A)
D.B. 327 P. 117 (EX.7A
D.B. 347 P. 103 (EX.5A) (EX.7A)
D.B. 392 P. 29 (EX.8) (EX.5A) (EX.7A)
D.B. 414 P. 234 (EX.8) (EX.5A)
D.B. 462 P. 473 (EX.8) (EX.16) (EX.5A) (EX.7A)
D.B. 555 P. 568 (EX.8) (EX.5A) (EX.7A)

RUBIN LANE (PRIVATE ROW)

PROPOSED LANDSCAPE BUFFER AREA

PROPOSED PEDESTRIAN/BICYCLE CONNECTION w/ REMOVABLE BOLLARDS COMPATIBLE w/KNOX BOX LOCKING SYSTEM

REMOVE EXISTING BOLLARDS FOR FIRE ACCESS TURN-AROUND AREA. ONCE RUBIN LANE IS CONNECTED TO THE EMERGENCY ACCESS ROAD, EMERGENCY VEHICLES CAN EXIT THE SITE THROUGH THE EMERGENCY ACCESS ROAD IN LIEU OF THE TURN-AROUND

20' UNDISTURBED LANDSCAPE BUFFER

10' LANDSCAPE BUFFER

PROPOSED TRASH COMPACTOR 4.2' HIGH BRICK ENCLOSURE w/ 12' x 17' CONCRETE APRON AND ROOF. SEE ARCHITECTURAL PLANS FOR DETAILS. ENCLOSURE TO MATCH BLDG ARCHITECTURE

TRASH COMPACTOR

12'x17' CONC. DUMPSTER PAD (MIN.)

(6) 6" STEPS

(5' CONC.)

150' FIRE ACCESS LANE

LIMITS OF EXISTING TREE PRESERVATION AREA

(6' CONC. S/W)

BUILDING #2
3/4 STORIES
(36 UNITS)

3 STORIES
4 STORIES

(5) 6" STEPS

6' SIDE SETBACK

PROPOSED POOL MAINTENANCE BUILDING & BATHROOMS

PROPOSED POOL

PROPOSED PERGOLA

PROPOSED GRILLING STATION

PROPOSED FENCE

POOL

DECK

CLUBHOUSE

PROPOSED FIRE PIT

(P) MAIL KIOSK INSIDE CLUBHOUSE

5' MIN. FRONT SETBACK

30' MAX. FRONT SETBACK

EXISTING PEDESTRIAN PATH

CONTRACTOR TO REMOVE EXISTING ENTRANCE ON ROUTE 29 & CONNECT THE PEDESTRIAN PATH & CG-6 WITH NEW CG-6 & ASPHALT PEDESTRIAN PATH

70' UNDISTURBED LANDSCAPE BUFFER

30' LANDSCAPE BUFFER

LIMITS OF EXISTING TREE PRESERVATION AREA

70' UNDISTURBED LANDSCAPE BUFFER

30' LANDSCAPE BUFFER

SEMINOLE TRAIL (U.S. ROUTE 29)

EXISTING PEDESTRIAN PATH

LIMITS OF EXISTING TREE PRESERVATION AREA

TIE-IN TO EXISTING ASPHALT PEDESTRIAN PATHWAY

DISTANCE TO NEAREST INTERSECTION (HOLLYMEAD DRIVE) = 634'

ARCHER AVENUE EXTENSION (PUBLIC STREET)

SIGHT DISTANCE=276'

SIGHT DISTANCE=280'

SIGHT DISTANCE=280' (30 mph DESIGN SPEED)

PROPOSED VDOT STD. CROSSWALK

PROPOSED VDOT STD. MS-2 RAISED GRASS MEDIAN.

KRAMERIA LANE (PRIVATE TRAVELWAY)

BUILDING #1
3/4 STORIES
(36 UNITS)

3 STORIES

MATCHLINE SEE SHEET 4B

30' PRIVATE ACCESS EASEMENT RESERVED FOR FUTURE ACCESS TO ADJACENT PROPERTY. PRIVATE ACCESS EASEMENT FROM ARCHER AVENUE EXTENSION TO PROPERTY LINE

PROPOSED 30' PRIVATE ACCESS EASEMENT

LIMITS OF EXISTING TREE PRESERVATION AREA

ADA ACCESSIBLE ROUTE:

NOTES:
1. CONTRACTOR SHALL PROVIDE ENGINEER SURVEY WORKSHEETS OF ALL ROADWAYS, MANHOLE TOPS AND DRAINAGE STRUCTURES PRIOR TO INSTALLATION OF E/P, DRAINAGE, OR UTILITIES TO COLLINS ENGINEERING FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. COLLINS ENGINEERING SHALL VERIFY ALL SURVEY SHEETS TO ENSURE POSITIVE DRAINAGE AND PROPER ELEVATIONS FOR CONSTRUCTION.
2. WALLS WITH HEIGHT OF 30" OR GREATER SHALL REQUIRE HANDRAILS - SEE NOTES & DETAILS SHEET.
3. A KNOX BOX WILL BE REQUIRED ON EACH BUILDING. THE LOCATION OF THE KNOW BOX CAN BE COORDINATED WITH THE FIRE MARSHAL'S OFFICE.
4. MECHANICAL EQUIPMENT FOR THE APARTMENT BUILDINGS AND CLUBHOUSE SHALL BE SCREENED WHEN LOCATED WITHIN THE ENTRANCE CORRIDOR.
5. ALL PROPOSED RETAINING WALLS SHALL COMPLY WITH ALBEMARLE COUNTY ZONING AND BUILDING REQUIREMENTS. RETAINING WALLS SHALL NOT EXCEED 10 FEET IN HEIGHT.
6. BUS TRANSIT STOPS, SHELTERS, BOARDING, AND ALIGHTING AREAS SIGNS AND BENCHES SHALL COMPLY TO THE REQUIREMENTS LISTED IN CHAPTER 3, SECTION R309 OF THE U.S. ACCESS BOARD PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).

GENERAL PROJECT NOTES:
1. CONTRACTOR SHALL VERIFY ALL ROAD CONNECTIONS, INCLUDING RECENTLY CONSTRUCTED AREAS, VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL CONFIRM ALL UTILITY, DRAINAGE, AND ROAD CONNECTIONS, AND SHALL NOTIFY ENGINEER OF ANY TIE-IN ISSUES OR DISCREPANCIES.
3. 1 REPRESENTS ONE PROPOSED PARKING SPACE.
4. OVERHEAD WIRING OR OTHER OBSTRUCTIONS SHALL BE HIGHER THAN 15'-6".
5. ALL PAVEMENT SHALL BE CAPABLE OF SUPPORTING FIRE APPARATUS WEIGHING 85,000 LBS.
6. CONTRACTOR SHALL ENSURE ALL ON-SITE UTILITIES, ABOVE AND BELOW GROUND, SERVICING ADJACENT PROPERTIES SHALL CONTINUE TO SERVICE THE ADJACENT PROPERTIES THROUGHOUT CONSTRUCTION AND UPON COMPLETION OF THE PROJECT TO THE FULLEST EXTENT POSSIBLE.
7. SEE EXISTING CONDITIONS FOR COMPLETE PROJECT BOUNDARY DIMENSIONS AND METES AND BOUNDS.
8. CURB RADII SHOWN, REPRESENTED WITH AN 'R', DIMENSION THE FACE OF CURB.
9. ALL RETAINING WALLS GREATER THAN 3 FEET IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT. WALLS EXCEEDING 4 FEET IN HEIGHT REQUIRE A STAMPED ENGINEERED DESIGN FOR THE WALLS SYSTEM.
10. BUILDINGS OR STRUCTURES BUILT BEFORE JANUARY 1, 1985 MUST HAVE AN ASBESTOS SURVEY PERFORMED IN ORDER TO APPLY FOR A DEMOLITION PERMIT. ASBESTOS REMOVAL PERMITS ARE REQUIRED IF POSITIVE FOR SUCH. CONTACT VDOLI FOR ADDITIONAL REQUIREMENTS AND PERMITS FOR DEMOLITION PROJECTS.
11. ALL PRIVATE TRAVELWAYS SHALL BE OWNED AND MAINTAINED BY THE APARTMENT COMPLEX. NO PUBLIC AGENCY, INCLUDING VDOT AND THE COUNTY OF ALBEMARLE WILL BE RESPONSIBLE FOR MAINTAINING THE TRAVELWAYS WITHIN THE APARTMENT COMPLEX.
12. ALL PUBLIC WATER AND SANITARY SEWER FACILITIES SHALL BE DEDICATED TO PUBLIC USE AND THE EASEMENTS FOR THOSE FACILITIES, AS IDENTIFIED ON THIS PLAN, SHALL BE DEDICATED TO THE ALBEMARLE COUNTY SERVICE AUTHORITY. THE ONSITE SANITARY SEWER IS A PRIVATE UTILITY AND NO EASEMENTS ARE REQUIRED.
13. ALL PRIVATE YARD DRAIN DESIGN INFORMATION (INCLUDING INVERTS OF THE SYSTEM) SHALL BE PROVIDED BY THE CIVIL ENGINEER DURING CONSTRUCTION.
14. THE TRASH COMPACTOR AREA SHALL ALSO INCLUDE A RECYCLING BIN FOR THE APARTMENT COMPLEX.
15. SEE FINAL SITE PLAN FOR DESIGN OF THE CONCRETE STEPS AND RAMPS.
16. ALL RECREATIONAL AREAS AND AMENITIES SHALL BE LOCATED ALONG AN ACCESSIBLE ADA RAMP (AS SHOWN ON THE SITE PLAN).

VDOT NOTES:
1. VDOT WILL ONLY MAINTAIN WITHIN DRAINAGE EASEMENTS TO THE EXTENT NECESSARY TO PROTECT THE ROADWAY FROM FLOODING OR DAMAGE.
2. A MOT PLAN SHALL BE PROVIDED PRIOR TO THE START OF CONSTRUCTION FOR ANY WORK ON EXISTING ROADWAYS THAT HAVE BEEN ACCEPTED BY VDOT. CURRENTLY, THE EXISTING ROADWAY INTERSECTIONS FOR THIS DEVELOPMENT ARE UNDER CONSTRUCTION AND HAVE NOT YET BEEN ACCEPTED BY VDOT. NO MOT PLAN IS REQUIRED AT THIS TIME FOR THE IMPROVEMENTS AT THE ENTRANCES.
3. A TRAFFIC MAINTENANCE PLAN (TMP) IS REQUIRED FOR THE WORK LOCATED WITHIN VDOT RIGHT-OF-WAY. THE TMP SHALL BE PREPARED BY AN ADVANCED WORK ZONE CERTIFIED PERSON, CERTIFICATION CARD AND VERIFICATION NUMBER IS REQUIRED ON THE TMP SUBMITTAL.
4. ACCESS FOR LOCAL TRAFFIC AND EMERGENCY VEHICLES WILL NEED TO BE MAINTAINED AT ALL TIMES FOR WORK WITHIN THE RIGHT OF WAY.
5. LANDSCAPING PLANTS AND TREES ADJACENT TO THE SIGHT DISTANCE TRIANGLE SHALL BE MAINTAINED IN AREA BETWEEN 2 AND 7 FEET ABOVE THE GROUND AS A CLEAR ZONE TO PRESERVE SIGHT LINES AND ACCOMMODATE PEDESTRIANS. THE APARTMENT COMPLEX MANAGEMENT COMPANY WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SIGHT LINES.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

REVISION DESCRIPTION	DATE
PHASE I FINAL SITE PLAN - 1ST SUBMITTAL	09/03/24
PHASE I FINAL SITE PLAN - ARB SUBMITTAL	09/16/24

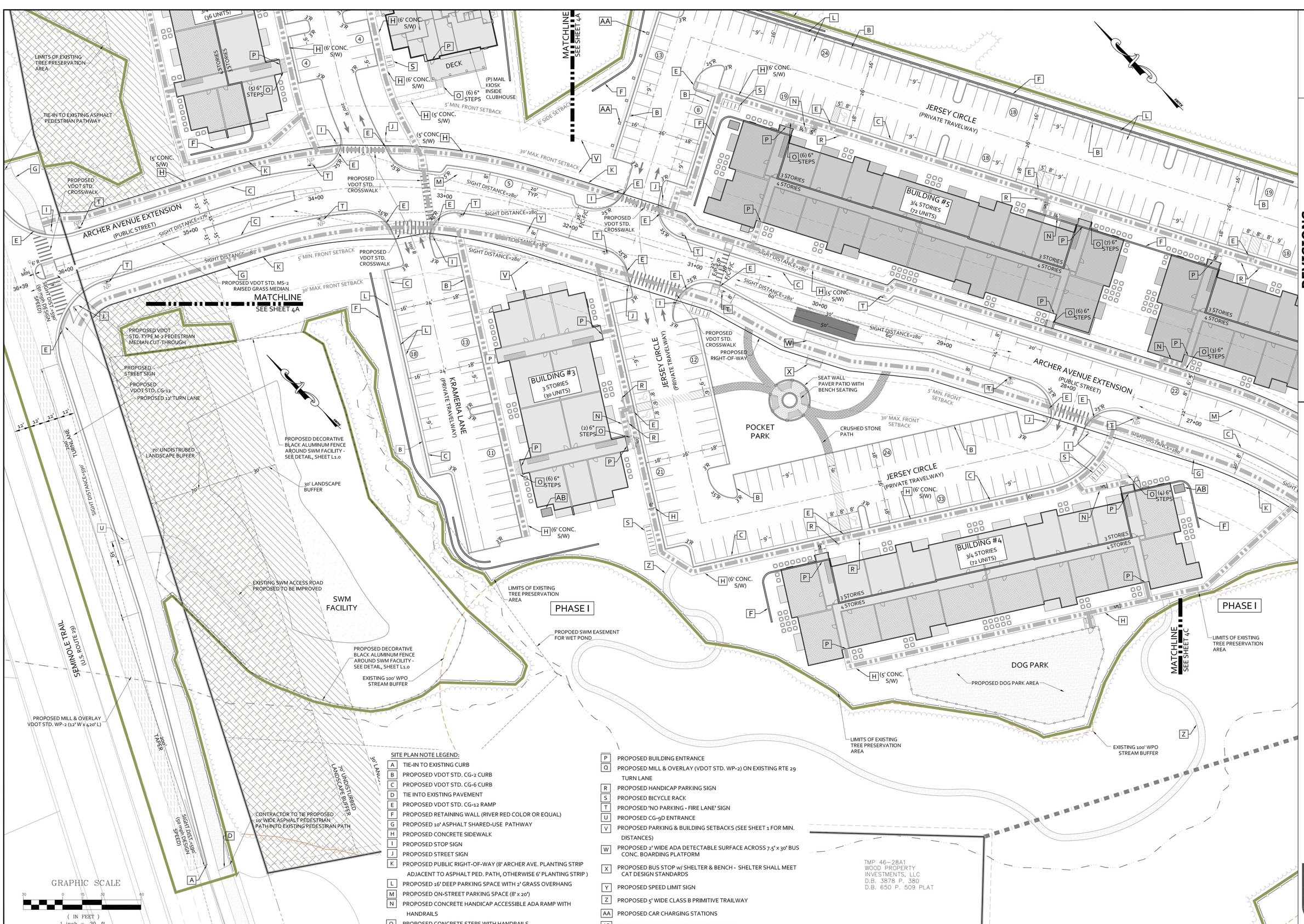
COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: SITE PLAN

JOB NO. 232220
SCALE 1" = 30'
SHEET NO. 4A

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, including, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

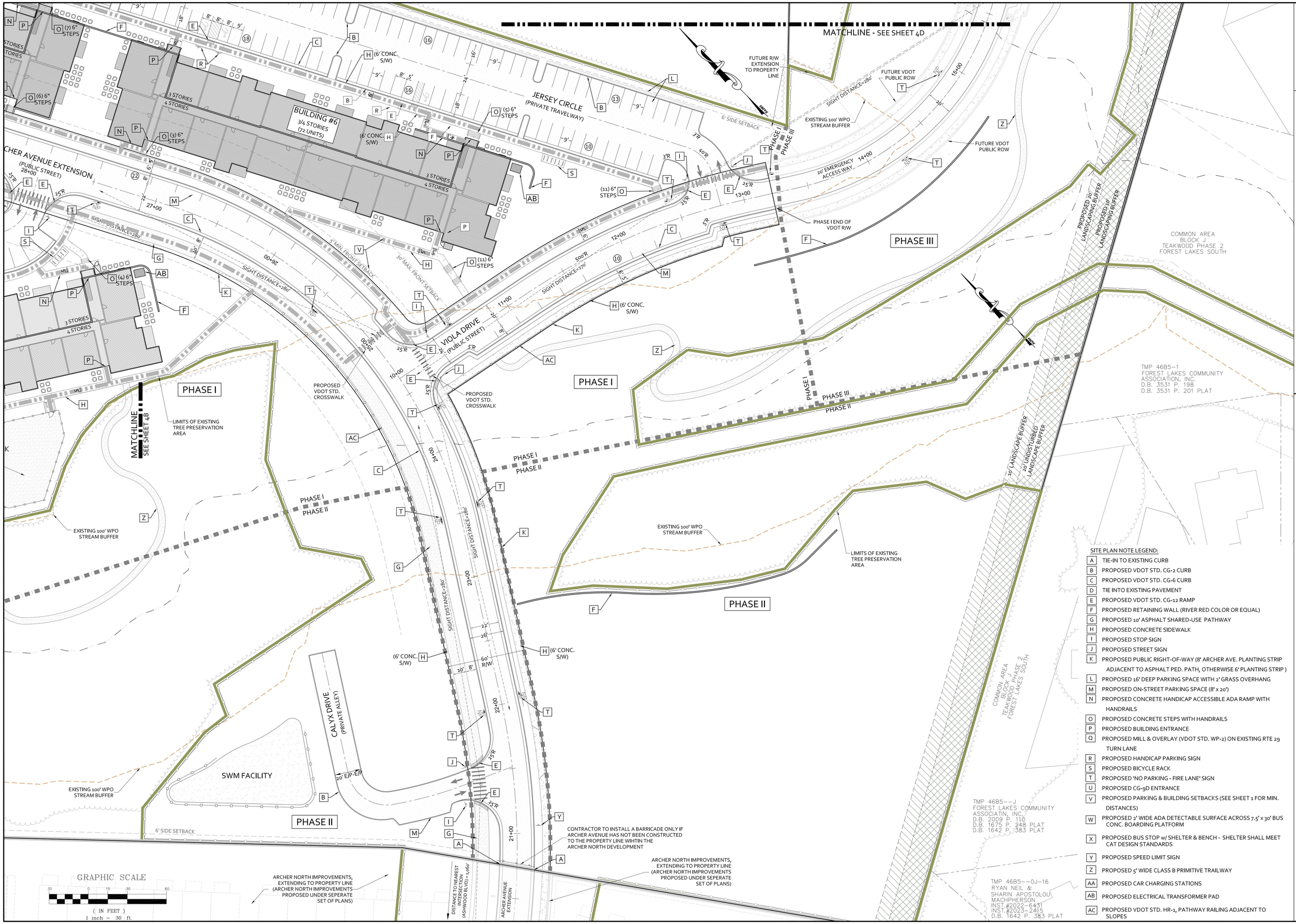
SHEET TITLE: SITE PLAN

JOB NO. 232220

SCALE 1" = 30'

SHEET NO. 4B

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

SITE PLAN NOTE LEGEND:

- A TIE-IN TO EXISTING CURB
- B PROPOSED VDOT STD. CG-2 CURB
- C PROPOSED VDOT STD. CG-6 CURB
- D TIE INTO EXISTING PAVEMENT
- E PROPOSED VDOT STD. CG-12 RAMP
- F PROPOSED RETAINING WALL (RIVER RED COLOR OR EQUAL)
- G PROPOSED 10' ASPHALT SHARED-USE PATHWAY
- H PROPOSED CONCRETE SIDEWALK
- I PROPOSED STOP SIGN
- J PROPOSED STREET SIGN
- K PROPOSED PUBLIC RIGHT-OF-WAY (8' ARCHER AVE. PLANTING STRIP ADJACENT TO ASPHALT PED. PATH, OTHERWISE 6' PLANTING STRIP)
- L PROPOSED 16' DEEP PARKING SPACE WITH 2' GRASS OVERHANG
- M PROPOSED ON-STREET PARKING SPACE (8' x 20')
- N PROPOSED CONCRETE HANDICAP ACCESSIBLE ADA RAMP WITH HANDRAILS
- O PROPOSED CONCRETE STEPS WITH HANDRAILS
- P PROPOSED BUILDING ENTRANCE
- Q PROPOSED MILL & OVERLAY (VDOT STD. WP-2) ON EXISTING RTE 29 TURN LANE
- R PROPOSED HANDICAP PARKING SIGN
- S PROPOSED BICYCLE RACK
- T PROPOSED 'NO PARKING - FIRE LANE' SIGN
- U PROPOSED CG-9D ENTRANCE
- V PROPOSED PARKING & BUILDING SETBACKS (SEE SHEET 1 FOR MIN. DISTANCES)
- W PROPOSED 2' WIDE ADA DETECTABLE SURFACE ACROSS 7.5' x 30' BUS CONC. BOARDING PLATFORM
- X PROPOSED BUS STOP w/ SHELTER & BENCH - SHELTER SHALL MEET CAT DESIGN STANDARDS
- Y PROPOSED SPEED LIMIT SIGN
- Z PROPOSED 5' WIDE CLASS B PRIMITIVE TRAILWAY
- AA PROPOSED CAR CHARGING STATIONS
- AB PROPOSED ELECTRICAL TRANSFORMER PAD
- AC PROPOSED VDOT STD. HR-1, PATHWAY RAILING ADJACENT TO SLOPES

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
SITE PLAN

JOB NO. 232220
SCALE 1" = 30'
SHEET NO. 4C

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

SITE PLAN NOTE LEGEND:

- A TIE-IN TO EXISTING CURB
- B PROPOSED VDOT STD. CG-2 CURB
- C PROPOSED VDOT STD. CG-6 CURB
- D TIE INTO EXISTING PAVEMENT
- E PROPOSED VDOT STD. CG-12 RAMP
- F PROPOSED RETAINING WALL (RIVER RED COLOR OR EQUAL)
- G PROPOSED 10' ASPHALT SHARED-USE PATHWAY
- H PROPOSED CONCRETE SIDEWALK
- I PROPOSED STOP SIGN
- J PROPOSED STREET SIGN
- K PROPOSED PUBLIC RIGHT-OF-WAY (8' ARCHER AVE. PLANTING STRIP ADJACENT TO ASPHALT PED. PATH, OTHERWISE 6' PLANTING STRIP)
- L PROPOSED 16' DEEP PARKING SPACE WITH 2' GRASS OVERHANG
- M PROPOSED ON-STREET PARKING SPACE (8' x 20')
- N PROPOSED CONCRETE HANDICAP ACCESSIBLE ADA RAMP WITH HANDRAILS
- O PROPOSED CONCRETE STEPS WITH HANDRAILS
- P PROPOSED BUILDING ENTRANCE
- Q PROPOSED MILL & OVERLAY (VDOT STD. WP-2) ON EXISTING RTE 29 TURN LANE
- R PROPOSED HANDICAP PARKING SIGN
- S PROPOSED BICYCLE RACK
- T PROPOSED 'NO PARKING - FIRE LANE' SIGN
- U PROPOSED CG-9D ENTRANCE
- V PROPOSED PARKING & BUILDING SETBACKS (SEE SHEET 1 FOR MIN. DISTANCES)
- W PROPOSED 2' WIDE ADA DETECTABLE SURFACE ACROSS 7.5' x 30' BUS CONC. BOARDING PLATFORM
- X PROPOSED BUS STOP w/ SHELTER & BENCH - SHELTER SHALL MEET CAT DESIGN STANDARDS
- Y PROPOSED SPEED LIMIT SIGN
- Z PROPOSED 5' WIDE CLASS B PRIMITIVE TRAILWAY
- AA PROPOSED CAR CHARGING STATIONS
- AB PROPOSED ELECTRICAL TRANSFORMER PAD
- AC PROPOSED VDOT STD. HR-1, PATHWAY RAILING ADJACENT TO SLOPES

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)

1 inch = 30 ft.

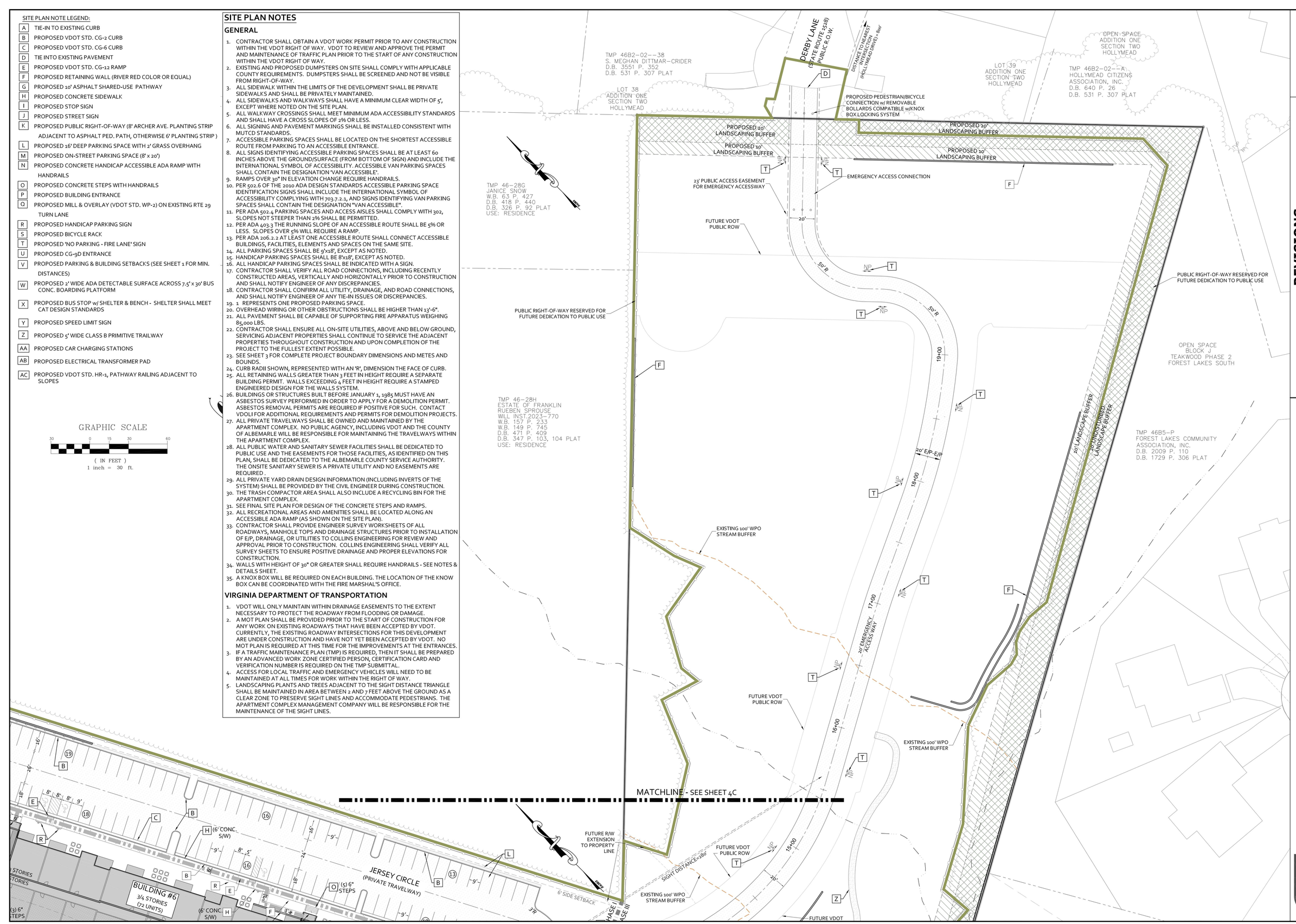
SITE PLAN NOTES

GENERAL

1. CONTRACTOR SHALL OBTAIN A VDOT WORK PERMIT PRIOR TO ANY CONSTRUCTION WITHIN THE VDOT RIGHT OF WAY. VDOT TO REVIEW AND APPROVE THE PERMIT AND MAINTENANCE OF TRAFFIC PLAN PRIOR TO THE START OF ANY CONSTRUCTION WITHIN THE VDOT RIGHT OF WAY.
2. EXISTING AND PROPOSED DUMPSTERS ON SITE SHALL COMPLY WITH APPLICABLE COUNTY REQUIREMENTS. DUMPSTERS SHALL BE SCREENED AND NOT BE VISIBLE FROM RIGHT-OF-WAY.
3. ALL SIDEWALK WITHIN THE LIMITS OF THE DEVELOPMENT SHALL BE PRIVATE SIDEWALKS AND SHALL BE PRIVATELY MAINTAINED.
4. ALL SIDEWALKS AND WALKWAYS SHALL HAVE A MINIMUM CLEAR WIDTH OF 5', EXCEPT WHERE NOTED ON THE SITE PLAN.
5. ALL WALKWAY CROSSINGS SHALL MEET MINIMUM ADA ACCESSIBILITY STANDARDS AND SHALL HAVE A CROSS SLOPES OF 2% OR LESS.
6. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE INSTALLED CONSISTENT WITH MUTCD STANDARDS.
7. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE FROM PARKING TO AN ACCESSIBLE ENTRANCE.
8. ALL SIGNS IDENTIFYING ACCESSIBLE PARKING SPACES SHALL BE AT LEAST 60 INCHES ABOVE THE GROUND/SURFACE (FROM BOTTOM OF SIGN) AND INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. ACCESSIBLE VAN PARKING SPACES SHALL CONTAIN THE DESIGNATION 'VAN ACCESSIBLE'.
9. RAMPS OVER 30" IN ELEVATION CHANGE REQUIRE HANDRAILS.
10. PER 502.6 OF THE 2010 ADA DESIGN STANDARDS ACCESSIBLE PARKING SPACE IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1, AND SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN THE DESIGNATION "VAN ACCESSIBLE".
11. PER ADA 502.4 PARKING SPACES AND ACCESS AISLES SHALL COMPLY WITH 302, SLOPES NOT STEEPER THAN 2% SHALL BE PERMITTED.
12. PER ADA 403.3 THE RUNNING SLOPE OF AN ACCESSIBLE ROUTE SHALL BE 5% OR LESS. SLOPES OVER 5% WILL REQUIRE A RAMP.
13. PER ADA 206.2.2 AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, FACILITIES, ELEMENTS AND SPACES ON THE SAME SITE.
14. ALL PARKING SPACES SHALL BE 9'x18', EXCEPT AS NOTED.
15. HANDICAP PARKING SPACES SHALL BE 8'x18', EXCEPT AS NOTED.
16. ALL HANDICAP PARKING SPACES SHALL BE INDICATED WITH A SIGN.
17. CONTRACTOR SHALL VERIFY ALL ROAD CONNECTIONS, INCLUDING RECENTLY CONSTRUCTED AREAS, VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.
18. CONTRACTOR SHALL CONFIRM ALL UTILITY, DRAINAGE, AND ROAD CONNECTIONS, AND SHALL NOTIFY ENGINEER OF ANY TIE-IN ISSUES OR DISCREPANCIES.
19. 1 REPRESENTS ONE PROPOSED PARKING SPACE.
20. OVERHEAD WIRING OR OTHER OBSTRUCTIONS SHALL BE HIGHER THAN 13'-6".
21. ALL PAVEMENT SHALL BE CAPABLE OF SUPPORTING FIRE APPARATUS WEIGHING 85,000 LBS.
22. CONTRACTOR SHALL ENSURE ALL ON-SITE UTILITIES, ABOVE AND BELOW GROUND, SERVICING ADJACENT PROPERTIES SHALL CONTINUE TO SERVICE THE ADJACENT PROPERTIES THROUGHOUT CONSTRUCTION AND UPON COMPLETION OF THE PROJECT TO THE FULLEST EXTENT POSSIBLE.
23. SEE SHEET 3 FOR COMPLETE PROJECT BOUNDARY DIMENSIONS AND METES AND BOUNDS.
24. CURB RADII SHOWN, REPRESENTED WITH AN 'R', DIMENSION THE FACE OF CURB.
25. ALL RETAINING WALLS GREATER THAN 3 FEET IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT. WALLS EXCEEDING 4 FEET IN HEIGHT REQUIRE A STAMPED ENGINEERED DESIGN FOR THE WALLS SYSTEM.
26. BUILDINGS OR STRUCTURES BUILT BEFORE JANUARY 1, 1985 MUST HAVE AN ASBESTOS SURVEY PERFORMED IN ORDER TO APPLY FOR A DEMOLITION PERMIT. ASBESTOS REMOVAL PERMITS ARE REQUIRED IF POSITIVE FOR SUCH. CONTACT VDOLI FOR ADDITIONAL REQUIREMENTS AND PERMITS FOR DEMOLITION PROJECTS.
27. ALL PRIVATE TRAVELWAYS SHALL BE OWNED AND MAINTAINED BY THE APARTMENT COMPLEX. NO PUBLIC AGENCY, INCLUDING VDOT AND THE COUNTY OF ALBEMARLE WILL BE RESPONSIBLE FOR MAINTAINING THE TRAVELWAYS WITHIN THE APARTMENT COMPLEX.
28. ALL PUBLIC WATER AND SANITARY SEWER FACILITIES SHALL BE DEDICATED TO PUBLIC USE AND THE EASEMENTS FOR THOSE FACILITIES, AS IDENTIFIED ON THIS PLAN, SHALL BE DEDICATED TO THE ALBEMARLE COUNTY SERVICE AUTHORITY. THE ONSITE SANITARY SEWER IS A PRIVATE UTILITY AND NO EASEMENTS ARE REQUIRED .
29. ALL PRIVATE YARD DRAIN DESIGN INFORMATION (INCLUDING INVERTS OF THE SYSTEM) SHALL BE PROVIDED BY THE CIVIL ENGINEER DURING CONSTRUCTION.
30. THE TRASH COMPACTOR AREA SHALL ALSO INCLUDE A RECYCLING BIN FOR THE APARTMENT COMPLEX.
31. SEE FINAL SITE PLAN FOR DESIGN OF THE CONCRETE STEPS AND RAMPS.
32. ALL RECREATIONAL AREAS AND AMENITIES SHALL BE LOCATED ALONG AN ACCESSIBLE ADA RAMP (AS SHOWN ON THE SITE PLAN).
33. CONTRACTOR SHALL PROVIDE ENGINEER SURVEY WORKSHEETS OF ALL ROADWAYS, MANHOLE TOPS AND DRAINAGE STRUCTURES PRIOR TO INSTALLATION OF E/P, DRAINAGE, OR UTILITIES TO COLLINS ENGINEERING FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. COLLINS ENGINEERING SHALL VERIFY ALL SURVEY SHEETS TO ENSURE POSITIVE DRAINAGE AND PROPER ELEVATIONS FOR CONSTRUCTION.
34. WALLS WITH HEIGHT OF 30" OR GREATER SHALL REQUIRE HANDRAILS - SEE NOTES & DETAILS SHEET.
35. A KNOX BOX WILL BE REQUIRED ON EACH BUILDING. THE LOCATION OF THE KNOW BOX CAN BE COORDINATED WITH THE FIRE MARSHAL'S OFFICE.

VIRGINIA DEPARTMENT OF TRANSPORTATION

1. VDOT WILL ONLY MAINTAIN WITHIN DRAINAGE EASEMENTS TO THE EXTENT NECESSARY TO PROTECT THE ROADWAY FROM FLOODING OR DAMAGE.
2. A MOT PLAN SHALL BE PROVIDED PRIOR TO THE START OF CONSTRUCTION FOR ANY WORK ON EXISTING ROADWAYS THAT HAVE BEEN ACCEPTED BY VDOT. CURRENTLY, THE EXISTING ROADWAY INTERSECTIONS FOR THIS DEVELOPMENT ARE UNDER CONSTRUCTION AND HAVE NOT YET BEEN ACCEPTED BY VDOT. NO MOT PLAN IS REQUIRED AT THIS TIME FOR THE IMPROVEMENTS AT THE ENTRANCES.
3. IF A TRAFFIC MAINTENANCE PLAN (TMP) IS REQUIRED, THEN IT SHALL BE PREPARED BY AN ADVANCED WORK ZONE CERTIFIED PERSON, CERTIFICATION CARD AND VERIFICATION NUMBER IS REQUIRED ON THE TMP SUBMITTAL.
4. ACCESS FOR LOCAL TRAFFIC AND EMERGENCY VEHICLES WILL NEED TO BE MAINTAINED AT ALL TIMES FOR WORK WITHIN THE RIGHT OF WAY.
5. LANDSCAPING PLANTS AND TREES ADJACENT TO THE SIGHT DISTANCE TRIANGLE SHALL BE MAINTAINED IN AREA BETWEEN 2 AND 7 FEET ABOVE THE GROUND AS A CLEAR ZONE TO PRESERVE SIGHT LINES AND ACCOMMODATE PEDESTRIANS. THE APARTMENT COMPLEX MANAGEMENT COMPANY WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SIGHT LINES.



SCOTT R. COLLINS
Lic. No. 035791
09/03/24
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: SITE PLAN

JOB NO. 232220

SCALE 1" = 30'

SHEET NO. 4D

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



UTILITY NOTES

1. ANY DAMAGE TO EXISTING UTILITIES CAUSED BY CONTRACTOR OR ITS SUBCONTRACTORS SHALL BE CONTRACTOR'S SOLE RESPONSIBILITY AND REPAIRED AT CONTRACTOR'S EXPENSE.
2. THE CONTRACT DOCUMENTS DO NOT GUARANTEE THE EXISTENCE, NON-EXISTENCE OR LOCATION OF UTILITIES. CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OR THE NON-EXISTENCE OF UTILITIES. AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION, CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-552-7001) AND/OR THE RESPECTIVE UTILITY COMPANIES FOR GAS, WATER, SEWER, POWER, PHONE, AND CABLE. CONTRACTOR SHALL TIMELY ARRANGE TO HAVE THE VARIOUS UTILITIES LOCATED, AND TO HAVE THEM REMOVED OR RELOCATED, OR TO DETERMINE THE METHOD OF PROTECTION ACCEPTABLE TO THE RESPECTIVE OWNER, IF UTILITIES IN ACCORDANCE WITH THE RESPECTIVE UTILITY'S RULES AND REGULATIONS.
3. CONTRACTOR SHALL EXCAVATE TO LOCATE BURIED UTILITIES FAR ENOUGH IN ADVANCE OF ITS WORK TO ALLOW FOR HORIZONTAL AND/OR VERTICAL ADJUSTMENTS TO ITS WORK AND/OR THE UTILITIES. NO ADJUSTMENT IN COMPENSATION OR SCHEDULE WILL BE ALLOWED FOR DELAYS RESULTING FROM CONTRACTOR'S FAILURE TO CONTACT AND COORDINATE WITH UTILITIES.
4. WHEN THE WORK CROSSES EXISTING UTILITIES, THE EXISTING UTILITIES SHALL BE ADEQUATELY SUPPORTED AND PROTECTED FROM DAMAGE DUE TO THE WORK. ALL METHODS FOR SUPPORTING AND MAINTAINING THE EXISTING UTILITIES SHALL BE APPROVED BY THE RESPECTIVE UTILITY COMPANY AND/OR THE ENGINEER.
5. CONTRACTOR SHALL EXERCISE CARE TO ENSURE THAT THE GRADE AND ALIGNMENT OF EXISTING UTILITIES ARE MAINTAINED AND THAT NO JOINTS OR CONNECTIONS ARE DISPLACED. BACKFILL SHALL BE CAREFULLY PLACED AND COMPACTED TO PREVENT FUTURE DAMAGE OR SETTLEMENT TO EXISTING UTILITIES. ANY UTILITIES REMOVED AS PART OF THE WORK, AND NOT INDICATED TO BE REMOVED OR ABANDONED, SHALL BE RESTORED USING MATERIALS AND INSTALLATION EQUAL TO THE UTILITY STANDARDS.
6. CONTRACTOR SHALL NOTIFY LANDOWNERS, TENANTS, AND THE ENGINEER PRIOR TO THE INTERRUPTION OF ANY SERVICES. SERVICE INTERRUPTIONS SHALL BE KEPT TO A MINIMUM.
7. THE ADJUSTMENT OF ALL MANHOLE TOPES, WATER VALVE BOXES, GAS VALVE BOXES, AND WATER METER BOXES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COSTS ARE TO BE INCLUDED UNDER THE VARIOUS UNIT BID ITEMS. NO SEPARATE PAYMENT WILL BE MADE.
8. ALL WATER METER, VALVES, AND FIRE HYDRANT ADJUSTMENTS/RELOCATIONS SHALL BE PERFORMED BY THE CONTRACTOR.
9. A MINIMUM OF 18" VERTICAL & 10' HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN WATER LINES & SANITARY SEWER. A MINIMUM OF 12" VERTICAL AND 5' HORIZONTAL SHALL BE MAINTAINED BETWEEN PARALLEL SANITARY AND STORM SEWER.
10. MINIMUM DEPTH OF COVER FOR WATER LINES SHALL BE 3',
11. MINIMUM DEPTH OF COVER FOR SANITARY SEWER SHALL BE 3'.
12. AT ALL UTILITY CROSSINGS A MINIMUM VERTICAL SEPARATION OF 12" SHALL BE MAINTAINED. A MINIMUM VERTICAL SEPARATION OF 18" IS REQUIRED BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE SANITARY SEWER LINE.
13. CONTRACTOR SHALL VERIFY ALL UTILITY TIE-IN CONNECTIONS TO EXISTING OR UNDER CONSTRUCTION INFRASTRUCTURE. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE EXISTING UTILITIES AND THE PROPOSED UTILITIES.
14. GATE VALVES SHALL NOT BE CONSTRUCTED WITHIN THE CURBS, GUTTER PANS OR PAVERS.
15. SIGNS AND MARKINGS TO DELINEATE FIRE LANES, AS DESIGNATED BY THE FIRE OFFICIAL, SHALL BE PROVIDED AND INSTALLED BY THE OWNER OR HIS/HER AGENT OF THE PROPERTY INVOLVED.
16. ALL WATERLINE MATERIALS SHALL BE CONSTRUCTED OF CLASS 52 DIP.
17. A KNOX BOX WILL BE REQUIRED ON EACH BUILDING. THE LOCATION OF THE KNOX BOX CAN BE COORDINATED WITH THE FIRE MARSHAL'S OFFICE.
18. ALL PROPOSED SANITARY SEWER IS PRIVATE.
19. THE TYPE K COPPER WATER SERVICE LATERALS ARE ON THE PRIVATE SIDE OF THE METER. THE PUBLIC PORTION OF THE WATER SERVICE WILL BE IN ACCORDANCE WITH THE ACSA STANDARD DETAILS.
20. A PRESSURE REDUCING VALVE (PRV) AND AN RPZ BACKFLOW DEVICE ARE REQUIRED AT EACH BUILDING.
21. AN RWSA INSPECTOR IS REQUIRED FOR ALL WATERLINE TIE INS AND WORK WITHIN 10' OF RWSA UTILITIES.
22. RWSA WILL REQUIRE AN RWSA INSPECTOR ON SITE FOR THE PROPOSED 12" WATERLINE TAP, WITH THREE (3) DAYS NOTICE. RWSA WILL REVIEW THE T.S.&V., DISINFECTION, AND PRESSURE TESTS.
23. ALL FIRE HOSE THREADS SHALL BE C&O TYPE.
24. ARB: VISIBILITY OF ALL MECHANICAL EQUIPMENT FROM THE ENTRANCE CORRIDOR SHALL BE ELIMINATED.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: UTILITY PLAN

JOB NO. 232220

SCALE 1" = 30'

SHEET NO. 5A

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, including, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

MATCHLINE SEE SHEET 5A

NOTES:
1. A KNOX BOX WILL BE REQUIRED ON EACH BUILDING. THE LOCATION OF THE KNOX BOX CAN BE COORDINATED WITH THE FIRE MARSHAL'S OFFICE.
2. THE TYPE K COPPER WATER SERVICE LATERALS ARE ON THE PRIVATE SIDE OF THE METER. THE PUBLIC PORTION OF THE WATER SERVICE WILL BE IN ACCORDANCE WITH THE ACSA STANDARD DETAILS.

BUILDING #1
3/4 STORIES
(36 UNITS)
FFE=476.33
BSMT=467.67

BUILDING #3
3 STORIES
(30 UNITS)
FFE=467.33

BUILDING #5
3/4 STORIES
(72 UNITS)
FFE=476.00
BSMT=465.33

BUILDING #4
3/4 STORIES
(72 UNITS)
FFE=461.33
BSMT=450.67

ARCHER AVENUE EXTENSION
(PUBLIC STREET)

JERSEY CIRCLE
(PRIVATE TRAVELWAY)

KRAMERIA LANE
(PRIVATE TRAVELWAY)

POCKET PARK

DOG PARK

STORMWATER MANAGEMENT BASIN

SWM FACILITY

SEMINOLE TRAIL
(PUBLIC ROW)

WATERLINE 1
12" D.I. WATERLINE

WATERLINE 2
8" D.I. WATERLINE

WATERLINE 3
6" D.I. WATERLINE

WATERLINE 5
12" D.I. WATERLINE

(P) CONNECT TO EXISTING 12" D.I. WATERLINE AND REROUTE 1-12" G.V.

(P) 12"X8" TEE
8" G.V.

(P) 8"-22.5° BEND

(P) 1" CORP. STOP & 1" COPPER SERVICE LINE

(P) 12"X3" TEE
3" G.V.

(P) FIRE HYDRANT ASSEMBLY W/12"X6" TEE AND 6" G.V.

(P) 12"X12" TEE
12" G.V.

(E) UNDERGROUND TELEPHONE

(P) RELOCATE EXISTING 12" D.I. WATERLINE FOR PROPOSED STORM SEWER

(P) 5/8" WATER METER FOR CLUBHOUSE

(P) 12"X4" TEE
4" G.V.

(P) 12"X6" TEE
6" G.V.

(P) 4" SDR 26 PVC SAN. LAT. CLEANOUT
33 LF @ 34.5%
INV. 473.00

(P) 6" SDR 26 PVC SAN. LAT. CLEANOUT
80 LF @ 4.0%
INV. 461.00

(P) 2" TYPE K COPPER WATER SERVICE LATERAL

LOCATION OF RPZ ON DOMESTIC WATERLINE, DDCA ON THE FIRELINE, AND PRV ON THE DOMESTIC WATERLINE (ALL WITHIN BUILDING)

(P) 6" D.I. FIRE LINE

(P) 1.5" WATER METER VAULT

(P) 6"-45° BEND

(P) 6" SDR 26 PVC SAN. LAT. CLEANOUT
36 LF @ 8.9%
INV. 461.00

(P) 6" SDR 26 PVC SAN. LAT. CLEANOUT
40LF @2.08%
INV. 445.83

PROPOSED 8" SDR 26 PVC PRIVATE SANITARY SEWER

(P) FIRE HYDRANT ASSEMBLY W/6"-90° BEND AND 6" G.V.

(P) RELOCATE EXISTING 12" D.I. WATERLINE FOR PROPOSED STORM SEWER

(P) CONNECT TO EXISTING 12" D.I. WATERLINE AND REROUTE 1-12" G.V.

70' UNDISTURBED LANDSCAPE BUFFER

30' LANDSCAPE BUFFER

100' WPO STREAM BUFFER

MATCHLINE SEE SHEET 5C

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
UTILITY PLAN

JOB NO. 232220
SCALE 1" = 30'
SHEET NO. 5B

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, including, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

MATCHLINE SEE THIS SHEET

MATCHLINE SEE SHEET 5D

MATCHLINE SEE SHEET 5B

MATCHLINE SEE SHEET 5B

WATERLINE 1
12" D.I. WATERLINE

ARCHER AVENUE EXTENSION
(PUBLIC STREET)

JERSEY CIRCLE
(PRIVATE TRAVELWAY)

BUILDING #6
3/4 STORIES
(72 UNITS)
FFE=467.83
BSMT=457.17

BUILDING #4
3/4 STORIES
(72 UNITS)
FFE=461.33
BSMT=450.67

UNDERGROUND DETENTION SYSTEM

VIOLA DRIVE
(PUBLIC STREET)

CALYX DRIVE
(PRIVATE ALLEY)

DOG PARK

SWM FACILITY

(P) 12"X6" TEE
6" G.V.

(P) 12"X4" TEE
4" G.V.

(P) FIRE HYDRANT ASSEMBLY
W/12"X6" TEE AND 6" G.V.

(P) 8" SDR 26 PVC
PRIVATE SANITARY SEWER

(P) 1.5" WATER
METER VAULT

(P) 2" TYPE K COPPER
WATER SERVICE LATERAL

(P) 6" D.I.
FIRE LINE

PROPOSED 8" SDR 26 PVC
PRIVATE SANITARY SEWER

LOCATION OF RPZ ON DOMESTIC
WATERLINE, DDCA ON THE FIRELINE,
AND PRV ON THE DOMESTIC WATERLINE
(ALL WITHIN BUILDING)

(P) 6" SDR 26 PVC
SAN. LAT. CLEANOUT
40LF @2.08%
INV. 445.83

(P) 6" SDR 26 PVC
SAN. LAT. CLEANOUT
51 LF @ 22.4%
INV. 452.00

(P) 8" D.I. WATERLINE

(P) 8"X6" TEE
6" G.V.

(P) 8"X4" TEE
4" G.V.

(P) 12"X8" TEE
8" G.V.

(P) 20' ACSA PUBLIC
SANITARY EASEMENT
INST.#

(P) 8" SDR 26 PVC
PUBLIC SANITARY SEWER

(P) END PHASE I
SANITARY SEWER

(P) 8" PLUG
FOR PHASE III
WATERLINE

(P) 8" PLUG
FOR PHASE II
WATERLINE

(P) 12" PLUG

WATERLINE 4
8" D.I. WATERLINE

WATERLINE 1
12" D.I. WATERLINE

EXISTING STREAM

100' WPO STREAM BUFFER

PHASE I
PHASE II
PHASE III

MH7
MH8
MH9
MH10
MH11
MH12
MH13
MH16
MH17
MH18
MH19
MH20
MH25
MH26
MH27
MH27B

TMP 46-109
SEMINOLE TRAIL, LLC
D.B. 5228 P. 553
D.B. 527 P. 180 PLAT

TMP
RYAN
SHAR
INST.#
INST.#
D.B.

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

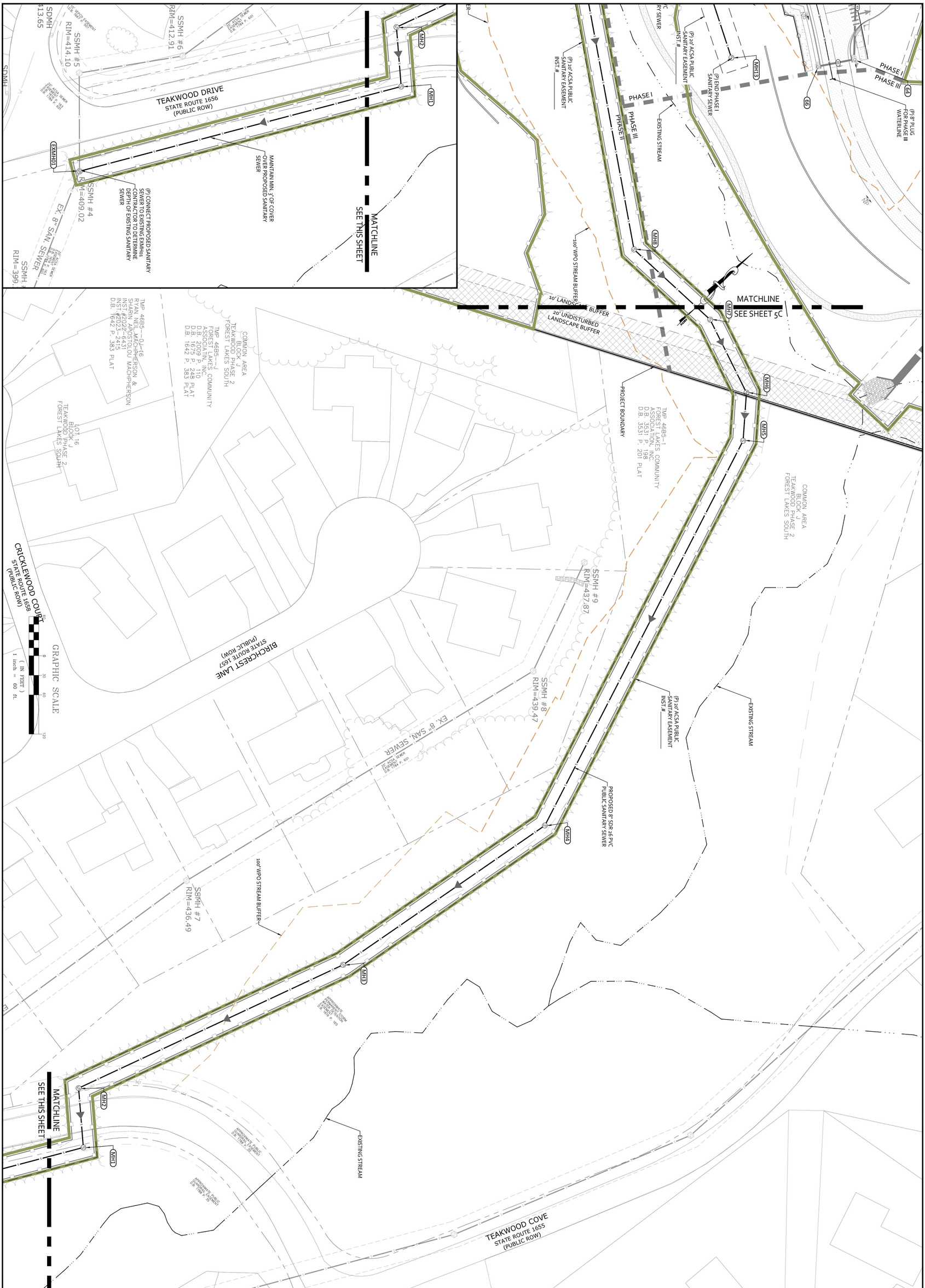
SHEET TITLE
UTILITY PLAN

JOB NO.
232220

SCALE
1" = 30'

SHEET NO.
5C

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

REVISIONS	
DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
OFFSITE UTILITY PLAN

SHEET NO. 5E | SCALE 1" = 30' | JOB NO. 232220

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

NOTES:

1. SLOPES GREATER THAN 3:1 SHALL BE PLANTED WITH NATIVE STEEP SLOPE MIX WITH ANNUAL RYEGRASS BY ERNST CONSERVATION SEEDS AT A RATE OF 60 LBS. PER ACRE, OR 1 LB. PER 1,000 SF.
2. NO PROPOSED GRADE SHALL EXCEED 2:1 SLOPE.
3. HANDRAILS SHALL BE INSTALLED ON ALL ADA RAMPS AND STEPS WITHIN THE SITE. HANDRAILS/GUARDRAILS SHALL BE INSTALLED ALL RETAINING WALLS THAT ARE HIGHER THAN 30".
4. WALLS A-G ARE PROPOSED CONCRETE RETAINING WALLS, SEE FINAL PLANS FOR ADDITIONAL DETAILS AND STRUCTURAL DESIGN.
5. WALLS H-V ARE SEGMENTAL RETAINING WALLS. SEE NOTES FOR DETAILS.

ADA ACCESSIBLE ROUTE:

RUBIN LANE
(20' PRIVATE ROW)

20' UNDISTURBED LANDSCAPE BUFFER

10' LANDSCAPE BUFFER

RETAINING WALL J
MAX HT. 5.25'

D.B. 298 P. 470 (EX.8)
D.B. 326 P. 91 (EX.5A) (EX.7A)
D.B. 327 P. 117 (EX.7A
D.B. 347 P. 103 (EX.5A) (EX.7A)
D.B. 392 P. 29 (EX.8) (EX.5A) (EX.7A)
D.B. 414 P. 234 (EX.8) (EX.5A)
D.B. 462 P. 473 (EX.8) (EX.16) (EX.5A) (EX.7A)
D.B. 555 P. 568 (EX.8) (EX.5A) (EX.7A)

TMP 46-28G
JANICE SNOW
W.B. 63 P. 427
D.B. 418 P. 440
D.B. 326 P. 92 PLAT

RETAINING WALL I
MAX HT. 4.2'

RETAINING WALL T
MAX HT. 2.8'

DI
481.78
IN: 24" RCP 477.99 (NORTH)
OUT: 30" RCP 477.83 (SOUTH)

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO AVOID EXCESSIVE DISTURBANCE WITHIN THE 42" MAPLE DRIPLINE, TREE INTENDED TO REMAIN

DRAINAGE EASEMENT
D.B. 968 P. 224 (EX.31)
D.B. 1062 P. 630 (EX.31)
H.W.P.B. 2 P. 268-269

20' UNDISTURBED LANDSCAPE BUFFER

CONNECT TO EXISTING ROUTE 29 DRAINAGE OUTFALL TO PROPOSED 36" RCP STORM SEWER, TO CONVEY DRAINAGE TO EXISTING STREAM

CONNECT TO EXISTING ROUTE 29 DRAINAGE OUTFALL TO PROPOSED 48" RCP STORM SEWER, TO CONVEY DRAINAGE TO EXISTING STREAM

RETAINING WALL A
MAX HT. 10'
(EXTERIOR)

SENTINEL TRAIL
VA ROUTE 29
(PUBLIC ROW)

INV. 465.41

DRAINAGE EASEMENT
D.B. 4719 P. 195 (EX.31)
H.W.P.B. XVI P. 299-302

PROPOSED RAMP WITH HANDRAILS

BUILDING #1
3/4 STORIES
(36 UNITS)
FFE=478.33
BSMT=467.67

4-6" STEPS

KRAMERIA LANE
(PRIVATE STREET)

CLUBHOUSE
FFE=478.83

BUILDING #2
3/4 STORIES
(36 UNITS)
FFE=492.67
BSMT=482.00

2 STEPS

(P) SEGMENTED RETAINING WALL WITH SAFETY RAILING, SEE NOTES SHEET FOR DETAILS. MANUFACTURER: EAGLE BAY, DIAMOND PRO. COLOR: JAMES RIVER

RETAINING WALL B
MAX HT. 10'
(EXTERIOR)

POOL
FFE=478.75

(P) SEGMENTED RETAINING WALL WITH SAFETY RAILING, SEE NOTES SHEET FOR DETAILS. MANUFACTURER: EAGLE BAY, DIAMOND PRO. COLOR: JAMES RIVER

RETAINING WALL K
MAX HT. 9'

RETAINING WALL H
MAX HT. 4'

MATCHLINE
SEE SHEET 6B

(P) SEGMENTED RETAINING WALL WITH SAFETY RAILING, SEE NOTES SHEET FOR DETAILS. MANUFACTURER: EAGLE BAY, DIAMOND PRO. COLOR: JAMES RIVER

RETAINING WALL L
MAX HT. 10'

RETAINING WALL C
MAX HT. 10'
(EXTERIOR)

JERSEY CIRCLE
(PRIVATE STREET)

BUILDING #5
3/4 STORIES
(72 UNITS)
FFE=476.00
BSMT=465.33

RETAINING WALL D
MAX HT. 1.2'

RETAINING WALL E
MAX HT. 2.7'

PROPOSED RAMP WITH HANDRAILS

ARCHER AVENUE EXTENSION
(PUBLIC STREET)

PROPOSED 36" RCP CULVERT FOR ROUTE 29 DRAINAGE OVERFLOW

BUILDING #3
3 STORIES
(30 UNITS)
FFE=467.33

RETAINING WALL M

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
GRADING PLAN

JOB NO. 232220
SCALE 1" = 30'
SHEET NO. 6A

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, including but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

MATCHLINE SEE SHEET 6A

NOTES:

1. SLOPES GREATER THAN 3:1 SHALL BE PLANTED WITH NATIVE STEEP SLOPE MIX WITH ANNUAL RYEGRASS BY ERNST CONSERVATION SEEDS AT A RATE OF 60 LBS. PER ACRE, OR 1 LB. PER 1,000 SF.
2. NO PROPOSED GRADE SHALL EXCEED 2:1 SLOPE.
3. HANDRAILS SHALL BE INSTALLED ON ALL ADA RAMPS AND STEPS WITHIN THE SITE. HANDRAILS/GUARDRAILS SHALL BE INSTALLED ALL RETAINING WALLS THAT ARE HIGHER THAN 30".
4. WALLS A-G ARE PROPOSED CONCRETE RETAINING WALLS, SEE FINAL PLANS FOR ADDITIONAL DETAILS AND STRUCTURAL DESIGN.
5. WALLS H-V ARE SEGMENTAL RETAINING WALLS. SEE NOTES FOR DETAILS.

(P) SEGMENTED RETAINING WALL WITH SAFETY RAILING. SEE NOTES SHEET FOR DETAILS. MANUFACTURER: EAGLE BAY, DIAMOND PRO. COLOR: JAMES RIVER

(P) SEGMENTED RETAINING WALL WITH SAFETY RAILING, AND GUARDRAIL SEE NOTES SHEET FOR DETAILS. MANUFACTURER: EAGLE BAY, DIAMOND PRO. COLOR: JAMES RIVER

BUILDING #1
3/4 STORIES
(36 UNITES)
FFE=478.33
BSMT=467.67

BUILDING #3
3 STORIES
(30 UNITES)
FFE=467.33

BUILDING #5
3/4 STORIES
(72 UNITES)
FFE=476.00
BSMT=465.33

BUILDING #4
3/4 STORIES
(72 UNITES)
FFE=461.33
BSMT=450.67

ARCHER AVENUE EXTENSION (PUBLIC STREET)

JERSEY CIRCLE (PRIVATE STREET)

KRAMERIA LANE (PRIVATE STREET)

SEMINOLE TRL U.S. ROUTE 29 (PUBLIC ROW)

POCKET PARK

DOG PARK

RETAINING WALL L MAX HT. 10'

RETAINING WALL C MAX HT. 10' (EXTERIOR)

RETAINING WALL D MAX HT. 1.2

RETAINING WALL E MAX HT. 2.7'

RETAINING WALL C MAX HT. 10' (EXTERIOR)

RETAINING WALL M MAX HT. 10'

RETAINING WALL U MAX HT. 4'

RETAINING WALL G MAX HT. 10' (EXTERIOR)

PROPOSED RAMP WITH HANDRAILS

PROPOSED 36" RCP CULVERT FOR ROUTE 29 DRAINAGE OVERFLOW

SWM FACILITY

(P) VAR. WIDTH STORMWATER MANAGEMENT FACILITY, ACCESS AND MAINTENANCE EASEMENT INST.#_____

100' WPO STREAM BUFFER

PROPOSED STREAM CROSSING IN 50' PUBLIC DRAINAGE EASEMENT

70' UNDISTURBED LANDSCAPE BUFFER

30' LANDSCAPE BUFFER

MATCHLINE SEE SHEET 6C

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

SCOTT R. COLLINS
Lic. No. 035791
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: GRADING PLAN

JOB NO. 232220
SCALE 1" = 30'
SHEET NO. 6B

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

ARCHER AVENUE EXTENSION
(PUBLIC STREET)

MATCHLINE A - SEE THIS SHEET

MATCHLINE - SEE SHEET 6D

MATCHLINE SEE SHEET 6B

RETAINING WALL E
MAX HT. 2.7'

RETAINING WALL C
MAX HT. 10'
(EXTERIOR)

BUILDING #6
3/4 STORIES
(72 UNITS)
FFE=467.83
BSMT=457.17

RETAINING WALL F
MAX HT. 1.6'

JERSEY CIRCLE
(PRIVATE STREET)

UNDERGROUND DETENTION

100' WPO STREAM BUFFER

8'-6" STEPS

RETAINING WALL C
MAX HT. 10'
(EXTERIOR)

(P) SEGMENTED RETAINING WALL WITH SAFETY RAILING, SEE NOTES SHEET FOR DETAILS. MANUFACTURER: EAGLE BAY, DIAMOND PRO. COLOR: JAMES RIVER

RETAINING WALL O
MAX HT. 10'

PHASE I
PHASE II
PHASE III

BUILDING #4
3/4 STORIES
(72 UNITS)
FFE=461.33
BSMT=450.67

DOG PARK

VIOLA DRIVE
(PUBLIC STREET)

PROPOSED STREAM CROSSING
IN 50' PUBLIC DRAINAGE EASEMENT

100' WPO STREAM BUFFER

10' LANDSCAPE BUFFER

(P) SEGMENTED RETAINING WALL WITH SAFETY RAILING, SEE NOTES SHEET FOR DETAILS. MANUFACTURER: EAGLE BAY, DIAMOND PRO. COLOR: JAMES RIVER

RETAINING WALL N
MAX HT. 9'

CALYX DRIVE
(PRIVATE ALLEY)

SWM FACILITY

RETAINING WALL S
MAX HT. 8'

100' WPO STREAM BUFFER

COMMON AREA
BLOCK J
TEAKWOOD PHASE 2
FOREST LAKES SOUTH

TMP 4685--0J-
RYAN NEIL MACH
SHARIN APOSTO
INST.#2022-643
INST.#2023-241
D.B. 1642 P. 38

TMP 46-109
SEMINOLE TRAIL, LLC
D.B. 5228 P. 563
D.B. 527 P. 180 PLAT

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

NOTES:

1. SLOPES GREATER THAN 3:1 SHALL BE PLANTED WITH NATIVE STEEP SLOPE MIX WITH ANNUAL RYEGRASS BY ERNST CONSERVATION SEEDS AT A RATE OF 60 LBS. PER ACRE, OR 1 LB. PER 1,000 SF.
2. NO PROPOSED GRADE SHALL EXCEED 2:1 SLOPE.
3. HANDRAILS SHALL BE INSTALLED ON ALL ADA RAMPS AND STEPS WITHIN THE SITE. HANDRAILS/GUARDRAILS SHALL BE INSTALLED ALL RETAINING WALLS THAT ARE HIGHER THAN 30".
4. WALLS A-G ARE PROPOSED CONCRETE RETAINING WALLS, SEE FINAL PLANS FOR ADDITIONAL DETAILS AND STRUCTURAL DESIGN.
5. WALLS H-V ARE SEGMENTAL RETAINING WALLS. SEE NOTES FOR DETAILS.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

	DATE	REVISION DESCRIPTION
	09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
	09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
GRADING PLAN

JOB NO.
232220

SCALE
1" = 30'

SHEET NO.
6C

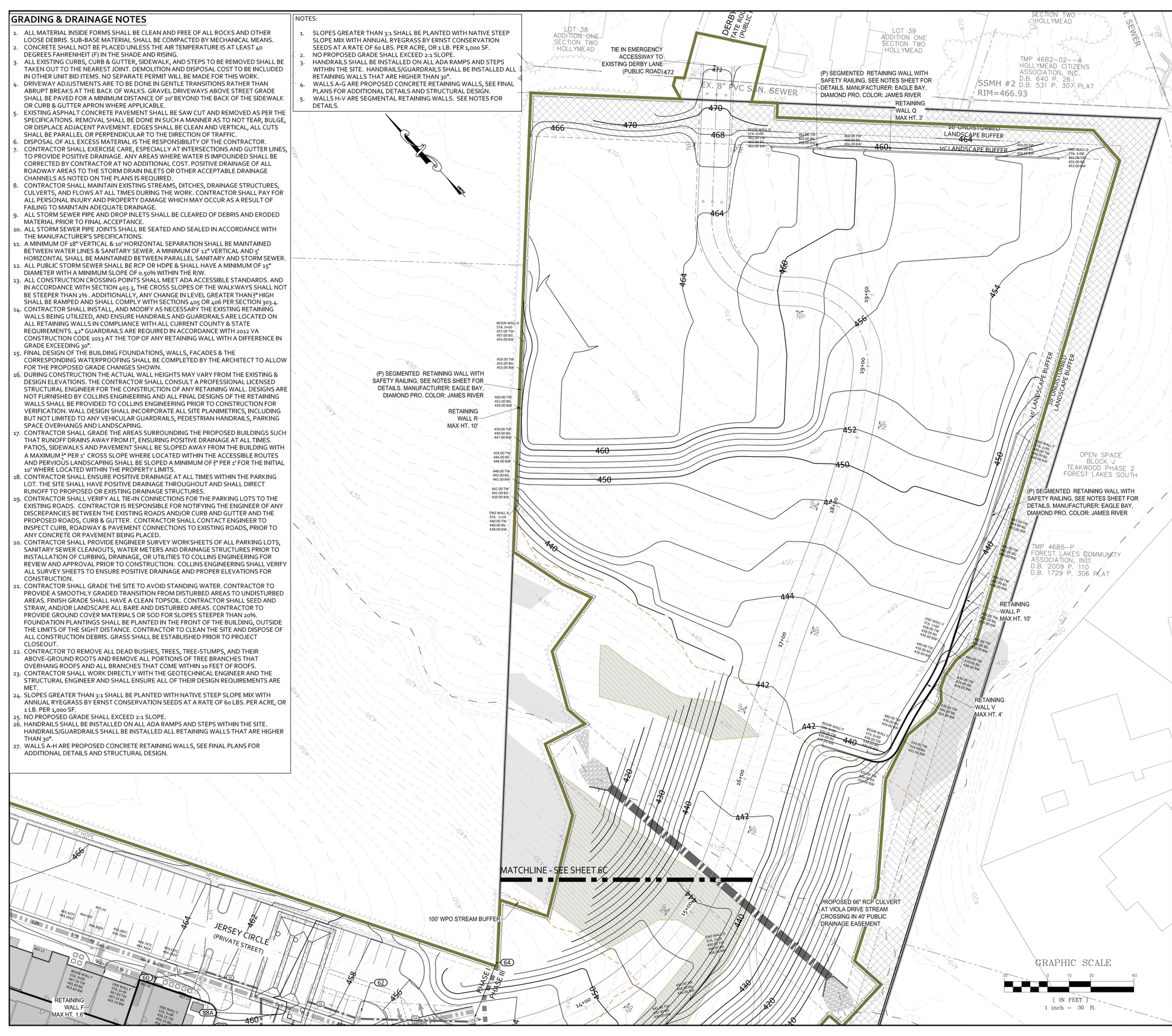
These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, including, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

GRADING & DRAINAGE NOTES

1. ALL MATERIAL INSIDE FORMS SHALL BE CLEAN AND FREE OF ALL ROCKS AND OTHER LOOSE DEBRIS. SUB-BASE MATERIAL SHALL BE COMPACTED BY MECHANICAL MEANS.
2. CONCRETE SHALL NOT BE PLACED UNLESS THE AIR TEMPERATURE IS AT LEAST 40 DEGREES FAHRENHEIT (F) IN THE SHADE AND RISING.
3. ALL EXISTING CURBS, CURB & GUTTER, SIDEWALK, AND STEPS TO BE REMOVED SHALL BE TAKEN OUT TO THE NEAREST JOINT. DEMOLITION AND DISPOSAL COST TO BE INCLUDED IN OTHER UNIT BID ITEMS. NO SEPARATE PERMIT WILL BE MADE FOR THIS WORK.
4. DRIVEWAY ADJUSTMENTS ARE TO BE DONE IN GENTLE TRANSITIONS RATHER THAN ABRUPT BREAKS AT THE BACK OF WALKS. GRAVEL DRIVEWAYS ABOVE STREET GRADE SHALL BE PAVED FOR A MINIMUM DISTANCE OF 20' BEYOND THE BACK OF THE SIDEWALK OR CURB & GUTTER APRON WHERE APPLICABLE.
5. EXISTING ASPHALT CONCRETE PAVEMENT SHALL BE SAW CUT AND REMOVED AS PER THE SPECIFICATIONS. REMOVAL SHALL BE DONE IN SUCH A MANNER AS TO NOT TEAR, BULGE, OR DISPLACE ADJACENT PAVEMENT. EDGES SHALL BE CLEAN AND VERTICAL, ALL CUTS SHALL BE PARALLEL OR PERPENDICULAR TO THE DIRECTION OF TRAFFIC.
6. DISPOSAL OF ALL EXCESS MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR SHALL EXERCISE CARE, ESPECIALLY AT INTERSECTIONS AND GUTTER LINES, TO PROVIDE POSITIVE DRAINAGE. ANY AREAS WHERE WATER IS IMPOUNDED SHALL BE CORRECTED BY CONTRACTOR AT NO ADDITIONAL COST. POSITIVE DRAINAGE OF ALL ROADWAY AREAS TO THE STORM DRAIN INLETS OR OTHER ACCEPTABLE DRAINAGE CHANNELS AS NOTED ON THE PLANS IS REQUIRED.
8. CONTRACTOR SHALL MAINTAIN EXISTING STREAMS, DITCHES, DRAINAGE STRUCTURES, CULVERTS, AND FLOWS AT ALL TIMES DURING THE WORK. CONTRACTOR SHALL PAY FOR ALL PERSONAL INJURY AND PROPERTY DAMAGE WHICH MAY OCCUR AS A RESULT OF FAILING TO MAINTAIN ADEQUATE DRAINAGE.
9. ALL STORM SEWER PIPE AND DROP INLETS SHALL BE CLEARED OF DEBRIS AND ERODED MATERIAL PRIOR TO FINAL ACCEPTANCE.
10. ALL STORM SEWER PIPE JOINTS SHALL BE SEATED AND SEALED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
11. A MINIMUM OF 18" VERTICAL & 10' HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN WATER LINES & SANITARY SEWER. A MINIMUM OF 12" VERTICAL AND 5' HORIZONTAL SHALL BE MAINTAINED BETWEEN PARALLEL SANITARY AND STORM SEWER.
12. ALL PUBLIC STORM SEWER SHALL BE RCP OR HDPE & SHALL HAVE A MINIMUM OF 15" DIAMETER WITH A MINIMUM SLOPE OF 0.50% WITHIN THE R/W.
13. ALL CONSTRUCTION CROSSING POINTS SHALL MEET ADA ACCESSIBLE STANDARDS. AND IN ACCORDANCE WITH SECTION 403.3, THE CROSS SLOPES OF THE WALKWAYS SHALL NOT BE STEEPER THAN 2% . ADDITIONALLY, ANY CHANGE IN LEVEL GREATER THAN ½" HIGH SHALL BE RAMPED AND SHALL COMPLY WITH SECTIONS 405 OR 406 PER SECTION 303.4.
14. CONTRACTOR SHALL INSTALL, AND MODIFY AS NECESSARY THE EXISTING RETAINING WALLS BEING UTILIZED, AND ENSURE HANDRAILS AND GUARDRAILS ARE LOCATED ON ALL RETAINING WALLS IN COMPLIANCE WITH ALL CURRENT COUNTY & STATE REQUIREMENTS. 42" GUARDRAILS ARE REQUIRED IN ACCORDANCE WITH 2012 VA CONSTRUCTION CODE 1013 AT THE TOP OF ANY RETAINING WALL WITH A DIFFERENCE IN GRADE EXCEEDING 30".
15. FINAL DESIGN OF THE BUILDING FOUNDATIONS, WALLS, FACADES & THE CORRESPONDING WATERPROOFING SHALL BE COMPLETED BY THE ARCHITECT TO ALLOW FOR THE PROPOSED GRADE CHANGES SHOWN.
16. DURING CONSTRUCTION THE ACTUAL WALL HEIGHTS MAY VARY FROM THE EXISTING & DESIGN ELEVATIONS. THE CONTRACTOR SHALL CONSULT A PROFESSIONAL LICENSED STRUCTURAL ENGINEER FOR THE CONSTRUCTION OF ANY RETAINING WALL. DESIGNS ARE NOT FURNISHED BY COLLINS ENGINEERING AND ALL FINAL DESIGNS OF THE RETAINING WALLS SHALL BE PROVIDED TO COLLINS ENGINEERING PRIOR TO CONSTRUCTION FOR VERIFICATION. WALL DESIGN SHALL INCORPORATE ALL SITE PLANIMETRICS, INCLUDING BUT NOT LIMITED TO ANY VEHICULAR GUARDRAILS, PEDESTRIAN HANDRAILS, PARKING SPACE OVERHANGS AND LANDSCAPING.
17. CONTRACTOR SHALL GRADE THE AREAS SURROUNDING THE PROPOSED BUILDINGS SUCH THAT RUNOFF DRAINS AWAY FROM IT, ENSURING POSITIVE DRAINAGE AT ALL TIMES. PATIOS, SIDEWALKS AND PAVEMENT SHALL BE SLOPED AWAY FROM THE BUILDING WITH A MAXIMUM ¼" PER 1' CROSS SLOPE WHERE LOCATED WITHIN THE ACCESSIBLE ROUTES AND PERVIOUS LANDSCAPING SHALL BE SLOPED A MINIMUM OF ½" PER 1' FOR THE INITIAL 10' WHERE LOCATED WITHIN THE PROPERTY LIMITS.
18. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AT ALL TIMES WITHIN THE PARKING LOT. THE SITE SHALL HAVE POSITIVE DRAINAGE THROUGHOUT AND SHALL DIRECT RUNOFF TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.
19. CONTRACTOR SHALL VERIFY ALL TIE-IN CONNECTIONS FOR THE PARKING LOTS TO THE EXISTING ROADS. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE EXISTING ROADS AND/OR CURB AND GUTTER AND THE PROPOSED ROADS, CURB & GUTTER. CONTRACTOR SHALL CONTACT ENGINEER TO INSPECT CURB, ROADWAY & PAVEMENT CONNECTIONS TO EXISTING ROADS, PRIOR TO ANY CONCRETE OR PAVEMENT BEING PLACED.
20. CONTRACTOR SHALL PROVIDE ENGINEER SURVEY WORKSHEETS OF ALL PARKING LOTS, SANITARY SEWER CLEANOUTS, WATER METERS AND DRAINAGE STRUCTURES PRIOR TO INSTALLATION OF CURBING, DRAINAGE, OR UTILITIES TO COLLINS ENGINEERING FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. COLLINS ENGINEERING SHALL VERIFY ALL SURVEY SHEETS TO ENSURE POSITIVE DRAINAGE AND PROPER ELEVATIONS FOR CONSTRUCTION.
21. CONTRACTOR SHALL GRADE THE SITE TO AVOID STANDING WATER. CONTRACTOR TO PROVIDE A SMOOTHLY GRADED TRANSITION FROM DISTURBED AREAS TO UNDISTURBED AREAS. FINISH GRADE SHALL HAVE A CLEAN TOPSOIL. CONTRACTOR SHALL SEED AND STRAW, AND/OR LANDSCAPE ALL BARE AND DISTURBED AREAS. CONTRACTOR TO PROVIDE GROUND COVER MATERIALS OR SOD FOR SLOPES STEEPER THAN 20%. FOUNDATION PLANTINGS SHALL BE PLANTED IN THE FRONT OF THE BUILDING, OUTSIDE THE LIMITS OF THE SIGHT DISTANCE. CONTRACTOR TO CLEAN THE SITE AND DISPOSE OF ALL CONSTRUCTION DEBRIS. GRASS SHALL BE ESTABLISHED PRIOR TO PROJECT CLOSEOUT.
22. CONTRACTOR TO REMOVE ALL DEAD BUSHES, TREES, TREE-STUMPS, AND THEIR ABOVE-GROUND ROOTS AND REMOVE ALL PORTIONS OF TREE BRANCHES THAT OVERHANG ROOFS AND ALL BRANCHES THAT COME WITHIN 10 FEET OF ROOFS.
23. CONTRACTOR SHALL WORK DIRECTLY WITH THE GEOTECHNICAL ENGINEER AND THE STRUCTURAL ENGINEER AND SHALL ENSURE ALL OF THEIR DESIGN REQUIREMENTS ARE MET.
24. SLOPES GREATER THAN 3:1 SHALL BE PLANTED WITH NATIVE STEEP SLOPE MIX WITH ANNUAL RYEGRASS BY ERNST CONSERVATION SEEDS AT A RATE OF 60 LBS. PER ACRE, OR 1 LB. PER 1,000 SF.
25. NO PROPOSED GRADE SHALL EXCEED 2:1 SLOPE.
26. HANDRAILS SHALL BE INSTALLED ON ALL ADA RAMPS AND STEPS WITHIN THE SITE. HANDRAILS/GUARDRAILS SHALL BE INSTALLED ALL RETAINING WALLS THAT ARE HIGHER THAN 30".
27. WALLS A-H ARE PROPOSED CONCRETE RETAINING WALLS, SEE FINAL PLANS FOR ADDITIONAL DETAILS AND STRUCTURAL DESIGN.

NOTES:

1. SLOPES GREATER THAN 3:1 SHALL BE PLANTED WITH NATIVE STEEP SLOPE MIX WITH ANNUAL RYEGRASS BY ERNST CONSERVATION SEEDS AT A RATE OF 60 LBS. PER ACRE, OR 1 LB. PER 1,000 SF.
2. NO PROPOSED GRADE SHALL EXCEED 2:1 SLOPE.
3. HANDRAILS SHALL BE INSTALLED ON ALL ADA RAMPS AND STEPS WITHIN THE SITE. HANDRAILS/GUARDRAILS SHALL BE INSTALLED ALL RETAINING WALLS THAT ARE HIGHER THAN 30".
4. WALLS A-G ARE PROPOSED CONCRETE RETAINING WALLS, SEE FINAL PLANS FOR ADDITIONAL DETAILS AND STRUCTURAL DESIGN.
5. WALLS H-V ARE SEGMENTAL RETAINING WALLS. SEE NOTES FOR DETAILS.



ROADWAY CONSTRUCTION NOTES

GENERAL

1. CONSTRUCTION INSPECTION OF ALL PROPOSED ROADS WITHIN THE DEVELOPMENT WILL BE MADE BY THE COUNTY. THE CONTRACTOR MUST NOTIFY THE DEPARTMENT OF COMMUNITY DEVELOPMENT (296-5832) 48 HOURS IN ADVANCE OF THE START OF CONSTRUCTION.
2. UPON COMPLETION OF FINE GRADING AND PREPARATION OF THE ROADBED SUBGRADE, THE CONTRACTOR SHALL HAVE CBR TESTS PERFORMED ON THE SUBGRADE SOIL. THREE (3) COPIES OF THE TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY. IF A SUBGRADE SOIL CBR OF 10 OR GREATER IS NOT OBTAINABLE, A REVISED PAVEMENT DESIGN SHALL BE MADE BY THE DESIGN ENGINEER AND SUBMITTED WITH THE TEST RESULTS FOR APPROVAL.
3. SURFACE DRAINAGE AND PIPE DISCHARGE MUST BE RETAINED WITHIN THE PUBLIC RIGHT-OF-WAY OR WITHIN EASEMENTS PRIOR TO ACCEPTANCE BY THE COUNTY. ALL DRAINAGE OUTFALL EASEMENTS ARE TO BE EXTENDED TO A BOUNDARY LINE OR A NATURAL WATERCOURSE.
4. GUARDRAIL LOCATIONS ARE APPROXIMATE. EXACT LENGTH, LOCATION AND APPROPRIATE END TREATMENTS WILL BE FIELD VERIFIED AT THE TIME OF CONSTRUCTION. ADDITIONAL GUARDRAIL MAY BE REQUIRED AT LOCATIONS NOT SHOWN WHEN, IN THE OPINION OF THE COUNTY ENGINEER, OR DESIGNEE, IT IS DEEMED NECESSARY. WHEN GUARDRAIL IS REQUIRED, IT SHALL BE INSTALLED FOUR (4) FEET OFFSET FROM THE EDGE OF PAVEMENT TO THE FACE OF GUARDRAIL, AND ROADWAY SHOULDER WIDTHS SHALL BE INCREASED TO SEVEN (7) FEET.
5. WHERE URBAN CROSS SECTIONS ARE INSTALLED, ALL RESIDENTIAL DRIVEWAY ENTRANCES SHALL CONFORM TO VDOT CG-9(A, B OR C).
6. WHERE RURAL CROSS SECTIONS ARE INSTALLED, ALL RESIDENTIAL DRIVEWAY ENTRANCES SHALL CONFORM TO VDOT STANDARD PE-1.
7. COMPLIANCE WITH THE MINIMUM PAVEMENT WIDTH, SHOULDER WIDTH AND DITCH SECTIONS, AS SHOWN ON THE TYPICAL PAVEMENT SECTION DETAIL, SHALL BE STRICTLY ADHERED TO.
8. ROAD PLAN APPROVAL FOR SUBDIVISIONS IS SUBJECT TO FINAL SUBDIVISION PLAT VALIDATION. SHOULD THE FINAL PLAT FOR THIS PROJECT EXPIRE PRIOR TO SIGNING AND RECORDATION, THEN APPROVAL OF THESE PLANS SHALL BE NULL AND VOID.
9. ALL SIGNS OR OTHER REGULATORY DEVICES SHALL CONFORM WITH THE VIRGINIA MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES AND THE ALBEMARLE COUNTY ROAD NAMING AND PROPERTY NUMBERING ORDINANCE AND MANUAL.
10. TRAFFIC CONTROL OR OTHER REGULATORY SIGNS OR BARRICADES SHALL BE INSTALLED BY THE DEVELOPER WHEN, IN THE OPINION OF THE COUNTY ENGINEER, OR DESIGNEE, THEY ARE DEEMED NECESSARY IN ORDER TO PROVIDE SAFE AND CONVENIENT ACCESS.
11. THE SPEED LIMITS TO BE POSTED ON SPEED LIMIT SIGNS ARE 5 MPH BELOW THE DESIGN SPEED, OR AS DETERMINED BY VDOT FOR PUBLIC ROADS.
12. VDOT STANDARD CD-1 OR CD-2 CROSS-DRAINS UNDER TO BE INSTALLED UNDER THE SUBBASE MATERIAL AT ALL CUT AND FILL TRANSITIONS AND GRADE SAG POINTS AS SHOWN ON THE ROAD PROFILES.
13. A VIDEO CAMERA INSPECTION IS REQUIRED FOR ALL STORM SEWERS AND CULVERTS THAT ARE DEEMED INACCESSIBLE TO VDOT OR COUNTY INSPECTIONS. THE VIDEO INSPECTION SHALL BE CONDUCTED IN ACCORDANCE WITH VDOT'S VIDEO CAMERA INSPECTION PROCEDURE AND WITH A VDOT OR COUNTY INSPECTOR PRESENT.

GRADING

1. THE LATEST EDITION OF THE ROAD & BRIDGE SPECIFICATIONS, THE ROAD & BRIDGE STANDARDS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS SHALL GOVERN THE MATERIAL AND CONSTRUCTION METHODS OF THIS PROJECT.
2. WHERE UNSUITABLE MATERIAL IS ENCOUNTERED IN THE ROADWAY, IT SHALL BE REMOVED FROM THE ENTIRE ROAD RIGHT OF WAY WIDTH AND REPLACED WHERE NECESSARY WITH SUITABLE MATERIAL TO THE SATISFACTION OF THE ENGINEER.
3. ALL GROWTH OF TREES AND VEGETATION SHALL BE CLEARED AND GRUBBED FOR THE ENTIRE EASEMENT. OTHER TREES AND VEGETATION WHICH OBSTRUCT SIGHT DISTANCES AT ROAD INTERSECTIONS SHALL BE REMOVED.
4. ALL VEGETATION AND OVERBURDEN TO BE REMOVED FROM SHOULDER TO SHOULDER PRIOR TO THE CONSTRUCTION OF THE SUBGRADE.

DRAINAGE

1. ALL PIPE CULVERTS, EXCEPT PRIVATE ENTRANCES, SHOWN HEREON ARE TO BE RCP WITH A MINIMUM COVER OF ONE (1) FOOT.
2. STANDARD UNDERDRAINS (CD-1 OR CD-2 OR UD-4'S) TO BE PROVIDED AS INDICATED ON THE PLANS, OR WHERE FIELD CONDITIONS INDICATE.
3. ALL DRIVEWAY ENTRANCE PIPES SHALL BE A MINIMUM OF TWENTY (20) FEET IN LENGTH AND HAVE A MINIMUM DIAMETER OF FIFTEEN (15) INCHES AND SHALL BE PLACED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTAION SPECIFICATIONS UNLESS OTHERWISE NOTED ON PLANS.
4. ALL DRAINAGE EASEMENT SHALL BE CLEARED AND GRADED TO THE SATISFACTION OF THE ENGINEER. DRAINAGE EASEMENTS SHALL EXTEND TO A POINT DEEMED AS NATURAL WATER COURSE.

PAVEMENT

1. AN ACTUAL COPY OF THE CBR REPORT IS TO BE SUBMITTED PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE MATERIAL. IF THE SSV VALUES ARE LESS THAN 10, THE DEVELOPER WILL BE REQUIRED TO SUBMIT FOR ENGINEERS APPROVAL THE PROPOSED METHOD OF CORRECTION.
2. SUBGRADE MUST BE APPROVED BY THE ENGINEER FOR GRADE, TEMPLATE AND COMPACTION BEFORE BASE IS PLACED.
3. TEST REPORTS ON SELECT MATERIALS MUST BE SUBMITTED SHOWING THE MATERIAL MEETS REQUIRED GRADATION FOR TYPE I, II, OR III PRIOR TO PLACING AGGREGATE BASE.
4. THE REQUIREMENTS TO PUGMILL AGGREGATE BASE WILL BE WAIVED IN THE EVENT THAT THE SURFACE COURSE IS BEGINNING AT THE COMPLETION OF THE INSTALLATION OF THE AGGREGATE BASE. IN THE EVENT THAT THE SURFACE COURSE IS APPLIED PRIOR TO 60 DAYS, THE PUGMILL REQUIREMENT WILL APPLY.
5. THE USE OF AN AGGREGATE SPREADER IS REQUIRED WHEN PLACING AGGREGATE BASE.
6. BASE MUST BE APPROVED BY ENGINEER FOR DEPTH, TEMPLATE, AND COMPACTION BEFORE SURFACE TREATMENT IS APPLIED.
7. PRIME COAT MUST BE APPLIED TO BASE MATERIAL PRIOR TO PLACEMENT OF ASPHALT (PRIME COAT RC-250 @ 0.3 GAL./SQ. YD.).
8. BITUMINOUS SURFACE TO BE APPLIED IN ACCORDANCE WITH CURRENT VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
9. ENCROACHMENT: POSTS, WALLS, SIGNS, OR SIMILAR ORNAMENTAL STRUCTURES THAT DO NOT ENHANCE A ROADWAY'S CAPACITY OR TRAFFIC SAFETY, SHALL NOT BE PERMITTED WITHIN THE RIGHT OF WAY. ONLY THOSE STRUCTURES SPECIFICALLY AUTHORIZED BY PERMIT ISSUED BY VIRGINIA DEPARTMENT OF TRANSPORTATION MAY BE LOCATED WITHIN THE STREETS RIGHT OF WAY.

INSPECTIONS

MANDATORY INSPECTIONS ARE REQUIRED AT THE FOLLOWING PHASES:

i. INSTALLATION OF ANY ENCLOSED DRAINAGE SYSTEM BEFORE IT IS COVERED.
ii. INSTALLATION OF ANY ENCLOSED UTILITY PLACEMENTS WITHIN THE RIGHT-OF-WAY BEFORE BEING COVERED.
iii. CONSTRUCTION OF THE CUTS AND FILLS, INCLUDING FIELD DENSITY TESTS, BEFORE PLACEMENT OF ROADBED BASE MATERIALS.
iv. A FINAL PAVEMENT DESIGN, BASED ON ACTUAL SOIL CHARACTERISTICS AND CERTIFIED TESTS, SHALL BE COMPLETED AND APPROVED BEFORE THE PAVEMENT STRUCTURE IS PLACED.
v. PLACEMENT OF BASE MATERIALS, INCLUDING STONE DEPTHS, CONSISTENT WITH THE APPROVED PAVEMENT DESIGN, PRIOR TO PLACEMENT OF THE PAVING COURSE OR COURSES, FOLLOWED BY FIELD DENSITY AND MOISTURE TESTS AND THE PLACEMENT OF A PAVING COURSE AS SOON AS POSSIBLE.
vi. CONSTRUCTION OF PAVEMENT, INCLUDING DEPTH AND DENSITY, UPON COMPLETION AS PART OF THE FINAL INSPECTION.
vii. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING VDOT A MINIMUM OF ONE WEEK PRIOR TO EACH OF THE ABOVE PHASES OF CONSTRUCTION TO SCHEDULE AN INSPECTION.
viii. FAILURE OF THE CONTRACTOR TO SCHEDULE THESE INSPECTIONS WILL REQUIRE ADDITIONAL TESTING OF THE ROADS AT THE DISCRETION OF VDOT OR MAY LEAD TO THE ROADS NOT BEING ELIGIBLE FOR STATE MAINTENANCE.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

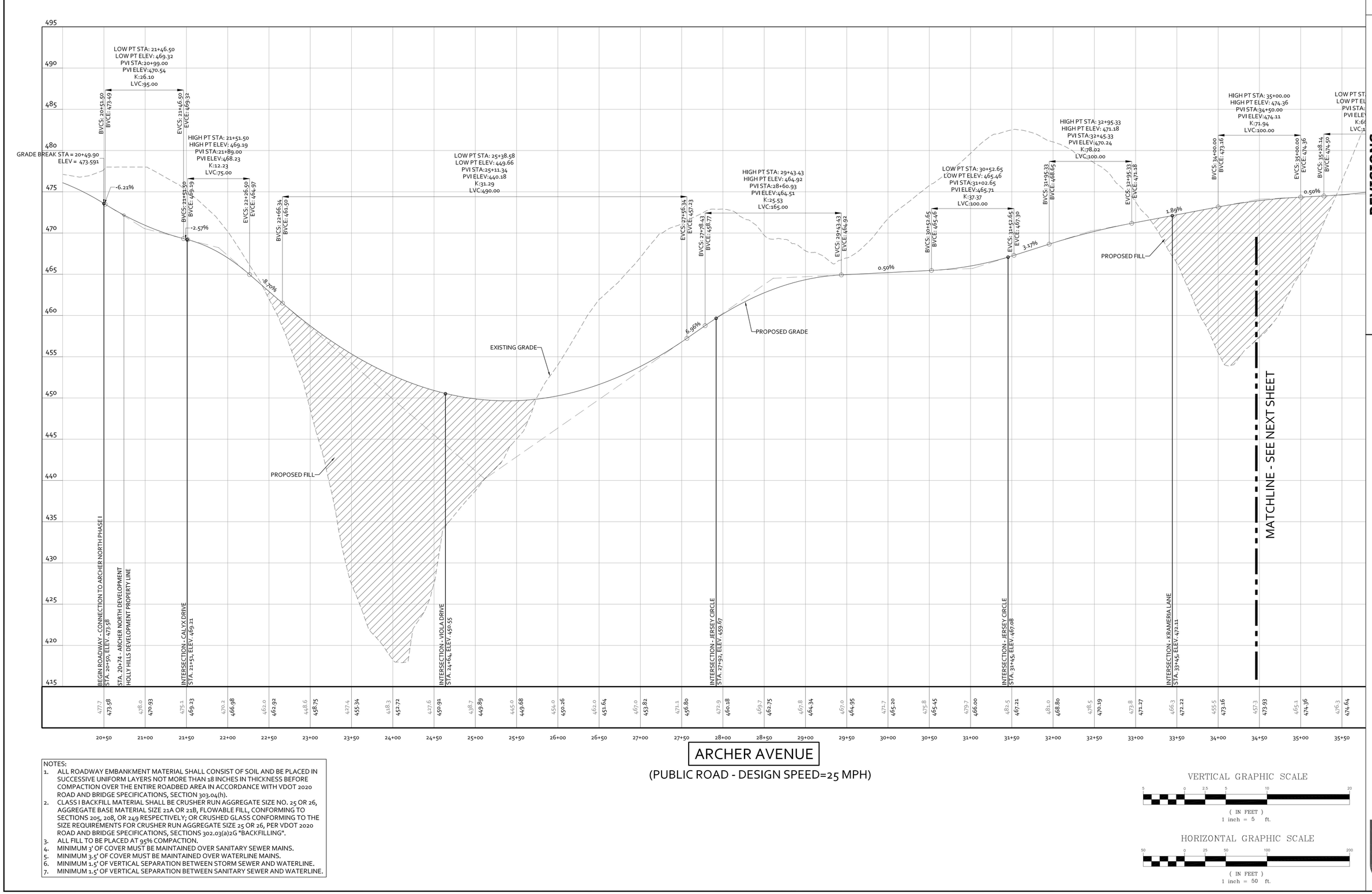
SHEET TITLE: GRADING PLAN

JOB NO. 232220

SCALE 1" = 30'

SHEET NO. 6D

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



ARCHER AVENUE

(PUBLIC ROAD - DESIGN SPEED=25 MPH)

NOTES:
1. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATIONS, SECTION 303.04(h).
2. CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, CONFORMING TO SECTIONS 205, 208, OR 249 RESPECTIVELY; OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 OR 26, PER VDOT 2020 ROAD AND BRIDGE SPECIFICATIONS, SECTIONS 302.03(a)2G "BACKFILLING".
3. ALL FILL TO BE PLACED AT 95% COMPACTION.
4. MINIMUM 3' OF COVER MUST BE MAINTAINED OVER SANITARY SEWER MAINS.
5. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER WATERLINE MAINS.
6. MINIMUM 1.5' OF VERTICAL SEPARATION BETWEEN STORM SEWER AND WATERLINE.
7. MINIMUM 1.5' OF VERTICAL SEPARATION BETWEEN SANITARY SEWER AND WATERLINE.

VERTICAL GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
ROAD PROFILES

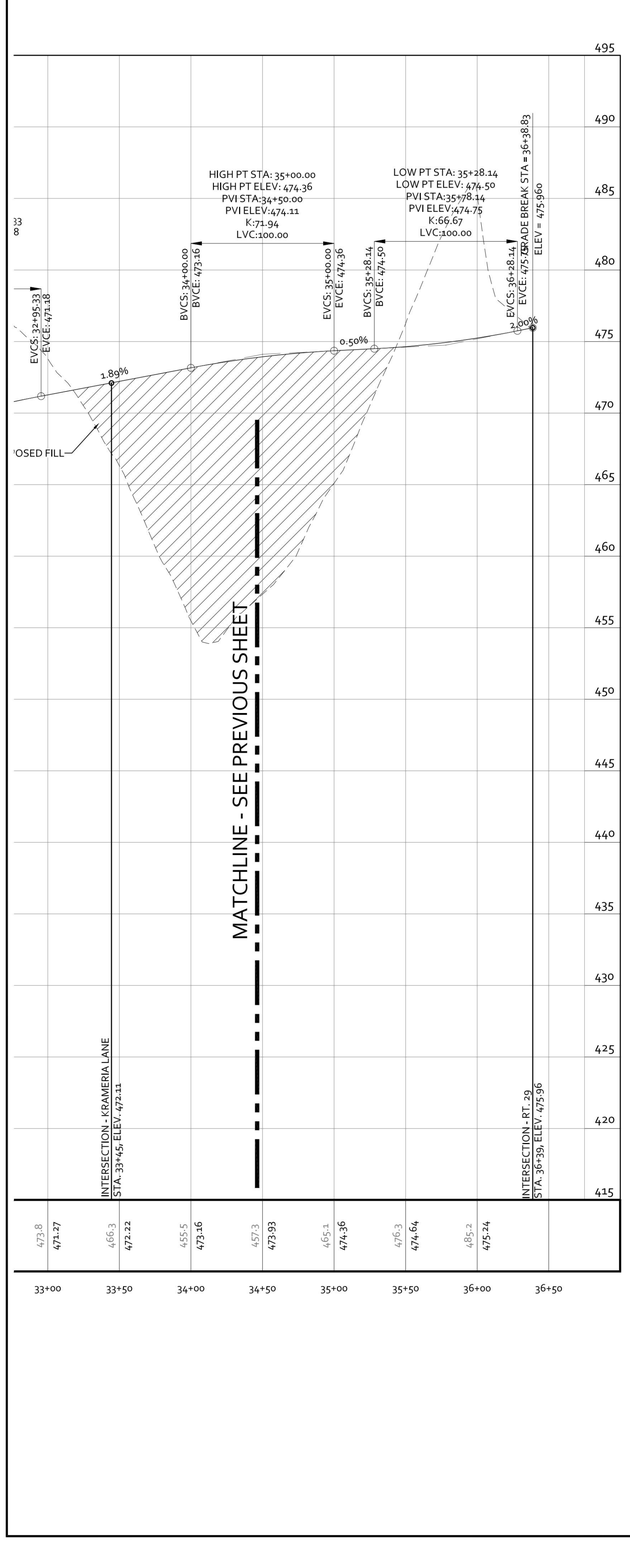
JOB NO.
232220

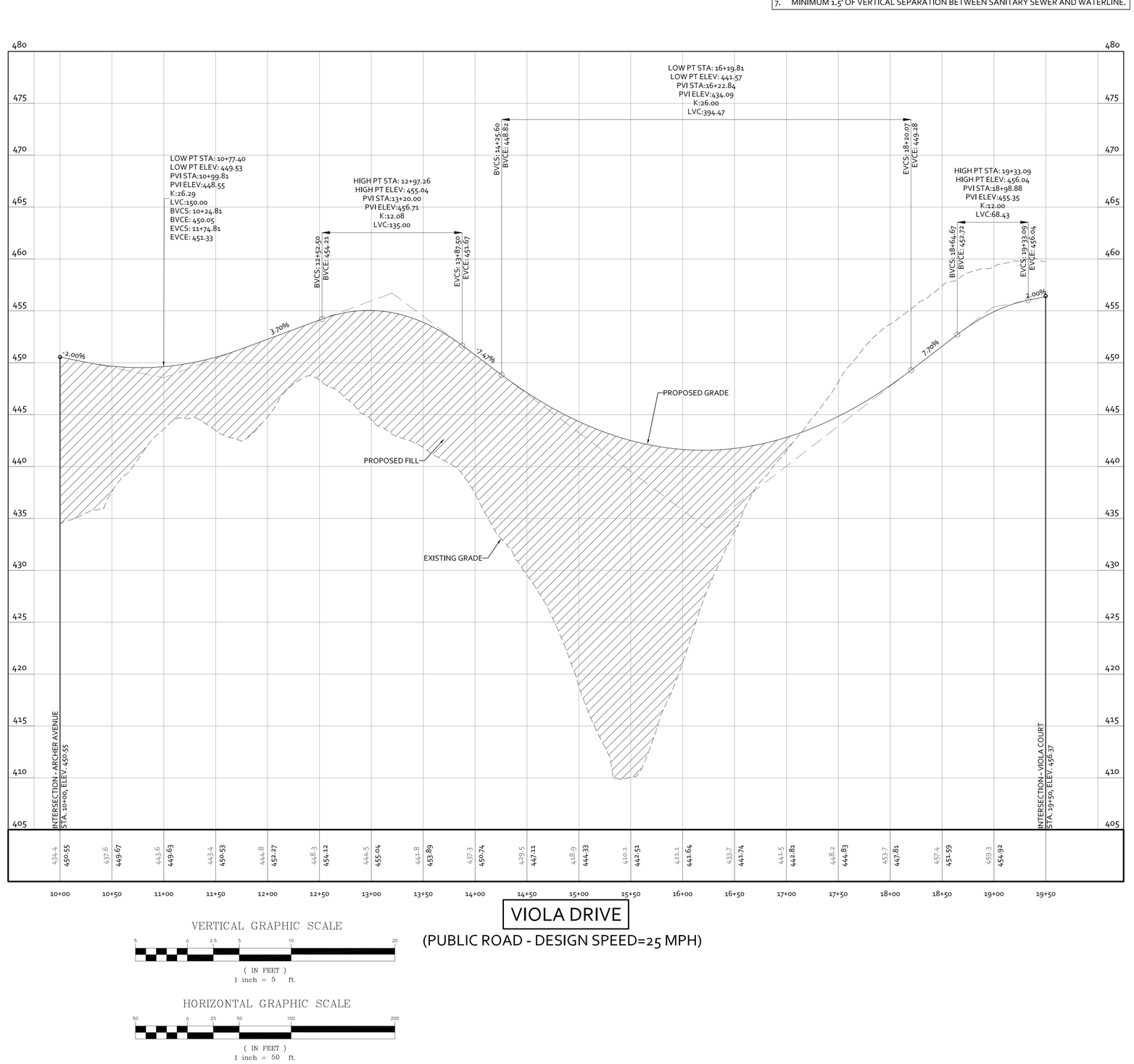
SCALE
V: 1" = 5'
H: 1" = 50'

SHEET NO.
7

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

NOTES:
1. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATIONS, SECTION 303.04(h).
2. CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, CONFORMING TO SECTIONS 205, 208, OR 249 RESPECTIVELY; OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 OR 26, PER VDOT 2020 ROAD AND BRIDGE SPECIFICATIONS, SECTIONS 302.03(a)2G "BACKFILLING".
3. ALL FILL TO BE PLACED AT 95% COMPACTION.
4. MINIMUM 3' OF COVER MUST BE MAINTAINED OVER SANITARY SEWER MAINS.
5. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER WATERLINE MAINS.
6. MINIMUM 1.5' OF VERTICAL SEPARATION BETWEEN STORM SEWER AND WATERLINE.
7. MINIMUM 1.5' OF VERTICAL SEPARATION BETWEEN SANITARY SEWER AND WATERLINE.





VIOLA DRIVE

(PUBLIC ROAD - DESIGN SPEED=25 MPH)

VERTICAL GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

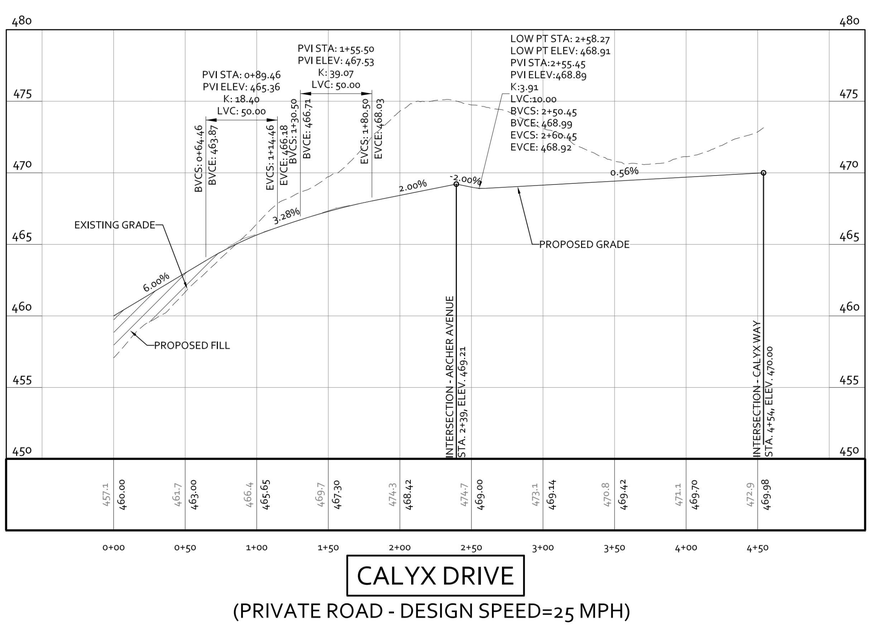
SHEET TITLE
ROAD PROFILES

JOB NO.
232220

SCALE
V: 1" = 5'
H: 1" = 50'

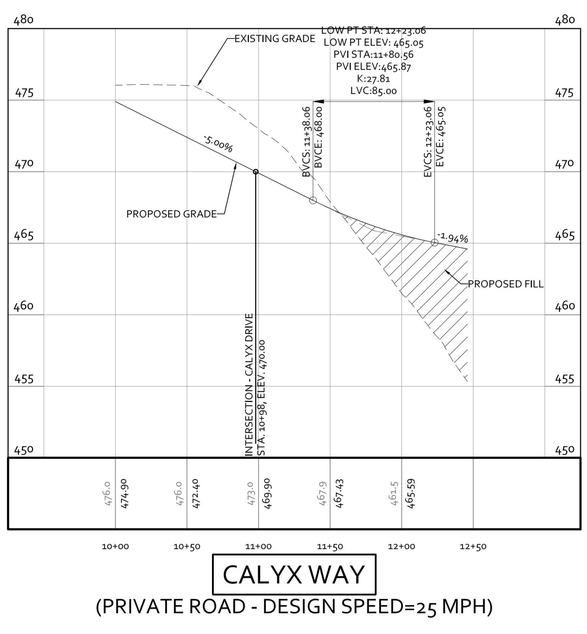
SHEET NO.
8

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



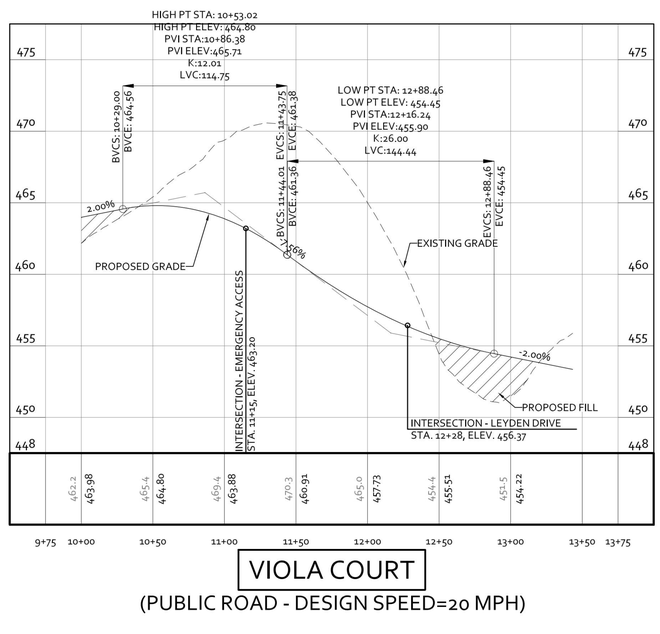
CALYX DRIVE

(PRIVATE ROAD - DESIGN SPEED=25 MPH)



CALYX WAY

(PRIVATE ROAD - DESIGN SPEED=25 MPH)



VIOLA COURT

(PUBLIC ROAD - DESIGN SPEED=20 MPH)

VERTICAL GRAPHIC SCALE

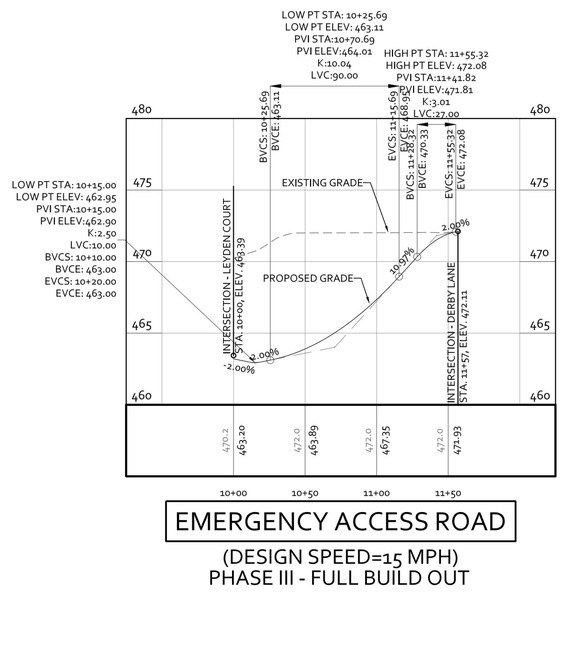
5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



EMERGENCY ACCESS ROAD

(DESIGN SPEED=15 MPH)
PHASE III - FULL BUILD OUT

NOTES:
1. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATIONS, SECTION 303.04(h).
2. CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, CONFORMING TO SECTIONS 205, 208, OR 249 RESPECTIVELY; OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 OR 26, PER VDOT 2020 ROAD AND BRIDGE SPECIFICATIONS, SECTIONS 302.03(a)2G "BACKFILLING".
3. ALL FILL TO BE PLACED AT 95% COMPACTION.
4. MINIMUM 3' OF COVER MUST BE MAINTAINED OVER SANITARY SEWER MAINS.
5. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER WATERLINE MAINS.
6. MINIMUM 1.5' OF VERTICAL SEPARATION BETWEEN STORM SEWER AND WATERLINE.
7. MINIMUM 1.5' OF VERTICAL SEPARATION BETWEEN SANITARY SEWER AND WATERLINE.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

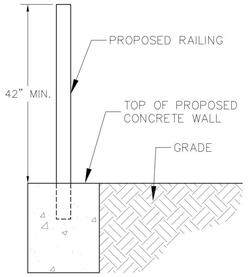
SHEET TITLE: ROAD PROFILES

JOB NO. 232220

SCALE: V: 1" = 5' H: 1" = 50'

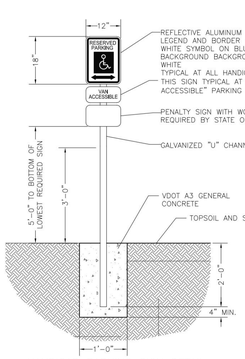
SHEET NO. 9

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



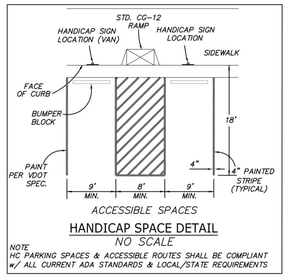
WALL RAIL FASTENING DETAIL
NOT TO SCALE

NOTE: RETAINING WALLS GREATER THAN 3' IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT. WALLS EXCEEDING 4' IN HEIGHT REQUIRE A STAMPED ENGINEERED DESIGN PLAN. WALLS REQUIRED INSPECTIONS AS OUTLINED IN THE USBC. FINAL STRUCTURAL WALL DESIGN TO BE SUBMITTED WITH STRUCTURAL ENGINEERING PLANS.



HANDICAP PARKING SIGN DETAIL
NOT TO SCALE

ONE AT EACH HANDICAP SPACE. WHERE HANDICAP SPACES FACE EACH OTHER WITHOUT WALKWAY, THERE SHALL BE ONE POST WITH SIGNS MOUNTED BOTH SIDES

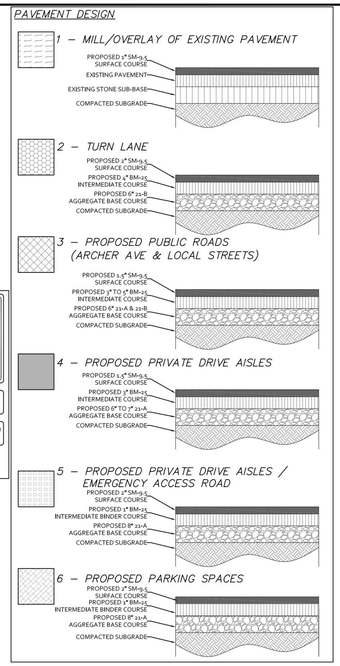


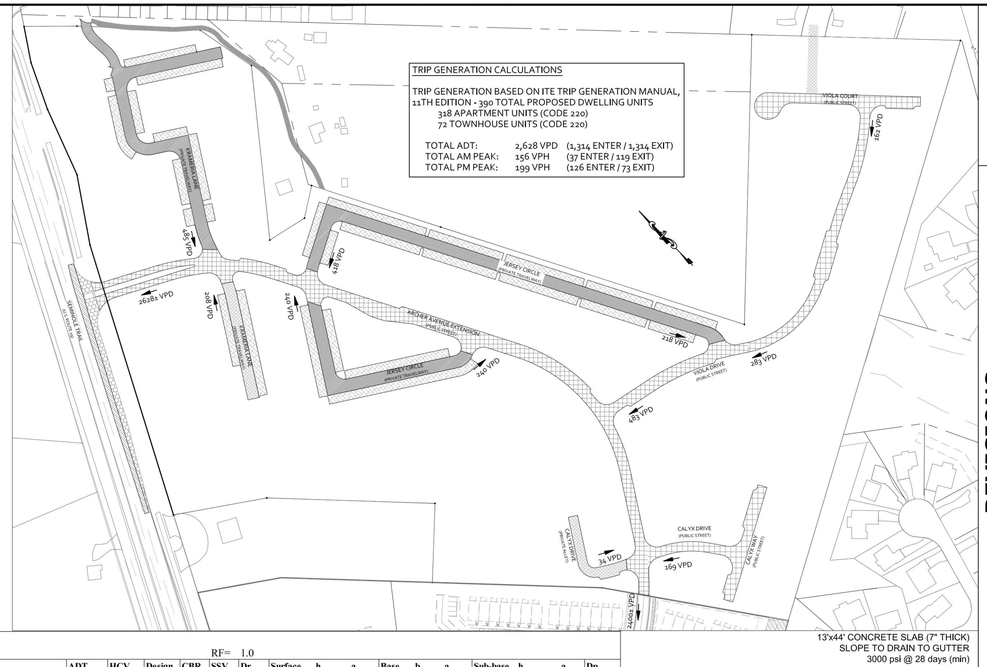
HANDICAP SPACE DETAIL
NO SCALE

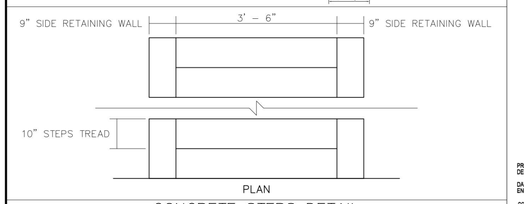
NOTE
HC PARKING SPACES & ACCESSIBLE ROUTES SHALL BE COMPLIANT W/ ALL CURRENT ADA STANDARDS & LOCAL/STATE REQUIREMENTS



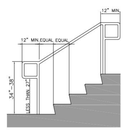
HANDICAPPED PARKING SIGNS
NO SCALE







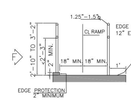
CONCRETE STEPS DETAIL
NOT TO SCALE



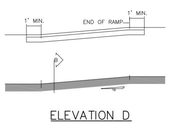
ELEVATION A



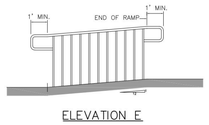
SECTION B



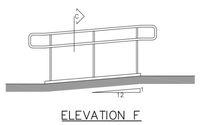
SECTION C



ELEVATION D



ELEVATION E

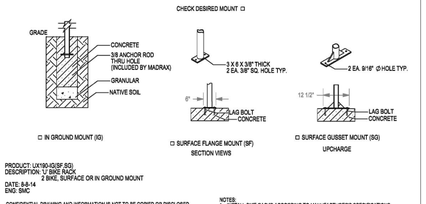


ELEVATION F

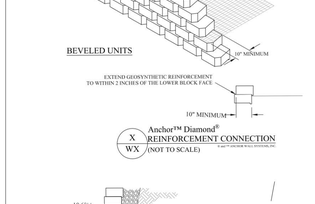
RAMPS - NOTES:
- The maximum slope of a ramp that serves any exitway, provides access for persons with disabilities, or is in the path of travel shall be 1' rise in 12' of horizontal run. (sec 1133b.5.3)
- The cross slope of ramp surfaces shall be no greater than 1:50. (1/4" per ft) (sec 1133b.5.3.1)
- The width of ramps shall be as required for stairways and exits. (sec 1133b.5.2 fig 11b-38 & 39)
- Pedestrian ramps serving primary entrances to buildings having an occupant load of 300 or more shall have a minimum clear width of 60". (sec 1133b.5.2)
- All other pedestrian ramps serving primary entrances shall have a minimum width of 48". (sec 1133b.5.2)
- Landings shall be provided at the top and bottom of each ramp. (sec 1133b.5.4.1 fig 11b-38 & 39)
- Intermediate landings shall be provided at intervals not exceeding 30" of vertical rise and at each change of direction. (sec 1133b.5.4.1 fig 11b-38 & 39)
- Top landings shall be not less than 60" wide and shall have a length of not less than 60" in the direction of ramp run. (sec 1133b 5.4.2 fig 11b-38 & 39)
- Doors in any position shall not reduce the minimum dimension of the ramp landing to less than 42" and shall not reduce the required width by more than 3" when fully open. (sec 1133b.5.4.3 fig 11b-38 & 39)
- The width of the landing shall extend 24" past the strike edge of any door or gate for exterior ramps and 18" past the strike edge for interior ramps. (sec 1133b.5.4.4 fig 11b-39)
- At bottom and intermediate landings, the width shall be at least the same as required for the ramp. (sec 1133b.5.4.5 fig 11b-38 & 39)
- Intermediate landing at a change of direction in excess of 30 degrees and bottom landings shall have a dimension in the direction of ramp run of not less than 72" to accommodate the handrail extension. (sec 1133b.5.4.6 fig 11b-38 & 39)
- Other intermediate landings shall have a dimension in the direction of ramp run of not less than 60". (sec 1133b.5.4.7 fig 11b-38)
- Ramp landings are not considered in determining the maximum horizontal distance of each ramp. (fig. 11b-38 & 39)
- Handrails are required on ramps that provide access if the ramp slope exceeds 1' rise in 20' of horizontal run. (sec 1133b.5.5.1)
- Handrails shall be placed on each side of each ramp, shall be continuous the full length of the ramp, shall be 34" to 38" above the ramp surface, shall extend a minimum of 1' beyond the top and bottom of the ramp, and the ends shall be resumed. (sec 1133b.5.5.1 fig 11b-27 (b) & (c)
- The grip portion of handrails shall be not less than 1-1/4" nor more than 1-1/2", or the shape shall provide an equivalent gripping surface, and all surfaces shall be smooth with no sharp corners. handrails shall not rotate within their fittings. (sec 1133b.5.5.1 fig 11b-36)
- Handrails projecting from a wall shall have a space of 1-1/2" between the wall and the handrail. (sec 1133b.5.5.1 fig 11b-36)
- Handrails may be located in a recess if the recess is a maximum of 3" deep and extends at least 18" above the top of the rail. (sec 1133b.5.5.1 fig 11b-36)
- Any wall or other surface adjacent to handrails shall be free of sharp or abrasive elements. Edges shall have a minimum radius of 1/8". (sec 1133b.5.5.1 fig 11b-36)
- Where the ramp surface is not bounded by a wall or fence and the ramp exceeds 10' in length, the ramp shall comply with one of the following requirements: (sec 1133b.5.6 fig 11b-27(b) & (c))
  a. A quide curb a minimum of 2" in height shall be provided at each side of the ramp;
  b. A wheel guide rail shall be provided, centered 3" ± 1" above the surface of the ramp.
- Outdoor ramps and their approaches shall be designed and constructed so that water will not accumulate on walking surfaces. (1133b.5.8)

TYPICAL HANDRAILS AT RAMPS
DETAILS & DRAWINGS PER ADA REGULATIONS – AMERICANS WITH DISABILITIES ACT 1994
NOT TO SCALE

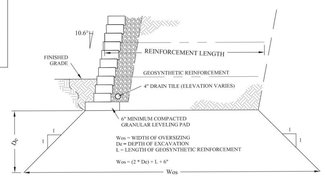
MADRAX DIVISION
GRABER MANUFACTURING, INC.
1060 UNIEK DRIVE
WAUNAKEE, WI 53597
P:(800) 448-7931, P:(608) 849-1060, F:(608) 849-1061
WWW.MADRAX.COM, E-MAIL: SALES@MADRAX.COM



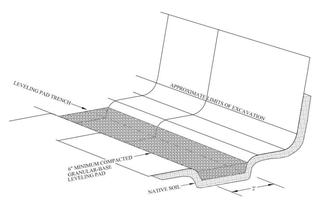
SEGMENTED WALL DETAIL
DIAMOND PRO (TAN)
NOT TO SCALE



Anchor™ Diamond® REINFORCEMENT CONNECTION (NOT TO SCALE)



Anchor™ Diamond® 1:1 EXCAVATION OVERSIZING (SCALE: 3/8"=1'-0")



Anchor™ Diamond® TYPICAL BASE PREPARATION (NOT TO SCALE)



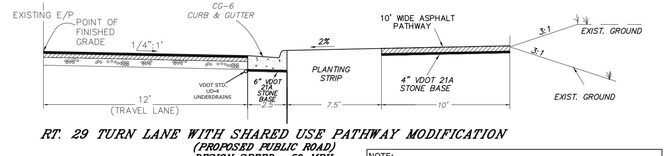
RETAINING WALL - HANDRAIL DETAIL
42" HIGH AMERISTAR BLACK SECURITY FENCING (MAJESTIC - AEGIS PLUS)

CLUBHOUSE HVAC SCREENING FENCE
WHITE VINYL FENCING
42" HIGH MIN.

Pavement Design RF= 1.0

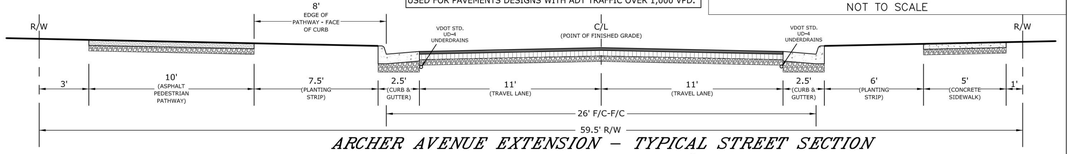
Location	ADT	HCV	Design ADT	CBR	SSV	Dr	Surface	h	a	Base	b	a	Sub-base	h	a	Dp
Archer Avenue Extension	2628	2	2648	4	4	**18.15**	SM-9.5	1.5	2.25	BM-25	5	2.15	21B	7	0.6	**18.33**
Viola Drive	483	2	503	4	4	**12.37**	SM-9.5	1.5	2.25	BM-25	3	2.15	21A	6	0.6	**13.43**
Viola Court	162	2	182	4	4	**8.83**	SM-9.5	1.5	2.25	BM-25	3	2.15	21A	6	0.6	**13.43**
Calyx Drive	169	2	189	4	4	**8.96**	SM-9.5	2	1.67	BM-25	1	1.67	21A	8	0.6	**9.81**
Calyx Way	74	2	94	4	4	**6.53**	SM-9.5	2	1.67	BM-25	1	1.67	21A	8	0.6	**9.81**
Calyx Drive (West)	34	2	54	4	4	**4.60**	SM-9.5	2	1.67	BM-25	1	1.67	21A	8	0.6	**9.81**
Krameria Lane	485	2	505	4	4	**12.38**	SM-9.5	1.5	2.25	BM-25	3	2.15	21A	6	0.6	**13.43**
Jersey Circle (North)	636	2	656	4	4	**13.29**	SM-9.5	1.5	2.25	BM-25	3	2.15	21A	6	0.6	**13.43**
Jersey Circle	480	2	500	4	4	**12.35**	SM-9.5	1.5	2.25	BM-25	3	2.15	21A	6	0.6	**13.43**

NOTES:
1. PAVEMENT DESIGN FOR NEW SUBDIVISION STREETS SHALL BE DEVELOPED USING THE PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA AND MUST BE BASED ON IN PLACE MATERIAL AT THE TIME OF CONSTRUCTION. ACTUAL PAVEMENT DESIGN SHALL BE BASED ON CBR VALUES OF THE ACTUAL SUBGRADE MATERIAL. CBRS SHALL BE PERFORMED DURING CONSTRUCTION AND THE INFORMATION PROVIDED TO THE DESIGN ENGINEER TO CONFIRM THE PAVEMENT DESIGN FOR THE DEVELOPMENT.
2. A BINDER COURSE SHALL BE USED DURING THE CONSTRUCTION PHASE OF THE PROJECT TO SEAL UP THE STONE AND SHALL BE UTILIZED FOR CONTRACTOR STAGING AREAS. AT THE END OF THE PHASE, WHEN THE APARTMENT BUILDING IS READY TO BE TURNED OVER, THE CONTRACTOR SHALL INSTEALL THE FINAL 2" OF ASPHALT ACROSS THE PARKING LOT AREA AND STRIPE THE PARKING LOT AROUND THE BUILDING.

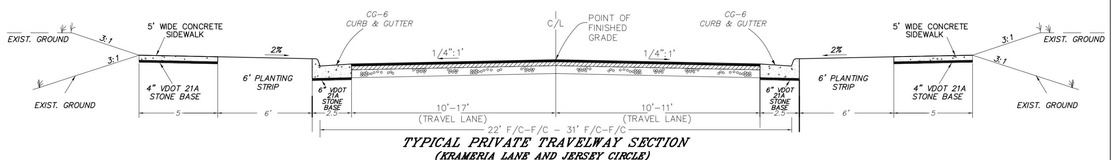


RT. 29 TURN LANE WITH SHARED USE PATHWAY MODIFICATION
(PROPOSED PUBLIC ROAD)
DESIGN SPEED: 50 MPH

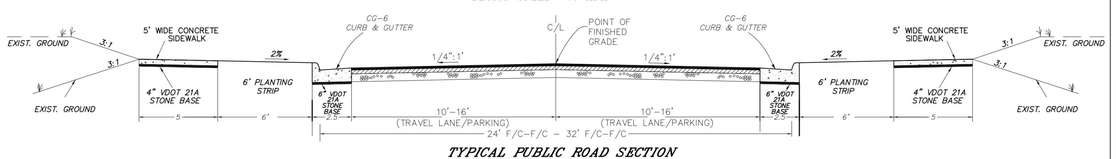
NOTE:
VDOT STD. UD-4 UNDERDRAINS WITH 21-B STONE SUB-BASE TO BE USED FOR PAVEMENTS DESIGNS WITH ADT TRAFFIC OVER 1,000 VPD.



ARCHER AVENUE EXTENSION – TYPICAL STREET SECTION
VAR. WIDTH PUBLIC ROAD R/W
25 MPH DESIGN SPEED

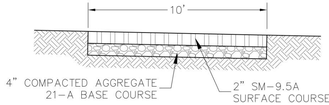


TYPICAL PRIVATE TRAVELWAY SECTION
(KRAMERIA LANE AND JERSEY CIRCLE)
(PROPOSED PRIVATE TRAVELWAY)
DESIGN SPEED: 15 MPH

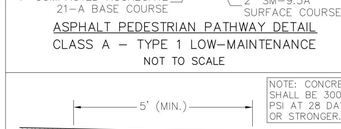


TYPICAL PUBLIC ROAD SECTION
(CALYX DRIVE (EAST), CALYX WAY, VIOLA DRIVE, AND VIOLA COURT)
(PROPOSED PUBLIC ROAD – VAR. WIDTH R/W)
DESIGN SPEED: 25 MPH

13'x44' CONCRETE SLAB (7" THICK)
SLOPE TO DRAIN TO GUTTER
3000 psi @ 28 days (min)
CLASS A3 CONCRETE WITH 6"x6" W2.1xW2.1 WWF 4 AND BROOM FINISH

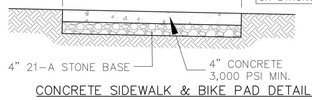


CONCRETE DUMPSTER PAD & MAIL KIOSK DETAIL
NOT TO SCALE



ASPHALT PEDESTRIAN PATHWAY DETAIL
CLASS A – TYPE 1 LOW–MAINTENANCE
NOT TO SCALE

NOTE: CONCRETE SHALL BE 3000 PSI AT 28 DAYS OR STRONGER.



CONCRETE SIDEWALK & BIKE PAD DETAIL
NOT TO SCALE

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
NOTES & DETAILS

JOB NO. 232220
SCALE N/A
SHEET NO. 10

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

ALBEMARLE COUNTY SERVICE AUTHORITY (ACSA)

GENERAL WATER & SEWER CONDITIONS (September 14, 2021)

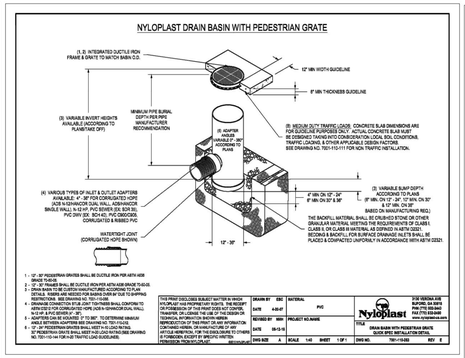
1. WORK SHALL BE SUBJECT TO INSPECTION BY ALBEMARLE COUNTY SERVICE AUTHORITY (ACSA) INSPECTORS. THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING THE PROPER ACSA OFFICIALS AT THE START OF THE WORK.
2. THE ALBEMARLE COUNTY SERVICE AUTHORITY SHALL HAVE ACCESS TO USE THE AIRSPACE ABOVE THE LOCATIONS OF CONSTRUCTION FOR THE FLIGHT OF UNMANNED AERIAL VEHICLES FOR THE PURPOSE OF IMAGERY COLLECTION.
3. THE LOCATION OF EXISTING UTILITIES ACROSS THE LINE OF THE PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS AND WHERE SHOWN ARE ONLY APPROXIMATELY CORRECT. THE CONTRACTOR SHALL, ON HIS OWN INITIATIVE, LOCATE ALL UNDERGROUND LINES AND STRUCTURES, AS NECESSARY.
4. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE CURRENT EDITION OF THE GENERAL WATER AND SEWER CONSTRUCTION SPECIFICATIONS, AS ADOPTED BY THE ACSA.
5. DATUM FOR ALL ELEVATIONS SHOWN IN NATIONAL GEODETIC SURVEY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY (1-800-552-7001).
7. ALL WATER AND SEWER PIPES SHALL HAVE A MINIMUM OF THREE AND A HALF (3.5) FEET OF COVER MEASURED FROM THE TOP OF PIPE, OVER THE CENTERLINE OF PIPE. THIS INCLUDES ALL FIRE HYDRANT LINES, SERVICE LATERALS AND WATER LINES, ETC.
8. ALL WATER AND SEWER APPURTENANCES ARE TO BE LOCATED OUTSIDE OF ROADSIDE DITCHES.
9. VALVES ON DEADEND LINES SHALL BE RODDED TO PROVIDE ADEQUATE RESTRAINT FOR THE VALVE DURING A FUTURE EXTENSION OF THE LINE.
10. TREES ARE NOT PERMITTED IN THE ACSA EASEMENT.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH THE NO-LEAD REGULATION REGARDING BRASS FITTINGS EFFECTIVE JANUARY 4, 2014 (SENATE BILL 3874 WHICH AMENDS THE SAFE DRINKING WATER ACT).
12. THE SEWER LATERAL BEYOND THE CONNECTION AT THE SEWER MAIN SHALL BE PRIVATE. THE SEWER LATERAL STUB-OUT SHALL UNDERGO THE ACSA LOW-PRESSURE AIR TEST TO SATISFY COUNTY TESTING REQUIREMENTS. VISUAL INSPECTION OF THE SEWER LATERAL STUB-OUT SHALL BE WITNESSED BY THE COUNTY BUILDING INSPECTIONS DEPARTMENT. THIS INSPECTION SHALL OCCUR UNDER AN "OTHER PLUMBING" PERMIT WHICH MUST BE OBTAINED BY THE CONTRACTOR.
13. THE SEWER LATERAL BEYOND THE CONNECTION AT A MANHOLE SHALL BE PRIVATE. VISUAL INSPECTION AND PRESSURE TESTING OF THE SEWER LATERAL SHALL BE WITNESSED BY THE COUNTY BUILDING INSPECTIONS DEPARTMENT. THIS INSPECTION SHALL OCCUR UNDER AN "OTHER PLUMBING" PERMIT WHICH MUST BE OBTAINED BY THE CONTRACTOR.
14. THE FIRE SPRINKLER MAIN DOWNSTREAM OF THE GATE VALVE IS PRIVATE. VISUAL INSPECTION AND TESTING OF THE FIRE SPRINKLER MAIN DOWNSTREAM OF THE GATE VALVE SHALL BE WITNESSED BY THE COUNTY BUILDING INSPECTIONS DEPARTMENT. THIS INSPECTION SHALL OCCUR UNDER AN "OTHER PLUMBING" PERMIT WHICH MUST BE OBTAINED BY THE CONTRACTOR.
15. ALL FLUSHING OF FIRE SPRINKLER MAINS SHALL NOT OCCUR UNTIL APPROVAL IS GIVEN BY THE ACSA.
16. PRIOR TO BACKFLOW PREVENTION DEVICE TESTING AND THE ESTABLISHMENT OF WATER SERVICE, ALL BACKFLOW PREVENTION DEVICE INSTALLATIONS SHALL MEET THE ACSA BACKFLOW REQUIREMENTS AS DETAILED IN SECTION 8 OF THE MOST RECENT REVISION OF THE ACSA RULES AND REGAULTIONS.
17. A DEED OF EASEMENT AND EASEMENT PLAT FOR THE UTILITY EASEMENTS, APPROVED BY THE ACSA, SHALL BE RECORDED PRIOR TO ANY WATER AND/OR SEWER SERVICE BEING ESTABLISHED.

RIVANNA WATER & SEWER AUTHORITY (RWSA)

GENERAL WATER & SANITARY SEWER NOTES (April, 2016)

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH THE LATEST VERSION OF THE GENERAL WATER AND SEWER DESIGN AND CONSTRUCTION STANDARDS - VERSION 2.0, ADOPTED IN DECEMBER 2015, EXCEPT AS MODIFIED BELOW OR MODIFIED IN SPECIAL NOTES.
2. RWSA SHALL APPROVE ALL CONSTRUCTION MATERIALS AND METHODS OF CONSTRUCTION. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD WITH RWSA PRIOR TO THE START OF ANY WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY (1-800-552-7001).
4. RWSA ENGINEER (VICTORIA FORT @ 434-977-2970, EXT. 205) SHALL BE NOTIFIED THREE BUSINESS DAYS PRIOR TO THE START OF CONSTRUCTION.
5. ALL WORK IS SUBJECT TO INSPECTION BY RWSA STAFF. NO TIE-INS TO THE EXISTING SYSTEM SHALL BE MADE WITHOUT COORDINATION WITH AND THE PRESENCE OF RWSA STAFF. NO WORK SHALL BE CONDUCTED ON RWSA FACILITIES ON WEEKENDS OR HOLIDAYS WITHOUT SPECIAL WRITTEN PERMISSION FROM RWSA.
6. FOR SANITARY SEWER LINE CONSTRUCTION: RWSA MAY REQUIRE BYPASS PUMPING FOR TIE-INS TO THE EXISTING SYSTEM. ALL DOGHOUSE MANHOLES MUST BE PRESSURE-TESTED BEFORE A CONNECTION IS MADE TO THE SYSTEM.
7. THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THE PLANS IS FROM DATA AVAILABLE AT THE TIME OF DESIGN AND IS NOT NECESSARILY COMPLETE OR ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF THE LOCATION, SIZE AND DEPTH OF ALL EXISTING UTILITIES, BOTH SURFACE AND SUBSURFACE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS. THE CONTRACTOR SHALL USE DUE DILIGENCE TO PROTECT ALL UTILITIES AND STRUCTURES FROM DAMAGE AT ALL TIMES, WHETHER SHOWN ON THE PLANS OR NOT. DAMAGE TO ANY EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR TO THE ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
8. EROSION AND SEDIMENT CONTROL FACILITIES SHALL NOT BE PERMITTED IN THE RWSA EASEMENT WITHOUT SPECIAL PERMISSION FROM RWSA. NO GRADING SHALL BE PERMITTED IN THE RWSA EASEMENT UNLESS PERMITTED OTHERWISE BY RWSA IN WRITING.
9. NO BLASTING SHALL BE PERMITTED WITHIN 100 FEET OF RWSA FACILITIES WITHOUT WRITTEN PERMISSION AND RWSA APPROVAL OF THE BLASTING PLAN. GROUND MONITORING DURING BLASTING AND A PRE-BLAST SURVEY MAY BE REQUIRED. FOR BLASTING WITHIN 100 FEET OF ANY OPERATIVE RWSA SWERLINES, BYPASS PUMPING AND/OR PRE- AND POST-CCTV MAY BE REQUIRED. RWSA MAY ALSO REQUIRE CERTIFICATION FROM A LICENSED PROFESSIONAL ENGINEER STATING THAT THE PROPOSED BLASTING WILL NOT DAMAGE ANY RWSA FACILITIES. DAMAGE TO ANY UTILITIES DUE TO BLASTING SHALL BE REPAIRED BY THE CONTRACTOR TO THE ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
10. THE CONTRACTOR SHALL OBSERVE MINIMUM SEPARATION REQUIREMENTS FOR UTILITY CROSSINGS. WHEN A CROSSING IS MADE UNDER AN EXISTING FACILITY, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE EXISTING PIPE. THE AREA OF THE CROSSING SHALL BE BACKFILLED WITH COMPACTED 57 STONE TO THE SPRINGLINE OF THE EXISTING PIPE.
11. NEW WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED, CHLORINATED, FLUSHED AND HAVE WATER SAMPLES APPROVED PRIOR TO MAKING ANY PERMANENT CONNECTION TO THE PUBLIC WATER SYSTEM. APPROVED METHODS OF FILLING AND FLUSHING NEW WATER MAINS WILL BE REQUIRED TO PREVENT ANY CONTAMINATION OF THE PUBLIC WATER SYSTEM.
12. ALL EASEMENTS FOR NEW RWSA FACILITIES SHALL BE RECORDED PRIOR TO PLACING THE NEW FACILITIES INTO SERVICE.
13. NO PERMANENT STRUCTURAL FACILITIES WILL BE PERMITTED IN THE RWSA EASEMENT. THIS INCLUDES BUILDING OVERHANGS, RETAINING WALLS, FOOTERS FOR ANY STRUCTURE, DRAINAGE STRUCTURES, ETC.
14. TREES ARE NOT PERMITTED IN THE RWSA EASEMENT.

NYLOPLAST DRAIN BASIN WITH PEDESTRIAN GRATE



1. 12" - 30" PEDESTRIAN GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2. 36" GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 6' DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-115-110.
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL) AND PVC (ASTM F477).
5. ADAPTERS CAN BE ADJUSTED 7°-15 BEF., TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-115-110.
6. ALL DIMENSIONS ARE NOMINAL UNLESS NOTED OTHERWISE.
7. ST NEENAH C-6884-D SHALL MEET H-20 LOAD RATING SEE DRAWING NO. 7001-115-111 FOR H-20 TRAFFIC LOAD GUIDELINES.

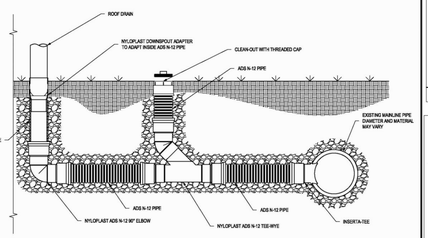
THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONVEY, WITHOUT WRITTEN PERMISSION OF NYLOPLAST, ANY TECHNICAL INFORMATION SHOWN HEREON OR REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREON, OR MANUFACTURE OF ANY ARTICLE SHOWN HEREON, FOR THE DISCLOSURE TO OTHERS OR FOR ANY USE EXCEPT THAT WHICH THE EXPRESS PERMISSION FROM NYLOPLAST.

DRAWN BY	RBH	DSC	MATERIAL
DATE	9-20-19		PVC
APPD BY		RBH	PROJECT NO./NAME
DATE	9-20-19		
DWG SIZE	A	SCALE	1:10
SHEET	1 OF 1		
DWG NO.	7001-115-010		
REV	A		

Nyloplast — 2100 VIRGINIA AVE. BATAVIA, OH 45103 PHN (770) 933-0443 FAX (770) 933-0449 www.nyloplastus.com

TITLE: DRAIN BASIN WITH PEDESTRIAN GRATE, SLICE OPT. STEEL/CAST IRON FRAME

NYLOPLAST DOWNSPOUT ADAPTER WITH CLEANOUT AND INSERTA-TEE

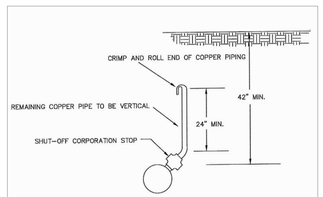


THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONVEY, WITHOUT WRITTEN PERMISSION OF NYLOPLAST, ANY TECHNICAL INFORMATION SHOWN HEREON OR REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREON, OR MANUFACTURE OF ANY ARTICLE SHOWN HEREON, FOR THE DISCLOSURE TO OTHERS OR FOR ANY USE EXCEPT THAT WHICH THE EXPRESS PERMISSION FROM NYLOPLAST.

DRAWN BY	RBH	DSC	MATERIAL
DATE	9-20-19		
APPD BY		RBH	PROJECT NO./NAME
DATE	9-20-19		
DWG SIZE	A	SCALE	1:10
SHEET	1 OF 1		
DWG NO.	8004-115-010		
REV	A		

Nyloplast — 2100 VIRGINIA AVE. BATAVIA, OH 45103 PHN (770) 933-0443 FAX (770) 933-0449 www.nyloplastus.com

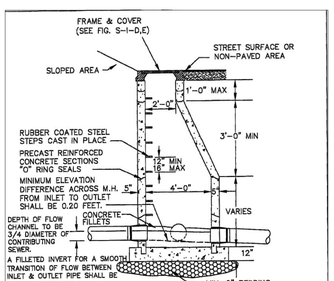
TITLE: NYLOPLAST DOWNSPOUT ADAPTER WITH CLEANOUT AND INSERTA-TEE



TYPICAL SERVICE TAP ABANDONMENT

NTS
FIG. V-6B

TD-11



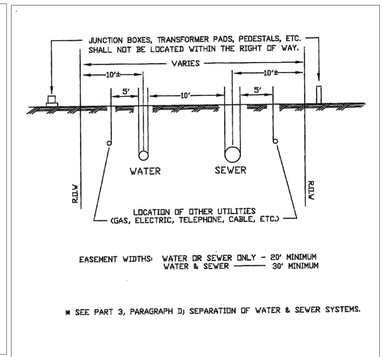
NOTE :

1. BEDDING THICKNESS REQUIREMENT SHOWN IS MINIMUM AND SHALL BE SPECIFICALLY DETERMINED BY THE CONSULTANT FOR THE SOIL CONDITIONS.
2. THE CONSULTANT WILL DETERMINE WHETHER MANHOLES SHALL HAVE EXTENDED OR NON-EXTENDED BASES.
3. ALL JOINTS, LIFT HOLES, INLETS, OUTLETS TO BE SEALED & GROUTED INSIDE AND OUT.

TYPICAL MANHOLE SECTION SHOWING BRANCH TIE-IN

N.T.S
FIG. S-I-A

TD-25



EASEMENT WIDTHS: WATER OR SEWER ONLY - 20' MINIMUM
WATER & SEWER - 30' MINIMUM

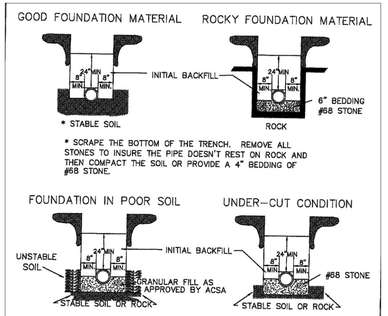
* SEE PART 3, PARAGRAPH D; SEPARATION OF WATER & SEWER SYSTEMS.

UTILITIES CROSSING A WATER OR SEWER EASEMENT SHOULD BE AT 90° TO THE RIGHT OF WAY.

UTILITY LOCATIONS & EASEMENT WIDTHS

NTS
FIG. W-1

TD-1



* SCRAPE THE BOTTOM OF THE TRENCH. REMOVE ALL STONES TO INSURE THE PIPE DOESN'T REST ON ROCK AND THEN COMPACT THE SOIL OR PROVIDE A 4" BEDDING OF #68 STONE.

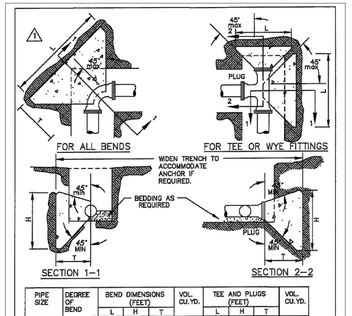
NOTE :

1. NO ROCKS SHALL BE ALLOWED WITHIN 24" OF THE WATER LINES.
2. NO ROCKS LARGER THAN 6" IN ANY DIMENSION SHALL BE ALLOWED ABOVE THE INITIAL BACKFILL.
3. THE INITIAL BACKFILL SHALL BE PLACED AND COMPACTED IN 6" LIFTS.
4. NO ORGANIC OR FROZEN MATERIAL OR DEBRIS SHALL BE ALLOWED IN THE TRENCH.
5. BELL HOLES SHALL BE DUG OUT IN ALL CASES.

DUCTILE IRON WATER PIPE INSTALLATION & BEDDING

NTS
FIG. W-2

TD-2



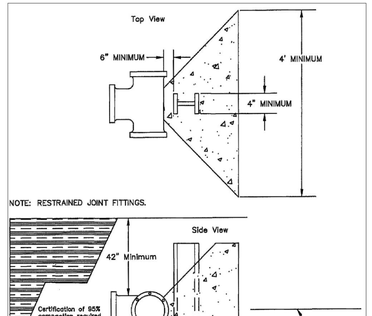
PIPE SIZE	DEGREE OF BEND	BEND DIMENSIONS (FEET) L	H	T	VOL. CU.YD.	TEE AND PLUGS (FEET) L	H	T	VOL. CU.YD.
4" & 6"	90	2.50	2.50	3.01	0.24	2.00	2.25	2.50	0.15
	45	2.00	2.25	2.60	0.15				
	22 1/2	1.50	2.00	2.52	0.10				
	11 1/4	1.50	2.00	2.50	0.10				
8"	90	3.66	3.16	3.21	0.48	3.16	2.91	2.66	0.32
	45	2.66	2.66	2.77	0.26				
	22 1/2	1.66	2.16	2.89	0.13				
	11 1/4	1.66	2.16	2.67	0.13				
10" & 12"	90	4.83	3.83	3.42	0.83	3.83	4.00	2.83	0.52
	45	3.33	3.58	2.93	0.43				
	22 1/2	2.33	2.58	2.86	0.24				
	11 1/4	1.83	2.33	2.84	0.18				

1. THRUST BLOCKS ARE REQUIRED WHENEVER THE PIPELINE : CHANGES DIRECTION, CHANGES SIZE, DEAD ENDS AND AT VALVES.
2. USE 2500 P.S.I. CONCRETE.
3. NO CONCRETE SHALL BE POURED ON ANY PART OF THE JOINT.
4. THE CONSULTING ENGINEER SHALL BE RESPONSIBLE TO THE VERIFY THE TYPE & SIZE OF ALL THRUST BLOCKS.

CONCRETE THRUST BLOCKS

NTS
FIG. W-3

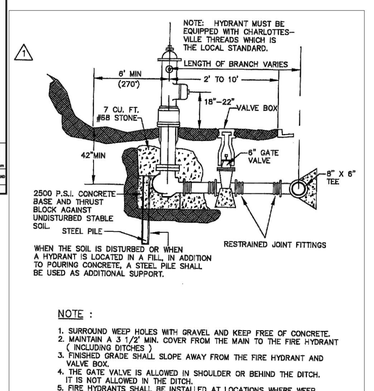
TD-3



TYPICAL THRUST BLOCK IN FILL AREA

NTS
FIG. W-3B

TD-5



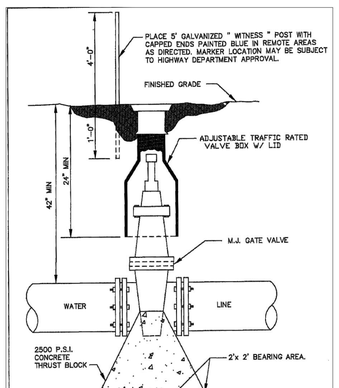
NOTE :

1. SURROUND WEEP HOLES WITH GRAVEL AND KEEP FREE OF CONCRETE.
2. MAINTAIN A 3 1/2" MIN. COVER FROM THE MAIN TO THE FIRE HYDRANT (INCLUDING DITCHES)
3. FINISHED GRADE SHALL SLOPE AWAY FROM THE FIRE HYDRANT AND VALVE BOX.
4. THE GATE VALVE IS ALLOWED IN SHOULDER OR BEHIND THE DITCH. IT IS NOT ALLOWED IN THE DITCH.
5. FIRE HYDRANTS SHALL BE INSTALLED AT LOCATIONS WHERE WEEP HOLES ARE ABOVE THE PREVAILING GROUNDWATER ELEVATION. IF REQUIRED TO BE IN WET AREAS, THE WEEP HOLES SHALL BE PLUGGED AND THE HYDRANT SHALL BE PUMPED DRY.

TYPICAL FIRE HYDRANT ASSEMBLY DETAIL

N.T.S.
FIG. W-4

TD-8

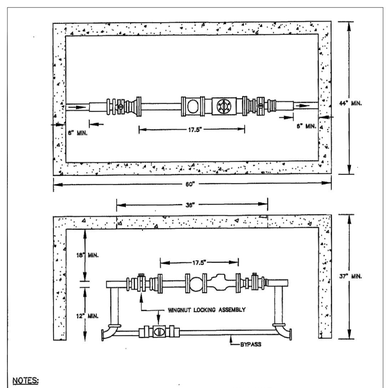


NOTE : IN REMOTE AREAS, VALVE BOXES SHALL EXTEND SIX (6) INCHES ABOVE GRADE.

TYPICAL GATE VALVE

NTS
FIG. W-5

TD-9



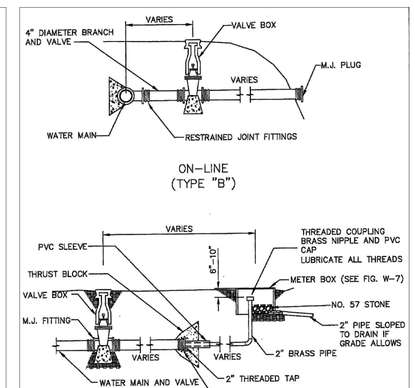
NOTES:

1. PROVIDE A 6" THICK GRAVEL BED BENEATH THE METER VAULT.
2. MINIMUM WALL THICKNESS FOR PRECAST OR POUR-IN-PLACE VAULTS SHALL BE 4". MINIMUM WALL THICKNESS FOR VAULTS CONSTRUCTED OF MASONARY BLOCK SHALL BE 8".
3. THE OUTSIDE OF THE VAULT BELOW GRADE SHALL BE COATED WITH AN APPROVED WATER PROOFING COMPOUND.

TYPICAL METER VAULT (1 1/2" METER)

NTS
FIG. W-7B

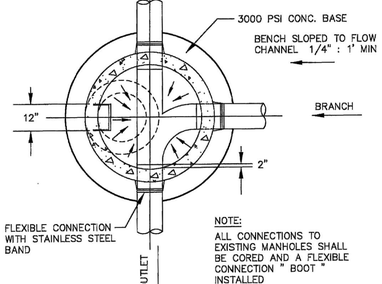
TD-15



TYPICAL BLOW-OFF ASSEMBLY

NTS
FIG. W-8

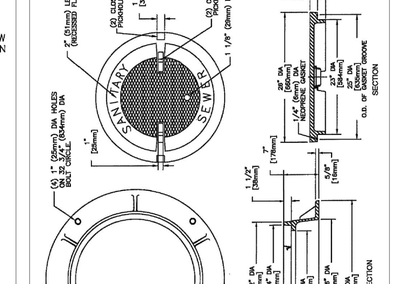
TD-19



TYPICAL MANHOLE PLAN SHOWING BRANCH TIE - IN

NTS
FIG. S-I-B

TD-27



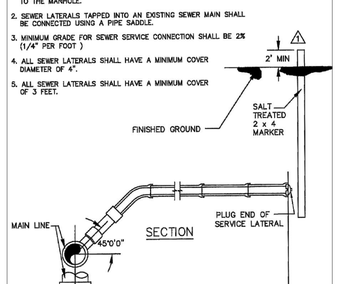
TYPICAL MANHOLE FRAME & COVER

N.T.S
FIG S-I-D

TD-31

SEWER SERVICE LATERAL CONNECTION NOTES:

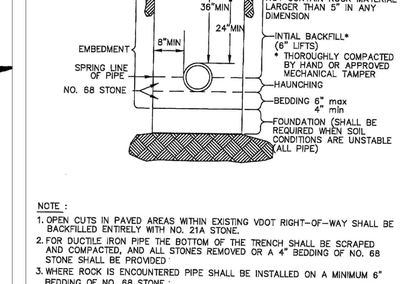
1. WHERE A SEWER SERVICE LATERAL CONNECTS TO A MANHOLE AND NO INVERT ELEVATION FOR THE SERVICE LATERAL IS INDICATED , THE TOP (CROWN) ELEVATION OF THE SERVICE LATERAL PIPE SHALL BE AT LEAST 0.2' HIGHER THAN THE TOP (CROWN) ELEVATION OF THE THE LOWEST PIPE CONNECTED TO THE MANHOLE.
2. SEWER LATERALS TAPPED INTO AN EXISTING SEWER MAIN SHALL BE CONNECTED USING A PIPE SADDLE.
3. MINIMUM GRADE FOR SEWER SERVICE CONNECTION SHALL BE 2% (1/4" PER FOOT)
4. ALL SEWER LATERALS SHALL HAVE A MINIMUM COVER DIAMETER OF 4".
5. ALL SEWER LATERALS SHALL HAVE A MINIMUM COVER OF 3 FEET.



SEWER SERVICE LATERAL CONNECTION

N.T.S.
FIG. S-2

TD-33



NOTE :

1. OPEN CUTS IN PAVED AREAS WITHIN EXISTING VDOT RIGHT-OF-WAY SHALL BE BACKFILLED ENTIRELY WITH NO. 21A STONE.
2. FOR DUCTILE IRON PIPE THE BOTTOM OF THE TRENCH SHALL BE SCRAPED AND COMPACTED, AND ALL STONES REMOVED OR A 4" BEDDING OF NO. 68 STONE SHALL BE PROVIDED.
3. WHERE ROCK IS ENCOUNTERED PIPE SHALL BE INSTALLED ON A MINIMUM 6" BEDDING OF NO. 68 STONE.

TYPICAL SEWER PIPE INSTALLATION IN TRENCH

NTS
FIG. S-3

TD-34

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 0357911
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: NOTES & DETAILS

JOB NO. 232220

SCALE N/A

SHEET NO. 11

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

Structure	Area (Acres)	Cw	t_c (Min.)
8STR	0.11	0.89	5.0
8P	0.20	0.71	5.0
14STR	0.03	0.83	5.0
14P	0.20	0.90	5.0
16STR	0.63	0.69	5.0
16P	0.11	0.90	5.0
20STR	0.09	0.77	5.0
20P	0.13	0.82	5.0
26STR	0.16	0.75	5.0
26P	0.09	0.90	5.0
26BSTR	0.10	0.71	5.0
26BP	0.04	0.90	5.0
30STR	0.10	0.65	5.0
30P	0.18	0.90	5.0
32STR	0.14	0.70	5.0
32P	0.10	0.90	5.0
36STR	0.27	0.59	5.0
36P	0.23	0.74	5.0
38STR	0.20	0.73	5.0
38P	0.85	0.37	12.9
40STR	0.15	0.75	5.0
40P	0.17	0.90	5.0
42STR	0.49	0.67	10.0
42P	0.66	0.51	5.0
46STR	0.26	0.74	5.0
46P	0.13	0.90	5.0
54STR	0.28	0.78	5.0
54P	0.16	0.74	5.0
58STR	0.28	0.64	5.0
58P	0.24	0.73	5.0
60STR	0.54	0.89	5.0
60P	0.97	0.47	20.0
70STR	0.22	0.51	5.0
70P	0.27	0.90	5.0
132STR	0.35	0.76	5.0
132P	0.91	0.73	5.0

Structure	Area (Acres)	Cw	t_c (Min.)
2	0.00	0.90	5.0
4	0.00	0.90	5.0
6	0.26	0.88	5.0
8	0.31	0.78	5.0
8B	0.00	0.90	5.0
10	0.00	0.90	5.0
12	0.00	0.90	5.0
14	0.23	0.89	5.0
16	0.74	0.72	5.0
16B	0.25	0.65	5.0
18	0.06	0.74	5.0
20	0.21	0.80	5.0
22	0.00	0.90	5.0
24	0.00	0.90	5.0
26	0.25	0.81	5.0
26B	0.15	0.77	5.0
28	0.23	0.66	5.0
30	0.29	0.81	5.0
32	0.24	0.78	5.0
32B	0.16	0.64	5.0
32D	0.42	0.69	5.0
34	0.05	0.72	5.0
36	0.50	0.74	5.0
38	1.06	0.44	12.9
38B	0.09	0.73	5.0
40	0.32	0.83	5.0
42	1.15	0.58	10.0
44	0.20	0.63	5.0
46	0.39	0.79	5.0
48	0.17	0.62	5.0
50	0.59	0.45	17.0
52	0.16	0.74	5.0
54	0.44	0.77	5.0
56	0.18	0.78	5.0
58	0.52	0.68	5.0
124	0.21	0.68	5.0
126	0.14	0.77	5.0
128	1.18	0.79	5.0
130	0.17	0.75	5.0
132	1.26	0.74	5.0
52B	0.29	0.51	5.0
46B	0.13	0.90	0.5
BASIN 1	0.00	0.90	0.5

Structure	Area (Acres)	Cw	t_c (Min.)
60	1.51	0.61	20.0
62	0.19	0.87	5.0
64	0.08	0.61	5.0
66	0.02	0.75	5.0
68	0.22	0.67	5.0
70	0.49	0.72	5.0
72	0.40	0.59	5.0
74	0.36	0.66	5.0
76	0.21	0.77	5.0
78	0.13	0.77	5.0
80	0.20	0.68	5.0
84	0.00	0.90	5.0
86	0.00	0.90	5.0
88	0.00	0.90	5.0
90	0.00	0.90	5.0
UGD 2	0.00	0.90	5.0
92	0.24	0.69	5.0
94	0.00	0.90	5.0
96	0.00	0.90	5.0
98	0.06	0.74	5.0
100	0.15	0.74	5.0
102	0.04	0.61	5.0
103B	0.00	0.90	5.0
104	0.00	0.90	5.0
106	0.00	0.90	5.0
108	0.00	0.90	5.0
110	0.01	0.90	5.0
110B	0.10	0.88	5.0
112	0.09	0.81	5.0
112B	0.09	0.74	5.0
114	0.12	0.77	5.0
114B	0.11	0.81	5.0
116	0.00	0.90	5.0
118	0.00	0.90	5.0
120	0.00	0.90	5.0
122	0.00	0.90	5.0
136	0.00	0.90	5.0
138	0.19	0.55	5.0
140	0.02	0.69	5.0
142	0.05	0.81	5.0
142B	0.65	0.68	5.0
BASIN 3			
115A	0.00	0.90	5.0
116	0.00	0.90	5.0
118	0.60	0.48	5.0
120	0.70	0.28	14.0
120B	14.87	0.29	22.7
120D	4.54	0.57	14.0
176	0.00	0.90	5.0
BYPASS IN	20.71	0.35	22.7

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: DRAINAGE MAP

JOB NO. 232220
SCALE 1" = 40'
SHEET NO. 12

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, including, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

Archer Avenue 66-in. Culvert Analysis

	Area (ac.)	Cw	Tc (min.)
DA 1A & 1B	20.71	0.35	22.7
DA 1D & 1E	114.56	0.27	42.5
DA 1A, 1B, 1D, 1E	135.27	0.29	42.5

I Values	I10	I25
	2.7	3.1

Outflows	Q10 (cfs)	Q25 (cfs)
DA 1C (Routed)	34.21	71.35
DA 1F (Routed)	2.82	11.01
DA 1A, 1B, 1D, 1E	105.92	121.61
Total Outflows	Q10 (cfs)	Q25 (cfs)
	142.95	**203.97**

Route 29 Overflow 36-in. Culvert (STR177) Analysis

	Area (ac.)	Cw	Tc (min.)
DA 1A & 1B	20.71	0.35	22.7

I Values	I10	I25
	3.8	4.3

Total Outflows	Q10 (cfs)	Q25 (cfs)
DA 1A & 1B	**27.54**	**31.17**

Viola Drive 66-in. Culvert Analysis

	Area (ac.)	Cw	Tc (min.)
DA 2A	65.35	0.45	20
DA 2B	2.96	0.72	5

I Values	I10	I25
	4	4.5

Outflows	Q10 (cfs)	Q25 (cfs)
DA 2B (Routed)	5.16	15.98
DA 2A	117.63	132.33
Total Outflows	Q10 (cfs)	Q25 (cfs)
	122.79	**148.32**

DA 1A=14.87 ac
DRAINS TO PIPE 177
(OVERFLOW CULVERT)
& STREAM

DA 1B=5.84 ac
DRAINS TO PIPE 177,
(OVERFLOW CULVERT)
& STREAM

DA 2A=65.35 ac
DRAINS TO STREAM &
LEYDEN DRIVE CULVERT

STRUCTURE 120D AND 120B
CONNECT ROUTE 29 CULVERTS
TO DRAINAGE SYSTEM AND
CONVEY TO THE STREAM

CULVERT STR 177 - 36" RCP PROVIDES
OVERFLOW BYPASS UNDER
ARCHER AVENUE FOR ROUTE 29
DRAINAGE AND CONVEYS
TO STREAM

DA 1D=100.04 ac
DRAINS TO STREAM &
ARCHER AVE CULVERT

WET
POND
#1

DA 1C=16.45 ac
ROUTED FLOW FROM
WET POND #1, TO
STREAM & CULVERT

DA 2B=2.96 ac
ROUTED FLOW FROM
UGD #4, TO VIOLA
DRIVE CULVERT

VIOLA DRIVE
66" RCP CULVERT

UGD #2
BYPASS TO
STREAM

ARCHER AVENUE
66" RCP CULVERT

EXISTING STREAM

EXISTING STREAM

DA 1E=14.52 ac
DRAINS TO STREAM &
CULVERT

DA 1F=2.96 ac
DETENTION POND #3,
ROUTED FLOW TO
STREAM & CULVERT

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch = 40 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

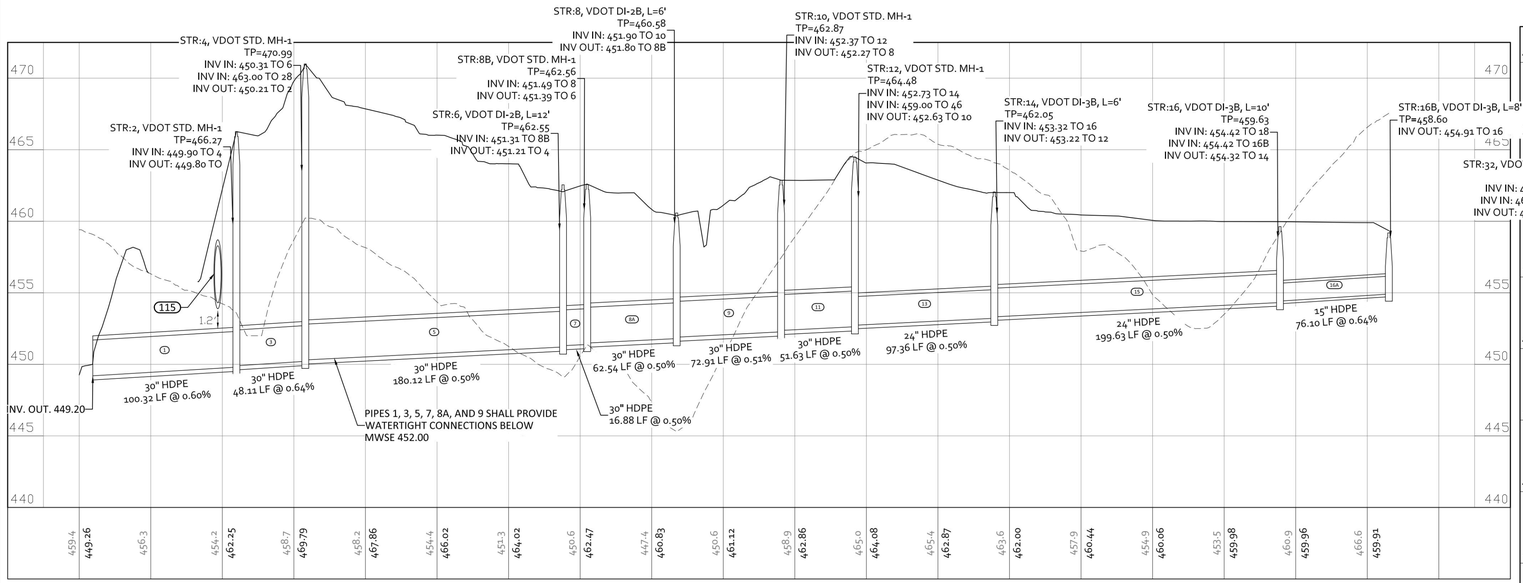
COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

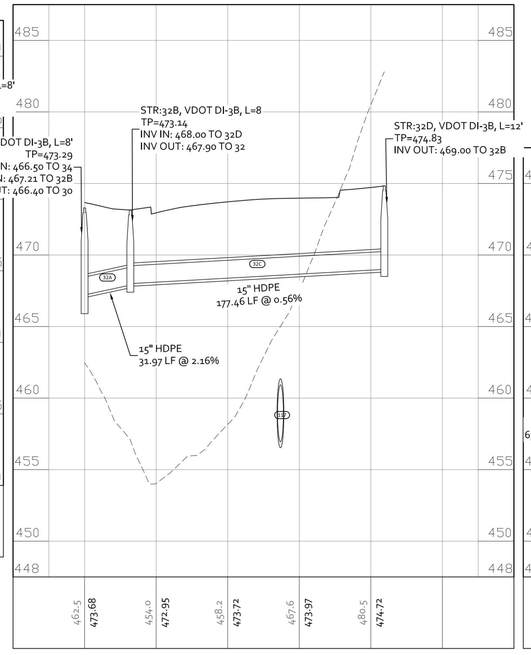
SHEET TITLE
CULVERT DRAINAGE MAP

JOB NO. 232220
SCALE 1" = 150'
SHEET NO. 13

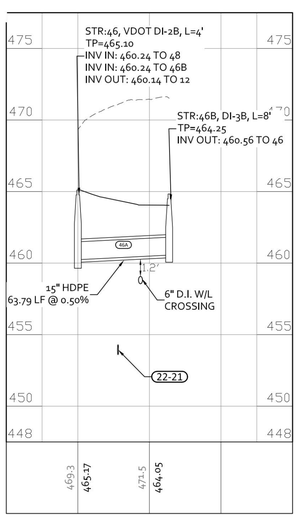
These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



STR 16B - WET POND #1



STR 32D - STR 32



STR 46B - STR 46

VERTICAL GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

NOTES:
1. CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, CONFORMING TO SECTIONS 205, 208 OR 249 RESPECTIVELY, OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26, PER VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 302.03(a)2c "BACKFILLING".
2. ALL FILL TO BE PLACED AT 95% COMPACTION.
3. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER W/L.
4. MINIMUM OF 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L AND 1.5' OF SEPARATION BETWEEN W/L & SANITARY SEWER MUST BE PROVIDED.
5. ALL DRAINAGE STRUCTURES SHALL BE PROVIDED INLET SHAPING IN ACCORDANCE WITH VDOT STANDARD IS-1.
6. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 4' OR GREATER SHALL HAVE STEPS IN ACCORDANCE WITH STANDARD ST-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
7. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 12' OR GREATER SHALL HAVE SAFETY SLABS IN ACCORDANCE WITH STANDARD SL-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
8. ALL STEP DOWN DRAINAGE STRUCTURES WITH VERTICAL DIFFERENCE BETWEEN THE INVERTS OF THE INLET PIPE AND THE OUTLET PIPE IN EXCESS OF 4' MAY BE PROVIDED A ¾" STEEL PLATE IN THE BOTTOM OF THE MANHOLE, OR AN ADDITIONAL 6" OF CONCRETE AT THE BOTTOM OF THE STRUCTURE TO PROTECT THE MANHOLE, ESPECIALLY WHERE FLOW IS EXPECTED TO CARRY ANY ABRASIVE MATERIAL, CONTINUOUS LIVE FLOW OR LIVE FLOW LASTING SEVERAL DAYS IS EXPECTED, OR THE SIZE OF PIPES IS 48" OR GREATER.
9. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATION 303.04(h)

STR 44 - STR 4

STR 54 - STR 12

ROUTE 29 DRAINAGE OVERFLOW

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

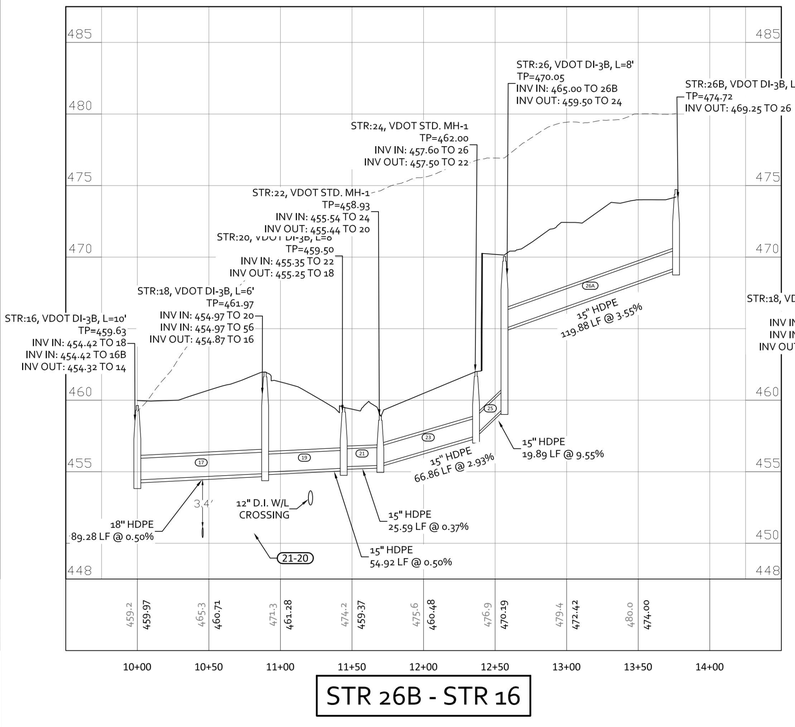
SHEET TITLE
DRAINAGE PROFILES

JOB NO. 232220

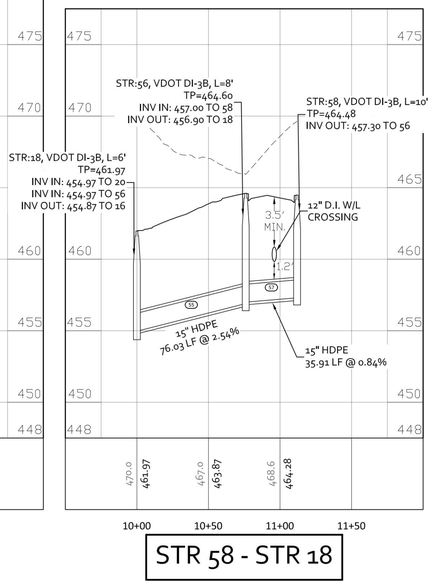
SCALE
V: 1" = 5'
H: 1" = 50'

SHEET NO. 14

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

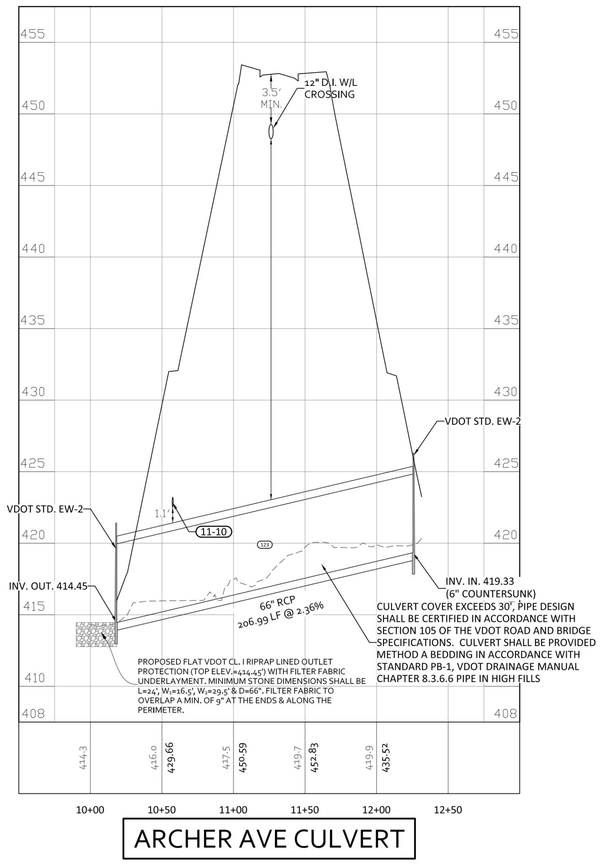


STR 26B - STR 16



STR 58 - STR 18

NOTES:
1. CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, CONFORMING TO SECTIONS 205, 208 OR 249 RESPECTIVELY, OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26, PER VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 302.03(a)2d "BACKFILLING".
2. ALL FILL TO BE PLACED AT 95% COMPACTION.
3. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER W/L.
4. MINIMUM OF 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L AND 1.5' OF SEPARATION BETWEEN W/L & SANITARY SEWER MUST BE PROVIDED.
5. ALL DRAINAGE STRUCTURES SHALL BE PROVIDED INLET SHAPING IN ACCORDANCE WITH VDOT STANDARD IS-1.
6. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 4' OR GREATER SHALL HAVE STEPS IN ACCORDANCE WITH STANDARD ST-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
7. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 12' OR GREATER SHALL HAVE SAFETY SLABS IN ACCORDANCE WITH STANDARD SL-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
8. ALL STEP DOWN DRAINAGE STRUCTURES WITH VERTICAL DIFFERENCE BETWEEN THE INVERTS OF THE INLET PIPE AND THE OUTLET PIPE IN EXCESS OF 4' MAY BE PROVIDED A 8" STEEL PLATE IN THE BOTTOM OF THE MANHOLE, OR AN ADDITIONAL 6" OF CONCRETE AT THE BOTTOM OF THE STRUCTURE TO PROTECT THE MANHOLE, ESPECIALLY WHERE FLOW IS EXPECTED TO CARRY ANY ABRASIVE MATERIAL, CONTINUOUS LIVE FLOW OR LIVE FLOW LASTING SEVERAL DAYS IS EXPECTED, OR THE SIZE OF PIPES IS 48" OR GREATER.
9. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATION 303.04(h)



ARCHER AVE CULVERT

VERTICAL GRAPHIC SCALE

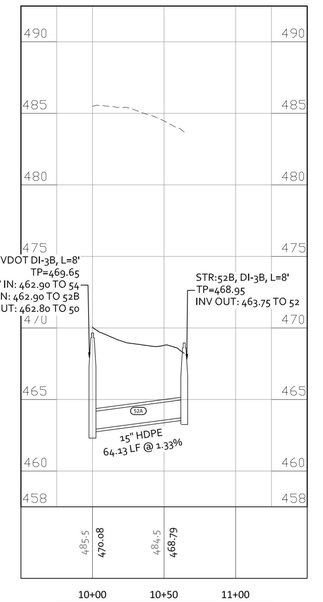
5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

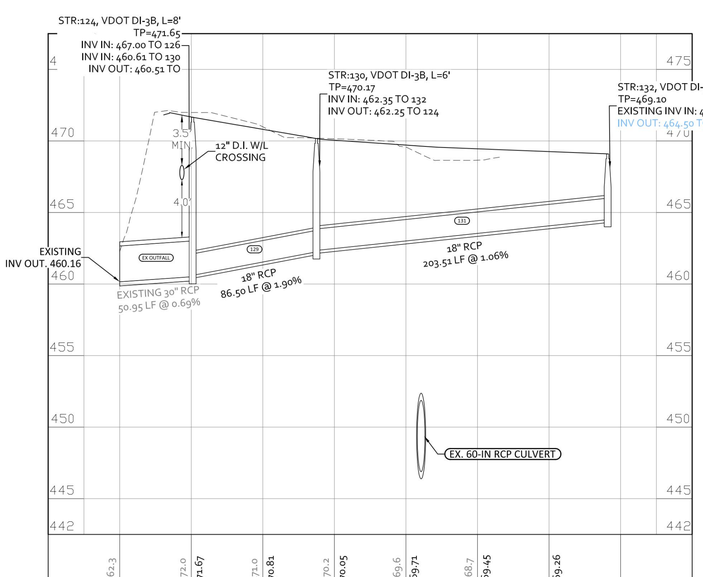
HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

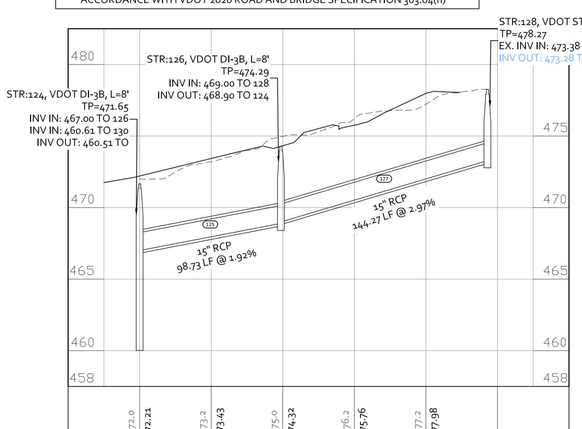
(IN FEET)
1 inch = 50 ft.



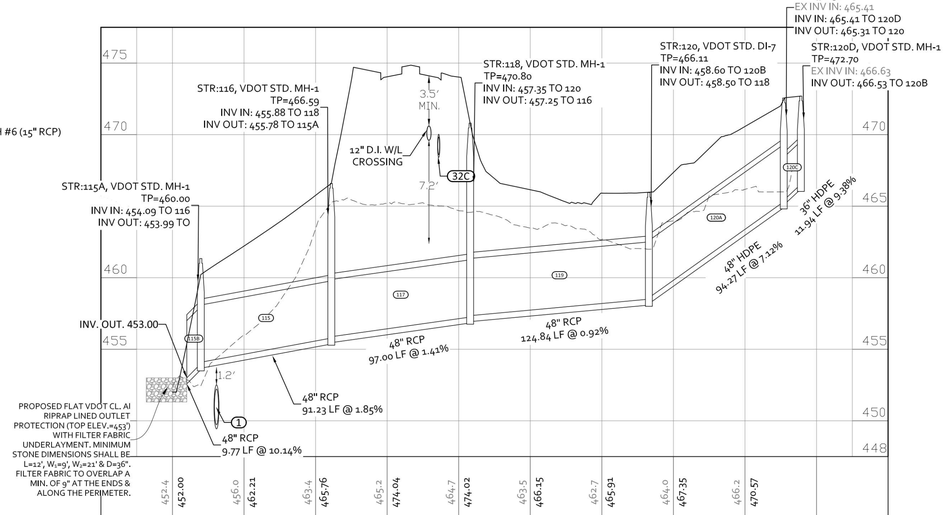
STR 52B - STR 52



STR 132 - EX CULVERT



STR 128 - STR 124



ROUTE 29 DRAINAGE BYPASS

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

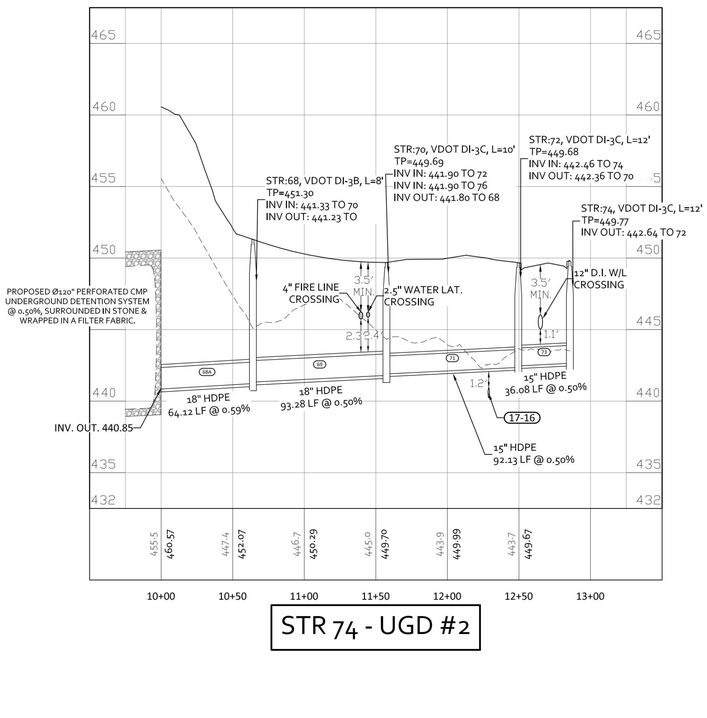
SHEET TITLE
DRAINAGE PROFILES

JOB NO.
232220

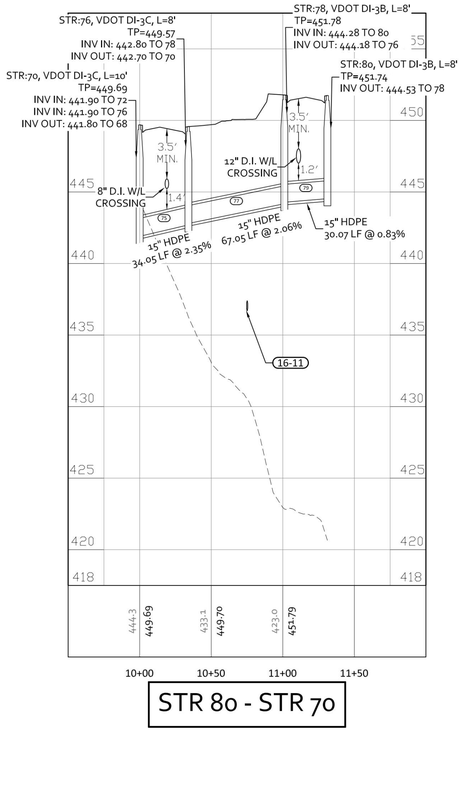
SCALE
V: 1" = 5'
H: 1" = 50'

SHEET NO.
15

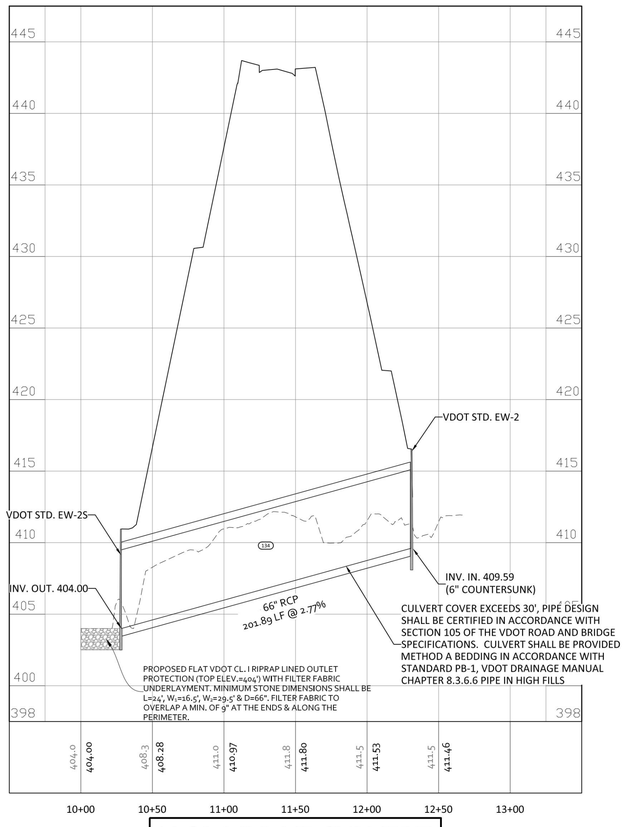
These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



STR 74 - UGD #2

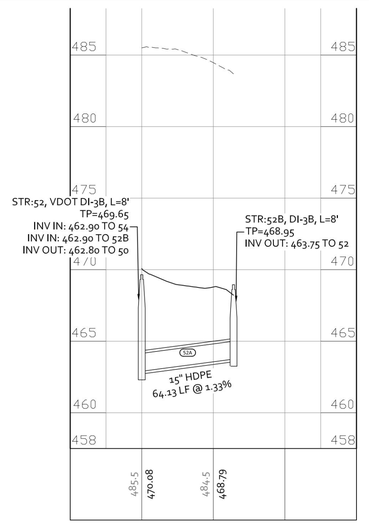


STR 80 - STR 70

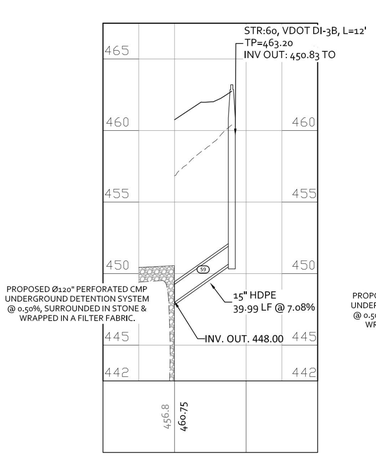


VIOLA DRIVE CULVERT

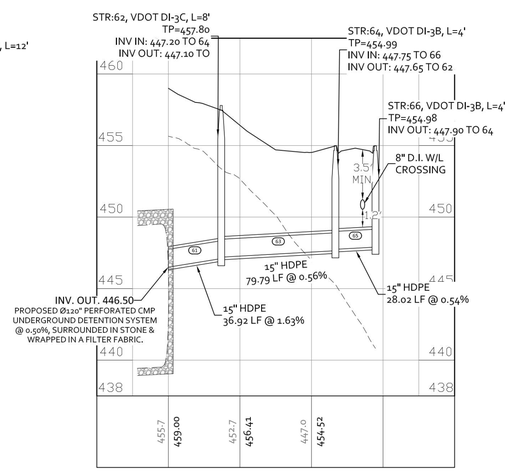
NOTES:
1. CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, CONFORMING TO SECTIONS 205, 208 OR 249 RESPECTIVELY, OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26, PER VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 302.03(a)2G "BACKFILLING".
2. ALL FILL TO BE PLACED AT 95% COMPACTION.
3. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER W/L.
4. MINIMUM OF 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L AND 1.5' OF SEPARATION BETWEEN W/L & SANITARY SEWER MUST BE PROVIDED.
5. ALL DRAINAGE STRUCTURES SHALL BE PROVIDED INLET SHAPING IN ACCORDANCE WITH VDOT STANDARD IS-1.
6. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 4' OR GREATER SHALL HAVE STEPS IN ACCORDANCE WITH STANDARD ST-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
7. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 12' OR GREATER SHALL HAVE SAFETY SLABS IN ACCORDANCE WITH STANDARD SL-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
8. ALL STEP DOWN DRAINAGE STRUCTURES WITH VERTICAL DIFFERENCE BETWEEN THE INVERTS OF THE INLET PIPE AND THE OUTLET PIPE IN EXCESS OF 4' MAY BE PROVIDED A ¾" STEEL PLATE IN THE BOTTOM OF THE MANHOLE, OR AN ADDITIONAL 6" OF CONCRETE AT THE BOTTOM OF THE STRUCTURE TO PROTECT THE MANHOLE, ESPECIALLY WHERE FLOW IS EXPECTED TO CARRY ANY ABRASIVE MATERIAL, CONTINUOUS LIVE FLOW OR LIVE FLOW LASTING SEVERAL DAYS IS EXPECTED, OR THE SIZE OF PIPES IS 48" OR GREATER.
9. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATION 303.04(h)



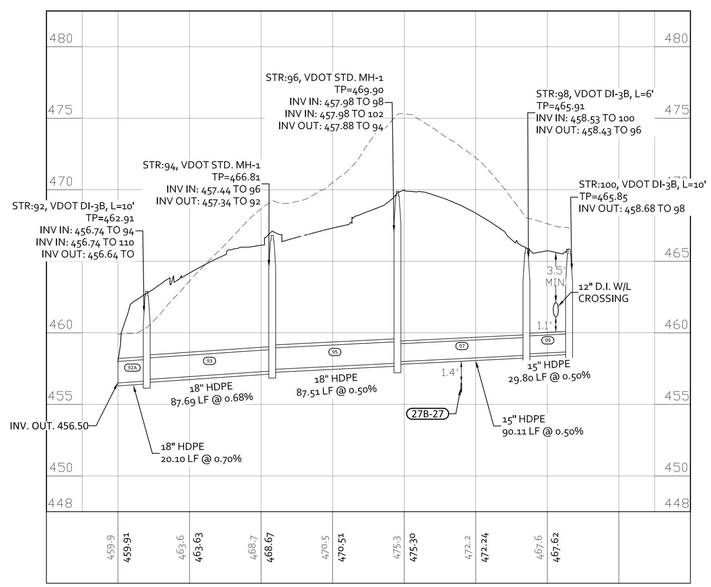
STR 52B - STR 52



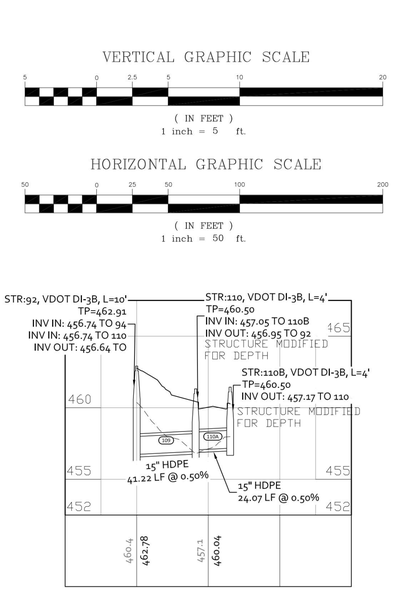
STR 60 - UGD #2



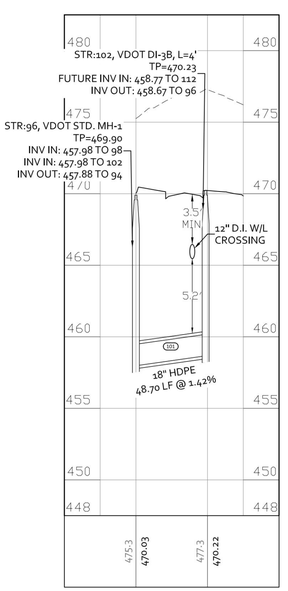
STR 66 - UGD #2



STR 100 - DETENTION BASIN #3



STR 110B - STR 92



STR 102 - STR 96

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
DRAINAGE PROFILES

JOB NO.
232220

SCALE
V: 1" = 5'
H: 1" = 50'

SHEET NO.
16

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

Table 8: Pipe Design Table

PIPE DESIGN

n = 0.013

Pipe		Hydrology								Pipe								
Starting Structure	Ending Structure	A, Drainage area (acres)	C, rational coeff.	CA incisement	CA sum accumulated	Tc, time of conc. (min)	I, rainfall Intesity	Q, flow incr. (cfs)	Qt, total flow	Invert in (ft)	Invert out (ft)	L, throat length (ft)	n, manning's coeff.	S, slope	D, Diameter (in)	Full Flow Capacity (cfs)	V, Velocity (fps)	Flow Time (min)	Remarks
Pipe run: STR 16B - WET POND #1																			
16B	16	0.25	0.65	0.164	0.164	5.00	6.67	1.09	1.09	454.91	454.42	76.1	0.013	0.0064	15	5.62	3.49	0.36	
16	14	0.74	0.72	0.532	1.717	6.17	6.30	3.35	10.82	454.32	453.32	199.6	0.013	0.0050	24	17.35	5.82	0.57	
14	12	0.23	0.89	0.208	1.925	6.74	6.14	1.28	11.82	453.22	452.73	97.4	0.013	0.0050	24	17.39	5.94	0.27	
12	10	0.00	0.90	0.000	3.326	17.92	4.19	0.00	13.92	452.63	452.37	51.6	0.013	0.0050	30	31.53	6.19	0.14	
10	8	0.00	0.90	0.000	3.326	18.06	4.17	0.00	13.92	452.27	451.90	72.9	0.013	0.0051	30	31.65	6.22	0.20	
8	8B	0.31	0.78	0.243	3.569	18.26	4.15	1.01	14.81	451.80	451.49	62.5	0.013	0.0050	30	31.28	6.26	0.17	
8B	6	0.00	0.90	0.000	3.569	18.42	4.13	0.00	14.81	451.39	451.31	16.9	0.013	0.0047	30	30.59	6.18	0.05	
6	4	0.26	0.88	0.230	3.799	18.47	4.13	0.95	15.68	451.21	450.31	180.1	0.013	0.0050	30	31.41	6.34	0.47	
4	2	0.00	0.90	0.000	6.753	18.94	4.08	0.00	27.52	450.21	449.90	48.1	0.013	0.0064	30	35.67	7.99	0.10	
2	BASIN 1	0.00	0.90	0.000	6.753	19.04	4.07	0.00	27.52	449.80	449.20	100.3	0.013	0.0060	30	34.36	7.76	0.22	
Pipe run: STR 44 - STR 4																			
44	42	0.20	0.63	0.126	0.126	5.00	6.67	0.84	0.84	483.42	483.00	69.2	0.013	0.0061	15	5.45	3.18	0.36	
42	40	1.15	0.58	0.665	0.791	10.00	5.37	3.57	4.25	482.90	478.00	99.0	0.013	0.0495	15	15.57	10.69	0.15	
40	38	0.32	0.83	0.261	1.053	10.15	5.34	1.40	5.62	477.90	472.39	64.1	0.013	0.0859	15	20.51	14.09	0.08	
38	38B	1.06	0.44	0.465	1.518	12.90	4.85	2.26	7.37	472.29	470.14	48.9	0.013	0.0440	15	14.67	11.96	0.07	
38B	36	0.09	0.73	0.067	1.585	12.97	4.84	0.33	7.68	470.04	468.71	63.3	0.013	0.0210	15	10.14	9.08	0.12	
36	34	0.50	0.74	0.365	1.951	13.08	4.82	1.76	9.41	468.61	467.50	46.0	0.013	0.0241	15	10.87	9.95	0.08	
34	32	0.05	0.72	0.036	1.987	13.16	4.81	0.17	9.56	467.40	466.50	45.8	0.013	0.0196	15	9.81	9.11	0.08	
32	30	0.24	0.78	0.185	2.567	13.25	4.80	0.89	12.32	466.40	465.00	39.5	0.013	0.0355	15	13.18	12.20	0.05	
30	28	0.29	0.81	0.233	2.800	13.30	4.79	1.12	13.41	464.90	463.75	58.5	0.013	0.0197	18	15.96	10.11	0.10	
28	4	0.23	0.66	0.154	2.953	13.40	4.78	0.73	14.11	463.65	463.00	24.8	0.013	0.0262	18	18.43	11.47	0.04	
Pipe run: STR 54 - STR 12																			
54	52	0.44	0.77	0.339	0.339	5.00	6.67	2.26	2.26	467.00	462.90	96.7	0.013	0.0424	15	14.41	8.42	0.19	
52	50	0.16	0.74	0.122	0.607	5.24	6.59	0.80	4.00	462.80	461.61	41.7	0.013	0.0286	15	11.82	8.69	0.08	
50	48	0.59	0.45	0.263	0.870	17.00	4.29	1.13	4.00	461.51	461.25	52.4	0.013	0.0050	15	4.93	4.47	0.20	
48	46	0.17	0.62	0.103	0.973	17.20	4.27	0.44	4.15	461.15	460.24	182.6	0.013	0.0050	15	4.94	4.51	0.68	
46	12	0.39	0.79	0.312	1.402	17.87	4.19	1.31	5.88	460.14	459.00	32.9	0.013	0.0347	15	13.03	10.34	0.05	
Pipe run: STR 26B - STR 16																			
26B	26	0.15	0.77	0.112	0.112	5.00	6.67	0.75	0.75	469.25	465.00	119.9	0.013	0.0355	15	13.18	5.77	0.35	
26	24	0.25	0.81	0.199	0.311	5.35	6.56	1.30	2.04	459.50	457.60	19.9	0.013	0.0955	15	21.63	10.84	0.03	
24	22	0.00	0.90	0.000	0.311	5.38	6.55	0.00	2.04	457.50	455.54	66.9	0.013	0.0293	15	11.98	7.15	0.16	
22	20	0.00	0.90	0.000	0.311	5.53	6.50	0.00	2.04	455.44	455.35	25.6	0.013	0.0035	15	4.15	3.35	0.13	
20	18	0.21	0.80	0.169	0.481	5.66	6.46	1.09	3.10	455.25	454.97	54.9	0.013	0.0051	15	5.00	4.29	0.21	
18	16	0.06	0.74	0.043	1.021	5.87	6.39	0.28	6.52	454.87	454.42	89.3	0.013	0.0050	18	8.08	5.09	0.29	
Pipe run: STR 58 - STR 18																			
58	56	0.52	0.68	0.354	0.354	5.00	6.67	2.36	2.36	457.30	457.00	35.9	0.013	0.0084	15	6.40	4.82	0.12	
56	18	0.18	0.78	0.143	0.497	5.12	6.63	0.95	3.29	456.90	454.97	76.0	0.013	0.0254	15	11.15	7.88	0.16	
Pipe run: STR 32D - STR 32																			
32D	32B	0.42	0.69	0.291	0.291	5.00	6.67	1.94	1.94	469.00	468.00	177.5	0.013	0.0056	15	5.25	3.95	0.75	
32B	32	0.16	0.64	0.104	0.395	5.75	6.43	0.67	2.54	467.90	467.21	32.0	0.013	0.0216	15	10.28	6.85	0.08	
Pipe run: STR 132 - WET POND #1																			
132	130	1.26	0.74	0.926	0.926	5.00	6.67	6.17	6.17	464.50	462.35	203.5	0.013	0.0106	18	10.80	6.30	0.54	
130	124	0.17	0.75	0.127	1.053	5.54	6.50	0.83	6.84	462.25	460.61	86.5	0.013	0.0190	18	14.46	8.04	0.18	
124	BASIN 1	0.21	0.68	0.141	2.239	5.72	6.44	0.91	14.41	460.51	460.16	51.0	0.013	0.0069	30	34.00	6.61	0.13	
Pipe run: STR 128 - STR 124																			
128	126	1.18	0.79	0.936	0.936	5.00	6.67	6.24	6.24	473.28	469.00	144.3	0.013	0.0297	15	11.13	9.29	0.26	
126	124	0.14	0.77	0.109	1.045	5.26	6.58	0.72	6.88	468.90	467.00	98.7	0.013	0.0192	15	8.96	8.03	0.20	
Pipe run: STR 74 - UGD #2																			
74	72	0.36	0.66	0.235	0.235	5.00	6.67	1.57	1.57	442.64	442.46	36.1	0.013	0.0050	15	4.94	3.54	0.17	
72	70	0.40	0.59	0.234	0.469	5.17	6.61	1.55	3.10	442.36	441.90	92.1	0.013	0.0050	15	4.94	4.24	0.36	
70	68	0.49	0.72	0.354	1.217	5.53	6.50	2.30	7.91	441.80	441.33	93.3	0.013	0.0050	18	8.08	5.21	0.30	
68	UGD 2	0.22	0.67	0.148	1.365	5.83	6.40	0.95	8.74	441.23	440.85	64.1	0.013	0.0059	18	8.76	5.65	0.19	
Pipe run: STR 80 - STR 70																			
80	78	0.20	0.68	0.136	0.136	5.00	6.67	0.90	0.90	444.53	444.28	30.1	0.013	0.0083	15	6.38	3.64	0.14	
78	76	0.13	0.77	0.099	0.235	5.14	6.62	0.66	1.56	444.18	442.80	67.1	0.013	0.0206	15	10.04	5.86	0.19	
76	70	0.21	0.77	0.159	0.394	5.33	6.56	1.04	2.59	442.70	441.90	34.1	0.013	0.0235	15	10.73	7.14	0.08	
Pipe run: STR 60 - UGD #2																			
60	UGD 2	1.51	0.61	0.920	0.920	20.00	3.97	3.65	3.65	450.83	448.00	40.0	0.013	0.0708	15	18.62	11.77	0.06	
Pipe run: STR 66 - UGD #2																			
66	64	0.02	0.75	0.012	0.012	5.00	6.67	0.08	0.08	447.90	447.75	28.0	0.013	0.0054	15	5.12	1.45	0.32	
64	62	0.08	0.61	0.048	0.060	5.32	6.56	0.31	0.39	447.65	447.20	79.8	0.013	0.0056	15	5.26	2.47	0.54	
62	UGD 2	0.19	0.87	0.162	0.222	5.86	6.39	1.04	1.42	447.10	446.50	36.9	0.013	0.0163	15	8.92	5.21	0.12	
Pipe run: STR 100 - DETENTION BASIN #3																			
100	98	0.15	0.74	0.110	0.110	5.00	6.67	0.74	0.74	458.68	458.53	29.8	0.013	0.0050	15	4.96	2.90	0.17	
98	96	0.06	0.74	0.044	0.154	5.17	6.61	0.29	1.02	458.43	457.98	90.1	0.013	0.0050	15	4.95	3.13	0.48	
96	94	0.00	0.90	0.000	1.103	6.56	6.19	0.00	6.83	457.88	457.44	87.5	0.013	0.0050	18	8.07	5.11	0.29	
94	92	0.00	0.90	0.000	1.103	6.84	6.11	0.00	6.83	457.34	456.74	87.7	0.013	0.0068	18	9.41	5.80	0.25	
92	BASIN 3	0.24	0.69	0.163	1.366	7.10	6.04	0.99	8.25	456.64	456.50	20.1	0.013	0.0070	18	9.50	6.05	0.06	
Pipe run: STR 110B - STR 92																			
110B	110	0.10	0.88	0.087	0.087	5.00	6.67	0.58	0.58	457.17	457.05	24.1	0.013	0.0050	15	4.94	2.69	0.15	
110	92	0.01	0.90	0.013	0.100	5.15	6.62	0.09	0.66	456.95	456.74	41.2	0.013	0.0051	15	5.00	2.79	0.25	
Pipe run: STR 102 - STR 96																			
102	96	0.04	0.61	0.027	0.949	6.45	6.22	0.17	5.90	458.67	457.98	48.7	0.013	0.0142	18	13.55	7.39	0.11	
Pipe run: ROUTE 29 BYPASS DRAINAGE PIPE 121 - STREAM																			
120D	120B	4.54	0.57	2.580	2.580	14.00	4.69	12.09	12.09	466.53	465.41	11.9	0.013	0.0938	36	204.28	15.54	0.01	
120B	120	14.87	0.29	4.256	6.835	22.70	3.72	15.85	25.45	465.31	458.60	94.3	0.013	0.0712	48	383.23	17.01	0.09	
120	118	0.00	0.90	0.000	6.835	22.79	3.72	0.00	25.45	458.50	457.35	124.8	0.013	0.0092	48	137.87	8.36	0.25	
118	116	0.00	0.90	0.000	6.835	23.04	3.69	0.00	25.45	457.25	455.88	97.0	0.013	0.0141	48	170.71	9.73	0.17	
116	115A	0.00	0.90	0.000	6.835	23.21	3.68	0.00	25.45	455.78	454.09	91.2	0.013	0.0185	48	195.51	10.65	0.14	
115A	OUT	0.00	0.90	0.000	6.835	23.35	3.67	0.00	25.45	453.99	453.00	9.8	0.013	0.1013	48	457.25	19.56	0.01	
Pipe run: STR 52B - 52																			
52B	52	0.29	0.51	0.146	0.146	5.00	6.67	0.98	0.98	463.75	462.90	64.1	0.013	0.0133	15	8.06	4.38	0.24	
Pipe run: STR 46B - 46																			
46B	46	0.13	0.90	0.116	0.116	5.00	6.67	0.77	0.77	460.56	460.25	63.8	0.013	0.0049	15	4.88	2.85	0.37	
Pipe run: BYPASS-OUT																			
BYPASS IN	176	20.71	0.35	7.249	7.249	22.70	3.72	26.99	26.99	463.25	456.93	112.1	0.013	0.0564	36	158.39	16.40	0.11	
176	OUT	0.00	0.90	0.000	7.249	22.81	3.71	0.00	26.99	456.83	455.50	94.8	0.013	0.0140	36	78.99	10.08	0.16	

DRAINAGE DESCRIPTIONS

STR. NO.	PIPE INFORMATION						INLET INFORMATION			
	DIA. (in.)	LENGTH* (ft.)	SLOPE (%)	INVERT IN	INVERT OUT	MATERIAL	INLET TYPE	Curb Type	SLOT LENGTH	RIM ELEVATION
16B							DI-3B	CG-2	8	458.60
16A	15	76.10	0.64%	454.91	454.42	HDPE				
16							DI-3B	CG-2	10	459.63
15	24	199.63	0.50%	454.32	453.32	HDPE				
14							DI-3B	CG-2	6	462.05
13	24	97.36	0.50%	453.22	452.73	HDPE				
12							MH-1	-	-	464.48
11	30	51.63	0.50%	452.63	452.37	HDPE				
10							MH-1	-	-	462.87
9	30	72.91	0.51%	452.27	451.90	HDPE				
8							DI-2B	CG-2	6	460.58
8A	30	62.54	0.50%	451.80	451.49	HDPE				
8B							MH-1	-	-	462.56
7	30	16.88	0.47%	451.39	451.31	HDPE				
6							DI-2B	CG-2	12	462.55
5	30	180.12	0.50%	451.21	450.31	HDPE				
4							MH-1	-	-	470.99
3	30	48.11	0.64%	450.21	449.90	HDPE				
2							MH-1	-	-	466.27
1	30	100.32	0.60%	449.80	449.20	HDPE				
44							DI-3C	CG-2	10	489.24
43	15	69.23	0.61%	483.42	483.00	HDPE				
42							DI-3B	CG-2	14	488.00
41	15	99.03	4.95%	482.90	478.00	HDPE				
40							DI-3B	CG-2	8	483.50
39	15	64.12	8.59%	477.90	472.39	HDPE				
38							DI-3B	CG-2	8	480.01
38A	15	48.91	4.40%	472.29	470.14	HDPE				
38B							DI-2B	CG-2	8	478.28
37	15	63.33	2.10%	470.04	468.71	HDPE				
36							DI-2B	CG-2	8	476.50
35	15	46.01	2.41%	468.61	467.50	HDPE				
34							DI-2B	CG-2	4	475.25
33	15	45.81	1.96%	467.40	466.50	HDPE				
32							DI-3B	CG-2	8	473.29
31	15	39.46	3.55%	466.40	465.00	HDPE				
30							DI-3B	CG-2	6	472.80
29	18	58.45	1.97%	464.90	463.75	HDPE				
28							DI-3B	CG-6	8	472.34
27	18	24.78	2.62%	463.65	463.00	HDPE				
54							DI-3B	CG-2	12	472.10
53	15	96.66	4.24%	467.00	462.90	HDPE				
52							DI-3B	CG-2	8	469.65
51	15	41.68	2.86%	462.80	461.61	HDPE				
50							DI-3B	CG-6	12	469.20
49	15	52.44	0.50%	461.51	461.25	HDPE				
48							DI-3B	CG-6	8	467.94
47	15	182.62	0.50%	461.15	460.24	HDPE				
46							DI-2B	CG-2	4	465.10
45	15	32.87	3.47%	460.14	459.00	HDPE				
26B							DI-3B	CG-2	8	474.72
26A	15	119.88	3.55%	469.25	465.00	HDPE				
26							DI-3B	CG-2	8	470.05
25	15	19.89	9.55%	459.50	457.60	HDPE				
24							MH-1	-	-	462.00
23	15	66.86	2.93%	457.50	455.54	HDPE				
22							MH-1	-	-	458.93
21	15	25.59	0.35%	455.44	455.35	HDPE				
20							DI-3B	-	8	459.50
20A	15	54.92	0.51%	455.25	454.97	HDPE				
18							DI-3B	CG-6	6	461.97
17	18	89.28	0.50%	454.87	454.42	HDPE				
58							DI-3B	CG-6	10	464.48
57	15	35.91	0.84%	457.30	457.00	HDPE				
56							DI-3B	CG-6	8	464.60
55	15	76.03	2.54%	456.90	454.97	HDPE				
32D							DI-3B	CG-6	12	474.83
32C	15	177.46	0.56%	469.00	468.00	HDPE				
32B							DI-3B	CG-6	8	473.14
32A	15	31.97	2.16%	467.90	467.21	HDPE				
132							DI-3B	CG-6	8	469.10
131	18	203.51	1.06%	464.50	462.35	RCP				
130							DI-3B	CG-6	6	470.17
129	18	86.50	1.90%	462.25	460.61	RCP				
124							DI-3B	CG-6	8	471.65
123	30	50.95	0.69%	460.51	460.16	RCP				
128							MH-1	-	-	478.27
127	15	144.27	2.97%	473.28	469.00	RCP				
126							DI-3B	CG-6	8	474.29
125	15	98.73	1.92%	468.90	467.00	RCP				
74							DI-3C	CG-6	12	449.77
73	15	36.08	0.50%	442.64	442.46	HDPE				
72							DI-3C	CG-6	12	449.68
71	15	92.13	0.50%	442.36	441.90	HDPE				
70							DI-3C	CG-6	10	449.69
69	18	93.28	0.50%	441.80	441.33	HDPE				
68							DI-3B	CG-6	8	451.30
67	18	64.12	0.59%	441.23	440.85	HDPE				

DRAINAGE DESCRIPTIONS

STR. NO.	PIPE INFORMATION						INLET INFORMATION			
	DIA. (in.)	LENGTH* (ft.)	SLOPE (%)	INVERT IN	INVERT OUT	MATERIAL	INLET TYPE	Curb Type	SLOT LENGTH	RIM ELEVATION
80							DI-3B	CG-6	8	451.74
79	15	30.07	0.83%	444.53	444.28	HDPE				
78							DI-3B	CG-6	8	451.78
77	15	67.05	2.06%	444.18	442.80	HDPE				
76							DI-3C	CG-6	8	449.57
75	15	34.05	2.35%	442.70	441.90	HDPE				
60							DI-3B	CG-2	12	463.20
59	15	39.99	7.08%	450.83	448.00	HDPE				
66							DI-3B	CG-6	4	454.98
65	15	28.02	0.54%	447.90	447.75	HDPE				
64							DI-3B	CG-6	4	454.99
63	15	79.79	0.56%	447.65	447.20	HDPE				
62							DI-3C	CG-2	8	457.80
61	15	36.92	1.63%	447.10	446.50	HDPE				
100							DI-3B	CG-6	10	465.85
99	15	29.80	0.50%	458.68	458.53	HDPE				
98							DI-3B	CG-6	6	465.91
97	15	90.11	0.50%	458.43	457.98	HDPE				
96							MH-1	-	-	469.90
95	18	87.51	0.50%	457.88	457.44	HDPE				
94							MH-1	-	-	466.81
93	18	87.69	0.68%	457.34	456.74	HDPE				
92							DI-3B	CG-2	10	462.91
91	18	20.10	0.70%	456.64	456.50	HDPE				
110B							DI-3B	CG-2	4	460.50
110A	15	24.07	0.50%	457.17	457.05	HDPE				
110							DI-3B	CG-2	4	460.50
109	15	41.22	0.51%	456.95	456.74	HDPE				
102							DI-3B	CG-6	4	470.23
101	18	48.70	1.42%	458.67	457.98	HDPE				
120D							MH-1	-	-	472.70
120C	36	11.94	9.38%	466.53	465.41	RCP				
120B							MH-1 (6' DIAM)	-	-	472.56
120A	48	94.27	7.12%	465.31	458.60	RCP				
120							DI-1	-	-	466.50
119	48	124.84	0.92%	458.50	457.35	RCP				
118							MH-1	-	-	470.81
117	48	97.00	1.41%	457.25	455.88	RCP				
116							MH-1	-	-	466.59
115	48	91.23	1.85%	455.78	454.09	RCP				
115A							MH-1	CG-6	-	460.22
115B	48	9.77	10.13%	453.99	453.00	RCP				
52B							DI-3B	CG-6	8	468.95
52A	15	64.13	1.33%	463.75	462.90	HDPE				
46B							DI-3B	CG-6	8	464.25
46A	15	63.79	0.49%	460.56	460.25	HDPE				
BYPASS IN							CULVERT	CG-6	-	466.25
177	36	112.07	5.64%	463.25	456.93	RCP				
176							MH-1	CG-6	-	466.60
175	36	94.83	1.40%	456.83	455.50	RCP				

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: DRAINAGE CALCULATIONS

JOB NO. 232220

SCALE N/A

SHEET NO. 17

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

Design Storm Year = **10**

POINT	DOWNSTREAM STRUCTURE	DRAIN AREA	RUNOFF COEFF.	CA		INLET TIME	RAIN FALL	RUNOFF Q	INVERT ELEVATIONS		LENGTH	SLOPE	DIA	CAPA-CITY	VEL	FLOW TIME
		ACRES	C	INCR	ACCUM	MIN	MIN	C.F.S.	UPPER	LOWER	FEET	FT./FT.	INCHES	C.F.S.	F.P.S.	SEC
16B		0.25	0.65	0.16	0.16	5.00	6.67	1.1								
	16								454.91	454.42	76.10	0.0064	15	5.6	3.5	21.8
16		0.74	0.72	0.53	1.72	6.17	6.30	10.8								
	14								454.32	453.32	199.63	0.0050	24	17.3	5.8	34.3
14		0.23	0.89	0.21	1.92	6.74	6.14	11.8								
	12								453.22	452.73	97.36	0.0050	24	17.4	5.9	16.4
12		0.00	0.90	0.00	3.33	17.92	4.19	13.9								
	10								452.63	452.37	51.63	0.0050	30	31.5	6.2	8.3
10		0.00	0.90	0.00	3.33	18.06	4.17	13.9								
	8								452.27	451.90	72.91	0.0051	30	31.7	6.2	11.7
8		0.31	0.78	0.24	3.57	18.26	4.15	14.8								
	8B								451.80	451.49	62.54	0.0050	30	31.3	6.3	10.0
8B		0.00	0.90	0.00	3.57	18.42	4.13	14.8								
	6								451.39	451.31	16.88	0.0047	30	30.6	6.2	2.7
6		0.26	0.88	0.23	3.80	18.47	4.13	15.7								
	4								451.21	450.31	180.12	0.0050	30	31.4	6.3	28.4
4		0.00	0.90	0.00	6.75	18.94	4.08	27.5								
	2								450.21	449.90	48.11	0.0064	30	35.7	8.0	6.0
2		0.00	0.90	0.00	6.75	19.04	4.07	27.5								
	BASIN 1								449.80	449.20	100.32	0.0060	30	34.4	7.8	12.9
44		0.20	0.63	0.13	0.13	5.00	6.67	0.8								
	42								483.42	483.00	69.23	0.0061	15	5.5	3.2	21.8
42		1.15	0.58	0.67	0.79	10.00	5.37	4.2								
	40								482.90	478.00	99.03	0.0495	15	15.6	10.7	9.3
40		0.32	0.83	0.26	1.05	10.15	5.34	5.6								
	38								477.90	472.39	64.12	0.0859	15	20.5	14.1	4.6
38		1.06	0.44	0.47	1.52	12.90	4.85	7.4								
	38B								472.29	470.14	48.91	0.0440	15	14.7	12.0	4.1
38B		0.09	0.73	0.07	1.59	12.97	4.84	7.7								
	36								470.04	468.71	63.33	0.0210	15	10.1	9.1	7.0
36		0.50	0.74	0.37	1.95	13.08	4.82	9.4								
	34								468.61	467.50	46.01	0.0241	15	10.9	9.9	4.6
34		0.05	0.72	0.04	1.99	13.16	4.81	9.6								
	32								467.40	466.50	45.81	0.0196	15	9.8	9.1	5.0
32		0.24	0.78	0.18	2.57	13.25	4.80	12.3								
	30								466.40	465.00	39.46	0.0355	15	13.2	12.2	3.2
30		0.29	0.81	0.23	2.80	13.30	4.79	13.4								
	28								464.90	463.75	58.45	0.0197	18	16.0	10.1	5.8
28		0.23	0.66	0.15	2.95	13.40	4.78	14.1								
	4								463.65	463.00	24.78	0.0262	18	18.4	11.5	2.2
54		0.44	0.77	0.34	0.34	5.00	6.67	2.3								
	52								467.00	462.90	96.66	0.0424	15	14.4	8.4	11.5
52		0.16	0.74	0.12	0.61	5.24	6.59	4.0								
	50								462.80	461.61	41.68	0.0286	15	11.8	8.7	4.8
50		0.59	0.45	0.26	0.87	17.00	4.29	4.0								
	48								461.51	461.25	52.44	0.0050	15	4.9	4.5	11.7
48		0.17	0.62	0.10	0.97	17.20	4.27	4.2								
	46								461.15	460.24	182.62	0.0050	15	4.9	4.5	40.5
46		0.39	0.79	0.31	1.40	17.87	4.19	5.9								
	12								460.14	459.00	32.87	0.0347	15	13.0	10.3	3.2
26B		0.15	0.77	0.11	0.11	5.00	6.67	0.7								
	26								469.25	465.00	119.88	0.0355	15	13.2	5.8	20.8
26		0.25	0.81	0.20	0.31	5.35	6.56	2.0								
	24								459.50	457.60	19.89	0.0955	15	21.6	10.8	1.8
24		0.00	0.90	0.00	0.31	5.38	6.55	2.0								
	22								457.50	455.54	66.86	0.0293	15	12.0	7.1	9.4
22		0.00	0.90	0.00	0.31	5.53	6.50	2.0								
	20								455.44	455.35	25.59	0.0035	15	4.2	3.4	7.6
20		0.21	0.80	0.17	0.48	5.66	6.46	3.1								
	18								455.25	454.97	54.92	0.0051	15	5.0	4.3	12.8
18		0.06	0.74	0.04	1.02	5.87	6.39	6.5								
	16								454.87	454.42	89.28	0.0050	18	8.1	5.1	17.6
58		0.52	0.68	0.35	0.35	5.00	6.67	2.4								
	56								457.30	457.00	35.91	0.0084	15	6.4	4.8	7.5
56		0.18	0.78	0.14	0.50	5.12	6.63	3.3								
	18								456.90	454.97	76.03	0.0254	15	11.1	7.9	9.6
32D		0.42	0.69	0.29	0.29	5.00	6.67	1.9								
	32B								469.00	468.00	177.46	0.0056	15	5.3	4.0	44.9
32B		0.16	0.64	0.10	0.40	5.75	6.43	2.5								
	32								467.90	467.21	31.97	0.0216	15	10.3	6.8	4.7
132		1.26	0.74	0.93	0.93	5.00	6.67	6.2								
	130								464.50	462.35	203.51	0.0106	18	10.8	6.3	32.3
130		0.17	0.75	0.13	1.05	5.54	6.50	6.8								
	124								462.25	460.61	86.50	0.0190	18	14.5	8.0	10.8
124		0.21	0.68	0.14	2.24	5.72	6.44	14.4								
	BASIN 1								460.51	460.16	50.95	0.0069	30	34.0	6.6	7.7
128		1.18	0.79	0.94	0.94	5.00	6.67	6.2								
	126								473.28	469.00	144.27	0.0297	15	11.1	9.3	15.5
126		0.14	0.77	0.11	1.04	5.26	6.58	6.9								
	124								468.90	467.00	98.73	0.0192	15	9.0	8.0	12.3
74		0.36	0.66	0.23	0.23	5.00	6.67	1.6								
	72								442.64	442.46	36.08	0.0050	15	4.9	3.5	10.2
72		0.40	0.59	0.23	0.47	5.17	6.61	3.1								
	70								442.36	441.90	92.13	0.0050	15	4.9	4.2	21.7
70		0.49	0.72	0.35	1.22	5.53	6.50	7.9								
	68								441.80	441.33	93.28	0.0050	18	8.1	5.2	17.9
68		0.22	0.67	0.15	1.36	5.83	6.40	8.7								
	UGD 2								441.23	440.85	64.12	0.0059	18	8.8	5.7	11.3
80		0.20	0.68	0.14	0.14	5.00	6.67	0.9								
	78								444.53	444.28	30.07	0.0083	15	6.4	3.6	8.3
78		0.13	0.77	0.10	0.23	5.14	6.62	1.6								
	76								444.18	442.80	67.05	0.0206	15	10.0	5.9	11.4
76		0.21	0.77	0.16	0.39	5.33	6.56	2.6								
	70								442.70	441.90	34.05	0.0235	15	10.7	7.1	4.8
60		1.51	0.61	0.92	0.92	20.00	3.97	3.7								
	UGD 2								450.83	448.00	39.99	0.0708	15	18.6	11.8	3.4

Design Storm Year = **10**

POINT	DOWNSTREAM STRUCTURE	DRAIN AREA	RUNOFF COEFF.	CA		INLET TIME	RAIN FALL	RUNOFF Q	INVERT ELEVATIONS		LENGTH	SLOPE	DIA	CAPA-CITY	VEL	FLOW TIME
		ACRES	C	INCR	ACCUM	MIN	MIN	C.F.S.	UPPER	LOWER	FEET	FT./FT.	INCHES	C.F.S.	F.P.S.	SEC
66		0.02	0.75	0.01	0.01	5.00	6.67	0.1								
	64								447.90	447.75	28.02	0.0054	15	5.1	1.5	19.3
64		0.08	0.61	0.05	0.06	5.32	6.56	0.4								
	62								447.65	447.20	79.79	0.0056	15	5.3	2.5	32.3
62		0.19	0.87	0.16	0.22	5.86	6.39	1.4								
	UGD 2								447.10	446.50	36.92	0.0163	15	8.9	5.2	7.1
100		0.15	0.74	0.11	0.11	5.00	6.67	0.7								
	98								458.68	458.53	29.80	0.0050	15	5.0	2.9	10.3
98		0.06	0.74	0.04	0.15	5.17	6.61	1.0								
	96								458.43	457.98	90.11	0.0050	15	4.9	3.1	28.8
96		0.00	0.90	0.00	1.10	6.56	6.19	6.8								
	94								457.88	457.44	87.51	0.0050	18	8.1	5.1	17.1
94		0.00	0.90	0.00	1.10	6.84	6.11	6.8								
	92								457.34	456.74	87.69	0.0068	18	9.4	5.8	15.1
92		0.24	0.69	0.16	1.37	7.10	6.04	8.3								
	BASIN 3								456.64	456.50	20.10	0.0070	18	9.5	6.1	3.3
110B		0.10	0.88	0.09	0.09	5.00	6.67	0.6								
	110								457.17	457.05	24.07	0.0050	15	4.9	2.7	9.0
110		0.01	0.90	0.01	0.10	5.15	6.62	0.7								
	92								456.95	456.74	41.22	0.0051	15	5.0	2.8	14.8
102		0.04	0.61	0.03	0.95	6.45	6.22	5.9								
	96								458.67	457.98	48.70	0.0142	18	13.5	7.4	6.6
120D		4.54	0.57	2.58	2.58	14.00	4.69	12.1								
	120B								466.53	465.41	11.94	0.0938	36	204.3	15.5	0.8
120B		14.87	0.29	4.26	6.84	22.70	3.72	25.5								
	120								465.31	458.60	94.27	0.0712	48	383.2	17.0	5.5
120		0.00	0.90	0.00	6.84	22.79	3.72	25.5								
	118								458.50	457.35	124.84	0.0092	48	137.9	8.4	14.9
118		0.00	0.90	0.00	6.84	23.04	3.69	25.5								
	116								457.25	455.88	97.00	0.0141	48	170.7	9.7	10.0
116		0.00	0.90	0.00	6.84	23.21	3.68	25.5								
	115A								455.78	454.09	91.23	0.0185	48	195.5	10.6	8.6
115A		0.00	0.90	0.00	6.84	23.35	3.67	25.5								
	OUT								453.99	453.00	9.77	0.1013	48	457.3	19.6	0.5
52B		0.29	0.51	0.15	0.15	5.00	6.67	1.0								
	52								463.75	462.90	64.13	0.0133	15	8.1	4.4	14.6
46B		0.13	0.90	0.12	0.12	5.00	6.67	0.8								
	46								460.56	460.25	63.79	0.0049	15	4.9	2.8	22.4
BYPASS IN		20.71	0.35	7.25	7.25	22.70	3.72	27.0								
	176								463.25	456.93	112.07	0.0564	36	158.4	16.4	6.8
176		0.00	0.90	0.00	7.25	22.81	3.71	27.0								
	OUT								456.83	455.50	94.83	0.0140	36	79.0	10.1	9.4

Design Year: **10** Project: Holly Hills Apartments Job #: 232220 Prepared by: KKW, PE

INLET STATION	OUTLET WATER SURFACE ELEV	L_O	D_o	Q_o ZW	S_{fo}	H_f	JUNCTION LOSS												FINAL H	INLET WATER SURFACE ELEV.	RIM ELEV
							V_o	H_o	Q_{IN}	V_{IN}	Q_i*V_i	$V_i^2/2g$	H_i	ANGLE	H_Δ	H_t	1.3H_t	.5H_t			
	460.00	32.87	15	5.88	0.007	0.23	4.8	0.1													
46									4.2	3.4	14.1	0.2	0.06	45	0.068	0.22	NA	0.11	0.34	**460.34**	**465.10**
	461.24	182.62	15	4.15	0.004	0.64	3.4	0.0													
48									4.0	3.3	13	0.2	0.06	43	0.063	0.16	NA	0.08	0.73	**461.97**	**467.94**
	462.25	52.44	15	4.00	0.003	0.17	3.3	0.0													
50									4.0	3.3	13	0.2	0.06	18	0.016	0.12	NA	0.06	0.23	**462.48**	**469.20**
	462.61	41.68	15	4.00	0.003	0.14	3.3	0.0													
52									1.0	4.4	4.28	0.3	0.10	78	0.182	0.33	NA	0.16	0.30	**462.91**	**469.65**
	463.90	96.66	15	2.26	0.001	0.10	1.8	0.0													
54													0.00	7	0	0.01	NA	0.01	0.11	**464.01**	**472.10**
	464.20	24.78	18	14.11	0.015	0.38	8.0	0.2													
28									13.4	7.6	102	0.9	0.31	90	0.626	1.19	NA	0.59	0.97	**465.17**	**472.34**
	465.17	58.45	18	13.41	0.014	0.81	7.6	0.2													
30									12.3	10.0	124	1.6	0.55	30	0.438	1.21	NA	0.60	1.42	**466.59**	**472.80**
	466.59	39.46	15	12.32	0.031	1.22	10.0	0.4													
32									9.6	7.8	74.5	0.9	0.33	90	0.66	1.38	NA	0.69	1.91	**468.50**	**473.29**
	468.50	45.81	15	9.56	0.019	0.86	7.8	0.2													
34									9.4	7.7	72.1	0.9	0.32	38	0.256	0.81	NA	0.41	1.26	**469.76**	**475.25**
	469.76	46.01	15	9.41	0.018	0.83	7.7	0.2													
36									7.7	6.3	48	0.6	0.21	25	0.134	0.57	NA	0.29	1.12	**470.88**	**476.50**
	470.88	63.33	15	7.68	0.012	0.76	6.3	0.2													
38B									7.4	6.0	44.2	0.6	0.20	10	0	0.35	NA	0.17	0.94	**471.82**	**478.28**
	471.82	48.91	15	7.37	0.011	0.54	6.0	0.1													
38									5.6	4.6	25.7	0.3	0.11	12	0	0.25	NA	0.13	0.67	**472.49**	**480.01**
	473.39	64.12	15	5.62	0.006	0.41	4.6	0.1													
40									4.2	3.5	14.7	0.2	0.07	19	0.019	0.17	NA	0.08	0.50	**473.89**	**483.50**
	479.00	99.03	15	4.25	0.004	0.37	3.5	0.0													
42									0.8	0.7	0.57	0.0	0.00	32	0.002	0.05	NA	0.03	0.39	**479.39**	**488.00**
	484.00	69.23	15	0.84	0.000	0.01	0.7	0.0													
44													0.00	89	0	0.00	NA	0.00	0.01	**484.01**	**489.24**
	452.00	100.32	30	27.52	0.004	0.38	5.6	0.1													
2									27.5	5.6	154	0.5	0.17	0	0	0.29	N/A	0.15	0.53	**452.53**	**466.27**
	452.53	48.11	30	27.52	0.004	0.18	5.6	0.1													
4									14.1	11.5	162	2.0	0.71	57	0.959	1.80	N/A	0.90	1.08	**453.61**	**470.99**
	453.61	180.12	30	15.68	0.001	0.22	3.2	0.0													
6									14.8	3.0	44.7	0.1	0.05	90	0.099	0.19	NA	0.09	0.32	453.93	462.55
	453.93	16.88	30	14.81	0.001	0.02	3.0	0.0													
8B									14.8	3.0	44.7	0.1	0.05	87	0.093	0.18	N/A	0.09	0.11	454.04	462.56
	454.04	62.54	30	14.81	0.001	0.07	3.0	0.0													
8									13.9	2.8	39.5	0.1	0.04	89	0.082	0.16	NA	0.08	0.15	454.19	460.58
	454.19	72.91	30	13.92	0.001	0.07	2.8	0.0													
10									13.9	2.8	39.5	0.1	0.04	85	0.082	0.16	N/A	0.08	0.15	454.34	462.87
	454.37	51.63	30	13.92	0.001	0.05	2.8	0.0													
12									5.9	10.3	60.7	1.7	0.58	6	0	0.61	N/A	0.31	0.36	454.73	464.48
	454.73	97.36	24	11.82	0.002	0.23	3.8	0.1													
14									10.8	3.4	37.3	0.2	0.06	29	0.041	0.16	NA	0.08	0.31	455.03	462.05
	455.03	199.63	24	10.82	0.002	0.39	3.4	0.0													
16									6.5	5.1	33.2	0.4	0.14	28	0.088	0.27	NA	0.14	0.53	455.56	459.63
	455.56	76.10	15	1.09	0.000	0.02	0.9	0.0													
16B													0.00	15	0	0.00	NA	0.00	0.02	455.58	458.60

Design Year: **10** Project: Holly Hills Apartments Job #: 232220 Prepared by: KKW, PE

INLET STATION	OUTLET WATER SURFACE ELEV	L_O	D_o	Q_o ZW	S_{fo}	H_f	JUNCTION LOSS												FINAL H	INLET WATER SURFACE ELEV.	RIM ELEV
							V_o	H_o	Q_{IN}	V_{IN}	Q_i*V_i	$V_i^2/2g$	H_i	ANGLE	H_Δ	H_t	1.3H_t	.5H_t			
	457.90	94.83	36	26.99	0.002	0.16	3.8	0.1													
176													27.0	3.8	103	0.2	0.08	40	0.086	0.22	N/A	0.11	0.27	**458.17**	**466.60**
	459.33	112.07	36	26.99	0.002	0.18	3.8	0.1													
BYPASS IN																	0.00	40	0	0.06	NA	0.03	0.21	**459.54**	**466.25**
	461.25	63.79	15	0.77	0.000	0.01	0.6	0.0													
46B																	0.00	40	0	0.00	NA	0.00	0.01	**461.26**	**464.25**
	463.90	64.13	15	0.98	0.000	0.01	0.8	0.0													
52B																	0.00	90	0	0.00	NA	0.00	0.01	**463.91**	**468.95**
	467.81	11.94	36	12.09	0.000	0.00	1.7	0.0													
120D																	0.00	7	0	0.01	N/A	0.01	0.03	**467.84**	**472.70**
	459.39	48.70	18	5.90	0.003	0.13	3.3	0.0													
102													5.8	3.3	18.9	0.2	0.06	7	0	0.10	NA	0.05	0.18	**459.57**	**470.23**
	459.97	43.83	18	5.77	0.003	0.11	3.3	0.0													
112													4.9	2.8	13.7	0.1	0.04	47	0.046	0.13	NA	0.06	0.18	**460.15**	**469.22**
	460.29	60.80	18	4.92	0.002	0.11	2.8	0.0													
114													3.9	3.1	12.1	0.2	0.05	38	0.043	0.13	NA	0.06	0.18	**460.47**	**469.58**
	460.49	76.23	15	3.85	0.003	0.23	3.1	0.0													
136													3.2	2.6	8.46	0.1	0.04	26	0.024	0.10	NA	0.05	0.28	**460.77**	**471.24**
	460.97	77.43	15	3.22	0.002	0.16	2.6	0.0													
140													3.2	2.6	8.32	0.1	0.04	85	0.07	0.13	NA	0.07	0.23	**461.20**	**467.78**
	461.46	100.24	15	3.20	0.002	0.21	2.6	0.0													
142													2.9	2.4	7.05	0.1	0.03	6	0	0.06	NA	0.03	0.24	**461.70**	**463.79**
	462.03	27.80	15	2.94	0.002	0.05	2.4	0.0													
142B																	0.00	90	0	0.02	NA	0.01	0.06	**462.09**	**464.75**
	457.93	41.22	15	0.66	0.000	0.00	0.5	0.0													
110													0.6	0.5	0.28	0.0	0.00	79	0.002	0.00	NA	0.00	0.01	**457.93**	**460.50**
	458.05	24.07	15	0.58	0.000	0.00	0.5	0.0													
110B																	0.00	90	0	0.00	NA	0.00	0.00	**458.05**	**460.50**
	457.70	20.10	18	8.25	0.005	0.11	4.7	0.1													
92													6.8	3.9	26.4	0.2	0.08	0	0	0.17	NA	0.08	0.23	**457.93**	**462.91**
	457.94	87.69	18	6.83	0.004	0.32	3.9	0.1													
94													6.8	3.9	26.4	0.2	0.08	88	0.153	0.29	N/A	0.15	0.46	**458.40**	**466.81**
	458.64	87.51	18	6.83	0.004	0.32	3.9	0.1													
96													5.9	7.4	43.6	0.8	0.30	76	0.517	0.87	N/A	0.44	0.75	**459.39**	**469.90**
	459.39	90.11	15	1.02	0.000	0.02	0.8	0.0													
98													0.7	0.6	0.44	0.0	0.00	80	0.004	0.01	NA	0.00	0.02	**459.41**	**465.91**
	459.53	29.80	15	0.74	0.000	0.00	0.6	0.0													
100																	0.00	73	0	0.00	NA	0.00	0.00	**459.53**	**465.85**
	447.50	36.92	15	1.42	0.000	0.02	1.2	0.0													
62													0.4	0.3	0.13	0.0	0.00	0	0	0.01	NA	0.00	0.02	**447.52**	**457.80**
	448.20	79.79	15	0.39	0.000	0.00	0.3	0.0													
64													0.1	0.1	0.01	0.0	0.00	15	7

Table 7: Grade Inlet Design Table

INLETS ON GRADE, DESIGN (CURB SPREAD AND INLET CAPTURE)

Intensity 4.00 (Intensity is 4 in/hr for spread, and 6.5 in/hr for capacity and depth)
Mannings Coefficient, n is 0.013

Inlet			Hydrology						Curb and Gutter						Inlet							
Plan Label	VDOT DI type	L, throat length (ft)	A, Drainage area (acres)	C, rational coeff.	CA	Q, flow incr. (cfs)	Qb, carry-over (cfs)	Qt, total flow	S, gutter longitudinal slope (ft/ft)	Sx, lane cross slope (ft/ft)	W, gutter width (ft)	Sw, gutter cross-slope (ft/ft)	SwSx	T, spread at curb (ft)	E/o, frontal flow ratio in gutter W	a, 12W(Sw-Sx)= 2*local depr. (in)	Sw = a/(12W)	Se = Sx+S*w(E/o)	Lt, require throat length (ft)	L / Lt	E, inlet efficiency	Qi, flow intercepted	Qb, carry-over	carry-over to inlet	Maximum allowable spread
6	2B	**12.0**	0.26	0.88	0.230	0.92	0.00	0.92	0.0500	0.0500	2.0	0.0833	1.6660	2.70	0.98	2.7992	0.1166	0.1643	**8.81**	1.36	1.00	0.92	0.00		
14STR	3B	**6.0**	0.03	0.83	0.028	0.11	0.00	0.11	0.0100	0.0500	2.0	0.0833	1.6660	1.65	0.99	2.7992	0.1166	0.1655	**2.23**	2.69	1.00	0.11	0.00		
16STR	3B	**10.0**	0.63	0.69	0.435	1.74	0.00	1.74	0.0100	0.0500	2.0	0.0833	1.6660	4.63	0.80	2.7992	0.1166	0.1433	**7.71**	1.30	1.00	1.74	0.00		
18	3B	**6.0**	0.06	0.74	0.043	0.17	0.00	0.17	0.0550	0.0200	2.0	0.0833	4.1650	2.51	0.99	3.5192	0.1466	0.1652	**4.48**	1.34	1.00	0.17	0.00		
20STR	3B	**8.0**	0.09	0.77	0.066	0.26	0.00	0.26	0.0550	0.0200	2.0	0.0833	4.1650	2.93	0.99	3.5192	0.1466	0.1652	**5.34**	1.50	1.00	0.26	0.00		
26STR	3B	**8.0**	0.16	0.75	0.117	0.47	0.00	0.47	0.0500	0.0200	2.0	0.0833	4.1650	3.71	0.96	3.5192	0.1466	0.1608	**6.72**	1.19	1.00	0.47	0.00		
26BSTR	3B	**8.0**	0.10	0.71	0.072	0.29	0.00	0.29	0.0500	0.0200	2.0	0.0833	4.1650	3.10	0.98	3.5192	0.1466	0.1637	**5.43**	1.47	1.00	0.29	0.00		
28	3B	**8.0**	0.23	0.66	0.154	0.61	0.00	0.61	0.0250	0.0200	2.0	0.0833	4.1650	4.68	0.90	3.5192	0.1466	0.1520	**6.33**	1.26	1.00	0.61	0.00		
30STR	3B	**6.0**	0.10	0.65	0.068	0.27	0.00	0.27	0.0250	0.0200	2.0	0.0833	4.1650	3.45	0.97	3.5192	0.1466	0.1622	**4.33**	1.39	1.00	0.27	0.00		
32STR	3B	**8.0**	0.14	0.70	0.097	0.39	0.00	0.39	0.0500	0.0200	2.0	0.0833	4.1650	3.45	0.97	3.5192	0.1466	0.1622	**6.16**	1.30	1.00	0.39	0.00		
32B	3B	**8.0**	0.16	0.64	0.104	0.42	0.00	0.42	0.0250	0.0200	2.0	0.0833	4.1650	4.04	0.96	3.5192	0.1466	0.1608	**5.19**	1.54	1.00	0.42	0.00		
32D	3B	**12.0**	0.42	0.69	0.291	1.17	0.00	1.17	0.0250	0.0200	2.0	0.0833	4.1650	5.95	0.83	3.5192	0.1466	0.1417	**8.64**	1.39	1.00	1.17	0.00		
34	2B	**4.0**	0.05	0.72	0.036	0.14	0.00	0.14	0.0170	0.0200	2.0	0.0833	4.1650	2.92	0.99	3.5192	0.1466	0.1652	**2.92**	1.37	1.00	0.14	0.00		
36STR	3B	**8.0**	0.27	0.59	0.159	0.64	0.00	0.64	0.0250	0.0200	2.0	0.0833	4.1650	4.74	0.90	3.5192	0.1466	0.1520	**6.42**	1.25	1.00	0.64	0.00		
38STR	3B	**8.0**	0.20	0.73	0.146	0.59	0.00	0.59	0.0300	0.0200	2.0	0.0833	4.1650	4.44	0.92	3.5192	0.1466	0.1549	**6.48**	1.24	1.00	0.59	0.00		
38B	2B	**8.0**	0.09	0.73	0.067	0.27	0.00	0.27	0.0250	0.0200	2.0	0.0833	4.1650	3.43	0.97	3.5192	0.1466	0.1622	**4.30**	1.86	1.00	0.27	0.00		
40STR	3B	**8.0**	0.15	0.75	0.111	0.44	0.00	0.44	0.0500	0.0200	2.0	0.0833	4.1650	3.63	0.97	3.5192	0.1466	0.1622	**6.53**	1.23	1.00	0.44	0.00		
42STR	3B	**14.0**	0.49	0.67	0.327	1.31	0.00	1.31	0.0500	0.0200	2.0	0.0833	4.1650	5.45	0.85	3.5192	0.1466	0.1446	**11.02**	1.27	1.00	1.31	0.00		
44	3C	**10.0**	0.20	0.63	0.126	0.50	0.00	0.50	0.0500	0.0200	2.0	0.0833	4.1650	3.81	0.96	3.5192	0.1466	0.1608	**6.93**	1.44	1.00	0.50	0.00		
46STR	2B	**4.0**	0.01	0.90	0.006	0.02	0.00	0.02	0.0200	0.0200	2.0	0.0833	4.1650	1.46	0.86	3.5192	0.1466	0.1461	**1.57**	2.54	1.00	0.02	0.00		
46B	2B	**8.0**	0.13	0.90	0.116	0.46	0.00	0.46	0.0200	0.0200	2.0	0.0833	4.1650	4.39	0.86	3.5192	0.1466	0.1461	**5.39**	1.48	1.00	0.46	0.00		
48	3B	**8.0**	0.17	0.62	0.103	0.41	0.00	0.41	0.0250	0.0200	2.0	0.0833	4.1650	4.03	0.96	3.5192	0.1466	0.1608	**5.18**	1.55	1.00	0.41	0.00		
50	3B	**12.0**	0.59	0.45	0.263	1.05	0.00	1.05	0.0300	0.0200	2.0	0.0833	4.1650	5.53	0.85	3.5192	0.1466	0.1446	**8.63**	1.39	1.00	1.05	0.00		
52	3B	**8.0**	0.16	0.74	0.122	0.49	0.00	0.49	0.0500	0.0200	2.0	0.0833	4.1650	3.77	0.96	3.5192	0.1466	0.1608	**6.83**	1.17	1.00	0.49	0.00		
52B	3B	**8.0**	0.29	0.51	0.146	0.59	0.00	0.59	0.0500	0.0200	2.0	0.0833	4.1650	4.03	0.95	3.5192	0.1466	0.1593	**7.42**	1.08	1.00	0.59	0.00		
54STR	3B	**12.0**	0.28	0.78	0.219	0.88	0.00	0.88	0.0500	0.0500	2.0	0.0833	1.6660	2.65	0.98	2.7992	0.1166	0.1643	**8.63**	1.39	1.00	0.88	0.00		
56	3B	**8.0**	0.18	0.78	0.143	0.57	0.00	0.57	0.0350	0.0200	2.0	0.0833	4.1650	4.28	0.94	3.5192	0.1466	0.1578	**6.64**	1.20	1.00	0.57	0.00		
58STR	3B	**10.0**	0.28	0.64	0.181	0.73	0.00	0.73	0.0350	0.0200	2.0	0.0833	4.1650	4.67	0.91	3.5192	0.1466	0.1534	**7.46**	1.34	1.00	0.73	0.00		
60STR	3B	**12.0**	0.54	0.89	0.480	1.92	0.00	1.92	0.0200	0.0500	2.0	0.0833	1.6660	4.22	0.86	2.7992	0.1166	0.1503	**9.61**	1.25	1.00	1.92	0.00		
62	3B	**8.0**	0.19	0.87	0.162	0.65	0.00	0.65	0.0200	0.0500	2.0	0.0833	1.6660	2.81	0.96	2.7992	0.1166	0.1620	**5.83**	1.37	1.00	0.65	0.00		
64	3B	**4.0**	0.08	0.61	0.048	0.19	0.00	0.19	0.0100	0.0200	2.0	0.0833	4.1650	3.58	0.97	3.5192	0.1466	0.1622	**2.83**	1.41	1.00	0.19	0.00		
66	3B	**4.0**	0.02	0.75	0.012	0.05	0.00	0.05	0.0100	0.0200	2.0	0.0833	4.1650	2.16	0.99	3.5192	0.1466	0.1652	**1.59**	2.52	1.00	0.05	0.00		
68	3B	**8.0**	0.22	0.67	0.148	0.59	0.00	0.59	0.0300	0.0200	2.0	0.0833	4.1650	4.46	0.92	3.5192	0.1466	0.1549	**6.50**	1.23	1.00	0.59	0.00		
78	3B	**8.0**	0.13	0.77	0.099	0.40	0.00	0.40	0.0300	0.0200	2.0	0.0833	4.1650	3.84	0.96	3.5192	0.1466	0.1608	**5.38**	1.49	1.00	0.40	0.00		
80	3B	**8.0**	0.20	0.68	0.136	0.54	0.00	0.54	0.0300	0.0200	2.0	0.0833	4.1650	4.31	0.93	3.5192	0.1466	0.1564	**6.24**	1.28	1.00	0.54	0.00		
92	3B	**10.0**	0.24	0.69	0.163	0.65	0.00	0.65	0.0600	0.0200	2.0	0.0833	4.1650	4.06	0.95	3.5192	0.1466	0.1593	**8.21**	1.22	1.00	0.65	0.00		
98	3B	**6.0**	0.06	0.74	0.044	0.17	0.00	0.17	0.0800	0.0200	2.0	0.0833	4.1650	2.35	0.99	3.5192	0.1466	0.1652	**5.04**	1.19	1.00	0.17	0.00		
100	3B	**10.0**	0.15	0.74	0.110	0.44	0.00	0.44	0.0800	0.0200	2.0	0.0833	4.1650	3.32	0.98	3.5192	0.1466	0.1637	**7.47**	1.34	1.00	0.44	0.00		
102	3B	**4.0**	0.04	0.61	0.027	0.11	0.00	0.11	0.0450	0.0200	2.0	0.0833	4.1650	2.17	0.99	3.5192	0.1466	0.1652	**3.44**	1.16	1.00	0.11	0.00		
124	3B	**8.0**	0.21	0.68	0.141	0.56	0.00	0.56	0.0170	0.0200	2.0	0.0833	4.1650	4.87	0.89	3.5192	0.1466	0.1505	**5.46**	1.46	1.00	0.56	0.00		
126	3B	**8.0**	0.14	0.77	0.109	0.44	0.00	0.44	0.0250	0.0200	2.0	0.0833	4.1650	4.12	0.95	3.5192	0.1466	0.1593	**5.33**	1.50	1.00	0.44	0.00		
130	3B	**6.0**	0.17	0.75	0.127	0.51	0.00	0.51	0.0050	0.0200	2.0	0.0833	4.1650	5.90	0.83	3.5192	0.1466	0.1417	**3.76**	1.59	1.00	0.51	0.00		
132STR	3B	**8.0**	0.35	0.76	0.266	1.06	0.00	1.06	0.0050	0.0200	2.0	0.0833	4.1650	7.77	0.69	3.5192	0.1466	0.1212	**5.63**	1.42	1.00	1.06	0.00		

- for inlets draining to stormwater management facilities, where overland flow to facilities is not available, 100% capture is required at 6.5in/hr

Table 7: Grade Inlet Design Table

INLETS ON GRADE, DESIGN (CURB SPREAD AND INLET CAPTURE)

Intensity 6.50 (Intensity is 4 in/hr for spread, and 6.5 in/hr for capacity and depth)
Mannings Coefficient, n is 0.013

Inlet			Hydrology						Curb and Gutter						Inlet								
Plan Label	VDOT DI type	L, throat length (ft)	A, Drainage area (acres)	C, rational coeff.	CA	Q, flow incr. (cfs)	Qb, carry-over (cfs)	Qt, total flow	S, gutter longitudinal slope (ft/ft)	Sx, lane cross slope (ft/ft)	W, gutter width (ft)	Sw, gutter cross-slope (ft/ft)	SwSx	T, spread at curb (ft)	E/o, frontal flow ratio in gutter W	a, 12W(Sw-Sx)= 2*local depr. (in)	Sw = a/(12W)	Se = Sx+S*w(E/o)	Lt, require throat length (ft)	L / Lt	E, inlet efficiency	Qi, flow intercepted	Qb, carry-over	carry-over to inlet	Maximum allowable spread
6	2B	**12.0**	0.26	0.88	0.230	1.50	0.00	1.50	0.0500	0.0500	2.0	0.0833	1.6660	3.23	0.93	2.7992	0.1166	0.1585	**11.04**	1.09	1.00	1.50	0.00		
14STR	3B	**6.0**	0.03	0.83	0.028	0.18	0.00	0.18	0.0100	0.0500	2.0	0.0833	1.6660	1.98	0.99	2.7992	0.1166	0.1655	**2.73**	2.20	1.00	0.18	0.00		
16STR	3B	**10.0**	0.63	0.69	0.435	2.83	0.00	2.83	0.0100	0.0500	2.0	0.0833	1.6660	5.55	0.78	2.7992	0.1166	0.1410	**9.54**	1.05	1.00	2.83	0.00		
18	3B	**6.0**	0.06	0.74	0.043	0.28	0.00	0.28	0.0550	0.0200	2.0	0.0833	4.1650	3.01	0.99	3.5192	0.1466	0.1652	**5.49**	1.09	1.00	0.28	0.00		
20STR	3B	**8.0**	0.09	0.77	0.066	0.43	0.00	0.43	0.0550	0.0200	2.0	0.0833	4.1650	3.52	0.97	3.5192	0.1466	0.1622	**6.62**	1.21	1.00	0.43	0.00		
26STR	3B	**8.0**	0.16	0.75	0.117	0.76	0.00	0.76	0.0500	0.0200	2.0	0.0833	4.1650	4.45	0.92	3.5192	0.1466	0.1549	**8.42**	0.95	1.00	0.76	0.00		
26BSTR	3B	**8.0**	0.10	0.71	0.072	0.47	0.00	0.47	0.0500	0.0200	2.0	0.0833	4.1650	3.72	0.97	3.5192	0.1466	0.1622	**6.69**	1.20	1.00	0.47	0.00		
28	3B	**8.0**	0.23	0.66	0.154	1.00	0.00	1.00	0.0250	0.0200	2.0	0.0833	4.1650	5.61	0.85	3.5192	0.1466	0.1446	**7.99**	1.00	1.00	1.00	0.00		
30STR	3B	**6.0**	0.10	0.65	0.068	0.44	0.00	0.44	0.0250	0.0200	2.0	0.0833	4.1650	4.14	0.95	3.5192	0.1466	0.1593	**5.37**	1.12	1.00	0.44	0.00		
32STR	3B	**8.0**	0.14	0.70	0.097	0.63	0.00	0.63	0.0500	0.0200	2.0	0.0833	4.1650	4.14	0.95	3.5192	0.1466	0.1593	**7.64**	1.05	1.00	0.63	0.00		
32B	3B	**8.0**	0.16	0.64	0.104	0.68	0.00	0.68	0.0250	0.0200	2.0	0.0833	4.1650	4.85	0.89	3.5192	0.1466	0.1505	**6.63**	1.21	1.00	0.68	0.00		
32D	3B	**12.0**	0.42	0.69	0.291	1.89	0.00	1.89	0.0250	0.0200	2.0	0.0833	4.1650	7.14	0.73	3.5192	0.1466	0.1270	**11.31**	1.06	1.00	1.89	0.00		
34	2B	**4.0**	0.05	0.72	0.036	0.23	0.00	0.23	0.0170	0.0200	2.0	0.0833	4.1650	3.50	0.97	3.5192	0.1466	0.1622	**3.62**	1.11	1.00	0.23	0.00		
36STR	3B	**8.0**	0.27	0.59	0.159	1.03	0.00	1.03	0.0250	0.0200	2.0	0.0833	4.1650	5.69	0.84	3.5192	0.1466	0.1432	**8.16**	0.98	1.00	1.03	0.00		
38STR	3B	**8.0**	0.20	0.73	0.146	0.95	0.00	0.95	0.0300	0.0200	2.0	0.0833	4.1650	5.33	0.86	3.5192	0.1466	0.1461	**8.23**	0.97	1.00	0.95	0.00		
38B	2B	**8.0**	0.09	0.73	0.067	0.44	0.00	0.44	0.0250	0.0200	2.0	0.0833	4.1650	4.12	0.95	3.5192	0.1466	0.1593	**5.34**	1.50	1.00	0.44	0.00		
40STR	3B	**8.0**	0.15	0.75	0.111	0.72	0.00	0.72	0.0500	0.0200	2.0	0.0833	4.1650	4.36	0.93	3.5192	0.1466	0.1564	**8.19**	0.98	1.00	0.72	0.00		
42STR	3B	**14.0**	0.49	0.67	0.327	2.12	0.00	2.12	0.0500	0.0200	2.0	0.0833	4.1650	6.54	0.78	3.5192	0.1466	0.1344	**14.12**	0.99	1.00	2.12	0.00		
44	3C	**10.0**	0.20	0.63	0.126	0.82	0.00	0.82	0.0500	0.0200	2.0	0.0833	4.1650	4.57	0.92	3.5192	0.1466	0.1549	**8.69**	1.15	1.00	0.82	0.00		
46STR	2B	**4.0**	0.01	0.90	0.006	0.04	0.00	0.04	0.0200	0.0200	2.0	0.0833	4.1650	1.76	0.78	3.5192	0.1466	0.1344	**2.03**	1.97	1.00	0.04	0.00		
46B	2B	**8.0**	0.13	0.90	0.116	0.76	0.00	0.76	0.0200	0.0200	2.0	0.0833	4.1650	5.27	0.78	3.5192	0.1466	0.1344	**6.95**	1.15	1.00	0.76	0.00		
48	3B	**8.0**	0.17	0.62	0.103	0.67	0.00	0.67	0.0250	0.0200	2.0	0.0833	4.1650	4.84	0.89	3.5192	0.1466	0.1505	**6.60**	1.21	1.00	0.67	0.00		
50	3B	**12.0**	0.59	0.45	0.263	1.71	0.00	1.71	0.0300	0.0200	2.0	0.0833	4.1650	6.64	0.76	3.5192	0.1466	0.1314	**11.21**	1.07	1.00	1.71	0.00		
52	3B	**8.0**	0.16	0.74	0.122	0.79	0.00	0.79	0.0500	0.0200	2.0	0.0833	4.1650	4.52	0.92	3.5192	0.1466	0.1549	**8.57**	0.93	0.99	0.79	0.01	58	
52B	3B	**8.0**	0.29	0.51	0.146	0.95	0.00	0.95	0.0500	0.0200	2.0	0.0833	4.1650	4.84	0.88	3.5192	0.1466	0.1490	**9.47**	0.84	0.96	0.92	0.03	58	
54STR	3B	**12.0**	0.28	0.78	0.219	1.42	0.00	1.42	0.0500	0.0500	2.0	0.0833	1.6660	3.18	0.98	2.7992	0.1166	0.1643	**10.58**	1.13	1.00	1.42	0.00		
56	3B	**8.0**	0.18	0.78	0.143	0.93	0.00	0.93	0.0350	0.0200	2.0	0.0833	4.1650	5.13	0.88	3.5192	0.1466	0.1490	**8.43**	0.95	1.00	0.92	0.00		
58STR	3B	**10.0**	0.28	0.64	0.181	1.18	0.04	1.22	0.0350	0.0200	2.0	0.0833	4.1650	5.68	0.85	3.5192	0.1466	0.1446	**9.61**	1.04	1.00	1.22	0.00		
60STR	3B	**12.0**	0.54	0.89	0.480	3.12	0.00	3.12	0.0200	0.0500	2.0	0.0833	1.6660	5.06	0.78	2.7992	0.1166	0.1410	**12.25**	0.98	1.00	3.11	0.00		
62	3C	**8.0**	0.19	0.87	0.162	1.05	0.00	1.05	0.0200	0.0500	2.0	0.0833	1.6660	3.37	0.93	2.7992	0.1166	0.1585	**7.24**	1.11	1.00	1.05	0.00		
64	3B	**4.0**	0.08	0.61	0.048	0.31	0.00	0.31	0.0100	0.0200	2.0	0.0833	4.1650	4.30	0.93	3.5192	0.1466	0.1564	**3.54**	1.13	1.00	0.31	0.00		
66	3B	**4.0**	0.02	0.75	0.012	0.08	0.00	0.08	0.0100	0.0200	2.0	0.0833	4.1650	2.59	0.99	3.5192	0.1466	0.1652	**1.95**	2.05	1.00	0.08	0.00		
68	3B	**8.0**	0.22	0.67	0.148	0.96	0.00	0.96	0.0300	0.0200	2.0	0.0833	4.1650	5.35	0.86	3.5192	0.1466	0.1461	**8.26**	0.97	1.00	0.96	0.00		
78	3B	**8.0**	0.13	0.77	0.099	0.65	0.00	0.65	0.0300	0.0200	2.0	0.0833	4.1650	4.61	0.91	3.5192	0.1466	0.1534	**6.79**	1.18	1.00	0.65	0.00		
80	3B	**8.0**	0.20	0.68	0.136	0.88	0.00	0.88	0.0300	0.0200	2.0	0.0833	4.1650	5.18	0.88	3.5192	0.1466	0.1490	**7.87**	1.02	1.00	0.88	0.00		
92	3B	**10.0**	0.24	0.69	0.163	1.06	0.00	1.06	0.0600	0.0200	2.0	0.0833	4.1650	4.87	0.89	3.5192	0.1466	0.1505	**10.41**	0.96	1.00	1.06	0.00		
98	3B	**6.0**	0.06	0.74	0.044	0.28	0.00	0.28	0.0800	0.0200	2.0	0.0833	4.1650	2.82	0.99	3.5192	0.1466	0.1652	**6.17**	0.97	1.00	0.28	0.00		
100	3B	**10.0**	0.15	0.74	0.110	0.72	0.00	0.72	0.0800	0.0200	2.0	0.0833	4.1650	3.99	0.96	3.5192	0.1466	0.1608	**9.26**	1.08	1.00	0.72	0.00		
102	3B	**4.0**	0.04	0.61	0.027	0.17	0.00	0.17	0.0450	0.0200	2.0	0.0833	4.1650	2.61	0.99	3.5192	0.1466	0.1652	**4.22**	0.95	1.00	0.17	0.00		
124	3B	**8.0**	0.21	0.68	0.141	0.91	0.00	0.91	0.0170	0.0200	2.0	0.0833	4.1650	5.84	0.83	3.5192	0.1466	0.1417	**6.95**	1.15	1.00	0.91	0.00		
126	3B	**8.0**	0.14	0.77	0.109	0.71	0.00	0.71	0.0250	0.0200	2.0	0.0833	4.1650	4.94	0.89	3.5192	0.1466	0.1505	**6.76**	1.18	1.00	0.71	0.00		
130	3B	**6.0**	0.17	0.75	0.127	0.83	0.00	0.83	0.0050	0.0200	2.0	0.0833	4.1650	7.07	0.73	3.5192	0.1466	0.1270	**4.93**	1.22	1.00	0.83	0.00		
132STR	3B	**8.0**	0.35	0.76	0.266	1.73	0.00	1.73	0.0050	0.0200	2.0	0.0833	4.1650	9.32	0.59	3.5192	0.1466	0.1065	**7.46**	1.07	1.00	1.73	0.00		

- for inlets draining to stormwater management facilities, where overland flow to facilities is not available, 100% capture is required at 6.5in/hr

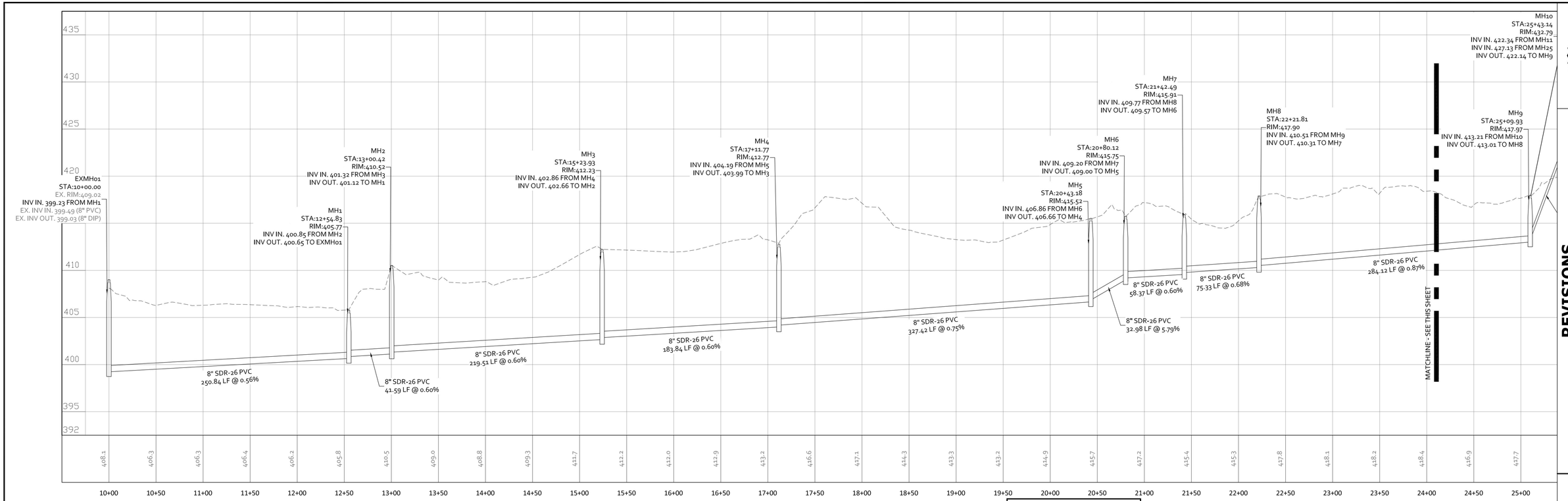
Table 6: Sump Inlet Design Table

INLETS IN SUMP, DESIGN (CURB SPREAD AND INLET SPREAD AND DEPTH)

Intensity 4.00 (Intensity is 4 in/hr for spread, and 6.5 in/hr for capacity and depth)
Mannings Coefficient, n is 0.013

Inlet			Hydrology						Curb and Gutter						Inlet				
Plan Label	VDOT DI type	L, throat length (ft)	A, Drainage area (acres)	C, rational coeff.	CA	Q, flow incr. (cfs)	Qb, carry-over (cfs)	Qt, total flow	S, gutter longitudinal slope (ft/ft) *	Sx, lane cross slope (ft/ft)	W, gutter width (ft)	Sw, gutter cross-slope (ft/ft)	SwSx	T, spread at curb (ft)	d, flow depth (ft)	d / h (height of opening, 5.5")	T, spread at inlet (ft)	Remarks
8STR	2B	**6.0**	all	0.11	0.89	0.099	0.40	0.00	0.40	0.0500	0.0500	2.0	0.0500	1.0000	1.97				
						combined flow			0.4						0.07	0.150	**1.37**		
16B	3B	**8.0**	all	0.25	0.65	0.164	0.66	0.00	0.66	0.0500	0.0500	2.0	0.0500	1.0000	2.38				
						combined flow			0.7						0.08	0.185	**1.69**		
70STR	3C	**10.0**	all	0.22	0.51	0.115	0.46	0.00	0.46	0.0010	0.0200	2.0	0.0833	4.1650	7.68				
						combined flow			0.5						0.06	0.131	**3.01**		
72	3C	**12.0**	all	0.40	0.59	0.234	0.94	0.00	0.94	0.0010	0.0200	2.0	0.0833	4.1650	10.01				
						combined flow			0.9						0.09	0.192	**4.40**		
74	3C	**12.0**	all	0.36	0.66	0.235	0.94	0.00	0.94	0.0010	0.0200	2.0	0.0833	4.1650	10.03				
						combined flow			0.9						0.09	0.192	**4.41**		
76	3C	**8.0**	left	0.15	0.77	0.116	0.46	0.00	0.46	0.0010	0.0200	2.0	0.0833	4.1650	7.70				
			right	0.06	0.77	0.043	0.17	0.00	0.17	0.0010	0.0200	2.0	0.0833	4.1650	5.33				
						combined flow			0.6						0.08	0.181	**4.15**		
110	3B	**4.0**	all	0.01	0.90	0.013	0.05	0.00	0.05	0.0600	0.0200	2.0	0.0200	1.0000	1.58				
						combined flow			0.1						0.02	0.045	**1.04**		
110B	3B	**4.0**	all	0.10	0.88	0.087	0.35	0.00	0.35	0.0600	0.0200	2.0	0.0200	1.0000	3.21				
						combined flow			0.3						0.07	0.161	**3.68**		

* gutter longitudinal slope of 0.001 should be used in a sump condition
- grate inlets (DI-7) in open pavement areas will not have a curb spread, but will have inlet spread and depth
- for inlets draining to stormwater management facilities, the 6.5in/hr check storm will suffice for the 10yr conveyance to the facilities
NOTE: Inlet size for structures determined by overland flow. Pipes have been sized to include overland flow as well as yard inl



MH15 - EXMH01

NOTES:

1. CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, CONFORMING TO SECTIONS 205, 208 OR 249 RESPECTIVELY, OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26, PER VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 302.03(a)2G "BACKFILLING".
2. ALL FILL TO BE PLACED AT 95% COMPACTION.
3. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER W/L.
4. MINIMUM OF 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L AND 1.5' OF SEPARATION BETWEEN W/L & SANITARY SEWER MUST BE PROVIDED.
5. ALL DRAINAGE STRUCTURES SHALL BE PROVIDED INLET SHAPING IN ACCORDANCE WITH VDOT STANDARD IS-1.
6. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 4' OR GREATER SHALL HAVE STEPS IN ACCORDANCE WITH STANDARD ST-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
7. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 12' OR GREATER SHALL HAVE SAFETY SLABS IN ACCORDANCE WITH STANDARD SL-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
8. ALL STEP DOWN DRAINAGE STRUCTURES WITH VERTICAL DIFFERENCE BETWEEN THE INVERTS OF THE INLET PIPE AND THE OUTLET PIPE IN EXCESS OF 4' MAY BE PROVIDED A ¾" STEEL PLATE IN THE BOTTOM OF THE MANHOLE, OR AN ADDITIONAL 6" OF CONCRETE AT THE BOTTOM OF THE STRUCTURE TO PROTECT THE MANHOLE, ESPECIALLY WHERE FLOW IS EXPECTED TO CARRY ANY ABRASIVE MATERIAL, CONTINUOUS LIVE FLOW OR LIVE FLOW LASTING SEVERAL DAYS IS EXPECTED, OR THE SIZE OF PIPES IS 48" OR GREATER.
9. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATION 303.04(h)

VERTICAL GRAPHIC SCALE

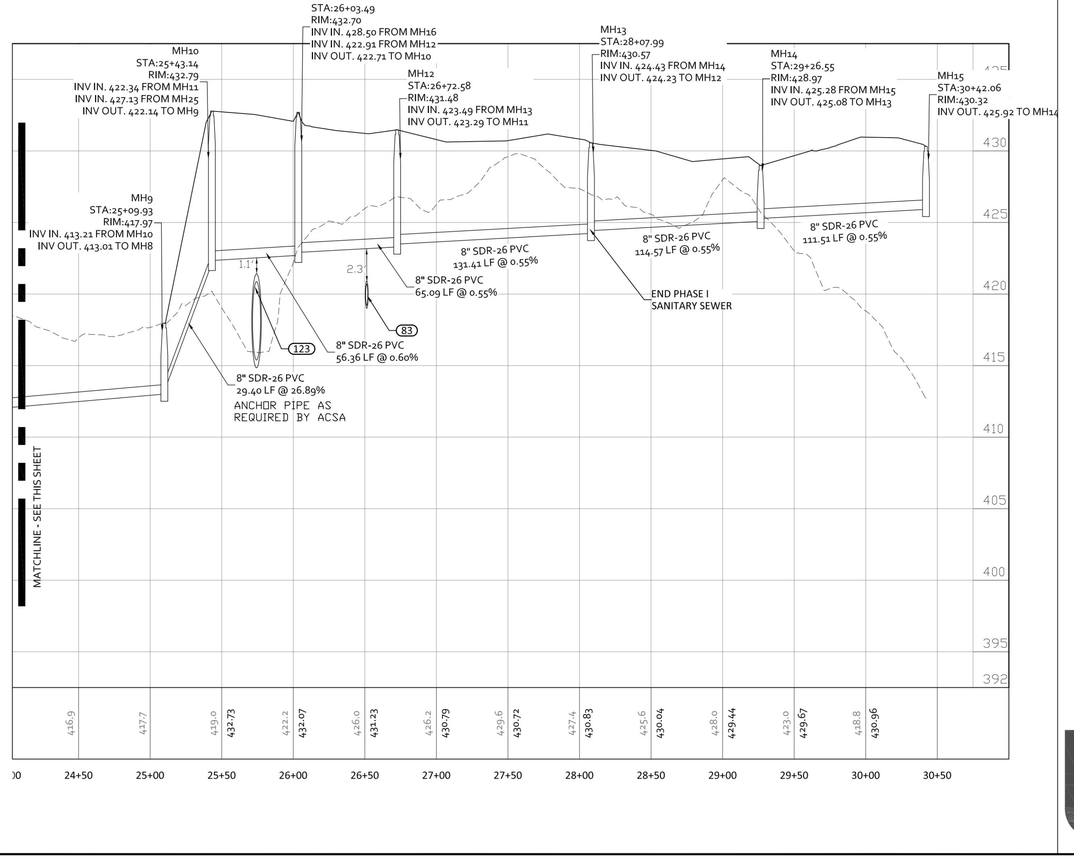
5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

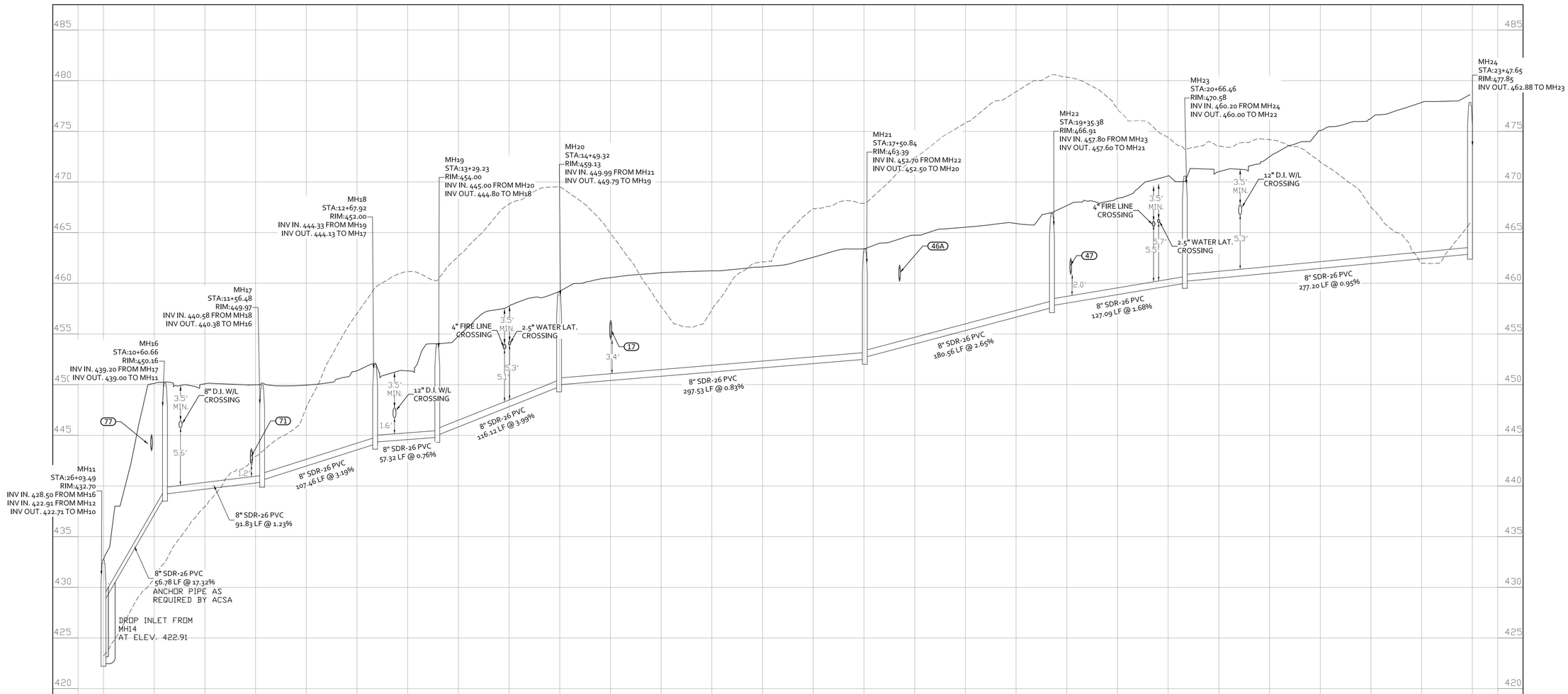
HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



| | | |



MH24 - MH11

NOTES:

1. CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, CONFORMING TO SECTIONS 205, 208 OR 249 RESPECTIVELY, OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26, PER VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 302.03(a)2G "BACKFILLING".
2. ALL FILL TO BE PLACED AT 95% COMPACTION.
3. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER W/L.
4. MINIMUM OF 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L AND 1.5' OF SEPARATION BETWEEN W/L & SANITARY SEWER MUST BE PROVIDED.
5. ALL DRAINAGE STRUCTURES SHALL BE PROVIDED INLET SHAPING IN ACCORDANCE WITH VDOT STANDARD IS-1.
6. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 4' OR GREATER SHALL HAVE STEPS IN ACCORDANCE WITH STANDARD ST-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
7. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 12' OR GREATER SHALL HAVE SAFETY SLABS IN ACCORDANCE WITH STANDARD SL-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
8. ALL STEP DOWN DRAINAGE STRUCTURES WITH VERTICAL DIFFERENCE BETWEEN THE INVERTS OF THE INLET PIPE AND THE OUTLET PIPE IN EXCESS OF 4' MAY BE PROVIDED A $\frac{1}{4}$" STEEL PLATE IN THE BOTTOM OF THE MANHOLE, OR AN ADDITIONAL 6" OF CONCRETE AT THE BOTTOM OF THE STRUCTURE TO PROTECT THE MANHOLE, ESPECIALLY WHERE FLOW IS EXPECTED TO CARRY ANY ABRASIVE MATERIAL, CONTINUOUS LIVE FLOW OR LIVE FLOW LASTING SEVERAL DAYS IS EXPECTED, OR THE SIZE OF PIPES IS 48" OR GREATER.
9. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATION 303.04(h)

VERTICAL GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

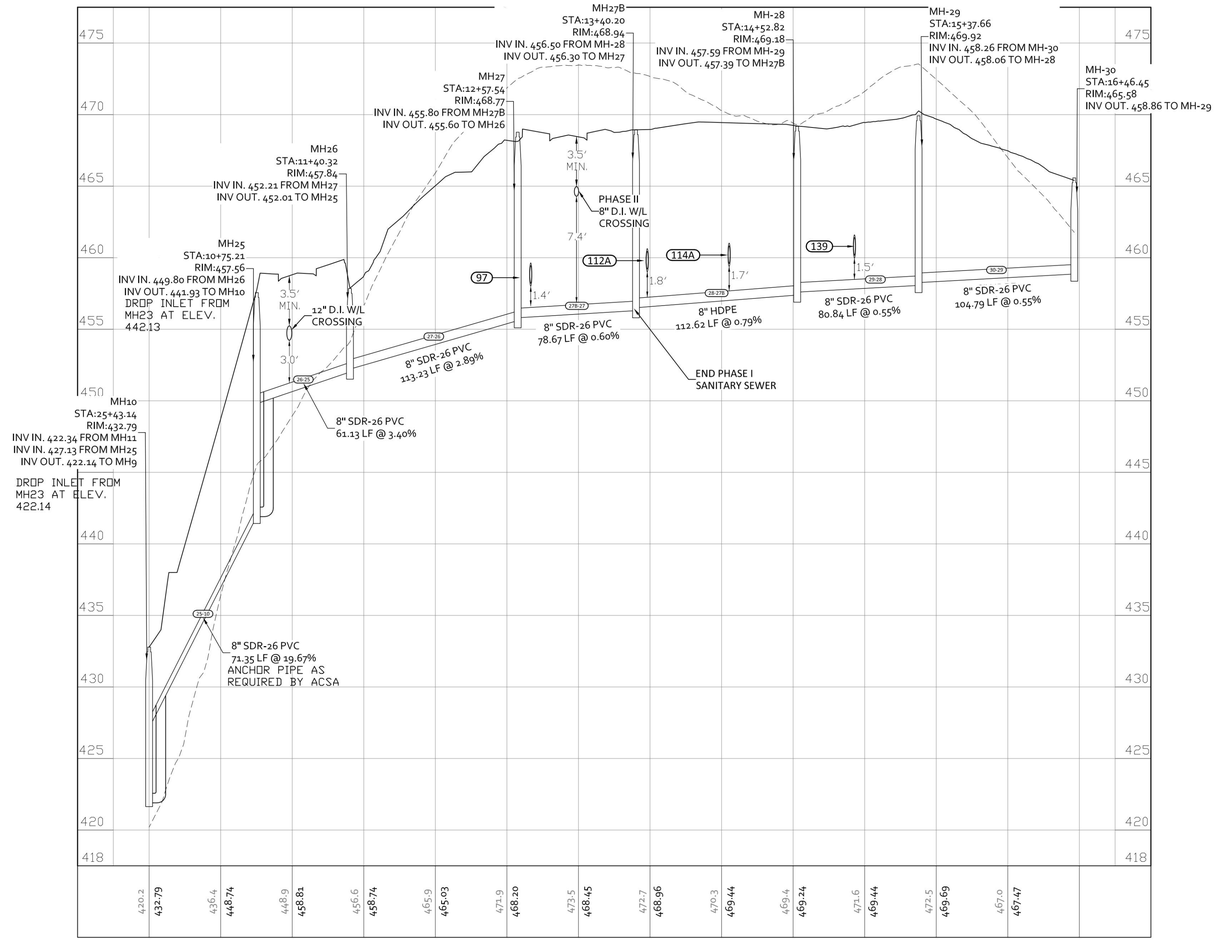
SHEET TITLE
SANITARY SEWER PROFILES

JOB NO.
232220

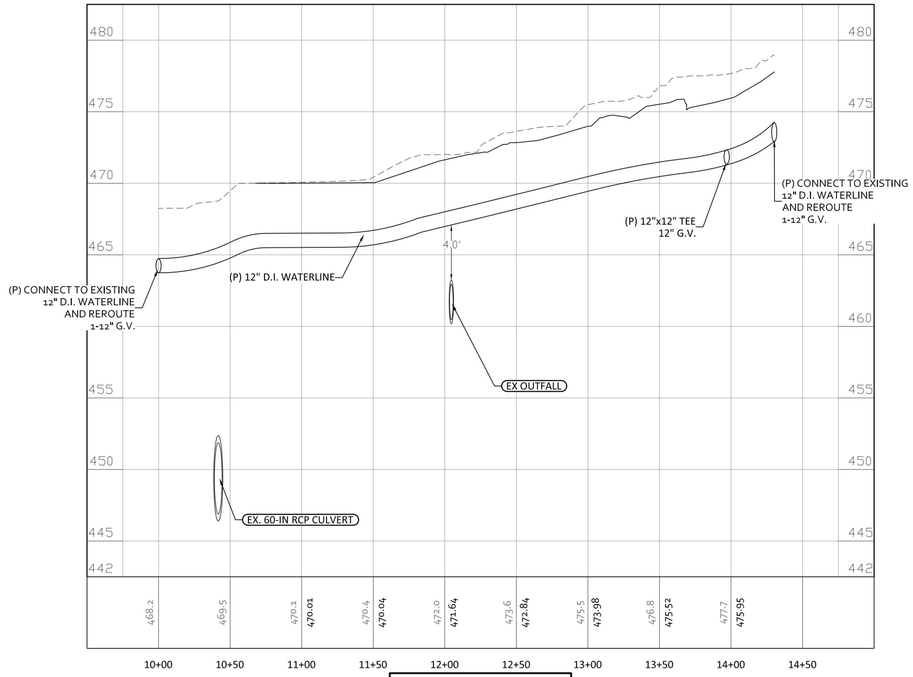
SCALE
V: 1" = 5'
H: 1" = 50'

SHEET NO.
21

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



MH30 - MH10



WATERLINE 5

NOTES:
1. CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, CONFORMING TO SECTIONS 205, 208 OR 249 RESPECTIVELY, OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26, PER VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 302.03(a)2G "BACKFILLING".
2. ALL FILL TO BE PLACED AT 95% COMPACTION.
3. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER W/L.
4. MINIMUM OF 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L AND 1.5' OF SEPARATION BETWEEN W/L & SANITARY SEWER MUST BE PROVIDED.
5. ALL DRAINAGE STRUCTURES SHALL BE PROVIDED INLET SHAPING IN ACCORDANCE WITH VDOT STANDARD IS-1.
6. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 4' OR GREATER SHALL HAVE STEPS IN ACCORDANCE WITH STANDARD ST-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
7. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 12' OR GREATER SHALL HAVE SAFETY SLABS IN ACCORDANCE WITH STANDARD SL-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
8. ALL STEP DOWN DRAINAGE STRUCTURES WITH VERTICAL DIFFERENCE BETWEEN THE INVERTS OF THE INLET PIPE AND THE OUTLET PIPE IN EXCESS OF 4' MAY BE PROVIDED A ¾" STEEL PLATE IN THE BOTTOM OF THE MANHOLE, OR AN ADDITIONAL 6" OF CONCRETE AT THE BOTTOM OF THE STRUCTURE TO PROTECT THE MANHOLE, ESPECIALLY WHERE FLOW IS EXPECTED TO CARRY ANY ABRASIVE MATERIAL, CONTINUOUS LIVE FLOW OR LIVE FLOW LASTING SEVERAL DAYS IS EXPECTED, OR THE SIZE OF PIPES IS 48" OR GREATER.
9. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATION 303.04(h)

VERTICAL GRAPHIC SCALE

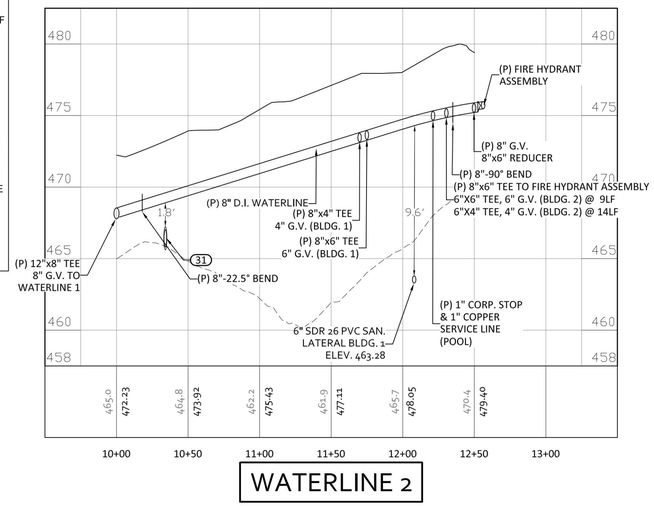
5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

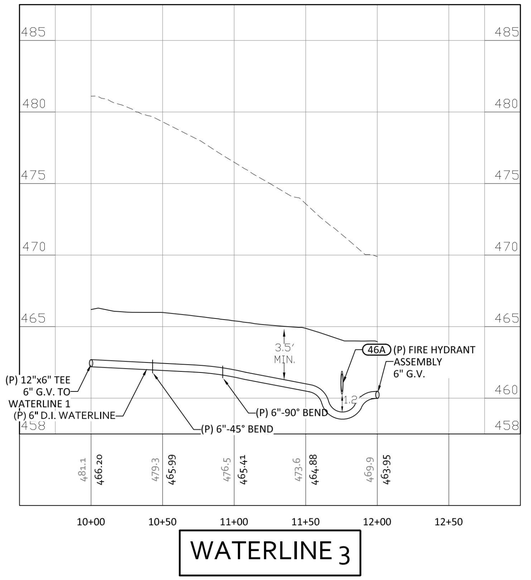
HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

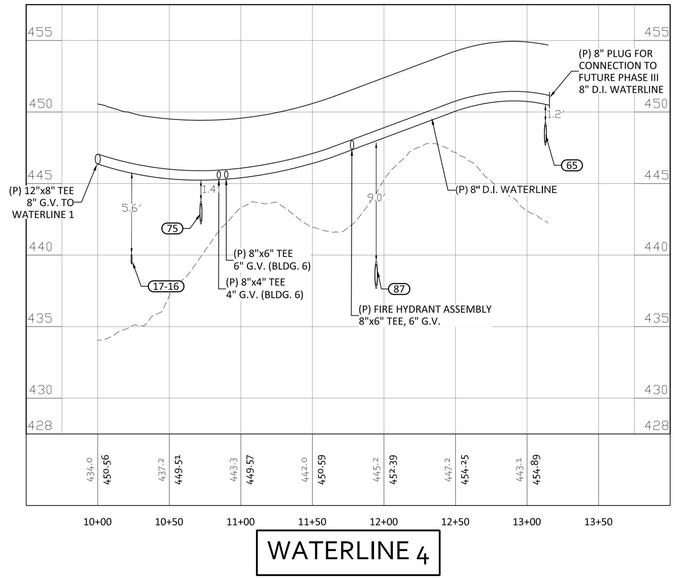
(IN FEET)
1 inch = 50 ft.



WATERLINE 2



WATERLINE 3



WATERLINE 4

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

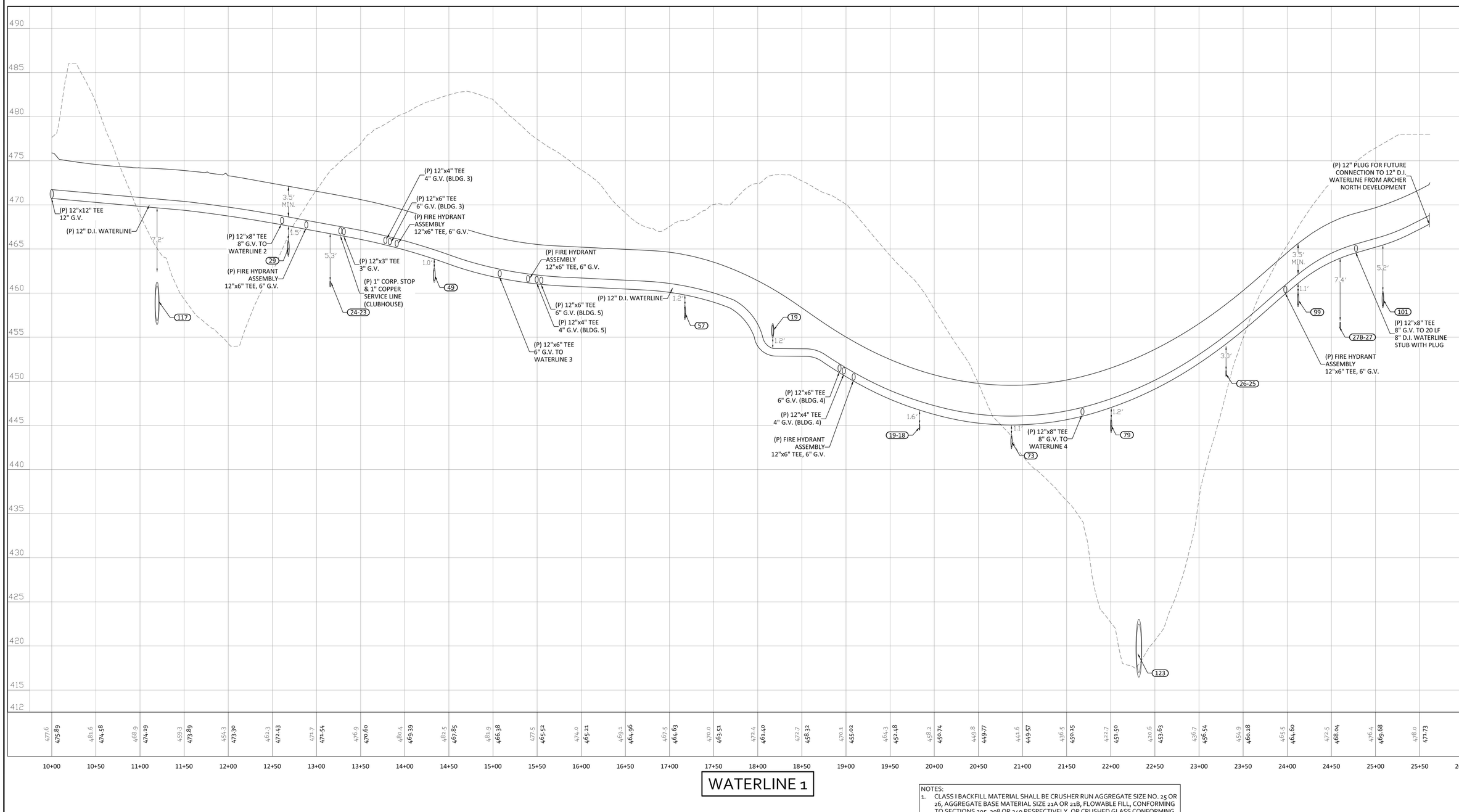
COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
UTILITY PROFILES

JOB NO. 232220
SCALE V: 1" = 5' H: 1" = 50'
SHEET NO. 22

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



WATERLINE 1

NOTES:
1. CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, CONFORMING TO SECTIONS 205, 208 OR 249 RESPECTIVELY, OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26, PER VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 302.03(a)2G "BACKFILLING".
2. ALL FILL TO BE PLACED AT 95% COMPACTION.
3. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER W/L.
4. MINIMUM OF 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L AND 1.5' OF SEPARATION BETWEEN W/L & SANITARY SEWER MUST BE PROVIDED.
5. ALL DRAINAGE STRUCTURES SHALL BE PROVIDED INLET SHAPING IN ACCORDANCE WITH VDOT STANDARD IS-1.
6. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 4' OR GREATER SHALL HAVE STEPS IN ACCORDANCE WITH STANDARD ST-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
7. ALL DRAINAGE STRUCTURES WITH A DEPTH OF 12' OR GREATER SHALL HAVE SAFETY SLABS IN ACCORDANCE WITH STANDARD SL-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.
8. ALL STEP DOWN DRAINAGE STRUCTURES WITH VERTICAL DIFFERENCE BETWEEN THE INVERTS OF THE INLET PIPE AND THE OUTLET PIPE IN EXCESS OF 4' MAY BE PROVIDED A ¾" STEEL PLATE IN THE BOTTOM OF THE MANHOLE, OR AN ADDITIONAL 6" OF CONCRETE AT THE BOTTOM OF THE STRUCTURE TO PROTECT THE MANHOLE, ESPECIALLY WHERE FLOW IS EXPECTED TO CARRY ANY ABRASIVE MATERIAL, CONTINUOUS LIVE FLOW OR LIVE FLOW LASTING SEVERAL DAYS IS EXPECTED, OR THE SIZE OF PIPES IS 48" OR GREATER.
9. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATION 303.04(h)

VERTICAL GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

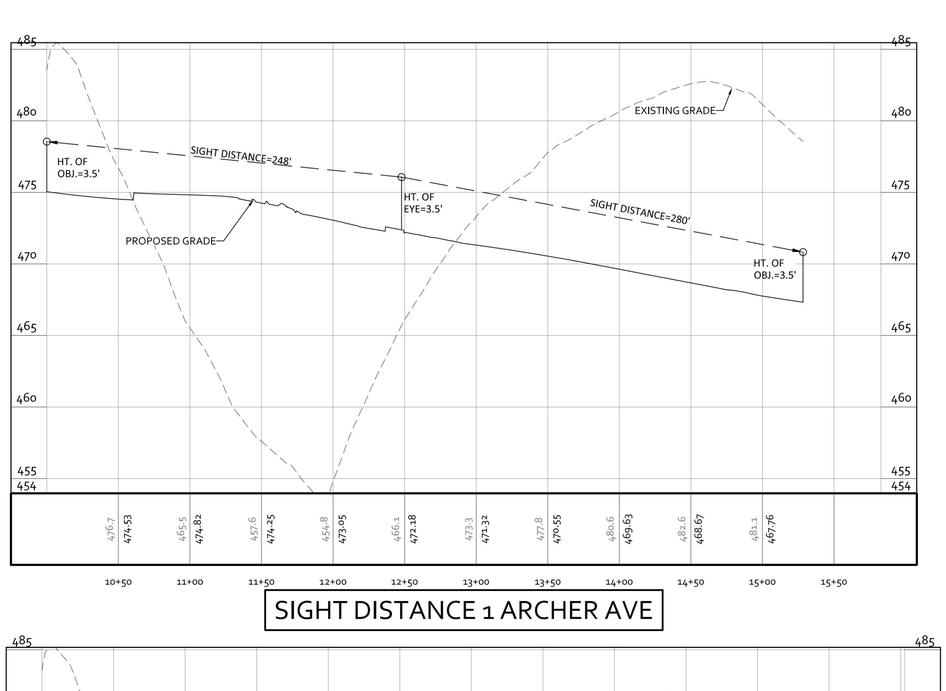
SHEET TITLE
UTILITY PROFILES

JOB NO.
232220

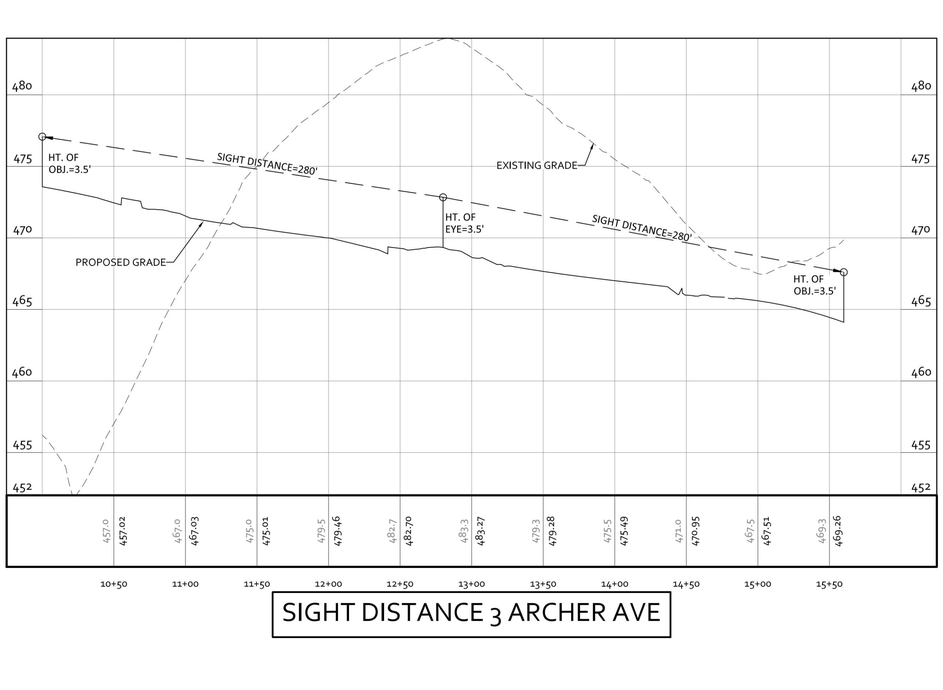
SCALE
V: 1" = 5'
H: 1" = 50'

SHEET NO.
23

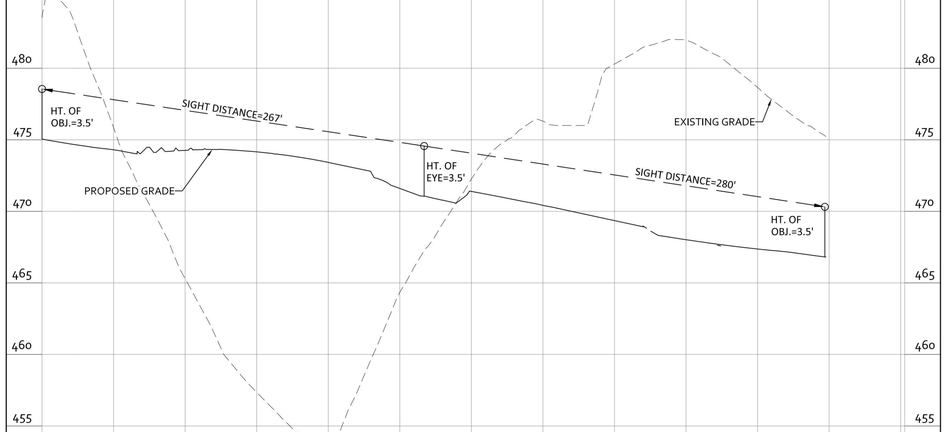
These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



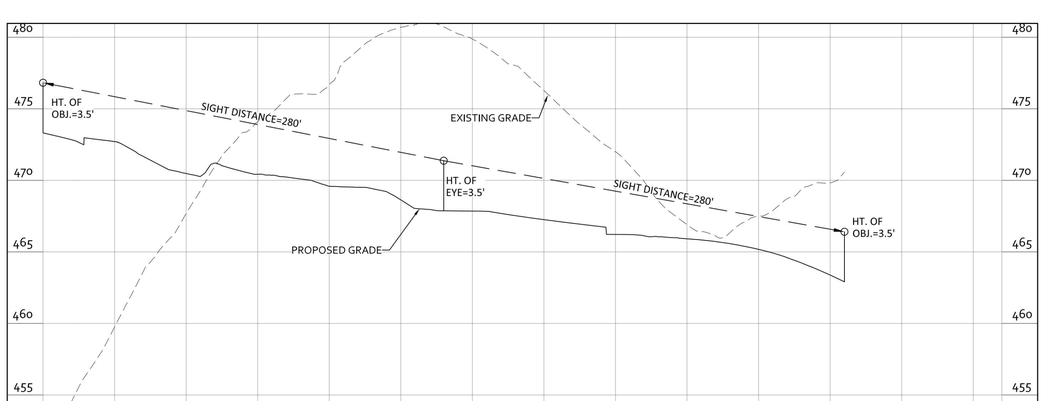
SIGHT DISTANCE 1 ARCHER AVE



SIGHT DISTANCE 3 ARCHER AVE



SIGHT DISTANCE 2 ARCHER AVE



SIGHT DISTANCE 4 ARCHER AVE

VERTICAL GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

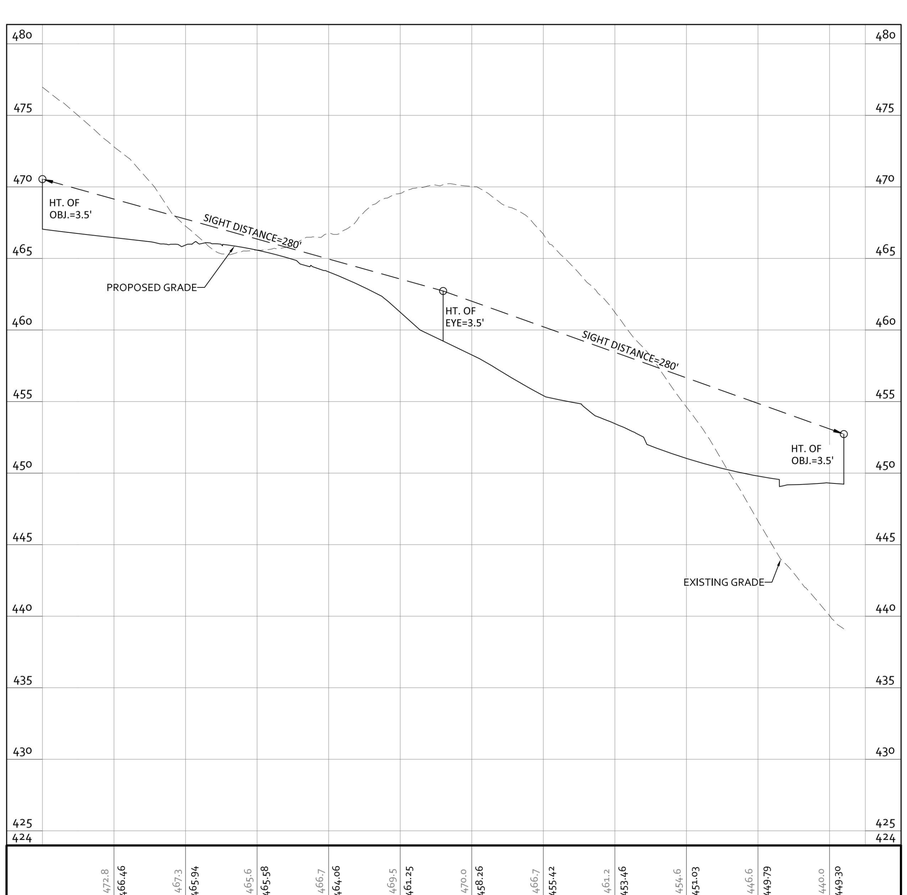
SHEET TITLE
SIGHT DISTANCE PROFILES

JOB NO. 232220

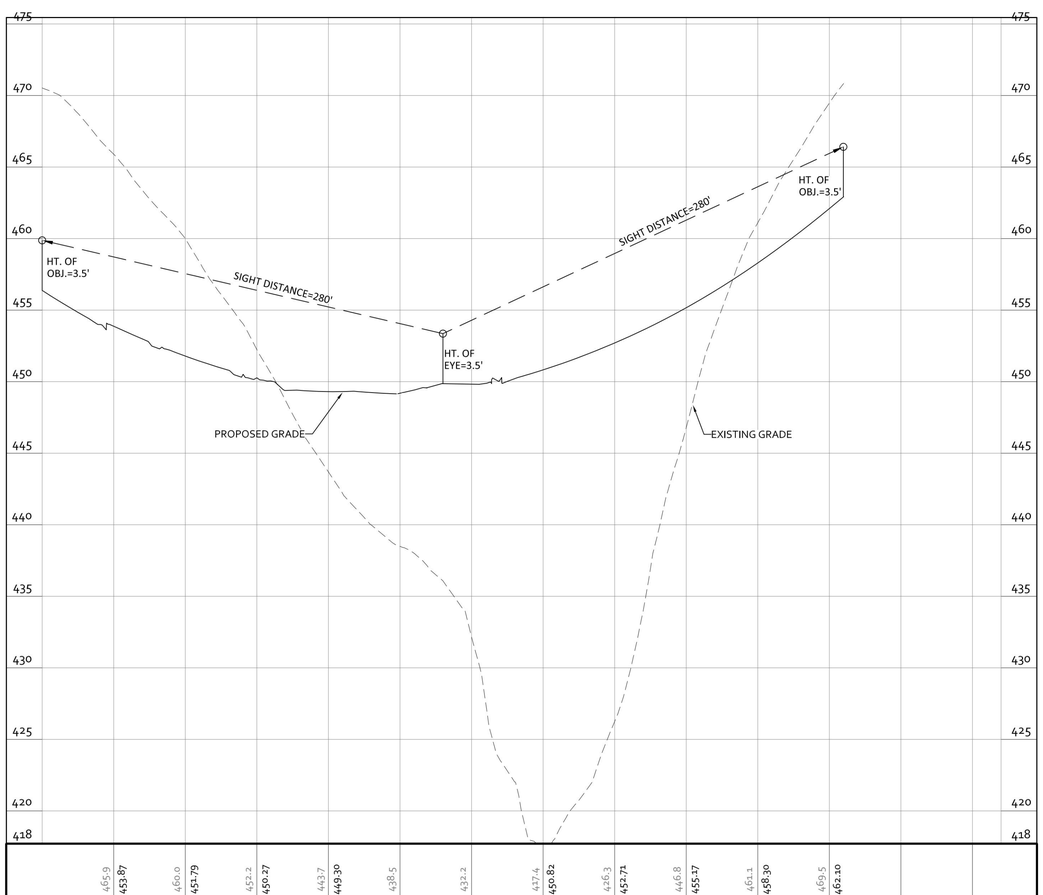
SCALE
V: 1" = 5'
H: 1" = 50'

SHEET NO. 24

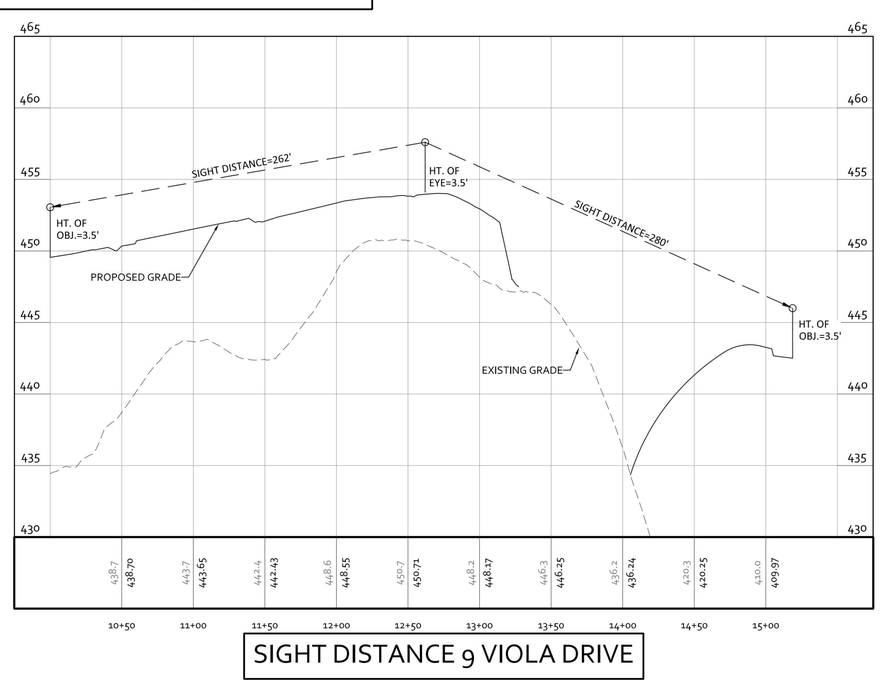
These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



SIGHT DISTANCE 5 ARCHER AVE



SIGHT DISTANCE 6 ARCHER AVE



SIGHT DISTANCE 9 VIOLA DRIVE

VERTICAL GRAPHIC SCALE

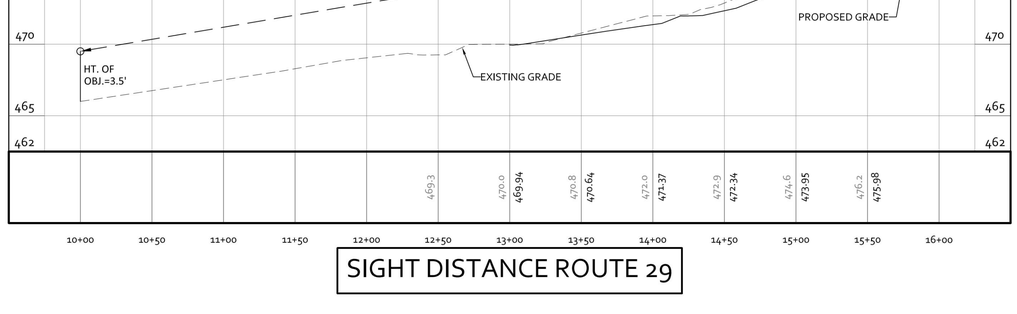
5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



SIGHT DISTANCE ROUTE 29

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

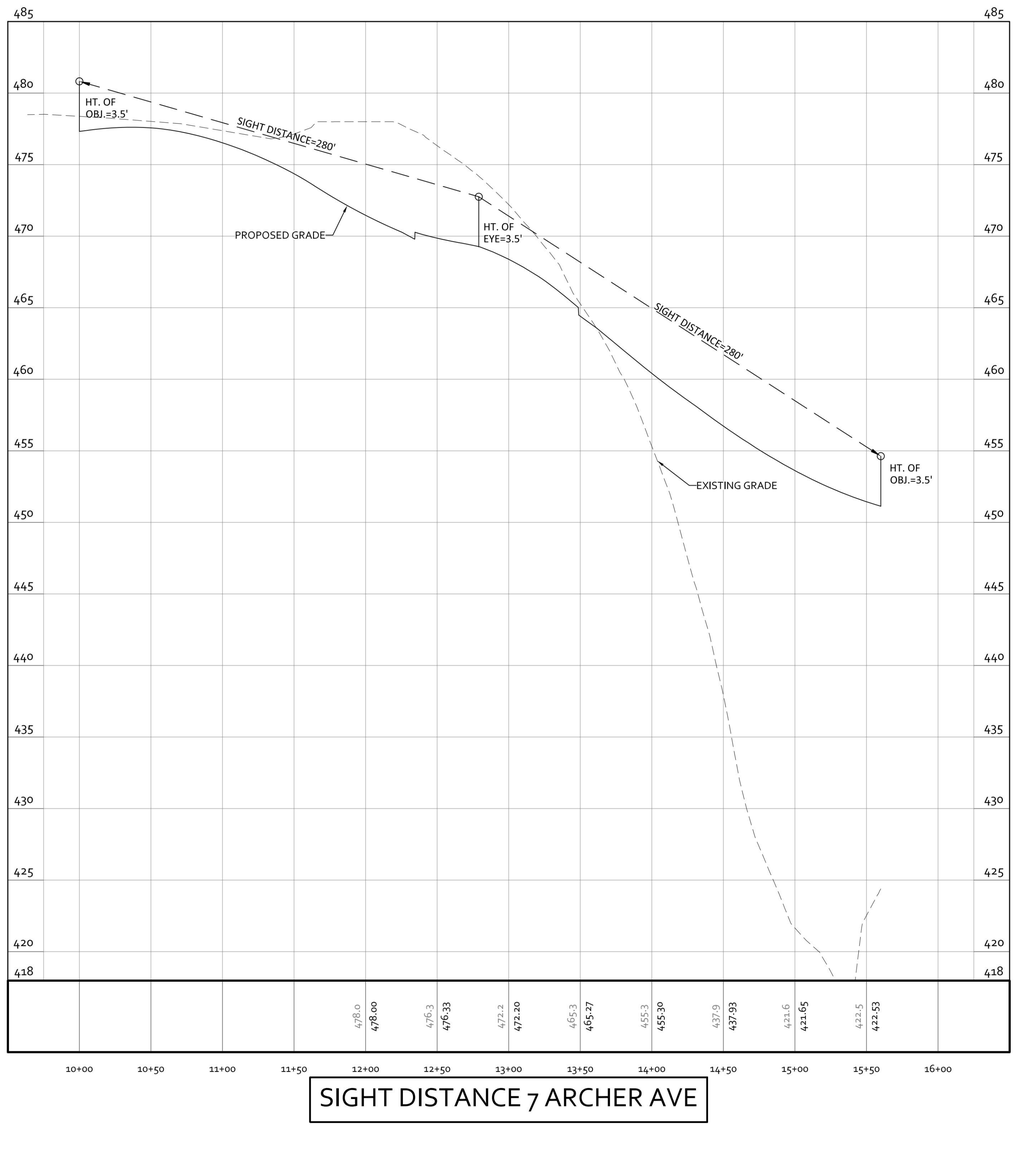
SHEET TITLE: SIGHT DISTANCE PROFILES

JOB NO. 232220

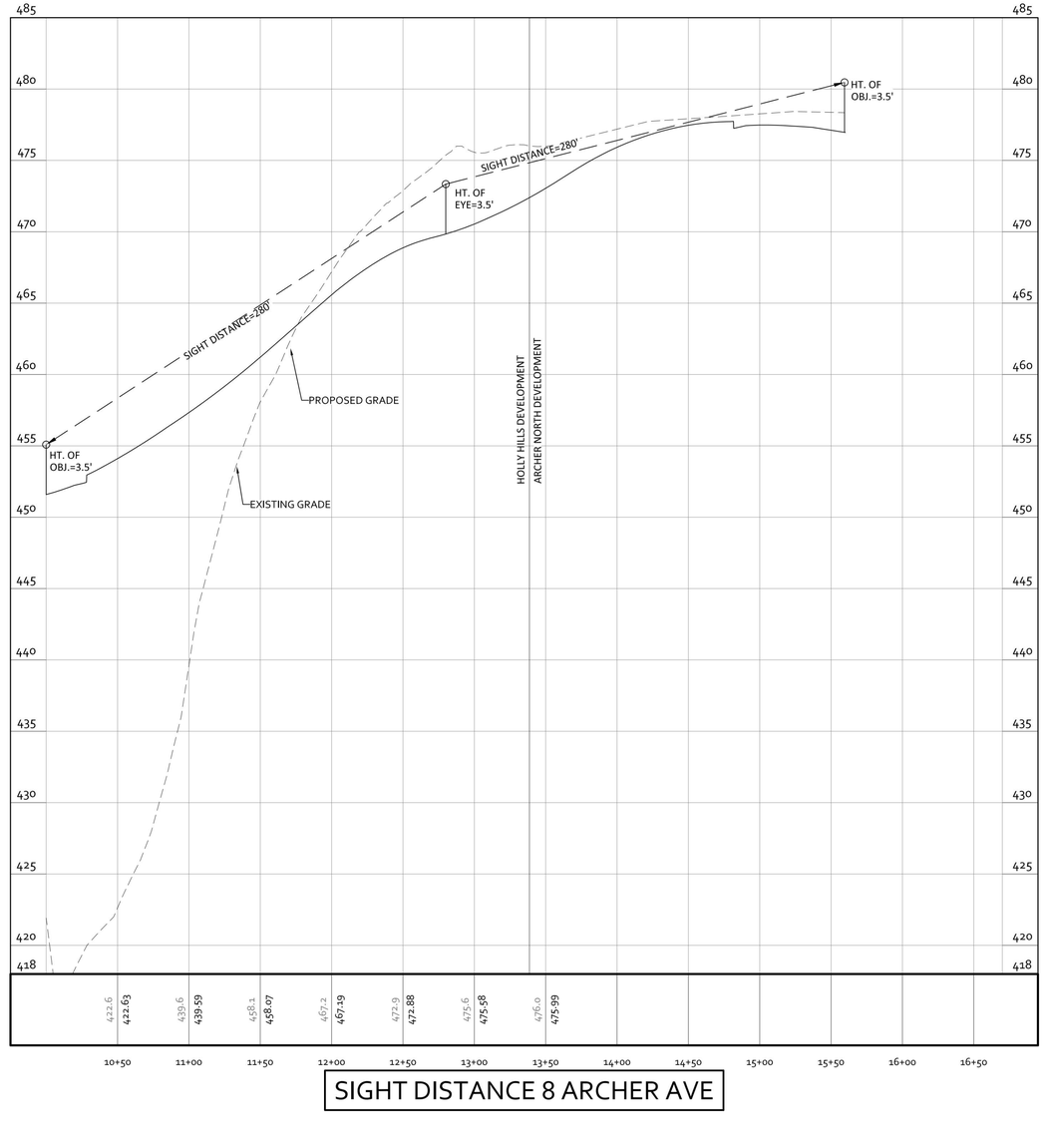
SCALE V: 1" = 5' H: 1" = 50'

SHEET NO. 25

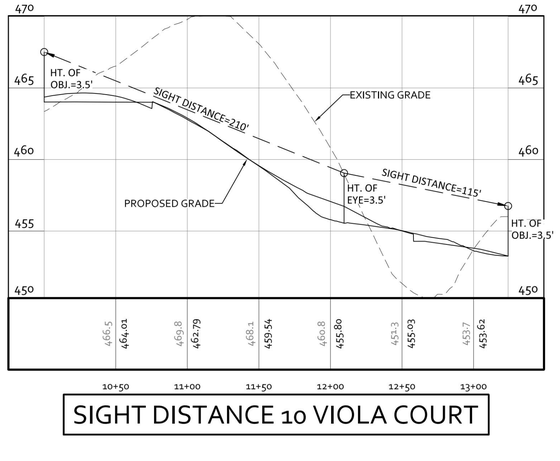
These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



SIGHT DISTANCE 7 ARCHER AVE



SIGHT DISTANCE 8 ARCHER AVE



SIGHT DISTANCE 10 VIOLA COURT

VERTICAL GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

SCOTT R. COLLINS
Lic. No. 035791
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
SIGHT DISTANCE PROFILES

JOB NO.
232220

SCALE
V: 1" = 5'
H: 1" = 50'

SHEET NO.
26

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



COLLINS ENGINEERING

200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT

HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE

LIGHTING PLAN

SHEET NO. LL-1 | SCALE 1" = 30' | JOB NO. 232220

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

MATCHLINE
SEE SHEET LL-1

ARCHER AVENUE EXTENSION
(PUBLIC STREET)

JERSEY CIRCLE
(PRIVATE TRAVELWAY)

BUILDING #5
3/4 STORIES
(72 UNITS)

3 STORIES
4 STORIES

BUILDING #3
3 STORIES
(30 UNITS)

KRAMERIA LANE
(PRIVATE TRAVELWAY)

POCKET PARK

BUILDING #4
3/4 STORIES
(72 UNITS)

DOG PARK

SWM FACILITY

SEMINOLE TRAIL
U.S. ROUTE 29
(PUBLIC ROW)

TMP 46-28A1

MATCHLINE
SEE SHEET LL-3

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
09/03/24
PROFESSIONAL ENGINEER

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
LIGHTING PLAN

JOB NO. 232220
SCALE 1" = 30'
SHEET NO. LL-2

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

BUILDING #6
3/4 STORIES
(72 UNITS)

BUILDING #4
3/4 STORIES
(72 UNITS)

3 STORIES
4 STORIES

ARCHER AVENUE EXTENSION
(PUBLIC STREET)

JERSEY CIRCLE
(PRIVATE TRAVELWAY)

VIOLA DRIVE
(PUBLIC STREET)

CALYX DRIVE
(PRIVATE ALLEY)

DOG PARK

SWM FACILITY

PHASE I
PHASE II
PHASE III

SEE SHEET LL-2

MATCHLINE

TMP 46B5-1

TMP 46B5--0J-10
LOT 10

TMP 46B5--0J-11
LOT 11

TMP 46B5--0J-12
LOT 12

TMP 46B5-J

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Ground	Illuminance	Fc	0.97	4.8	0.0	N.A.	N.A.
Phase 1 Parking & Drive Aisle	Illuminance	Fc	1.77	3.9	1.0	1.77	3.90
Pool Deck	Illuminance	Fc	3.60	4.7	2.1	1.71	2.24

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
LIGHTING PLAN

JOB NO.
232220

SCALE
1" = 30'

SHEET NO.
LL-3

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

GARDCO

Site and Area

OptiForm

OPF-S Small



Old Dominion Lighting Associates

Project: HOLLY HILLS DEVELOPMENT
Location:
Cat.No:
Type: AL1
Lamps: Qty:
Notes: MOUNTED ON 20FT POLE

Gardco OptiForm site and area luminaires are available in three sizes: small, medium and large. Featuring the latest in LED technology, OptiForm achieves up to 192 lumens per watt. Eleven optical distributions are available, suitable for a range of outdoor lighting applications. OptForm features a unique mounting system with a two-piece housing for hassle-free installation. Mounting options include a standard arm, mast arm, and wall mount bracket. Service Tag is a standard feature with every OptiForm luminaire, providing maintenance or upgrade assistance throughout the life of the product.

Ordering guide

example: OPF-S-A01-840-T4M-AR1-120-BL50-L3-BZ

Luminaire	Configuration (nom. lumens)		Color Temperature	Distribution		Mounting	Voltage
OPF-S							
OPF-S Small Area	Site and Area	Precision Plus[4] (TDM, T2M, T4M, T5M only)	827[1] 80CRI 2700K 830 80CRI 3000K 840 80CRI 4000K 727[1] 70CRI 2700K 730 70CRI 3000K 740 70CRI 4000K 750 70CRI 5000K	AFR Autofrost row T2M Type 2 medium T3M Type 3 medium T4M Type 4 wide T5N Type 5 narrow T5M Type 5 medium T5W Type 5 wide	LCL LEED corner optic left LCR LEED corner optic right BLC Back light control 2RL Type 2 rotated left 90° 2RR Type 2 rotated right 270° 3RL Type 3 rotated left 90° 3RR Type 3 rotated right 270° 4RL[7] Type 4 rotated left 90° 4RR[7] Type 4 rotated right 270°	AR1[3] Arm mount (standard) MAR[5] Mast arm WAL Wall mount MOD[6] Mounting ordered separately	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V HVU[2] 347-480V
	A01 7,000 lumens A02 9,000 lumens A03 11,000 lumens A04 15,000 lumens A05 17,000 lumens A06 19,000 lumens A07 20,000 lumens	P01 2,500 lumens P02 4,000 lumens P03 6,500 lumens P04 9,000 lumens P05 11,500 lumens P06 14,000 lumens P07 16,500 lumens P08 19,000 lumens P09 22,000 lumens						

AS REQUIRED, IF REQUIRED

Dimming Controls	Sensing	Options (electrical, mechanical, etc)	Emergency	Finish	SPECIFY Finish
The following options include 0-10V Driver		None Surge protector 10kV/10kA standard	EM[2,9,10] Emergency Battery Pack (0-40 °C)	Standard textured finish	
none 0-10V dimming driver		SP2 Surge protector 20kV/10kA (option)		BK Black	
DLEA[10] Dimming leads externally accessible (controls by others)		FS1[8] Single fuse (120, 277, or 347VAC)	Available with precision plus optics P01-P03 only.	WH White	
FAWS[2,8,9] Field adjustable wattage selector		FS2[8] Double fuse (208, 240, or 480V)		BZ Bronze	
BL50[11,12] Bi-level with motion sensor	L2 PIR sensor, #2 lens (Required if BL50 is selected)	PCB[11,12] Photocontrol button connected to 0-10V driver		DG Dark Gray	
The following options include SR/DALI Driver	**WAP sensor options**	TRS NEMA Twist-lock 5-pin receptacle connected to 0-10V driver		MG Medium Gray	
WIAP[2,8,9] Wireless Interact (includes SR drive and SR receptacle)	LB Low (7-15' mounting height) sensor, black color housing, wireless Interact, Integral	TR7[13] 7-pin twist lock receptacle connected to 0-10V driver		**Customer specified**	
SRDR[2,8,9] SR driver connected to Zhaga socket (D4)	LW Low (7-15' mounting height) sensor, white color housing	TLP[11,12] 7-pin twist lock receptacle connected to D4i compliant driver w/ 3-pin photocell		SC Special optional color or RAL, consult factory Special color (must supply color chip, requires factory quote)	
DynaDimmer: Automatic Profile Dimming	HB High (15'-40' mounting height) sensor, black color housing	EHS Housing machined to accept external house side shield for field install. Must be combined with OPF-S-EHS-1 accessory.			
CS50[2,9] Security 50% dimming, 7 hours	HW High (15'-40' mounting height) sensor, white color housing	BAC[7,8] Meets the requirements of the Buy American Act of 1933 (BAA)			
CM50[2,9] Median 50% dimming, 8 hours					
CS30[2,9] Security 30% dimming, 7 hours					
CM30[2,9] Median 30% dimming, 8 hours					

1. Extended leadtime applies. Consult factory for details.
2. Mounts to a square pole with knockout for 4-5" OD round pole.
3. Mounts to a horizontal 2-3/8" OD x 5" Long tenon.
4. Must be ordered with mounting accessory. Photocell option (TR7) must be selected with mounting accessory. See Page 2 for options.
5. Not available with other dimming control options (mutually exclusive).
6. Not available with motion sensor (physical restriction).
7. Must be specified with a motion sensor lens (L2).
8. Not available with PCB, TR5.
9. Must be specified with a motion sensor LW, LB.
10. Not available with TR7, TLP.
11. Must specify input voltage.
12. Not available in HVU [347-480V].
13. UNV [120-277V] only available for lumen packages P03-P09. HVU [347-480V] only available for lumen packages P06-P09 & A04-A07.
14. Not available for lumen packages P04-P09.
15. Not available with Dynadimmer, SRDR, FAWS, FS1, FS2, DLEA, BL50 (physical restriction).
16. Precision Plus Optics (P01-P09) available only with T2M, T3M, T4M, and T5M optical distributions and are non-rotatable.
17. OPF-RMB accessory recommended for retrofit applications.
18. Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.

interact · DARKSKY APPROVED · Di4 · DLC · DLC LISTED PREMIUM · cULus

GARDCO

Site and Area

OptiForm

OPF-S Small



Old Dominion Lighting Associates

Project: HOLLY HILLS DEVELOPMENT
Location:
Cat.No:
Type: AL2
Lamps: Qty:
Notes: MOUNTED ON 20FT POLE

Gardco OptiForm site and area luminaires are available in three sizes: small, medium and large. Featuring the latest in LED technology, OptiForm achieves up to 192 lumens per watt. Eleven optical distributions are available, suitable for a range of outdoor lighting applications. OptForm features a unique mounting system with a two-piece housing for hassle-free installation. Mounting options include a standard arm, mast arm, and wall mount bracket. Service Tag is a standard feature with every OptiForm luminaire, providing maintenance or upgrade assistance throughout the life of the product.

Ordering guide

example: OPF-S-A01-840-T4M-AR1-120-BL50-L3-BZ

Luminaire	Configuration (nom. lumens)		Color Temperature	Distribution		Mounting	Voltage
OPF-S							
OPF-S Small Area	Site and Area	Precision Plus[4] (TDM, T2M, T4M, T5M only)	827[1] 80CRI 2700K 830 80CRI 3000K 840 80CRI 4000K 727[1] 70CRI 2700K 730 70CRI 3000K 740 70CRI 4000K 750 70CRI 5000K	AFR Autofrost row T2M Type 2 medium T3M Type 3 medium T4M Type 4 wide T5N Type 5 narrow T5M Type 5 medium T5W Type 5 wide	LCL LEED corner optic left LCR LEED corner optic right BLC Back light control 2RL Type 2 rotated left 90° 2RR Type 2 rotated right 270° 3RL Type 3 rotated left 90° 3RR Type 3 rotated right 270° 4RL[7] Type 4 rotated left 90° 4RR[7] Type 4 rotated right 270°	AR1[3] Arm mount (standard) MAR[5] Mast arm WAL Wall mount MOD[6] Mounting ordered separately	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V HVU[2] 347-480V
	A01 7,000 lumens A02 9,000 lumens A03 11,000 lumens A04 15,000 lumens A05 17,000 lumens A06 19,000 lumens A07 20,000 lumens	P01 2,500 lumens P02 4,000 lumens P03 6,500 lumens P04 9,000 lumens P05 11,500 lumens P06 14,000 lumens P07 16,500 lumens P08 19,000 lumens P09 22,000 lumens						

AS REQUIRED, IF REQUIRED

Dimming Controls	Sensing	Options (electrical, mechanical, etc)	Emergency	Finish	SPECIFY Finish
The following options include 0-10V Driver		None Surge protector 10kV/10kA standard	EM[2,9,10] Emergency Battery Pack (0-40 °C)	Standard textured finish	
none 0-10V dimming driver		SP2 Surge protector 20kV/10kA (option)		BK Black	
DLEA[10] Dimming leads externally accessible (controls by others)		FS1[8] Single fuse (120, 277, or 347VAC)	Available with precision plus optics P01-P03 only.	WH White	
FAWS[2,8,9] Field adjustable wattage selector		FS2[8] Double fuse (208, 240, or 480V)		BZ Bronze	
BL50[11,12] Bi-level with motion sensor	L2 PIR sensor, #2 lens (Required if BL50 is selected)	PCB[11,12] Photocontrol button connected to 0-10V driver		DG Dark Gray	
The following options include SR/DALI Driver	**WAP sensor options**	TRS NEMA Twist-lock 5-pin receptacle connected to 0-10V driver		MG Medium Gray	
WIAP[2,8,9] Wireless Interact (includes SR drive and SR receptacle)	LB Low (7-15' mounting height) sensor, black color housing, wireless Interact, Integral	TR7[13] 7-pin twist lock receptacle connected to D4i compliant driver w/ 3-pin photocell		**Customer specified**	
SRDR[2,8,9] SR driver connected to Zhaga socket (D4)	LW Low (7-15' mounting height) sensor, white color housing	TLP[11,12] 7-pin twist lock receptacle connected to D4i compliant driver w/ 3-pin photocell		SC Special optional color or RAL, consult factory Special color (must supply color chip, requires factory quote)	
DynaDimmer: Automatic Profile Dimming	HB High (15'-40' mounting height) sensor, black color housing	EHS Housing machined to accept external house side shield for field install. Must be combined with OPF-S-EHS-1 accessory.			
CS50[2,9] Security 50% dimming, 7 hours	HW High (15'-40' mounting height) sensor, white color housing	BAC[7,8] Meets the requirements of the Buy American Act of 1933 (BAA)			
CM50[2,9] Median 50% dimming, 8 hours					
CS30[2,9] Security 30% dimming, 7 hours					
CM30[2,9] Median 30% dimming, 8 hours					

1. Extended leadtime applies. Consult factory for details.
2. Mounts to a square pole with knockout for 4-5" OD round pole.
3. Mounts to a horizontal 2-3/8" OD x 5" Long tenon.
4. Must be ordered with mounting accessory. Photocell option (TR7) must be selected with mounting accessory. See Page 2 for options.
5. Not available with other dimming control options (mutually exclusive).
6. Not available with motion sensor (physical restriction).
7. Must be specified with a motion sensor lens (L2).
8. Not available with PCB, TR5.
9. Must be specified with a motion sensor LW, LB.
10. Not available with TR7, TLP.
11. Must specify input voltage.
12. Not available in HVU [347-480V].
13. UNV [120-277V] only available for lumen packages P03-P09. HVU [347-480V] only available for lumen packages P06-P09 & A04-A07.
14. Not available for lumen packages P04-P09.
15. Not available with Dynadimmer, SRDR, FAWS, FS1, FS2, DLEA, BL50 (physical restriction).
16. Precision Plus Optics (P01-P09) available only with T2M, T3M, T4M, and T5M optical distributions and are non-rotatable.
17. OPF-RMB accessory recommended for retrofit applications.
18. Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.

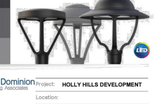
interact · DARKSKY APPROVED · Di4 · DLC · DLC LISTED PREMIUM · cULus

LUMEC

Urban

OmniScape with ComfortEdge™ technology

S-OSPC Post Top



Old Dominion Lighting Associates

Project: HOLLY HILLS DEVELOPMENT
Location:
Cat.No:
Type: PT1
Qty:
Notes: MOUNTED ON 12FT POLE

Lumec OmniScape LED post top is the latest solution for high-performance lighting in any urban setting. With contemporary, transitional and historical style options, as well as a selection of roofs, cages and fitters, this luminaire is versatile and adaptable to any environment. It features a precision and comfort light engine, which provides exceptional efficacy and glare control, ensuring comfortable and efficient illumination.

Ordering guide

example: S-OSPCCC-C-35WLED-730-G1-2F-UNV-DMG-TLRD7-PH8S-BKTX

Series									Options AS REQUIRED, IF REQUIRED				SPECIFY Finish
Roof	Cage	Fitter/Comfort	LED module	CRI CCT	Gen.	Optical System	Voltage	Driver	Receptacle	Control	Luminaire	Deco.	Finish
S-OSPC OmniScape LED post top luminaire with Contemporary luminaire Roof S-OSPT OmniScape LED post top luminaire with Contemporary Transitional Roof S-OSPH OmniScape LED post top luminaire with Historical Roof	C Contemporary T Transitional H Historical	C-C Contemporary w/ high performance comfort optics T-C Transitional with high performance comfort optics H-C Historical with high performance comfort optics	15WLED[1,2] 1,500 lumen 25WLED[1] 3,000 lumen 35WLED 4,000 lumen 50WLED 6,000 lumen 60WLED 7,500 lumen 75WLED 8,000 lumen 105WLED 11,000 lumen 135WLED 12,000 lumen 155WLED 14,000 lumen 165WLED 16,000 lumen	727[1] 70CRI 2700K 730 70CRI 3000K 740 70CRI 4000K 827[1] 80CRI 2700K 830 80CRI 3000K 840 80CRI 4000K	G1 Gen1 2 Gen2 G1	3 Type III (ASYM) 4 Type IV (ASYM) 5 Type (SYMM)	UNV 120-277V HVU 347-480V	D4i[4] (Diagx-D4i certified DALI Digitally addressable lighting interface DMG 0-10V SRD Sensor ready driver	TLRD7[4] 7-Pin receptacle for photoelectric cell PH8 (PH8S) Twist-lock UNV (120-277VAC) PH8/347 (PH8/347S) Twist-lock (347VAC) PH8/480 (PH8/480S) Twist-lock (480VAC) PH9 (PH9S) Shorting Cap PHXL (PHXLS) Extended life UNV (120-277VAC) TLRSR[4] SR receptacle OMS Outdoor Multi-Sensor Microwave Motion Sensor[7,13] MW10 Dim 10% MW20 Dim 20% MW30 Dim 30% MW50 Dim 50%	Photoelectric Cell (add "S" for S-OSPC)[7] PH8 (PH8S) Twist-lock UNV (120-277VAC) PH8/347 (PH8/347S) Twist-lock (347VAC) PH8/480 (PH8/480S) Twist-lock (480VAC) PHXL (PHXLS) Extended life UNV (120-277VAC) TN3 Fitter to fit over a 3" (76 mm) O.D. by 4" (102 mm) long tenon TN3.5 Fitter to fit over a 3.5" (89 mm) O.D. by 4" (102 mm) long tenon	BAC[8] Meets the requirements of the Buy American Act of 1933 (BAA) FAWS[2,8,9] Field adj. wattage selector HS[9] House Side Shield SP2 20kV/10kA Surge Protector TN3 Fitter to fit over a 3" (76 mm) O.D. by 4" (102 mm) long tenon TN3.5 Fitter to fit over a 3.5" (89 mm) O.D. by 4" (102 mm) long tenon	FN1 Bird Spikes FN2 Visor FN4 Finial FN5 Photocell Cover FN6 Finial FN7 Finial FN8 Finial FN9 Finial FN10 Finial FN11 Finial Deco. Skirt S Skirt	BE2TX Midnight Blue BE6TX Ocean Blue BE8TX Royal Blue BQ2TX Sandstone Gold BK1TX Black BR1TX Bronze GN4TX Blue Green GN8TX Forest Green GN9TX Dark Forest Green GN7TX Green GY3TX Medium Gray RQ2TX Burgundy RD4TX Scarlet WH7TX White Others GR Gray Sandtex NP Natural Alum TG Hammer-tone Gold TS Hammer-tone Silver

1. Only available with DMG Driver options.
2. Only available with UNV Voltage option.
3. TLRSR must be selected this option.
4. Use of photoelectric cell or shorting cap is required to ensure proper illumination.
5. Not available with HVU voltage option.
6. Not available with DALI/DMG Driver options.
7. TLRD7 must be selected for this option. If used, photoelectric cell selection must be compatible with selected Voltage option.When selecting S-OSPC root, IP66 photoelectric cell or shorting cap must be used to preserve IP66 rating of luminaire.
8. Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.
9. Not available with TLRD7 Receptacle option.
10. Finials (FNx) Decorative options are not available with S-OSPC Roof.
11. Longer lead time applies. Consult factory.
12. Only available with UNV 120-277V. Recommended maximum mounting height 15ft (4.6m).

ZDi · DLC

LUMEC

Urban

OmniScape with ComfortEdge™ technology

S-OSPC Post Top



Old Dominion Lighting Associates

Project: HOLLY HILLS DEVELOPMENT
Location:
Cat.No:
Type: PT2
Qty:
Notes: MOUNTED ON 12FT POLE

Lumec OmniScape LED post top is the latest solution for high-performance lighting in any urban setting. With contemporary, transitional and historical style options, as well as a selection of roofs, cages and fitters, this luminaire is versatile and adaptable to any environment. It features a precision and comfort light engine, which provides exceptional efficacy and glare control, ensuring comfortable and efficient illumination.

Ordering guide

example: S-OSPCCC-C-35WLED-730-G1-2F-UNV-DMG-TLRD7-PH8S-BKTX

Series									Options AS REQUIRED, IF REQUIRED				SPECIFY Finish
Roof	Cage	Fitter/Comfort	LED module	CRI CCT	Gen.	Optical System	Voltage	Driver	Receptacle	Control	Luminaire	Deco.	Finish
S-OSPC OmniScape LED post top luminaire with Contemporary luminaire Roof S-OSPT OmniScape LED post top luminaire with Contemporary Transitional Roof S-OSPH OmniScape LED post top luminaire with Historical Roof	C Contemporary T Transitional H Historical	C-C Contemporary w/ high performance comfort optics T-C Transitional with high performance comfort optics H-C Historical with high performance comfort optics	15WLED[1,2] 1,500 lumen 25WLED[1] 3,000 lumen 35WLED 4,000 lumen 50WLED 6,000 lumen 60WLED 7,500 lumen 75WLED 8,000 lumen 105WLED 11,000 lumen 135WLED 12,000 lumen 155WLED 14,000 lumen 165WLED 16,000 lumen	727[1] 70CRI 2700K 730 70CRI 3000K 740 70CRI 4000K 827[1] 80CRI 2700K 830 80CRI 3000K 840 80CRI 4000K	G1 Gen1 2 Gen2 G1	3 Type III (ASYM) 4 Type IV (ASYM) 5 Type (SYMM)	UNV 120-277V HVU 347-480V	D4i[4] (Diagx-D4i certified DALI Digitally addressable lighting interface DMG 0-10V SRD Sensor ready driver	TLRD7[4] 7-Pin receptacle for photoelectric cell PH8 (PH8S) Twist-lock UNV (120-277VAC) PH8/347 (PH8/347S) Twist-lock (347VAC) PH8/480 (PH8/480S) Twist-lock (480VAC) PH9 (PH9S) Shorting Cap PHXL (PHXLS) Extended life UNV (120-277VAC) TLRSR[4] SR receptacle OMS Outdoor Multi-Sensor Microwave Motion Sensor[7,13] MW10 Dim 10% MW20 Dim 20% MW30 Dim 30% MW50 Dim 50%	Photoelectric Cell (add "S" for S-OSPC)[7] PH8 (PH8S) Twist-lock UNV (120-277VAC) PH8/347 (PH8/347S) Twist-lock (347VAC) PH8/480 (PH8/480S) Twist-lock (480VAC) PH9 (PH9S) Shorting Cap PHXL (PHXLS) Extended life UNV (120-277VAC) TN3 Fitter to fit over a 3" (76 mm) O.D. by 4" (102 mm) long tenon TN3.5 Fitter to fit over a 3.5" (89 mm) O.D. by 4" (102 mm) long tenon	BAC[8] Meets the requirements of the Buy American Act of 1933 (BAA) FAWS[2,8,9] Field adj. wattage selector HS[9] House Side Shield SP2 20kV/10kA Surge Protector TN3 Fitter to fit over a 3" (76 mm) O.D. by 4" (102 mm) long tenon TN3.5 Fitter to fit over a 3.5" (89 mm) O.D. by 4" (102 mm) long tenon	FN1 Bird Spikes FN2 Visor FN4 Finial FN5 Photocell Cover FN6 Finial FN7 Finial FN8 Finial FN9 Finial FN10 Finial FN11 Finial Deco. Skirt S Skirt	BE2TX Midnight Blue BE6TX Ocean Blue BE8TX Royal Blue BQ2TX Sandstone Gold BK1TX Black BR1TX Bronze GN4TX Blue Green GN8TX Forest Green GN9TX Dark Forest Green GN7TX Green GY3TX Medium Gray RQ2TX Burgundy RD4TX Scarlet WH7TX White Others GR Gray Sandtex NP Natural Alum TG Hammer-tone Gold TS Hammer-tone Silver

1. Only available with DMG Driver options.
2. Only available with UNV Voltage option.
3. TLRSR must be selected this option.
4. Use of photoelectric cell or shorting cap is required to ensure proper illumination.
5. Not available with HVU voltage option.
6. Not available with DALI/DMG Driver options.
7. TLRD7 must be selected for this option. If used, photoelectric cell selection must be compatible with selected Voltage option.When selecting S-OSPC root, IP66 photoelectric cell or shorting cap must be used to preserve IP66 rating of luminaire.
8. Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.
9. Not available with TLRD7 Receptacle option.
10. Finials (FNx) Decorative options are not available with S-OSPC Roof.
11. Longer lead time applies. Consult factory.
12. Only available with UNV 120-277V. Recommended maximum mounting height 15ft (4.6m).

ZDi · DLC

Old Dominion Lighting Associates

Prepared by:
OLD DOMINION LIGHTING ASSOCIATES
3761 WESTERRE PARKWAY, SUITE D
RICHMOND, VIRGINIA 23233
804-559-3839

NOTES:
THE CALCULATIONS SET FORTH HEREIN ARE BASED ON PROJECT SPECIFICATIONS PROVIDED TO OLD DOMINION LIGHTING ASSOCIATES. ACTUAL OR MEASURED VALUES MAY DIFFER FROM THE FORECASTED RESULTS DUE TO TOLERANCES IN CALCULATION METHODS, TESTING PROCEDURES, COMPONENT PROCEDURES, COMPONENT PERFORMANCE, MEASUREMENT TECHNIQUES AND VARYING FIELD CONDITIONS SUCH AS, BUT NOT LIMITED TOLINE VOLTAGE, TEMPERATURE, ATMOSPHERIC/ENVIRONMENTAL CONDITIONS AND IMPROPER OR UNDOCUMENTED LAMP BURN-IN PROCEDURES. FURTHER, ROOM DIMENSIONS, REFLECTANCES, FURNITURE AND ARCHITECTURAL ELEMENTS WITHIN THE SPACE MAY SIGNIFICANTLY AFFECT CALCULATIONS. VERIFICATION OF THE CALCULATIONS HEREIN, INCLUDING DESIGN ACCEPTABILITY, AND COMPLIANCE WITH ANY APPLICABLE LIGHTING CODES IS NOT THE RESPONSIBILITY OF OLD DOMINION LIGHTING ASSOCIATES, AND SHALL BE THE RESPONSIBILITY OF THE ARCHITECT, OWNER OR OWNERS RESPRESENTATIVE, AS APPLICABLE.

NO ALTERATIONS OR MODIFICATIONS SHALL BE MADE TO THIS PLAN WITHOUT THE PERMISSION OF OLD DOMINION LIGHTING ASSOCIATES. THE PHOTMETRIC DATA IS SPECIFIC TO THE LISTED MANUFACTURERS AND RESPECTIVE CATALOG NUMBERS AS OUTLINED IN THE LUMINAIRE SCHEDULE. SUBSTITUTIONS OR DEVIATIONS FROM THIS PLAN MAY RESULT IN SIGNIFICANTLY DIFFERENT RESULTS. SITE INFORMATION SUCH AS POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC. SHOULD BE COORDINATED PRIOR TO INSTALLATION BY THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS AND SUPPLIED PER MANUFACTURER.

LIGHTING NOTES:

1. ALL FIXTURES CALCULATED @ 3000K
2. FIXTURE TYPES & MOUNTING HEIGHTS SHOWN PER LOCATION
3. TYPE PT1 CALCULATED @ 14FT (12' POLE + 2" FIXTURE)

NOTE: EACH OUTDOOR LUMINAIRE EQUIPPED WITH A LAMP THAT EMITS 3,000 OR MORE INITIAL LUMENS SHALL BE A FULL CUTOFF LUMINAIRE AND SHALL BE ARRANGED OR SHIELDED TO REFLECT LIGHT AWAY FROM ADJOINING RESIDENTIAL DISTRICTS AND AWAY FROM ADJACENT ROADS. THE SPILLOVER OF LIGHTING FROM LUMINAIRES ONTO PUBLIC ROADS AND PROPERTY IN RESIDENTIAL OR RURAL AREAS ZONING DISTRICTS SHALL NOT EXCEED ONE HALF FOOTCANDLE.

valmont STRUCTURES

Old Dominion Lighting Associates

DS340 Round Non-Tapered Steel Post

Job Name: HOLLY HILLS DEVELOPMENT AL1/AL2 — Client Name:
Job Location - City: — State: — Created By: — Date:
Product: DS340 — Quote: — Customer Approval: — Date:



*Consult factory on loading criteria for pole top mounted luminaires and/or brackets.

SPECIFICATIONS

Pole Shaft - The pole shaft is fabricated from hot rolled welded steel tubing of one-piece construction with a minimum yield strength of 42 KSI.

Pole Top – A removable pole cap is provided for poles receiving drilling patterns for side-mount luminaire arm assemblies. For top mount luminaire and/or bracket consult the factory. Consult the luminaire manufacturer for correct tenon size or drill pattern. Other pole top options include pole cap only (PC) or plain top (PL) which is typical when the pole top diameter matches the necessary slip fit dimensions.

Handhole – A reinforced handhole with grounding provision is provided at 1'-0" from the base end of the pole assembly. Each handhole includes an easy to install, self-contained Swing Latch handhole cover assembly. U.S. Patent Swing Latch cover is fabricated from durable polycarbonate/ABS blend plastic. All pole assemblies are provided with a 2.50" x 5.00" rectangular handhole. Handhole dimensions are nominal.

Base Cover – A two-piece full base cover fabricated from ABS plastic is provided with each pole assembly. Additional base cover options, including the dart round (DT) cast aluminum cover, are available upon request.

Anchor Bolts - Anchor bolts conform to ASTM F1554 Grade 55 and are provided with two hex nuts and two flat washers. Bolts have an "L" bend on one end and are galvanized a minimum of 12" on the threaded end.

Hardware - All structural fasteners are galvanized high strength carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

Finish - Standard finishes are Galvanized (GV) or Finish Painted (FP). Additional finish options, including Finish Paint over Galvanizing (FPGV) or any of the V-PRO™ Finish Coating Systems are available upon request. See the product ordering code for color options.

Design Criteria - Please reference Design Criteria Specification for appropriate design conditions.

valmont STRUCTURES

Old Dominion Lighting Associates

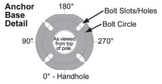
DS340 Round Non-Tapered Steel Post

Job Name: HOLLY HILLS DEVELOPMENT AL1/AL2 — Client Name:
Job Location - City: — State: — Created By: — Date:
Product: DS340 — Quote: — Customer Approval: — Date:

ANCHORAGE DATA

POLE	BASE PLATE					ANCHOR BOLTS			
	BOLT CIRCLE								
BASE OD (IN.)	WALL THK (IN.)	DIA (IN.)	± (IN.)	DIAMETER (IN.)	THK (IN.)	DIA x LENGTH x HOOK (IN.)	PROJECTION (IN.)	± (IN.)
3.00	0.120	8.00	1.00	10.50	0.750	0.75 x 17.00 x 3.00	3.50	0.25
4.00	0.120	8.00	1.00	10.50	0.750	0.75 x 17.00 x 3.00	3.50	0.25
4.50	0.120	8.00	1.00	10.50	0.750	0.75 x 17.00 x 3.00	3.50	0.25
5.00	0.120	8.00	1.00	10.50	0.750	0.75 x 17.00 x 3.00	3.50	0.25
5.00	0.180	8.00	1.00	10.50	0.750	0.75 x 17.00 x 3.00	3.50	0.25

Anchor Base Detail



DESIGNATION,LOAD AND DIMENSIONAL DATA

	DESIGN INFORMATION						POLE DIMENSIONS				DESIGNATION
	90 MPH (3 SEC GUST)		100 MPH (3 SEC GUST)		110 MPH (3 SEC GUST)						
NOMINAL MOUNTING HEIGHT	MAX EPA (SQFT)	MAX WEIGHT (LBS)	MAX EPA (SQFT)	MAX WEIGHT (LBS)	MAX EPA (SQFT)	MAX WEIGHT (LBS)	BASE OD (IN.)	TOP OD (IN.)	WALL THK. (IN.)	STRUCTURE WEIGHT (LBS)	
10'-0"	10.0	250	7.7	190	6.0	175	3.00	3.00	0.120	55	300V100
	19.1	480	15.0	375	12.2	305	4.00	4.00	0.120	70	400V100
	24.5	615	19.5	490	15.8	395	4.50	4.50	0.120	75	450V100
12'-0"	7.7	195	5.8	145	4.4	130	3.00	3.00	0.120	60	300V120
	15.0	390	11.8	300	9.5	240	4.00	4.00	0.120	80	400V120
	19.8	495	15.7	395	12.7	320	4.50	4.50	0.120	85	450V120
	25.0	625	20.0	500	16.4	410	5.00	5.00	0.120	90	500V120
14'-0"	6.0	175	4.4	130	3.3	90	3.00	3.00	0.120	70	300V140
	12.2	305	9.4	250	7.6	195	4.00	4.00	0.120	90	400V140
	16.2	405	12.8	320	10.3	260	4.50	4.50	0.120	95	450V140
16'-0"	4.6	125	3.2	100	2.3	60	3.00	3.00	0.120	80	300V160
	9.6	250	7.4	185	5.9	150	4.00	4.00	0.120	100	400V160
	13.1	330	10.2	265	8.2	205	4.50	4.50	0.120	105	450V160
18'-0"	3.4	90	2.3	60	1.4	70	3.00	3.00	0.120	90	300V180
	7.6	190	5.7	180	4.5	130	4.00	4.00	0.120	110	400V180
	10.5	265	8.2	210	6.5	165	4.50	4.50	0.120	115	450V180
20'-0"	2.4	100	1.4	75	N/A	N/A	3.00

LANDSCAPE TABULATION

SITE AREA CANOPY

REQUIREMENT: 10% OF PROJECT SITE AREA REQUIRED

TOTAL DEVELOPMENT: 1,319,544 SF
PHASE I: 830,875 SF
830,875 * 10% = 83,088 SF OF TREE CANOPY REQUIRED
50,718 SF PROPOSED
118,272 SF EXISTING CANOPY TO REMAIN
168,990 SF OF TOTAL TREE CANOPY

STREETS

REQUIREMENT: 1 LARGE SHADE TREE EVERY 50' OR 1 MEDIUM SHADE TREE EVERY 40 '

ARCHER AVENUE: 1,531'
1,531 LF / 50 = 30 LARGE SHADE TREES REQUIRED (PER SIDE)
55 LARGE SHADE TREES PROPOSED
5 MEDIUM SHADE TRESS PROPOSED

VIOLA DRIVE: 322'
322 LF / 50 = 7 LARGE SHADE TREES REQUIRED (PER SIDE)
14 LARGE SHADE TREES PROPOSED

PARKING

REQUIREMENT: 5% OF TOTAL PARKING & CIRCULATION AREA

PARKING AREA #1: 38,175 SF
38,175 * 5% = 1,909 SF REQUIRED
3,120 SF PROPOSED

PARKING AREA #2: 12,405 SF
12,405 * 5% = 620 SF REQUIRED
856 SF PROPOSED

PARKING AREA #3: 27,610 SF
27,610 * 5% = 1,381 SF REQUIRED
1,641 SF PROPOSED

PARKING AREA #4: 55,755 SF
55,755 * 5% = 2,788 SF REQUIRED
2,884 SF PROPOSED

REQUIREMENT: 1 LARGE OR MEDIUM SHADE TREE PER 10 PARKING SPACES

PARKING AREA #1: 105 PARKING SPACES
105 / 10 = 11 SHADE TREES REQUIRED
11 SHADE TREES PROPOSED

PARKING AREA #2: 42 PARKING SPACES
42 / 10 = 4 SHADE TREES REQUIRED
4 SHADE TREES PROPOSED

PARKING AREA #3: 90 PARKING SPACES
90 / 10 = 9 SHADE TREES REQUIRED
9 SHADE TREES PROPOSED

PARKING AREA #4: 195 PARKING SPACES
195 / 10 = 20 SHADE TREES REQUIRED
20 SHADE TREES PROPOSED

PLANT SCHEDULE - COUNTY MINIMUM

SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
SHADE TREES					
	19	ACER RUBRUM 'RED SUNSET'	'RED SUNSET' RED MAPLE	2" CAL.	B&B
	22	BETULA NIGRA 'HERITAGE'	'HERITAGE' RIVER BIRCH	2" CAL.	B&B
	14	CARPINUS BETULUS 'FASTIGIATA'	EUROPEAN HORNBEAM	2" CAL.	B&B
	12	FAGUS GRANDIFOLIA	AMERICAN BEECH	2" CAL.	B&B
	25	GINKGO BILOBA 'MAGYAR'	MAGYAR GINKGO	2" CAL.	B&B
	12	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	2" CAL.	B&B
	25	LIQUIDAMBER STYRACIFLUA 'ROTUNDILOBA'	ROTUNDILOBA SWEETGUM	2" CAL.	B&B
	10	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2" CAL.	B&B
	31	QUERCUS SHUMARDII	SHUMARD OAK	2" CAL.	B&B
	15	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2" CAL.	B&B
FLOWERING ORNAMENTAL TREES					
	9	AMELANCHIER X GRANDIFLORA ' AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	6'-8' HT.	B&B
	17	CERCIS CANADENSIS	EASTERN REDBUD	6'-8' HT.	B&B
	12	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	6'-8' HT.	B&B
EVERGREEN TREES					
	15	ILEX OPACA 'GREENLEAF'	GREENLEAF AMERICAN HOLLY	6' HT.	
	10	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	6' HT.	
	24	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	LITTLE GEM MAGNOLIA	6' HT.	
SHRUBS					
	73	ABELIA GRANDIFLORA 'ROSE CREEK'	ROSE CREEK ABELIA	3 GAL.	
	66	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	3 GAL.	
	81	ILEX VOMITORIA 'SCHILLINGS'	SHILLINGS YAUPON HOLLY	3 GAL.	
	89	ITEA VIRGINIANA 'SPRICH'	LITTLE HENRY SWEETSPIRE	3 GAL.	
	84	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL	5 GAL.	
	64	SPIREA BUMALDA 'BI0601'	LITTLE BONNIE SPIREA	3 GAL.	

County of Albemarle
Conservation Plan Checklist – To be placed on Landscape Plans
(Handbook, pp III-284-111-297 for complete specifications)

1. **The following items shall be shown on the plan:**
   - ☑ Trees to be saved;
   - ☑ Limits of clearing (outside dripline of trees to be saved);
   - ☑ Location and type of protective fencing;
   - ☑ Grade changes requiring tree wells or walls;
   - ☑ Proposed trenching or tunneling beyond the limits of clearing.
2. **Markings:**
   - ☑ All trees to be saved shall be marked with print or ribbon at a height clearly visible to equipment operators.
   - ☑ No grading shall begin until the tree marking has been inspected and approved by a County Inspector.
3. **Pre-Construction Conference:**
   - ☑ Tree preservation and protection measures shall be reviewed with the contractor on site.
4. **Equipment Operation and Storage:**
   - ☑ Heavy equipment, vehicular traffic and storage of construction materials including soil shall not be permitted within the driplines of trees to be saved.
5. **Soil Erosion and Stormwater Detention Devices:**
   - ☑ Such devices shall not adversely affect trees to be saved.
6. **Fires:**
   - ☑ Fires are not permitted within 100 feet of the dripline of trees to be saved.
7. **Toxic Materials:**
   - ☑ Toxic materials shall not be stored within 100 feet of the dripline of trees to be saved.
8. **Protective Fencing:**
   - ☑ Trees to be retained within 40 feet of a proposed building or grading activity shall be protected by fencing.
   - ☑ Fencing shall be in place and shall be inspected and approved by a County Inspector prior to grading or construction.
9. **Tree Wells:**
   - ☒ When the ground level must be raised within the dripline of a tree to be saved, a tree well shall be provided and a construction detail submitted for approval.
10. **Tree Walls:**
    - ☑ When the ground level must be lowered within the dripline a tree to be saved, a tree wall shall be provided; and a construction detail submitted for approval.
11. **Trenching and Tunneling:**
    - ☑ When trenching is required within the limits of clearing, it shall be done as far away from the trunks of trees as possible. Tunneling under a large tree shall be considered as an alternative when it is anticipated that necessary trenching will destroy feeder roots.
12. **Cleanup:**
    - ☒ Protective fencing shall be the last items removed during the final cleanup.
13. **Damaged Trees:**
    - ☒ Damaged trees shall be treated immediately by pruning, fertilization or other methods recommended by a tree specialist.

NOTE: IT IS THE DEVELOPER'S RESPONSIBILITY TO CONFER WITH THE CONTRACTOR ON TREE CONSERVATION REQUIREMENTS.

9/3/2024
OWNER SIGNATURE **(DATE)**

CONTRACT PURCHASER SIGNATURE **(DATE)**

5/1/06 Page 1 of 1



1. DECORATIVE ALUMINUM FENCE
SCALE: 1/2"=1'-0"

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: LANDSCAPE SCHEDULE & SPECIFICATIONS

JOB NO. 232220
SCALE N/A
SHEET NO. L1.0

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

RUBIN LANE
(20' PRIVATE ROW)

20' UNDISTURBED
LANDSCAPE BUFFER

10' LANDSCAPE BUFFER

BUILDING #2
3/4 STORIES
(36 UNITS)

3 STORIES
4 STORIES

6' SIDE SETBACK

POOL

KRAMERIA LANE
(PRIVATE TRAVELWAY)

CLUBHOUSE

BUILDING #1
3/4 STORIES
(36 UNITS)

4 STORIES
3 STORIES

5' MIN. FRONT SETBACK

70' UNDISTURBED
LANDSCAPE BUFFER

30' LANDSCAPE BUFFER

SEMINOLE TRAIL
U.S. ROUTE 29
(PUBLIC ROW)

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

MATCHLINE
SEE SHEET 1.2

MATCHLINE
SEE SHEET 1.3

SYMBOL KEY

SYM	COMMON NAME
	SHADE TREES
	'RED SUNSET' RED MAPLE
	'HERITAGE' RIVER BIRCH
	EUROPEAN HORNBEAM
	AMERICAN BEECH
	MAGYAR GINKGO
	SHADEMASTER HONEY LOCUST
	ROTUNDILOBA SWEETGUM
	AMERICAN SYCAMORE
	SHUMARD OAK
	GREENSPIRE LINDEN
	FLOWERING ORNAMENTAL TREES
	AUTUMN BRILLIANCE SERVICEBERRY
	EASTERN REDBUD
	SWEETBAY MAGNOLIA
	EVERGREEN TREES
	GREENLEAF AMERICAN HOLLY
	EASTERN RED CEDAR
	LITTLE GEM MAGNOLIA
	SHRUBS
	ROSE CREEK ABELIA
	SHAMROCK INKBERRY
	SHILLINGS YAUPON HOLLY
	LITTLE HENRY SWEETSPIRE
	OTTO LUYKEN LAUREL
	LITTLE BONNIE SPIREA

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
LANDSCAPING PLAN

JOB NO. 232220
SCALE 1" = 20'
SHEET NO. L1.1

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

MATCHLINE
SEE SHEET 1.1

ARCHER AVENUE EXTENSION
(PUBLIC STREET)

5' MIN. FRONT SETBACK

30' MAX. FRONT SETBACK

6' SIDE SETBACK

BUILDING #3
3 STORIES
(30 UNITS)

KRAMERIA LANE
(PRIVATE TRAVELWAY)

JERSEY CIRCLE
(PRIVATE TRAVELWAY)

POCKET
PARK

SWM
FACILITY

SYMBOL KEY

SYM	COMMON NAME
	SHADE TREES
	'RED SUNSET' RED MAPLE
	'HERITAGE' RIVER BIRCH
	EUROPEAN HORNBEAM
	AMERICAN BEECH
	MAGYAR GINKGO
	SHADEMASTER HONEY LOCUST
	ROTUNDILOBA SWEETGUM
	AMERICAN SYCAMORE
	SHUMARD OAK
	GREENSPIRE LINDEN
	FLOWERING ORNAMENTAL TREES
	AUTUMN BRILLIANCE SERVICEBERRY
	EASTERN REDBUD
	SWEETBAY MAGNOLIA
	EVERGREEN TREES
	GREENLEAF AMERICAN HOLLY
	EASTERN RED CEDAR
	LITTLE GEM MAGNOLIA
	SHRUBS
	ROSE CREEK ABELIA
	SHAMROCK INKBERRY
	SHILLINGS YAUPON HOLLY
	LITTLE HENRY SWEETSPIRE
	OTTO LUYKEN LAUREL
	LITTLE BONNIE SPIREA

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

MATCHLINE
SEE SHEET 1.5

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
LANDSCAPING PLAN

JOB NO. 232220
SCALE 1" = 20'
SHEET NO. L1.2

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

TMP 46-28H

JERSEY CIRCLE
(PRIVATE TRAVELWAY)

MATCHLINE
SEE SHEET 1.1

3 STORIES
4 STORIES

BUILDING #5
3/4 STORIES
(72 UNITS)

3 STORIES
4 STORIES

BUILDING #6
3/4 STORIES
(72 UNITS)

3 STORIES
4 STORIES

MATCHLINE
SEE SHEET 1.3

JERSEY CIRCLE
(PRIVATE TRAVELWAY)

POCKET
PARK

ARCHER AVENUE EXTENSION
(PUBLIC STREET)

JERSEY CIRCLE
(PRIVATE TRAVELWAY)

BUILDING #4
3/4 STORIES
(72 UNITS)

3 STORIES
4 STORIES

SEE SHEET 1.4

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

SYMBOL KEY

SYM	COMMON NAME
	SHADE TREES
	'RED SUNSET' RED MAPLE
	'HERITAGE' RIVER BIRCH
	EUROPEAN HORNBEAM
	AMERICAN BEECH
	MAGYAR GINKGO
	SHADEMASTER HONEY LOCUST
	ROTUNDILOBA SWEETGUM
	AMERICAN SYCAMORE
	SHUMARD OAK
	GREENSPIRE LINDEN
	FLOWERING ORNAMENTAL TREES
	AUTUMN BRILLIANCE SERVICEBERRY
	EASTERN REDBUD
	SWEETBAY MAGNOLIA
	EVERGREEN TREES
	GREENLEAF AMERICAN HOLLY
	EASTERN RED CEDAR
	LITTLE GEM MAGNOLIA
	SHRUBS
	ROSE CREEK ABELIA
	SHAMROCK INKBERRY
	SHILLINGS YAUPON HOLLY
	LITTLE HENRY SWEETSPIRE
	OTTO LUYKEN LAUREL
	LITTLE BONNIE SPIREA

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

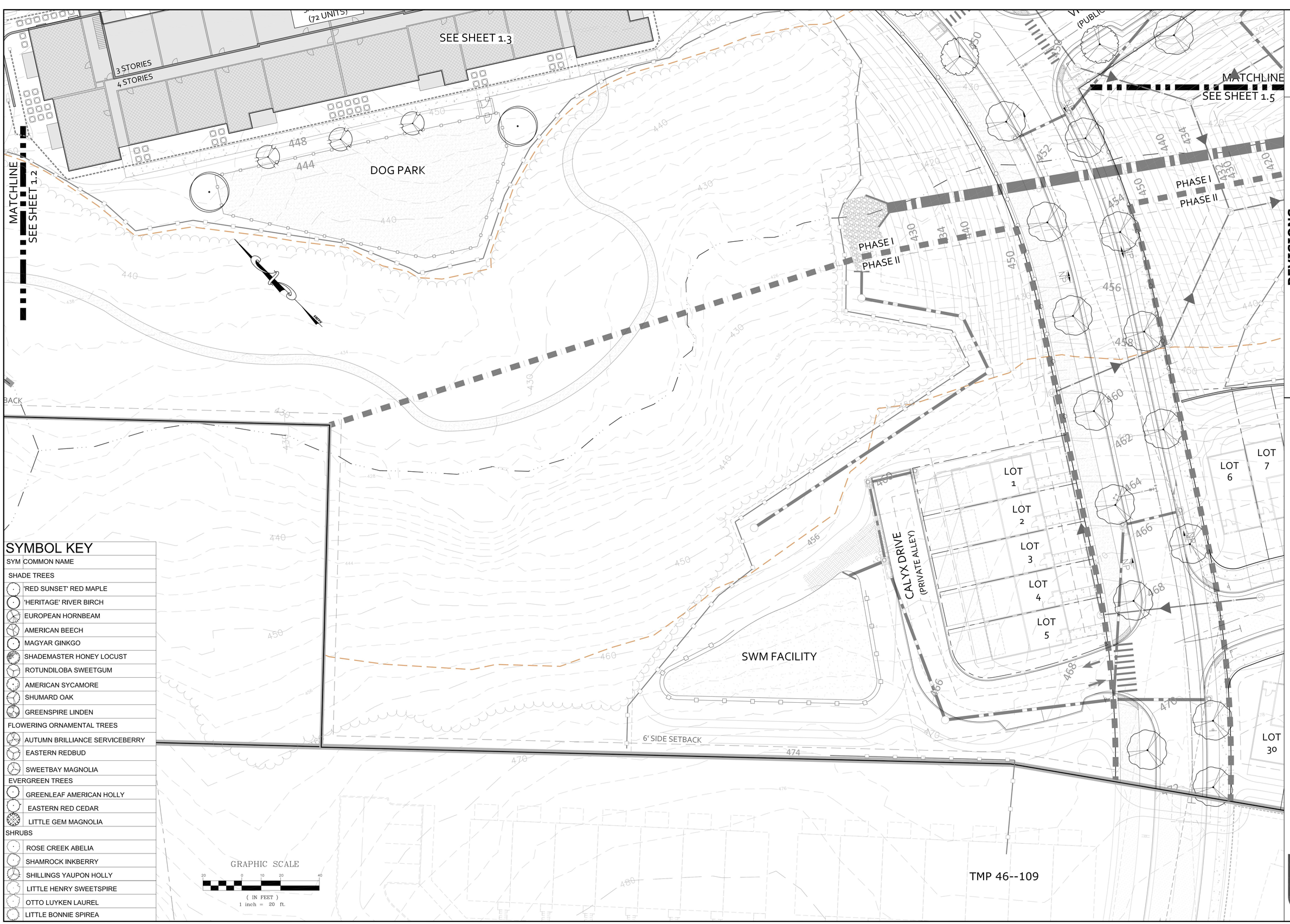
COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
LANDSCAPING PLAN

JOB NO. 232220
SCALE 1" = 20'
SHEET NO. L1.3

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



SYMBOL KEY

SYM	COMMON NAME
	SHADE TREES
	'RED SUNSET' RED MAPLE
	'HERITAGE' RIVER BIRCH
	EUROPEAN HORNBEAM
	AMERICAN BEECH
	MAGYAR GINKGO
	SHADEMASTER HONEY LOCUST
	ROTUNDILOBA SWEETGUM
	AMERICAN SYCAMORE
	SHUMARD OAK
	GREENSPIRE LINDEN
	FLOWERING ORNAMENTAL TREES
	AUTUMN BRILLIANCE SERVICEBERRY
	EASTERN REDBUD
	SWEETBAY MAGNOLIA
	EVERGREEN TREES
	GREENLEAF AMERICAN HOLLY
	EASTERN RED CEDAR
	LITTLE GEM MAGNOLIA
	SHRUBS
	ROSE CREEK ABELIA
	SHAMROCK INKBERRY
	SHILLINGS YAUPON HOLLY
	LITTLE HENRY SWEETSPIRE
	OTTO LUYKEN LAUREL
	LITTLE BONNIE SPIREA

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE: LANDSCAPING PLAN

JOB NO. 232220
SCALE 1" = 20'
SHEET NO. L1.4

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.

MATCHLINE
SEE SHEET 1.2

JERSEY CIRCLE
(PRIVATE TRAVELWAY)

6' SIDE SETBACK

PHASE I
PHASE III

3 STORIES
4 STORIES

30' MAX. FRONT SETBACK

VIOLA DRIVE
(PUBLIC STREET)

MATCHLINE
SEE SHEET 1.2

PHASE I
PHASE II

PHASE I
PHASE III
PHASE II

10' LANDSCAPE BUFFER

20' UNDISTURBED
LANDSCAPE BUFFER

TMP 46B5-1

TMP

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

SYMBOL KEY

SYM	COMMON NAME
	SHADE TREES
	'RED SUNSET' RED MAPLE
	'HERITAGE' RIVER BIRCH
	EUROPEAN HORNBEAM
	AMERICAN BEECH
	MAGYAR GINKGO
	SHADEMASTER HONEY LOCUST
	ROTUNDILOBA SWEETGUM
	AMERICAN SYCAMORE
	SHUMARD OAK
	GREENSPIRE LINDEN
	FLOWERING ORNAMENTAL TREES
	AUTUMN BRILLIANCE SERVICEBERRY
	EASTERN REDBUD
	SWEETBAY MAGNOLIA
	EVERGREEN TREES
	GREENLEAF AMERICAN HOLLY
	EASTERN RED CEDAR
	LITTLE GEM MAGNOLIA
	SHRUBS
	ROSE CREEK ABELIA
	SHAMROCK INKBERRY
	SHILLINGS YAUPON HOLLY
	LITTLE HENRY SWEETSPIRE
	OTTO LUYKEN LAUREL
	LITTLE BONNIE SPIREA

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

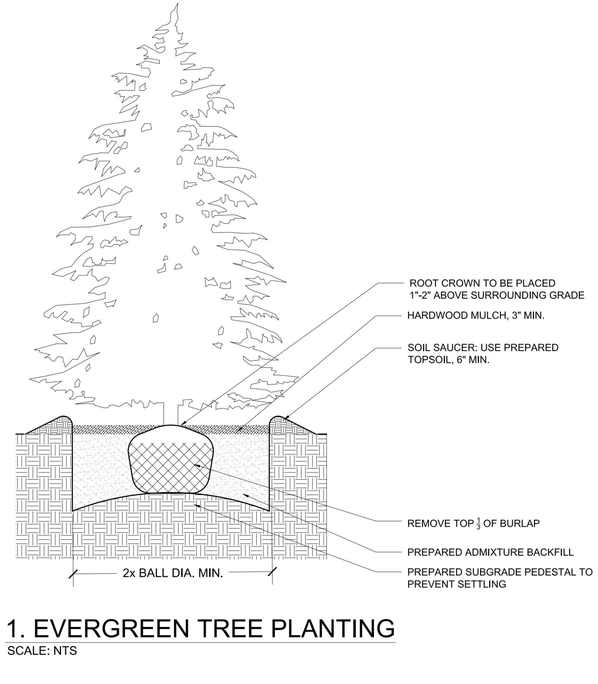
COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
LANDSCAPING PLAN

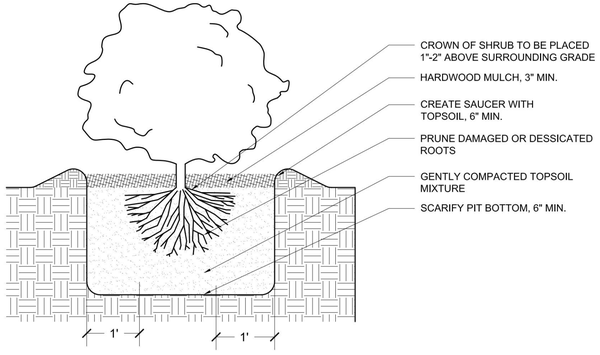
JOB NO. 232220
SCALE 1" = 20'
SHEET NO. L1.5

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, including, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.



1. EVERGREEN TREE PLANTING

SCALE: NTS



3. SHRUB PLANTING

SCALE: NTS

2. TREE PLANTING

SCALE: NTS

4. MULTI-STEM TREE PLANTING

SCALE: NTS

LANDSCAPING NOTES:

APPLICABLE STANDARDS
AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1

AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE: STANDARDIZED PLANT NAMES

ALL PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED. PLANTS SHALL HAVE A HABIT OF GROWTH THAT IS NORMAL FOR THE SPECIES AND SHALL BE HEALTHY, VIGOROUS AND EQUAL OR EXCEED THE MEASUREMENTS SPECIFIED IN THE PLANT LIST, WHICH ARE THE MINIMUM ACCEPTABLE SIZES. PLANTS SHALL BE MEASURED BEFORE PRUNING WITH BRANCHES IN NORMAL POSITION. ANY NECESSARY PRUNING SHALL BE DONE AT THE TIME OF PLANTING. REQUIREMENTS FOR MEASUREMENTS, BRANCHING, GRADING, QUALITY, BALL AND BURLAPPING OF PLANTS IN THE PLANT LIST GENERALLY FOLLOW THE CODE OF STANDARDS CURRENTLY RECOMMEND BY THE AMERICAN STANDARD FOR NURSERY STOCK. PLANTS THAT MEET THE REQUIREMENTS SPECIFIED, BUT DO NOT HAVE THE NORMAL BALANCE OF HEIGHT AND SPREAD TYPICAL FOR THE RESPECTIVE PLANT, SHALL NOT BE ACCEPTED. ALL PLANTS SHALL BE FREE OF WEEDS AND OTHER OBJECTIONABLE VEGETATION.

PLANTS (GENERAL)
PLANTS SHALL BE NURSERY GROWN, HEALTHY, VIGOROUS, BUSHY, WELL-BALANCED, OF NORMAL HABIT OF GROWTH FOR THE SPECIES, AND SHALL BE FREE FROM DISEASE, INSECT EGGS AND LARVAE. THEY SHALL HAVE CROWN AND ROOT BALL SIZES THAT MEET OR EXCEED THE STANDARDS SET FORTH IN "AMERICAN ASSOCIATION OF NURSERYMEN, INC." THE SPECIFIED SIZES SHALL BE BEFORE PRUNING, AND PLANTS SHALL BE MEASURED WITH THEIR BRANCHES IN NORMAL POSITION. PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY, EXCEPT UPON SPECIAL APPROVAL.

SHADE TREES SHALL BE HEALTHY, VIGOROUS, FULL-BRANCHED, WELL-SHAPED, AND SHALL MEET THE TRUNK DIAMETER, HEIGHT, AND SPREAD REQUIREMENTS OF THE PLANT LIST, AND MEET THE STANDARDS OF "THE AMERICAN ASSOCIATION OF NURSERYMEN." BALLS SHALL BE FIRM, NEAT, SLIGHTLY TAPERED AND WELL BURLAPPED. ANY TREE LOOSE IN THE BALL OR WITH BROKEN BALL A TIME OF PLANTING WILL BE REJECTED. BALLS SHALL BE SIZED IN ACCORDANCE WITH THE AAN STANDARDS.

TREE AND SHRUB PLANTING
PLANT TREES IN TREE-PITS GREATER IN DIAMETER THAN BALL AND AT A HEIGHT WHICH ASSURES PROPER DRAINAGE AND VIGOROUS GROWTH. FILL BOTTOM OF PIT (TO DEPTH OF ROOT BALL) WITH A MIXTURE OF SOIL. AFTER SETTLING THE TREE, THE PIT SHALL BE BACKFILLED WITH SOIL MIX, THEN CAREFULLY SETTLED BY WATERING TO PREVENT AIR POCKETS.

ALL PLANT BEDS PLUS AN AREA THREE FEET GREATER IN DIAMETER THAN THE BALL AROUND EACH TREE SHALL BE MULCHED WITH 3" OF CLEAN, HARDWOOD MULCH.

SHOULD THE CONTRACTOR ENCOUNTER SOIL CONDITIONS WHICH ARE INHOSPITABLE TO NORMAL PLANTING, IT IS HIS RESPONSIBILITY TO MODIFY THE SOIL SO THAT THE PLANTS WILL THRIVE. THESE MODIFICATIONS MAY INCLUDE PROVIDING DRAINAGE FOR TREES OR SHRUB BEDS AND PROVIDING ANY EXTRA SOIL AS MAY BE REQUIRED FOR PLANTING.

ALL SITE PLANTINGS OF TREES AND SHRUBS SHALL BE ALLOWED TO REACH, AND BE MAINTAINED AT, MATURE HEIGHT. THE TOPPING OF TREES IS PROHIBITED. SHRUBS AND TREES SHALL BE PRUNED MINIMALLY AND ONLY TO SUPPORT THE OVERALL HEALTH OF THE PLANT.

PRE-CONSTRUCTION
1. CONTRACTOR IS RESPONSIBLE FOR CONTACTING "MISS UTILITY" AT 1.800.552.7001 FOR LOCATION OF ALL UTILITY LINES.TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS. NOTIFY LANDSCAPE ARCHITECT OF CONFLICTS.
2. VERIFY ALL PLANT MATERIAL QUANTITIES ON THE PLAN PRIOR TO BIDDING, PLANT LIST TOTALS ARE FOR CONVENIENCE ONLY AND SHALL BE VERIFIED PRIOR TO BIDDING.
3. PROVIDE PLANT MATERIALS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY INDICATED ON PLANS. ALL PLANT MATERIALS AND INSTALLATION SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK". IF SPECIFIED PLANT MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF ON-AVAILABILITY TO THE LANDSCAPE ARCHITECT, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL.
4. PROVIDE AND INSTALL ALL PLANTS AS IN ACCORDANCE WITH DETAILS AND CONTRACT SPECIFICATIONS.
5. SOIL TESTS SHALL BE PERFORMED TO DETERMINE SOIL CHARACTER AND QUALITY. NECESSARY SOIL AMENDMENTS SHALL BE PERFORMED PER TEST RESULTS TO ENSURE PLANT HEALTH.

CONSTRUCTION/INSTALLATION
1. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS AND MATERIALS THAT ARE IN AN UNHEALTHY OR UNSIGHTLY CONDITION, AS WELL AS PLANTS AND MATERIALS THAT DO NOT CONFORM TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" LABEL AT LEAST ONE TREE AND ONE SHRUB OF EACH VARIETY AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING THE DESIGNATION OF BOTANICAL AND COMMON NAME.
2. INSTALL LANDSCAPE PLANTINGS AT ENTRANCES/EXITS AND PARKING AREAS ACCORDING TO PLANS SO THAT MATERIALS WILL NOT INTERFERE WITH SIGHT DISTANCES.
3. CONTRACTOR IS RESPONSIBLE FOR WATERING ALL PLANT MATERIAL DURING INSTALLATION AND UNTIL FINAL INSPECTION AND ACCEPTANCE BY OWNER. CONTRACTOR SHALL NOTIFY OWNER OF CONDITIONS WHICH AFFECTS THE GUARANTEE.

INSPECTIONS/GUARANTEE
1. UPON COMPLETION OF LANDSCAPE INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR WHO WILL VERIFY COMPLETENESS, INCLUDING THE REPLACEMENT OF ALL DEAD PLANT MATERIAL. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A FINAL INSPECTION BY THE LANDSCAPE ARCHITECT.
2. ALL EXTERIOR PLANT MATERIALS SHALL BE GUARANTEED FOR ONE FULL YEAR AFTER DATE OF FINAL INSPECTION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. DEFECTS RESULTING FROM NEGLECT BY THE OWNER, ABUSE OR DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA OR INCIDENTS WHICH ARE BEYOND THE CONTRACTORS CONTROL ARE NOT THE RESPONSIBILITY OF THE CONTRACTOR.
3. REMOVE ALL GUY WIRES AND STAKES 12 MONTHS AFTER INSTALLATION.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
09/03/24

REVISIONS

DATE	REVISION DESCRIPTION
09/03/24	PHASE I FINAL SITE PLAN - 1ST SUBMITTAL
09/16/24	PHASE I FINAL SITE PLAN - ARB SUBMITTAL

COLLINS ENGINEERING
200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT
HOLLY HILLS DEVELOPMENT - PHASE I FINAL SITE PLAN

SHEET TITLE
LANDSCAPE NOTES & DETAILS

JOB NO. 232220
SCALE N/A
SHEET NO. L1.6

These plans and associated documents are the exclusive property of COLLINS ENGINEERING and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of COLLINS ENGINEERING.