GALAXIE FARM SUBDIVISION
FINAL SITE & ARB PLAN

SCOTTSVILLE MAGISTERIAL DISTRICT
ALBEMARLE COUNTY, VIRGINIA

GENERAL NOTES

OWNERS: TMP 09100-00-00-00900
GALAXIE FARM INVESTMENTS, LLC
455 2ND STREET SE, SUITE 201
CHARLOTTESVILLE, VA 22902

TMP 09100-00-00-01500
GALAXIE FARM INVESTMENTS, LLC
455 2ND STREET SE, SUITE 201
CHARLOTTESVILLE, VA 22902

DEVELOPER: RIVERBEND DEVELOPMENT, INC.
455 SECOND STREET SE, SUITE 400
CHARLOTTESVILLE, VA 22903

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

TAX MAP: 09100-00-00-00900 — 09100-00-00-01500
INSTR. #: 202000018322 — INSTR. #: 202200004007
DB. 5445, PG.50 — 8.27 ACRES
5.09 ACRES

ZONING: PLANNED RESIDENTIAL DEVELOPMENT (PRD) WITH ENTRANCE CORRIDOR OVERLAY DISTRICT (EC) AND MANAGED & PRESERVED STEEP SLOPES OVERLAY DISTRICT
PRD ZONING WAS APPROVED BY THE BOS ON DECEMBER 4TH, 2019. VARIATION #1 (SE202200221) WAS APPROVED ON JUNE 15, 2022

TOTAL PROJECT AREA: 09100-00-00-00900 - 5.09 AC.
09100-00-00-01500 - 8.27 AC.
TOTAL = 13.36 AC

PROPOSED USE: 65 TOTAL DWELLING UNITS (43 SFD LOTS NOT INCLUDES WITH THIS SITE PLAN)
PROPOSED USE WITHIN THIS SITE PLAN:
(6) TOWNHOUSE UNITS W/ ACCESSORY UNITS (12 UNITS TOTAL)
(10) TOWNHOUSE UNITS
NOTE: THE TYPICAL NUMBER OF BEDROOMS IN THE TH UNITS WILL BE (3) BEDROOMS. THE (6) BASEMENT ACCESSORY UNITS WILL BE 1 BEDROOM UNITS & THE UPPER TH UNITS WILL BE 2 BEDROOM UNITS.
(10) - 3 BEDROOM UNITS, (6) - 2 BEDROOM UNITS, & (6) 1 BEDROOM UNITS
THE SINGLE FAMILY DETACHED UNITS SHALL HAVE (3) OR (4) BEDROOMS.

ALLOWABLE DENSITY: 65 UNITS PER APPROVED PRD REZONING & APPLICATION PLAN
65 TOTAL DWELLING UNITS/13.36 ACRES = DWELLING UNITS/ACRE

PROPOSED DENSITY: 65 DWELLING UNITS/13.36 ACRES = 4.42 DWELLING UNITS/ACRE

OPEN SPACE: REQUIRED: 3.83 ACRES PER APPROVED PRD REZONING & APPLICATION PLAN
PROVIDED = 4.31 AC
OPEN SPACE A: 0.14 ACRES — OPEN SPACE D: 1.25 ACRES
OPEN SPACE B: 0.44 ACRES — OPEN SPACE E: 2.44 ACRES
OPEN SPACE C: 0.04 ACRES
NOTE: OPEN SPACE TO BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION. ALL OPEN SPACE SHALL BE RESERVED IN A DEED FOR COMMON USE OF LOTS OWNERS IN THE SUBDIVISION.

RECREATION AREA: OPEN SPACES D & E SHALL PROVIDE ACTIVE & PASSIVE RECREATIONAL AMENITIES, INCLUDING A WALKING TRAIL ALONG THE STREAM AS SHOWN ON THE SITE PLAN SHEETS. ACTIVE RECREATION SHALL BE PROVIDED WITHIN OPEN SPACE B, INCLUDING A GRASS RECREATIONAL FIELD, MEETING AREA, TOT LOT PLAYGROUND, AND A FIRE PIT.
TOTAL RECREATIONAL AREA REQUIRED: 200 SF x 65 UNITS = 13,000 SF (0.30 AC)
TOTAL RECREATIONAL AREA PROVIDED: 19,167 SF (0.44 ACRES)

BUILDING HEIGHTS: NO MINIMUM HEIGHT REQUIREMENT.
MAXIMUM - 35 FEET PER PRD REZONING APPLICATION PLAN
(P) MAX. HEIGHT AT ROOF = 35 FEET
(P) MAX. HEIGHT TO EAVE = 29'-8"

SETBACKS: FRONT SETBACK: 5' MIN.
SIDE SETBACK: 5' MIN.
REAR SETBACK: 20' MIN. (EXCEPT FOR UNITS ADJACENT TO VERA RUBIN PLACE WHICH SHALL HAVE A 5' REAR SETBACK)
GARAGE SETBACKS: 18' MIN.
NOTE: FRONT LOADED GARAGE UNITS, THE PORCH OR BUILDING FACE SHALL BE A MINIMUM OF 3 FEET CLOSER TO THE STREET AS MEASURED FROM THE FACE OF THE GARAGE DOOR.

SUBDIVISION STREETS: CURB & GUTTER

WATERSHED: MOORES CREEK (MOORES CREEK IS NOT A WATER SUPPLY RESERVOIR WATERSHED AREA)

AGRICULTURAL/FORESTAL DISTRICT: NONE

TOPOGRAPHY & SURVEY: BOUNDARY AND TOPOGRAPHY INFORMATION WAS PROVIDED BY ROGER RAY & ASSOCIATES, INC IN FEBRUARY, 2020. FIELD VERIFIED BY COLLINS ENGINEERING IN OCTOBER OF 2022.

DATUM: NAVD 88

EXISTING VEGETATION: PARTIALLY WOODED WITH (2) EXISTING RESIDENTIAL HOUSES. SITE CURRENTLY CLEARED AND UNDER CONSTRUCTION.

PRESERVED/MANAGED SLOPES: MANAGED AND PRESERVED STEEP SLOPES ARE SHOWN WITHIN THE LIMITS OF THE PROPERTY. SEE EXISTING CONDITIONS SHEET 2 FOR LOCATIONS.

LIGHTING: NO STREET LIGHTING IS PROPOSED WITH THIS PROJECT.

PARKING: TWO (2) OFF-STREET PARKING SPACES ARE PROVIDED FOR EACH DWELLING UNIT AND (1) OFFSTREET SURFACE PARKING SPACE IS PROPOSED FOR EACH ACCESSORY UNIT. ADDITIONAL PARKING SPACES PROVIDED ALONG THE PROPOSED ROADWAYS.
PARKING REQUIRED:
59 RESIDENTIAL UNITS = 118 PARKING SPACES
6 ACCESSORY UNITS = 6 PARKING SPACES
22 ATTACHED UNITS x (1 PARKING SPACE/4 UNITS) = 6 SPACES
TOTAL PARKING REQUIRED: 130 PARKING SPACES

PARKING PROVIDED:
GARAGE PARKING SPACES: 53 GARAGE PARKING SPACES
DRIVEWAY PARKING SPACES: 65 DRIVEWAY PARKING SPACES
SURFACE PARKING SPACES: 9 SURFACE PARKING SPACES
ON-STREET PARKING SPACES: 4 TOTAL ON-STREET SPACES
TOTAL PARKING PROVIDED: 131 SPACES

BUILDING SITES: EACH LOT CONTAINS A BUILDING SITE THAT COMPLIES WITH THE REQUIREMENTS OF SECTION 4.2.1 OF THE ALBEMARLE COUNTY ZONING ORDINANCE.

LAND AREAS:

OPEN SPACE:	187,744 SF	4.31 ACRES (32.3%)
LOTS:	265,375 SF	6.09 ACRES (48.36%)
ROW DEDICATION:	128,464 SF	2.95 ACRES (22.1%)

PROPOSED IMPERVIOUS AREAS:

ROADS:	71,750 SF
SIDEWALKS:	19,450 SF
BUILDINGS, PATIOS/DECKS:	93,328 SF
DRIVEWAYS:	28,320 SF
TOTAL IMPERVIOUS AREAS:	224,098 SF (5.14 ACRES)

BURIAL SITES: NO CEMETERIES WERE FOUND DURING FIELD INVESTIGATION OF THIS PROPERTY.

FLOODPLAIN: THERE IS NO FLOODPLAIN LOCATED ON THIS SITE. FEMA MAP ID 51003C0426D DATED FEBRUARY 4, 2005.

LANDSCAPING: A LANDSCAPING PLAN HAS BEEN INCLUDED WITH THIS FINAL SITE PLAN IN ACCORDANCE WITH ALBEMARLE COUNTY ORDINANCE SECTION 32.7.9. STREET TREES ARE INCLUDED WITH THE LANDSCAPING DESIGN TO INCORPORATE STREET TREES EVERY 40' ALONG THE ROADWAYS. (SEE LANDSCAPING SHEETS 16 & 17).

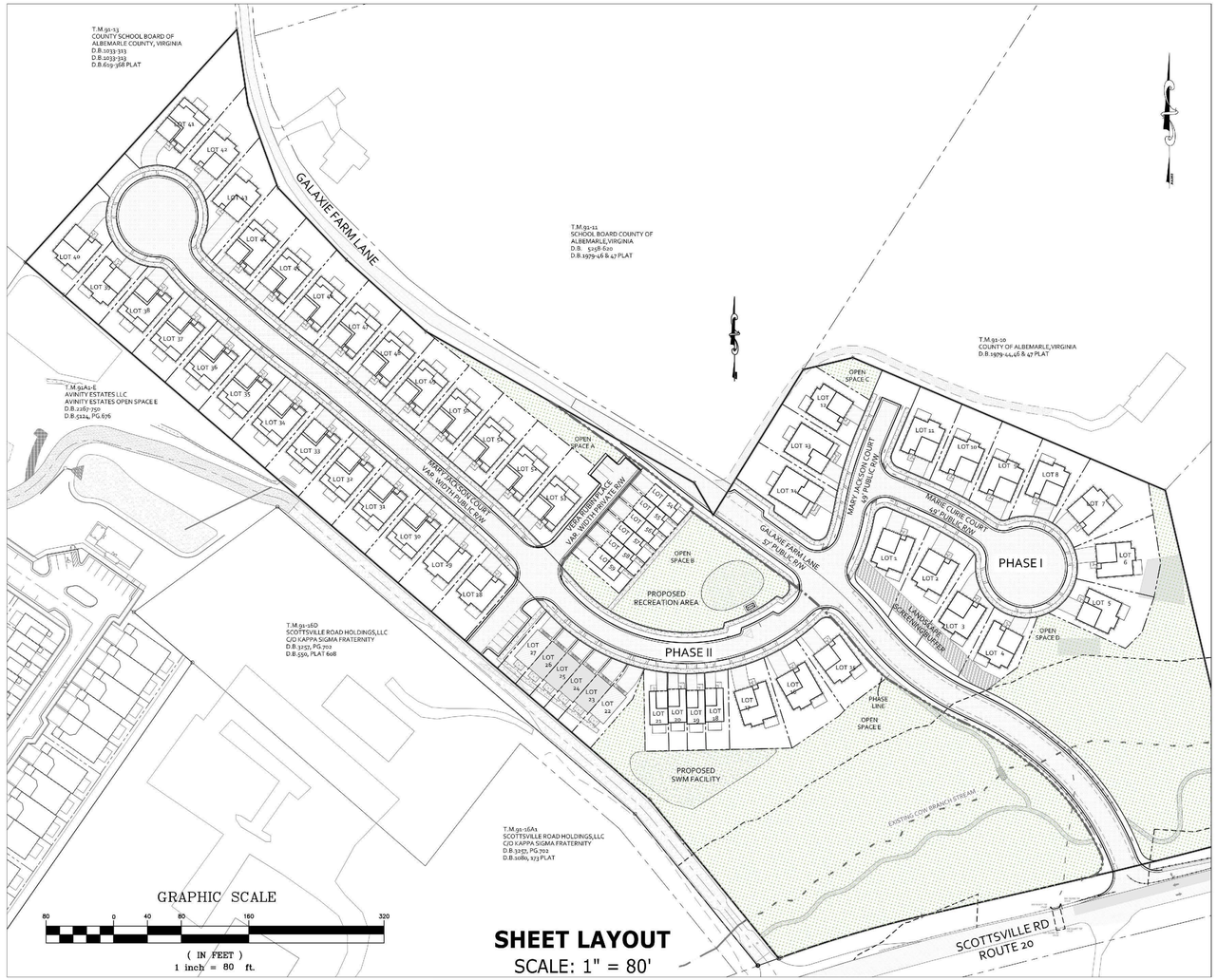
RETAINING WALLS: RETAINING WALLS ARE PROPOSED WITH THIS PROJECT. SEE GRADING & DRAINAGE PLAN FOR WALL LOCATIONS.

TRASH SERVICE: EACH LOT SHALL HAVE AN INDIVIDUAL TRASH CONTAINER.

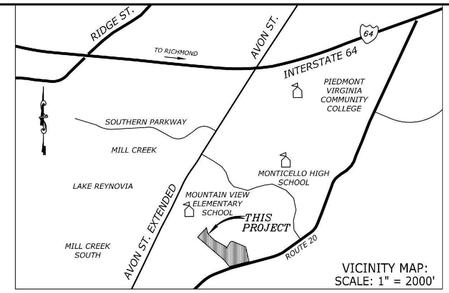
UTILITIES: ALBEMARLE COUNTY WATER & SEWER

AFFORDABLE HOUSING: AFFORDABLE HOUSING TO BE PROVIDED IN ACCORDANCE WITH THE APPROVED PROFFERS.
TOTAL PROPOSED NUMBER OF AFFORDABLE HOUSES: 10 UNITS
SEE LAYOUT SHEETS FOR LOCATION OF AFFORDABLE UNITS, AS SHOWN WITH AN ASTERISK (*)

PHASING: THIS PROJECT SHALL BE DEVELOPED IN TWO PHASES. PHASE I INCLUDES LOTS 1-24, AND PHASE 2 INCLUDES THE REMAINING LOTS (LOTS 25 - 59).



SHEET LAYOUT
SCALE: 1" = 80'



VICINITY MAP:
SCALE: 1" = 2000'

Sheet List Table	
Sheet Number	Sheet Title
1	COVER
1A	PROFFERS
2	EXISTING CONDITIONS
3	OVERALL LAYOUT PLAN
4	SITE PLAN
5	UTILITY PLAN
6	GRADING & DRAINAGE PLAN
7	NOTES & DETAILS
8	DRAINAGE MAP
9	DRAINAGE COMPUTATIONS
10	DRAINAGE COMPUTATIONS
11	ROAD & UTILITY PROFILES
12	ROAD & UTILITY PROFILES
13	DRAINAGE & UTILITY PROFILES
14	DRAINAGE PROFILES
15	DRAINAGE PROFILES
16	LANDSCAPING PLAN
17	LANDSCAPING PLAN
18	SITE CROSS -SECTIONS
19	TOTAL SHEETS

LEGEND
- EXISTING FENCE
- UGE — EXISTING UNDERGROUND ELECTRICAL
- UGT — EXISTING UNDERGROUND TELEPHONE
- OH — EXISTING OVERHEAD ELECTRICAL
- EXISTING EASEMENTS
- W — EXISTING WATERLINE
- SS — EXISTING SANITARY SEWER
- EXISTING DRAINAGE PIPE
- EXISTING DRAINAGE STRUCTURE
- EXISTING SANITARY SEWER MANHOLE
- 200 — PROPOSED CONTOUR
- EDGE OF PROPOSED PAVEMENT
- EXISTING TREE LINE
- EXISTING GRAVEL
- DRAINAGE DIVIDE
- 200 — EXISTING CONTOUR
- EDGE OF EXISTING PAVEMENT
- EXISTING CURB
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE
- EXISTING ASPHALT PAVEMENT
- PROPOSED RIGHT OF WAY
- COUNTY DEFINED PRESERVED STEEP SLOPES
- COUNTY DEFINED MANAGED STEEP SLOPES
- PROPOSED SIGN
- PROPOSED STORM SEWER PIPE
- PROPOSED STORM SEWER STRUCTURE
- PROPOSED SANITARY SEWER PIPE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CURB
- PROPOSED ASPHALT PAVEMENT
- PROPOSED ASPHALT PAVEMENT REPAIR
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED RETAINING WALL
- W — PROPOSED WATERLINE
- PROPOSED FIRE HYDRANT
- PROPERTY BOUNDARY LINE
- 506.71 TC / 506.21 EP — PROPOSED SPOT ELEVATION
  TC DENOTES TOP/BACK OF CURB
  EP DENOTES EDGE OF PAVEMENT
- 506.71 TW / 506.21 BW — PROPOSED SPOT ELEVATION
  TW DENOTES TOP OF WALL
  BW DENOTES BOTTOM OF WALL

STREAM BUFFERS: THE STREAM BUFFERS SHOWN HEREON SHALL BE MANAGED IN ACCORDANCE WITH THE ALBEMARLE COUNTY WATER PROTECTION ORDINANCE

BUILDING SITES: LOTS 1–59 SHALL EACH CONTAIN A BUILDING SITE THAT COMPLIES WITH SECTION 4.2.1. OF THE ALBEMARLE COUNTY ZONING ORDINANCE.

PRIVATE STREET: VERA RUBIN PLACE IN THIS SUBDIVISION MAY NOT MEET THE STANDARDS FOR ACCEPTANCE INTO THE SECONDARY SYSTEM OF STATE HIGHWAY AND WILL NOT BE MAINTAINED BY THE DEPARTMENT OF TRANSPORTATION OR THE COUNTY OF ALBEMARLE.

OFFSITE DISTURBANCE: OFFSITE DISTURBANCE IS PROPOSED WITH THIS PLAN ON THE ADJACENT AVINITY ESTATES PROPERTY, WHICH IS ALSO OWNED BY THE SAME DEVELOPER.

AVAILABLE FIRE FLOW: 1,750 GPM AT MINIMUM 20 PSI

ISO CALCULATIONS: MAXIMUM REQUIRED FIRE FLOW FOR RESIDENTIAL STRUCTURE IS 1,100 GPM.

NOTES:
1) THIS PROPERTY DOES NOT LIE WITHIN AN AGRICULTURAL AND/OR FORESTAL DISTRICT.
2) ONLY (1) DWELLING PER LOT SHALL BE PERMITTED.
3) STREET TREES SHALL BE PROVIDED ALONG ALL THE PUBLIC STREETS 50' (MAXIMUM) O.C. IN ACCORDANCE WITH VDOT AND ALBEMARLE COUNTY STANDARDS AND REZONING DOCUMENTS.
4) THIS PROPERTY IS NOT LOCATED WITHIN A DAM INUNDATION ZONE.
5) ROADWAYS AND PAVED CIRCULATION AREA = 60,634 SF.

BUILDING CODE NOTES:
1. RETAINING WALLS GREATER THAN 3 FEET IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT. WALLS EXCEEDING 4 FEET IN HEIGHT REQUIRE A STAMPED ENGINEERED DESIGN ALSO. WALLS REQUIRE INSPECTIONS AS OUTLINED IN THE USBC.
2. ACCESSIBLE PARKING SPACES, ACCESS ISLES, AND ACCESSIBLE ROUTE SHALL BE INSTALLED IN ACCORDANCE WITH ICC ANSI A117.1-09 AND THE 2015 VIRGINIA CONSTRUCTION CODE.
3. WHERE THE FLOOD LEVEL RIMS OF PLUMBING FIXTURES ARE BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER, THE FIXTURE SHALL BE PROTECTED BY A BACKWATER VALVE INSTALLED IN THE BUILDING DRAIN, BRANCH OF THE BUILDING DRAIN, OR HORIZONTAL BRANCH SERVING SUCH FIXTURES. PLUMBING FIXTURES HAVING FLOOD LEVEL RIMS ABOVE THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER SHALL NOT DISCHARGE THROUGH A BACKWATER VALVE.
4. ALL ROOF DRAINS SHALL DISCHARGE IN A MANNER NOT TO CAUSE A PUBLIC NUISANCE AND NOT OVER SIDEWALKS.
5. 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 FROM ALBEMARLE COUNTY AND VDOLI. CONTACT VDOLI FOR THEIR ADDITIONAL REQUIREMENTS AND PERMITS FOR DEMOLITION PROJECTS AT 540-562-3850 X131.
6. ALL WATER, SEWER, AND FIRE LINES REQUIRE NEW INSPECTION AND TESTING PROCEDURES. THE ACSA PERFORMS ANY TESTING AND INSPECTIONS OF THE PUBLIC SEWER AND WATER MAIN(S). THE ALBEMARLE COUNTY BUILDING INSPECTIONS DEPARTMENT (ACBID) DOES A VISUAL INSPECTION AND WITNESSES THE TESTING OF THE BUILDING DRAIN, WATER SERVICE PIPE AND THE SPRINKLER LEAD-IN CONNECTION.
7. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE TO RETAIN A SPECIAL INSPECTOR AS OUTLINED IN THE UPDATED ALBEMARLE COUNTY POLICY FOR SITE UTILITIES TO PERFORM THE VISUAL INSPECTION AND TESTING OF ALL UTILITIES NOT COVERED BY THE ACSA OR ACBID. THIS INCLUDES BUILDING SEWERS, WATER AND FIRE LINE BRANCHES BETWEEN THE MAIN AND THE METER(S)BUILDING(S).
8. THE SPECIAL INSPECTOR'S REPORT MUST BE SUBMITTED AND APPROVED BY THE ALBEMARLE COUNTY ENGINEERING DEPARTMENT PRIOR TO A CERTIFICATE OF OCCUPANCY BEING ISSUED.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
10/17/22
PROFESSIONAL ENGINEER

REVISIONS

	REVISION DESCRIPTION
10/17/22	INITIAL SUBMITTAL - FINAL SITE PLAN

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

PROJECT: GALAXIE FARM - FINAL SITE & ARB PLAN
SHEET: COVER

JOB NO. 202194
SCALE 1"=80'
SHEET NO. 1

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SEPTEMBER 17, 2018 PROFFER STATEMENT FOR APPROVED ZMA 201800012

PROFFER STATEMENT

GALAXIE

Date: September 17, 2018
ZMA#: 2018-_____ Galaxie Rezoning
Tax Map Parcel #: 09100-00-00-00900 and 09100-00-00-01500

13.362 acres to be rezoned from Residential R-1 ("R-1") to Planned Residential Development ("PRD")

Anna Marie Witmer and David S. Witmer are the fee simple owners of tax map parcel 09100-00-00-00900 (the "Witmer Property"). Mallie P. Haynes and Jasper L. Haynes the fee simple owners of tax map parcel 09100-00-00-01500 (together with the Witmer Property, the "Property"). Anna Marie Witmer, David S. Witmer, Mallie P. Haynes and Jasper L. Haynes shall hereinafter collectively be referred to as the "Owners." The Property is the subject of the zoning map amendment application #ZMA-2018-_____ known as "Galaixe." The Applicant for Galaxie is Blackbird of Charlottesville, LLC, a Virginia limited liability company. The Galaxie community is herein referred to as the "Project."

Pursuant to Section 33.3 of the Albemarle County Zoning Ordinance, Owner hereby voluntary proffers the conditions listed in this Proffer Statement, which shall be applied to the Property if the rezoning is approved by Albemarle County. These conditions are proffered as part of the rezoning and it is agreed that the conditions are reasonable.

1. **Affordable Housing**.

The Owners shall provide Affordable Dwelling Units (as defined herein) equal to fifteen percent (15%) of the total residential dwelling units within the Project that is in excess of the number of units that are allowed by-right (the "15% Affordable Housing Requirement"). Prior to the approval of ZMA 2018-_____, the property had a by-right development yield of 15 dwelling units. If there are more than 15 dwelling units within the Project such that the 15% Affordable Housing Requirement is applicable, the Owner or its successors in interest reserve the right to meet the affordable housing objective through a variety of housing types, including but not limited to, for-sale units, rental units, and accessory units.

A. For-Sale Affordable Dwelling Units. The Owner may meet the 15% affordable housing objective by constructing the Affordable Dwelling Units. For purposes of this Proffer 1(A), "Affordable Dwelling Unit" shall mean any unit affordable to households with incomes less than eighty percent (80%) of the area median income (as determined from time to time by the Albemarle County Office of Housing) such that housing costs consisting of principal, interest, real estate taxes and homeowners insurance (PITT) do not exceed thirty percent (30%) of the gross household income; provided, however; that in no event shall the selling price for such affordable units be more than sixty-five percent (65%) of the applicable Virginia Housing Development Authority (VEDA)

maximum sales price/loan limit for first-time homebuyer programs at the beginning of the 180-day period referenced in Proffer 1(A)(1) hereof (the "VHDA Limit"). The Owner shall impose by contract the responsibility herein of constructing and selling the Affordable Dwelling Units to any subsequent owner or developer of the Property (or any portion thereof). Such subsequent owner(s) and/or developer(s) shall succeed to the obligations of the Owner under this Proffer 1; and the term "Owner" shall refer to such subsequent owner(s) and/or developer(s), as applicable.

(1) Role of County Housing Office. All purchasers of the for-sale Affordable Dwelling Units shall be approved by the Albemarle County Housing Office or its designee (the "Housing Office"). At the proposed time of construction of any Affordable Dwelling Unit, the Owner shall provide the Housing Office a period of one hundred eighty (180) days to identify and approve an eligible purchaser for such affordable unit. The 180-day qualification period shall commence upon written notice from the Owner to the Housing Office of the approximate date the Unit is expected to receive a certificate of occupancy from the County (the "Notice"). Such Notice shall be given no more than ninety (90) days prior to the expected issuance of the certificate of occupancy, and the 180-day approval period shall extend no less than ninety (90) days after the issuance of the certificate of occupancy. Nothing in this Proffer 1 shall prohibit the Housing Office from providing the Owner with information on income eligibility sufficient for the Owner to identify eligible purchasers of Affordable Dwelling Units for approval by the Housing Office. If, during the 180-day qualification period, (i) the Housing Office fails to approve a qualified purchaser, or (ii) a qualified purchaser fails to execute a purchase 'contract for an Affordable Dwelling Unit, then, in either case, the Owner shall have the right to sell the Unit without any restriction on sales price or income of the purchaser(s), and such unit shall be counted toward the satisfaction of this Proffer 1. This Proffer 1 shall apply only to the first sale of each of the for-sale Affordable Dwelling Units. For the purposes of this Proffer 1, such Affordable Dwelling Units shall be deemed to have been provided when the subsequent Owner/builder provides written notice to the Albemarle County Office of Housing or its designee that the unit(s) will be available for sale.

(2) Tracking. Each subdivision plat and site plan for land within the Property shall: i) designate the lots or units, as applicable, that will constitute Affordable Dwelling Units within the Project and ii) contain a running tally of the Affordable Dwelling Units either constructed or contributed for under this Proffer 1. The designated lots or units shown on the applicable subdivision plat or site plan may be shown as being constructed in a future phase. The 15% Affordable Housing Requirement shall apply to the total Project, not each phase of the Project.

B. For-Rent Affordable Dwelling Units.

(1) Rental Rates. The initial net rent for each rental housing unit for which Owner seeks qualification for the purposes of this Proffer 1, ("For-Rent Affordable Dwelling Unit") shall not exceed the then-current and applicable maximum net rent rate approved by the Albemarle County Housing Office. In each subsequent calendar year, the monthly

net rent for each For-Rent Affordable Dwelling Unit may be increased up to three percent (3%). For purposes of this Proffer 1B, the term "net rent" means that the rent does not include tenant-paid utilities. The requirement that the rents for such For-Rent Affordable Dwelling Units may not exceed the maximum rents established in this paragraph 1B shall apply for a period of ten (10) years following the date the certificate of occupancy is issued by the County for each For-Rent Affordable Dwelling Unit, or until the units are sold as low or moderate cost units qualifying as such under either the Virginia Housing Development Authority, Farmers Home Administration, or Housing and Urban Development, Section 8, whichever comes first (the "Affordable Term").

(2) Conveyance of Interest. All deeds conveying any interest in the For-Rent Affordable Dwelling Units during the Affordable Term shall contain language reciting that such unit is subject to the terms of paragraph 1B. In addition, all contracts pertaining to a conveyance of any For-Rent Affordable Dwelling Unit, or any part thereof, during the Affordable Term shall contain a complete and full disclosure of the restrictions and controls established by this paragraph 1B. At least thirty (30) days prior to the conveyance of any interest in any For-Rent Affordable Dwelling Unit during the Affordable Term, the then-current Owner shall notify the County in writing of the conveyance and provide the name, address and telephone number of the potential grantee, and state that the requirements of this paragraph 1B have been satisfied.

(3) Reporting Rental Rates. During the Affordable Term, within thirty (30) days of each rental or lease term for each For-Rent Affordable Dwelling Unit, the then-current Owner shall provide to the Albemarle County Housing Office a copy of the rental or lease agreement for each such unit rented that shows the rental rate for such unit and the term of the rental or lease agreement. In addition, during the Affordable Term, the then-current Owner shall provide to the County, if requested, any reports, copies of rental or lease agreements, or other data pertaining to rental rates as the County may reasonably require.

2. **Road Improvements**. Pursuant to road plans approved by the Virginia Department of Transportation ("VDOT") and a temporary construction easement and maintenance agreement approved by the County, the Owner shall construct the Galaxie Farm Lane Connection, as conceptually depicted with improvements and landscaping shown on the Application Plan prepared by Shimp Engineering, dated September 17, 2018 ("Galaxie Farm Lane Connection"). The portion of Galaxie Farm Lane Connection labeled as "Road A, Phase 1" on Sheet 5 of 9 the Application Plan shall be bonded prior to creation of any lots. The second portion of Galaxie Farm Lane Connection, labeled as "Road A, Phase 2" on Sheet 5 of 9 of the Application, shall be bonded prior to the creation of the fiftieth (50th) lots. In any event, Owner shall have completed the Galaxie Farm Lane Connection prior to the completion of ninetieth (90th) certificate of occupancy.

Until such time as the County determines to submit the Galaxie Farm Lane Connection for public dedication, the Owner shall be responsible for all maintenance, repairs, bonding and insurance of the Galaxie Farm Lane Connection. The Owner shall submit a temporary construction easement and maintenance agreement that is acceptable to the County prior to approval of road plans for roadway improvements. The Owner's improvements shall be dedicated at such time as

the County determines to submit the Galaxie Farm Lane Connection for public dedication.

All Road Improvements shall be designed and constructed to applicable VDOT standards, including without limitation, VDOT's Geometric Design Standards. Road Improvements shall be deemed complete when they are constructed, bonded and ready to be recommended by the Albemarle County Board of Supervisors for acceptance into the public system, and the County Engineer shall have determined that the roadway is safe and convenient for traffic (hereinafter, "completed").

This Proffer Statement may be executed in any number of counterparts, each of which shall be an original and all of which together shall constitute but one and the same instrument.

[SIGNATURE PAGE FOLLOWS]

WITNESS the following duly authorized signature:

Owners:

By: _____
Anna Marie Witmer

By: _____
David S. Witmer

By: _____
Mallie P. Haynes

By: _____
Jasper L. Haynes

NOVEMBER 13, 2019 PLANNING COMMISSION APPROVAL LETTER FOR ZMA 201800012

PROFFER STATEMENT

GALAXIE

Date: September 17, 2018
ZMA#: 2018-_____ Galaxie Rezoning
Tax Map Parcel #: 09100-00-00-00900 and 09100-00-00-01500

13.362 acres to be rezoned from Residential R-1 ("R-1") to Planned Residential Development ("PRD")

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Pursuant to Section 33.3 of the Albemarle County Zoning Ordinance, Owner hereby voluntary proffers the conditions listed in this Proffer Statement, which shall be applied to the Property if the rezoning is approved by Albemarle County. These conditions are proffered as part of the rezoning and it is agreed that the conditions are reasonable.

1. **Affordable Housing**.

The Owners shall provide Affordable Dwelling Units (as defined herein) equal to fifteen percent (15%) of the total residential dwelling units within the Project that is in excess of the number of units that are allowed by-right (the "15% Affordable Housing Requirement"). Prior to the approval of ZMA 2018-_____, the property had a by-right development yield of 15 dwelling units. If there are more than 15 dwelling units within the Project such that the 15% Affordable Housing Requirement is applicable, the Owner or its successors in interest reserve the right to meet the affordable housing objective through a variety of housing types, including but not limited to, for-sale units, rental units, and accessory units.

A. For-Sale Affordable Dwelling Units. The Owner may meet the 15% affordable housing objective by constructing the Affordable Dwelling Units. For purposes of this Proffer 1(A), "Affordable Dwelling Unit" shall mean any unit affordable to households with incomes less than eighty percent (80%) of the area median income (as determined from time to time by the Albemarle County Office of Housing) such that housing costs consisting of principal, interest, real estate taxes and homeowners insurance (PITT) do not exceed thirty percent (30%) of the gross household income; provided, however; that in no event shall the selling price for such affordable units be more than sixty-five percent (65%) of the applicable Virginia Housing Development Authority (VEDA)

3

net rent for each For-Rent Affordable Dwelling Unit may be increased up to three percent (3%). For purposes of this Proffer 1B, the term "net rent" means that the rent does not include tenant-paid utilities. The requirement that the rents for such For-Rent Affordable Dwelling Units may not exceed the maximum rents established in this paragraph 1B shall apply for a period of ten (10) years following the date the certificate of occupancy is issued by the County for each For-Rent Affordable Dwelling Unit, or until the units are sold as low or moderate cost units qualifying as such under either the Virginia Housing Development Authority, Farmers Home Administration, or Housing and Urban Development, Section 8, whichever comes first (the "Affordable Term").

(2) Conveyance of Interest. All deeds conveying any interest in the For-Rent Affordable Dwelling Units during the Affordable Term shall contain language reciting that such unit is subject to the terms of paragraph 1B. In addition, all contracts pertaining to a conveyance of any For-Rent Affordable Dwelling Unit, or any part thereof, during the Affordable Term shall contain a complete and full disclosure of the restrictions and controls established by this paragraph 1B. At least thirty (30) days prior to the conveyance of any interest in any For-Rent Affordable Dwelling Unit during the Affordable Term, the then-current Owner shall notify the County in writing of the conveyance and provide the name, address and telephone number of the potential grantee, and state that the requirements of this paragraph 1B have been satisfied.

(3) Reporting Rental Rates. During the Affordable Term, within thirty (30) days of each rental or lease term for each For-Rent Affordable Dwelling Unit, the then-current Owner shall provide to the Albemarle County Housing Office a copy of the rental or lease agreement for each such unit rented that shows the rental rate for such unit and the term of the rental or lease agreement. In addition, during the Affordable Term, the then-current Owner shall provide to the County, if requested, any reports, copies of rental or lease agreements, or other data pertaining to rental rates as the County may reasonably require.

2. **Road Improvements**. Pursuant to road plans approved by the Virginia Department of Transportation ("VDOT") and a temporary construction easement and maintenance agreement approved by the County, the Owner shall construct the Galaxie Farm Lane Connection, as conceptually depicted with improvements and landscaping shown on the Application Plan prepared by Shimp Engineering, dated September 17, 2018 ("Galaxie Farm Lane Connection"). The portion of Galaxie Farm Lane Connection labeled as "Road A, Phase 1" on Sheet 5 of 9 the Application Plan shall be bonded prior to creation of any lots. The second portion of Galaxie Farm Lane Connection, labeled as "Road A, Phase 2" on Sheet 5 of 9 of the Application, shall be bonded prior to the creation of the fiftieth (50th) lots. In any event, Owner shall have completed the Galaxie Farm Lane Connection prior to the completion of ninetieth (90th) certificate of occupancy.

Until such time as the County determines to submit the Galaxie Farm Lane Connection for public dedication, the Owner shall be responsible for all maintenance, repairs, bonding and insurance of the Galaxie Farm Lane Connection. The Owner shall submit a temporary construction easement and maintenance agreement that is acceptable to the County prior to approval of road plans for roadway improvements. The Owner's improvements shall be dedicated at such time as

3

WITNESS the following duly authorized signature:

Owners:

By: _____
Anna Marie Witmer

By: _____
David S. Witmer

By: _____
Mallie P. Haynes

By: _____
Jasper L. Haynes

5

COUNTY OF ALBEMARLE
Department of Community Development
401 McIntire Road, North Wing
Charlottesville, Virginia 22902-4596

Phone (434) 296-5832 **Fax (434) 972-4126**

November 13, 2019

Nicole Scro
Gallifrey Enterprises
912 East High St, Suite C
Charlottesville, VA 22902

RE: ZMA201800012 Galaxie Farm

Dear Ms. Scro,

The Albemarle County Planning Commission, at its meeting on October 15, 2019, recommended approval by a vote of 6:0, for the reasons stated in the staff report, with changes recommended by staff to reduce the density to match the Comprehensive Plan recommendation, and changes to the application plan.

The commission approved by a vote of 4:2, for the authorization of the private street request on Road E only, for the reasons stated in the staff report.

The commission approved by a vote of 6:0 for the requested sidewalk modification with the condition (listed below) and reasons stated in the staff report.
Condition:
1. A five (5) foot sidewalk across the length of the amenity area, outside of the stream buffer, will be provided for access to and from the lots and connect to the sidewalk network along the public streets.

The commission approved by a vote of 6:0 for the requested planting strip modification for the reasons stated in the staff report.

The commission approved by a vote of 6:0 for the curb and gutter exception request for Road E as requested by the applicant.

The commission recommended approval by a vote of 6:0 for the requested special exception for the front setback modification for the amenity-oriented lots, accessed by Road E only, and the rear setback for all lots accessed by Road E, for reasons stated in the staff report.

If you should have any questions or comments regarding the above noted action, please do not hesitate to contact me at (434)296-5832.

Sincerely,

Megan Nedostup
Principal Planner
Planning Division

cc: David & Anna Marie Witmer
444 Rookwood Dr
Charlottesville VA 22903

JUNE 15, 2022 BOARD OF SUPERVISORS APPROVAL LETTER FOR SE202200221

County of Albemarle
Community Development Department - Planning

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

June 27, 2022

Scott Collins
Collins Engineering
200 Garrett Street, Suite K
Charlottesville VA 22902
scott@collins-engineering.com

RE: SE2022000221 Galaxie Farm - Variations to Code of Development (ZMA201800012) Action Letter

Dear Mr. Collins,

On June 15, 2022, the Board of Supervisors took action on your Special Exception on Tax Map Parcel 09100-00-00-00900 in the Scottsville 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;**
- **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
Planning Division

CC: Galaxie Farm Investments LLC
600 East Water Street, Suite H
Charlottesville VA 22902

WWW.ALBEMARLE.ORG
401 McIntire Road, North Wing, | Charlottesville, VA 22902-4579

RESOLUTION TO APPROVE
SE 2022-00021 GALAXIE FARM
VARIATIONS TO CODE OF DEVELOPMENT (ZMA201800012)

WHEREAS, upon consideration of the Memorandum prepared in conjunction with the SE2022-00021 Galaxie Farm – Three Variations to Code of Development application and the attachments thereto, including staff's supporting analysis, any comments received, and all of the factors relevant to the variations in Albemarle County Code §§ 18-8.5.5.3 and 18-33.9, the Albemarle County Board of Supervisors hereby finds that the proposed variations:

(1) would be consistent with the goals and objectives of the Comprehensive Plan,
(2) would not increase the approved development density or intensity of development,
(3) would not adversely affect the timing and phasing of development of any other development in the zoning district,
(4) would not require a special use permit, and
(5) would be in general accord with the purpose and intent of the approved application.

NOW, THEREFORE, BE IT RESOLVED that the Albemarle County Board of Supervisors hereby approves Variations #1-#3 to the Galaxie Farm Code of Development, on the condition that development be in general accord with the "Galaxie Farm Road Plan," prepared by Collins Engineering, dated March 8, 2022.

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 regular meeting held on June 15, 2022.

Clerk, Board of County Supervisors

	Aye	Nay
Mr. Andrews	X	
Mr. Gallaway	X	
Ms. LaPisto-Kirtley	X	
Ms. Mallek	X	
Ms. McKeel	X	
Ms. Price	X	

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
10/17/22

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

GALAXIE FARM - FINAL SITE & ARB PLAN
PROFFERS

PROJECT
JOB NO. 202194
SCALE N/A
SHEET NO. 1A

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NOTES:

1. THIS PROJECT IS NOT LOCATED WITHIN FLOODPLAIN LIMITS, BASED ON FEMA MAP NUMBER 51003C0426D ADOPTED FEBRUARY 4, 2005.
2. TOPOGRAPHY AND BOUNDARY SURVEY PROVIDED BY ROGER W. RAY & ASSOCIATES, INC IN FEBRUARY 2020. TOPOGRAPHY HAS BEEN FIELD VERIFIED IN FEBRUARY 2021.
3. PRESERVED AND MANAGED STEEP SLOPES ARE LOCATED ON THE PROPERTY AS SHOWN. NO PRESERVED STEEP SLOPES ARE IMPACTED WITH THE PROPOSED DEVELOPMENT. MANAGED SLOPES SHALL BE IMPACTED IN ACCORDANCE WITH ALBEMARLE COUNTY REQUIREMENTS AND REGULATIONS.
4. 100' WPO STREAM BUFFER IS SHOWN.
5. EXISTING WELLS SHALL BE ABANDONED PERMANENTLY IN ACCORDANCE WITH THE VIRGINIA HEALTH DEPARTMENT GUIDELINES AND REQUIREMENTS, AND IN ACCORDANCE WITH 12VAC5-630-450.

	CHORD BEARING	CHORD DISTANCE	LINE RADIUS	LINE LENGTH
C1	S75°40'51"W	149.57'	5689.58	149.57'
C2	S76°48'59"W	25.09'	5689.58	25.09
C3	S73°32'54"W	173.95'	1472.4	174.05'

TMP: 09100-00-00-01000
OWNER: COUNTY OF ALBEMARLE SCHOOL BOARD
ACREAGE: 8.33 AC
ZONING: R1 RESIDENTIAL
D.B./PG.: 1979/044

TMP: 09100-00-00-008B0
OWNER: COUNTY OF ALBEMARLE
ACREAGE: 8.34 AC
ZONING: R1 RESIDENTIAL
D.B./PG.: 1979/044

TMP: 09100-00-00-012A0
OWNER: THOMAS, DANNY B SR
ACREAGE: 0.53 AC
ZONING: R1 RESIDENTIAL
WB/PG.: 176/131

TMP: 09100-00-00-01100
OWNER: COUNTY OF ALBEMARLE SCHOOL BOARD
ACREAGE: 15.80 AC
ZONING: R1 RESIDENTIAL
D.B./PG.: 5258/620

TMP: 09100-00-00-01300
OWNER: COUNTY OF ALBEMARLE SCHOOL BOARD
ACREAGE: 15.96 AC
ZONING: R1 RESIDENTIAL
D.B./PG.: 1096/737

TMP: 091A0-00-00-000B0
OWNER: AVON PROPERTIES, LLC
ACREAGE: 0.83 AC
ZONING: PRD - RESIDENTIAL
D.B./PG.: 4894/228

TMP: 093A1-00-00-000E0
OWNER: AVINITY ESTATES, LLC
ACREAGE: 2.24 AC
ZONING: PRD - RESIDENTIAL
D.B./PG.: 5124/676

TMP: 09100-00-00-016D0
OWNER: SCOTTSVILLE ROAD HOLDINGS, LLC
ACREAGE: 2.22 AC
ZONING: R1 RESIDENTIAL
D.B./PG.: 3257/702

TMP: 09100-00-00-016A1
OWNER: ALBEMARLE CARTER MOUNTAINS MANAGEMENT CO
ZONING: R1 RESIDENTIAL
D.B./PG.: 3480/068

TMP: 09100-00-00-01800
OWNER: WOOD, WENDELL W
ACREAGE: 153.24 AC
ZONING: RURAL
D.B./PG.: 1727/674

EXISTING GRAVEL ROAD TO REMAIN
EXISTING TREELINE
EXISTING POLE AND OVERHEAD POWER LINES TO BE REMOVED
EXISTING COUNTY PRESERVED STEEP SLOPES
EXISTING STREAM
EXISTING WPO STREAM BUFFER
EXISTING BUILDINGS TO BE REMOVED
PROPERTY LINE
EXISTING COUNTY PRESERVED STEEP SLOPES
EXISTING POLE AND OVERHEAD POWER LINES TO BE REMOVED
EXISTING 15" CULVERT TO BE EXTENDED
EXISTING PROPANE TANK TO BE REMOVED
EXISTING SANITARY SEWER TO REMAIN
(E) WELL TO BE ABANDONED
EXISTING CULVERT TO BE REMOVED
LIMITS OF PAVEMENT DEMO
EXISTING PAVED DRIVEWAY TO BE REMOVED
EXISTING GALAXIE FARM LANE ROW TO BE VACATED 20' ROW, 10' PAVEMENT D.B.198-590,592 PLAT D.B.219-261 PLAT D.B.219-357 D.B.619-366, 368 PLAT
PROPERTY LINE
EXISTING PAVED DRIVEWAY TO BE REMOVED
EXISTING BOUNDARY TO BE VACATED
GALAXIE FARM LANE
EXISTING FENCE TO REMAIN
EXISTING TREELINE TO BE REMOVED
EXISTING BOUNDARY TO BE VACATED
PORTION OF EXISTING GUARDRAIL TO BE REMOVED
COUNTY DEFINED MANAGED STEEP SLOPES, TYP.
EXISTING FENCE TO BE REMOVED
(E) 20' PERMANENT ACSA SANITARY SEWER EASEMENT (D.B. 3179, PG. 90, 95) PLAT
EXISTING TREELINE TO BE REMOVED
EXISTING DRAINAGE DITCH
EXISTING BUILDINGS TO BE REMOVED
EXISTING COW BRANCH STREAM
EXISTING FENCE TO BE REMOVED
EXISTING GRAVEL DRIVEWAY TO BE REMOVED
EXISTING 30' UTILITY EASEMENT
EXISTING BUILDINGS TO BE REMOVED
EXISTING FENCE TO REMAIN
PROPERTY LINE
EXISTING WPO STREAM BUFFER
EXISTING SANITARY SEWER
EXISTING UNDERGROUND TELEPHONE LINE
EXISTING 12" DIP WATERLINE
EXISTING 30' UTILITY EASEMENT
BENCHMARK TOP OF SEWER MANHOLE ELEV:473.345
(E) 20' PERMANENT ACSA SANITARY SEWER EASEMENT (D.B. 2940, PG. 530) PLAT
ROUTE 20 SCOTTSVILLE ROAD

NOTE: THE STREAM BUFFER SHOWN HEREON SHALL BE MANAGED IN ACCORDANCE WITH THE ALBEMARLE COUNTY WATER PROTECTION ORDINANCE.

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
10/17/22
PROFESSIONAL ENGINEER

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

PROJECT: GALAXIE FARM - FINAL SITE & ARB PLAN
SHEET: EXISTING CONDITIONS

JOB NO. 202194
SCALE 1" = 60'
SHEET NO. 2

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BLOCK ID	REZONING PLAN ACREAGE	REZONING PLAN PROPOSED USE	REZONING PLAN MAX. ALLOWABLE UNITS	REZONING PLAN PROPOSED UNITS	PROPOSED DEVELOPMENT ACREAGE (max.)	PROPOSED DEVELOPMENT USE	PROPOSED DEVELOPMENT MAX. ALLOWABLE UNITS	PROPOSED DEVELOPMENT PLANNED UNITS
1	2.2 AC	RESIDENTIAL (SFD & SFA)	12	12	2.20 AC	RESIDENTIAL (SFD)	14	14
2	0.95 AC	RESIDENTIAL (SFD, SFA, TH)	8	8	0.86 AC	RESIDENTIAL (SFD, SFA, TH)	7	7
3	0.76 AC	RESIDENTIAL (SFD, SFA, TH)	10	10	0.80 AC	RESIDENTIAL (SFA, TH)	9	9
4	1.65 AC	RESIDENTIAL (SFD & SFA)	11	11	1.50 AC	RESIDENTIAL (SFD)	10	10
5	1.43 AC	RESIDENTIAL (SFD & SFA)	11	11	1.33 AC	RESIDENTIAL (SFD)	10	10
6	0.81 AC	RESIDENTIAL (SFD, SFA, TH)	13	13	0.82 AC	RESIDENTIAL (SFA, TH)	15	15
7	3.37 AC	OPEN SPACE	N/A		3.66 AC	OPEN SPACE	N/A	N/A
8	0.46 AC	OPEN SPACE	N/A		0.46 AC	OPEN SPACE	N/A	N/A
TOTAL			65	65			65	65

NOTE:
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 13'-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 SHEET 3 FOR COMPLETE PROJECT BOUNDARY DIMENSIONS AND METES AND BOUNDS.
8. CURB RADII SHOWN, REPRESENTED WITH AN 'R', DIMENSION THE FACE OF CURB.
9. VISIBILITY OF ALL MECHANICAL EQUIPMENT FROM THE ENTRANCE CORRIDOR SHALL BE ELIMINATED. ALL MECHANICAL EQUIPMENT SHALL BE SCREENED FROM THE ENTRANCE CORRIDOR.
10. 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.
11. 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.
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.
13. ALL PROFFERS SHALL BE ADHERED TO WITH THE DEVELOPMENT OF THE PROJECT. SEE THE REQUIRED PROFFERS ON SHEET 1A.
14. ALL PRIVATE YARD DRAIN DESIGN INFORMATION (INCLUDING INVERTS OF THE SYSTEM) SHALL BE PROVIDED BY THE CIVIL ENGINEER DURING CONSTRUCTION.
15. ONSTREET PARKING IS ONLY PERMITTED WHERE SHOWN AND LABELED ON THE SITE PLAN. 'NO PARKING' SIGNS SHALL BE INSTALELD IN THE REMAINING ARES.
16. VDOT WILL NOT MAINTAIN SIGHT DISTANCE FOR PRIVATE STREETS OR ENTRANCE.

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 PORTION OF THE DEVELOPMENT ARE UNDER CONSTRUCTION AND HAVE NOT YET BEEN ACCEPTED BY VDOT. THERE IS ALREADY A MOT PLAN APPROVED FOR THE IMPROVEMENTS ASSOCIATED WITH ROUTE 20.
3. IF A TRAFFIC MAINTENANCE PLAN (TMP) IS REQUIRED FOR THE SITE PLAN PORTION OF THIS PROJECT, THEN IT SHALL BE PREPARED BY AN ADVANCED WORK ZONE CERTIFIED PERSON, CERTIFICATION CARD AND VERIFICATION NUMBER IS REQUIRED ON THE TMP SUBMITTAL.

LOT NUMBER	LOT AREA (sf)	BUILDABLE AREA (sf)	LOT NUMBER	LOT AREA (sf)	BUILDABLE AREA (sf)
1	6,216	3,529	31	5,236	3,179
2	6,754	3,967	32	5,229	3,173
3	6,074	3,084	33	5,221	3,167
4	4,903	2,996	34	5,164	3,122
5	5,762	3,396	35	5,034	3,014
6	6,604	3,828	36	4,991	2,981
7	7,282	4,281	37	4,983	2,975
8	5,040	2,885	38	5,065	3,050
9	5,469	3,377	39	4,385	2,456
10	5,167	3,119	40	5,925	3,583
11	5,225	3,176	41	8,688	5,737
12	4,976	2,888	42	5,767	3,391
13	5,353	3,262	43	6,313	3,876
14	7,482	5,065	44	5,973	3,759
15	5,831	3,557	45	5,685	3,532
16	6,883	4,301	46	5,411	3,313
17	6,031	3,560	47	5,206	3,148
18	2,661	1,595	48	5,094	3,056
19	1,994	1,443	49	5,079	3,047
20	2,006	1,455	50	5,088	3,056
21	2,742	1,656	51	5,097	3,065
22	2,997	1,880	52	5,121	3,079
23	2,201	1,669	53	5,273	3,319
24	2,066	1,521	54	2,009	1,102
25	1,970	1,427	55	1,500	1,000
26	1,923	1,374	56	1,500	1,000
27	2,455	1,439	57	1,500	1,000
28	5,089	3,062	58	1,500	1,000
29	5,237	3,182	59	2,024	1,100
30	5,243	3,185			


PROPOSED 8' WOODEN PRIVACY FENCE
COLOR: NATURAL STAIN


PROPOSED METAL SECURITY FENCE
COLOR: BLACK

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.

BLOCK/PHASE CHART - APPROVED WITH VARIATION #1 ON JUNE 15, 2022 (SE202200221)

T.M.91-12B
FRAZIER, BEN S MARGARET A
D.B.521, PG. 518

T.M.91-12A
THOMAS, DANNY B SR
WB.176, PG.231
D.B.1049, PG. 086 PLAT

T.M.91-13
COUNTY SCHOOL BOARD OF ALBEMARLE COUNTY, VIRGINIA
D.B.1033-313
D.B.1033-313
D.B.619-368 PLAT

T.M.91-10
COUNTY OF ALBEMARLE,VIRGINIA
D.B.1979-44,46 & 47 PLAT

T.M.91-8R
COUNTY OF ALBEMARLE,VIRGINIA
D.B.1979-44,46 & 47 PLAT

T.M.91-11
SCHOOL BOARD COUNTY OF ALBEMARLE,VIRGINIA
D.B. 1258-620
D.B.1979-46 & 47 PLAT

T.M.91-18
WOOD, WENDELL W
DB.1727, PG. 674

T.M.91A-B
OPEN SPACE,PHASE IV,AVINITY AVON PROPERTIES,LLC
D.B.2267-750
D.B.4894-228 PLAT

T.M.91A1-E
AVINITY ESTATES LLC
AVINITY ESTATES OPEN SPACE E
D.B.2267-750
D.B.5124, PG.676

T.M.91-16D
SCOTTSVILLE ROAD HOLDINGS,LLC
C/O KAPPA SIGMA FRATERNITY
D.B.3257, PG.702
D.B.550, PLAT 608

T.M.91-16A1
SCOTTSVILLE ROAD HOLDINGS,LLC
C/O KAPPA SIGMA FRATERNITY
D.B.3257, PG.702
D.B.1080, 173 PLAT

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

SCOTT R. COLLINS
Lic. No. 035791A
10/17/22

REVISIONS		
	REVISION DESCRIPTION	
	INITIAL SUBMITTAL - FINAL SITE PLAN	
10/17/22		

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

PROJECT: GALAXIE FARM - FINAL SITE & ARB PLAN
SHEET: OVERALL LAYOUT PLAN

JOB NO. 202194
SCALE 1" = 50'
SHEET NO. 3

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GENERAL UTILITY NOTES:
1. ALL PROPOSED SANITARY AND WATERLINE EASEMENTS SHALL BE DEDICATED TO ACSA FOR PUBLIC USE.
2. ALL WATERLINES, SEWER LINES, AND FIRE LINES FROM THE MAIN TO THE STRUCTURE MUST HAVE A VISUAL INSPECTION PERFORMED BY THE BUILDING DEPARTMENT.

T.M.91–10
COUNTY OF ALBEMARLE, VIRGINIA
D.B.1979–44,46 & 47 PLAT

T.M.91–8B
COUNTY OF ALBEMARLE, VIRGINIA
D.B.1979–44,46 & 47 PLAT

PROPOSED 8" G.V. & 8" TYPE A BLOW-OFF ASSEMBLY

OPEN SPACE C (0.04 AC)

MARY JACKSON COURT PROPOSED PUBLIC ROAD (49' PUBLIC R/W)

LOT 12

LOT 13

LOT 14

LOT 11

LOT 10

LOT 9

LOT 8

LOT 7

LOT 6

LOT 5

PROPOSED 6" CL. 52 DIP WATERLINE, TYP.

PROPOSED WATER SERVICE, TYP.

PROPOSED 8" SANITARY SEWER, TYP.

MARIE CURIE COURT PROPOSED PUBLIC ROAD (49' PUBLIC R/W)

5' MIN. HORIZONTAL SEPARATION REQUIRED BETWEEN ACSA UTILITIES & STORM SEWER, AS SHOWN. TYPICAL.

PROPOSED LOT LINE, TYP.

PROPOSED 6" G.V. & 6" TYPE A BLOW-OFF ASSEMBLY

COW BRANCH STREAM

OPEN SPACE D (1.15 AC)

COUNTY DEFINED PRESERVED STEEP SLOPES, TYP.

PROPOSED 8"x6" TEE, (1) 6" G.V., AND (2) 8" G.V.

VARIABLE WIDTH PRIVATE SANITARY SEWER EASEMENT (EASEMENT LOCATED ON LOT 13 FOR LOT 12's SANITARY SEWER LATERAL/SERVICE) D.B. ___ PG. ___

VARIABLE WIDTH ACSA SANITARY SEWER EASEMENT D.B. ___ PG. ___

VARIABLE WIDTH ACSA SANITARY SEWER EASEMENT D.B. ___ PG. ___

PROPOSED 8"x6" TEE, 6" G.V. & COMPLETE FIRE HYDRANT ASSEMBLY

LOT 1

LOT 2

LOT 3

LOT 4

PROPOSED SANITARY SEWER SERVICE LATERAL (TYP.)

10' PRIVATE SANITARY SEWER EASEMENT (EASEMENT LOCATED IN OPEN SPACE FOR LOT 4's SANITARY SEWER LATERAL/SERVICE) D.B. ___ PG. ___

TIE INTO EXISTING SANITARY SEWER WITH PROPOSED DOGHOUSE MANHOLE

20' ACSA SANITARY SEWER EASEMENT D.B. ___ PG. ___

MH12

MH11

MH13

MH–11A

GALAXIE FARM LANE PROPOSED PUBLIC ROAD (VAR. WIDTH PUBLIC R/W)

(P) W/L LATERAL (TYP.)

MH1

MH–1A

PHASE I

PHASE II

PHASE LINE

OPEN SPACE A (0.12 AC)

OPEN SPACE B (0.44 AC)

PROPOSED 6" G.V. & 6" TYPE A BLOW-OFF ASSEMBLY

PROPOSED (2) 6" 45° BENDS

MH10

PROPOSED 6" CL. 52 DIP WATERLINE, TYP.

VARIABLE WIDTH PUBLIC ACSA EASEMENT D.B. ___ PG. ___

VERA RUBIN PLACE PROPOSED PRIVATE ROAD (27' PRIVATE R/W)

LOT 52

LOT 53

(P) SAN. LATERAL (TYP.)

LOT 54

LOT 55

LOT 56

LOT 57

LOT 58

LOT 59

GARAGE 18'x18'

POPLAR

COUNTY DEFINED MANAGED STEEP SLOPES, TYP.

PROPOSED 8" CL. 52 DIP WATERLINE, TYP.

PROPOSED 8" 22.5° W/L BEND

PROPOSED 8"x6" TEE, 6" G.V. & COMPLETE FIRE HYDRANT ASSEMBLY

PROPOSED 8"x8" CROSS, 8"x6" REDUCER, (1) 6" G.V. AND (2) 8" G.V.

PROPOSED 8" 45° W/L BEND

LOT 15

LOT 16

LOT 17

MH2

MH3

VARIABLE WIDTH ACSA SANITARY SEWER EASEMENT D.B. ___ PG. ___

OPEN SPACE E (2.44 AC)

TIE INTO EXISTING SANITARY SEWER MH KAPPA SIG 1-9

PROJECT BOUNDARY, TYP.

SCOTTSVILLE ROAD, STATE RTE. 20 EXISTING PUBLIC ROAD (80 & VAR. WIDTH PUBLIC R/W)

COW BRANCH STREAM

100' WPO BUFFER, TYP.

EXISTING SANITARY SEWER, TYP.

LOT 18 LAUREL DECK (10'x10')

LOT 19 LAUREL DECK (10'x10')

LOT 20 LAUREL DECK (10'x10')

LOT 21 LAUREL DECK (10'x10')

(P) W/L LATERAL (TYP.)

MH4

MH5

(P) SAN. LATERAL (TYP.)

PROPOSED 8" CL. 52 DIP WATERLINE, TYP.

20' PUBLIC ACSA EASEMENT DB.___PG.___

LOT 22

LOT 23

LOT 24

LOT 25

LOT 26

LOT 27

LOT 28

LOT 29

2 UNITS

NOTE: A WATER CONNECTION CANNOT BE ESTABLISHED ON THE EXISTING MAIN UNTIL THE AVINITY ESTATES EASEMENT IS RECORDED.

UTILITY PLAN APPROVED UNDER SUB2021-00179: GALAXIE FARM ROAD AND UTILITY PLAN. UTILITIES CURRENTLY UNDER CONSTRUCTION

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791A
10/17/22
PROFESSIONAL ENGINEER

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

GALAXIE FARM - FINAL SITE & ARB PLAN

UTILITY PLAN

PROJECT
JOB NO. 202194
SCALE 1" = 30'
SHEET NO. 5
SHEET

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Pipe No.	Size (inches)	Easement Width Required (feet)	Easement Width Provided (feet)
1	36	29.8	30
3	30	29.1	30
5	30	23.9	25
7	30	22.9	23
9	30	21.3	22
15	24	24.2	25
17	24	21.2	22
19	15	15.7	20
22A	24	15.8	20
21	15	15.7	20
23	24	21.4	Within SWM Esmt.
25	24	24.2	25
27	18	31.1	32
39	15	20.5	21
43	18	17.9	20

NOTE: VDOT WILL ONLY MAINTAIN WITHIN DRAINAGE EASEMENTS TO THE EXTENT NECESSARY TO PROTECT THE ROADWAY FROM FLOODING OR DAMAGE.

NOTE: WALLS 30" AND HIGHER SHALL REQUIRE A HANDRAIL

SLOPES STEEPER 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, UNLESS SPECIFIED OTHERWISE (TYP.)

GRADING & DRAINAGE PLAN APPROVED UNDER SUB2021-00179: GALAXIE FARM ROAD AND UTILITY PLAN. DRAINAGE INFRASTRUCTURE AND UTILITIES CURRENTLY UNDER CONSTRUCTION

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 0357914
PROFESSIONAL ENGINEER
10/17/22

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

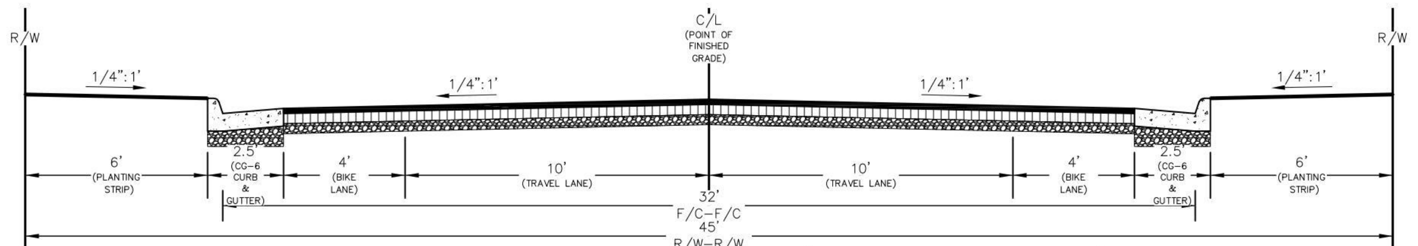
COLLINS ENGINEERING
200 GARRETT STREET SUITE K - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PROJECT: GALAXIE FARM - FINAL SITE & ARB PLAN
SHEET: GRADING & DRAINAGE PLAN

JOB NO. 202194
SCALE 1" = 30'
SHEET NO. 6

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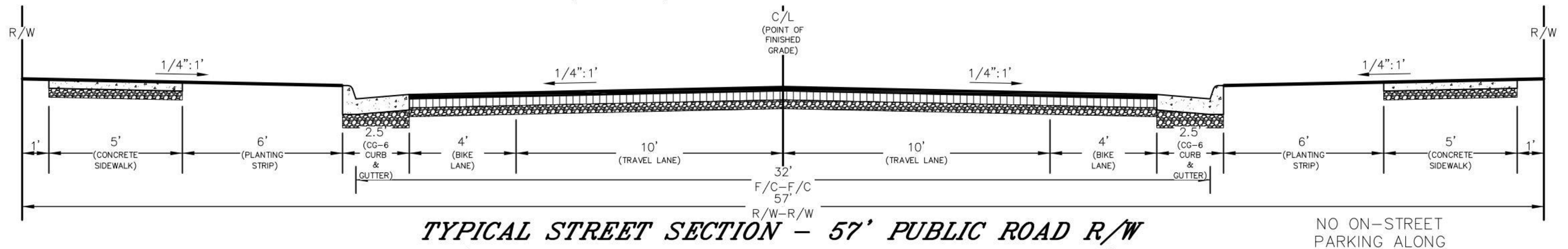
ROAD SECTIONS APPROVED UNDER SUB2021-00179 GALAXIE FARM SUBDIVISION ROAD PLANS



TYPICAL STREET SECTION – 45' PUBLIC ROAD R/W
(GALAXIE FARM LANE – STA. 10+00 TO 14+10)
25 MPH DESIGN SPEED
(SCALE: 1"=5')

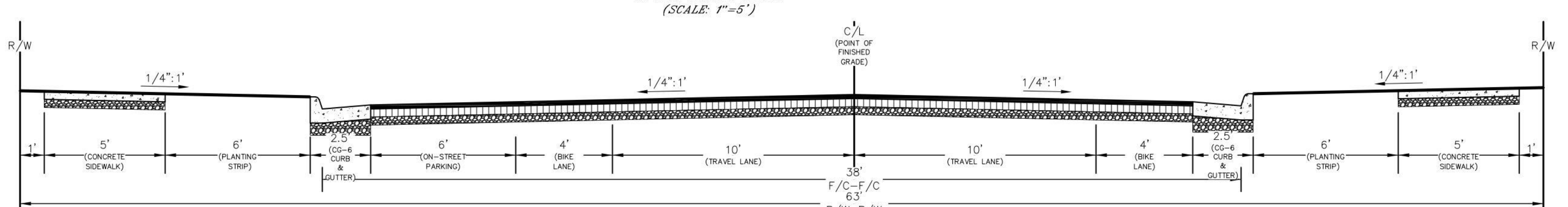
NO ON-STREET PARKING ALONG ROADWAY

NOTE: PARKING ON ONE SIDE OF THE ROAD ONLY, AS DENOTED WITH NO PARKING SIGNS. 'NO PARKING' SIGNS SHALL BE PLACED EVERY 150' ALONG THE PROPOSED ROAD AND CUL-DE-SAC AS SHOWN ON THE PLAN LAYOUT SHEETS.
ON-STREET PARKING WILL NOT BE STRIPED ALONG THE ROADWAYS.

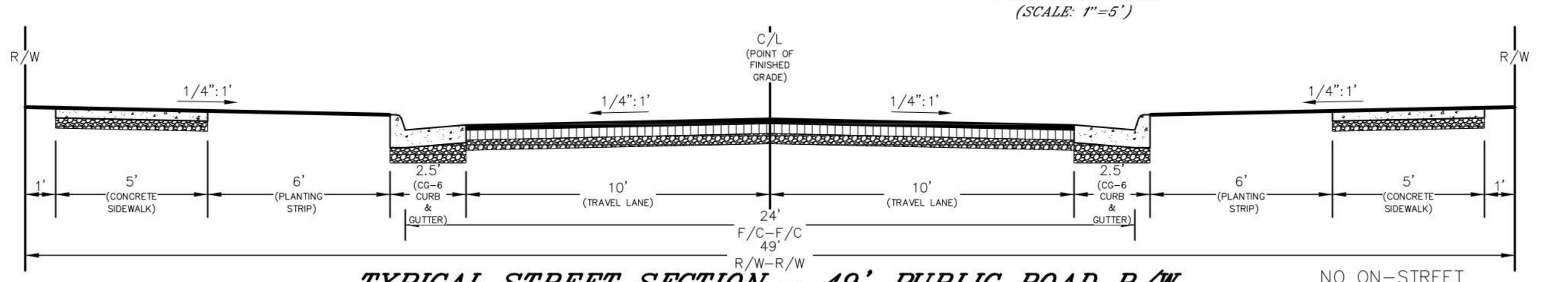


TYPICAL STREET SECTION – 57' PUBLIC ROAD R/W
(GALAXIE FARM LANE – STA. 15+41 TO 16+48)
25 MPH DESIGN SPEED
(SCALE: 1"=5')

NO ON-STREET PARKING ALONG ROADWAY

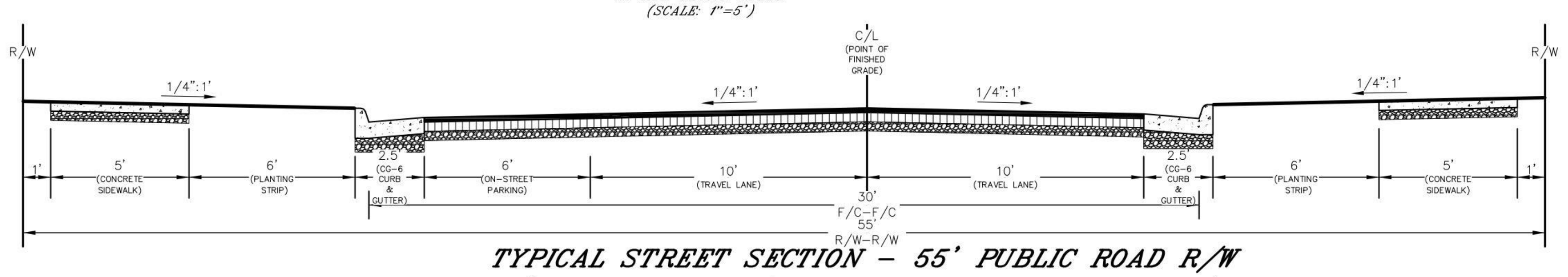


TYPICAL STREET SECTION – 63' PUBLIC ROAD R/W
(GALAXIE FARM LANE – STA. 16+48 TO 16+91)
25 MPH DESIGN SPEED
(SCALE: 1"=5')

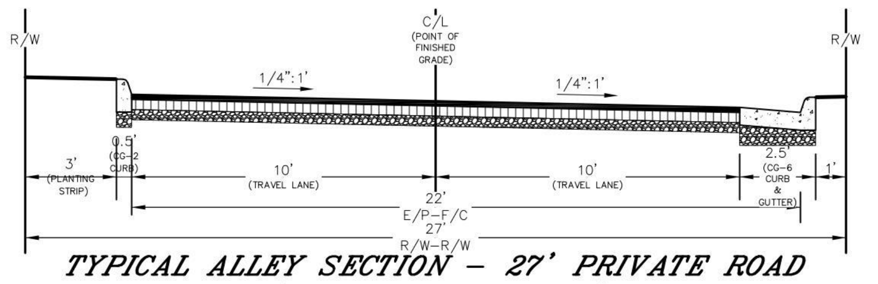


TYPICAL STREET SECTION – 49' PUBLIC ROAD R/W
(MARY JACKSON COURT & MARIE CURIE COURT)
25 MPH DESIGN SPEED
(SCALE: 1"=5')

NO ON-STREET PARKING ALONG ROADWAY



TYPICAL STREET SECTION – 55' PUBLIC ROAD R/W
(MARY JACKSON COURT – STA. 13+01 TO 13+49)
25 MPH DESIGN SPEED
(SCALE: 1"=5')



TYPICAL ALLEY SECTION – 27' PRIVATE ROAD
(VERA RUBIN PLACE)
15 MPH DESIGN SPEED
(SCALE: 1"=5')

NO ON-STREET PARKING ALONG ROADWAY

NOTE:
1. 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 1" BINDER COAT SHALL BE PLACED OVER THE STONE TO HANDLE CONSTRUCTION TRAFFIC ON RUBIN VERA PLACE AND MARIE CURIE COURT. THE FULL 3" BASE PAVEMENT SHALL BE INSTALLED ON GALAXIED FARM LANE AND MARY JACKSON COURT TO HANDLE THE CONSTRUCTION TRAFFIC.
3. PAVEMENT ON ROUTE 20 SHALL MATCH THE EXISTING ROAD PAVEMENT THICKNESS AND DESIGN.
4. THE SM-12.5A MAX LIFT THICKNESS IS 2". THE ADDITIONAL LIFTS MUST BE PLACED 1 YEAR APART PER APPENDIX II OF THE 2018 VDOT PAVEMENT GUIDE.

GENERAL CONSTRUCTION NOTES FOR STREETS

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.

ROAD NOTES

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 TRANSPORTATION 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.

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 ARE 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 PIPE SHALL BE REINFORCED CONCRETE PIPE–CLASS III.
9. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION MUST COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFR PART 1926).

NOTE: MANDATORY INSPECTIONS AT THE FOLLOWING PHASES ARE REQUIRED FOR ROADS THAT ARE PROPOSED TO BE STATE MAINTAINED:

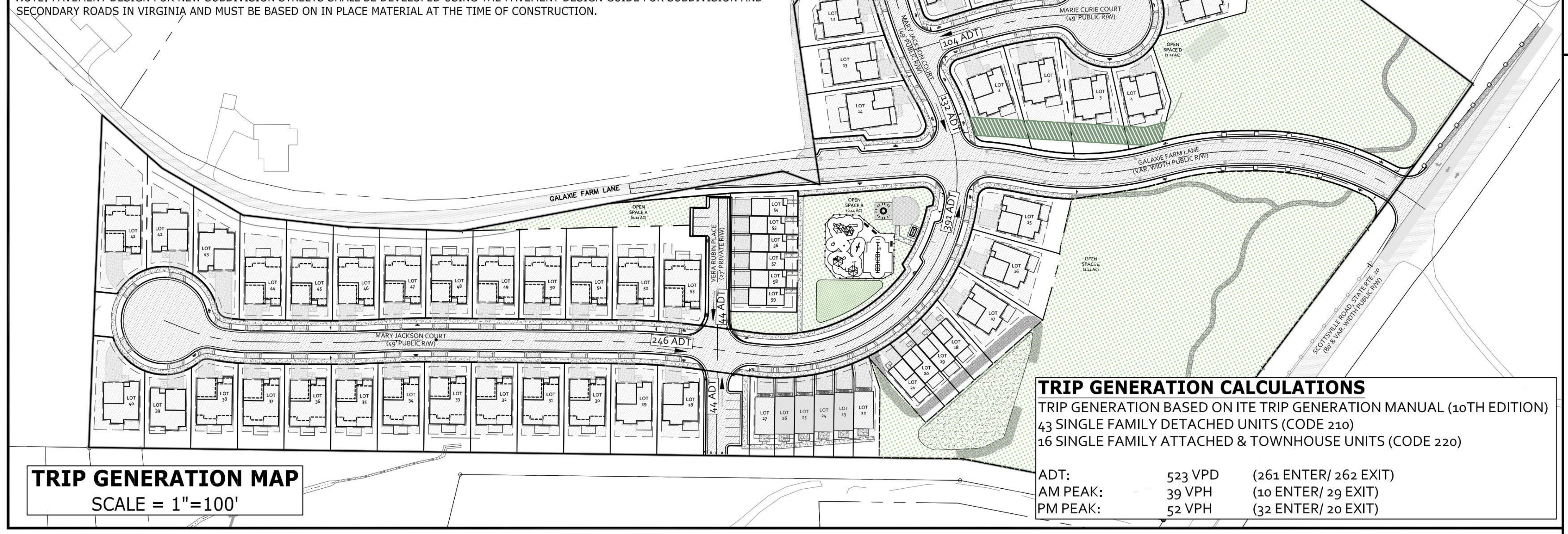
i. INSTALLATION OF ANY ENCLOSED DRAINAGE SYSTEM BEFORE IT IS COVERED.
ii. INSTALLATION OF ANY ENCLOSED UTILITY PLACEMENTS WITHIN THE RIGHT-OF-WAY BEFORE BEING COVERED.
iii. CONSTRUCTION OF THE CUTS AND FILLS, INCLUDING FIELD DENSITY TESTS, BEFORE PLACEMENT OF ROADBED BASE MATERIALS.
iv. A FINAL PAVEMENT 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.

Pavement Design

RF= 1.0

Location	ADT	HCV	Design ADT	CBR	SSV	Dr	Surface	h	a	Base	b	a	Sub-base	h	a	Dp
Galaxie Farm Lane	523	2	543	4	4	**12.63**	SM-9.5	1.5	2.25	BM-25	3	2.25	21A	8	0.6	**14.93**
Marie Curie Court	104	2	124	4	4	**7.49**	SM-9.5	1.5	1.67	BM-25	1	1.67	21A	8	0.6	**8.98**
Mary Jackson Court	391	2	411	4	4	**11.66**	SM-9.5	1.5	2.25	BM-25	3	2.25	21A	6	0.6	**13.73**
Rubin Vera Place	70	2	90	4	4	**6.38**	SM-9.5	1.5	1.67	BM-25	1	1.67	21A	8	0.6	**8.98**

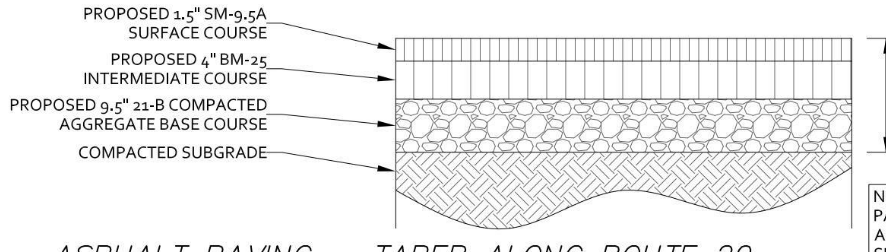
NOTE: PAVEMENT DESIGN FOR NEW SUBDIVISION STREETS SHALL BE DEVELOPED USING THE PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA AND MUST BE BASED ON IN PLACE MATERIAL AT THE TIME OF CONSTRUCTION.



TRIP GENERATION MAP
SCALE = 1"=100'

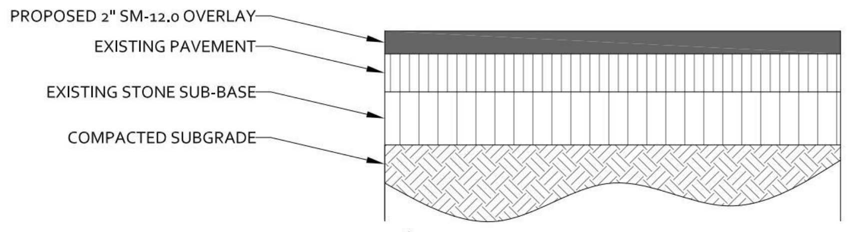
TRIP GENERATION CALCULATIONS
TRIP GENERATION BASED ON ITE TRIP GENERATION MANUAL (10TH EDITION)
43 SINGLE FAMILY DETACHED UNITS (CODE 210)
16 SINGLE FAMILY ATTACHED & TOWNHOUSE UNITS (CODE 220)

ADT:	523 VPD	(261 ENTER/ 262 EXIT)
AM PEAK:	39 VPH	(10 ENTER/ 29 EXIT)
PM PEAK:	52 VPH	(32 ENTER/ 20 EXIT)

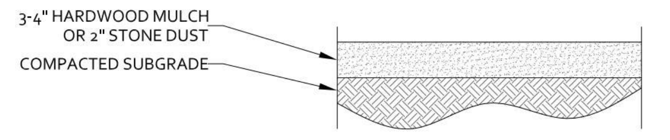


NOTE: THIS IS A MINIMUM PAVEMENT DESIGN. ASPHALT PAVEMENT SECTION SHALL MATCH THE EXISTING PAVEMENT SECTION ALONG ROUTE 20

ASPHALT PAVING – TAPER ALONG ROUTE 20
NO SCALE

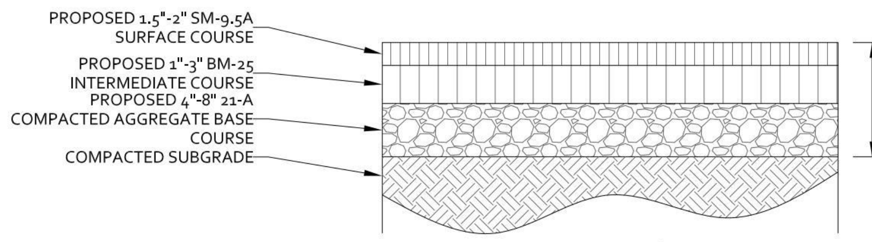


ASPHALT PAVING – MILL/OVERLAY ALONG ROUTE 20
NO SCALE



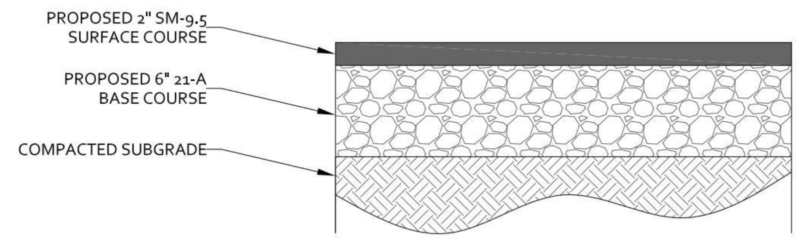
PRIMITIVE TRAILWAY
NO SCALE

NOTES:
1. THE PEDESTRIAN WALKING TRAIL SHALL BE CONSTRUCTED TO THE "PRIMITIVE TRAIL STANDARD SHOWN IN THE ALBEMARLE COUNTY DESIGN STANDARDS MANUAL, SECTION 7.H.
2. THE EXACT LOCATION OF THE PROPOSED EQUESTRIAN TRAIL SHALL BE FIELD DETERMINED WITH REGARD FOR THE EXISTING NATURAL FEATURES.
3. THE TRAIL SHALL BE 5' MIN. IN WIDTH WITH A SURFACE OF 3-4" HARDWOOD MULCH OR 2" STONE DUST. 2" STONE DUST TO BE USED WITHIN ACCESS EASEMENT ON THE LOTS.

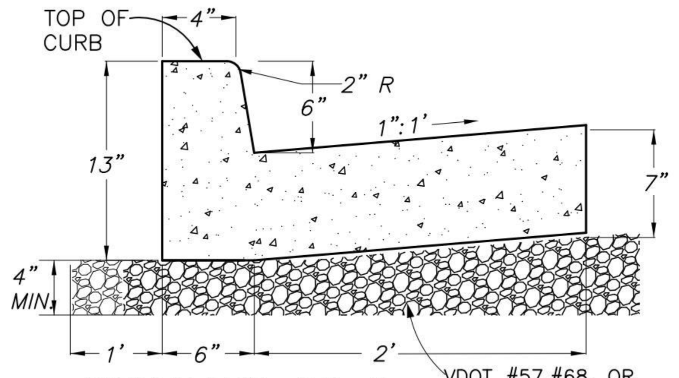


ASPHALT PAVING – PROPOSED PUBLIC/PRIVATE ROADS
NO SCALE

NOTE:
1. BASE COURSE - VDOT #21A OR #21B DEPENDING ON ULTIMATE TRAFFIC LIMITS AND UNDERDRAINS.
2. INTERMEDIATE BASE COURSE MAY BE A 1" BINDER COURSE - SEE PAVEMENT CHART FOR SPECIFIC ROADS

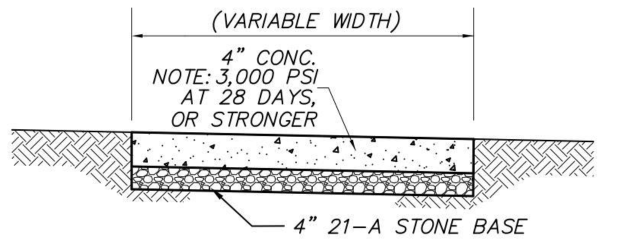


ASPHALT PAVING – PROPOSED DRIVEWAYS
NO SCALE

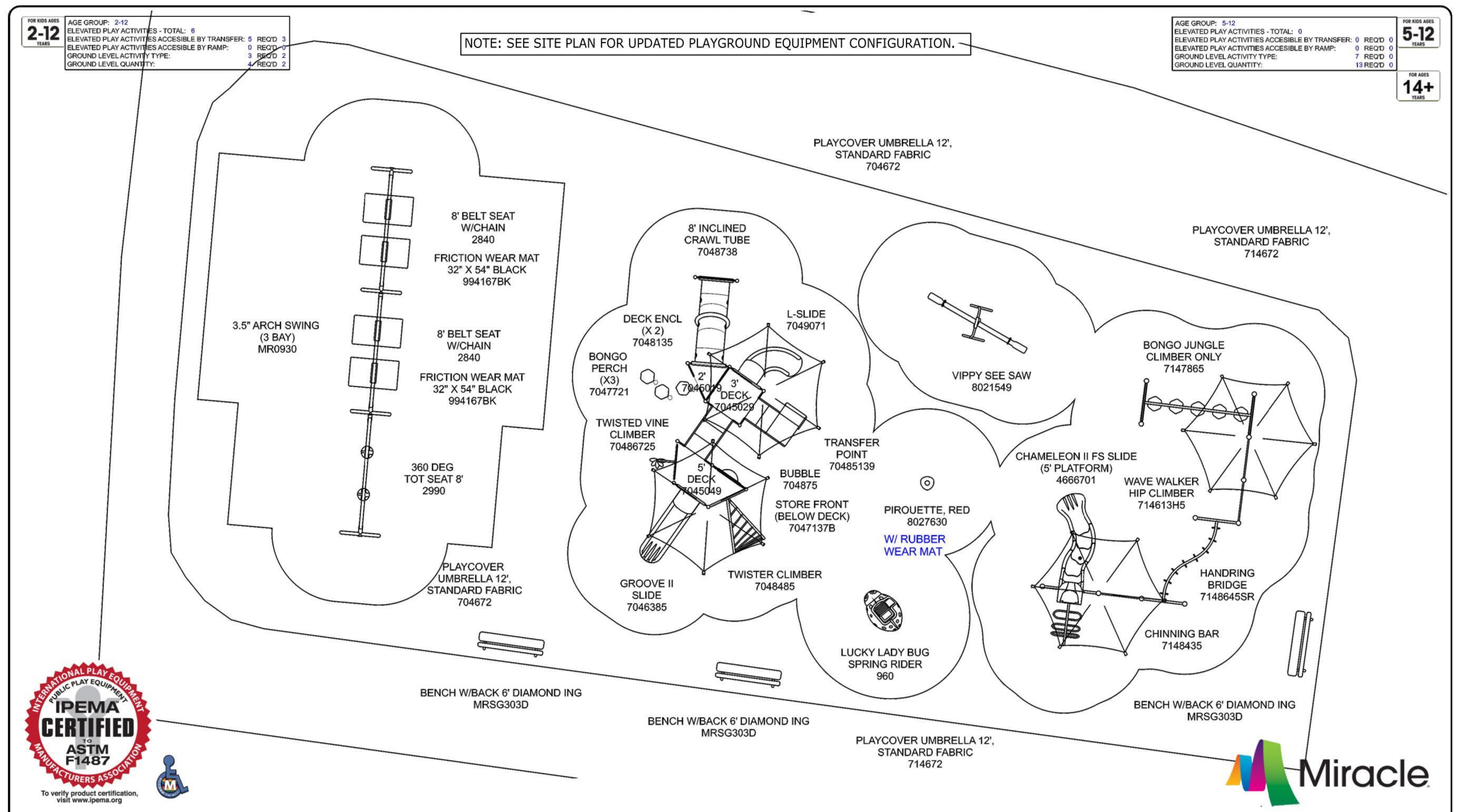


STANDARD CG–6 CURB & GUTTER
NO SCALE

VDOT #57,#68, OR #78 STONE BASE UNDER CURB & CHECKED BY VDOT PRIOR TO PAVING AND/OR BACKFILLING.



CONCRETE SIDEWALK
NO SCALE



NOTE: SEE SITE PLAN FOR UPDATED PLAYGROUND EQUIPMENT CONFIGURATION.

AGE GROUP: 2-12			
ELEVATED PLAY ACTIVITIES - TOTAL: 6			
ELEVATED PLAY ACTIVITIES ACCESIBLE BY TRANSFER:	5	REQ'D	3
ELEVATED PLAY ACTIVITIES ACCESIBLE BY RAMP:	0	REQ'D	0
GROUND LEVEL ACTIVITY TYPE:	3	REQ'D	2
GROUND LEVEL QUANTITY:	4	REQ'D	2

AGE GROUP: 5-12			
ELEVATED PLAY ACTIVITIES - TOTAL: 0			
ELEVATED PLAY ACTIVITIES ACCESIBLE BY TRANSFER:	0	REQ'D	0
ELEVATED PLAY ACTIVITIES ACCESIBLE BY RAMP:	0	REQ'D	0
GROUND LEVEL ACTIVITY TYPE:	7	REQ'D	0
GROUND LEVEL QUANTITY:	13	REQ'D	0

Site Concepts L.L.C.
PO Box 235
Crozet,VA
PHONE NO: (434) 823-2745
FAX NO: (434) 823-2749
GROUND SPACE: 189'-6" x 46'-0"
PROTECTIVE AREA: 205'-0" x 57'-0"
DRAWN BY: George Novey
DATE: 9/02/2022

R0098_44825423742
✓ COMPLIES TO ASTM/CPSC
✓ COMPLIES TO ADA

To promote safe and proper equipment use by children. Miracle recommends the installation of either a Miracle safety sign or other appropriate safety signage near each playsystem's main entry point(s) to inform parents and supervisors of the age appropriateness of the playsystem and general rules for safe play.

THE PLAY COMPONENTS IDENTIFIED IN THIS PLAN ARE IPEMA CERTIFIED. THE USE AND LAYOUT OF THESE COMPONENTS CONFORM TO THE REQUIREMENTS OF ASTM F1487.

AN ENERGY ABSORBING PROTECTIVE SURFACE IS REQUIRED UNDER & AROUND ALL PLAY SYSTEMS

SCOTT R. COLLINS
Lic. No. 035791
10/17/22

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

PROJECT
GALAXIE FARM - FINAL SITE & ARB PLAN

SHEET
NOTES & DETAILS

JOB NO.
202194

SCALE
AS SHOWN

SHEET NO.
7

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Structure	Area (Acres)	Cw	t_c (Min.)
24	0.00	0.90	5
26	0.00	0.90	5
28	0.62	0.50	5
30	0.16	0.70	8
32	0.12	0.50	5
34	0.08	0.70	5
36	0.27	0.45	5
36B	0.22	0.45	5
38	0.13	0.45	7
38B	0.05	0.50	5
40	0.19	0.50	5
42	0.02	0.45	5
42B	0.64	0.45	5
44	0.02	0.90	5
44B	0.15	0.65	5
46	0.27	0.45	5
46B	0.31	0.45	5
48	0.26	0.45	5
48B	0.22	0.45	5
50	0.26	0.45	5
50B	0.20	0.45	5
52	0.28	0.50	5
52B	0.30	0.50	5
YD1	6.66	0.20	23
CO1A	0.00	0.90	5
YD2	0.36	0.35	10

Structure	Area (Acres)	Cw	t_c (Min.)
YD3	0.08	0.40	5
YD3A	0.28	0.40	5
YD3B	0.28	0.40	5
YD3C	0.21	0.40	5
YD3D	0.15	0.40	5
YD3E	0.25	0.40	5
YD3F	0.12	0.40	10
YD4	0.10	0.50	6
YD4A	0.06	0.50	6
YD4B	0.06	0.50	6
CO4C	0.00	0.90	5
YD4D	0.06	0.50	6
YD4E	0.08	0.50	6
CO4F	0.00	0.90	5
CO4G	0.00	0.90	5
YD4H	0.08	0.40	8
YD4I	0.19	0.40	7
12	0.62	0.50	6
14	0.28	0.90	5
RF24	0.06	0.90	5
RF44B	0.11	0.90	5
YD-5B	0.42	0.45	6
RF36B	0.04	0.90	5
YD1C	0.07	0.60	5
YD1D	0.09	0.60	5
YD1E	0.04	0.50	5

Tc=10 min.
70' OF OLF w/ Δ ELEV.=4'
90' OF CONC. FLOW w/ Δ ELEV.=15'

FOR OFFSITE RUNOFF, AND CONTRIBUTING DRAINAGE AREAS TO THE NORTHERN BYPASS STORM SEWER, SEE 'DRAINAGE MAP FOR BYPASS STORM SEWER'

Tc=5 min.
65' OF OLF
w/ Δ ELEV.=4'

Tc=10 min.
100' OF OLF w/ Δ ELEV.=5'
30' OF CONC. FLOW w/ Δ ELEV.=1'

Tc=8 min.
35' OF OLF w/ Δ ELEV.=3'

Tc=7 min.
35' OF OLF
w/ Δ ELEV.=7'

Tc=8 min.
80' OF OLF w/ Δ ELEV.=10'

Tc=9 min.
75' OF OLF w/ Δ ELEV.=6'

YD-1, YD-1E, YD-2, YD-3, YD-3A, YD-3B, YD-3C, YD-3D, YD-3E, YD-3F, YD-4, YD-4A, YD-4B, YD-4D, YD-4E, YD-4H, YD-5B, YD1C, YD1D, CO-1

MARY JACKSON COURT

MARIE CURIE COURT

GALAXIE FARM LANE

VERA RUBIN PLACE

STR. 36B's ROOFTOP DRAINAGE

STR. 44B's ROOFTOP DRAINAGE

STR. 24's ROOF TOP DRAINAGE

100' WPO BUFFER, TYP.

COW BRANCH STREAM

INTERMITTENT STREAM

SCOTTSVILLE ROAD, STATE RTE. 20

FOR OFFSITE RUNOFF, AND CONTRIBUTING DRAINAGE AREAS TO THE SOUTHERN BYPASS STORM SEWER, SEE 'DRAINAGE MAP FOR BYPASS STORM SEWER'

DRAINAGE PLAN APPROVED UNDER SUB2021-00179: GALAXIE FARM ROAD AND UTILITY PLAN. DRAINAGE INFRASTRUCTURE AND UTILITIES CURRENTLY UNDER CONSTRUCTION

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
10/17/22
PROFESSIONAL ENGINEER

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

GALAXIE FARM - FINAL SITE & ARB PLAN
DRAINAGE MAP

PROJECT
JOB NO. 202194
SCALE 1" = 50'
SHEET NO. 8

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Design Year: **10** Project: Galaxie Farm Job #: 202194 Prepared by: FGM, PE

INLET STATION	OUTLET WATER SURFACE ELEV	L_o	D_o	Q_o ZW	S_{fo}	H_f	JUNCTION LOSS												FINAL	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	$1.3H_t$	$.5H_t$	H		
	487.53	75.00	8.00	0.46	0.00	0.09	8.11	0.26													
CO-J									0.46	5.15	2.37	0.41	0.14	167.00	0.29	0.69	0.89	N/A	0.99	488.52	501.33
	496.28	77.00	8.00	0.46	0.00	0.10	5.15	0.10													
YD4I													0.00	167.00	0.00	0.10	0.13	N/A	0.23	496.51	499.75
	484.03	36.98	8.00	0.30	0.00	0.02	3.51	0.05													
RF5									0.30	2.36	0.71	0.09	0.03	167.00	0.06	0.14	0.18	N/A	0.20	484.23	490.50
	484.61	103.89	8.00	0.30	0.00	0.05	2.36	0.02													
RF5A													0.00	166.00	0.00	0.02	0.03	N/A	0.08	484.70	490.50
	484.53	29.44	8.00	0.23	0.00	0.01	5.45	0.12													
RF4									0.12	3.03	0.36	0.14	0.05	139.00	0.10	0.27	0.34	N/A	0.35	484.89	488.00
	486.53	95.33	8.00	0.12	0.00	0.01	3.03	0.04													
RF4A													0.00	133.00	0.00	0.04	0.05	N/A	0.05	486.59	489.50
	484.81	64.79	12.00	1.04	0.00	0.05	3.21	0.04													
RF1									0.75	2.93	2.19	0.13	0.05	127.00	0.09	0.18	0.23	N/A	0.28	485.09	489.48
	485.13	107.73	12.00	0.75	0.00	0.04	2.93	0.03													
RF1A									0.75	2.93	2.19	0.13	0.05	128.00	0.09	0.17	0.23	N/A	0.27	485.40	490.00
	485.67	40.54	12.00	0.75	0.00	0.02	2.93	0.03													
RF1B									0.75	2.93	2.19	0.13	0.05	116.00	0.09	0.17	0.23	N/A	0.24	485.91	488.50
	485.91	68.34	12.00	0.75	0.00	0.03	2.93	0.03													
YD1C									0.48	4.75	2.28	0.35	0.12	111.00	0.25	0.40	0.52	N/A	0.55	486.46	488.25
	486.46	47.85	12.00	0.48	0.00	0.01	4.75	0.09													
YD1D									0.13	3.20	0.43	0.16	0.06	167.00	0.11	0.25	0.33	N/A	0.34	486.80	488.75
	487.55	99.37	12.00	0.13	0.00	0.00	3.20	0.04													
YD1E													0.00	171.00	0.00	0.04	0.05	N/A	0.05	487.60	491.75
	488.05	29.79	12.00	1.20	0.00	0.03	3.35	0.04													
RF6									1.20	3.35	4.02	0.17	0.06	134.00	0.12	0.23	0.29	N/A	0.32	488.37	491.50
	488.37	71.34	12.00	1.20	0.00	0.07	3.35	0.04													
RF6A									1.20	3.35	4.02	0.17	0.06	138.00	0.12	0.23	0.29	N/A	0.36	488.74	491.67
	488.74	45.36	12.00	1.20	0.00	0.04	3.35	0.04													
YD-5B													0.00	144.00	0.00	0.04	0.06	N/A	0.10	488.84	489.75
	489.80	33.48	12.00	0.19	0.00	0.00	6.92	0.19													
CO4F									0.19	3.07	0.57	0.15	0.05	0.00	0.00	0.24	0.31	N/A	0.31	490.11	503.00
	496.30	28.62	12.00	0.19	0.00	0.00	3.07	0.04													
CO4G									0.19	5.97	1.11	0.55	0.19	0.00	0.00	0.23	0.30	N/A	0.30	496.60	505.75
	496.60	60.56	12.00	0.19	0.00	0.00	5.97	0.14													
YD4H													0.00	0.00	0.00	0.14	0.18	N/A	0.18	496.78	507.50
	486.30	42.12	12.00	0.58	0.00	0.01	6.34	0.16													
CO4C									0.58	4.74	2.76	0.35	0.12	0.00	0.00	0.28	0.36	N/A	0.37	486.67	491.75
	488.55	53.91	12.00	0.58	0.00	0.01	4.74	0.09													
YD4D									0.19	6.92	1.29	0.74	0.26	0.00	0.00	0.35	0.45	N/A	0.46	489.01	492.00
	489.80	30.88	12.00	0.25	0.00	0.00	3.59	0.05													
YD4E													0.00	0.00	0.00	0.05	0.06	N/A	0.07	489.87	492.67
	489.55	52.00	12.00	0.19	0.00	0.00	2.49	0.02													
YD4B													0.00	0.00	0.00	0.02	0.03	N/A	0.03	489.58	492.25
	486.80	94.18	12.00	0.69	0.00	0.03	5.32	0.11													
YD4									0.19	2.49	0.47	0.10	0.03	90.00	0.07	0.21	0.27	N/A	0.30	487.10	492.00
	489.55	52.00	12.00	0.19	0.00	0.00	2.49	0.02													
YD4A													0.00	0.00	0.00	0.02	0.03	N/A	0.03	489.58	492.25
	495.05	98.00	12.00	2.50	0.00	0.41	7.69	0.23													
YD3									2.36	9.18	21.67	1.31	0.46	91.00	0.92	1.60	2.08	N/A	2.50	497.55	500.00
	497.80	47.46	12.00	2.36	0.00	0.18	9.18	0.33													
YD3A									1.86	9.59	17.81	1.43	0.50	90.00	1.00	1.83	2.37	N/A	2.55	500.35	502.33
	500.35	90.19	12.00	1.86	0.00	0.21	9.59	0.36													
YD3B									1.35	8.57	11.59	1.14	0.40	178.00	0.80	1.56	2.02	N/A	2.23	502.58	508.25
	506.05	124.97	12.00	1.35	0.00	0.15	8.57	0.29													
YD3C									0.97	9.01	8.70	1.26	0.44	180.00	0.88	1.61	2.09	N/A	2.25	508.30	516.00
	513.80	44.98	12.00	0.97	0.00	0.03	9.01	0.32													
YD3D									0.79	2.96	2.33	0.14	0.05	157.00	0.10	0.46	0.60	N/A	0.62	514.42	520.25
	518.05	720.30	12.00	0.79	0.00	0.30	2.96	0.03													
YD3E									0.26	3.74	0.96	0.22	0.08	169.00	0.15	0.26	0.34	N/A	0.64	518.69	523.83
	521.63	58.07	12.00	0.26	0.00	0.00	3.74	0.05													
YD3F													0.00	155.00	0.00	0.05	0.07	N/A	0.07	521.70	525.33
	480.53	42.00	8.00	0.68	0.00	0.11	4.68	0.09													
YD2													0.00	130.00	0.00	0.09	0.11	N/A	0.22	480.76	483.00
	497.60	130.60	24.00	4.93	0.00	0.05	14.22	0.78													
CO1A									4.93	8.04	39.62	1.00	0.35	0.00	0.00	1.14	1.48	N/A	1.53	499.13	516.25
	512.70	149.65	24.00	4.93	0.00	0.06	8.04	0.25													
YD1													0.00	0.00	0.00	0.25	0.33	N/A	0.39	513.09	517.67
	458.10	20.58	15.00	3.57	0.00	0.06	8.60	0.29													
12									1.68	5.98	10.05	0.56	0.19	0.00	0.00	0.48	0.63	0.31	0.38	458.48	470.75
	464.00	35.68	15.00	1.68	0.00	0.02	5.98	0.14													
14													0.00	170.00	0.00	0.14	0.18	0.09	0.11	464.11	470.75
	481.38	28.06	15.00	0.87	0.00	0.00	3.46	0.05													
36B									0.23	5.45	1.28	0.46	0.16	98.00	0.32	0.53	0.69	0.35	0.35	481.73	487.13
	474.78	107.93	18	8.78	0.006	0.64	10.0	0.4													
28									7.2	5.8	41.642	0.5	0.18	97	0.365	0.94	1.22	0.61	1.25	476.03	484.43
	478.51	27.84	18	7.19	0.004	0.11	5.8	0.1													
30									6.0	7.3	43.284	0.8	0.29	90	0.574	0.99	1.29	0.64	0.76	479.27	484.43
	479.70	30.63	18	5.96	0.003	0.08	7.3	0.2													
32									5.7	5.1	29.197	0.4	0.14	111	0.287	0.64	0.83	0.41	0.50	480.20	484.50
	480.22	59.13	18	5.68	0.002	0.15	5.1	0.1													
34									5.4	5.3	29.135	0.4	0.16	173	0.311	0.57	0.74	0.37	0.52	480.74	485.75
	480.74	99.52	18	5.45	0.002	0.23	5.3	0.1													
36									4.1	5.7	23.492	0.5	0.18	149	0.352	0.64	0.83	0.42	0.64	481.38	487.17
	481.50	109.54	15	4.13	0.003	0.38	5.7	0.1													
38									3.8	5.3	20.283	0.4	0.15	160	0.306	0.58	0.76	0.38	0.76	482.26	490.76
	482.60	28.96	15	3.82	0.003	0.09	5.3	0.1													
38B									3.3	4.9	15.974	0.4	0.13	101	0.256	0.49	0.64	0.32	0.41	483.01	490.76
	483.01	35.38	15	3.29	0.002	0.08	4.9	0.1													
40									2.8	4.5	12.618	0.3	0.11	118	0.219	0.42	0.55	0.27	0.35	483.36	489.48
	483.36	90.53	15	2.81	0.002	0.15	4.5	0.1													
42									2.2	4.2	9.2402	0.3	0.10	138	0.191	0.37	0.47	0.24	0.38	483.74	491.03
	483.93	144.64	15	2.20	0.001	0.14	4.2	0.1													
42B									0.6	6.3	3.6948	0.6	0.22	166	0.436	0.72	0.94	0.47	0.61	484.54	489.85
	482.55	27.86	15	1.88	0.001	0.02	5.7	0.1													
44B									1.0	3.2	3.3232	0.2	0.06	90	0.112	0.30	0.38	0.19	0.21	482.76	488.76
	492.72	27.88	15	0.66	0.000	0.00	2.8	0.0													
48B													0.00	93	0	0.03	0.04	0.02	0.02	492.74	498.82
	471.85	20.76	24	16.52	0.005	0.09	9.0	0.3													
24									16.5	10.1	167.46	1.6	0.56	0	0	0.87	N/A	0.44	0.53	472.38	479.42
	472.38	100.72	24	16.52	0.005	0.46	10.1	0.4													
26									9.1	9.7	88.775	1.5	0.52	107	1.031	1.95	N/A	0.97	1.43	473.81	486.19
	478.70	130.91	18	9.11	0.006	0.84	9.7	0.4													
44									7.7	9.8	75.369	1.5	0.53	135	1.051	1.94	2.53	1.26	2.10	480.80	488.77
	482.62	68.38	18	7.66	0.005	0.31	9.8	0.4													
46									7.1	6.1	43.354	0.6	0.20	175	0.401	0.98	1.27	0.64	0.95	483.57	491.37
	485.39	28.35	18	7.14	0.004	0.11	6.1	0.1													
46B									5.7	9.5	54.447	1.4	0.49	102	0.986	1.62	2.11	1.05	1.17	486.56	491.55
	486.56	189.29	15	5.72	0.007	1.26	9.5	0.4													
48									3.2	9.9	31.859	1.5	0.53	96	1.056	1.94	2.52	1.26	2.52	489.08	498.78
	493.75	159.34	15	3.23	0.002	0.34	9.9	0.4													
50									2.5	4.0	10.02	0.3	0.09	178	0.177	0.64	0.83	0.42	0.76	494.51	507.61
	501.76	27.83	15	2.49	0.001	0.04	4.0	0.1													
50B									1.9	9.9	18.914	1.5	0.53	94	1.055	1.65	2.14	1.07	1.11	502.87	507.80
	502.87	147.76	15	1.92	0.001	0.11	9.9	0.4													
52									1.0	3.1	3.1291	0.2	0.05	94	0.106	0.54	0.70	0.35	0.46	503.33	518.90
	513.11	27.80	15	1.00	0.000	0.01	3.1	0.0													
52B													0.00	94	0	0.04	0.05	0.02	0.03	513.14	519.02

PIPE DESIGN

n = 0.013 for RCP n = 0.01 for HDPE

Pipe		Hydrology								Pipe									
Starting Structure	Ending Structure	A, Drainage area (acres)	C, rational coeff.	CA increment	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. 52B - SWM Facility																			
52B	52	0.30	0.50	0.150	0.150	5.00	6.67	1.00	1.00	512.25	512.11	27.8	0.01	0.0050	15	4.95	3.13	0.15	
52	50B	0.28	0.50	0.140	0.290	5.15	6.62	0.93	1.92	512.01	501.00	147.8	0.01	0.0745	15	19.10	9.85	0.25	
50B	50	0.20	0.45	0.090	0.380	5.40	6.54	0.59	2.49	500.90	500.76	27.8	0.01	0.0050	15	4.95	4.03	0.12	
50	48	0.26	0.45	0.117	0.497	5.51	6.50	0.76	3.23	500.66	492.75	159.3	0.01	0.0496	15	15.59	9.86	0.27	
48	46B	0.26	0.45	0.117	1.261	15.09	4.53	0.53	5.72	490.97	485.50	189.3	0.01	0.0289	15	11.90	9.52	0.33	
46B	46	0.31	0.45	0.140	1.590	15.42	4.49	0.63	7.14	484.40	484.19	28.4	0.01	0.0075	18	9.86	6.07	0.08	
46	44	0.27	0.45	0.122	1.711	15.50	4.48	0.54	7.66	483.17	481.42	68.4	0.01	0.0256	18	18.21	9.83	0.12	
44	26	0.02	0.90	0.018	2.042	15.62	4.46	0.08	9.11	480.45	477.50	130.9	0.01	0.0225	18	17.07	9.74	0.22	
26	24	0.00	0.90	0.000	3.726	15.84	4.44	0.00	16.52	472.27	470.60	100.7	0.01	0.0166	24	31.58	10.13	0.17	
24	SWM	0.00	0.90	0.000	3.726	16.01	4.41	0.00	16.52	470.50	470.25	20.8	0.01	0.0121	24	26.96	8.98	0.04	
Pipe run: Str. 48B - Str. 48																			
48B	48	0.22	0.45	0.099	0.099	5.00	6.67	0.66	0.66	491.86	491.72	27.9	0.01	0.0050	15	4.95	2.76	0.17	
Pipe run: Str. 44B - Str. 44																			
44B	44	0.15	0.65	0.098	0.313	7.25	6.00	0.59	1.88	482.00	481.55	27.9	0.01	0.0162	15	8.91	5.74	0.08	
Pipe run: Str. 42B - Str. 26																			
42B	42	0.64	0.45	0.288	0.390	8.71	5.65	1.63	2.20	483.83	482.93	144.6	0.01	0.0062	15	5.51	4.20	0.57	
42	40	0.02	0.45	0.009	0.509	9.28	5.52	0.05	2.81	482.83	482.27	90.5	0.01	0.0062	15	5.51	4.49	0.34	
40	38B	0.19	0.50	0.095	0.604	9.62	5.45	0.52	3.29	482.17	481.93	35.4	0.01	0.0068	15	5.77	4.85	0.12	
38B	38	0.05	0.50	0.025	0.705	9.74	5.42	0.14	3.82	481.83	481.60	29.0	0.01	0.0079	15	6.22	5.30	0.09	
38	36	0.13	0.45	0.059	0.764	9.83	5.41	0.32	4.13	481.50	480.50	109.5	0.01	0.0091	15	6.68	5.69	0.32	
36	34	0.27	0.45	0.122	1.020	10.15	5.34	0.65	5.45	480.08	479.45	99.5	0.01	0.0063	18	9.03	5.35	0.31	
34	32	0.08	0.70	0.056	1.076	10.46	5.28	0.30	5.68	479.35	479.02	59.1	0.01	0.0056	18	8.52	5.14	0.19	
32	30	0.12	0.50	0.060	1.136	10.65	5.24	0.31	5.96	478.92	478.50	30.6	0.01	0.0137	18	13.32	7.27	0.07	
30	28	0.16	0.70	0.112	1.374	10.72	5.23	0.59	7.19	477.50	477.31	27.8	0.01	0.0067	18	9.31	5.79	0.08	
28	26	0.62	0.50	0.310	1.684	10.80	5.21	1.62	8.78	476.25	473.58	107.9	0.01	0.0247	18	17.88	10.03	0.18	
Pipe run: Str. 36B - Str. 36																			
36B	36	0.22	0.45	0.099	0.135	5.61	6.47	0.64	0.87	480.41	480.20	28.1	0.01	0.0075	15	6.06	3.46	0.14	
Pipe run: Str. 14 - Out																			
14	12	0.28	0.90	0.252	0.252	5.00	6.67	1.68	1.68	463.86	463.00	35.7	0.01	0.0241	15	10.03	5.98	0.10	
12	OUT	0.62	0.50	0.310	0.562	6.00	6.35	1.97	3.57	457.83	457.10	20.6	0.01	0.0355	15	12.17	8.60	0.04	
Pipe run: Yard Drain #1 - Out																			
YD1	CO1A	6.66	0.20	1.332	1.332	23.00	3.70	4.93	4.93	514.50	511.10	149.7	0.01	0.0227	24	36.92	8.04	0.31	
CO1A	OUT	0.00	0.90	0.000	1.332	23.31	3.67	0.00	4.93	511.00	496.00	130.6	0.01	0.1149	24	83.07	14.22	0.15	
Pipe run: Yard Drain #2 - Str. 30																			
YD2	30	0.36	0.35	0.126	0.126	10.00	5.37	0.68	0.68	480.75	480.00	42.0	0.01	0.0179	8	1.75	4.68	0.15	
Pipe run: Yard Drain #3F - Str. 48																			
YD3F	YD3E	0.12	0.40	0.048	0.048	10.00	5.37	0.26	0.26	522.33	520.83	58.1	0.01	0.0258	12	6.20	3.74	0.26	
YD3E	YD3D	0.25	0.40	0.100	0.148	10.26	5.32	0.53	0.79	520.83	517.25	720.3	0.01	0.0050	12	2.72	2.96	4.05	
YD3D	YD3C	0.15	0.40	0.060	0.208	14.31	4.64	0.28	0.97	517.25	513.00	45.0	0.01	0.0945	12	11.86	9.01	0.08	
YD3C	YD3B	0.21	0.40	0.084	0.292	14.39	4.63	0.39	1.35	513.00	505.25	125.0	0.01	0.0620	12	9.61	8.57	0.24	
YD3B	YD3A	0.28	0.40	0.112	0.404	14.64	4.60	0.51	1.86	505.25	499.33	90.2	0.01	0.0656	12	9.89	9.59	0.16	
YD3A	YD3	0.28	0.40	0.112	0.516	14.79	4.57	0.51	2.36	499.33	497.00	47.5	0.01	0.0491	12	8.55	9.18	0.09	
YD3	48	0.08	0.40	0.032	0.548	14.88	4.56	0.15	2.50	497.00	494.25	98.0	0.01	0.0281	12	6.47	7.69	0.21	
Pipe run: Yard Drain #4A - Str. 42																			
YD4A	YD4	0.06	0.50	0.030	0.030	6.00	6.35	0.19	0.19	489.25	488.75	52.0	0.01	0.0096	12	3.78	2.49	0.35	
YD4	42	0.10	0.50	0.050	0.110	6.35	6.25	0.31	0.69	488.75	486.00	94.2	0.01	0.0292	12	6.60	5.32	0.30	
Pipe run: Yard Drain #4B - Yard Drain #4																			
YD4B	YD4	0.06	0.50	0.030	0.030	6.00	6.35	0.19	0.19	489.25	488.75	52.0	0.01	0.0096	12	3.78	2.49	0.35	
Pipe run: Yard Drain #4E - Str. 42B																			
YD4E	YD4D	0.08	0.50	0.040	0.040	6.00	6.35	0.25	0.25	489.67	489.00	30.9	0.01	0.0217	12	5.69	3.59	0.14	
YD4D	CO4C	0.06	0.50	0.030	0.102	8.41	5.72	0.17	0.58	489.00	487.75	53.9	0.01	0.0232	12	5.88	4.74	0.19	
CO4C	42B	0.00	0.90	0.000	0.102	8.59	5.67	0.00	0.58	487.75	485.50	42.1	0.01	0.0534	12	8.92	6.34	0.11	
Pipe run: Yard Drain #4H - Yard Drain #4D																			
YD4H	CO4G	0.08	0.40	0.032	0.032	8.00	5.81	0.19	0.19	495.75	487.00	60.6	0.01	0.1445	12	14.67	5.97	0.17	
CO4G	CO4F	0.00	0.90	0.000	0.032	8.17	5.77	0.00	0.19	496.00	495.50	28.6	0.01	0.0175	12	5.10	3.07	0.16	
CO4F	YD4D	0.00	0.90	0.000	0.032	8.32	5.74	0.00	0.19	495.50	489.00	33.5	0.01	0.1941	12	17.01	6.92	0.08	
Pipe run: Yard Drain #5B - Str. 46B																			
YD-5B	RF6A	0.42	0.45	0.189	0.189	6.00	6.35	1.20	1.20	487.99	487.76	45.4	0.01	0.0050	12	2.73	3.35	0.23	
RF6A	RF6	0.00	0.90	0.000	0.189	6.23	6.28	0.00	1.20	487.76	487.40	71.3	0.01	0.0050	12	2.73	3.35	0.35	
RF6	46B	0.00	0.90	0.000	0.189	6.58	6.18	0.00	1.20	487.40	487.25	29.8	0.01	0.0050	12	2.73	3.35	0.15	
Pipe run: Yard Drain #1E - Str. 44B																			
YD1E	YD1D	0.04	0.50	0.020	0.020	5.00	6.67	0.13	0.13	489.75	486.75	99.4	0.01	0.0302	12	6.71	3.20	0.52	
YD1D	YD1C	0.09	0.60	0.054	0.074	5.52	6.50	0.35	0.48	486.75	485.41	47.9	0.01	0.0280	12	6.46	4.75	0.17	
YD1C	RF1B	0.07	0.60	0.042	0.116	5.68	6.45	0.27	0.75	485.41	485.07	68.3	0.01	0.0050	12	2.73	2.93	0.39	
RF1B	RF1A	0.00	0.90	0.000	0.116	6.07	6.33	0.00	0.75	485.07	484.87	40.5	0.01	0.0050	12	2.73	2.93	0.23	
RF1A	RF1	0.00	0.90	0.000	0.116	6.30	6.26	0.00	0.75	484.87	484.33	107.7	0.01	0.0050	12	2.73	2.93	0.61	
RF1	44B	0.06	0.90	0.054	0.170	6.92	6.09	0.33	1.04	484.33	484.01	64.8	0.01	0.0050	12	2.73	3.21	0.34	
Pipe run: Yard Drain #4A - Str. 36B																			
RF4A	RF4	0.02	0.90	0.018	0.018	5.00	6.67	0.12	0.12	488.00	486.00	95.3	0.01	0.0210	8	1.90	3.03	0.52	
RF4	36B	0.02	0.90	0.018	0.036	5.52	6.50	0.12	0.23	486.00	484.00	29.4	0.01	0.0679	8	3.41	5.45	0.09	
Pipe run: Yard Drain #5A - Str. 44B																			
RF5A	RF5	0.05	0.90	0.045	0.045	5.00	6.67	0.30	0.30	484.60	484.08	103.9	0.01	0.0050	8	0.93	2.36	0.73	
RF5	44B	0.00	0.90	0.000	0.045	5.73	6.43	0.00	0.30	484.08	483.50	37.0	0.01	0.0157	8	1.64	3.51	0.18	
Pipe run: Yard Drain #4I - Str. 38B																			
YD4I	CO-J	0.19	0.40	0.076	0.076	7.00	6.07	0.46	0.46	498.25	495.75	77.0	0.01	0.0325	8	2.36	5.15	0.25	
CO-J	38B	0.00	0.90	0.000	0.076	7.25	6.00	0.00	0.46	495.75	487.00	75.0	0.01	0.1167	8	4.47	8.11	0.15	

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)	Sw/Sx	T, spread at curb (ft)	Eo, frontal flow ratio in gutter W	d, flow depth (ft)	d / h (height of opening, 5.5")	T, spread at inlet (ft)	Remarks
			Left	0.12	0.70	0.084	0.34	0.00	0.34	0.005	0.020	2	0.083	4.1500	5.05	0.88				
			Right	0.03	0.70	0.021	0.08	0.00	0.08	0.005	0.020	2	0.083	4.1500	3.00	0.99				
STR 8	DI-3C	6.0						combined flow	0.42								0.07	0.155	3.56	
			Left	0.49	0.62	0.304	1.22	0.00	1.22	0.005	0.020	2	0.083	4.1500	8.17	0.65				
			Right	0.13	0.62	0.081	0.32	0.00	0.32	0.005	0.020	2	0.083	4.1500	4.97	0.88				
STR 12	DI-3C	8.0						combined flow	1.5								0.15	0.326	7.46	
			Left	0.09	0.90	0.081	0.32	0.00	0.32	0.005	0.020	2	0.083	4.1500	4.98	0.88				
			Right	0.19	0.90	0.171	0.68	0.00	0.68	0.005	0.020	2	0.083	4.1500	6.59	0.77				
STR 14	DI-3C	8.0						combined flow	1.0								0.11	0.246	5.63	
			Left	0.06	0.90	0.054	0.22	0.00	0.22	0.005	0.020	2	0.083	4.1500	4.27	0.94				
			Right	0.04	0.90	0.036	0.14	0.00	0.14	0.005	0.020	2	0.083	4.1500	3.67	0.97				
STR 18	DI-3C	6.0						combined flow	0.4								0.06	0.140	3.21	
			Left	0.25	0.50	0.125	0.50	0.00	0.50	0.005	0.020	2	0.083	4.1500	5.86	0.83				
			Right	0.37	0.50	0.185	0.74	0.00	0.74	0.005	0.020	2	0.083	4.1500	6.78	0.75				
STR 28	DI-3C	8.0						combined flow	1.2								0.13	0.282	6.46	
			Left	0.14	0.70	0.098	0.39	0.00	0.39	0.005	0.020	2	0.083	4.1500	5.35	0.86				
			Right	0.02	0.70	0.014	0.06	0.00	0.06	0.005	0.020	2	0.083	4.1500	2.58	0.99				
STR 30	DI-3C	6.0						combined flow	0.4								0.07	0.162	3.72	
			Left	0.11	0.45	0.050	0.20	0.00	0.20	0.005	0.020	2	0.083	4.1500	4.14	0.94				
			Right	0.16	0.45	0.072	0.29	0.00	0.29	0.005	0.020	2	0.083	4.1500	4.76	0.90				
STR 36	DI-3C	6.0						combined flow	0.5								0.11	0.236	0.22	
			Left	0.15	0.50	0.075	0.30	0.00	0.30	0.005	0.020	2	0.083	4.1500	4.84	0.89				
			Right	0.14	0.50	0.070	0.28	0.00	0.28	0.005	0.020	2	0.083	4.1500	4.71	0.89				
STR 40	DI-3C	6.0						combined flow	0.6								0.09	0.193	4.42	
			Left	0.37	0.45	0.167	0.67	0.00	0.67	0.005	0.020	2	0.083	4.1500	6.52	0.78				
			Right	0.27	0.45	0.122	0.49	0.00	0.49	0.005	0.020	2	0.083	4.1500	5.79	0.84				
STR 42B	DI-3C	8.0						combined flow	1.2								0.12	0.269	6.15	
			All	0.16	0.65	0.104	0.42	0.00	0.42	0.005	0.020	2	0.083	4.1500	5.47	0.86				
STR 22B	DI-3B	6.0						combined flow	0.4								0.10	0.211	4.84	

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

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)	Sw/Sx	T, spread at curb (ft)	Eo, frontal flow ratio in gutter W	d, flow depth (ft)	d / h (height of opening, 5.5")	T, spread at inlet (ft)	Remarks
			Left	0.12	0.70	0.084	0.55	0.00	0.55	0.005	0.020	2	0.083	4.1500	6.05	0.82				
			Right	0.03	0.70	0.021	0.14	0.00	0.14	0.005	0.020	2	0.083	4.1500	3.60	0.98				
STR 8	DI-3C	6.0						combined flow	0.68								0.10	0.215	4.92	
			Left	0.49	0.62	0.304	1.97	0.00	1.97	0.005	0.020	2	0.083	4.1500	9.80	0.59				
			Right	0.13	0.62	0.081	0.52	0.00	0.52	0.005	0.020	2	0.083	4.1500	5.96	0.83				
STR 12	DI-3C	8.0						combined flow	2.5								0.21	0.450	10.31	
			Left	0.09	0.90	0.081	0.53	0.00	0.53	0.005	0.020	2	0.083	4.1500	5.97	0.81				
			Right	0.19	0.90	0.171	1.11	0.00	1.11	0.005	0.020	2	0.083	4.1500	7.90	0.67				
STR 14	DI-3C	8.0						combined flow	1.6								0.16	0.340	7.78	
			Left	0.06	0.90	0.054	0.35	0.00	0.35	0.005	0.020	2	0.083	4.1500	5.13	0.88				
			Right	0.04	0.90	0.036	0.23	0.00	0.23	0.005	0.020	2	0.083	4.1500	4.41	0.92				
STR 18	DI-3C	6.0						combined flow	0.6								0.09	0.194	4.44	
			Left	0.25	0.50	0.125	0.81	0.00	0.81	0.005	0.020	2	0.083	4.1500	7.03	0.74				
			Right	0.37	0.50	0.185	1.20	0.00	1.20	0.005	0.020	2	0.083	4.1500	8.14	0.67				
STR 28	DI-3C	8.0						combined flow	2.0								0.18	0.390	8.93	
			Left	0.14	0.70	0.098	0.64	0.00	0.64	0.005	0.020	2	0.083	4.1500	6.41	0.78				
			Right	0.02	0.70	0.014	0.09	0.00	0.09	0.005	0.020	2	0.083	4.1500	3.09	0.99				
STR 30	DI-3C	6.0						combined flow	0.7								0.10	0.224	5.14	
			Left	0.11	0.45	0.050	0.32	0.00	0.32	0.005	0.020	2	0.083	4.1500	4.96	0.88				
			Right	0.16	0.45	0.072	0.47	0.00	0.47	0.005	0.020	2	0.083	4.1500	5.71	0.84				
STR 36	DI-3C	6.0						combined flow	0.8								0.11	0.236	0.22	
			Left	0.15	0.50	0.075	0.49	0.00	0.49	0.005	0.020	2	0.083	4.1500	5.80	0.83				
			Right	0.14	0.50	0.070	0.46	0.00	0.46	0.005	0.020	2	0.083	4.1500	5.65	0.84				
STR 40	DI-3C	6.0						combined flow	0.9								0.12	0.266	6.11	
			Left	0.37	0.45	0.167	1.08	0.00	1.08	0.005	0.020	2	0.083	4.1500	7.82	0.71				
			Right	0.27	0.45	0.122	0.79	0.00	0.79	0.005	0.020	2	0.083	4.1500	6.95	0.75				
STR 42B	DI-3C	8.0						combined flow	1.9								0.17	0.371	8.51	
			All	0.16	0.65	0.104	0.68	0.00	0.68	0.005	0.020	2	0.083	4.1500	6.56	0.79				
STR 22B	DI-3B	6.0						combined flow	0.7								0.13	0.292	6.69	

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)	Sw/Sx	T, spread at curb (ft)	Eo, frontal flow ratio in gutter W	a, 12W(Sw-Sx)+ 2"local depr. (in)	S'w = a/(12W)	Se = Sx+S'w(Eo)	Lt, require throat length (ft)	L / Lt	E, inlet efficiency	Qi, flow intercepted	Qb, carry-over	carry-over to inlet	Remarks
18B	3B	4.0	0.04	0.90	0.036	0.14	0.00	0.14	0.005	0.02	2	0.083	4.1500	3.67	0.92	3.5120	0.1463	0.1546	2.10	1.90	1.00	0.14	0.00	-	
20	3B	6.0	0.08	0.60	0.048	0.19	0.00	0.19	0.025	0.02	2	0.083	4.1500	3.02	0.99	3.5120	0.1463	0.1649	3.71	1.62	1.00	0.19	0.00	-	
22B	3B	8.0	0.19	0.75	0.143	0.57	0.00	0.57	0.020	0.02	2	0.083	4.1500	4.74	0.90	3.5120	0.1463	0.1517	5.74	1.39	1.00	0.57	0.00	-	
32	3B	4.0	0.12	0.50	0.060	0.24	0.00	0.24	0.005	0.02	2	0.083	4.1500	4.45	0.88	3.5120	0.1463	0.1488	2.66	1.50	1.00	0.24	0.00	-	
34	3B	6.0	0.08	0.70	0.056	0.22	0.00	0.22	0.020	0.02	2	0.083	4.1500	3.34	0.95	3.5120	0.1463	0.1590	3.77	1.59	1.00	0.22	0.00	-	
36B	3B	6.0	0.22	0.45	0.099	0.40	0.00	0.40	0.005	0.02	2	0.083	4.1500	5.37	0.79	3.5120	0.1463	0.1356	3.48	1.73	1.00	0.40	0.00	-	
38	3B	6.0	0.13	0.45	0.059	0.23	0.00	0.23	0.049	0.02	2	0.083	4.1500	2.87	0.98	3.5120	0.1463	0.1634	4.94	1.21	1.00	0.23	0.00	-	
38B	3B	6.0	0.05	0.50	0.025	0.10	0.00	0.10	0.049	0.02	2	0.083	4.1500	2.09	0.99	3.5120	0.1463	0.1649	3.44	1.74	1.00	0.10	0.00	-	
42	3B	4.0	0.02	0.45	0.009	0.04	0.00	0.04	0.005	0.02	2	0.083	4.1500	2.18	0.99	3.5120	0.1463	0.1649	1.13	3.54	1.00	0.04	0.00	-	
44	3B	4.0	0.02	0.90	0.018	0.07	0.00	0.07	0.037	0.02	2	0.083	4.1500	1.95	1.00	3.5120	0.1463	0.1663	2.74	1.46	1.00	0.07	0.00	-	
44B	3B	8.0	0.17	0.65	0.111	0.44	0.08	0.52	0.037	0.02	2	0.083	4.1500	4.08	0.90	3.5120	0.1463	0.1517	6.63	1.21	1.00	0.44	0.00	-	
46	3B	8.0	0.27	0.45	0.122	0.49	0.00	0.49	0.038	0.02	2	0.083	4.1500	3.96	0.90	3.5120	0.1463	0.1517	6.51	1.23	1.00	0.49	0.00	-	
46B	3B	6.0	0.31	0.45	0.140	0.56	0.00	0.56	0.038	0.02	2	0.083	4.1500	4.17	0.89	3.5120	0.1463	0.1502	6.94	0.86	1.00	0.56	0.08	44B	
48	3B	8.0	0.26	0.45	0.117	0.47	0.00	0.47	0.040	0.02	2	0.083	4.1500	3.87	0.90	3.5120	0.1463	0.1517	6.51	1.23	1.00	0.47	0.00	-	
48B	3B	8.0	0.22	0.45	0.099	0.40	0.00	0.40	0.040	0.02	2	0.083	4.1500	3.63	0.93	3.5120	0.1463	0.1561	5.96	1.34	1.00	0.40	0.00	-	
50	3B	10.0	0.26	0.45	0.117	0.47	0.00	0.47	0.071	0.02	2	0.083	4.1500	3.47	0.95	3.5120	0.1463	0.1590	7.51	1.33	1.00	0.47	0.00	-	
50B	3B	8.0	0.20	0.45	0.090	0.36	0.00	0.36	0.071	0.02	2	0.083	4.1500	3.15	0.96	3.5120	0.1463	0.1605	6.69	1.20	1.00	0.36	0.00	-	
52	3B	10.0	0.28	0.50	0.140	0.56	0.00	0.56	0.055	0.02	2	0.083	4.1500	3.90	0.90	3.5120	0.1463	0.1517	7.72	1.30	1.00	0.56	0.00	-	
52B	3B	8.0	0.30	0.50	0.150	0.60	0.00	0.60	0.055	0.02	2	0.083	4.1500	4.00	0.90	3.5120	0.1463	0.1517	7.95	1.01	1.00	0.60	0.00	-	

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)	Sw/Sx	T, spread at curb (ft)	Eo, frontal flow ratio in gutter W	a, 12W(Sw-Sx)+ 2"local depr. (in)	Sw = a/(12W)	Se = Sx+S'w(Eo)	Lt, required throat length (ft)	L / Lt	E, inlet efficiency	Qi, flow intercepted	Qb, carry-over	carry-over to inlet	Remarks
18B	3B	4.0	0.04	0.90	0.036	0.23	0.00	0.23	0.005	0.02	2	0.083	4.1500	4.41	0.92	3.5120	0.1463	0.1546	2.58	1.55	1.00	0.23	0.00	-	
20	3B	6.0	0.08	0.60	0.048	0.31	0.00	0.31	0.025	0.02	2	0.083	4.1500	3.62	0.97	3.5120	0.1463	0.1619	4.60	1.30	1.00	0.31	0.00	-	
22B	3B	8.0	0.19	0.75	0.143	0.93	0.00	0.93	0.020	0.02	2	0.083	4.1500	5.69	0.84	3.5120	0.1463	0.1429	7.30	1.10	1.00	0.93	0.00	-	
32	3B	4.0	0.12	0.50	0.060	0.39	0.00	0.39	0.005	0.02	2	0.083	4.1500	5.34	0.88	3.5120	0.1463	0.1488	3.27	1.22	1.00	0.39	0.00	-	
34	3B	6.0	0.08	0.70	0.056	0.36	0.00	0.36	0.020	0.02	2	0.083	4.1500	4.01	0.95	3.5120	0.1463	0.1590	4.62	1.30	1.00	0.36	0.00	-	
36B	3B	6.0	0.22	0.45	0.099	0.64	0.00	0.64	0.005	0.02	2	0.083	4.1500	6.44	0.79	3.5120	0.1463	0.1356	4.26	1.41	1.00	0.64	0.00	-	
38	3B	6.0	0.13	0.45	0.059	0.38	0.00	0.38	0.049	0.02	2	0.083	4.1500	3.44	0.98	3.5120	0.1463	0.1634	6.06	0.99	1.00	0.38	0.00	-	
38B	3B	6.0	0.05	0.50	0.025	0.16	0.00	0.16	0.049	0.02	2	0.083	4.1500	2.50	0.99	3.5120	0.1463	0.1649	4.22	1.42	1.00	0.16	0.00	-	
42	3B	4.0	0.02	0.45	0.009	0.06	0.00	0.06	0.005	0.02	2	0.083	4.1500	2.62	0.99	3.5120	0.1463	0.1649	1.38	2.89	1.00	0.06	0.00	-	
44	3B	4.0	0.02	0.90	0.018	0.12	0.00	0.12	0.037	0.02	2	0.083	4.1500	2.33	1.00	3.5120	0.1463	0.1663	3.36	1.19	1.00	0.12	0.00	-	
44B	3B	8.0	0.17	0.65	0.111	0.72	0.27	0.99	0.037	0.02	2	0.083	4.1500	5.19	0.90	3.5120	0.1463	0.1517	8.69	0.92	1.00	0.72	0.00	-	
46	3B	8.0	0.27	0.45	0.122	0.79	0.00	0.79	0.038	0.02	2	0.083	4.1500	4.75	0.90	3.5120	0.1463	0.1517	7.98	1.00	1.00	0.79	0.00	-	
46B	3B	6.0	0.31	0.45	0.140	0.91	0.00	0.91	0.038	0.02	2	0.083	4.1500	5.01	0.89	3.5120	0.1463	0.1502	8.51	0.71	1.00	0.91	0.27	44B	
48	3B	8.0	0.26	0.45	0.117	0.76	0.00	0.76	0.040	0.02	2	0.083	4.1500	4.64	0.90	3.5120	0.1463	0.1517	7.98	1.00	1.00	0.76	0.00	-	
48B	3B	8.0	0.22	0.45	0.099	0.64	0.01	0.66	0.040	0.02	2	0.083	4.1500	4.40	0.93	3.5120	0.1463	0.1561	7.38	1.08	1.00	0.64	0.00	-	
50	3B	10.0	0.26	0.45	0.117	0.76	0.17	0.93	0.071	0.02	2	0.083	4.1500	4.50	0.95	3.5120	0.1463	0.1590	10.05	1.00	1.00	0.76	0.00	-	
50B	3B	8.0	0.20	0.45	0.090	0.59	0.00	0.59	0.071	0.02	2	0.083	4.1500	3.78	0.96	3.5120	0.1463	0.1605	8.21	0.97	1.00	0.59	0.01	48B	
52	3B	10.0	0.28	0.50	0.140	0.91	0.00	0.91	0.055	0.02	2	0.083	4.1500	4.68	0.90	3.5120	0.1463	0.1517	9.47	1.06	1.00	0.91	0.00	-	
52B	3B	8.0	0.30	0.50	0.150	0.98	0.00	0.98	0.055	0.02	2	0.083	4.1500	4.80	0.90	3.5120	0.1463	0.1517	9.74	0.82	1.00	0.98	0.17	50	

SCOTT R. COLLINS
Lic. No. 035791
10/17/22

REVISIONS

	REVISION DESCRIPTION
10/17/22	INITIAL SUBMITTAL - FINAL SITE PLAN

COLLINS ENGINEERING

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

PROJECT
GALAXIE FARM - FINAL SITE & ARB PLAN

SHEET
DRAINAGE COMPUTATIONS

JOB NO.
202194

SCALE
N/A

SHEET NO.
9

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STRUCTURE				DRAINAGE					
INLET	TYPE	AREA (FT^{2})	PERIMETER (FT)	A (ACRES)	C	I (IN/HR)	Q (CFS)	D (IN)	FLOW TYPE
6	DI-7	6.00	12.80	1.11	0.35	4.00	1.55	1.4	WEIR FLOW
6	DI-7	6.00	12.80	1.11	0.35	6.50	2.53	2.0	WEIR FLOW
6	DI-7- 50% Clogged	3.00	6.40	1.11	0.35	6.50	2.53	3.1	WEIR FLOW
6	DI-7- 50% Clogged	3.00	6.40	1.11	0.35	6.50	2.53	3.1	WEIR FLOW
22	DI-1	2.33	9.00	0.55	0.45	4.00	0.99	1.3	WEIR FLOW
22	DI-1	2.33	9.00	0.55	0.45	6.50	1.61	1.8	WEIR FLOW
22	DI-1- 50% Clogged	1.17	4.50	0.55	0.45	6.50	1.61	2.9	WEIR FLOW
22	DI-1- 50% Clogged	1.17	4.50	0.55	0.45	6.50	1.61	2.9	WEIR FLOW
YD-2	18" Yard Drain Inlet	0.59	30.25	0.36	0.35	4.00	0.50	0.4	WEIR FLOW
YD-2	18" Yard Drain Inlet	0.59	30.25	0.36	0.35	6.50	0.82	0.8	WEIR FLOW
YD-2	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.36	0.35	6.50	0.82	3.1	WEIR FLOW
YD-2	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.36	0.35	6.50	0.82	3.1	WEIR FLOW
YD-3	18" Yard Drain Inlet	0.59	30.25	0.08	0.40	4.00	0.13	0.2	WEIR FLOW
YD-3	18" Yard Drain Inlet	0.59	30.25	0.08	0.40	6.50	0.21	0.2	WEIR FLOW
YD-3	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.08	0.40	6.50	0.21	0.3	WEIR FLOW
YD-3	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.08	0.40	6.50	0.21	0.3	WEIR FLOW
YD-3A	18" Yard Drain Inlet	0.59	30.25	0.28	0.40	4.00	0.45	0.3	WEIR FLOW
YD-3A	18" Yard Drain Inlet	0.59	30.25	0.28	0.40	6.50	0.73	0.6	WEIR FLOW
YD-3A	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.28	0.40	6.50	0.73	2.4	WEIR FLOW
YD-3A	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.28	0.40	6.50	0.73	2.4	WEIR FLOW
YD-3B	18" Yard Drain Inlet	0.59	30.25	0.28	0.40	4.00	0.45	0.3	WEIR FLOW
YD-3B	18" Yard Drain Inlet	0.59	30.25	0.28	0.40	6.50	0.73	0.6	WEIR FLOW
YD-3B	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.28	0.40	6.50	0.73	2.4	WEIR FLOW
YD-3B	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.28	0.40	6.50	0.73	2.4	WEIR FLOW
YD-3C	18" Yard Drain Inlet	0.59	30.25	0.21	0.40	4.00	0.34	0.3	WEIR FLOW
YD-3C	18" Yard Drain Inlet	0.59	30.25	0.21	0.40	6.50	0.55	0.4	WEIR FLOW
YD-3C	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.21	0.40	6.50	0.55	1.4	WEIR FLOW
YD-3C	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.21	0.40	6.50	0.55	1.4	WEIR FLOW
YD-3D	18" Yard Drain Inlet	0.59	30.25	0.15	0.40	4.00	0.24	0.2	WEIR FLOW
YD-3D	18" Yard Drain Inlet	0.59	30.25	0.15	0.40	6.50	0.39	0.3	WEIR FLOW
YD-3D	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.15	0.40	6.50	0.39	0.7	WEIR FLOW
YD-3D	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.15	0.40	6.50	0.39	0.7	WEIR FLOW
YD-3E	18" Yard Drain Inlet	0.59	30.25	0.25	0.40	4.00	0.40	0.3	WEIR FLOW
YD-3E	18" Yard Drain Inlet	0.59	30.25	0.25	0.40	6.50	0.65	0.5	WEIR FLOW
YD-3E	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.25	0.40	6.50	0.65	1.9	WEIR FLOW
YD-3E	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.25	0.40	6.50	0.65	1.9	WEIR FLOW
YD-3F	18" Yard Drain Inlet	0.59	30.25	0.12	0.40	4.00	0.19	0.2	WEIR FLOW
YD-3F	18" Yard Drain Inlet	0.59	30.25	0.12	0.40	6.50	0.31	0.3	WEIR FLOW
YD-3F	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.12	0.40	6.50	0.31	0.4	WEIR FLOW
YD-3F	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.12	0.40	6.50	0.31	0.4	WEIR FLOW
YD-4	18" Yard Drain Inlet	0.59	30.25	0.10	0.50	4.00	0.20	0.2	WEIR FLOW
YD-4	18" Yard Drain Inlet	0.59	30.25	0.10	0.50	6.50	0.33	0.3	WEIR FLOW
YD-4	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.10	0.50	6.50	0.33	0.5	WEIR FLOW
YD-4	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.10	0.50	6.50	0.33	0.5	WEIR FLOW
YD-4A	18" Yard Drain Inlet	0.59	30.25	0.06	0.50	4.00	0.12	0.1	WEIR FLOW
YD-4A	18" Yard Drain Inlet	0.59	30.25	0.06	0.50	6.50	0.20	0.2	WEIR FLOW
YD-4A	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.06	0.50	6.50	0.20	0.3	WEIR FLOW
YD-4A	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.06	0.50	6.50	0.20	0.3	WEIR FLOW
YD-4B	18" Yard Drain Inlet	0.59	30.25	0.06	0.50	4.00	0.12	0.1	WEIR FLOW
YD-4B	18" Yard Drain Inlet	0.59	30.25	0.06	0.50	6.50	0.20	0.2	WEIR FLOW
YD-4B	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.06	0.50	6.50	0.20	0.3	WEIR FLOW
YD-4B	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.06	0.50	6.50	0.20	0.3	WEIR FLOW
YD-4D	18" Yard Drain Inlet	0.59	30.25	0.06	0.50	4.00	0.12	0.1	WEIR FLOW
YD-4D	18" Yard Drain Inlet	0.59	30.25	0.06	0.50	6.50	0.20	0.2	WEIR FLOW
YD-4D	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.06	0.50	6.50	0.20	0.3	WEIR FLOW
YD-4D	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.06	0.50	6.50	0.20	0.3	WEIR FLOW
YD-4E	18" Yard Drain Inlet	0.59	30.25	0.08	0.50	4.00	0.16	0.2	WEIR FLOW
YD-4E	18" Yard Drain Inlet	0.59	30.25	0.08	0.50	6.50	0.26	0.2	WEIR FLOW
YD-4E	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.08	0.50	6.50	0.26	0.4	WEIR FLOW
YD-4E	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.08	0.50	6.50	0.26	0.4	WEIR FLOW
YD-4H	18" Yard Drain Inlet	0.59	30.25	0.08	0.40	4.00	0.13	0.2	WEIR FLOW
YD-4H	18" Yard Drain Inlet	0.59	30.25	0.08	0.40	6.50	0.21	0.2	WEIR FLOW
YD-4H	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.08	0.40	6.50	0.21	0.3	WEIR FLOW
YD-4H	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.08	0.40	6.50	0.21	0.3	WEIR FLOW
YD-4I	18" Yard Drain Inlet	0.59	30.25	0.19	0.40	4.00	0.30	0.3	WEIR FLOW
YD-4I	18" Yard Drain Inlet	0.59	30.25	0.19	0.40	6.50	0.49	0.4	WEIR FLOW
YD-4I	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.19	0.40	6.50	0.49	1.1	WEIR FLOW
YD-4I	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.19	0.40	6.50	0.49	1.1	WEIR FLOW
YD-5B	18" Yard Drain Inlet	0.59	30.25	0.42	0.45	4.00	0.76	0.7	WEIR FLOW
YD-5B	18" Yard Drain Inlet	0.59	30.25	0.42	0.45	6.50	1.23	1.8	WEIR FLOW
YD-5B	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.42	0.45	6.50	1.23	7.0	ORIFICE FLOW
YD-5B	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.42	0.45	6.50	1.23	7.0	ORIFICE FLOW
YD-1C	18" Yard Drain Inlet	0.59	30.25	0.07	0.60	4.00	0.17	0.2	WEIR FLOW
YD-1C	18" Yard Drain Inlet	0.59	30.25	0.07	0.60	6.50	0.27	0.3	WEIR FLOW
YD-1C	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.07	0.60	6.50	0.27	0.4	WEIR FLOW
YD-1C	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.07	0.60	6.50	0.27	0.4	WEIR FLOW
YD-1D	18" Yard Drain Inlet	0.59	30.25	0.09	0.60	4.00	0.22	0.2	WEIR FLOW
YD-1D	18" Yard Drain Inlet	0.59	30.25	0.09	0.60	6.50	0.35	0.3	WEIR FLOW
YD-1D	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.09	0.60	6.50	0.35	0.6	WEIR FLOW
YD-1D	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.09	0.60	6.50	0.35	0.6	WEIR FLOW
YD-1E	18" Yard Drain Inlet	0.59	30.25	0.04	0.50	4.00	0.08	0.1	WEIR FLOW
YD-1E	18" Yard Drain Inlet	0.59	30.25	0.04	0.50	6.50	0.13	0.2	WEIR FLOW
YD-1E	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.04	0.50	6.50	0.13	0.2	WEIR FLOW
YD-1E	18" Yard Drain Inlet- 50% Clogged	0.30	15.13	0.04	0.50	6.50	0.13	0.2	WEIR FLOW

DRAINAGE DESCRIPTIONS

STR. NO.	PIPE INFORMATION						INLET INFORMATION				COMMENTS
	DIA. (in.)	LENGTH* (ft.)	SLOPE (%)	INVERT IN	INVERT OUT	MATERIAL	INLET TYPE	Curb Type	SLOT LENGTH	RIM* ELEVATION	
52B							DI-3B	CG-6	8'	519.02	VDOT STD. IS-1 REQ'D
52A	15	27.80	0.50%	512.25	512.11	HDPE					
52							DI-3B	CG-6	10'	518.90	VDOT STD. IS-1 REQ'D
51	15	147.76	7.45%	512.01	501.00	HDPE					
50B							DI-3B	CG-6	8'	507.80	VDOT STD. IS-1 REQ'D
50A	15	27.83	0.50%	500.90	500.76	HDPE					
50							DI-3B	CG-6	8'	507.61	VDOT STD. IS-1 REQ'D
49	15	159.34	4.96%	500.66	492.75	HDPE					
48							DI-3B	CG-6	8'	498.78	VDOT STD. IS-1 REQ'D
47	15	189.29	2.89%	490.97	485.50	HDPE					
46B							DI-3B	CG-6	6'	491.55	VDOT STD. IS-1 REQ'D
46A	18	28.35	0.75%	484.40	484.19	HDPE					
46							DI-3B	CG-6	8'	491.37	VDOT STD. IS-1 REQ'D
45	18	68.38	2.56%	483.17	481.42	HDPE					
44							DI-3B	CG-6	4'	488.77	VDOT STD. IS-1 REQ'D
43	18	130.91	2.25%	480.45	477.50	HDPE					
26							MH-1	-	-	486.19	VDOT STD. IS-1 REQ'D
25	24	100.72	1.66%	472.27	470.60	HDPE					
24							MH-1	-	-	479.42	VDOT STD. IS-1 REQ'D
23	24	20.76	1.21%	470.50	470.25	HDPE					
48B							DI-3B	CG-6	8'	498.82	VDOT STD. IS-1 REQ'D
48A	15	27.88	0.50%	491.86	491.72	HDPE					
44B							DI-3B	CG-6	8'	488.76	VDOT STD. IS-1 REQ'D
44A	15	27.86	1.62%	482.00	481.55	HDPE					
42B							DI-3C	CG-6	8'	489.85	VDOT STD. IS-1 REQ'D
42A	15	144.64	0.62%	483.83	482.93	HDPE					
42							DI-3B	CG-6	4'	491.03	VDOT STD. IS-1 REQ'D
41	15	90.53	0.62%	482.83	482.27	HDPE					
40							DI-3C	CG-6	6'	489.48	VDOT STD. IS-1 REQ'D
39	15	35.38	0.68%	482.17	481.93	HDPE					
38B							DI-3B	CG-6	6'	490.76	VDOT STD. IS-1 REQ'D
38A	15	28.96	0.79%	481.83	481.60	HDPE					
38							DI-3B	CG-6	6'	490.76	VDOT STD. IS-1 REQ'D
37	15	109.54	0.91%	481.50	480.50	HDPE					
36							DI-3C	CG-6	6'	487.17	VDOT STD. IS-1 REQ'D
35	18	99.52	0.63%	480.08	479.45	HDPE					
34							DI-3B	CG-6	6'	485.75	VDOT STD. IS-1 REQ'D
33	18	59.13	0.56%	479.35	479.02	HDPE					
32							DI-3B	CG-6	4'	484.50	VDOT STD. IS-1 REQ'D
31	18	30.63	1.37%	478.92	478.50	HDPE					
30							DI-3B	CG-6	6'	484.43	VDOT STD. IS-1 REQ'D
29	18	27.84	0.67%	477.50	477.31	HDPE					
28							DI-3C	CG-6	8'	484.43	VDOT STD. IS-1 REQ'D
27	18	107.93	2.47%	476.25	473.58	HDPE					
36B							DI-3B	CG-6	6'	487.13	VDOT STD. IS-1 REQ'D
36A	15	28.06	0.75%	480.41	480.20	HDPE					
14							DI-3C	CG-6	8'	470.75	VDOT STD. IS-1 REQ'D
13	15	35.68	2.41%	463.86	463.00	RCP3					
12							DI-3C	CG-6	8'	470.75	VDOT STD. IS-1 REQ'D
11	15	20.58	3.55%	457.83	457.10	RCP3					
YD1							EW-1		-	517.67	
YD1-CO1A	24	149.65	2.27%	514.50	511.10	HDPE					
CO1A							Cleanout		24"	516.25	
CO1A-OUT	24	130.60	11.49%	511.00	496.00	HDPE					
YD2							Yard Drain Inlet		18"	483.00	
YD2-30	8	42.00	1.79%	480.75	480.00	HDPE					
YD3F							Yard Drain Inlet		18"	525.33	
YD3F-YD3E	12	58.07	2.58%	522.33	520.83	HDPE					
YD3E							Yard Drain Inlet		18"	523.83	
YD3D-YD3D	12	720.30	0.50%	520.83	517.25	HDPE					
YD3D							Yard Drain Inlet		18"	520.25	
YD3D-YD3C	12	44.98	9.45%	517.25	513.00	HDPE					
YD3C							Yard Drain Inlet		18"	516.00	
YD3C-YD3B	12	124.97	6.20%	513.00	505.25	HDPE					
YD3B							Yard Drain Inlet		18"	508.25	
YD3B-YD3A	12	90.19	6.56%	505.25	499.33	HDPE					
YD3A							Yard Drain Inlet		18"	502.33	
YD3A-YD3	12	47.46	4.91%	499.33	497.00	HDPE					
YD3							Yard Drain Inlet		18"	500.00	
YD3-48	12	98.00	2.81%	497.00	494.25	HDPE					
YD4A							Yard Drain Inlet		18"	492.25	
YD4A-YD4	12	52.00	0.96%	489.25	488.75	HDPE					
YD4							Yard Drain Inlet		18"	492.00	
YD4-42	12	94.18	2.92%	488.75	486.00	HDPE					
YD4B							Yard Drain Inlet		18"	492.25	
YD4B-YD4	12	52.00	0.96%	489.25	488.75	HDPE					
YD4E							Yard Drain Inlet		18"	492.67	
YD4E-YD4D	12	30.88	2.17%	489.67	489.00	HDPE					
YD4D							Yard Drain Inlet		18"	492.00	
YD4D-CO4C	12	53.91	2.32%	489.00	487.75	HDPE					
CO4C							Cleanout		12"	491.75	
CO4C-42B	12	42.12	5.34%	487.75	485.50	HDPE					
YD4H							Yard Drain Inlet		18"	507.50	
YD4H-CO4G	12	60.56	14.45%	495.75	487.00	HDPE					
CO4G							Cleanout		12"	505.75	
CO4G-CO4F	12	28.62	1.75%	496.00	495.50	HDPE					
CO4F							Cleanout		12"	503.00	
CO4F-YD4D	12	33.48	19.41%	495.50	489.00	HDPE					
YD-5B							Yard Drain Inlet		18"	489.75	
YD5B-RF6A	12	45.36	0.50%	487.99	487.76	HDPE					
RF6A							Cleanout		12"	491.67	
RF6A-RF6	12	71.34	0.50%	487.76	487.40	HDPE					
RF6							Cleanout		12"	491.50	
RF6-46B	12	29.79	0.50%	487.40	487.25	HDPE					
YD1E							Yard Drain Inlet		18"	491.75	
YD1E-YD1D	12	99.37	3.02%	489.75	486.75	HDPE					
YD1D							Yard Drain Inlet		18"	488.75	
YD1D-YD1C	12	47.85	2.80%	486.75	485.41	HDPE					
YD1C							Yard Drain Inlet		18"	488.25	
YD1C-RF1B	12	68.34	0.50%	485.41	485.07	HDPE					
RF1B							Cleanout		12"	488.50	
RF1B-RF1A	12	40.54	0.50%	485.07	484.87	HDPE					
RF1A							Cleanout		12"	490.00	
RF1A-RF1	12	107.73	0.50%	484.87	484.33	HDPE					
RF1							Cleanout		12"	489.48	
RF1-44B	12	64.79	0.50%	484.33	484.01	HDPE					
RF4A							Cleanout		8"	489.50	
RF4A-RF4	8	95.33	2.10%	488.00	486.00	HDPE					
RF4							Cleanout		8"	488.00	
RF4-36B	8	29.44	6.79%	486.00	484.00	HDPE					
RF5A							Cleanout		8"	490.50	
RF5A-RF5	8	103.89	0.50%	484.60	484.08	HDPE					
RF5							Cleanout		8"	490.50	
RF5-44B	8	36.98	1.57%	484.08	483.50	HDPE					
YD4I							Yard Drain Inlet		18"	499.75	
YD4I-COJ	8	77.00	3.25%	498.25	495.75	ADS					
CO-J							Cleanout		8"	501.33	
COJ-38B	8	75.00	11.67%	495.75	487.00	ADS					

BYPASS STORM SEWER

(NOTE: SEE PREVIOUS SHEET FOR INLET THROAT SIZING)

PIPE DESIGN

n = 0.013 for RCP n = 0.01 for HDPE

Pipe		Hydrology								Pipe									
Starting Structure	Ending Structure	A, Drainage area (acres)	C, rational coeff.	CA increment	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: ES-1 - Out																			
ES-1	8	15.60	0.55	8.580	8.580	17.00	4.29	36.83	45.70	484.60	479.50	297.1	0.01	0.0172	30	58.28	13.11	0.38	
8	6	0.15	0.70	0.105	8.685	17.38	4.25	0.45	46.15	479.40	475.75	162.0	0.01	0.0225	30	66.65	14.64	0.18	
6	4	1.11	0.35	0.389	9.074	17.56	4.23	1.64	47.79	475.65	474.74	51.9	0.01	0.0175	30	58.78	13.32	0.06	
4	2	21.60	0.25	5.400	19.883	17.63	4.22	22.79	57.00	474.64	471.30	197.6	0.01	0.0169	30	57.77	13.41	0.25	
2	OUT	0.00	0.45	0.000	23.483	17.87	4.19	0.00	77.93	468.80	468.25	36.0	0.01	0.0153	36	89.38	14.24	0.04	
Pipe run: Str. 18C - Str. 4																			
18C	18	20.70	0.25	5.175	5.175	15.00	4.55	23.52	23.52	484.50	483.67	38.3	0.01	0.0217	24	36.10	12.18	0.05	
18	16	0.10	0.90	0.090	5.409	15.05	4.54	0.41	24.55	481.89	477.44	161.1	0.01	0.0276	24	40.72	13.47	0.20	
16	4	0.00	0.90	0.000	5.409	15.25	4.51	0.00	24.55	477.34	474.74	138.4	0.01	0.0188	24	33.60	11.65	0.20	
Pipe run: Str. 18B- Str. 18																			
18B	18	0.04	0.90	0.036	0.036	5.00	6.67	0.24	0.24	483.71	481.99	47.9	0.01	0.0359	15	13.26	4.05	0.20	
Pipe run: Str. 22B Str. 18																			
22B	20	0.08	0.75	0.060	0.060	5.00	6.67	0.40	0.40	482.92	482.64	24.7	0.01	0.0114	15	7.47	3.15	0.13	
20	18	0.08	0.60	0.048	0.108	5.13	6.62	0.32	0.72	482.54	481.99	61.3	0.01	0.0090	15	6.64	3.52	0.29	

Design Year: **10** Project: Galaxie Farm Job #: 202194 Prepared by: FGM, 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			
	482.99	61.30	15.00	0.72	0.00	0.01	0.58	0.00													
20									0.40	0.33	0.13	0.00	0.00	100.00	0.00	0.00	NA	0.00	0.01	483.00	489.00
	483.64	24.66	15.00	0.40	0.00	0.00	0.33	0.00													
22B													0.00	158.00	0.00	0.00	NA	0.00	0.00	483.64	490.00
	482.99	47.88	15.00	0.24	0.00	0.00	0.20	0.00													
18B													0.00	140.00	0.00	0.00	NA	0.00	0.00	482.99	488.08
	477.59	138.38	24.00	24.55	0.01	1.39	7.81	0.24													
16									24.55	7.81	191.81	0.95	0.33	92.00	0.66	1.23	N/A	0.62	2.00	479.59	486.17
	479.59	161.06	24.00	24.55	0.01	1.62	7.81	0.24													
18									23.52	7.49	176.11	0.87	0.30	148.00	0.61	1.15	NA	0.58	2.19	481.78	488.17
	485.27	38.32	24.00	23.52	0.01	0.35	7.49	0.22													
18C													0.00	178.00	0.00	0.22	NA	0.11	0.59	485.86	488.11
	470.65	36.02	36.00	77.93	0.01	0.42	11.03	0.47													
2									57.00	11.61	661.90	2.09	0.73	0.00	0.00	1.20	N/A	0.60	1.27	471.92	477.00
	473.30	197.56	30	57.00	0.016	3.25	11.6	0.5													
4									47.8	9.7	465.26	1.5	0.52	154	1.0303	2.07	N/A	1.03	4.29	477.59	484.25
	477.59	51.94	30	47.79	0.012	0.60	9.7	0.4													
6									46.1	9.4	433.82	1.4	0.48	180	0.9607	1.81	NA	0.90	1.51	479.09	483.00
	479.09	161.95	30	46.15	0.011	1.75	9.4	0.3													
8									45.7	9.3	425.48	1.3	0.47	138	0.9422	1.76	NA	0.88	2.62	481.72	488.13
	481.72	297.08	30	45.70	0.011	3.14	9.3	0.3													
ES-1													0.00	180	0	0.34	NA	0.17	3.31	485.03	488.50

DRAINAGE DESCRIPTIONS

STR. NO.	PIPE INFORMATION						INLET INFORMATION			COMMENTS
	DIA. (in.)	LENGTH* (ft.)	SLOPE (%)	INVERT IN	INVERT OUT	MATERIAL	INLET TYPE	Curb Type	RIM* ELEVATION	
ES-1							ES-1	-	488.50	
7	30	297.08	1.72%	484.60	479.50	HDPE				
8							DI-3C	-	488.13	VDOT STD. IS-1 REQ'D
7	30	161.95	2.25%	479.40	475.75	HDPE				
6							DI-7	-	483.00	VDOT STD. IS-1 REQ'D
5	30	51.94	1.75%	475.65	474.74	HDPE				
4							MH-1	-	484.25	VDOT STD. IS-1 REQ'D
3	30	197.56	1.69%	474.64	471.30	HDPE				
2							MH-1	-	477.00	VDOT STD. IS-1 REQ'D
1	36	36.02	1.53%	468.80	468.25	HDPE				
18C							ES-1	-	488.11	VDOT STD. IS-1 REQ'D
18C-18	24	38.32	2.17%	484.50	483.67	HDPE				
18							DI-3C	CG-6	488.17	VDOT STD. IS-1 REQ'D
17	24	161.06	2.76%	481.89	477.44	HDPE				
16							MH-1	-	486.17	VDOT STD. IS-1 REQ'D
15	24	138.38	1.88%	477.34	474.74	HDPE				
18B							DI-3B	CG-6	488.08	VDOT STD. IS-1 REQ'D
18A	15	47.88	3.59%	483.71	481.99	HDPE				
22B							DI-3B	CG-6	490.00	VDOT STD. IS-1 REQ'D
22A	15	24.66	1.14%	482.92	482.64	HDPE				
20							DI-3B	-	489.00	VDOT STD. IS-1 REQ'D
19	15	61.30	0.90%	482.54	481.99	HDPE				

SCOTT R. COLLINS
Lic. No. 035791
10/17/22

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

PROJECT
GALAXIE FARM - FINAL SITE & ARB PLAN

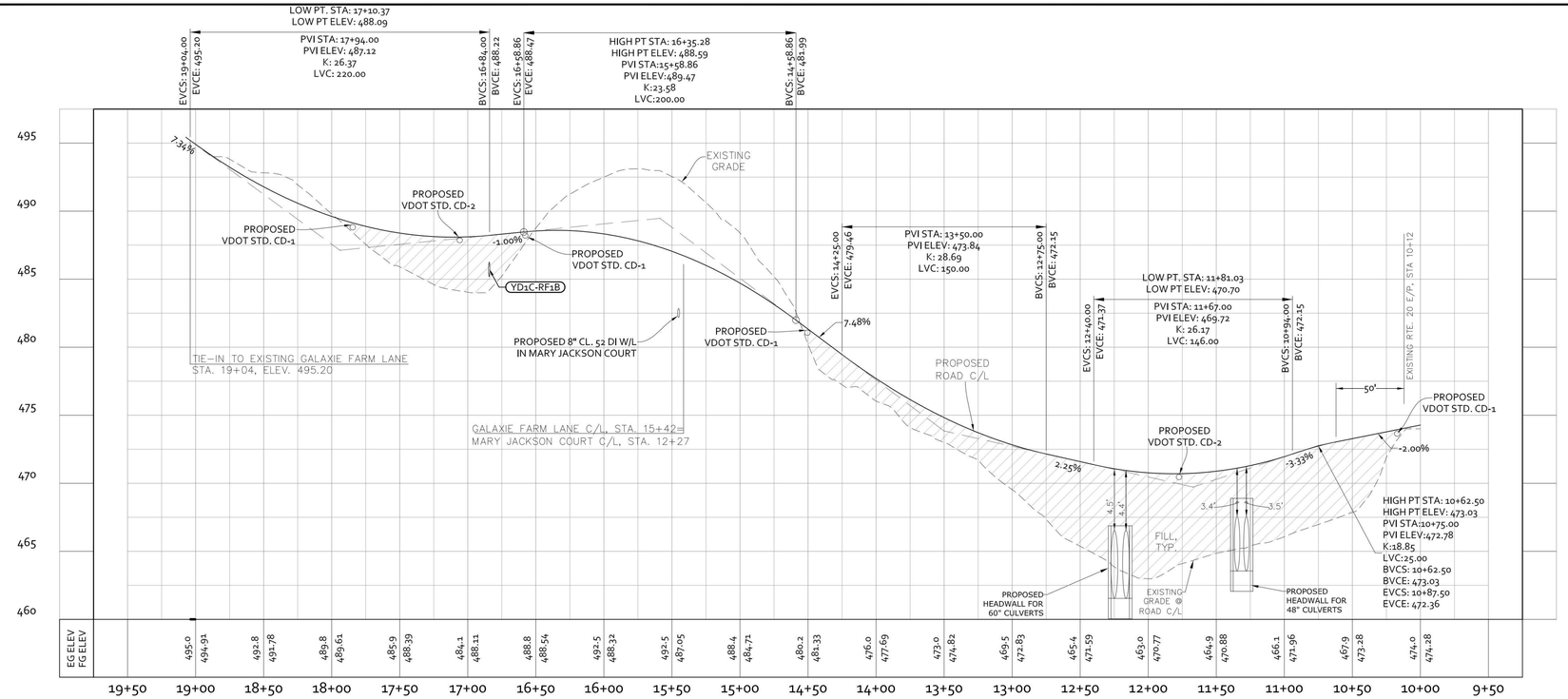
SHEET
DRAINAGE COMPUTATIONS

JOB NO.
202194

SCALE
N/A

SHEET NO.
10

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GALAXIE FARM LANE

25 MPH DESIGN SPEED

VERTICAL GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

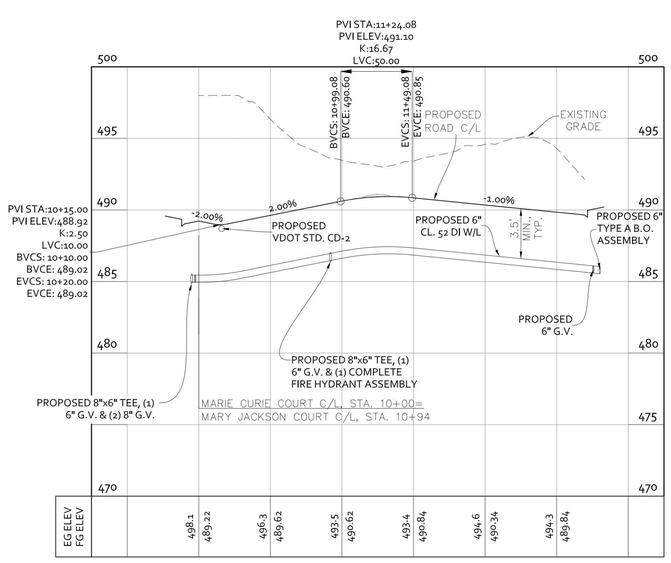
50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

PROFILE GENERAL NOTES:

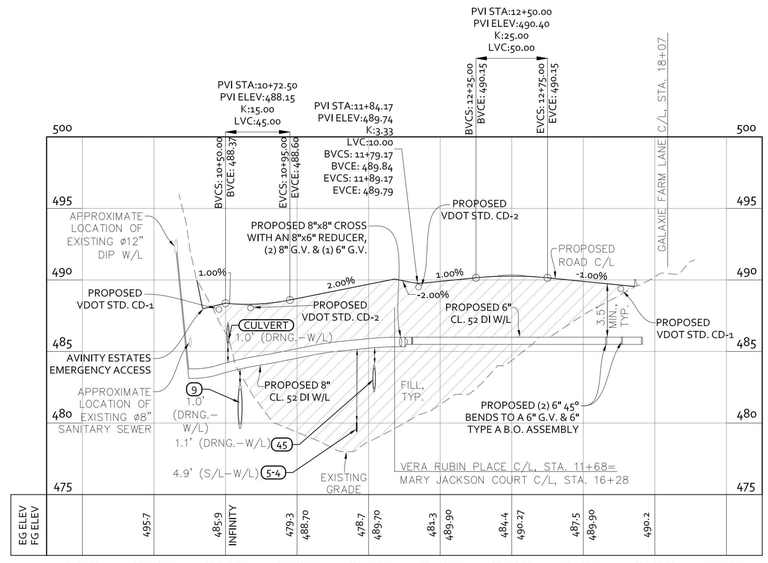
1. ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 18 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2020 ROAD AND BRIDGE SPECIFICATION 303.04(H).
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ROAD DESIGN APPROVED UNDER SUB2021-00179:
GALAXIE FARM ROAD & UTILITY PLAN. PLAN SHEETS PROVIDED WITH THIS SITE PLAN FOR INFORMATIONAL PURPOSES ONLY.



MARIE CURIE COURT

25 MPH DESIGN SPEED



VERA RUBIN PLACE

25 MPH DESIGN SPEED

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
10/17/22

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

GALAXIE FARM - FINAL SITE & ARB PLAN
ROAD & UTILITY PROFILES

PROJECT
JOB NO. 202194
SCALE 1"=5' (V) 1"=50' (H)
SHEET
SHEET NO. 11

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ROAD DESIGN APPROVED UNDER SUB2021-00179: GALAXIE FARM ROAD & UTILITY PLAN. PLAN SHEETS PROVIDED WITH THIS SITE PLAN FOR INFORMATIONAL PURPOSES ONLY.

VERTICAL GRAPHIC SCALE

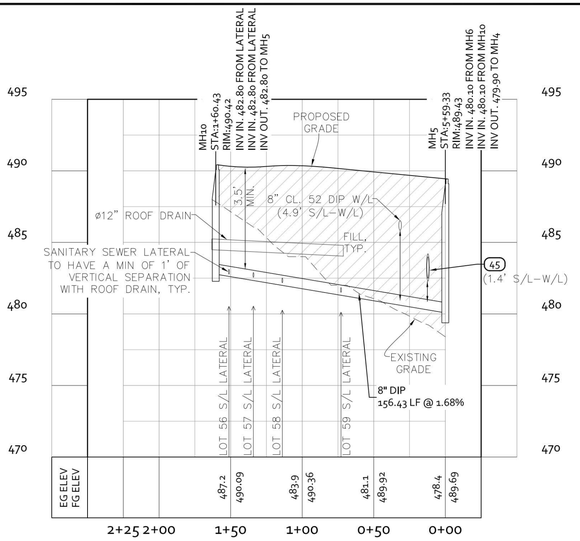
5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

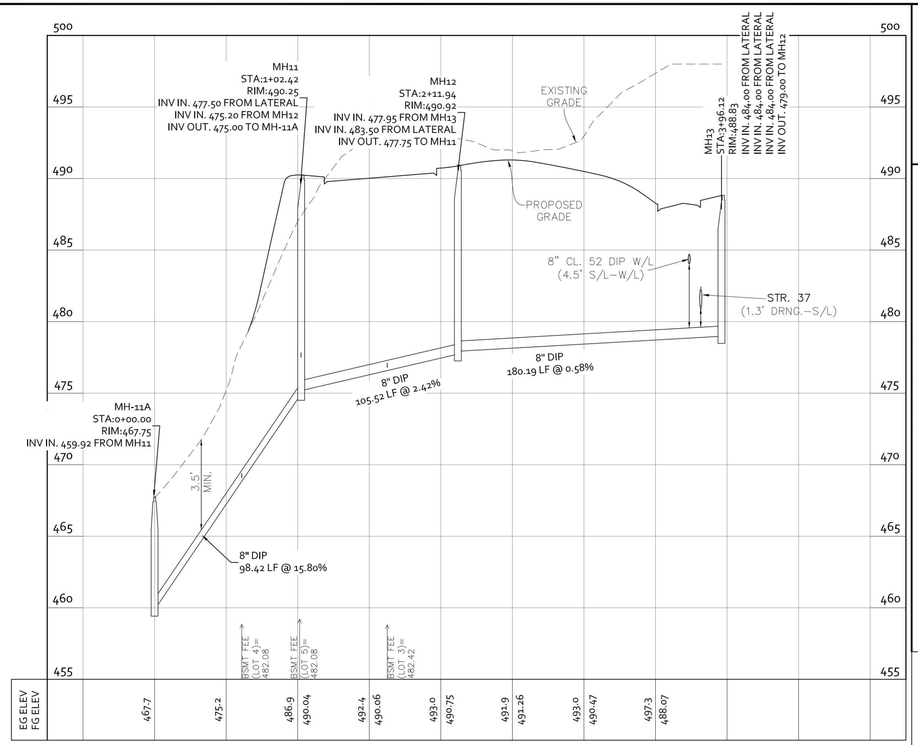
HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

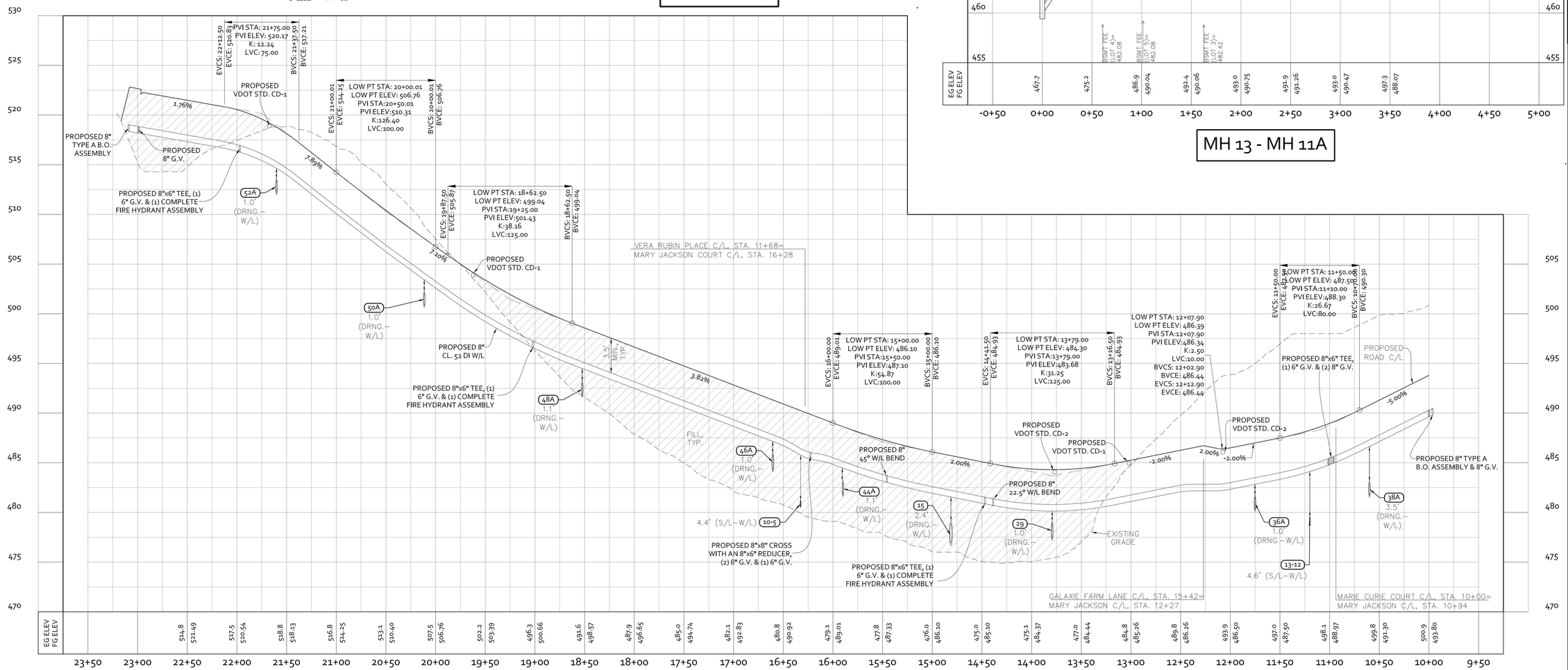
(IN FEET)
1 inch = 50 ft.



MH 10 - MH 5



MH 13 - MH 11A



MARY JACKSON COURT

25 MPH DESIGN SPEED

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
10/17/22

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

GALAXIE FARM - FINAL SITE & ARB PLAN
ROAD & UTILITY PROFILES

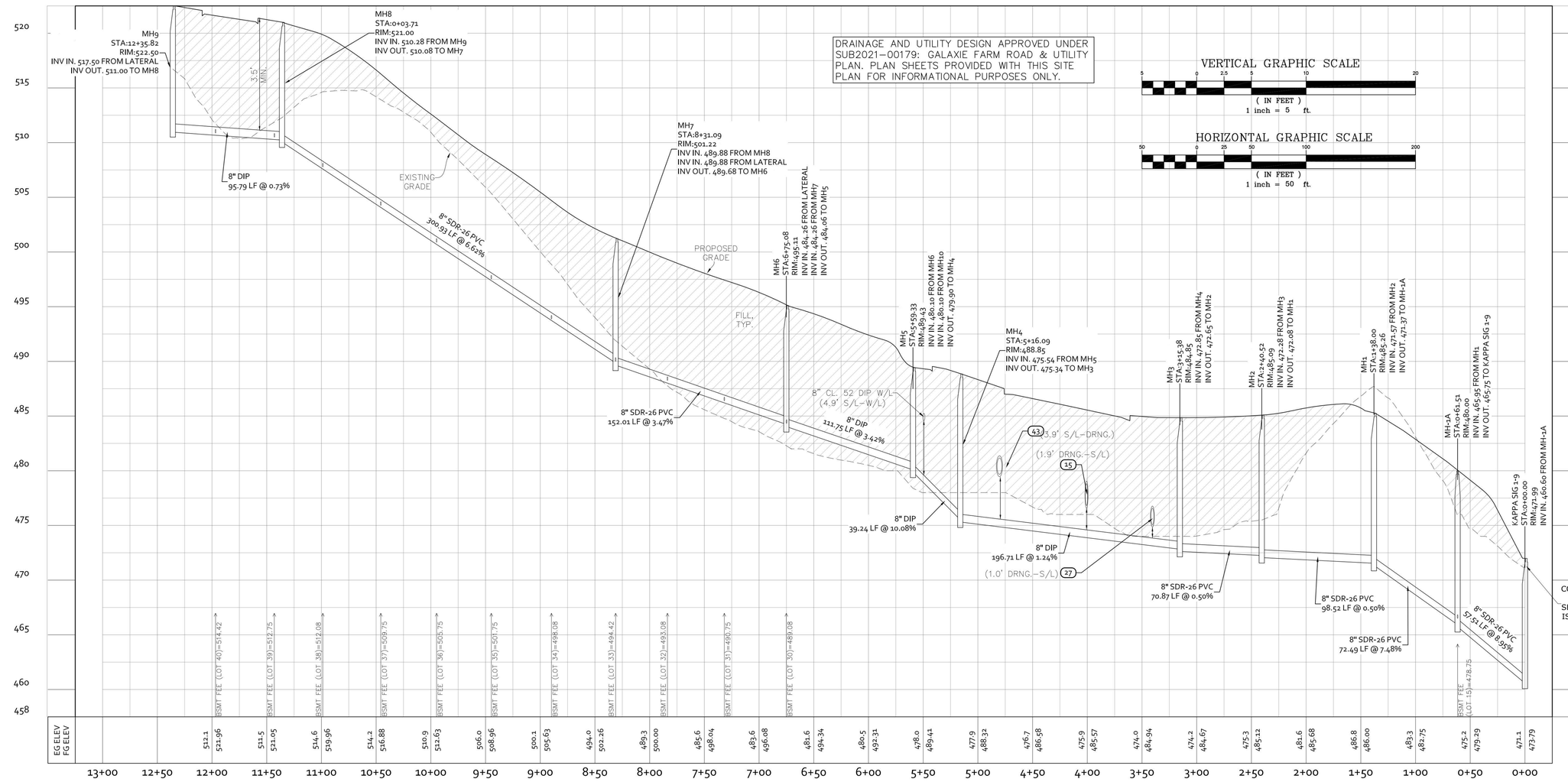
PROJECT
JOB NO. 202194
SCALE 1"=5' (V) 1"=50' (H)
SHEET
SHEET NO. 12

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DRAINAGE AND UTILITY DESIGN APPROVED UNDER SUB2021-00179: GALAXIE FARM ROAD & UTILITY PLAN. PLAN SHEETS PROVIDED WITH THIS SITE PLAN FOR INFORMATIONAL PURPOSES ONLY.

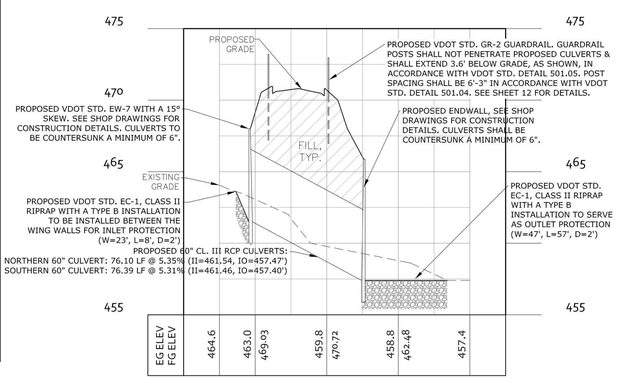
VERTICAL GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.



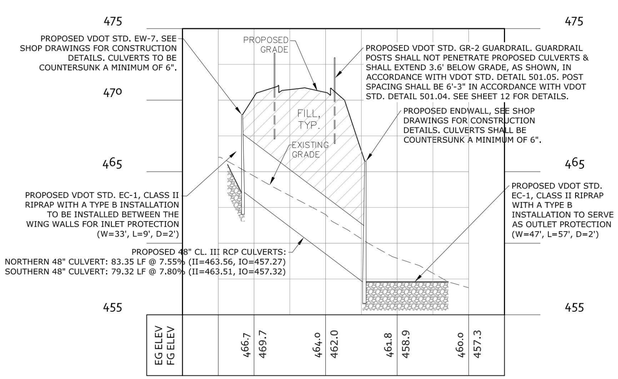
MH 9 - MH KAPPA SIG 1-9

PROFILE GENERAL NOTES:
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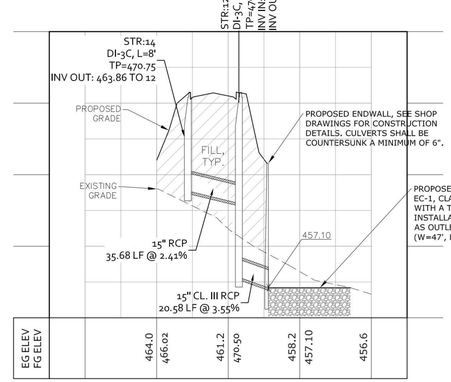


CULVERT- COW BRANCH

MINIMUM 3.6' OF COVER REQUIRED OVER THE CULVERTS WHEN THEY ARE BENEATH THE PROPOSED ROADWAY



CULVERT- INTERMITTENT STREAM



STR 14- OUT

NOTE:
CONTRACTOR SHALL OMIT 2 POSTS ON EACH SIDE OF GALAXIE FARM LANE IN THE VICINITY OF STRUCTURES 12 & 14 TO FACILITATE THE CONSTRUCTION OF THESE INLETS. THE GR-2 GUARDRAIL POSTS MAY BE OMITTED IN ACCORDANCE WITH VDOT STD. GR-10 TYPE II (VDOT STD. DETAIL 501.18) SHOWN ON SHEET 12.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
10/17/22
PROFESSIONAL ENGINEER

REVISIONS

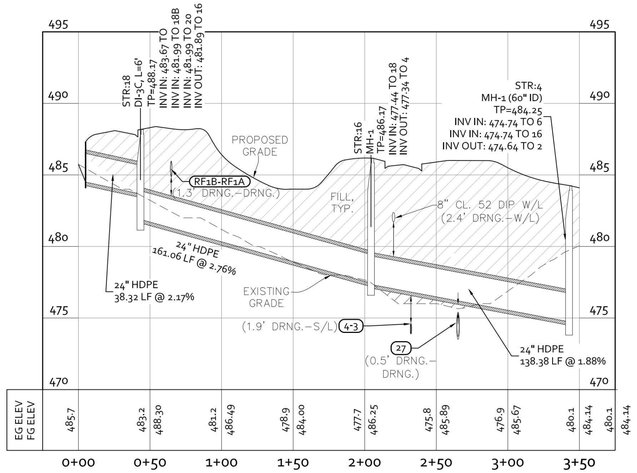
REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

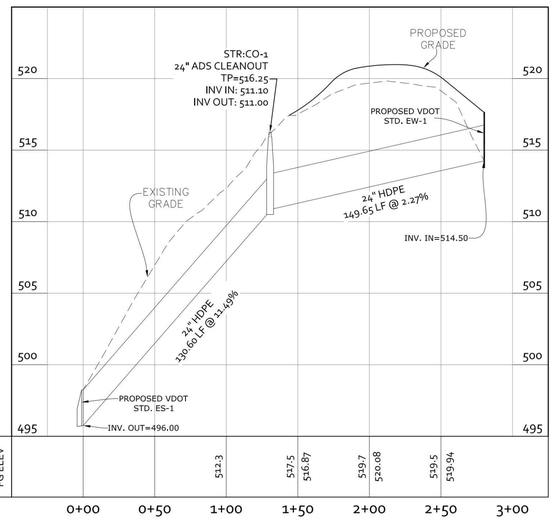
GALAXIE FARM - FINAL SITE & ARB PLAN
DRAINAGE & UTILITY PROFILES

PROJECT
JOB NO. 202194
SCALE 1"=5' (V) 1"=50' (H)
SHEET NO. 13

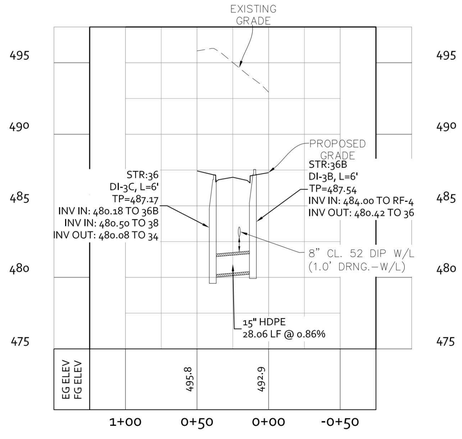
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NORTHERN BYPASS STORM SEWER



YD-1 - OUT

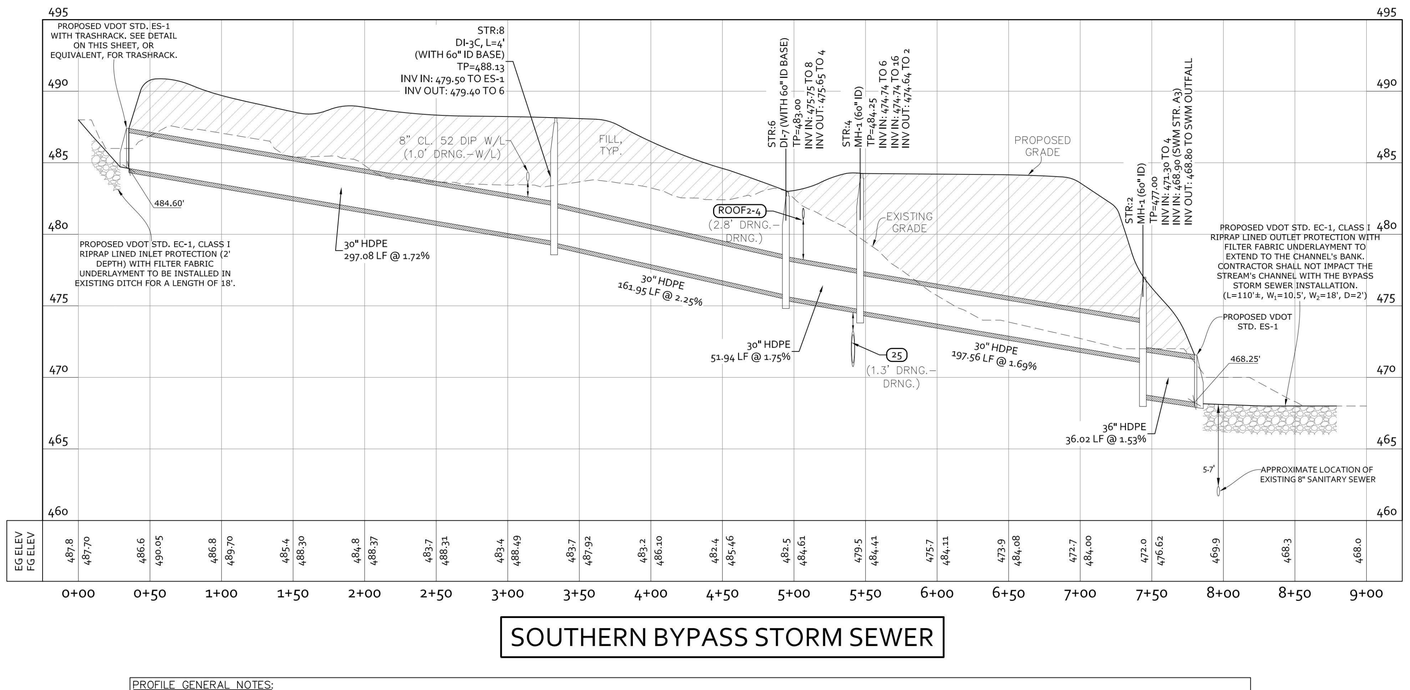


STR. 36B - STR 36

DRAINAGE DESIGN APPROVED UNDER SUB2021-00179: GALAXIE FARM ROAD & UTILITY PLAN. PLAN SHEETS PROVIDED WITH THIS SITE PLAN FOR INFORMATIONAL PURPOSES ONLY.

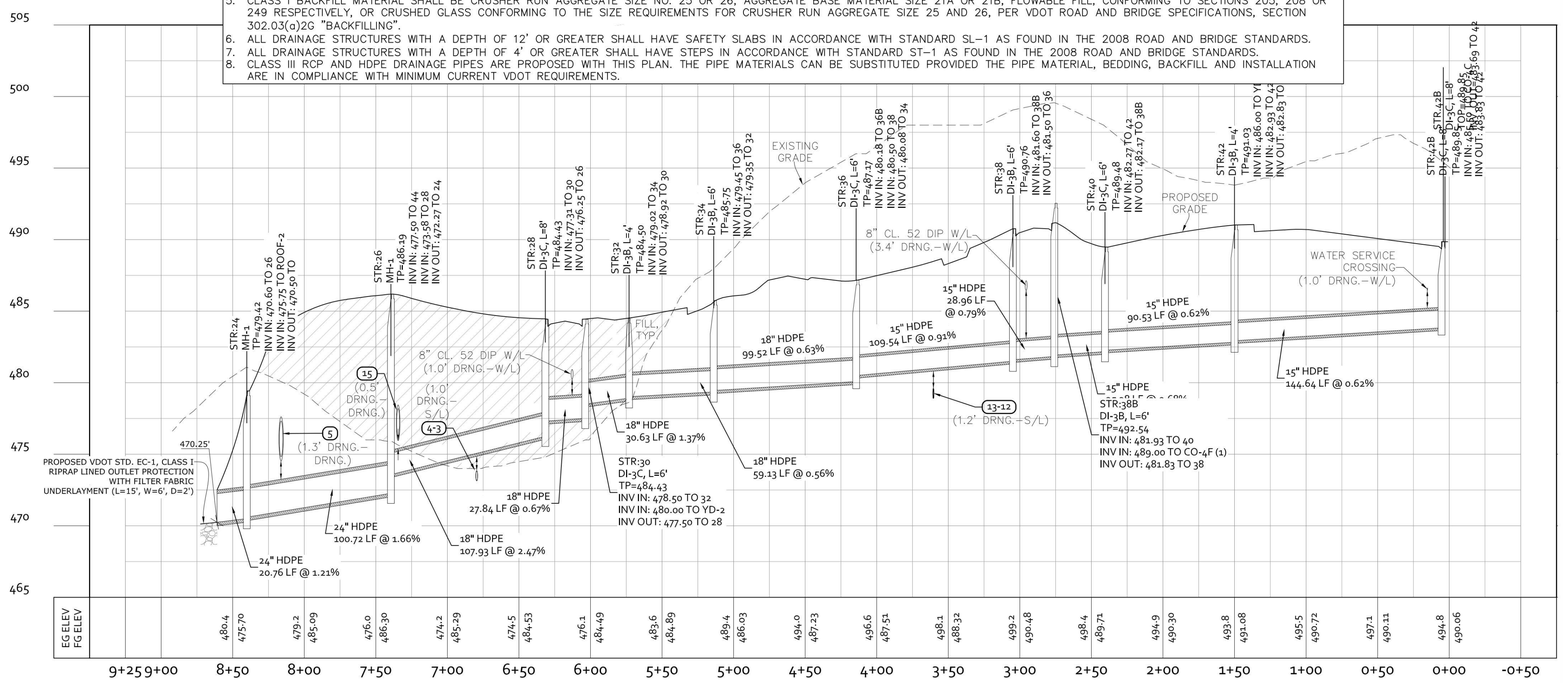
HORIZONTAL GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

VERTICAL GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.



SOUTHERN BYPASS STORM SEWER

PROFILE GENERAL NOTES:
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STR. 42B - SWM FACILITY

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
10/17/22

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

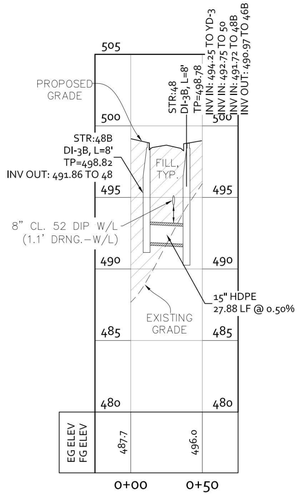
COLLINS ENGINEERING
200 GARRETT STREET SUITE K - CHARLOTTESVILLE, VA 22902 - 434.293.3719

GALAXIE FARM - FINAL SITE & ARB PLAN
DRAINAGE PROFILES

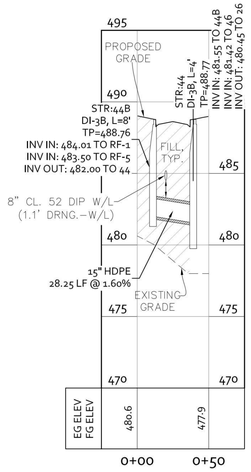
PROJECT
JOB NO. 202194
SCALE 1"=5' (V) 1"=50' (H)
SHEET
SHEET NO. 14

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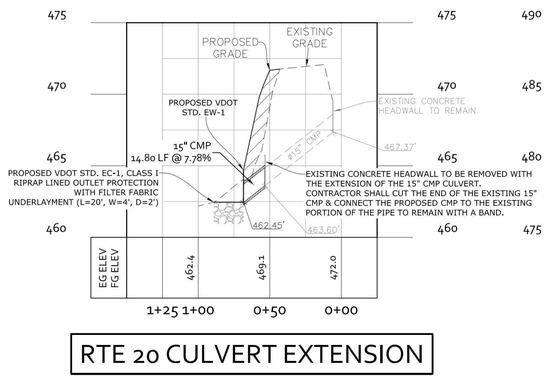
DRAINAGE DESIGN APPROVED UNDER SUB2021-00179: GALAXIE FARM ROAD & UTILITY PLAN. PLAN SHEETS PROVIDED WITH THIS SITE PLAN FOR INFORMATIONAL PURPOSES ONLY.



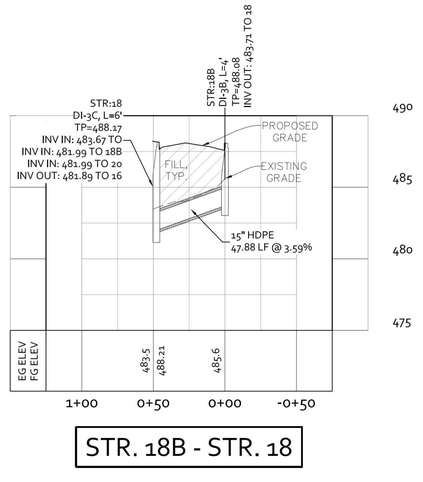
STR. 48B - STR 48



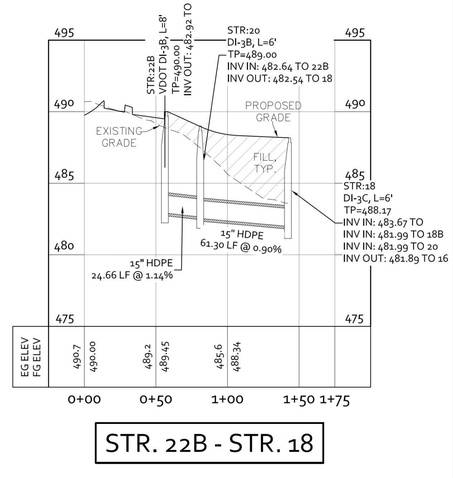
STR. 44B - STR 44



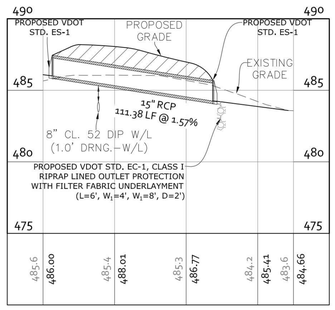
RTE 20 CULVERT EXTENSION



STR. 18B - STR. 18



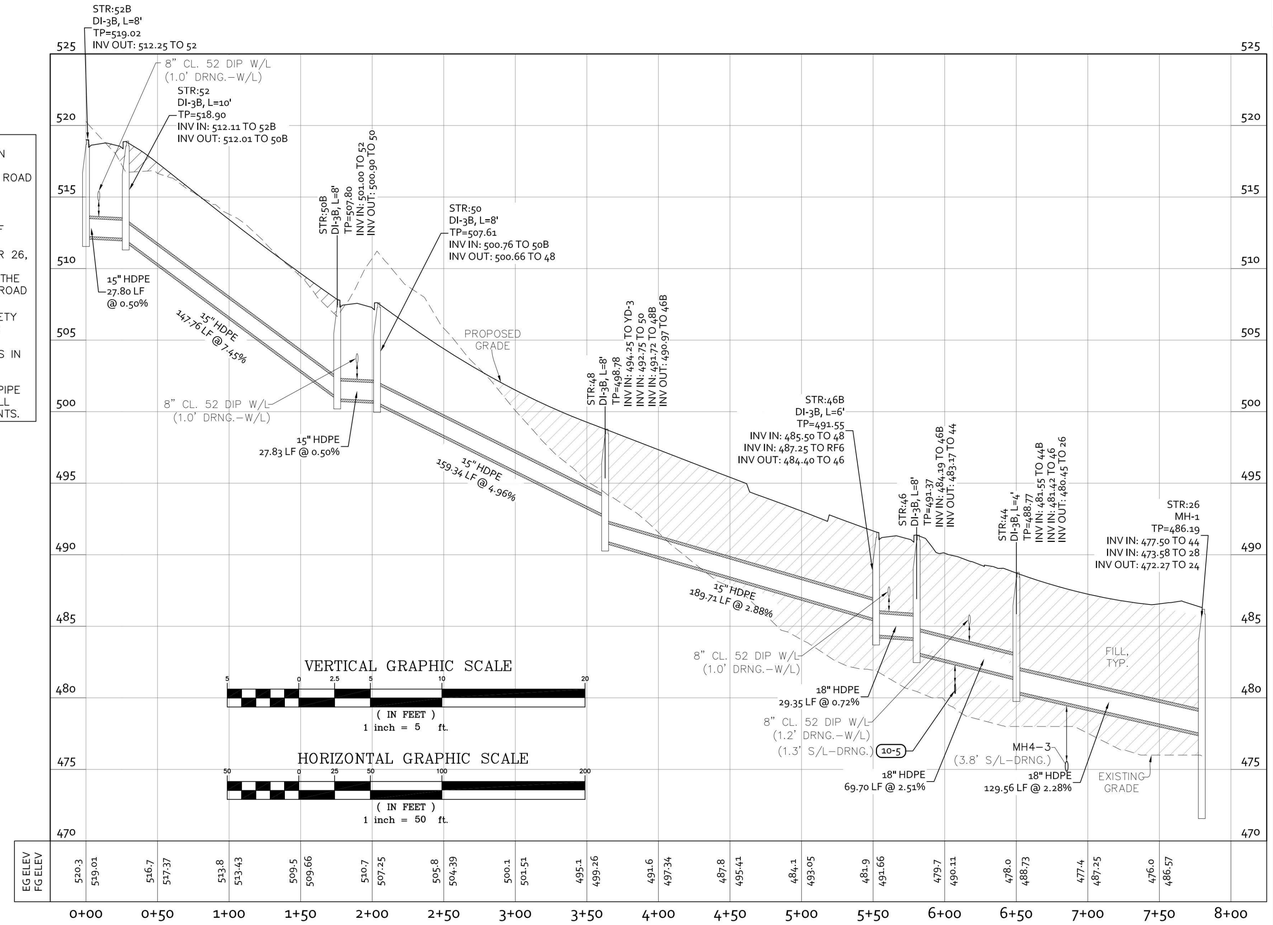
STR. 22B - STR. 18



VERA RUBIN PLACE CULVERT

PROFILE GENERAL NOTES:

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STR. 52B - STR 26

LD-269
Rev. 3-83

Project Galaxie Farm Vera Rubin Place Culvert	Plan Sheet No. ____ Designer FGM, PE Rev. Date ____ Date 8/20/21	Sheet 1 of 1

HYDROLOGICAL DATA
D.A.= 1.80 ac.

Cw = 0.40, Tc = 17 min., I_{10} = 4.3 in/hr and I_{25} = 4.8 in/hr

STATION:

AHW Controls
100 yr. Flood plain ____ elev. ____
Design AHW depth ____ elev. ____
Structures ____ elev. ____

freq. TWelev.
= ____
= ____
= ____
= ____
= ____

Shoulder elev. 488
CL elev. 488.38
Skew 0 °
Cover Varies ft.
Inv. El. 486.00 So= 1.57%
Orig. Gr. Elev. ____ L= 111.38
Inv. El. 484.25
Orig. Gr. Elev. ____

DISCHARGES USED

Q	10	=	3.10 CFS
Q	25	=	3.47 CFS
Q		=	CFS
Q		=	CFS
Q		=	CFS

RISK ASSESSMENT
ADT ____
Detours Available ____ Length ____
Overtopping Stage ____
Flood Plain Management ____
Criteria and Significant Impact ____

CULVERT TYPE & SIZE	Q	Q/B	HEADWATER COMPUTATIONS									CONT. HW. ELEV.	OUTLET VELOCITY		End Treat.	COMMENTS
			INLET CONT.		OUTLET CONTROL											
			HW/D	HW	Ke	dc	(dc+D)/2	ho	H	LSo	HW		C.M.	Smooth		
Proposed 15" RCP Culvert (10 yr)	3.10	3.10	0.62	1.0	0.5	0.6	0.93	0.93	0.55	1.7	-	487.03		6.16	N/A	Inlet Controlled (+1.0') w/ downstream riprap. Velocity (6.23ft/s) is not errosive in concrete pipe & riprap.
Proposed 15" RCP Culvert (25 yr)	3.47	3.47	0.68	1.1	0.5	0.6	0.93	0.93	0.55	1.7	-	487.10		6.36	N/A	Inlet Controlled (+1.1') w/ downstream riprap. Velocity (6.4ft/s) is not errosive in concrete pipe & riprap.

SUMMARY & RECOMMENDATIONS:

Design Flood Exceed. Prob. ____ Elev. ____
Overtop Flood Exceec. Prob. ____ Elev. ____
Base Flood 1% Exceed. Prob. ____ Elev. ____

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
10/17/22
PROFESSIONAL ENGINEER

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

GALAXIE FARM - FINAL SITE & ARB PLAN
DRAINAGE PROFILES

PROJECT
JOB NO. 202194
SCALE 1"=5' (V) 1"=50' (H)
SHEET
SHEET NO. 15

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NOTE:
1. ALL LANDSCAPING SHALL BE INSTALLED BY THE FIRST PLANTING SEASON FOLLOWING THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY WITHIN THE DEVELOPMENT.
2. ALL LANDSCAPING AND SCREENING SHALL BE MAINTAINED IN A HEALTHY CONDITION BY THE CURRENT OWNER OR A PROPERTY OWNERS' ASSOCIATION AND REPLACED WHEN NECESSARY. REPLACEMENT MATERIAL SHALL COMPLY WITH THE APPROVED LANDSCAPING PLAN.

MATCHLINE - SEE SHEET 17

PLANT SCHEDULE:

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY STREET TREES	QUANTITY BUFFER AREAS	QUANTITY OPEN SPACE	QUANTITY TOTAL	CANOPY	TOTAL
CANOPY TREES									
AR	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY' RED MAPLE	2-1/2" cal.		3	13	16	397	6352
ASL	ACER SACCHARUM 'LEGACY'	LEGACY' SUGAR MAPLE	2-1/2" cal.	22			22	214	4708
BN	BETULA NIGRA 'HERITAGE'	HERITAGE' RIVER BIRCH	2-1/2" cal.		3	11	14	397	5558
LSR	LIQUIDAMBAR STYRACIFLUA	ROTUNDILOBA 'AMERICAN SWEETGUM'	2-1/2" cal.	23			23	249	5727
LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	2-1/2" cal.			12	12	387	4644
NS	NYSSA SYLVATICA	BLACK GUM	2-1/2" cal.			5	5	151	755
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	2-1/2" cal.			12	12	339	4068
QC	QUERCUS COCCINEA	SCARLET OAK	2-1/2" cal.			13	13	370	4810
QP	QUERCUC PHELLOS	WILLOW OAK	2-1/2" cal.			13	13	419	5447
QS	QUERCUS SHUMARDII	SHUMARD OAK	2-1/2" cal.	23		11	34	372	12648
UAP	ULMUS AMERICANA 'PRINCETON'	PRINCETON' ELM	2-1/2" cal.	20		6	26	464	12064
UNDERSTORY TREES									
AG	AMELANCHIER GRANDIFLORA	SERVICEBERRY	6'-7' ht.			15	15	130	1950
CC	CERCIS CANADENSIS	EASTERN REDBUD	6'-7' ht.			2	2	124	248
CD	CEDRUS DEODAR	DEODAR CEDAR	6'-8' ht.		8	10	18	143	2574
CFA	CORNUS FLORIDA 'APPALACHIAN SPRING'	APPALACHIAN SPRING' DOGWOOD	6'-7' ht.		3	6	9	124	1116
IO	ILEX OPACA	AMERICAN HOLLY	6'-8' ht.		9		9	56	504
JV	JUNIPERUS VIRGINIANA	EASTERN REDCEDAR	4-5' ht.			8	8	16	128
MV	MAGNOLIA VIRGINIANA	SWEET BAG MAGNOLIA	6' ht.			24	24	113	2712
PA	PICEA ABIES	NORWAY SPRUCE	6'-8' ht.		9		9	41	369
PT	PINUS TAEDA	LOBLOLLY PINE	4-5' ht.				0	207	0
								TOTAL	76382

LANDSCAPE CALCULATIONS

SITE TREE COVERAGE	
REQUIREMENT: CANOPY COVER AT 10 YEARS EQUALS OR IS GREATER THAN 20% OF GROSS SITE AREA	
GROSS SITE AREA	581,692 SF
less GREENWAY AREA	129,095 SF
less RECREATIONAL AREA & OPEN SPACE	71,936 SF
TOTAL DEVELOPMENT AREA	380,661 SF
TOTAL TREE CANOPY REQUIRED	76,133 SF
TOTAL TREE CANOPY PROVIDED	76,382 SF
STREETSCAPE TREES	
REQUIREMENT: 1 LARGE TREE PER 50 FEET OF PUBLIC ROAD FRONTAGE OR 1 MEDIUM TREE PER 40 FEET OF PUBLIC ROAD FRONTAGE	
STREET FRONTAGE ALONG GALAXIE FARM LANE	1,371 LF
REQUIRED STREET TREES	27
PROPOSED STREET TREES	32
STREET FRONTAGE ALONG MARY JACKSON COURT	2,497 LF
REQUIRED STREET TREES	50
PROPOSED STREET TREES	45
STREET FRONTAGE ALONG MARIE CURIE COURT	585 LF
REQUIRED STREET TREES	11
PROPOSED STREET TREES	11

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

AR UAP
ASL AG
BN CC
LSR CD
LT CFA
NS IO
QB JV
QC MV
QP PA
QS

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
10/17/22
PROFESSIONAL ENGINEER

REVISIONS

REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

PROJECT: GALAXIE FARM - FINAL SITE & ARB PLAN
SHEET: LANDSCAPING PLAN
JOB NO. 202194
SCALE 1" = 30'
SHEET NO. 16

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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 served;
   - ☑ 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:**
   - ☑ Trash 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:**
   - ☑ Where 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:**
    - ☑ Where 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.

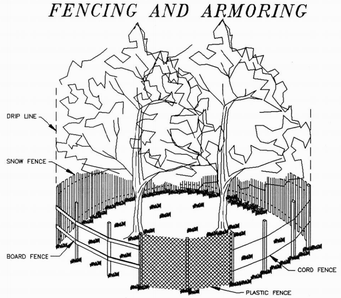
NOTE: IT IS THE DEVELOPER'S RESPONSIBILITY TO CONFER WITH THE CONTRACTOR ON TREE CONSERVATION REQUIREMENTS.

11/17/2022
OWNER SIGNATURE (DATE)

CONTRACT PURCHASER SIGNATURE (DATE)

5/1/06 Page 1 of 1

FENCING AND ARMORING



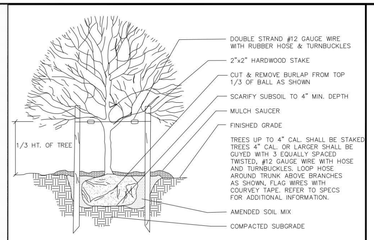
CORRECT METHODS OF TREE FENCING



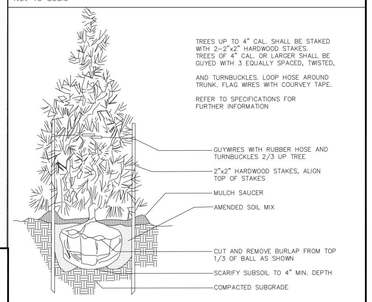
TRIANGULAR BOARD FENCE



CORRECT TRUNK ARMORING



Tree Planting and Staking Detail
Not To Scale



Evergreen Tree Planting Detail
Not To Scale

CONSERVATION PLAN NOTES:

1. ALL TREES TO BE PRESERVED AND PROTECTED SHALL BE MARKED WITH PAINT OR RIBBON AT A HEIGHT CLEARLY VISIBLE TO EQUIPMENT OPERATORS. NO LAND DISTURBING ACTIVITY SHALL BEGIN UNTIL THE TREE MARKING HAS BEEN INSTALLED BY THE CONTRACTOR AND INSPECTED AND APPROVED BY THE COUNTY ENGINEERING DEPARTMENT.
2. HEAVY EQUIPMENT, VEHICULAR TRAFFIC, AND THE STORAGE OF CONSTRUCTION MATERIALS AND SOIL SHALL NOT BE PERMITTED WITHIN THE OUTSIDE DRIPLINE OF TREES TO BE PRESERVED AND PROTECTED.
3. TEMPORARY EROSION CONTROL MEASURED AND/OR PERMANENT STORMWATER MANAGEMENT FACILITIES LOCATIONS SHALL BE COORDINATED SUCH THAT THEY SHALL NOT ADVERSELY AFFECT TREES TO BE PRESERVED AND PROTECTED.
4. FIRES SHALL NOT BE PERMITTED WITHIN 100 FEET OF THE OUTSIDE DRIPLINE OF TREES TO BE PRESERVED AND PROTECTED.
5. TOXIC MATERIALS SHALL NOT BE STORED WITHIN 100 FEET OF THE OUTSIDE DRIPLINE OF TREES TO BE PRESERVED AND PROTECTED.
6. NO LAND DISTURBING ACTIVITY SHALL BEGIN UNTIL THE TREE PROTECTIVE FENCING HAS BEEN INSTALLED BY THE CONTRACTOR AND INSPECTED AND APPROVED BY THE COUNTY ENGINEERING DEPARTMENT.
7. WHEN TRENCHING FOR ANY KIND OF UNDERGROUND WATER, SEWER, ELECTRICAL, CABLE, TELEPHONE, OR OTHER UTILITY SERVICE IS NECESSARY WITHIN THE LIMITS OF TREE PROTECTION OR BEYOND THE LIMITS OF CLEARING, THE SEPARATION FROM THE TRUNKS OF TREES SHALL BE MAXIMIZED TO THE FURTHEST EXTENT POSSIBLE. TUNNELING SHALL BE REQUIRED WHEN DEEMED, BY THE COUNTY ENGINEER, THAT TRENCHING WILL SIGNIFICANTLY DAMAGE FEEDER ROOTS OF TREES TO BE PRESERVED AND PROTECTED.
8. ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM OF ANY TREE TO BE PRESERVED AND PROTECTED SHALL BE REPAIRED IMMEDIATELY, IN ACCORDANCE WITH THE PRACTICES IN THE EROSION AND SEDIMENT CONTROL HANDBOOK. CARE FOR SERIOUS INJURIES SHALL BE PRESCRIBED BY A PROFESSIONAL FORESTER OR TREE SPECIALIST.
9. SOILS WHICH HAVE BEEN COMPACTED, OVER THE ROOT ZONES OF TREES TO BE PRESERVED AND PROTECTED, SHALL BE AERATED BY PUNCHING HOLES WITH AN IRON BAR EVERY 18" OVER THE ROOT ZONE. THE BAR SHALL BE DRIVEN 12" DEEP AND MOVED BACK AND FORTH IN EACH HOLE UNTIL SOIL IS LOOSENED.
10. TREE PROTECTIVE MEASURES SHALL BE THE LAST OF THE TEMPORARY EROSION CONTROL PLAN MEASURES REMOVED DURING THE FINAL CLEAN-UP.

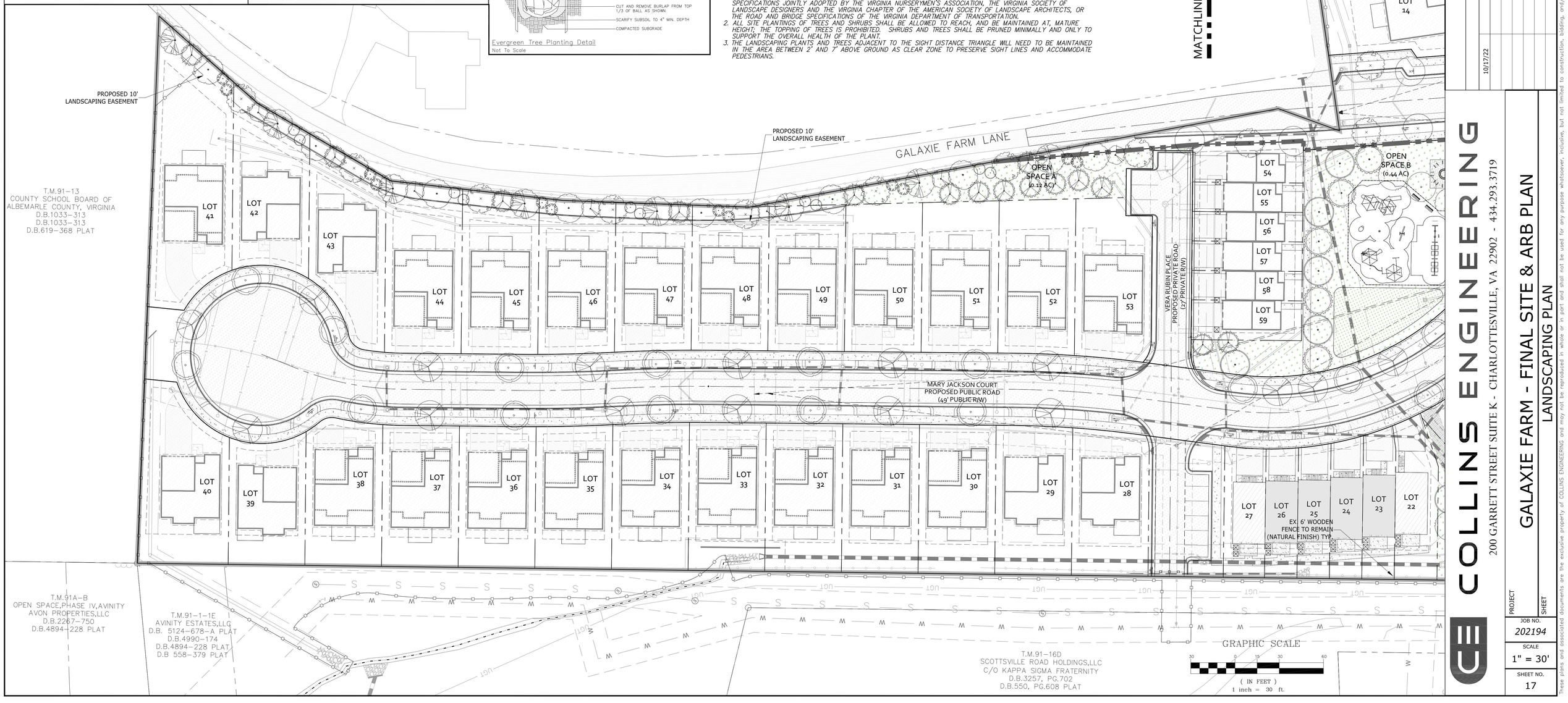
T.M.91-11
SCHOOL BOARD COUNTY OF ALBEMARLE, VIRGINIA
D.B. 5258-620
D.B.1979-46 & 47 PLAT

Landscape Notes

NOTES:

1. *ALL TREES TO BE PLANTED SHALL MEET THE SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF NURSERYMEN. THE PLANTING OF TREES SHALL BE DONE IN ACCORDANCE WITH EITHER THE STANDARDIZED LANDSCAPE SPECIFICATIONS JOINTLY ADOPTED BY THE VIRGINIA NURSERYMEN'S ASSOCIATION, THE VIRGINIA SOCIETY OF LANDSCAPE DESIGNERS AND THE VIRGINIA CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS, OR THE ROAD AND BRIDGE SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION.*
2. *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.*
3. *THE LANDSCAPING PLANTS AND TREES ADJACENT TO THE SIGHT DISTANCE TRIANGLE WILL NEED TO BE MAINTAINED IN THE AREA BETWEEN 2' AND 7' ABOVE GROUND AS CLEAR ZONE TO PRESERVE SIGHT LINES AND ACCOMMODATE PEDESTRIANS.*

MATCHLINE - SEE SHEET 16



COMMONWEALTH OF VIRGINIA
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REVISIONS

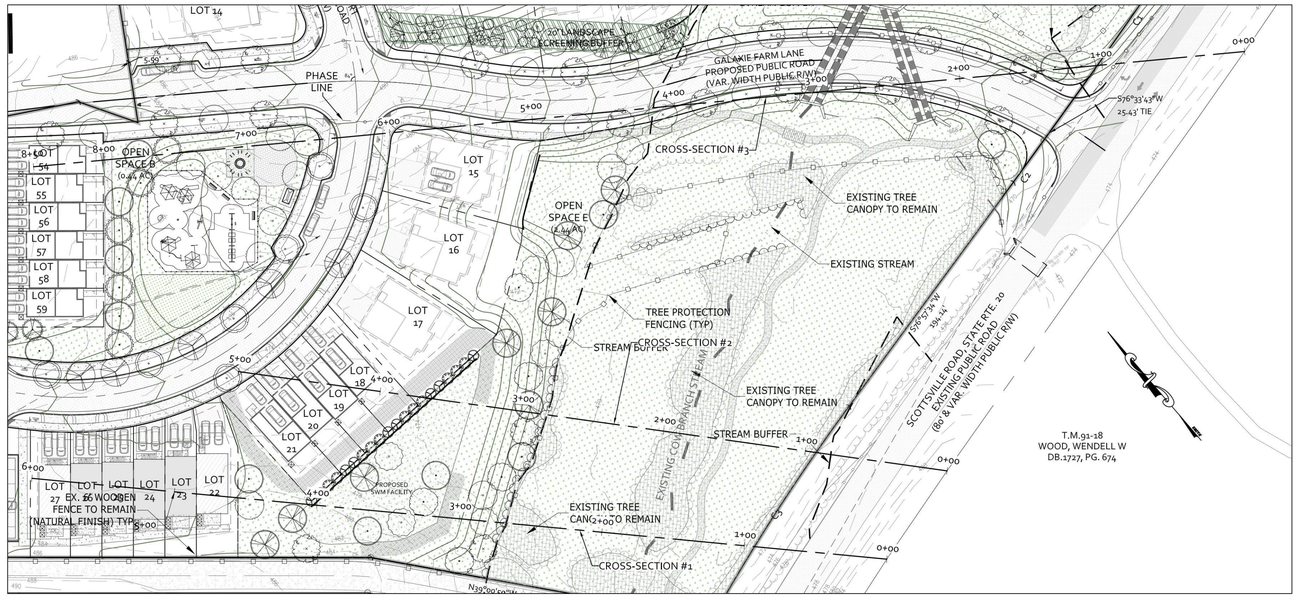
REVISION DESCRIPTION	
INITIAL SUBMITTAL - FINAL SITE PLAN	10/17/22

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

PROJECT
GALAXIE FARM - FINAL SITE & ARB PLAN
SHEET
LANDSCAPING PLAN

JOB NO. 202194
SCALE 1" = 30'
SHEET NO. 17

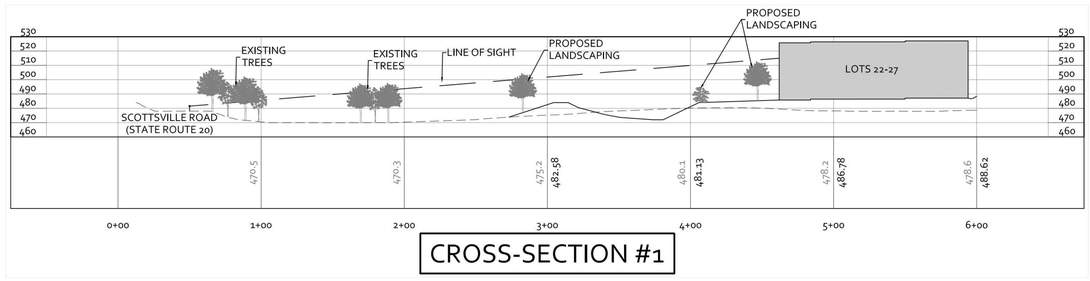
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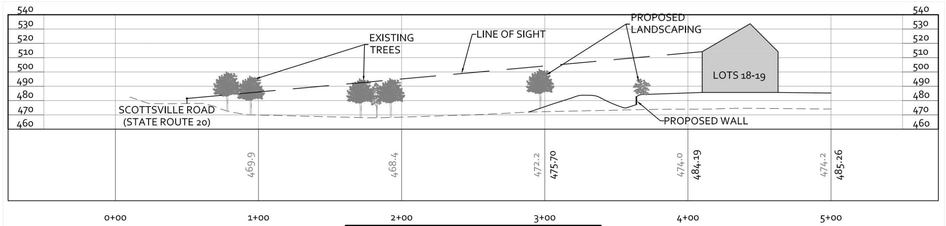
GRAPHIC SCALE

50 0 25 50 100 200

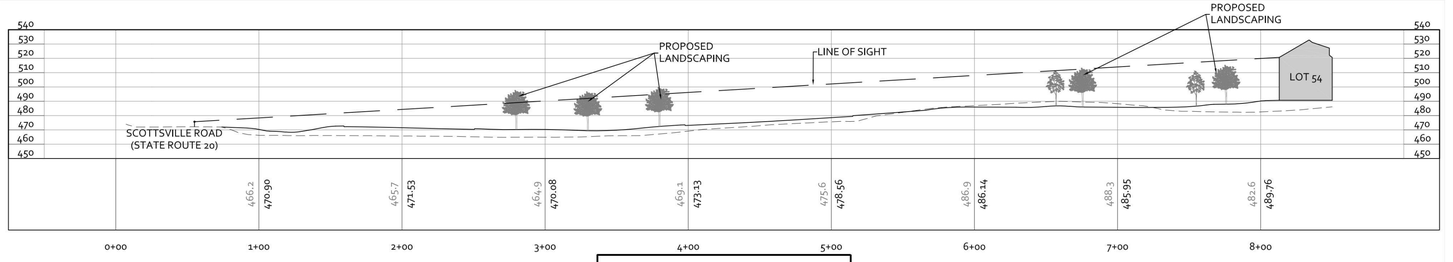
(IN FEET)
1 inch = 50 ft.



CROSS-SECTION #1



CROSS-SECTION #2



CROSS-SECTION #3

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GALAXIE FARM - FINAL SITE & ARB PLAN

SITE CROSS-SECTIONS

PROJECT

JOB NO. 202194

SCALE 1" = 50'

SHEET NO. 18

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