



TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.

ENGINEERING FIRM:

TIMMONS GROUP

5401 TRINITY RD, SUITE 102

RALEIGH | NC 27607



HARPER PRESERVE

PUD SUBMITTAL
PREPARED FOR:
TOWN OF KNIGHTDALE
APRIL, 2022

Vision & Intent

Section 12.F.3.g of the Knightdale Unified Development Ordinance states that a Planned Unit Development Overlay district rezoning is a privilege and shall be considered by the Town based on the aggregated incremental benefits that the specific subdivision plans provide that over an above the standard zoning requirements. In return for the flexibility that the Planned Unit Development designation Harper Preserve's design has been based on the following:

Exceptional Amenities

- Harper Preserve includes traditional modern high-end amenities such as pool, clubhouse, playground, and fire pit, but also preserves and incorporates natural features found on the property like open fields, streams, and ponds. Trails not only enable pedestrian connectivity throughout various sections of the community, but serve as conduits for residents to enjoy the natural elements distributed throughout. Active open spaces are flexible community gathering spaces accommodating a wide array of uses.

Outstanding Site Design

- The layout of Harper Preserve seamlessly integrates various dwelling types into the beautiful landscape and a series of collector roads that fulfill the Town's Transportation Plan's goal of connecting parts of southeastern Knightdale. Rather than a discrete subdivision, Harper Preserve is designed to feel more like organic urban residential growth that occurred prior to the post World War II era. Preliminary designs for adjacent parcels were also developed to ensure that Harper Preserve fits into a larger design language for the area. The majority of the dwellings have rear-entry garages, places an emphasis on the person, not the car. This technique removes barriers to a sense of community, even in one as diffuse as Harper Preserve.

Conservation of Special Site Features

- The +/-94 acres of Harper Preserve includes some beautiful natural features such Poplar Creek, and its tributaries, and nearly a 6-acre lake. Not only are these elements retained for the enjoyment of the residents, they are fully integrated into the design of the development, creating a sense of space unique to Knightdale.

Ensure Compatibility with Surrounding Land Uses and Neighborhood Character

- Harper Preserve is a residential development located in a residential area of the Town of Knightdale and is compatible with existing and planned uses for the surrounding parcels. Harper Preserve is a natural extension of Knightdale Station and The Collection.

Ensure the Creation of Mixed-Density Neighborhoods, Neighborhood Nodes, and Mixed Use Centers

- Harper Preserve is a Mixed Density Neighborhood with multiple dwelling types, lots sizes, and price points to ensure diversity and appeal to a broad array of home buyer.

Consistency with KnightdaleNext 2035 Comprehensive Plan & Growth Framework Map

- Harper Preserve is located within the Targeted Investment Area of the Growth Framework Map in the 2035 Comprehensive Plan, and as such, the design encourages active living with a comprehensive network of walkable streets. Compact design is a feature of the community, though, not at the expense of natural and large outdoor gathering areas.

Growth and Conservation Map

- Consistent with the Growth, Conservation Map, and located within the mixed-density neighborhood focus area, Harper Preserve is a Mixed-Density Neighborhood with mixed housing types and densities. Product types differ depending on whether they are on one of the new collector roads running through the development, backing up to a neighboring parcel, or adjacent one of the many preservation areas. The neighborhood contains a network of open spaces, trails, and natural preservation areas, a primary feature of Mixed-Density Neighborhoods.

SITE DATA TABLE

PROJECT:	HARPER PRESERVE
ENGINEER:	TIMMONS GROUP BETH BLACKMON, PE 5410 TRINITY ROAD, STE. 102 RALEIGH, NC 27607 PHONE: (919) 866-4509 FAX: (919) 859-5663 EMAIL: BETH.BLACKMON@TIMMONS.COM
DEVELOPER:	OLD EAST PROPERTIES MARK EISENBEIS 16 W MARTIN ST, SUITE 805 RALEIGH, NC 27081 PHONE: (919) 825-1135 EMAIL: MARK@OLDEASTPROPERTIES.COM
LAND OWNER:	CHARLES R HARPER & JOHN SCOTT HARPER 1032 FAYETTEVILLE ST KNIGHTDALE, NC 27545
TAX ID:	1754-51-9021 & 1754-60-7948
DEED REFERENCE:	DB. 16875 PG. 2694
TOWNSHIP:	ST. MATTHEW'S
EXISTING ZONING:	RT
CURRENT USE:	SINGLE-FAMILY RESIDENTIAL & VACANT
PROPOSED USE:	SINGLE-FAMILY RESIDENTIAL
PROPOSED ZONING:	GR-3 PUD GENERAL RESIDENTIAL-3 (GR-3), PUD (PLANNED UNIT DEVELOPMENT)
TOTAL PROJECT AREA:	94.1 ACRES
PROPOSED DENSITY:	2.42 DU/A
RIVER BASIN:	NEUSE
SURFACE WATER CLASSIFICATION:	C; NSW
WATERSHED:	NONE
FIRM PANEL #:	3720175400J

FRONT LOAD SINGLE FAMILY LOT STANDARDS:	MINIMUM LOT SIZE: 7,000 SF LOT WIDTH: 60' FRONT SETBACK: 10' DRIVEWAY LENGTH: 20' SIDE SETBACK: 5' CORNER SIDE SETBACK: 10' REAR SETBACK: 20'
REAR LOAD SINGLE FAMILY LOT STANDARDS:	MINIMUM LOT SIZE: 4,100 SF LOT WIDTH: 38' FRONT SETBACK: 10' SIDE SETBACK: 3' CORNER SIDE SETBACK: 10' REAR SETBACK: 20' DRIVEWAY LENGTH: 20'
REAR LOAD TOWNHOME LOT STANDARDS:	MINIMUM LOT SIZE: 1,980 SF LOT WIDTH: 22' FRONT SETBACK: 10' BUILDING SEPARATION: 10' REAR SETBACK: 20' DRIVEWAY LENGTH: 20'

SETBACKS AND DRIVEWAYS

Section 3.4 of the Knightdale UDO requires that any lot less than 80' in width be accessed via an alley or rear lane access. Additionally, the Section 6.5 of the UDO requires that side setbacks be a minimum of 20% of the lot width (to a minimum of 6'), and driveway length be a minimum of 35'. An exception to these requirements is requested to allow the minimum lot width standard to be reduced to 60', side setbacks be reduced to 5', rear setback be reduced to 20', and driveway lengths be reduced to a minimum of 20' to be adequately developed within the site constraints. Per Section 3.4, Knightdale requires townhomes to have a minimum driveway length of 35'. An exception to this requirement is requested to allow townhome driveways to be reduced to 20'.

GENERAL SITE MODIFICATIONS

9.3.B of the knightdale unified development ordinance prohibits mass grading on all front-loaded lots 60' or greater in width. All rear loaded units included in this PUD are exempt from this requirement by right, due to their narrow lot width. The single family lots not exempt, include 30% of the total number of lots. An exception to these requirements is requested to allow for the entire development to be eligible for mass grading, rather than only portions of the development. This exemption would allow for a more efficient construction process.

DISTRIBUTION OF USES

Table 11.1.B in the Knightdale UDO requires a Min. 10% / Max. 40% Duplex / Townhouse, Min. 5% / Max. 40% Multifamily, and Min. 15% / Max. 60% Single Family. An exception to these requirements is requested to exclude the requirement for Multifamily use and an increased percentage of single family.

FUTURE BROADWAY STREET CONNECTION

If the parcel required to complete the connection to Broadway Street is not available to the developer at the time of permitting the developer shall pay the Town of Knightdale a fee in lieu of road completion in an amount mutually agreed upon by the developer and the Town of Knightdale.

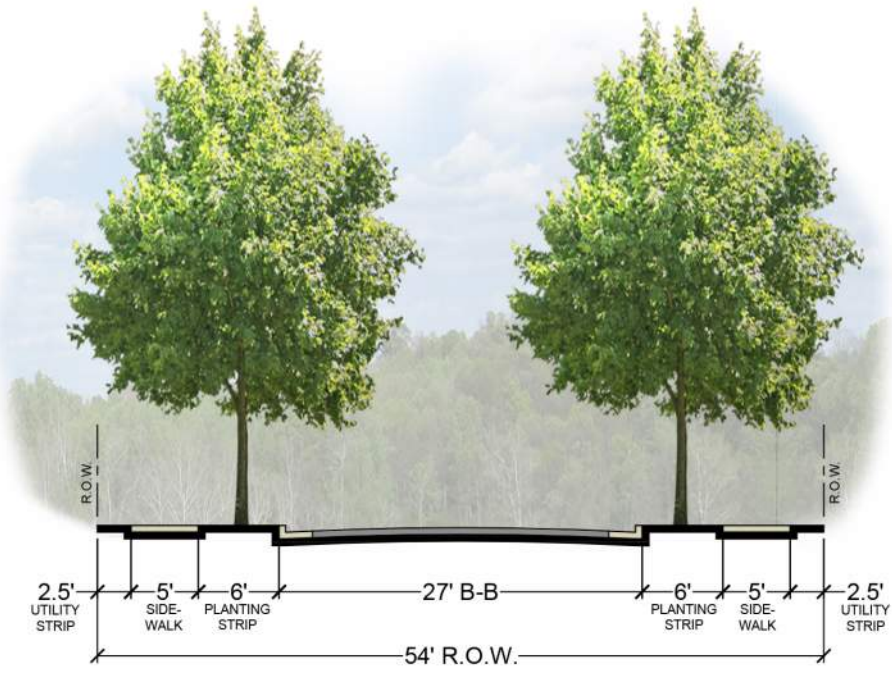


COMMUNITY MASTER PLAN

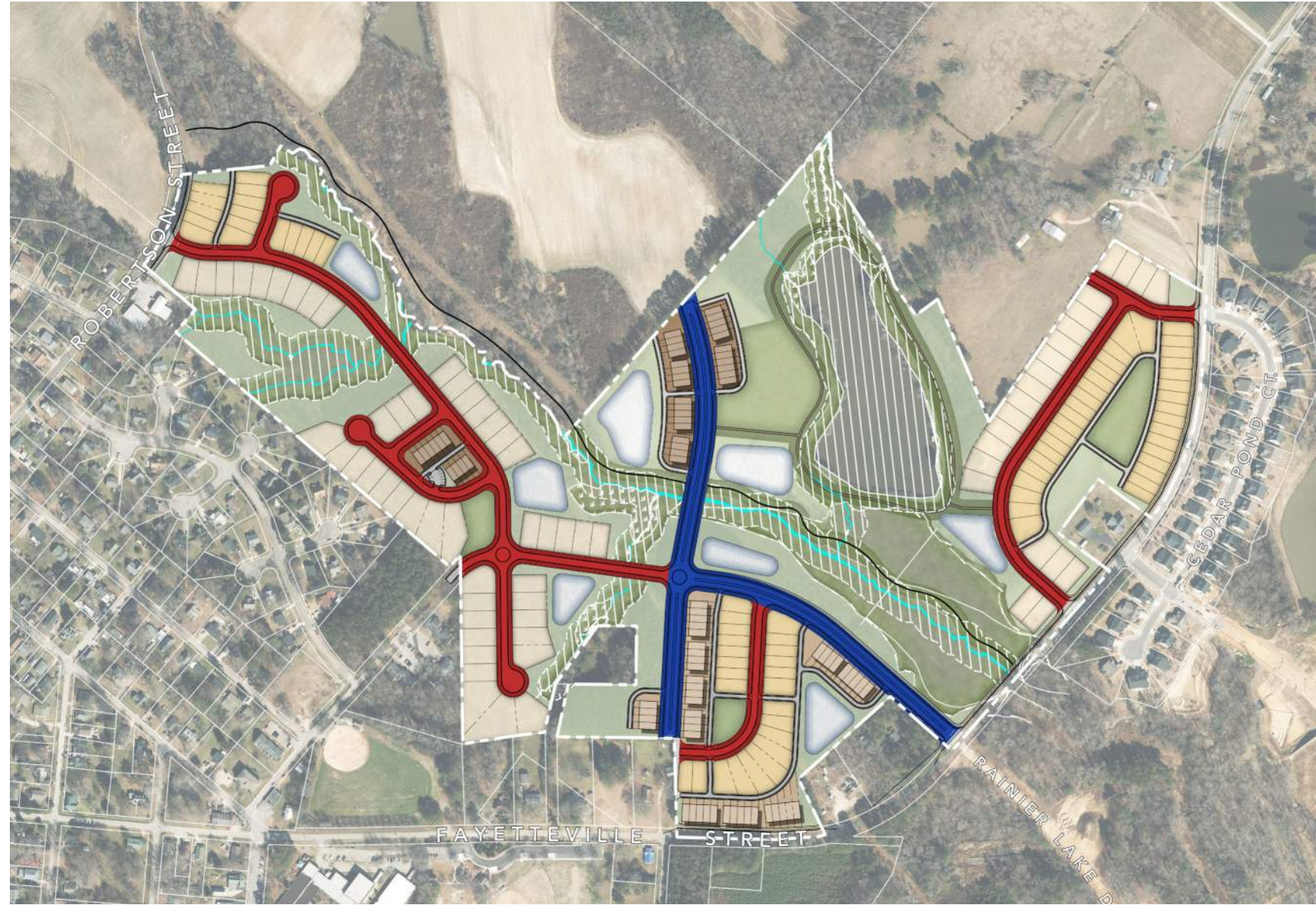
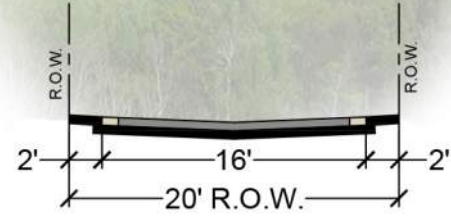


SITE DATA:	
TOTAL AREA	94.1 +/- AC
R.O.W. RESERVATION	0.2 +/- AC
NET AREA	93.9 +/- AC
22' X 90' REAR-LOAD TOWNHOMES	38
24' X 90' REAR-LOAD TOWNHOMES	45
38' X 110' REAR-LOAD SINGLE FAMILY	76
60' X 120' SINGLE FAMILY	69
TOTAL UNITS	228
PASSIVE OPEN SPACE REQUIRED	2.2 +/- AC
PASSIVE OPEN SPACE PROVIDED	5.3 +/- AC
ACTIVE OPEN SPACE REQUIRED	2.2 +/- AC
ACTIVE OPEN SPACE PROVIDED	4.1 +/- AC
STORMWATER MANAGEMENT	4.3 +/- AC
CONNECTIVITY RATIO	1.7

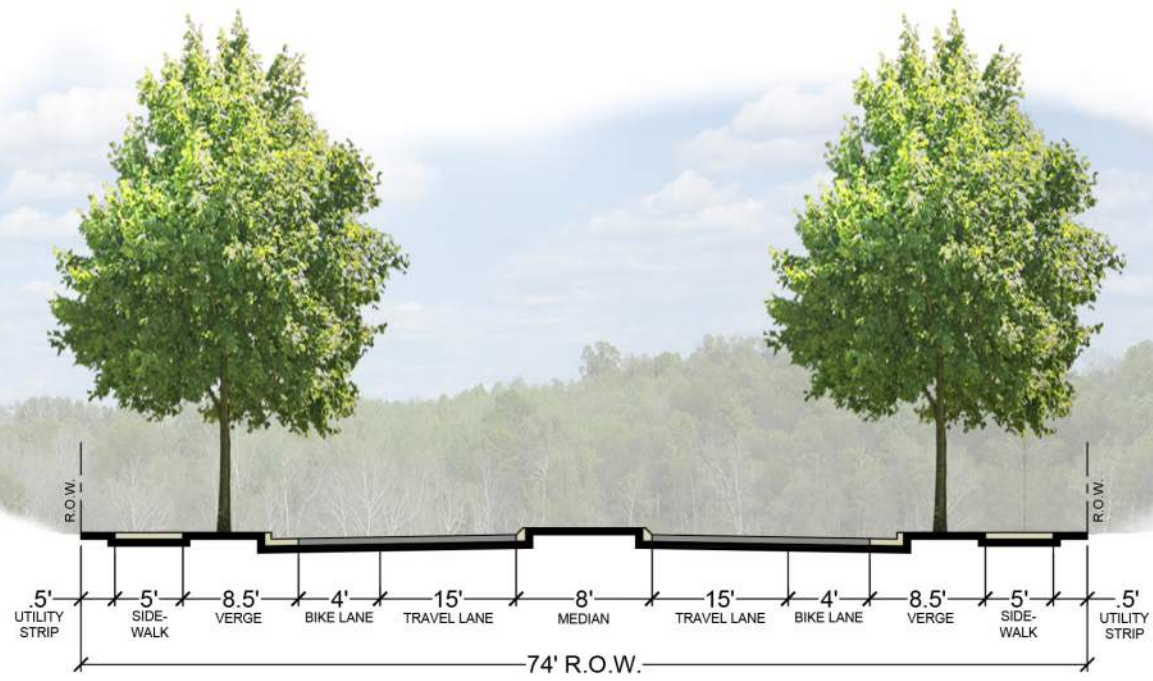
SECTION 1



TYP. RESIDENTIAL ALLEY



SECTION 2



TOWNHOMES - 22'/24' X 90' LOTS

HAWTHORNE



POMELO



TWINBERRY



RESIDENTIAL PRODUCT

SINGLE FAMILY HOMES - 38' X 110' LOTS

FRITZ



JONESY



OLIVER



SYLVESTER



RESIDENTIAL PRODUCT

SINGLE FAMILY HOMES - 60' X 120' LOTS

RIVERBIRCH



ROOSEVELT



TOPSAIL



WILMINGTON



RESIDENTIAL PRODUCT

Townhouse Architectural Standards

- All townhouse units will have alley-loaded garages.
- All townhouse units shall be raised from the finished grade a minimum of 18" and have stem wall or raised slab foundations that shall be covered on all sides with brick, stone, or stucco. Areas under porches may be enclosed with lattice.
- All townhouse units will have a combination of two or more of the following materials on the front facade (not counting the foundation): stone, brick, lap siding, fiber cement siding, shake or board and batten. All siding will be fiber cement. Vinyl may be used for soffits, fascias, and corner boards.
- Usable front porches shall be at least five (5) feet deep and extend more than 30% of the primary facade.
- All townhouse units shall provide detailed design elements using at least one (1) of the features from each of the four categories below:

Entrance

- Recessed entry with 6" minimum width door trim
- Covered porch with 6" minimum width pillars/posts/columns

Building Offset

- Facade offset
- Roofline offset

Roof

- Donner
- Gable
- Cupola/Tower/Chimney
- Decorative cornice of roof line (flat roof only)

Facade - at least two (2) of the following elements:

- Bay window
- Balcony
- Porch
- Shutters
- Window trim with 4" minimum width
- Patterned finish (scales, shakes, wainscoting, brick, or stone)

- There shall be a 12" overhang on every gable roof end.
- Townhouse building walls shall be wood clapboard, cement fiber board or shingle, wood board and batten, brick, or stone.
- Main roofs on townhouse buildings shall have a pitch between 6:12 and 12:12. Monopitch (shed) roofs are allowed only if they are attached to the wall of the main building. Monopitch roofs shall have a pitch of at least 3:12.
- For every second and third story of the side elevations, there shall be a minimum of three windows added to the side elevation. Any siding break on the side of the home such as a fireplace or wall offset can be used as an alternate to a window. On the ground floor there shall be a minimum of one window on the side elevations.
- The second and third stories of the rear elevation shall have either a balcony and door(s) or windows making up a minimum of 25% of the length of the rear elevation. The percentage is measured as the horizontal plane (lineal feet) containing a balcony and door(s) or windows divided by the total horizontal plane length.
- No two townhouse units in a building shall have the same exterior paint color scheme.

Single Family Architectural Standards

- Single-family 2-story homes built on lots at least 60-feet wide will have a minimum of 2,000 square feet and 1-story homes on such lots will be a minimum of 1,600 square feet. Lots that are at least 60-feet wide will have front-loaded two car garages.
- Single-family homes built on lots less than 60-square feet will have a minimum of 1,450 square feet and have alley-loaded garages.
- All single-family homes shall be raised from the finished grade a minimum of 18" and shall have stem wall or raised slab foundations that shall be covered on all sides with brick, stone, or stucco. Areas under porches may be enclosed with lattice.
- All single-family homes with a crawl space will be wrapped in brick or stone on all sides.
- All single-family homes will have a combination of two or more of the following materials on the front facade (not counting the foundation): stone, brick, lap siding, fiber cement siding, shake or board and batten. All siding will be fiber cement. Vinyl may only be used for soffits, fascia, and corner boards.
- All single-family homes will have a front porch with a minimum depth of five (5) feet. Front porch posts will be at least 6"x6".
- Main roof pitches (excluding porches) for 2-story homes shall be at least 8:12.
- There shall be a 12" overhang on every gable roof end.
- Main roof pitches for 1-story and 1.5-story homes will be at least 6:12.
- Garages for lots that are at least 60-feet wide will not protrude more than six (6) feet from the front porch or stoop and all garage doors shall over window inserts and hardware.
- For every linear 30 feet (or fraction) of continuous side elevation, there shall be one window or door added to the side elevation. Any siding break on the side of the home such as a fireplace, porch, wall offset can be used as an alternative to a window or door.
- Garages will not exceed 45% of the front facade width or will be split into two bays.

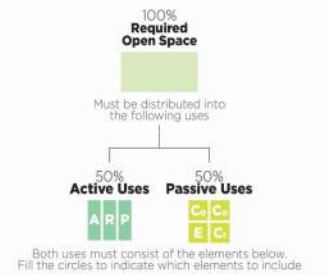


CANOPY SAVE REQUIRED:
 13,921 LF X 20 = 278,420 SF

CANOPY SAVE PROVIDED:
 444,338 +/- SF

TOTAL BEDROOMS:
 145 SF UNITS * 3.5 = 453 BEDROOMS
 83 TH UNITS * 2.5 = 208 BEDROOMS
 TOTAL BEDROOMS = 661

OPEN SPACE CALCULATIONS:
 661 BDRMS. * 260 = 171,860 SF REQUIRED
 PASSIVE OPEN SPACE REQUIRED = 85,930 SF
 PASSIVE OPEN SPACE PROVIDED = 231,340 SF
 ACTIVE OPEN SPACE REQUIRED = 85,930 SF
 ACTIVE OPEN SPACE PROVIDED = 178,527 SF



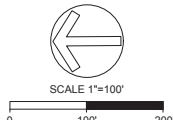
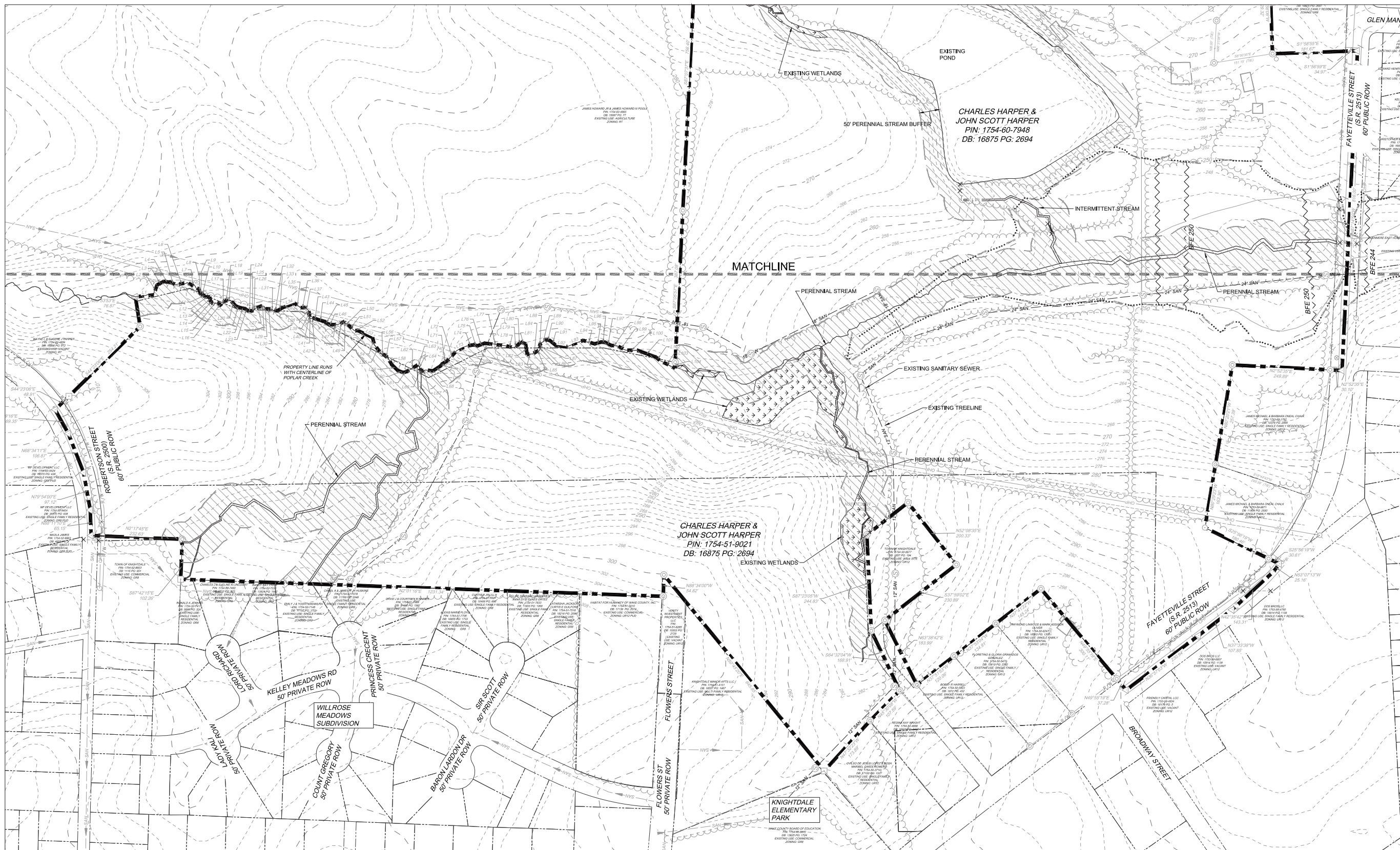
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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (Fill 1 circle below) Community A | (Fill 2 circles below) Community PR |
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Neighborhood Amenities* <input type="checkbox"/> Resort Style Pool <input type="checkbox"/> Clubhouse <input type="checkbox"/> Golf Course | <ul style="list-style-type: none"> <input type="checkbox"/> Pavilions <input type="checkbox"/> Gazebos <input type="checkbox"/> Community Garden <input type="checkbox"/> Permanent Yard Games <input checked="" type="checkbox"/> Fire Pit <input type="checkbox"/> Hardscaped & Landscaped Squares <input type="checkbox"/> Benches and/or seat walls <input type="checkbox"/> Historic Resources* <input checked="" type="checkbox"/> Private Greenway |
| (Fill 1 circle below) Recreation R | (Fill 1 circle below) Environmental E |
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> IPEMA Certified Playground <input type="checkbox"/> Tennis/Pickleball Courts <input type="checkbox"/> Baseball/Softball Field <input type="checkbox"/> Football/Soccer Field <input type="checkbox"/> Multi-Use Hard Court <input type="checkbox"/> Bocce Courts | <ul style="list-style-type: none"> <input type="checkbox"/> Parkways* <input checked="" type="checkbox"/> Preservation of Natural Resources <input type="checkbox"/> Rain Garden <input type="checkbox"/> Constructed Wetland <input type="checkbox"/> Stream Restoration |
| (Fill 1 circle below) Public P | (Fill 1 circle below) Creative C |
| <ul style="list-style-type: none"> <input type="checkbox"/> Public Park Facility <input checked="" type="checkbox"/> Public Greenway <input type="checkbox"/> Public Plaza | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Outdoor Display of Public Art <input type="checkbox"/> Gateway Landscaping or Structure <input type="checkbox"/> Enhanced Roadside Landscaping |

Harper Preserve Allocation Points:

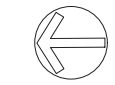
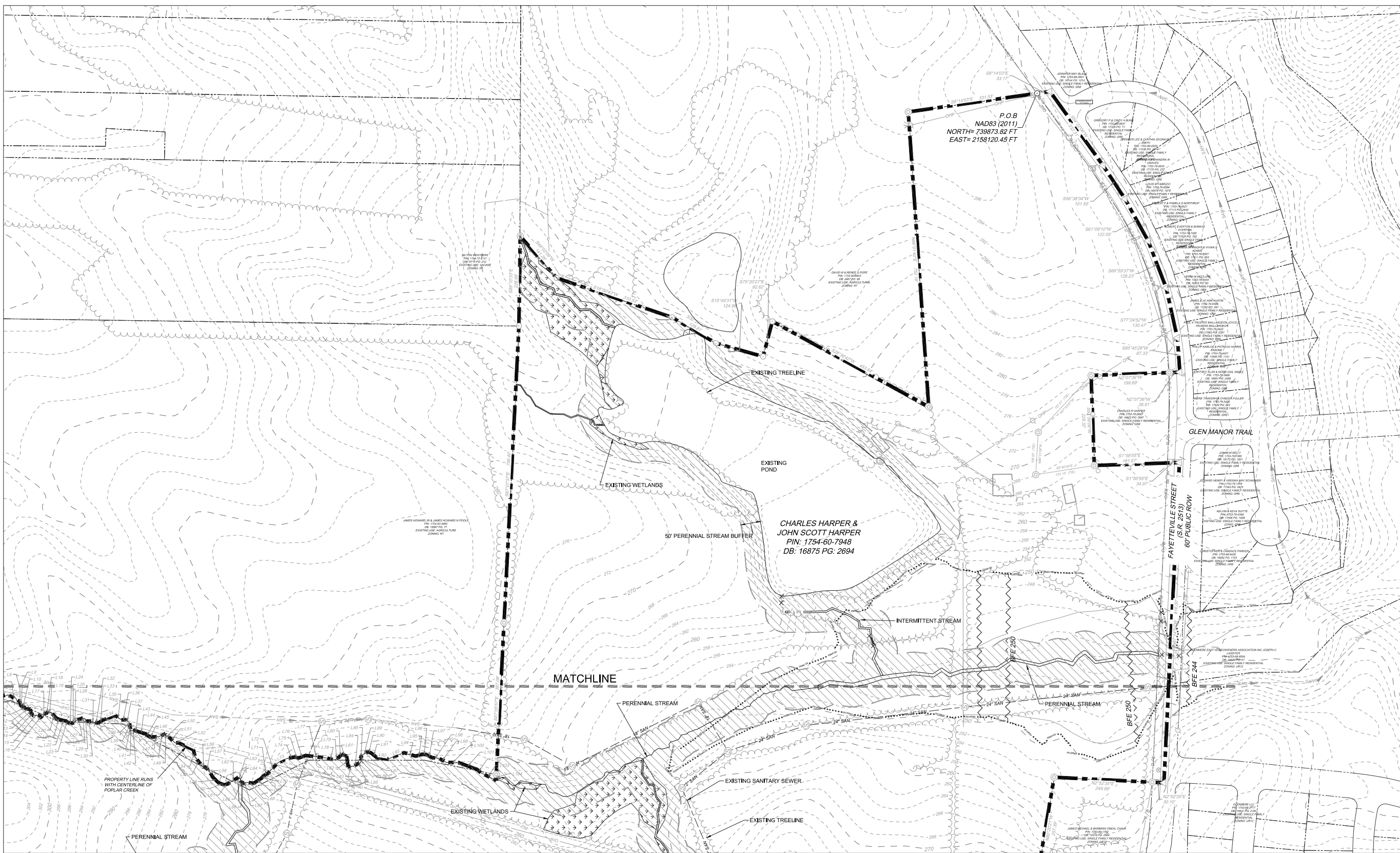
ITEM	POINTS
Major Subdivision	15
Residential Architectural Standards	15
Public Greenway more than 1,000 LF of 10' wide path	4
Outdoor Display of Public Art	4
Clubhouse Space without kitchen 1,500-2,499 square feet	5
Resort Style Pool	2
IPEMA Certified Playground Equipment	4
Private greenway - more than 3000 LF of 6' wide path	3
Total	52



COMMUNITY AMENITIES



EXISTING CONDITIONS



SCALE 1"=100'
0 100' 200'