



Town of Knightdale

Staff Report Cover Sheet

Title: ZMA-11-20 – Preserve at Marks Creek Planned Unit Development

Staff: Kevin Lewis, Senior Planner

Date: June 15, 2022

PURPOSE

- The purpose of this staff report is to provide an overview of a Zoning Map Amendment for the proposed Preserve at Marks Creek Planned Unit Development. Strong Rock Engineering Group, on behalf of Desco Investment Company, Inc., has submitted an application requesting a Zoning Map Amendment to rezone approximately 101.59 acres on Marks Creek Road, identified by Wake County PINs 1765-11-8263, 1765-11-2567, 1765-10-9558, 1765-21-2260, 1765-21-2492, and 1765-21-3753, from Rural Transition to General Residential 3-Planned Unit Development to allow for the construction of a 375-lot residential development.

STRATEGIC PLAN PRIORITY AREA(S)

- Connected & Inclusive

GENERAL STATUTE REFERENCE(S), if applicable

- N.C.G.S. 160D-605

TYPE OF PUBLIC HEARING, if applicable

- Legislative

FUNDING SOURCE(S), if applicable

- N/A

ATTACHMENT(S)

- Staff Report
- Master Plan
- PUD Document with Elevations
- Neighborhood Meeting Information
- Transportation Impact Analysis

STAFF RECOMMENDATION

- Approve ZMA-11-20 and adopt the recommended advisory statement describing plan consistency and reasonableness of action
- Adopt Ordinance #22-06-16-003

Knightsdale Strategic Priorities



Safe



Connected & Inclusive



Sustainable



Active & Healthy



Organizational Excellence



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Title: Preserve at Marks Creek Planned Unit Development (ZMA-11-20)

Staff: Kevin Lewis, Senior Planner

Date: June 15, 2022

Director Signature: JB

Asst. Town Manger Signature:

Town Manager Signature:

I. REQUEST:

Strong Rock Engineering Group, on behalf of Desco Investment Company, Inc., has submitted an application requesting a Zoning Map Amendment to rezone approximately 101.59 acres on Marks Creek Road, identified by Wake County PINs 1765-11-8263, 1765-11-2567, 1765-10-9558, 1765-21-2260, 1765-21-2492, and 1765-21-3753, from Rural Transition to General Residential 3-Planned Unit Development to allow for the construction of a 375-lot residential development.

II. PROJECT PROFILE:

| | |
|---------------------------|----------------------------------------------------------------------------------------|
| PROPERTY LOCATION: | Marks Creek Road |
| WAKE COUNTY PIN: | 1765-11-8263, 1765-11-2567, 1765-10-9558, 1765-21-2260, 1765-21-2492, and 1765-21-3753 |
| CURRENT ZONING DISTRICT: | Rural Transition (RT) |
| CURRENT DENSITY ALLOWED: | 0.5 units per acre |
| PROPOSED ZONING DISTRICT: | General Residential 3 Planned Unit Development (GR3-PUD) |
| DENSITY PERMITTED: | 3 units per acre |
| NAME OF PROJECT: | Preserve at Marks Creek |
| APPLICANT: | Strong Rock Engineering Group |
| PROPERTY OWNER: | James & Rhonda Poole, Michael & Jessica Blake |
| DEVELOPER: | Desco Investment Company, Inc. |
| PROPERTY SIZE: | 101.59 acres |
| CURRENT LAND USE: | Vacant/Undeveloped |
| PROPOSED LAND USE: | 371 single-family and townhome development |
| PROPOSED DENSITY: | 3.69 units per acre |
| PROPOSED OPEN SPACE: | 15.2 acres |

III. BACKGROUND INFORMATION:

The Planned Unit Development District (PUD) is a re-zoning process which is designed to encourage master planning of development and to coordinate such development so as to manage the impacts of the development on the provision of Town Services and infrastructure. The PUD encourages creativity and innovation in the design of developments, but in return for this flexibility the expectation is for communities to provide exceptional design, character, and quality; provide high quality community amenities; incorporate creative design in the layout of buildings; ensure compatibility with surrounding land uses and neighborhood character; encourage the creation of mixed density neighborhoods, neighborhood nodes, and mixed use centers; further the goals of the KnightdaleNext



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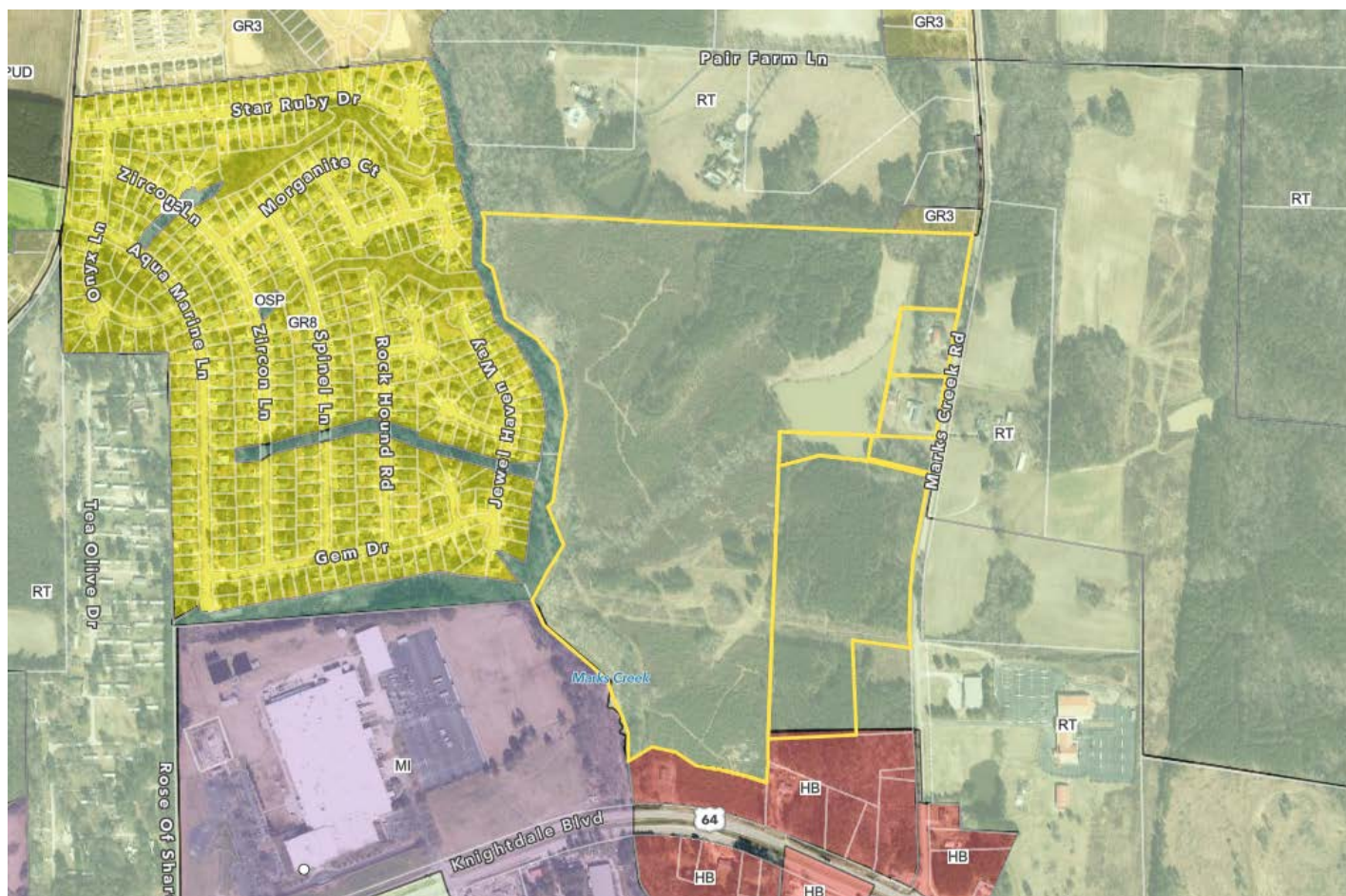
2035 Comprehensive Plan including the Growth Framework and Growth & Conservation maps; and provide greater efficiency in the layout and provision of roads, utilities, and other infrastructure.

There are several provisions which are required to be addressed by the applicant in the PUD, including, but not limited to design guidelines, proposed alternative means of compliance, dimensional standards, public facilities, recreational open space, and Comprehensive Plan consistency. The applicant's specific exceptions are detailed in **Section VI** of this staff report.

IV. PROJECT SETTING – SURROUNDING ZONING DISTRICTS AND LAND USES:

The proposed rezoning features six parcels located along Marks Creek Road. These parcels are located within the Town's Extra Territorial Jurisdiction and, if approved, would require annexation into Corporate Limits.

| DIRECTION | LAND USE | ZONING |
|-----------|-------------------------|--------|
| North | Low-Density Residential | RT/GR3 |
| South | Vacant | HB |
| East | Low-Density Residential | RT |
| West | Emerald Pointe/Square D | GR8/MI |





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V. PROPOSED MASTER PLAN:

The applicant has submitted a full Master Plan in accordance with Section 16.5 of the UDO. The applicant is proposing a single-family development totaling 371-lots. These are broken down into 83 front-loaded 60-foot lots, 144 rear-loaded 26-foot units, and 144 rear-loaded townhomes. The developer and Staff met multiple times early in the process as the plan evolved. Further analysis of the site plan is detailed below.



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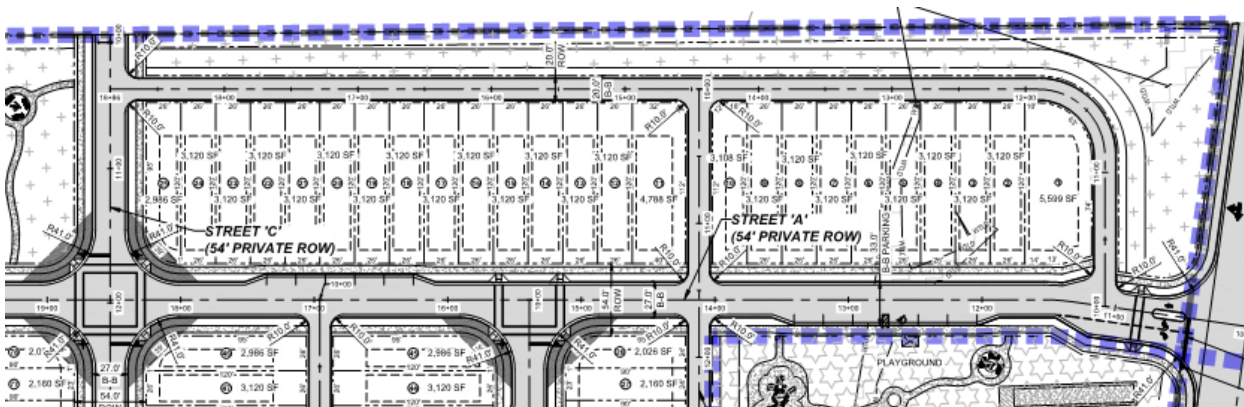
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STAFF SITE PLAN ANALYSIS:

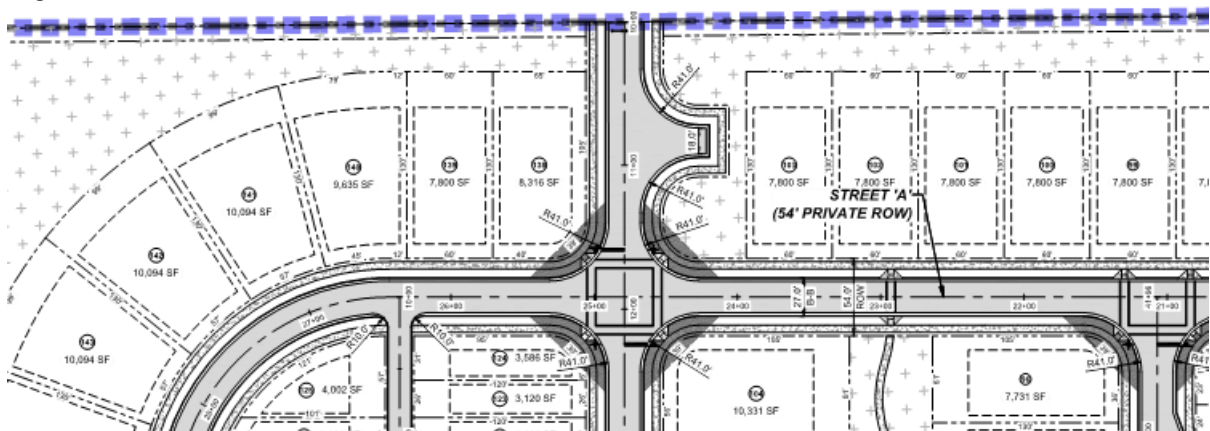
Staff has reviewed the plan for UDO consistency and found the site plan to generally be in compliance with the required provisions. It is important to note that this proposal was first submitted prior to adoption of the new UDO. According to permit choice rules detailed in the UDO and state statutes, the applicant can select which version will apply to this proposal. The applicant has elected to follow the previous version of the ordinance; therefore, the Master Plan has been reviewed accordingly. The following items are being highlighted for Council review and further consideration.

Landscaping & Vegetation

Due to the existing zoning of adjacent parcels (RT) and proposed zoning of this development (GR-3), no landscaped buffer is required. However, per UDO Section 8.7, a 20' Type B Buffer is necessary to screen alleys. This landscaping is provided along all alleys on site to provide screening for adjacent property owners and future residents on-site.



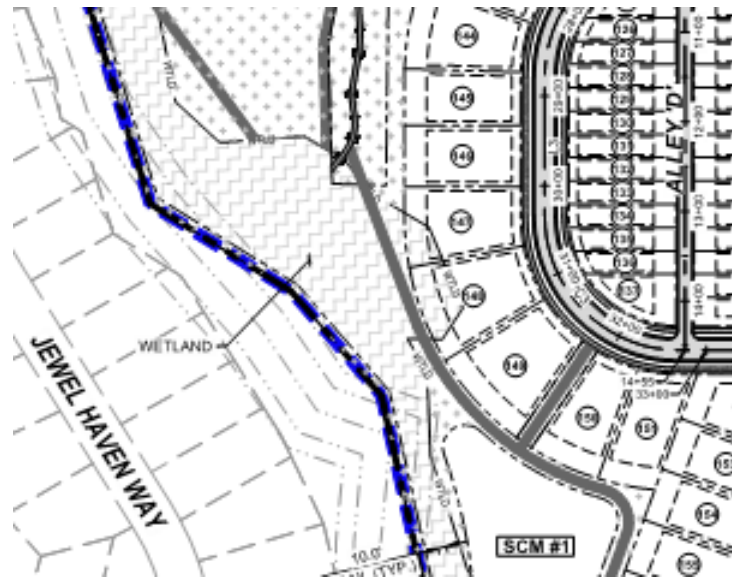
Elsewhere, undistributed areas are maintained between the rear of single-family homes and existing lots to act as a buffer. Environmental features on the western side of the proposed development will remain undistributed as well and will create a natural buffer between this development and the Emerald Pointe neighborhood.





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Enhanced landscaping along Marks Creek Road is proposed to help achieve compliance with the Water Allocation Policy. A number of open space features will be visible from the Marks Creek Road right-of-way, and additional landscaping and hardscaping will create a unique sense of place.





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Elevations

A specific builder has not been identified for this development. The applicant has provided architectural conditions along with some example elevations. The conditions are provided below, however additional modifications have been suggested to bring them in line with previous approvals, including providing additional elevations for a wider variety of potential housing products. It has been noted to the developer that the elevations submitted will be used during the building permit review and approval phase. Should elevations be inconsistent with previous approvals, building permits may not be issued. Please see the attached PUD document for example elevations.

Proposed Architectural Conditions

1. Townhomes shall be two-story homes with a minimum width of 22' wide and have a minimum heated area of 1,500 square feet, 2 car garages will be provided.
2. Neo traditional single family detached homes shall be rear loaded two-story homes built on lots less than 60 feet wide with a minimum heated area of 1,600 square feet.
3. Single family ranch detached homes shall be built on lots at least 60 feet wide with a minimum heated area of 1,480 square feet, and no more than 25% of the ranch homes may be less than 1,500 square feet.
4. Traditional single family detached homes shall be two-story homes built on lots at least 60 feet wide with a minimum heated area of 2,100 square feet.
5. All homes will either consist of a single material of brick or stone or will have a combination of 2 or more of the following materials on the front façade (not including foundations): stone, brick, lap siding, fiber cement siding, shakes, or board and batten siding, with side and rear facades of fiber cement siding. When 2 materials are used, the materials shall be different but complimentary colors. Vinyl may only be used of soffits, fascia, and corner bounds.
6. All single family detached homes will have front porches with a minimum depth of 5 feet. Townhomes will have recessed front porches with a minimum depth of 3 feet.
7. All traditional single family detached homes will have a rear patio or decks a minimum of 10' x 10'. All single family ranch detached homes will have a minimum 6' x 10' covered patio.
8. Main roof pitches (excluding porches) fronting the street will be at least 7:12, with the exception of ranch homes in which 6:12 shall be allowed.
9. For every 30 feet (or fraction) of continuous side elevation (calculated on a per floor basis), there shall be one window or door added to the side elevations. Any siding break on the side of the home, such as a fireplace, side porch, or wall offsets may be used as an alternate to windows.
10. There shall be a minimum 12 inch overhang on every gable end for every home.
11. All dwelling units will have a 2 car garage.
12. Garages on all neo traditional single family detached homes and townhomes shall be alley fed.
13. All front loaded garage doors shall have glass windows and hardware.



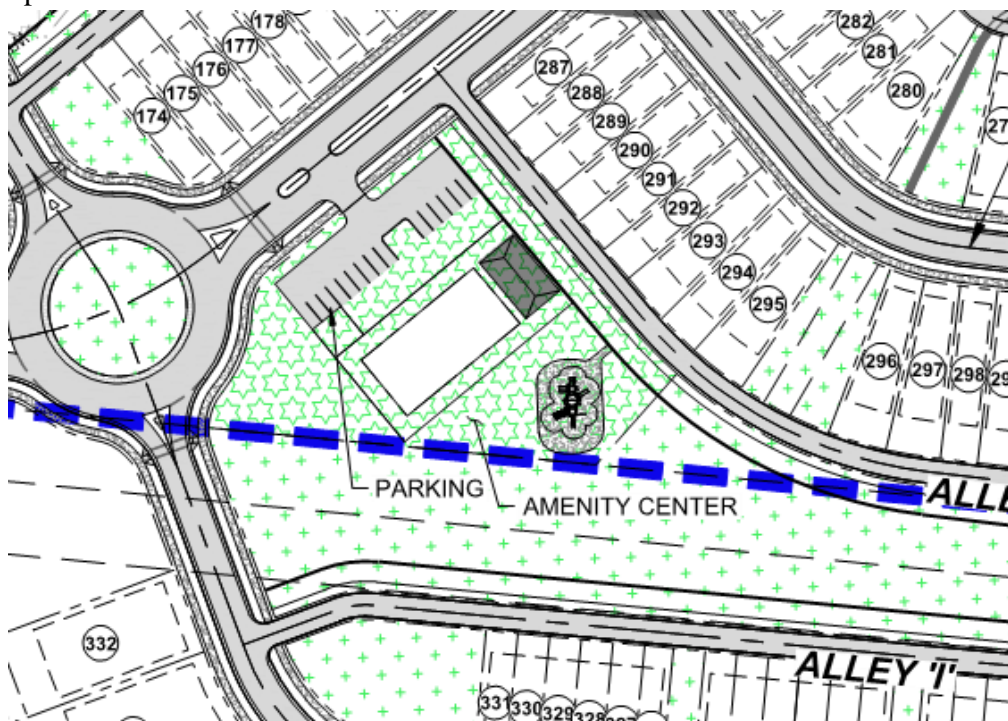
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14. All single family detached homes shall be raised from the finished grade a minimum of 18" and shall have stem wall or raised slab foundations that shall be covered on all sides with brick or stone. Areas under porches may be enclosed with lattice.
15. All single family attached 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 or stone. Areas under porches may be enclosed with lattice.
16. Any single family homes with a crawl space shall be wrapped in brick, or stone on all sides.
17. For front load single family detached homes, no more than 10% can have garage doors that exceed 45% of the overall width of the house, and in no cases can the garage door exceed 48% of the overall width of the house, garage doors greater than 12' in width shall be split bay.
18. All homes shall have front door glass inserts.
19. 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 be carriage style with window inserts and hardware.

Open Spaces

A variety of recreational open space amenities are provided throughout the development, including active open spaces such as a pool and clubhouse, playgrounds, play fields, pocket parks, greenway trails and more. In total, 15.2 acres of active and passive open space are identified for recreational activities. The developer is working to provide additional details on these items.

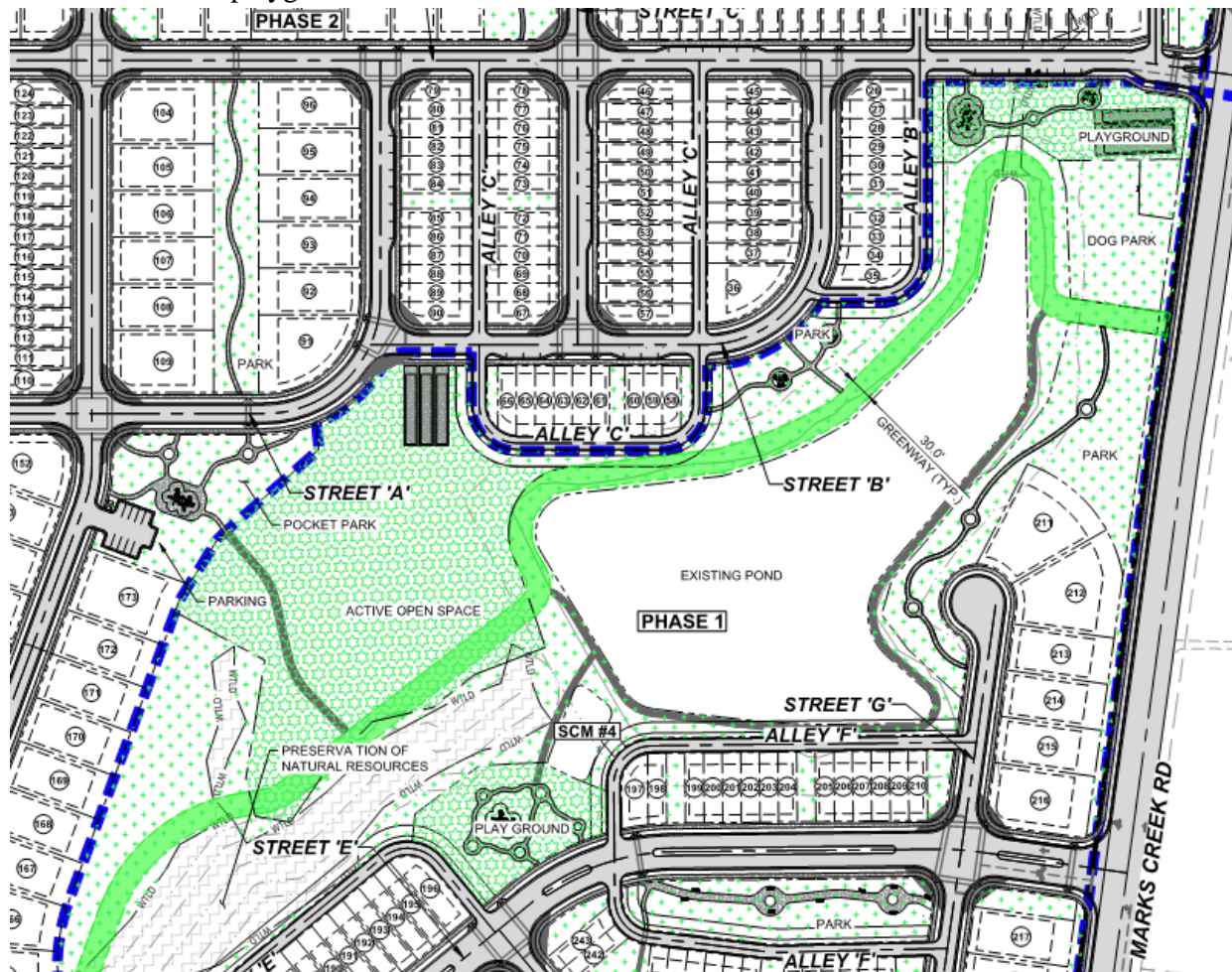




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An existing pond on site will be maintained and become a focal point for the overall open space plan. Amenities such as public and private trails will wrap the pond and provide safe pedestrian to and from amenities such as playgrounds and bocce ball courts.



The Trails & Greenways Map within the Comprehensive Plan shows multiple future greenways running through this site. The developer has accommodated that in many locations consistent with the Map. The trails are generally counted towards the overall active open space acreage for the site, and will be dedicated as public, town-owned facilities following construction. Staff will continue working with the developer to find the appropriate alignment of greenways.

Parking

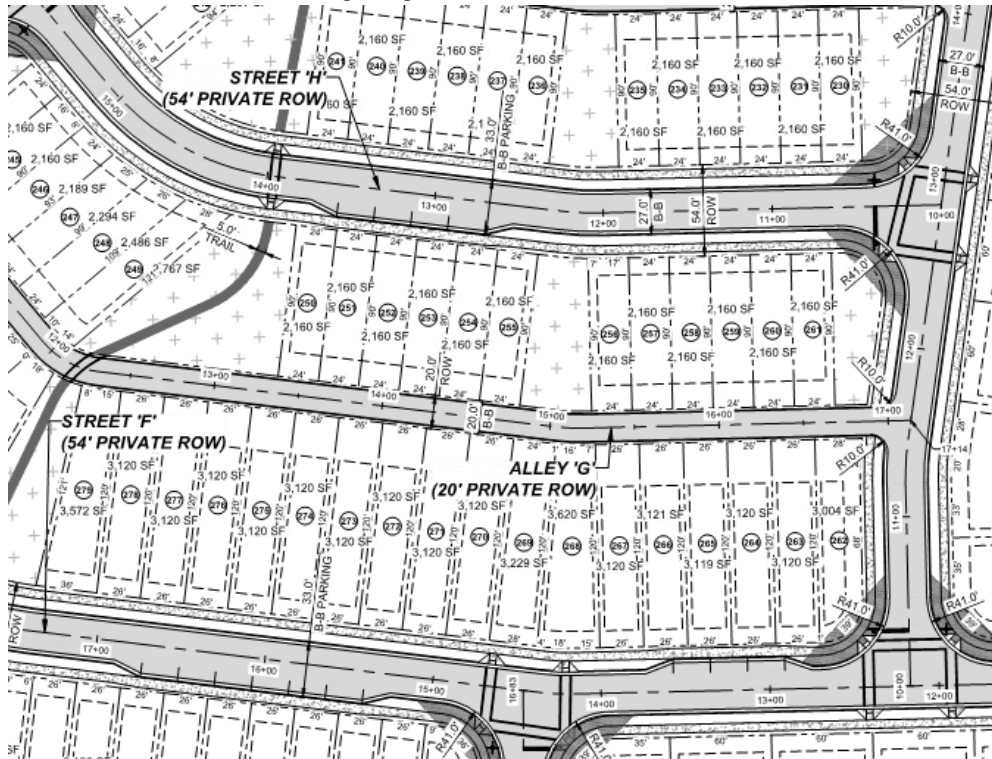
Parking is provided in multiple locations through the site as dedicated on-street spaces and off-street serving open space amenities. In all, 182 parking spaces are provided, consistent with the Staff recommended 0.5 dedicated parking spaces, beyond what is provided on each lot by way of driveways and garages. It is



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important to note that this is not a codified regulation within the UDO, rather a recommendation based on staff analysis of resident needs in existing neighborhood.



VII. LEGISLATIVE CASE PROCEDURES:

Staff met with the development team in October 2020 to discuss the potential of a project at this location and worked with them through several preliminary sketch plan details. A Planned Unit Development rezoning is a legislative public hearing, which requires certain application procedures including having a pre-application meeting with staff and holding a neighborhood meeting with any property owners within 200 feet of the outer boundaries of the subject development. Below is a timeline of the required elements.

- Pre-application meeting: October 14, 2020
- Neighborhood Meeting Notices Mailed: February 22, 2022
- Neighborhood Meeting: March 15, 2022

The virtual neighborhood meeting was held via Google Meet on March 15, 2022. Approximately 15 neighbors attended the meeting. Topics discussed included connectivity to adjacent parcels, greenway connectivity, transportation improvements & current conditions, concerns over density & housing products, environmental protection, and stormwater management. A copy of the mailed notice and list of recipients are attached as part of the application packet.



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Following the formal submittal and review of the proposed Master Plan and PUD document, the applicant met with the Development Review Committee (DRC) on April 14, 2022, to discuss the technical comments and details associated with the proposed plan. Staff discussed with the applicant concerns involving greenway connectivity, open space programming & design, architecture, and transportation improvements. The DRC voted unanimously to **continue** the proposal pending the applicant addressing the review comments and Town Council approving the Rezoning request.

Additionally, the Town of Knightdale followed public hearing notice requirements as prescribed in the North Carolina state statutes.

- First Class Letters Mailed: May 6, 2022
- Sign Posted on Property: May 6, 2022
- Legal Ad Published in Wake Weekly: May 6 & 13, 2022

VI. PROPOSED PLANNED UNIT DEVELOPMENT:

In support of their Master Plan, the applicant submitted a PUD document that includes a vision for their proposed development, statements of plan consistency, architectural design standards, proposed site development allowances, and open space information.

Staff has reviewed the submittal in accordance with UDO Sections 2.15.C and 15.6.C.5 and found that all submittal requirements have been met. Staff also reviewed the plans for conformance with the General Residential-3 zoning district and other applicable UDO sections. The applicant’s requested alternative standards are listed in the section below.

Public Utilities/Water Allocation Policy: The applicant is proposing to connect to public water and sewer. In accordance with Section 16.6.P of the UDO, the applicant is proposing to exceed the required 50 points with the following features:

| | Point Total |
|---------------------------------------------------------------------|--------------------|
| Major Subdivision | 15 |
| Bonus Point Item | |
| Residential Architectural Standards for Single-Family and Townhouse | 15 |
| On-Street Public Parking | 4 |
| Stormwater Pond with Fountain | 5 |
| Enhanced Roadside Landscaping | 2 |
| Private Greenway – More than 2,000 linear feet | 2 |
| IPEMA Certified Playground Equipment | 4 |
| Deck/Patio - More than 2,000 square feet | 2 |
| Resort Style Pool | 2 |
| Total Water Allocation Policy Points | 51 |



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Site Development Allowances: In accordance with UDO Section 2.15.C, a Planned Unit Development allows the applicant to request exceptions to certain standards identified in the base zoning district (NMX). These requests should be fair and reasonable, and the proposed alternate means of compliance should meet the spirit and intent of the UDO. The applicant's allowance requests are as follows:

1. **Dimensional Standards** (Section 2.7.B):

- **Required:** In accordance with UDO Section 2.7.B, front-loaded residential lots cannot be less than 80-foot-wide, and rear-loaded residential lots must maintain a minimum 30-foot width. Additionally, all driveways are required to be a minimum of 35-feet in length. These standards apply to all lots within the GR-3 zoning district.
- **Requested:** The applicant proposes to build 60-foot-wide front-loaded lots, and 26-foot-wide rear-loaded lots. The applicant proposes a minimum driveway length of 25-feet for front-loaded lots.

2. **Maximum Development Density** (Section 2.7.B):

- **Required:** In accordance with UDO Section 2.7.B, developments within the GR-3 zoning district cannot exceed three (3) units per acre.
- **Requested:** At 371-lots, this density for this development will be 3.62 units per acre.



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VII. TRANSPORTATION ANALYSIS

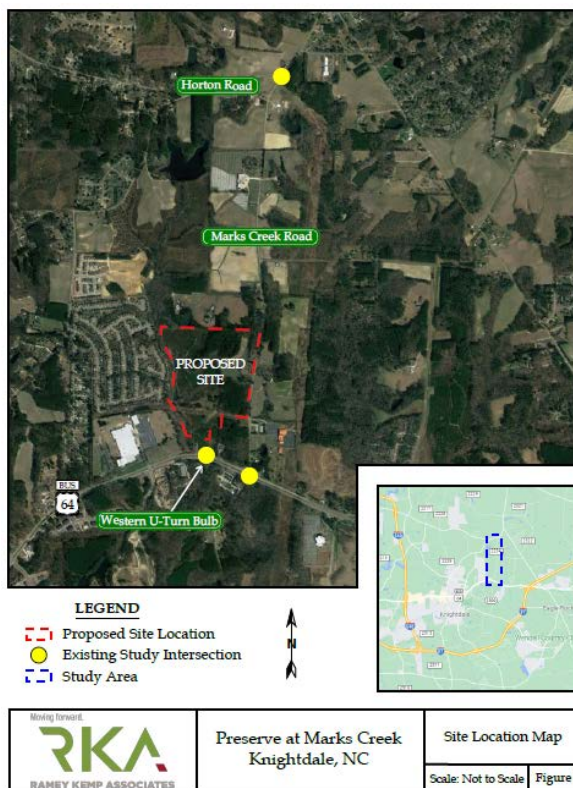
Per UDO Section 9.4, a Transportation Impact Analysis was conducted prior to submittal of the Master Plan. As the plan was refined, the TIA was updated to ensure it accurately analyzed the number of proposed trips being generated by the site. As shown in the table below, the number of peak hour trips generated by this site far exceed the required 150 trips prescribed by the UDO requiring a TIA.

Table E-1: Site Trip Generation

| Land Use (ITE Code) | Intensity | Daily Traffic (vpd) | Weekday AM Peak Hour Trips (vph) | | Weekday PM Peak Hour Trips (vph) | |
|-----------------------------------------|-----------|---------------------------|-------------------------------------------|------------|-------------------------------------------|------------|
| | | | Enter | Exit | Enter | Exit |
| Single-Family Detached Housing (210) | 246 units | 2,380 | 45 | 134 | 152 | 89 |
| Multifamily Low-Rise Housing (220) | 121 units | 880 | 13 | 44 | 44 | 26 |
| Total Trips | | 3,260 | 58 | 178 | 196 | 115 |

The following intersections were identified during the scoping phase of this project as being impacted by this development. Ramey Kemp Associates (RKA), on behalf of the development team, conducted traffic counts at these intersections during peak hours.

- Marks Creek Road and Horton Road
- Marks Creek Road and US 64 Business
- US 64 Business and Western U-Turn Bulb





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RKA included many previously approved developments in the background traffic data to determine an accurate count of trips. The following improvements are recommended by RKA and supported by Staff, to be completed by the developer as part of the overall construction of this project.

1. **Marks Creek Road and US 64 Business:** Monitor the northern portion of this intersection (westbound through/right-turn, southbound right-turn, and eastbound left-turn movements) for signalization, and install traffic signal if warranted and approved by NCDOT.
2. **Marks Creek Road and Site Drive 1:** Construct the western leg of the intersection with one ingress and one egress lane. Provide an exclusive northbound left-turn lane with at least 100 feet of storage and appropriate deceleration and taper length. Provide stop-control for the eastbound approach.
3. **Marks Creek Road and Site Drive 2:** Construct the western leg of the intersection with one ingress and one egress lane. Provide an exclusive northbound left-turn lane with at least 100 feet of storage and appropriate deceleration and taper length. Provide stop-control for the eastbound approach.
4. **Marks Creek Road and Site Drive 3:** Construct the western leg of the intersection with one ingress and one egress lane. Provide an exclusive northbound left-turn lane with at least 100 feet of storage and appropriate deceleration and taper length. Provide stop-control for the eastbound approach. Restrict the egress lane to right-out only.

NCDOT has reviewed the TIA and concurs with these recommendations.

Marks Creek Road is currently identified as a 90-foot wide two-lane median divided Urban Avenue cross section on the Functional Classification Plan. Per UDO requirements, the applicant is required to construct half of the ultimate cross section along the frontage of this development. The Master Plan shows curb, gutter, sidewalk, and additional laneage added to the development's frontage along these roadways.

On-site, the applicant provides a transportation system consistent with the Comprehensive Plan's Street Network Map and Trails & Greenways Map. The developer has been asked to continue refining the alignment of streets and greenways to better serve future residents.



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VIII. COMPREHENSIVE PLAN:

A. Growth Framework Map

The Comprehensive Plan features the Growth Framework Map, a high-level tool for assisting in the decision-making process for development proposals. The intent is to prioritize development proposals based how well it fits within the surrounding area. The map designates this area as a Target Investment Area, which is defined as areas which have existing or relatively easy potential access to both sewer and water.



B. Growth & Conservation Map

The Growth & Conservation Map designates parcels in Knightdale into different place type categories based on their current state and the anticipated pattern of development. The subject property is designated as “Mixed-Density Neighborhood” as a place type.



The “Mixed-Density Neighborhood” place type is defined as:

Mixed-density neighborhoods are formed as subdivisions or communities with a mix of housing types and densities. Homes are oriented to the interior of the site and are typically buffered from surrounding development by transitional uses, preserved open space, or landscaped areas. Lots along the perimeter of a new neighborhood should be sensitive to the density observed along the perimeter of an adjacent neighborhood in terms of size and scale (by providing a transition). Small blocks and a modified grid of streets support a cohesive, well-connected community. All new mixed-density neighborhoods incorporate a comprehensive network of open space throughout to accommodate



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small parks, gathering places and community gardens; preserve tree stands; and help reduce stormwater runoff.

The place type transect, seen below, builds off of the Growth & Conservation Map and helps to illustrate how developments should blend together as Knightdale grows. The “Mixed-Density Neighborhood” place type falls into the “Neighborhoods” category.

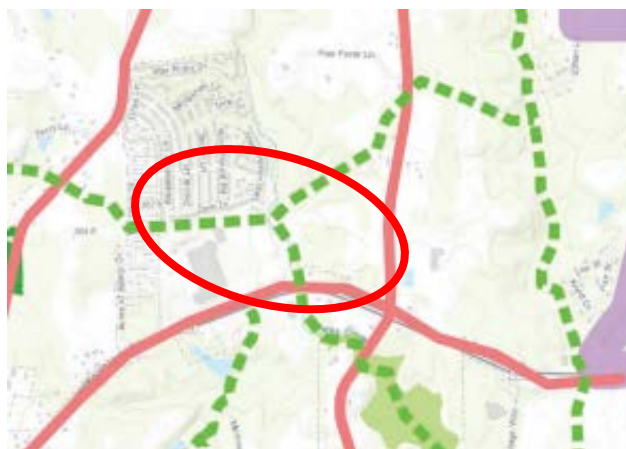


C. Gateway Entrances Map

Gateways help those traveling into Knightdale easily identify their entrance into Town. There are a number of different Gateway types, however none apply to this area or proposal.

D. Trails and Greenways Map

The Trails & Greenway Map provides the general alignment of greenways in Knightdale. These trails should connect to the existing Town infrastructure or provide new recreational opportunities for residents. This Map shows a greenway running across the site. The applicant is proposing a multiple 10-foot-wide greenway through the development, however staff is still determine the best alignment for consistency with the Comprehensive Transportation Plan.



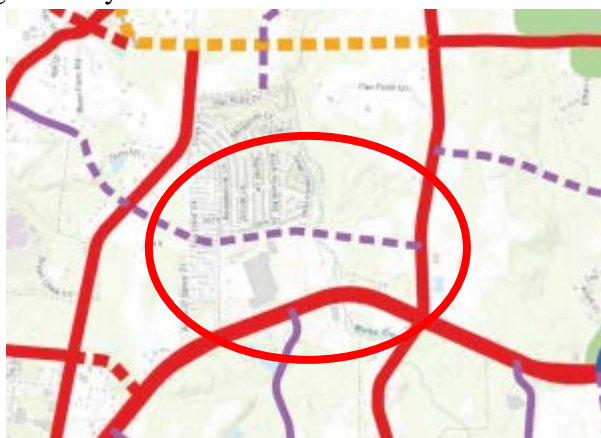


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E. Street Network Map

Development activities should assist with the construction of a comprehensive transportation network. As previously noted, the Street Network Maps shows the extension of a collector in this area, serving as connections between existing roadways.

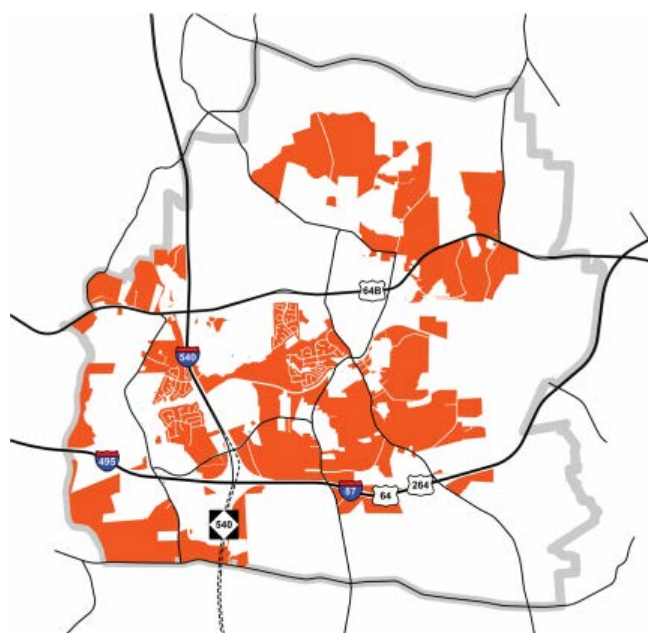


F. Focus Area Studies

The Comprehensive Plan developed conceptual plans with the intent to guide development proposals in certain areas of Knightdale and build off the place type categories defined by the Growth & Conservation Map. Illustrations provided in the Focus Area Studies sections are intended to convey the type of planning principles Knightdale encourages in these locations. Sections of Brio are in the Mixed Density Residential Focus Area, which should support the following Guiding Principles from the Comprehensive Plan:

- Community Facilities and
- Unique Activity Centers
- Parks & Recreation
- Great Neighborhoods
- Expanded Home Choices
- Economic Vitality

Services



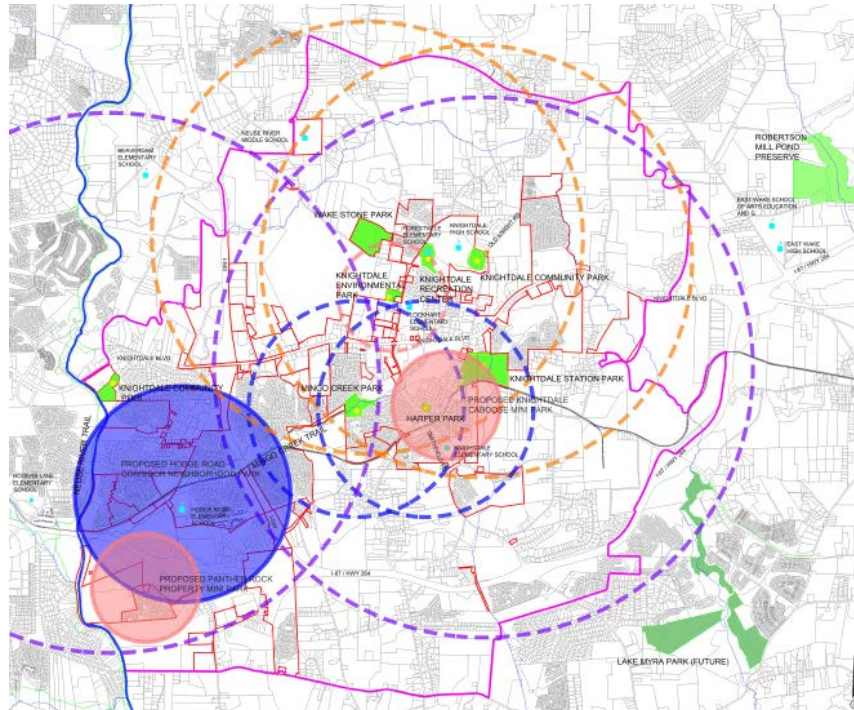


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CONSISTENCY WITH THE COMPREHENSIVE PARKS AND RECREATION MASTER PLAN:

The Knightdale Town Council adopted the Town's first ever Comprehensive Parks and Recreation Master Plan in April 2022. This plan includes recommendations for future park facilities based on community needs and existing conditions. The plan indicates that this proposal is within the two-mile service area of Wake Stone Athletic Park, as well as the two-and-a-half mile service area of Knightdale Station Park. Future Neighborhood Parks or Mini Parks would help to provide more services to future residents.



CONSISTENCY WITH THE COMPREHENSIVE PLAN:

North Carolina General Statute 160D-605 requires that **prior to** adoption or rejecting any zoning amendment, the governing board shall adopt a statement describing whether its action is consistent with an adopted comprehensive plan and explaining why the board considers the action to be reasonable and in the public interest.

The KnightdaleNext 2035 Comprehensive Plan contains 10 guiding principles categories developed by the community. These guiding principles should be embraced by development proposals to enhance quality-of-life and economic prosperity across town. The principles embody the core philosophy and Town vision expressed by the community.

Of the 10 guiding principles detailed in the Comprehensive Plan, the following applies to this development proposal.



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NATURAL ENVIRONMENT



Promote and expand opportunities for people to experience natural settings in Knightdale and surrounding Wake County, increase their proximity to multiple recreational opportunities, and enjoy a safe and healthy lifestyle. Safeguard the Town's natural resources including lakes, streams, wetlands, woodlands, trails, agricultural lands, tree canopy, and the services they provide. Strive to create interconnected green spaces that conserve these areas, provide recreational linkages, protect water quality and quantity, and celebrate nature as a centerpiece of the Town's identity and sense of place.

TRANSPORTATION



Provide a safe, reliable, and integrated transportation system that balances all modes of transportation, including walking, biking, public transit, and cars. Consider land use and infrastructure investments together, promoting a network of complete streets that emphasizes the quality and character of both the street and its surrounding development pattern (whether rural, suburban or urban in nature). Emphasize a safe and efficient transportation system for both destination- and recreation-focused trips, with special attention given to the mobility needs of children, seniors, runners, bikers and families.

GREAT NEIGHBORHOODS AND EXPANDED HOME CHOICES



Promote distinct, safe, and vibrant neighborhoods throughout Knightdale that provide greater access to a range of housing choices people need at different stages of their life, including young adults, families, empty-nesters, retirees, seniors, and people of different income levels. Housing opportunities should include single family homes of all sizes, townhomes, apartments, condominiums, senior living units, live-work units, and accessory dwelling units. New neighborhoods should mix two or more housing choices into one community. Strong neighborhoods and a diverse housing strategy will make Knightdale a more livable community—one where residents can live their entire lives.

Recommended Advisory Statement

“The proposed Zoning Map Amendment is consistent with the KnightdaleNext 2035 Comprehensive Plan as it addresses several of the guiding principles such as protecting the natural environment, extending the transportation network, and expanding home choices in Knightdale. Further, it is consistent with the Growth & Conservation Map’s designation as a “Mixed Density Neighborhood” Place Type. Additionally, the proposal is consistent with the Street Network Map, Trails & Greenway Map, and the Mixed Density Residential Focus Study Area. The request is reasonable and in the public interest as it aids in developing a



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vibrant, sustainable, and safe community design in which people not only desire to visit, but to also live, work, and play.”

X. JOINT PUBLIC HEARING SUMMARY:

A joint public hearing was held with the Land Use Review Board at Town Council at the May 18, 2022 Town Council meeting. The following items were discussed by Council and LURB members and residents at the meeting, and the applicant has provided additional information since.

1. Density & Dimensional Requirements

- a. **Public Hearing Concern:** The proposed setbacks, dimensional requirements, and lot count created a development featuring 3.69 units per acre, above the maximum density allowed in the General Residential-3 zoning district.
- b. **Applicant Response:** No changes to the plan are proposed with regards to density and lot dimensional requirements.
- c. **Staff Analysis:** During the sketch plan stage, the applicant reduced the density a number of times, increased open spaces, and provided wider single-family lots. It should be noted that the Emerald Pointe neighborhood to the west is zoned GR-8, which allows for up to 8 units per acre.

2. Open Space

- a. **Public Hearing Concern:** Residents were concerned over the greenway connection into the adjacent Emerald Pointe neighborhood. Additionally, there was concern noted about the distribution of open spaces throughout the neighborhood.
- b. **Applicant Response:** No changes to the open space plan are proposed.
- c. **Staff Analysis:** The development proposal exceeds the amount of open space required. There are some smaller, passive open space amenities such as parks provided on the southern side of the neighborhood which may not be noticeable at a zoomed out look.

The connection of the public greenway into the Emerald Pointe neighborhood will allow for those residents to access additional public greenway miles for more recreational enjoyment. As Knightdale continues to build out its greenway network, connections such as these are vital and will create a comprehensive transportation network, allowing residents the opportunity to travel access town on foot and by bicycle instead of in an automobile. Additionally, Emerald Pointe features sidewalks throughout, allowing safe pedestrian movements through the neighborhood.

3. Parking

- a. **Public Hearing Concern:** In general, staff recommends 0.5 parking spaces per residential unit beyond garages and driveways in denser developments such as these. These spaces are intended for guests and households with more than two cars.
- b. **Applicant Response:** The applicant increased dedicate parking spaces from 70 to 182 on- and off-street parking spaces.
- c. **Staff Analysis:** A development of this size would generally need 180 parking spaces, and the applicant has met the intent of this recommendation.



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4. Natural Habitat Protection

- a. **Public Hearing Concern:** Residents of Emerald Point expressed concern over the potential negative impacts to Marks Creek as a result of this development.
- b. **Applicant Response:** The applicant is showing a large amount of preserved natural space along Marks Creek between the proposal and Emerald Pointe. Impacts to this area will be minimal, with no new lots being developed here; only infrastructure and open space amenities for future residents are proposed.
- c. **Staff Analysis:** As previously mentioned, landscaped buffers are not required between this proposal and existing land uses. The applicant is showing an extensive amount of preserved natural habitat. Impacts to wetlands and stream buffers are required to gain approval from the North Carolina Department of Environmental Quality and the Army Corp of Engineers. Preservation of these areas is required by the UDO and Comprehensive Plan.

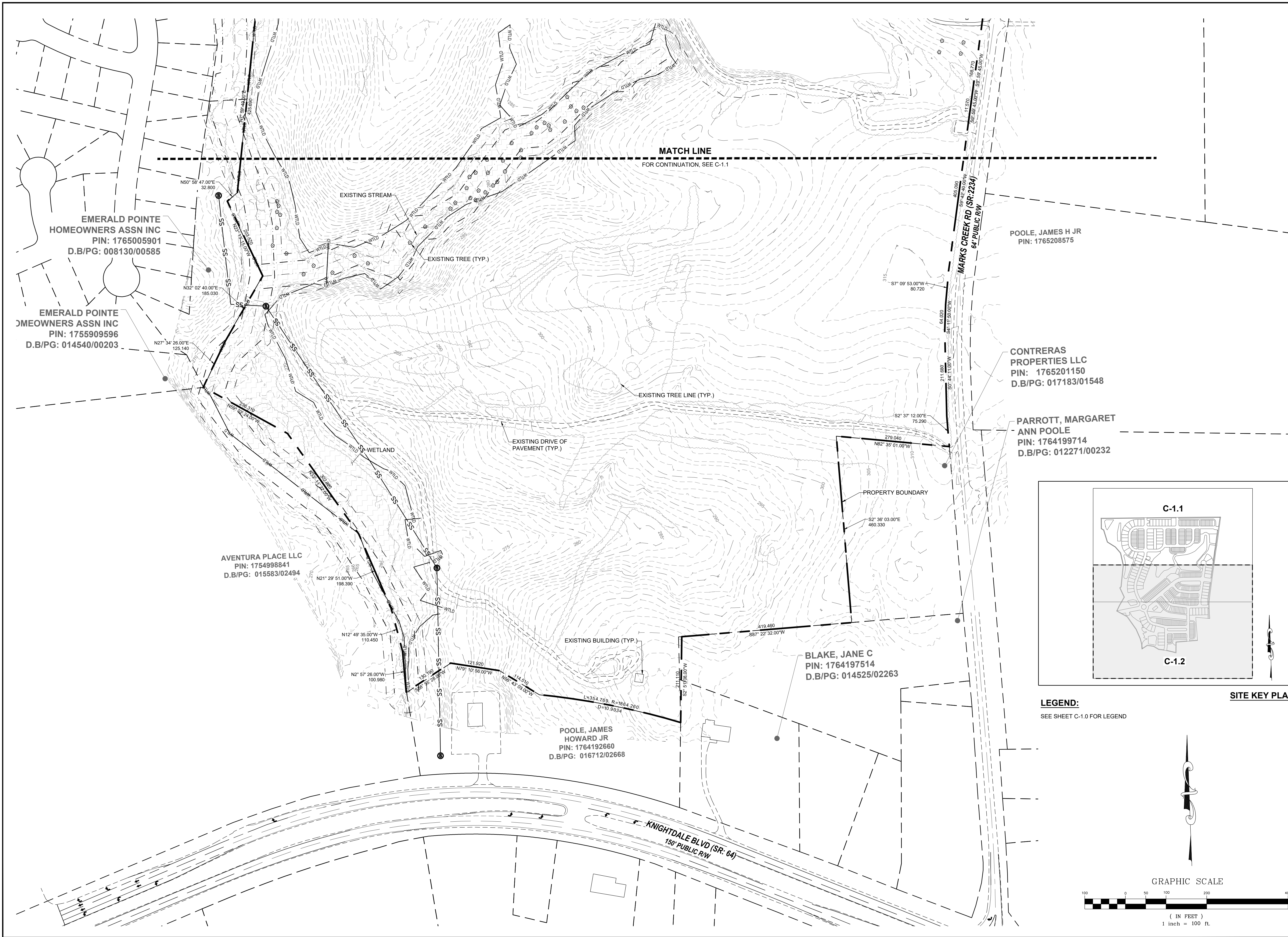
XI. LAND USE REVIEW BOARD SUMMARY:

The Land Use Review Board met Monday, June 13, 2022 to consider this case. An update of that meeting and the Board recommended action will be presented at the Town Council meeting on June 15, 2022.

XII. STAFF RECOMMENDATION:

It is staff's recommendation that Town Council approve the request to rezone the 101.59-acre site on Marks Creek Road and further identified by Wake County PINs 17541765-11-8263, 1765-11-2567, 1765-10-9558, 1765-21-2260, 1765-21-2492, and 1765-21-3753, from Rural Transition (RT) to General Residential-3 Planned Unit Development (GR3-PUD), adopts the staff recommended advisory statement regarding Comprehensive Plan consistency, and adopts Ordinance #22-06-16-003.

“The proposed Zoning Map Amendment is consistent with the KnightdaleNext 2035 Comprehensive Plan as it addresses several of the guiding principles such as protecting the natural environment, extending the transportation network, and expanding home choices in Knightdale. Further, it is consistent with the Growth & Conservation Map’s designation as a “Mixed Density Neighborhood” Place Type. Additionally, the proposal is consistent with the Street Network Map, Trails & Greenway Map, and the Mixed Density Residential Focus Study Area. The request is reasonable and in the public interest as it aids in developing a vibrant, sustainable, and safe community design in which people not only desire to visit, but to also live, work, and play.”



MATCH LINE
FOR CONTINUATION, SEE C-1.1

EMERALD POINTE HOMEOWNERS ASSN INC
PIN: 1765005901
D.B/PG: 008130/00585

EMERALD POINTE HOMEOWNERS ASSN INC
PIN: 1755909596
D.B/PG: 014540/00203

AVENTURA PLACE LLC
PIN: 1754998841
D.B/PG: 015583/02494

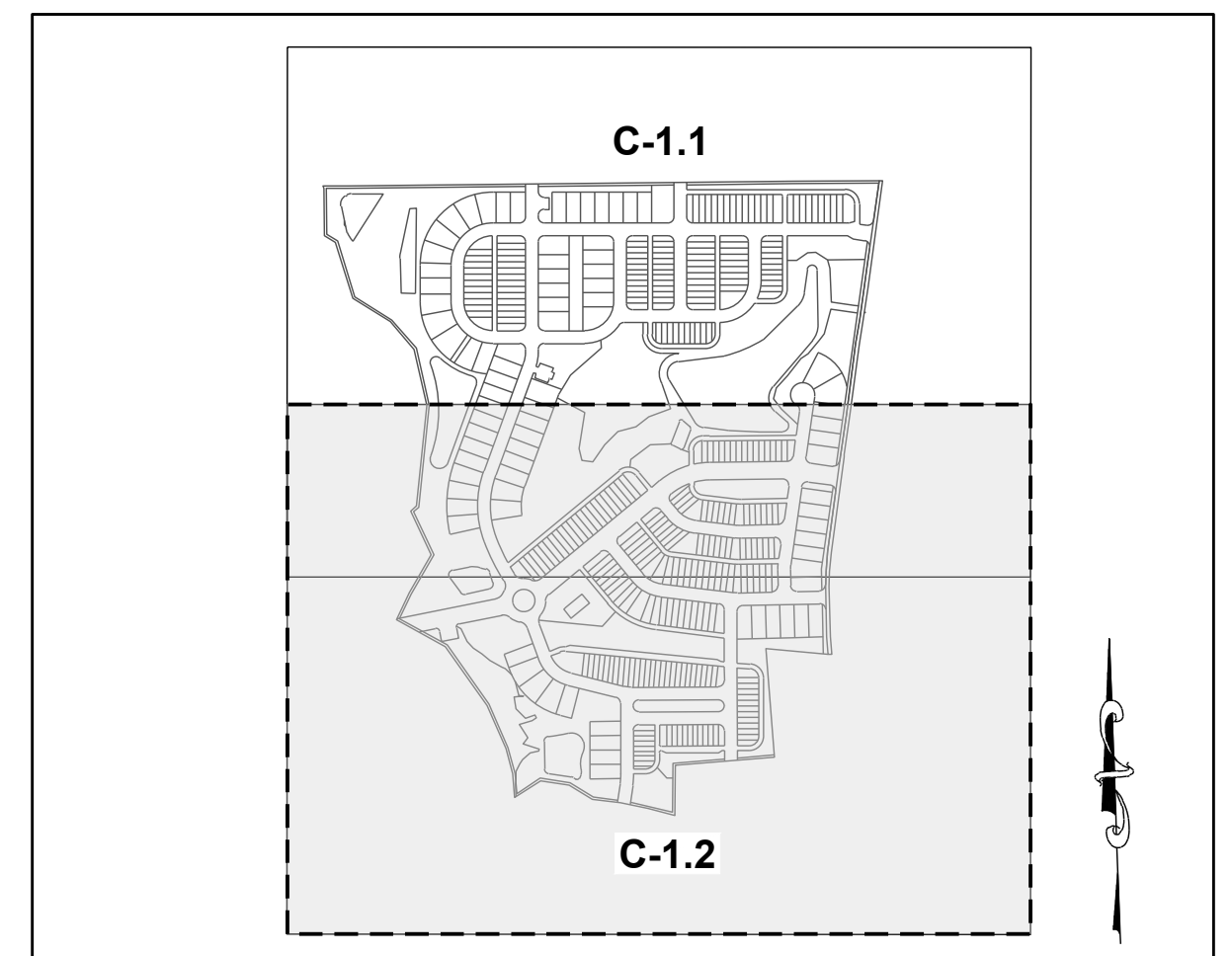
POOLE, JAMES HOWARD JR
PIN: 1764192660
D.B/PG: 016712/02668

BLAKE, JANE C
PIN: 1764197514
D.B/PG: 014525/02263

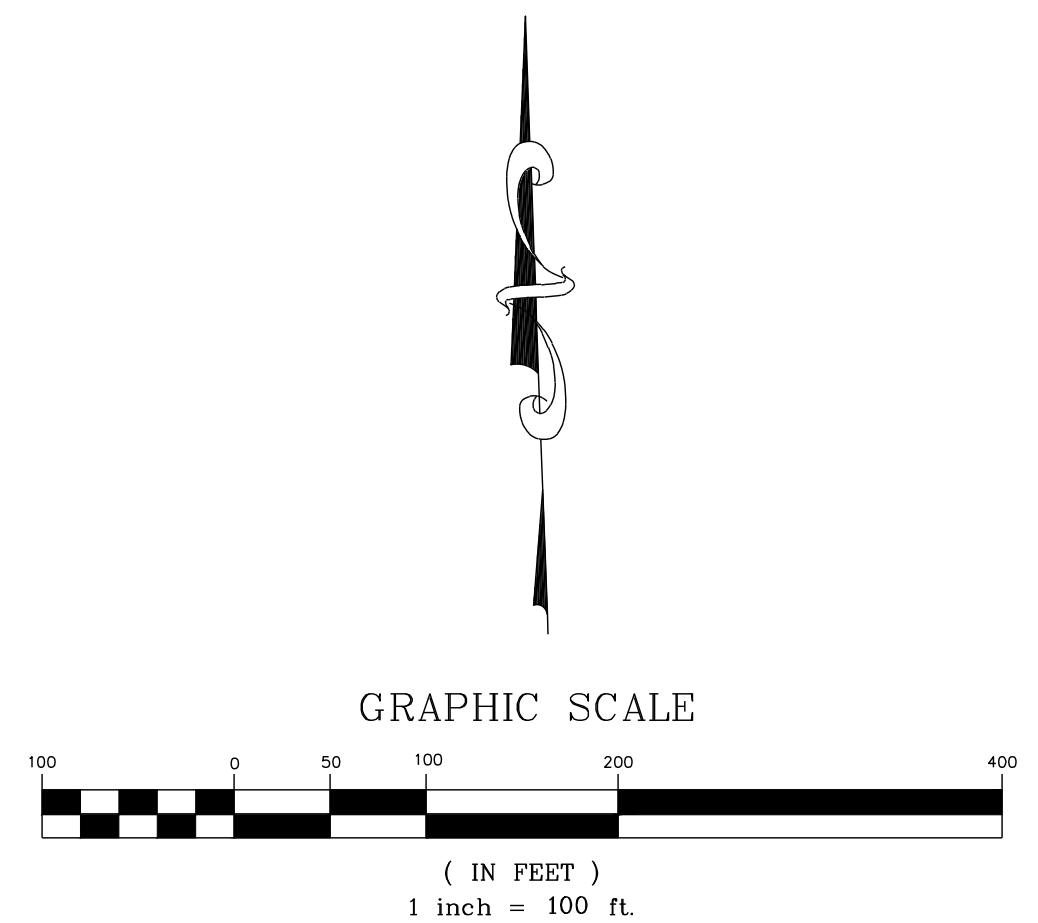
CONTRERAS PROPERTIES LLC
PIN: 1765201150
D.B/PG: 017183/01548

PARROTT, MARGARET ANN POOLE
PIN: 1764199714
D.B/PG: 012271/00232

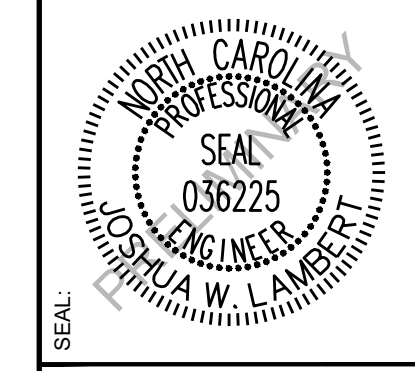
POOLE, JAMES H JR
PIN: 1765208575



LEGEND:
SEE SHEET C-1.0 FOR LEGEND



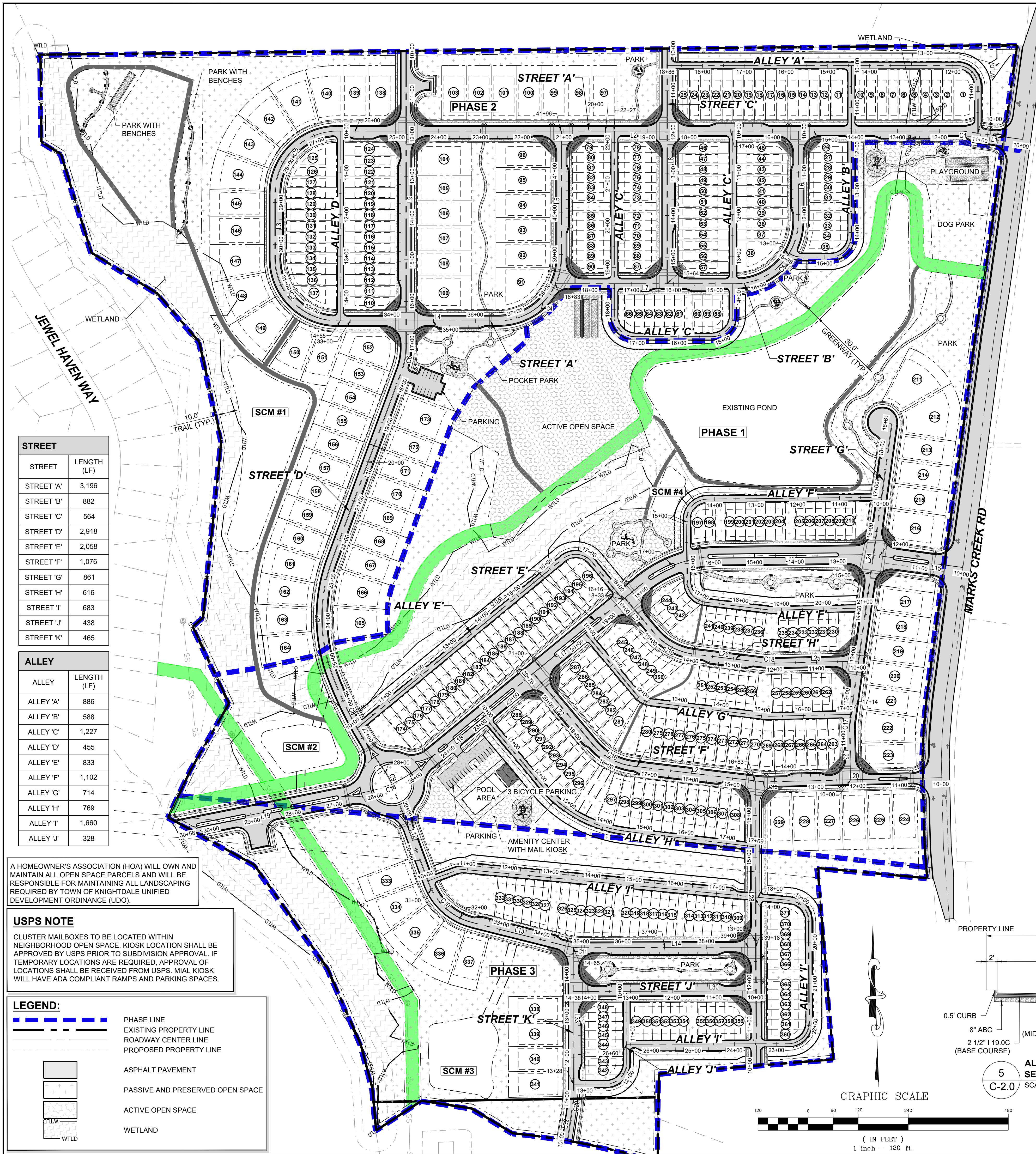
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STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC / COMPANY LICENSE # P-2166
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE | DESIGNED BY | DRAWN BY | CHECKED BY |
|---------------------|----------------------|-------|-------------|----------|------------|
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PRESERVE AT MARKS CREEK
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
MASTER PLAN
DETAILED EXISTING CONDITIONS II



| STREET | LENGTH (LF) |
|------------|-------------|
| STREET 'A' | 3,196 |
| STREET 'B' | 882 |
| STREET 'C' | 564 |
| STREET 'D' | 2,918 |
| STREET 'E' | 2,058 |
| STREET 'F' | 1,076 |
| STREET 'G' | 861 |
| STREET 'H' | 616 |
| STREET 'I' | 683 |
| STREET 'J' | 438 |
| STREET 'K' | 465 |

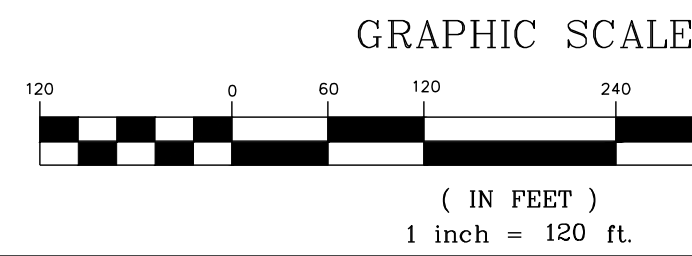
| ALLEY | LENGTH (LF) |
|-----------|-------------|
| ALLEY 'A' | 886 |
| ALLEY 'B' | 588 |
| ALLEY 'C' | 1,227 |
| ALLEY 'D' | 455 |
| ALLEY 'E' | 833 |
| ALLEY 'F' | 1,102 |
| ALLEY 'G' | 714 |
| ALLEY 'H' | 769 |
| ALLEY 'I' | 1,660 |
| ALLEY 'J' | 328 |

A HOMEOWNER'S ASSOCIATION (HOA) WILL OWN AND MAINTAIN ALL OPEN SPACE PARCELS AND WILL BE RESPONSIBLE FOR MAINTAINING ALL LANDSCAPING REQUIRED BY TOWN OF KNIGHTDALE UNIFIED DEVELOPMENT ORDINANCE (UDO).

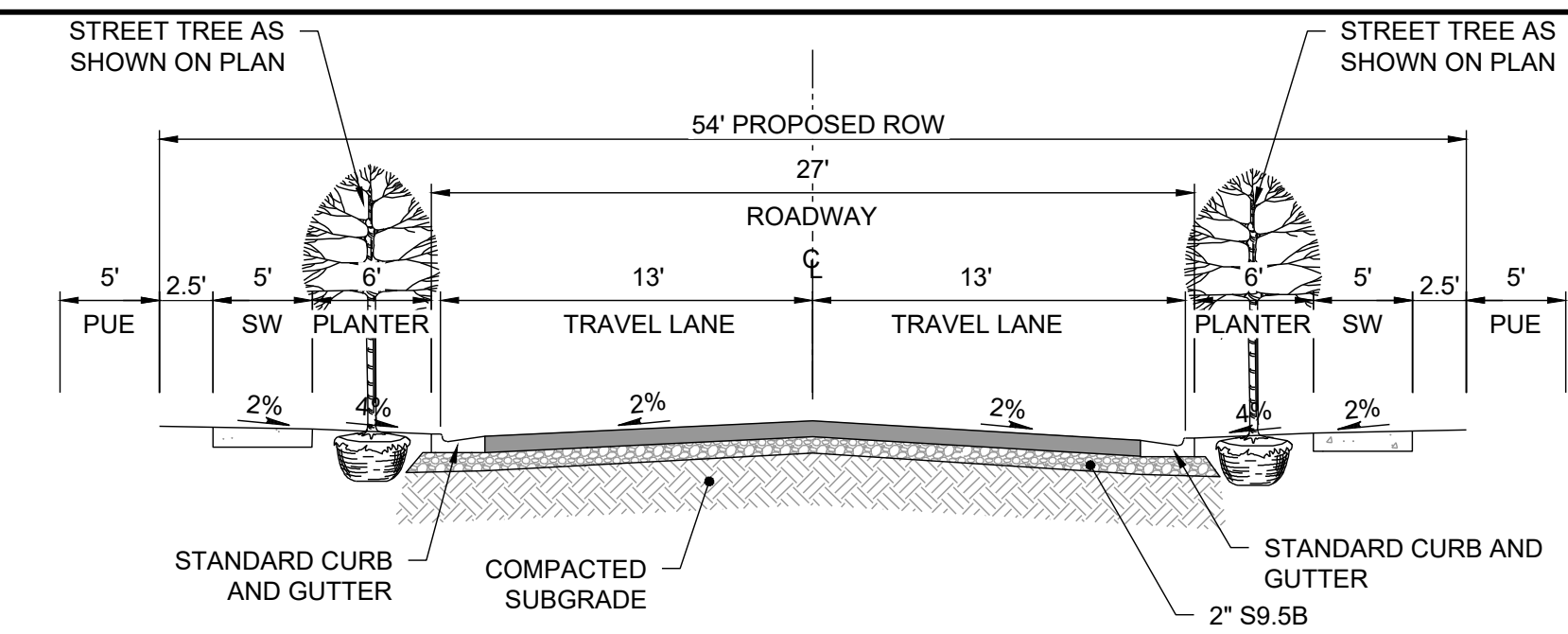
USPS NOTE
CLUSTER MAILBOXES TO BE LOCATED WITHIN NEIGHBORHOOD OPEN SPACE. KIOSK LOCATION SHALL BE APPROVED BY USPS PRIOR TO SUBDIVISION APPROVAL. IF TEMPORARY LOCATIONS ARE REQUIRED, APPROVAL OF LOCATIONS SHALL BE RECEIVED FROM USPS. MAIL KIOSK WILL HAVE ADA COMPLIANT RAMPS AND PARKING SPACES.

LEGEND:

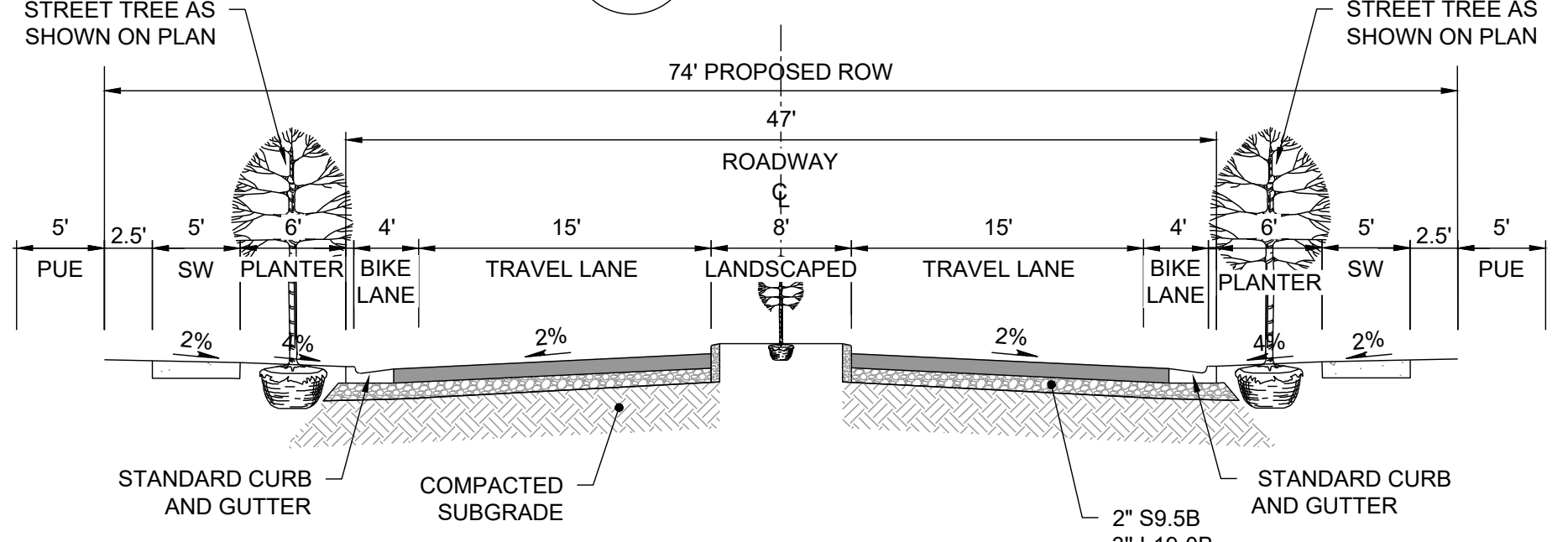
- PHASE LINE
- EXISTING PROPERTY LINE
- ROADWAY CENTER LINE
- PROPOSED PROPERTY LINE
- ASPHALT PAVEMENT
- PASSIVE AND PRESERVED OPEN SPACE
- ACTIVE OPEN SPACE
- WETLAND



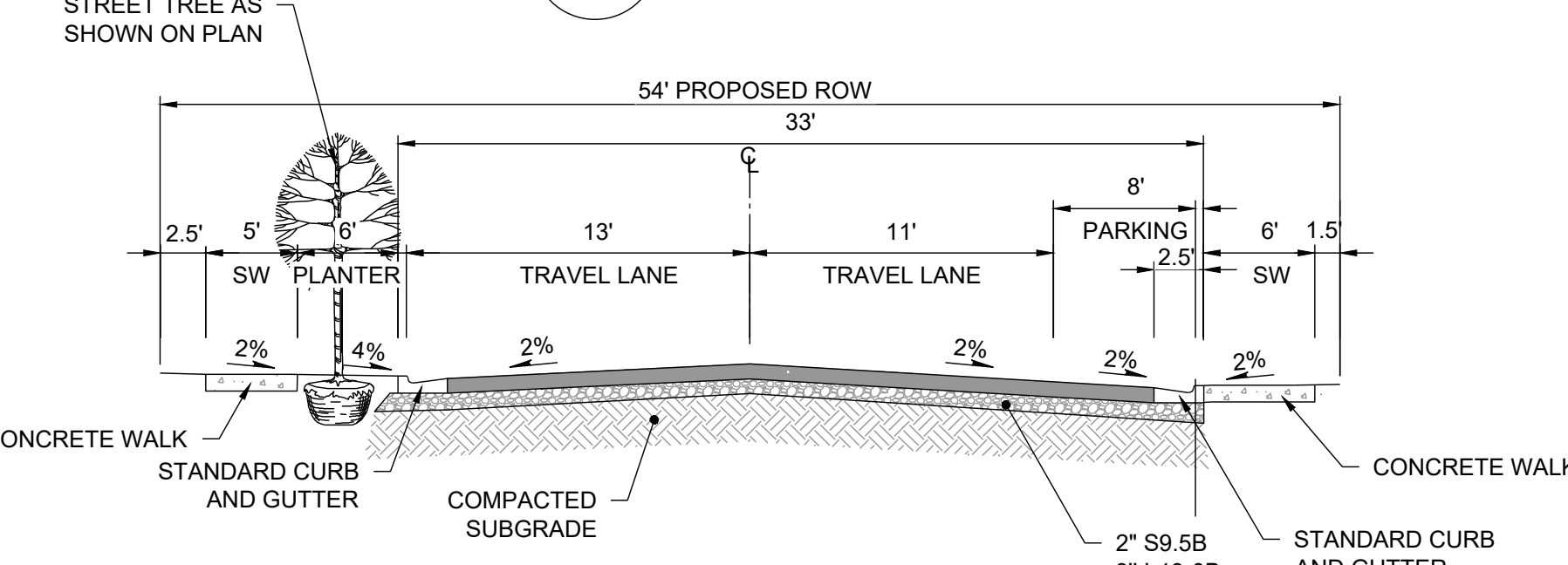
5 ALLEY CROSS SECTION STANDARDS
SCALE: NTS



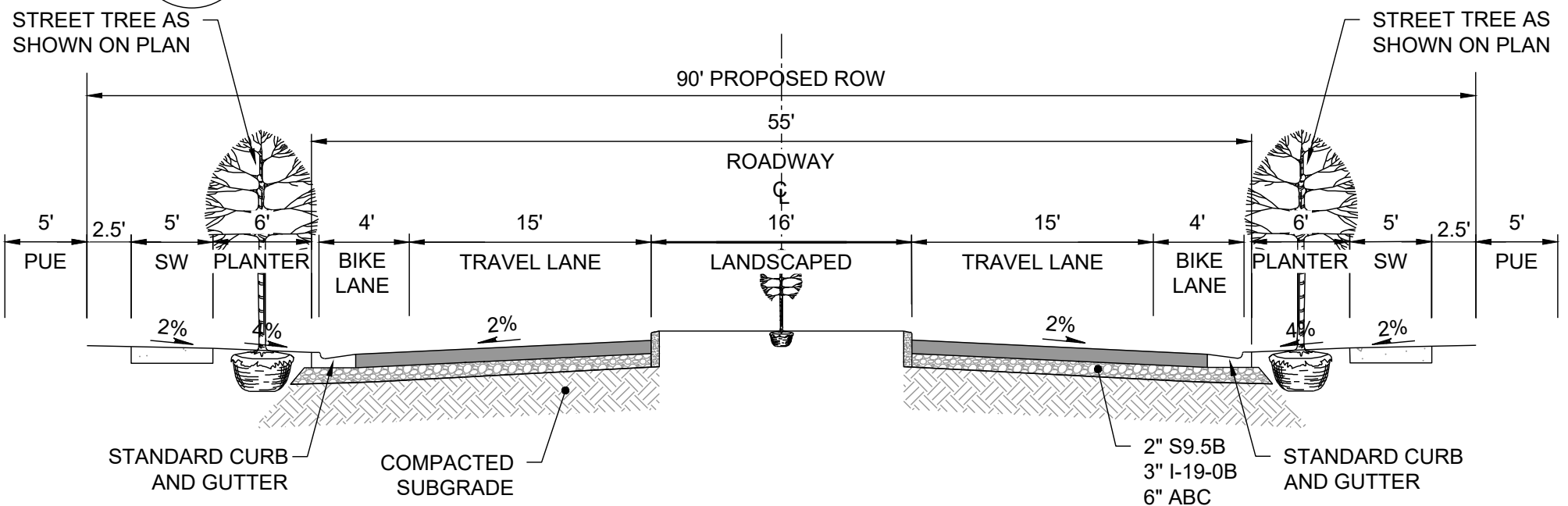
1 LOCAL STREET CROSS SECTION STANDARDS
SCALE: NTS



2 MAIN STREET CROSS SECTION STANDARDS
SCALE: NTS



3 TYPICAL CROSS SECTION - 54' ROW W/ PARALLEL PARKING
SCALE: NTS



4 URBAN AV - ENUE SECTION AND STANDARDS
SCALE: NTS

GENERAL NOTES:

- ALL CONSTRUCTION SHALL CONFORM TO TOWN OF KNIGHTDALE AND CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
- ROADS AND DRIVEWAYS SHALL COMPLY WITH NCDOT AND TOWN OF KNIGHTDALE STANDARDS.
- SIGN PERMITS SHALL BE REQUIRED FOR ANY ENTRANCE SIGNAGE. PERMITS SHALL BE REQUIRED PRIOR TO FABRICATION OR INSTALLATION OF SIGNS. SIGNAGE SHALL BE RESTRICTED TO AN ON-SITE LOCATION.
- THE WATER AND SEWER SYSTEMS SHALL COMPLY WITH CITY OF RALEIGH STANDARDS.
- ALL DESIGN AND CONSTRUCTION METHODS SHALL COMPLY WITH WAKE COUNTY'S SEDIMENTATION AND EROSION CONTROL REGULATIONS. AN EROSION CONTROL PLAN SHALL BE APPROVED BY WAKE COUNTY PRIOR TO ANY GRADING.
- CONSTRUCTION DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE TOWN OF KNIGHTDALE AND CITY OF RALEIGH PRIOR TO CONSTRUCTION.
- ALL STREETS WITHIN THE SUBDIVISION WILL HAVE A POSTED SPEED LIMIT OF 25 MPH. RESTRICTIVE COVENANTS SHALL BE APPROVED AND RECORDED PRIOR TO RECORDING OF FINAL PLAN.
- STORMWATER CONTROL MEASURES SHALL BE CONTAINED IN AND ACCESSED VIA OPEN SPACE MAINTAINED AND OWNED BY THE HOMEOWNER'S ASSOCIATION. A MAINTENANCE PLAN MUST BE DEVELOPED TO ADDRESS THE STORMWATER CONTROL MEASURES.
- PRIVATE STORM DRAINAGE EASEMENTS SHALL BE MAINTAINED BY THE HOA.
- SUBDIVISION LOTS MUST BE LOTS OF RECORD PRIOR TO RECEIVING A BUILDING PERMIT.

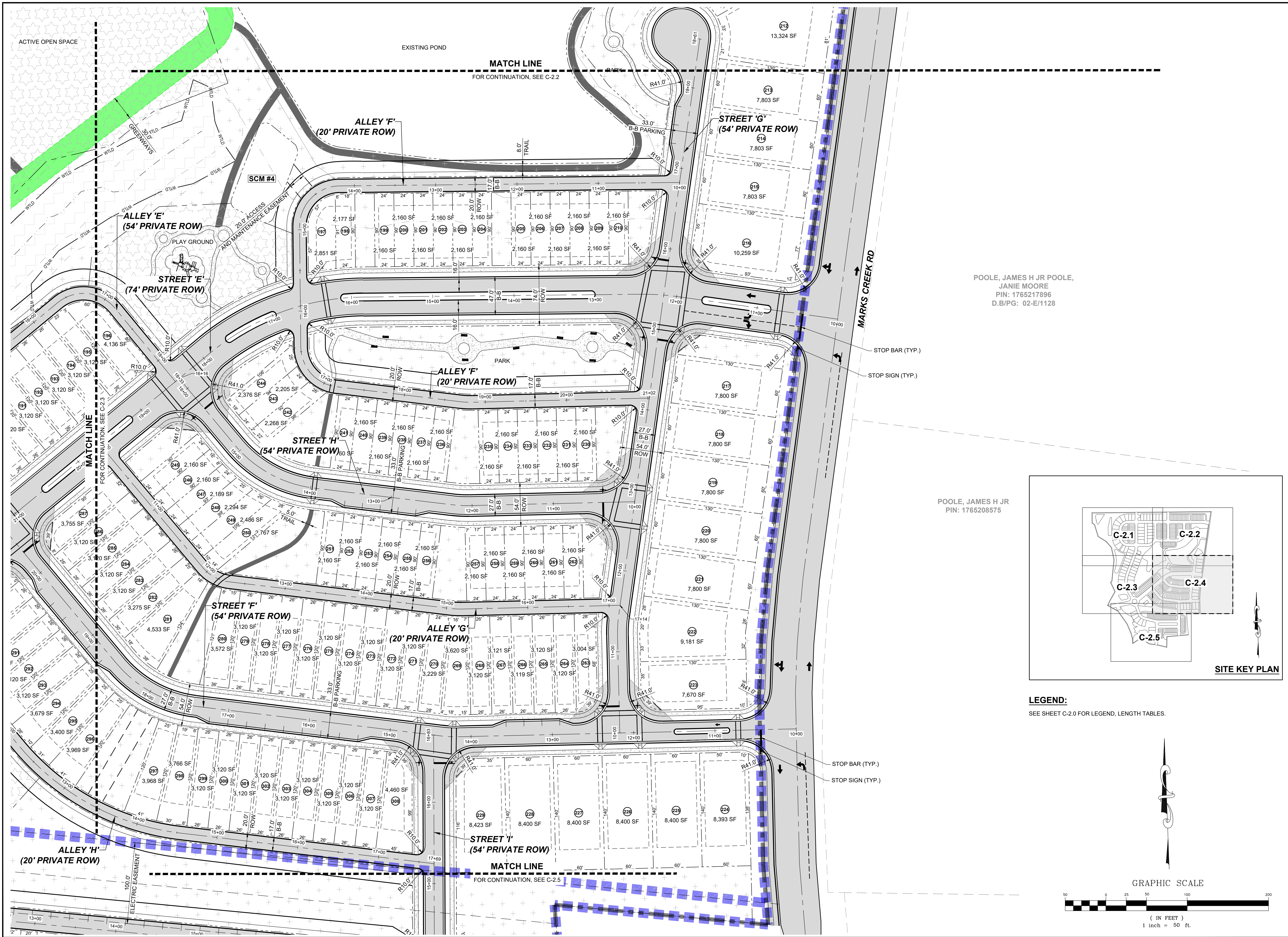
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STRONGROCK ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

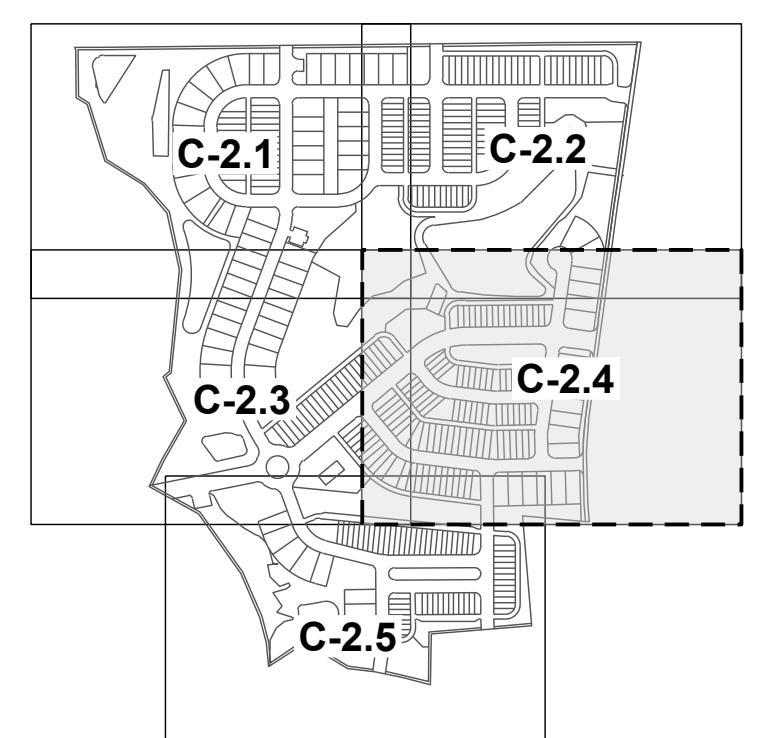
| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE | DESIGNED BY | DRAWN BY | CHECKED BY |
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PRESERVE AT MARKS CREEK
TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA
MASTER PLAN
OVERALL SITE PLAN



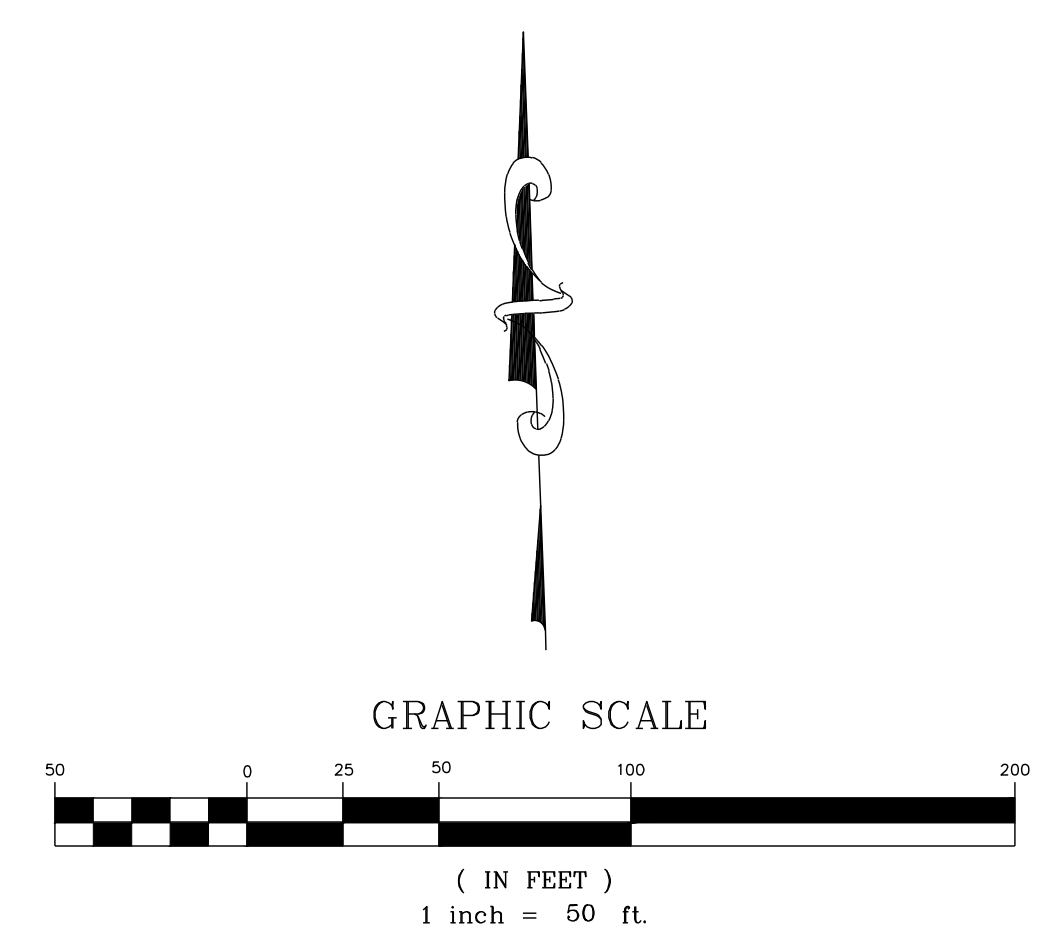
POOLE, JAMES H JR POOLE,
 JANIE MOORE
 PIN: 1765217896
 D.B/PG: 02-E/1128

POOLE, JAMES H JR
 PIN: 1765208575

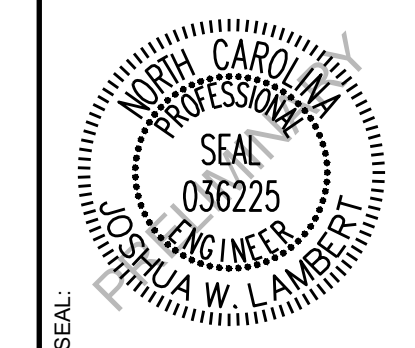


SITE KEY PLAN

LEGEND:
 SEE SHEET C-2.0 FOR LEGEND, LENGTH TABLES.



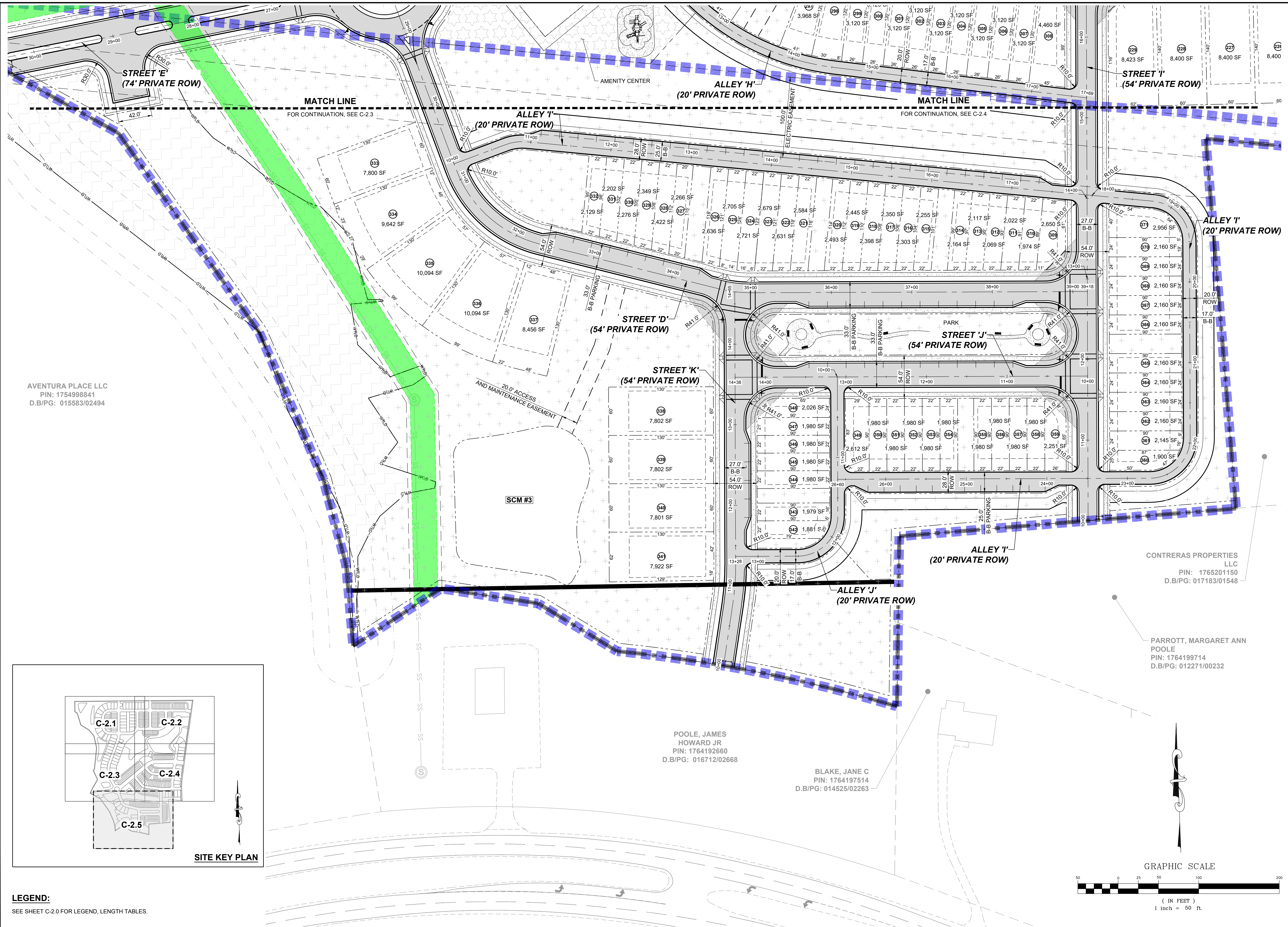
| NO. | REVISIONS | DATE | BY |
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 6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE | DESIGNED BY | DRAWN BY | CHECKED BY |
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PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
 MASTER PLAN
 DETAILED SITE PLAN IV



AVENTURA PLACE LLC
 PIN: 1754998841
 D.B/PG: 015583/02494

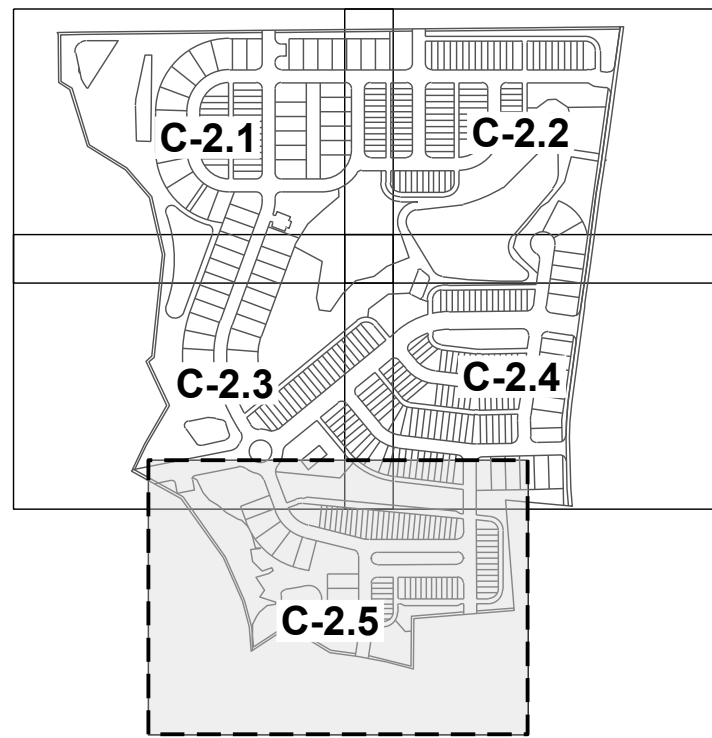
SCM #3

CONTRERAS PROPERTIES
 LLC
 PIN: 1765201150
 D.B/PG: 017183/01548

PARROTT, MARGARET ANN
 POOLE
 PIN: 1764199714
 D.B/PG: 012271/00232

POOLE, JAMES
 HOWARD JR
 PIN: 1764192660
 D.B/PG: 016712/02668

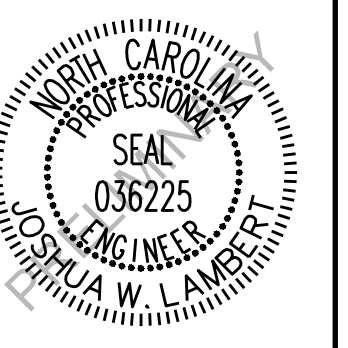
BLAKE, JANE C
 PIN: 1764197514
 D.B/PG: 014525/02263



SITE KEY PLAN

LEGEND:
 SEE SHEET C-2.0 FOR LEGEND, LENGTH TABLES.

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STRONGROCK
 ENGINEERING GROUP
 STRONG ROCK ENGINEERING GROUP, PLLC / COMPANY LICENSE # P-2.166
 6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE | DESIGNED BY | DRAWN BY | CHECKED BY |
|---------------------|----------------------|-------|-------------|----------|------------|
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PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
 MASTER PLAN
 DETAILED SITE PLAN V

DRAWING SHEET
C-2.5

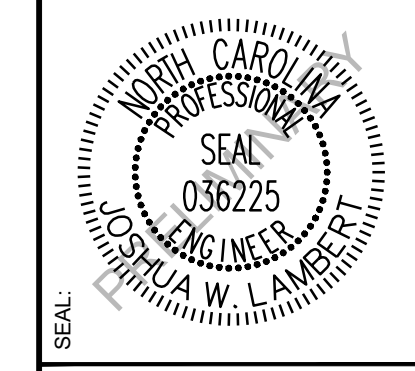


LEGEND:

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| | PHASE LINE |
| | EXISTING PROPERTY LINE |
| | ROADWAY CENTER LINE |
| | PROPOSED PROPERTY LINE |
| | PASSIVE AND PRESERVED OPEN SPACE |
| | ACTIVE OPEN SPACE |
| | PRESERVED OPEN SPACE |
| | WETLANDS |

| | |
|----------------------|--------------------------------|
| ACTIVE OPEN SPACE | 417,105 SF (9.58 AC) |
| PASSIVE OPEN SPACE | 273,922 SF (6.29 AC) |
| PRESERVED OPEN SPACE | 1,173,537 SF (26.94 AC) |
| TOTAL | 1,864,564 SF (42.80 AC) |

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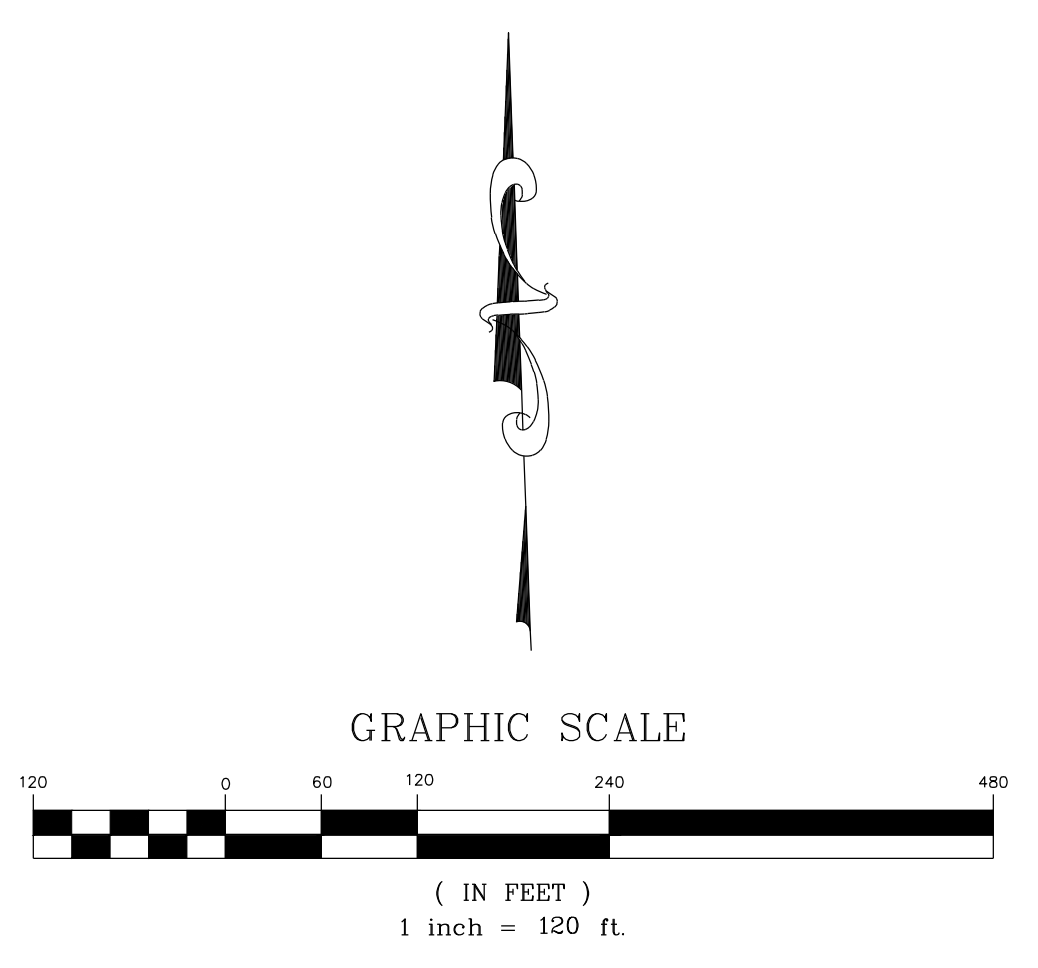
STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC / COMPANY LICENSE # P-2166
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

| | | | | |
|----------------------|-------------|----------|----------|-----|
| STRONG ROCK PROJECT | DESIGNED BY | JWL | SRG | JWL |
| NOT FOR CONSTRUCTION | SCALE | AS SHOWN | DRAWN BY | JWL |
| CONSTRUCTION | CHECKED BY | JWL | | |

PRESERVE AT MARKS CREEK
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
MASTER PLAN
OPEN SPACE PLAN

DRAWING SHEET
C-2.6

11 OF 42



PARL HERBERT V TRUSTEE & PARL RACHEL H TRUSTEE
PIN: 176232818
D.B.P.G.: 01842301263

EMERALD POINTE HOMEOWNERS ASSN INC
PIN: 1762000991
D.B.P.G.: 00813005585

EMERALD POINTE HOMEOWNERS ASSN INC
PIN: 1765900996
D.B.P.G.: 01454000293

AVENTURA PLACE LLC
PIN: 176488884
D.B.P.G.: 0100000004

CONTRERAS PROPERTIES LLC
PIN: 1765201150
D.B.P.G.: 01153001548

PARROTT, MARGARET ANN POOLE
PIN: 1764189714
D.B.P.G.: 01227100232

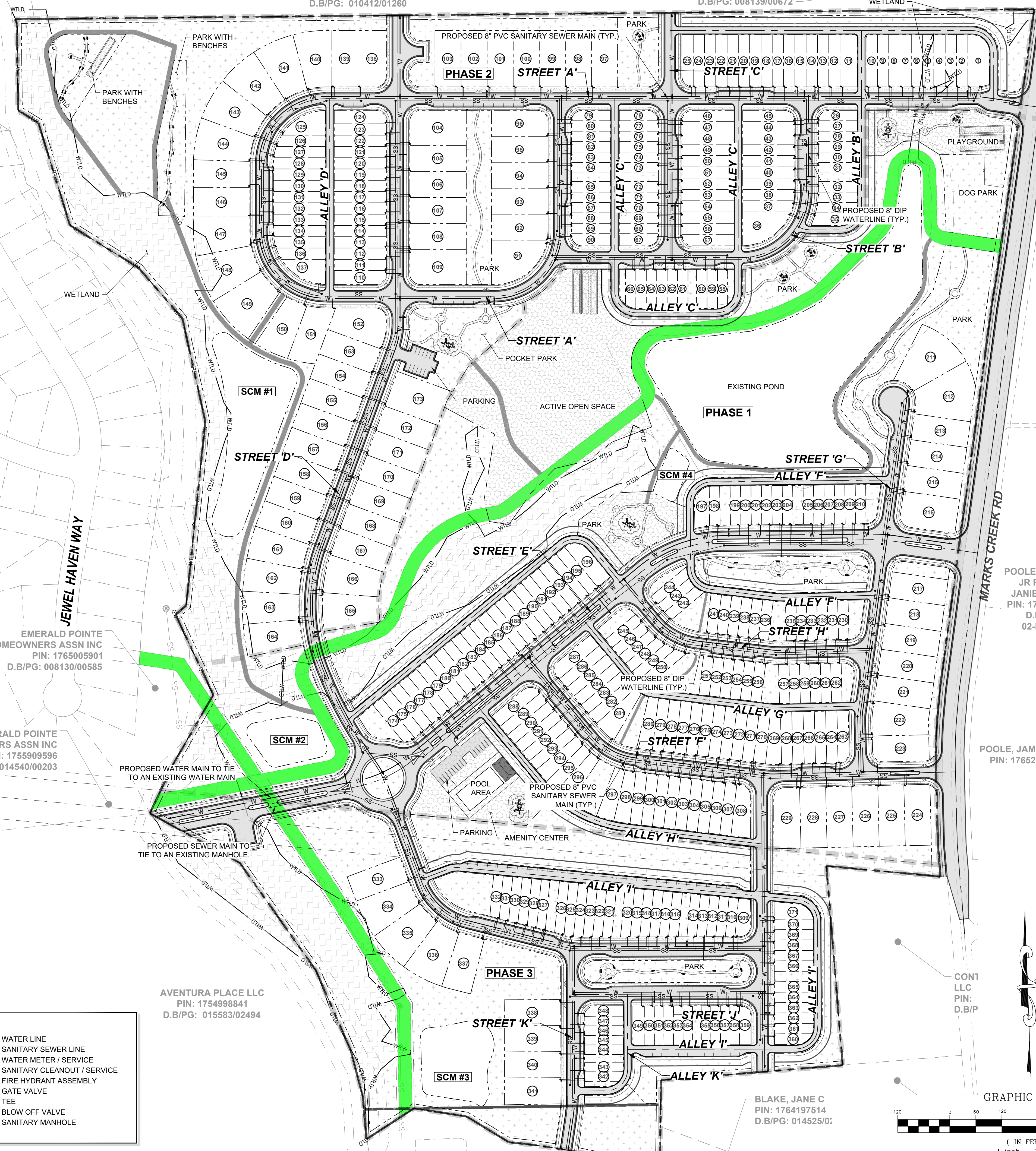
BLAKE, JANE C
PIN: 1764897814
D.B.P.G.: 01452502283

POOL, JAMES H JR POOL
JAMES SCORIE
PIN: 1762327386
D.B.P.G.: 02011018

POOL, JAMES H JR
PIN: 1762308574

PAIR, HERBERT V TRUSTEE & PAIR, RACHEL H TRUSTEE
PIN: 1765122816
D.B/PG: 01042/01260

G&F PROPERTIES LLC
PIN: 1765224301
D.B/PG: 008139/00672



UTILITY NOTES

- 1. LL UTILITY DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES (CORPUD) STANDARDS AND SPECIFICATIONS. UTILITY DESIGN SHALL ALSO MEET FIRE FLOW REQUIREMENTS OF NCFD.
- 2. UTILITY SIZES AND LOCATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO CHANGE BASED ON FINAL DESIGN AND CONSTRUCTION DRAWING APPROVAL. THIS SHALL INCLUDE BUT NOT LIMITED TO FIRE HYDRANT LOCATIONS.
- 3. ANY EXISTING WATER AND SEWER LINES TO BE USED AS PART OF THE FINAL DESIGN OF THE PROJECT SHALL BE LOCATED BY SURVEY, TESTED BY A LICENSED CONTRACTOR AND APPROVED BY THE CITY OF RALEIGH INSPECTOR PRIOR TO SUBMITTAL OF CONSTRUCTION DRAWINGS.
- 4. AS PART OF CONSTRUCTION DRAWING SUBMITTAL, FIRE FLOW CALCULATIONS SHALL BE PROVIDED SHOWING COMPLIANCE WITH NCFD. PROJECT MAY BE DEVELOPED IN PHASES AND ALL PHASES SHALL BE REQUIRED TO MEET THE MINIMUM REQUIRED FIRE FLOWS PER OCCUPANCY PROPOSED IN EACH PHASE.
- 5. AN APPROVED WATER SUPPLY FOR FIRE SUPPRESSION (TEMPORARY OR PERMANENT) SHALL BE PROVIDED AS SOON AS COMBUSTIBLE MATERIALS ARRIVE ON SITE.
- 6. UTILITY CONSTRUCTION APPROVAL IS REQUIRED FOR THIS PROJECT. PLANS TO BE PREPARED BY NC PROFESSIONAL ENGINEER.
- 7. RIGHT OF WAY AND/OR EASEMENT DEDICATION PLAT IS REQUIRED FOR THIS PROJECT (PRIOR TO CITY ACCEPTANCE OF UTILITIES).
- 8. ALL NECESSARY WETLAND, RIPARIAN BUFFER AND FLOODPLAIN PERMITS FROM USACE, NCDWQ & FEMA SHALL BE OBTAINED PRIOR TO CONSTRUCTION.
- 9. PROJECT SHALL EXTEND PUBLIC WATER MAINS ALONG ALL INTERIOR AND ABUTTING RIGHT OF WAYS OF DEVELOPMENT.
- 10. FIRE HYDRANT ASSEMBLIES SHALL BE INSTALLED AT EVERY INTERSECTION AND AT 500' (RESIDENTIAL) MAX INTERVALS ALONG SITE FRONTAGE.
- 11. ALL MAINS UP TO 12 INCHES IN SIZE SHALL BE DESIGNED WITH A BLOW-OFF ASSEMBLY THE SAME SIZE AS THE DIAMETER OF THE PIPE.
- 12. ALL WATER MAINS SHALL BE PRESSURE CLASS OR THICKNESS CLASS DUCTILE IRON PIPE DESIGNED IN ACCORDANCE WITH AWWA STANDARD C-150.
- 13. PROJECT SHALL EXTEND PUBLIC GRAVITY SEWER TO PERIPHERY OF DEVELOPMENT BASED ON NATURAL TOPOGRAPHY.
- 14. ALL CITY OF RALEIGH SANITARY SEWER EASEMENTS SHALL BE A MINIMUM OF 30 FEET.
- 15. THE SANITARY SEWER DESIGN SHALL BE EVALUATED DURING THE CONSTRUCTION DRAWING REVIEW TO ENSURE ADJACENT PROPERTIES HAVE ACCESS TO SANITARY SEWER WHERE FEASIBLE AND IN COMPLIANCE WITH THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT STANDARDS AND SPECIFICATIONS.
- 16. ALL OFF-SITE EASEMENTS SHALL BE ACQUIRED BY THE DEVELOPER. THESE OFF-SITE EASEMENTS SHALL BE RECORDED BY MAP AND BY DEED OF EASEMENT PRIOR TO CONSTRUCTION APPROVAL. THE EASEMENTS SHALL BE DEDICATED TO THE CITY OF RALEIGH AND ENTITLED "CITY OF RALEIGH SANITARY SEWER EASEMENT".
- 17. MAINTAIN APPROPRIATE COVER AND SEPARATION ON UTILITIES AND LABEL IN PROFILES; ANY UTILITY CROSSINGS ARE SUBJECT TO MINIMUM REQUIREMENTS.
- 18. CONSTRUCTION APPROVAL WILL BE REQUIRED FOR ANY EXTENSIONS OF PUBLIC WATER OR SEWER MAINS.
- 19. PLAT RECORDATION REQUIRED AFTER CONSTRUCTION APPROVAL PRIOR TO BUILDING PERMIT.
- 20. DOT ENCROACHMENT AGREEMENT REQUIRED.
- 21. PRIVATE WATER SERVICES SHOULD BE TYPE "K" SOFT COPPER AND IN ACCORDANCE WITH PU HANDBOOK, APP. B, STANDARD WATER DETAIL W-23 AND W-25. IF WATER METERS CANNOT BE LOCATED WITHIN THE RIGHT-OF-WAY THEY MUST BE WITHIN RECORDED "CITY OF RALEIGH WATERLINE EASEMENTS".

CORPUD STANDARD UTILITY NOTES:

- 1. STANDARD UTILITY NOTES (AS APPLICABLE):
 - a) ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION).
 - b) UTILITY SEPARATION REQUIREMENTS:
 - a) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
 - b) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR.
 - c) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, PVC MATERIALS OR STEEL ENCASEMENT EXCEEDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
 - d) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS PVC MATERIAL IS SPECIFIED FOR SANITARY SEWER.
 - e) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY PVC MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
 - f) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
 - c) ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
- 2. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
- 3. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- 4. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
- 5. INSTALL 3/4" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.
- 6. INSTALL 4" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
- 7. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- 8. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
- 9. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
- 10. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
- 11. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

LEGEND:

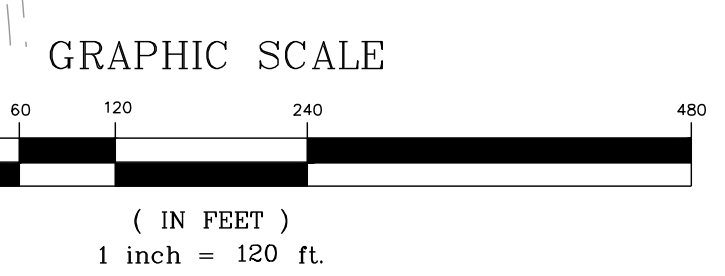
- W WATER LINE
- SS SANITARY SEWER LINE
- Water Meter / Service
- Sanitary Cleanout / Service
- Fire Hydrant Assembly
- Gate Valve
- TEE
- BLOW OFF VALVE
- SANITARY MANHOLE

AVENTURA PLACE LLC
PIN: 1754998841
D.B/PG: 015583/02494

POOLE, JAMES H JR
POOLE, JANIE MOORE
PIN: 1765217896
D.B/PG: 02-E/1128

POOLE, JAMES H JR
PIN: 1765208575

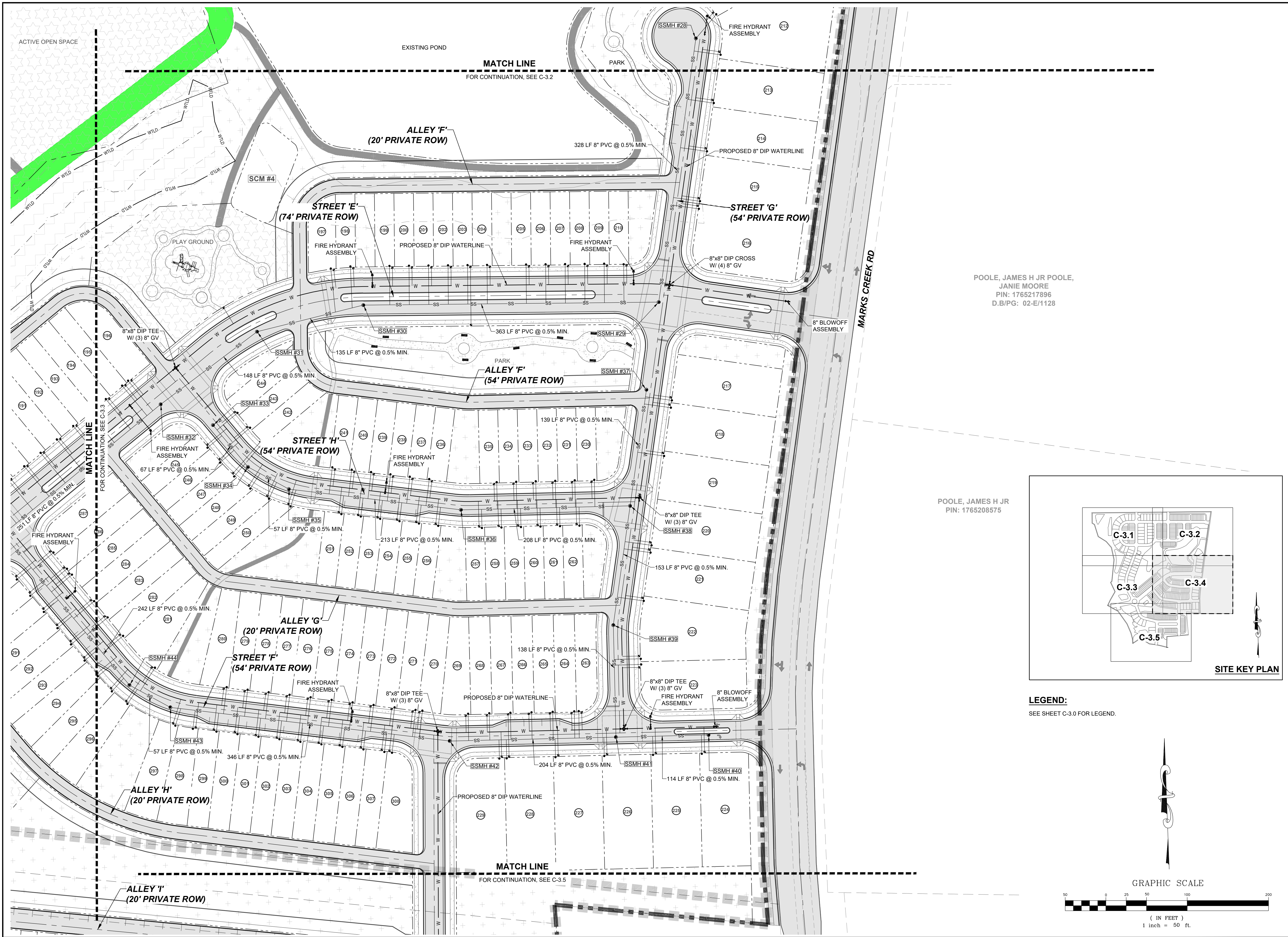
BLAKE, JANE C
PIN: 1764197514
D.B/PG: 014525/0;



UTILITY CONSTRUCTION APPROVAL IS REQUIRED FOR PROJECT DEVELOPMENT.

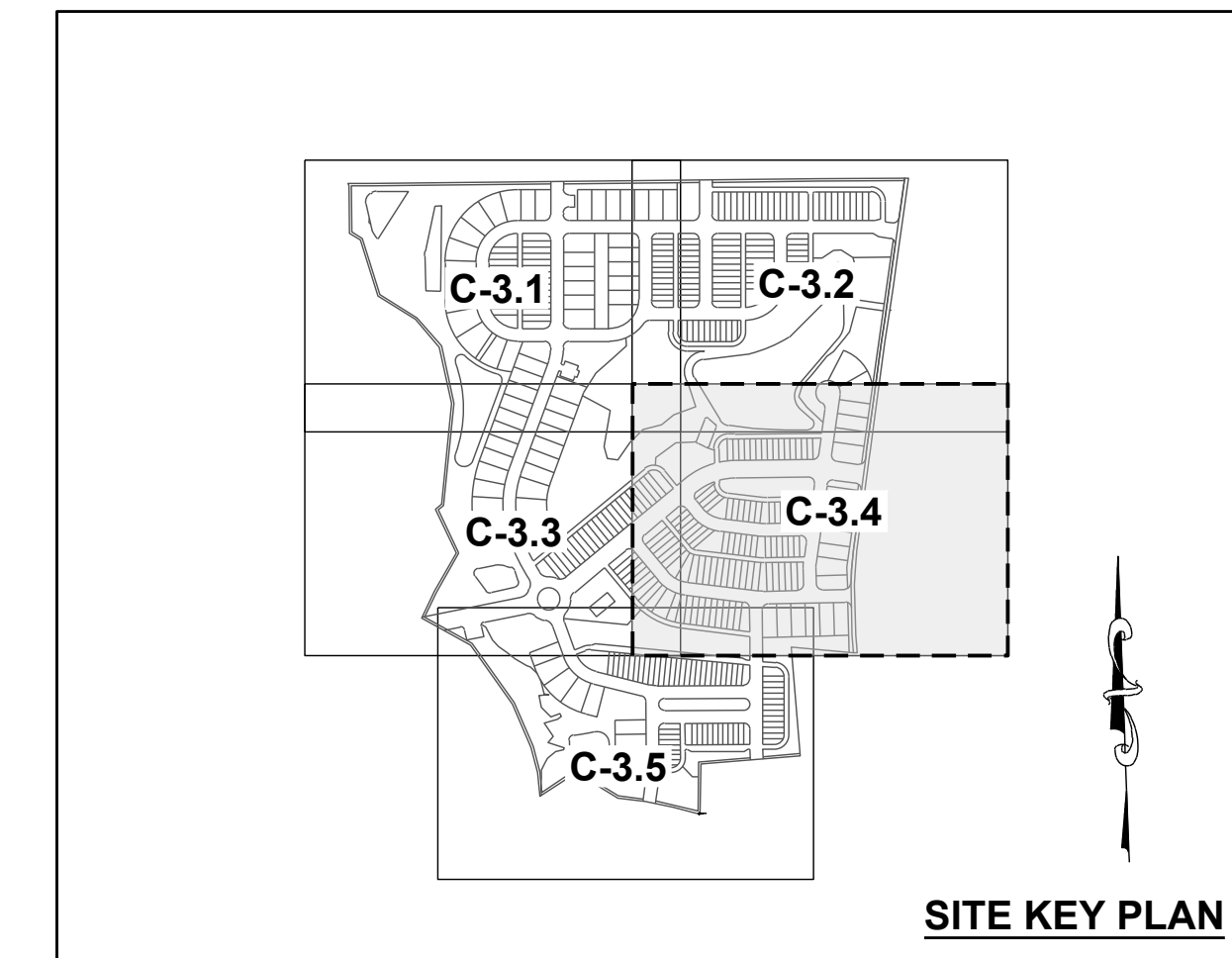
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF KNIGHTDALE, CITY OF RALEIGH AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS.

| | |
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| DATE | |
| REVISIONS | |
| No. | |
| | |
| STRONGROCK ENGINEERING GROUP | |
| STRONG ROCK ENGINEERING GROUP, PLLC COMPANY LICENSE # P-2166 6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 JOSH@STRONGROCKENGINEERING.COM | |
| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION |
| SCALE | AS SHOWN |
| DESIGNED BY | JWL |
| DRAWN BY | SRG |
| CHECKED BY | JWL |
| PRESERVE AT MARKS CREEK TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA MASTER PLAN OVERALL UTILITY PLAN | |
| DRAWING SHEET C-3.0 | |
| 12 OF 42 | |

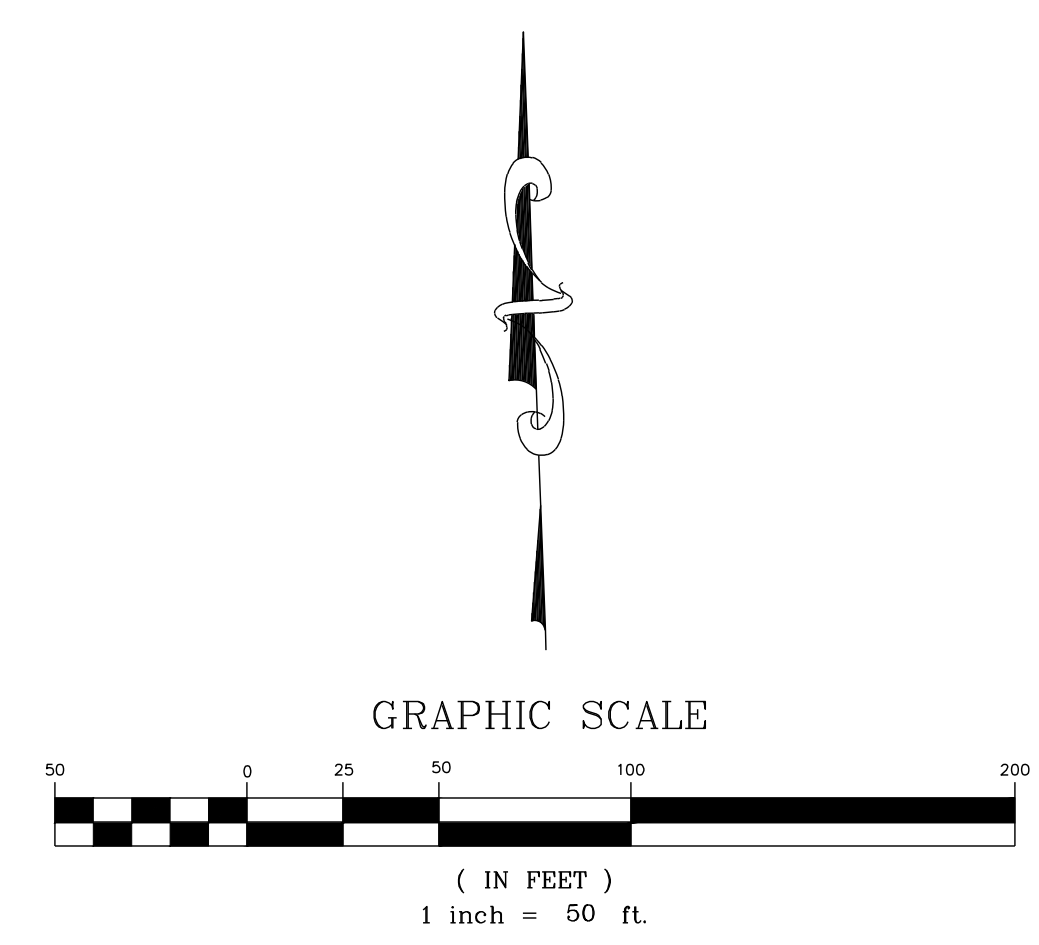


POOLE, JAMES H JR POOLE,
 JANIE MOORE
 PIN: 1765217896
 D.B/P.G: 02-E/1128

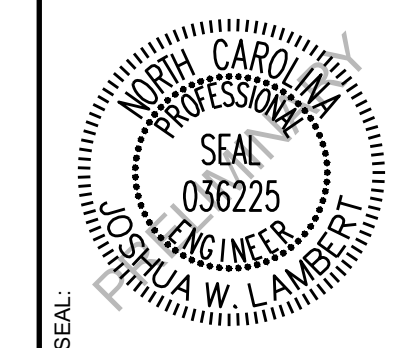
POOLE, JAMES H JR
 PIN: 1765208575



LEGEND:
 SEE SHEET C-3.0 FOR LEGEND.



| NO. | REVISIONS | DATE | BY |
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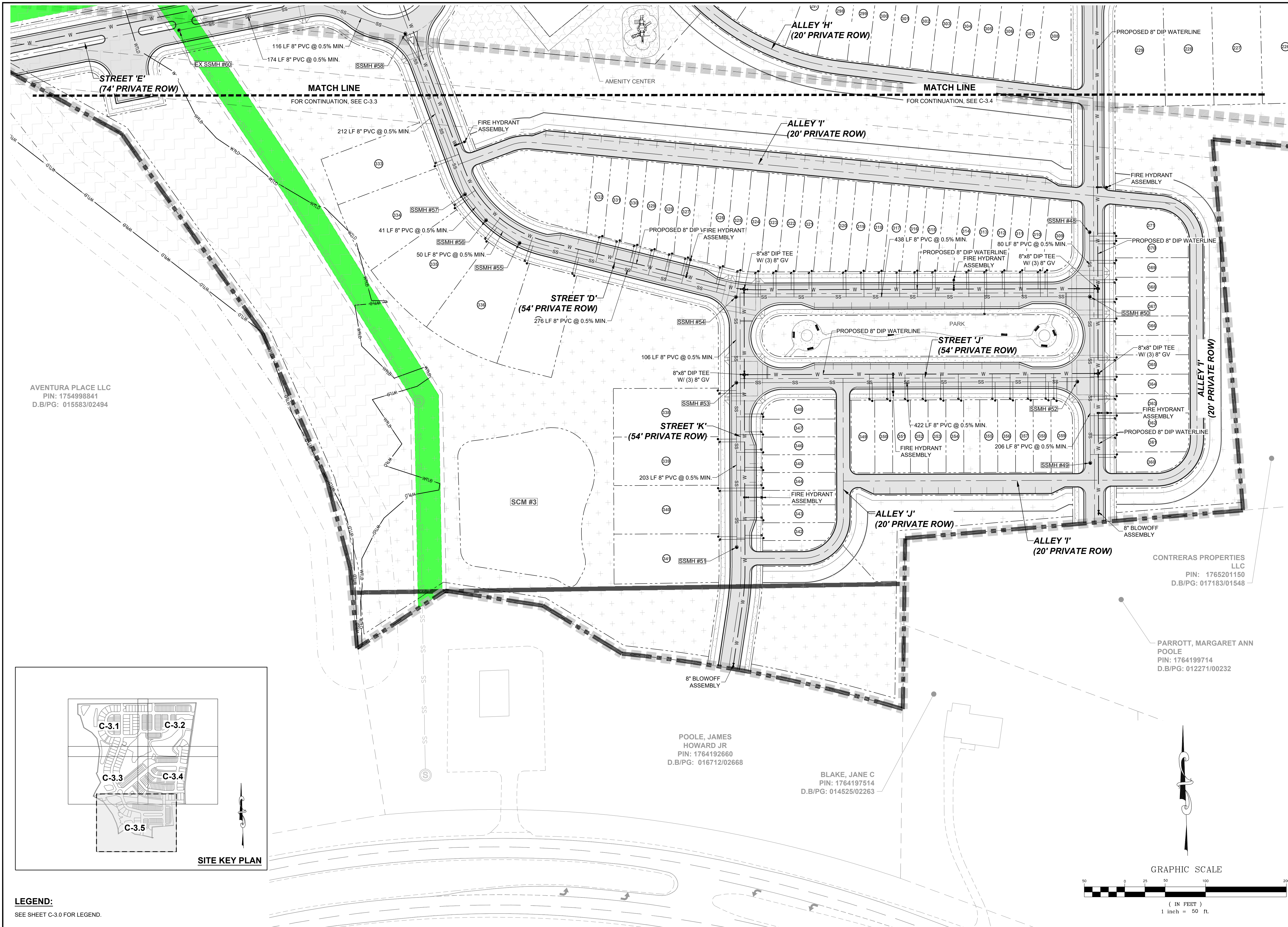


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 6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

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|---------------------|----------------------|----------------|-------------|----------|------------|
| | | | JWL | SRG | JWL |

PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
MASTER PLAN
DETAILED UTILITY PLAN IV

DRAWING SHEET
C-3.4
 16 OF 42



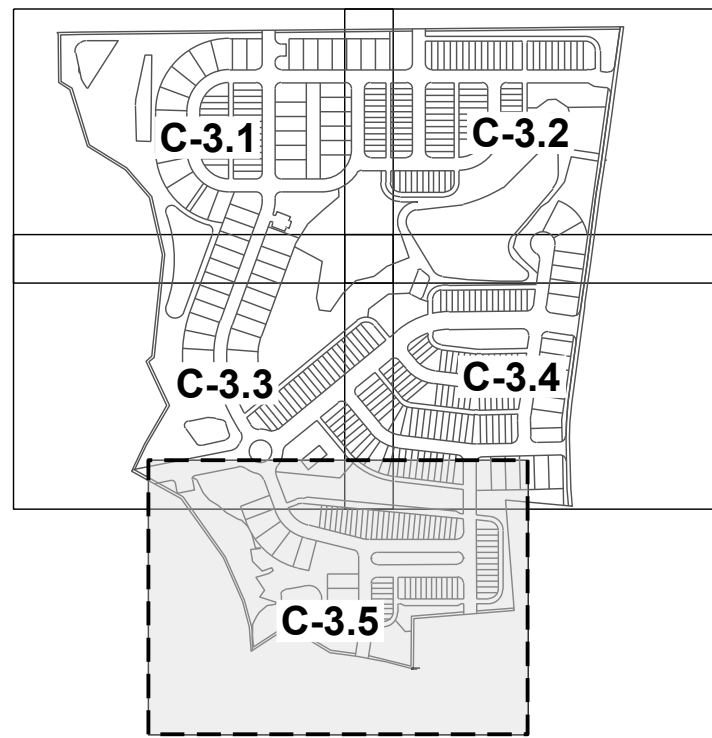
AVENTURA PLACE LLC
 PIN: 1754998841
 D.B/PG: 015583/02494

CONTRERAS PROPERTIES
 LLC
 PIN: 1765201150
 D.B/PG: 017183/01548

PARROTT, MARGARET ANN
 POOLE
 PIN: 1764199714
 D.B/PG: 012271/00232

POOLE, JAMES
 HOWARD JR
 PIN: 1764192660
 D.B/PG: 016712/02668

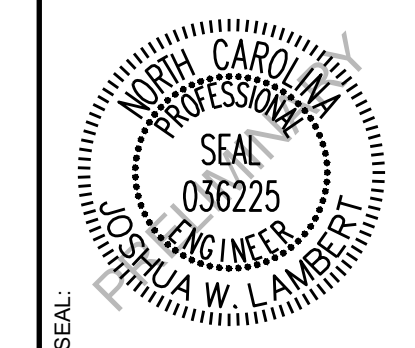
BLAKE, JANE C
 PIN: 1764197514
 D.B/PG: 014525/02263



SITE KEY PLAN

LEGEND:
 SEE SHEET C-3.0 FOR LEGEND.

| NO. | REVISIONS | DATE | BY |
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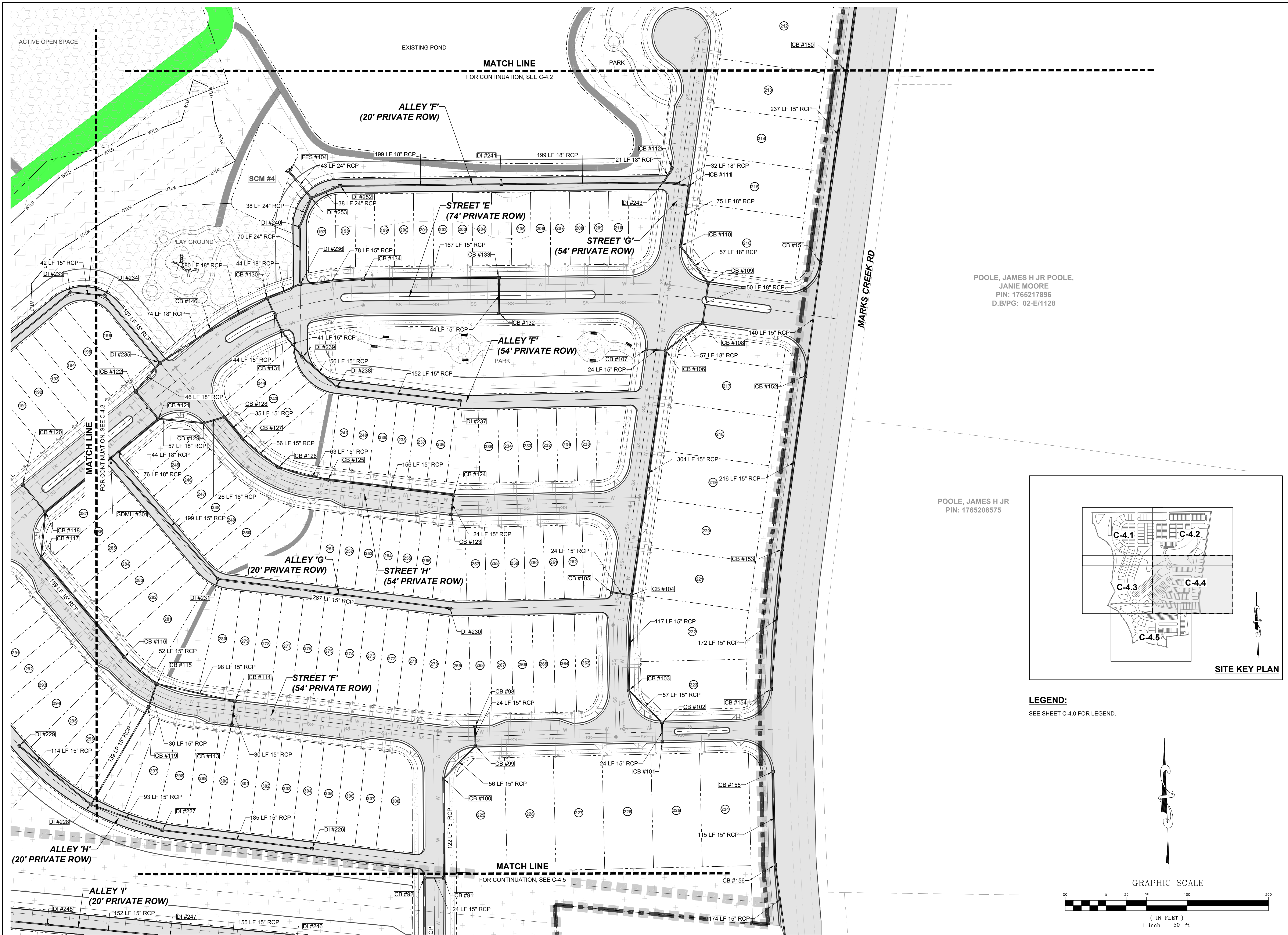


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 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE | DESIGNED BY | DRAWN BY | CHECKED BY |
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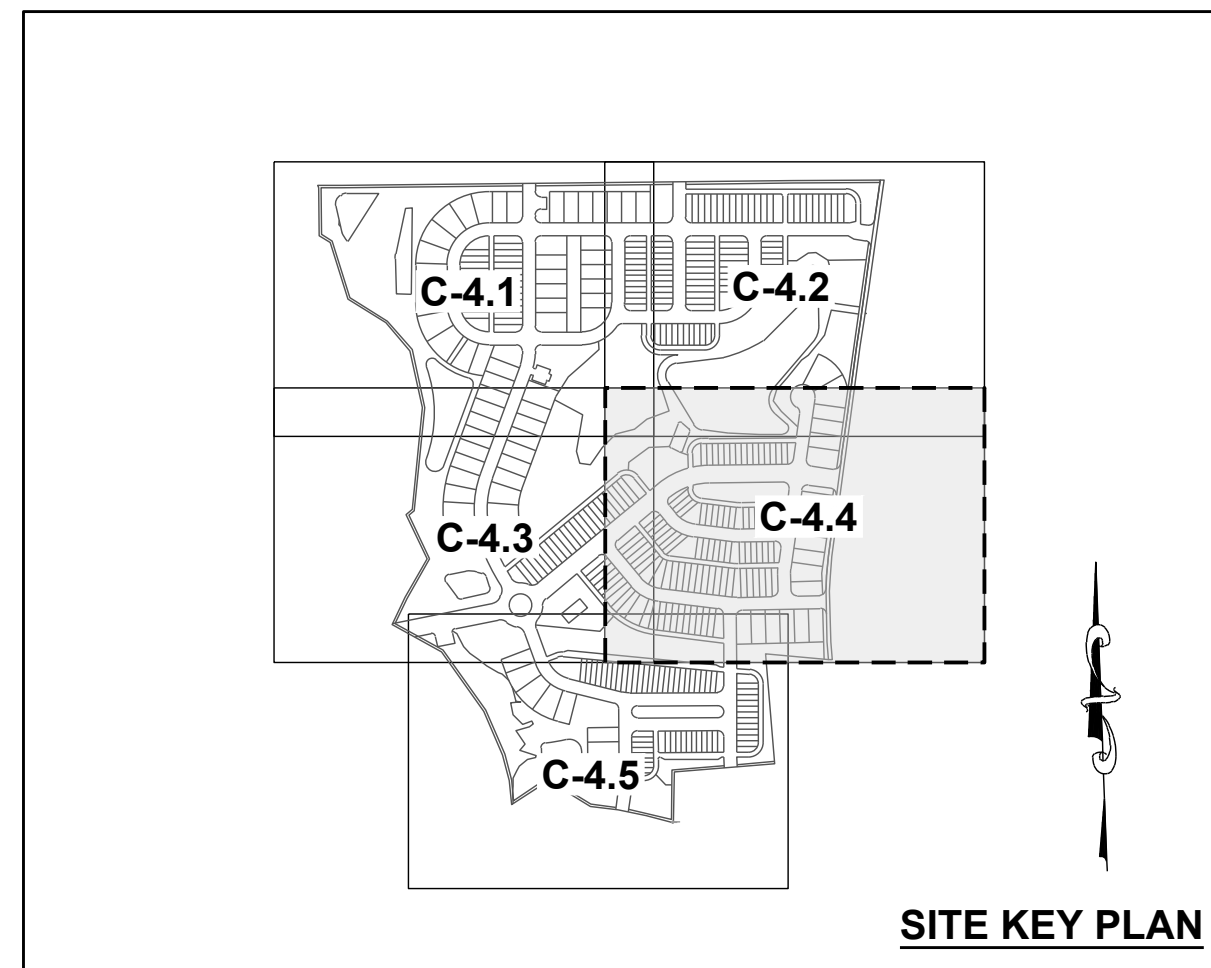
PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
 MASTER PLAN
 DETAILED UTILITY PLAN V

DRAWING SHEET
C-3.5



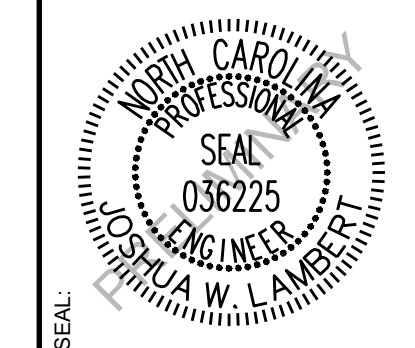
POOLE, JAMES H JR POOLE,
 JANIE MOORE
 PIN: 1765217896
 D.B/PG: 02-E/1128

POOLE, JAMES H JR
 PIN: 1765208575



LEGEND:
 SEE SHEET C-4.0 FOR LEGEND.

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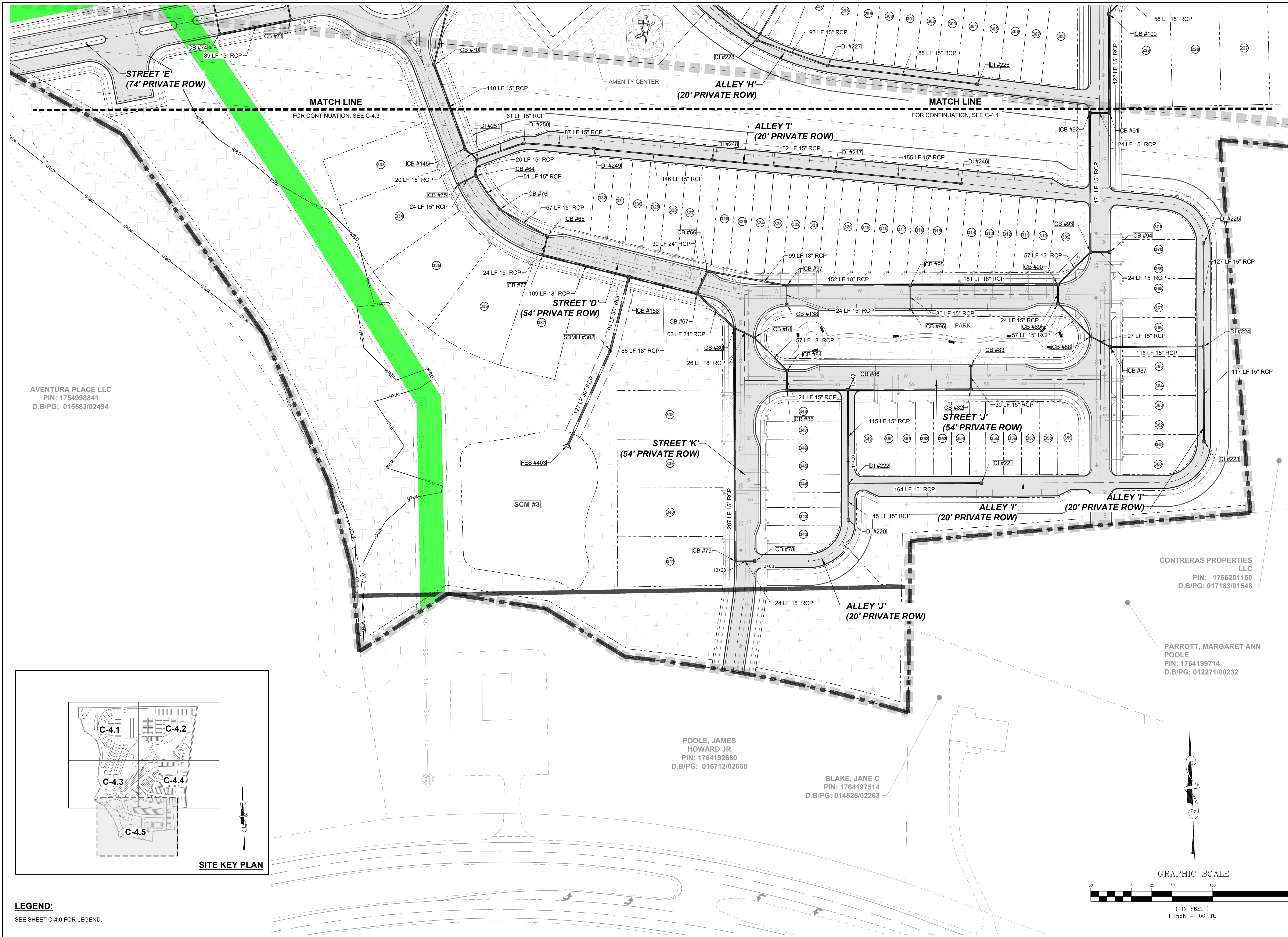


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 6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

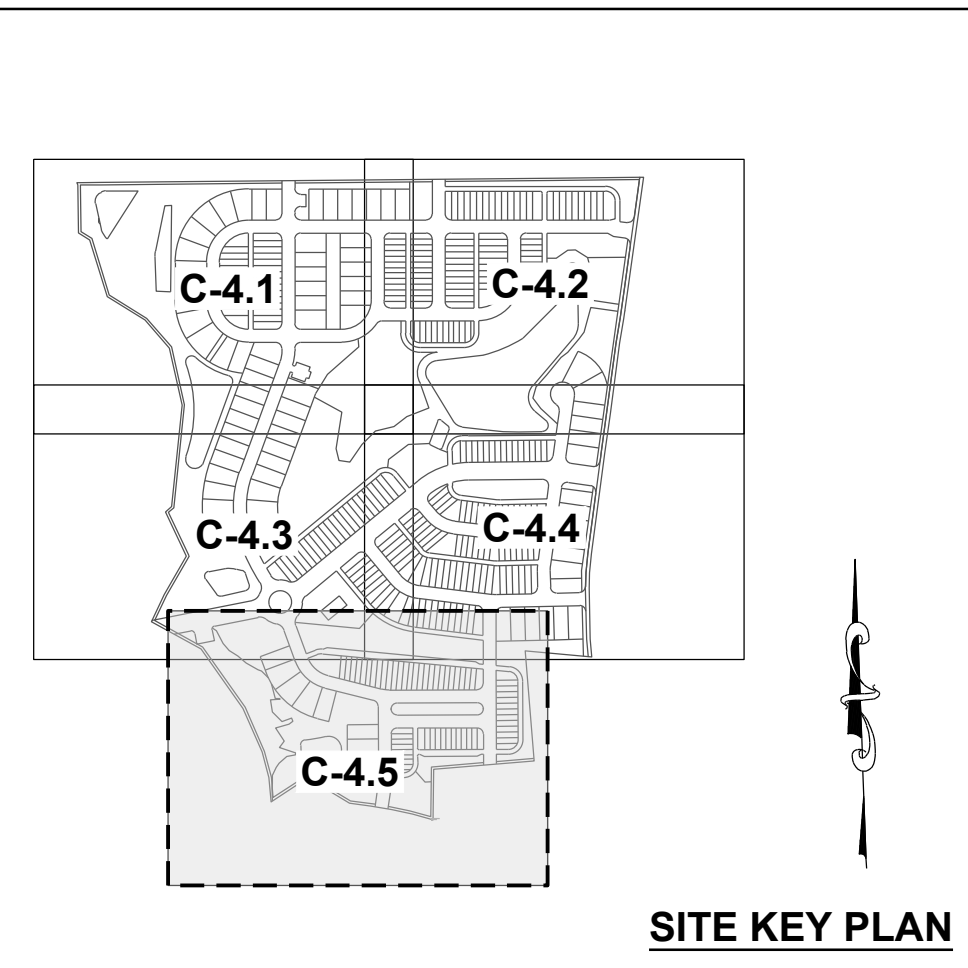
| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY | DRAWN BY | CHECKED BY |
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PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
 MASTER PLAN
 DETAILED STORMWATER PLAN IV

DRAWING SHEET
C-4.4
 22 OF 42



AVENTURA PLACE LLC
 PIN: 1754998841
 D.B/PG: 015583/02494



SITE KEY PLAN

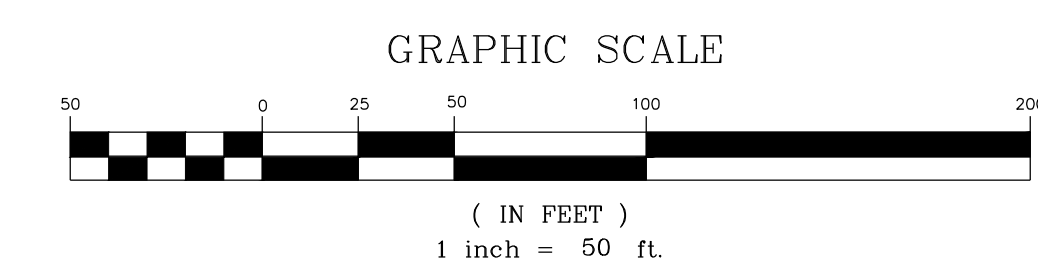
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POOLE, JAMES
 HOWARD JR
 PIN: 1764192660
 D.B/PG: 016712/02668

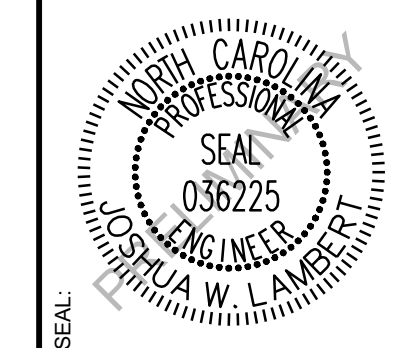
BLAKE, JANE C
 PIN: 1764197514
 D.B/PG: 014525/02263

CONTRERAS PROPERTIES
 LLC
 PIN: 1765201150
 D.B/PG: 017183/01548

PARROTT, MARGARET ANN
 POOLE
 PIN: 1764199714
 D.B/PG: 012271/00232



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|---------------------|----------------------|----------------|-------------|----------|------------|
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PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
 MASTER PLAN
 DETAILED STORMWATER PLAN V



LEGEND:

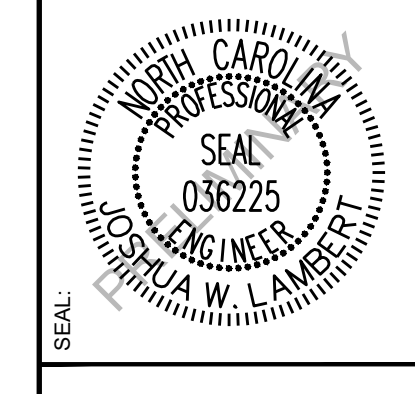
- ULMUS PARVIFOLIA (UP)
- ACER SACCHARUM (AS)
- LAGERSTROEMIA INDICA (LI)
- ILEX GLABRA (IG)
- ILEX X 'NELLIE R STEVENS (IN)
- QUERCUS NUTTALLII

STREET TREE TABLE:

| KEY | QTY | BOTANICAL NAME | COMMON NAME | MIN. INSTALLED SIZE | ROOT | TYPE | REMARKS |
|-------------------------|------|--------------------------|----------------------|------------------------|--------|------------------|-----------------------------------------|
| UP | 246 | ULMUS PARVIFOLIA | LACEBARK ELM | 2.5" CAL., 12' MIN. | B&B | STREET TREES | SINGLE STRAIGHT LEADER. FULL & HEAVY. |
| AS | 243 | ACER SACCHARUM | SUGAR MAPLE | 2.5" CAL., 12' MIN. | B&B | STREET TREES | SINGLE STRAIGHT LEADER. FULL & HEAVY. |
| UNDERSTORY TREES | | | | | | | |
| | 296 | QUERCUS NUTTALLII | NUTTALL OAK | 2.5" CAL., 10' HT MIN. | B&B | STREET TREES | |
| | 31 | LAGERSTROEMIA INDICA | CRAPPE MYTLE | 1.5" CAL., 18' HT MIN. | B&B | STREET TREES | |
| SHURBS | | | | | | | |
| | 1087 | ILEX GLABRA | INKBERRY HOLLY | 24" HT | 5 GAL. | PERIMETER BUFFER | FULL & HEAVY. HEIGHT: 4' AFTER 2 YEARS. |
| | 41 | ILEX X 'NELLIE R STEVENS | NELLIE STEVENS HOLLY | 24" HT | 5 GAL. | PERIMETER BUFFER | FULL & HEAVY. HEIGHT: 4' AFTER 2 YEARS. |

- GENERAL PLANTING NOTES:**
- STREET TREES SHALL BE LOCATED WITHIN THE RIGHT OF WAY.
 - STREET TREES SHALL BE PLANTED BY EACH BUILDER PRIOR TO RECEIVING C.O. FOR HOUSE.
 - ALL LANDSCAPING SHOULD BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE TOWN OF KNIGHTDALE'S UDO.
 - ALL PLANT MATERIALS TO COMPLY WITH AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.
 - CONTRACTOR ENGAGED IN LANDSCAPE IMPLEMENTATION SHALL BE A LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF NORTH CAROLINA.
 - SUBSTITUTIONS OF PLANT MATERIALS SPECIFIED CAN ONLY OCCUR WITH PRIOR APPROVAL BY LANDSCAPE ARCHITECT.
 - ALL NEW TREES TO HAVE A 5" DIAMETER SHREDDED HARDWOOD MULCH RING AT 4" DEEP UNLESS OTHERWISE NOTED OR LOCATED IN A PLANT BED PER SITE PLAN.
 - LANDSCAPE CONTRACTOR TO GUARANTEE PLANT MATERIALS FOR A ONE YEAR PERIOD FOLLOWING SUBSTANTIAL COMPLETION.
 - AREAS DAMAGED BY LANDSCAPE CONTRACTOR TO BE REPAIRED TO PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE OWNER.
 - ALL LANDSCAPE ISLANDS SHALL BE GRADED FOR POSITIVE DRAINAGE WITH NO LOW SPOTS ALLOWING WATER TO BE TRAPPED.
 - ALL ABOVE GROUND UTILITIES MUST BE SCREENED.

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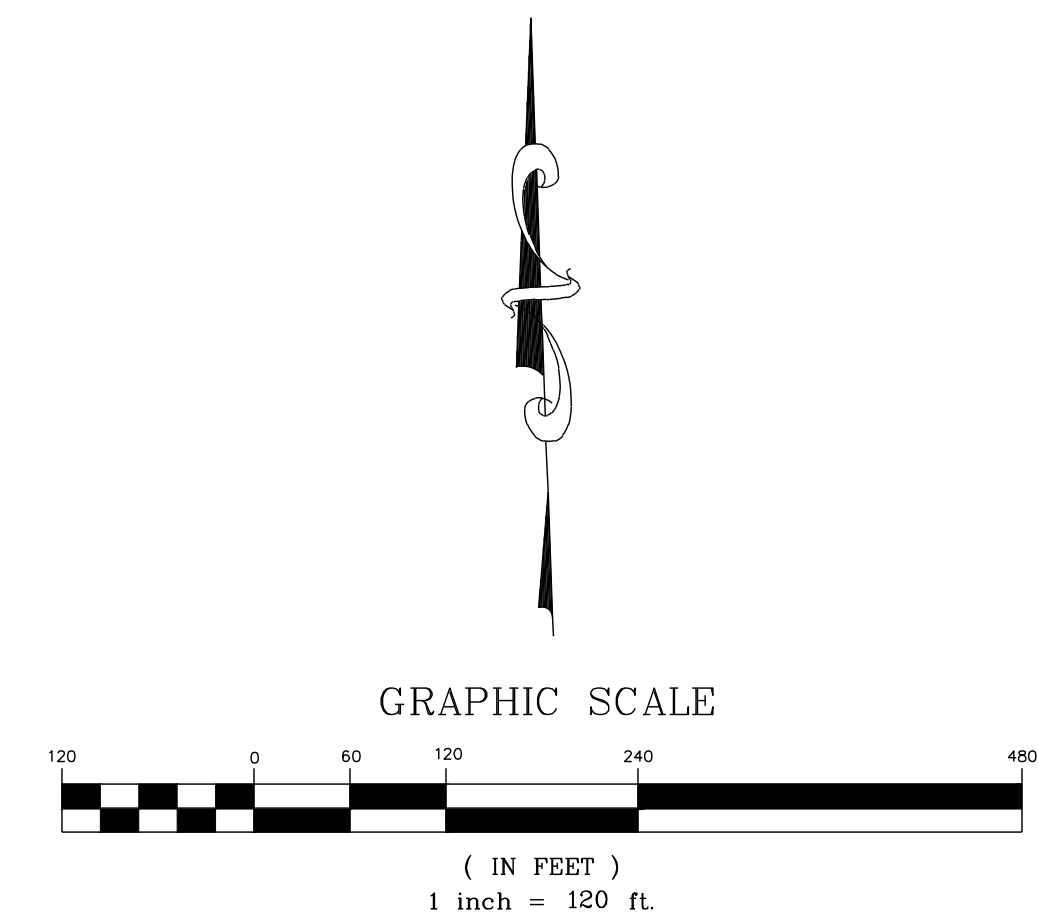


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STRONG ROCK ENGINEERING GROUP, PLLC / COMPANY LICENSE # P-2166
6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 / JOSH@STRONGROCKENGINEERING.COM

| | | | | | |
|---------------------|----------------------|----------------|-----------------|--------------|----------------|
| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | DRAWN BY SRG | CHECKED BY JWL |
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PRESERVE AT MARKS CREEK
TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA
MASTER PLAN
OVERALL LANDSCAPE PLAN

DRAWING SHEET
C-5.0
24 OF 42



PAIR, HERBERT V TRUSTEE & PAIR, RACHEL H TRUSTEE
PIN: 1765122816
D.B/PG: 010412/01260

G&F PROPERTIES LLC
PIN: 1765224301
D.B/PG: 008139/00672

EMERALD POINTE HOMEOWNERS ASSN INC
PIN: 1765005901
D.B/PG: 008130/00585

EMERALD POINTE HOMEOWNERS ASSN INC
PIN: 1755909596
D.B/PG: 014540/00203

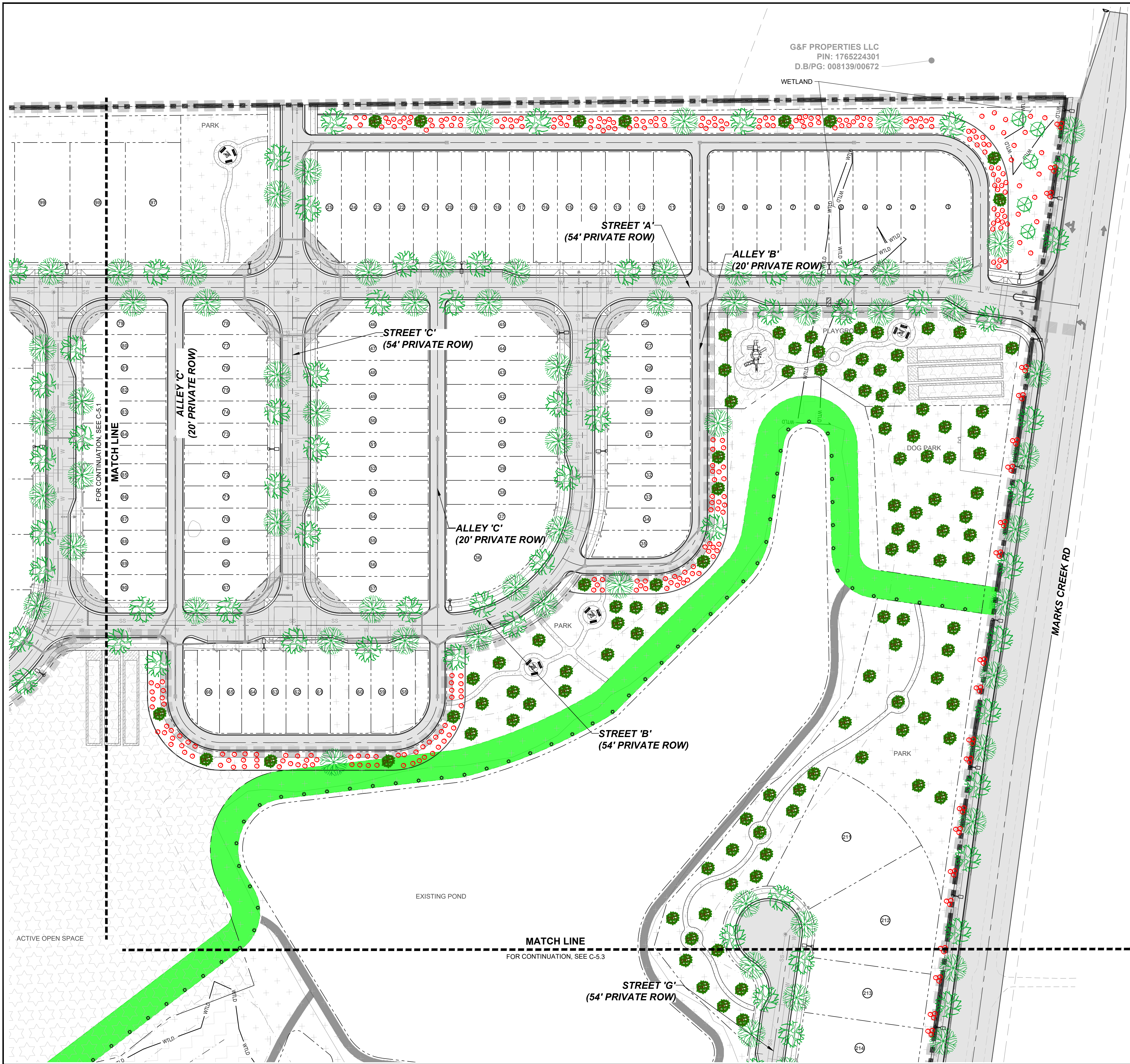
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PIN: 1754998841
D.B/PG: 015583/02494

POOLE, JAMES H JR
PIN: 1765208575

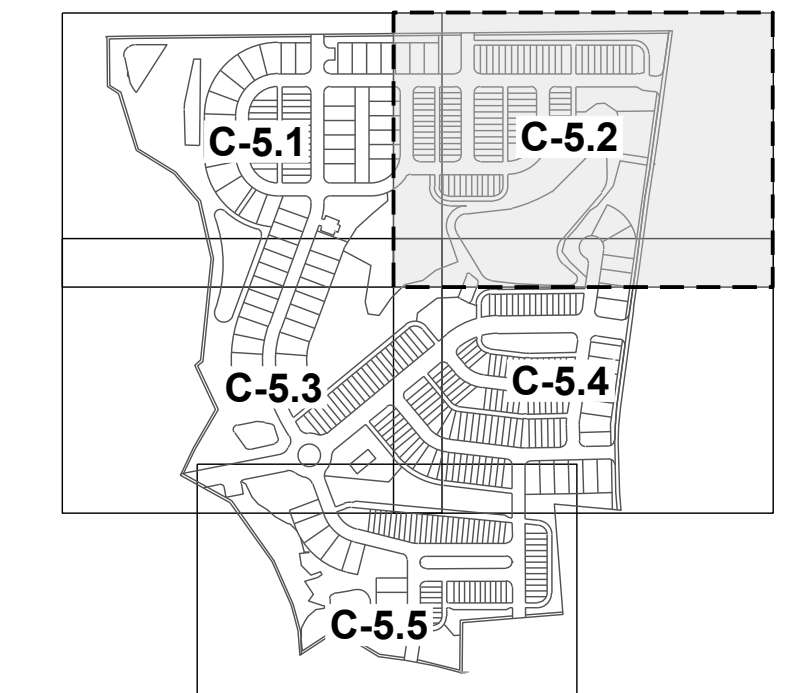
CONTRERAS PROPERTIES LLC
PIN: 1765201150
D.B/PG: 017183/01548

BLAKE, JANE C
PIN: 1764197514
D.B/PG: 014525/02263

PARROTT, MARGARET ANN POOLE
PIN: 1764199714
D.B/PG: 012271/00232



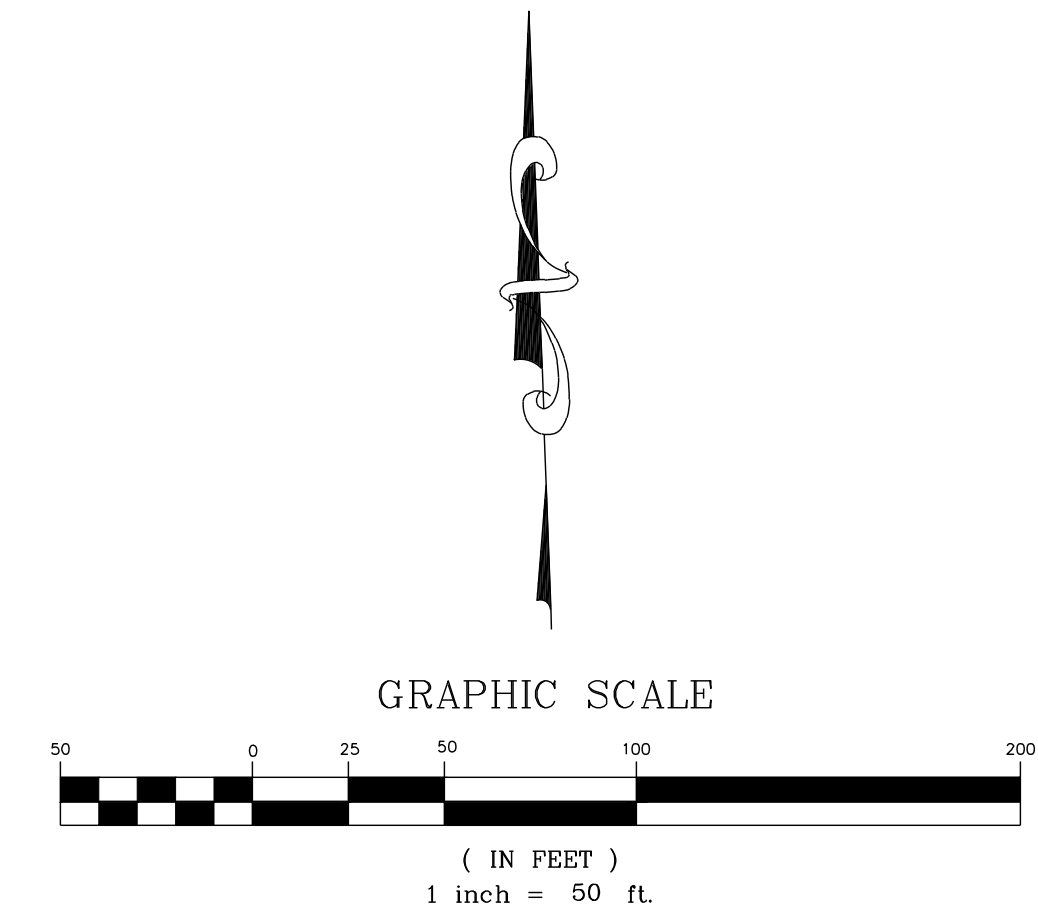
G&F PROPERTIES LLC
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 D.B/PG: 008139/00672



SITE KEY PLAN

LEGEND:
 SEE SHEET C-5.0 FOR LEGEND.

POOLE, JAMES H JR POOLE,
 JANIE MOORE
 PIN: 1765217896
 D.B/PG: 02-E/1128



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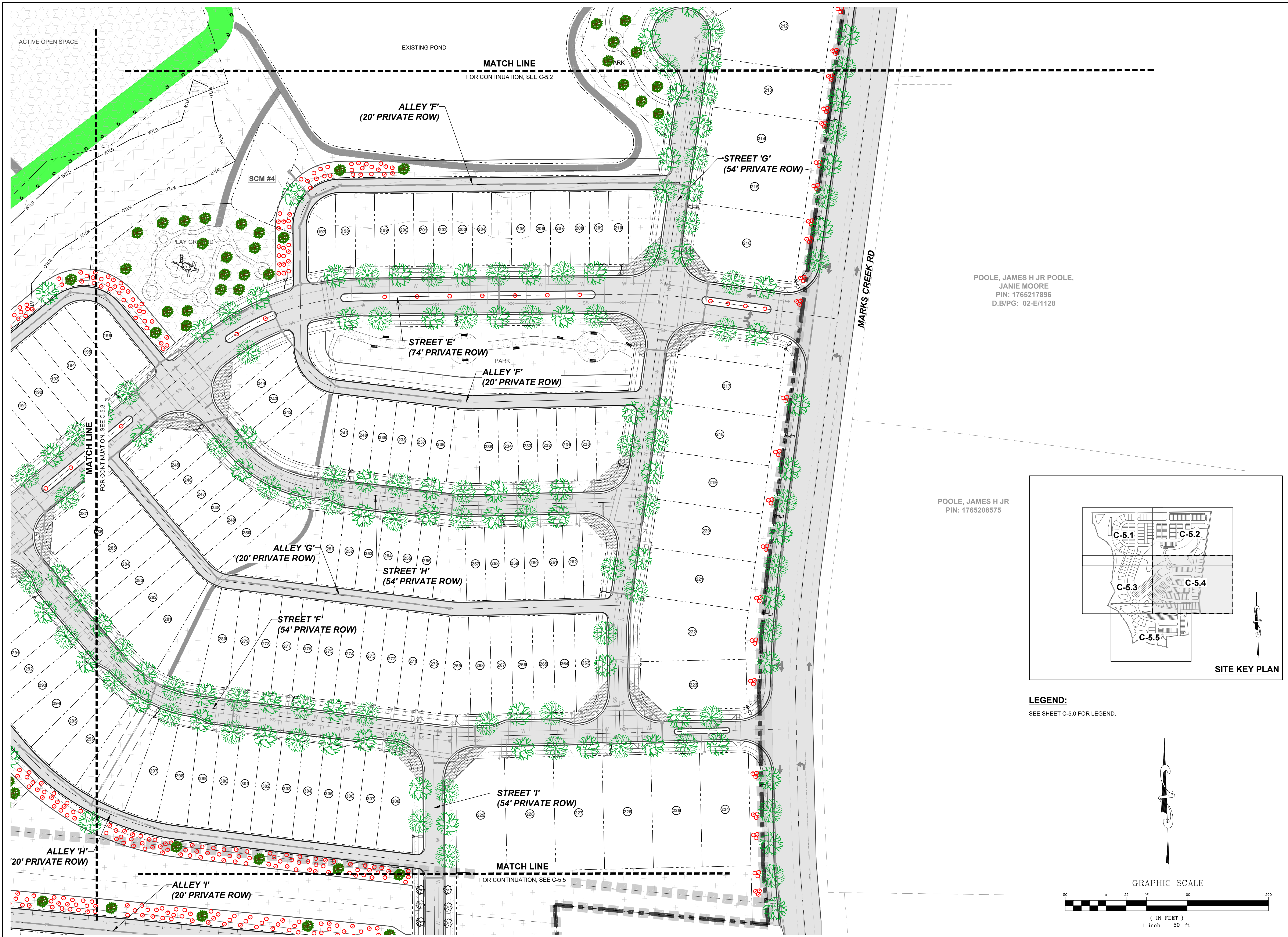


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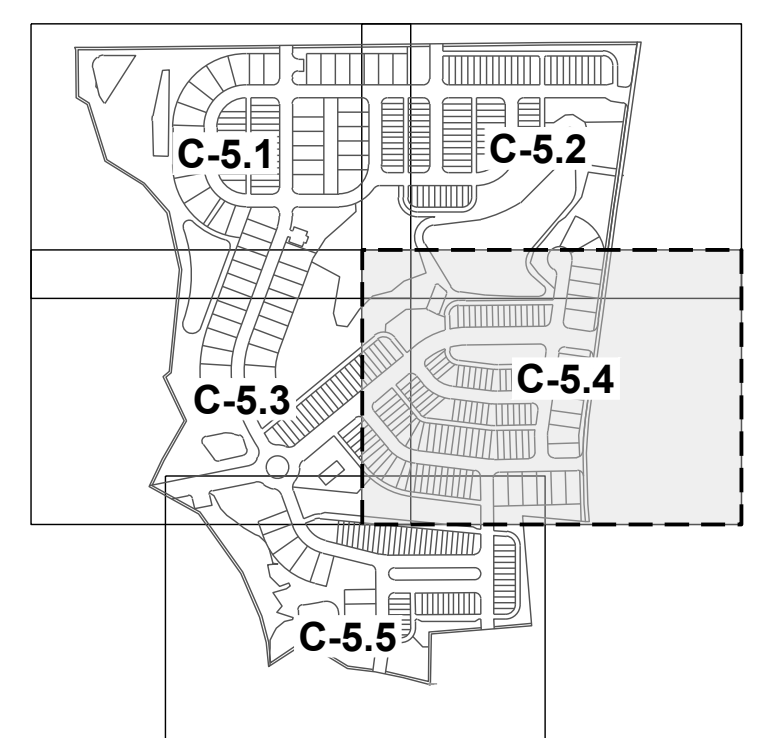
PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
 MASTER PLAN
 DETAILED LANDSCAPE PLAN II

DRAWING SHEET
C-5.2
 26 OF 42



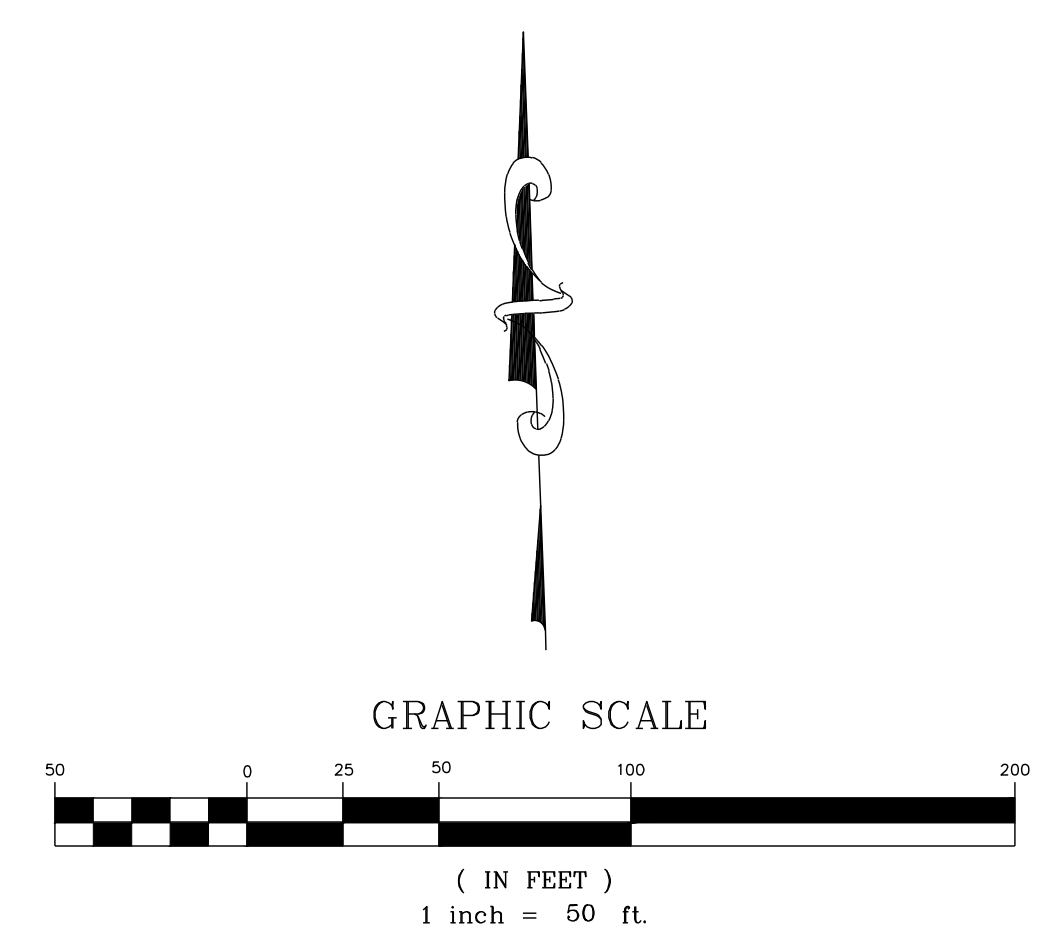
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 JANIE MOORE
 PIN: 1765217896
 D.B/PG: 02-E/1128

POOLE, JAMES H JR
 PIN: 1765208575

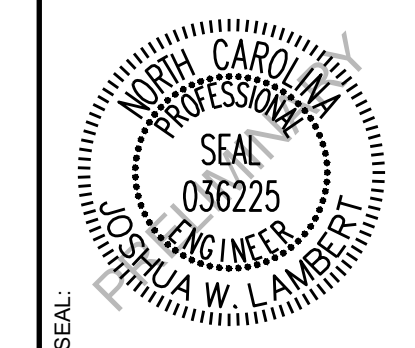


SITE KEY PLAN

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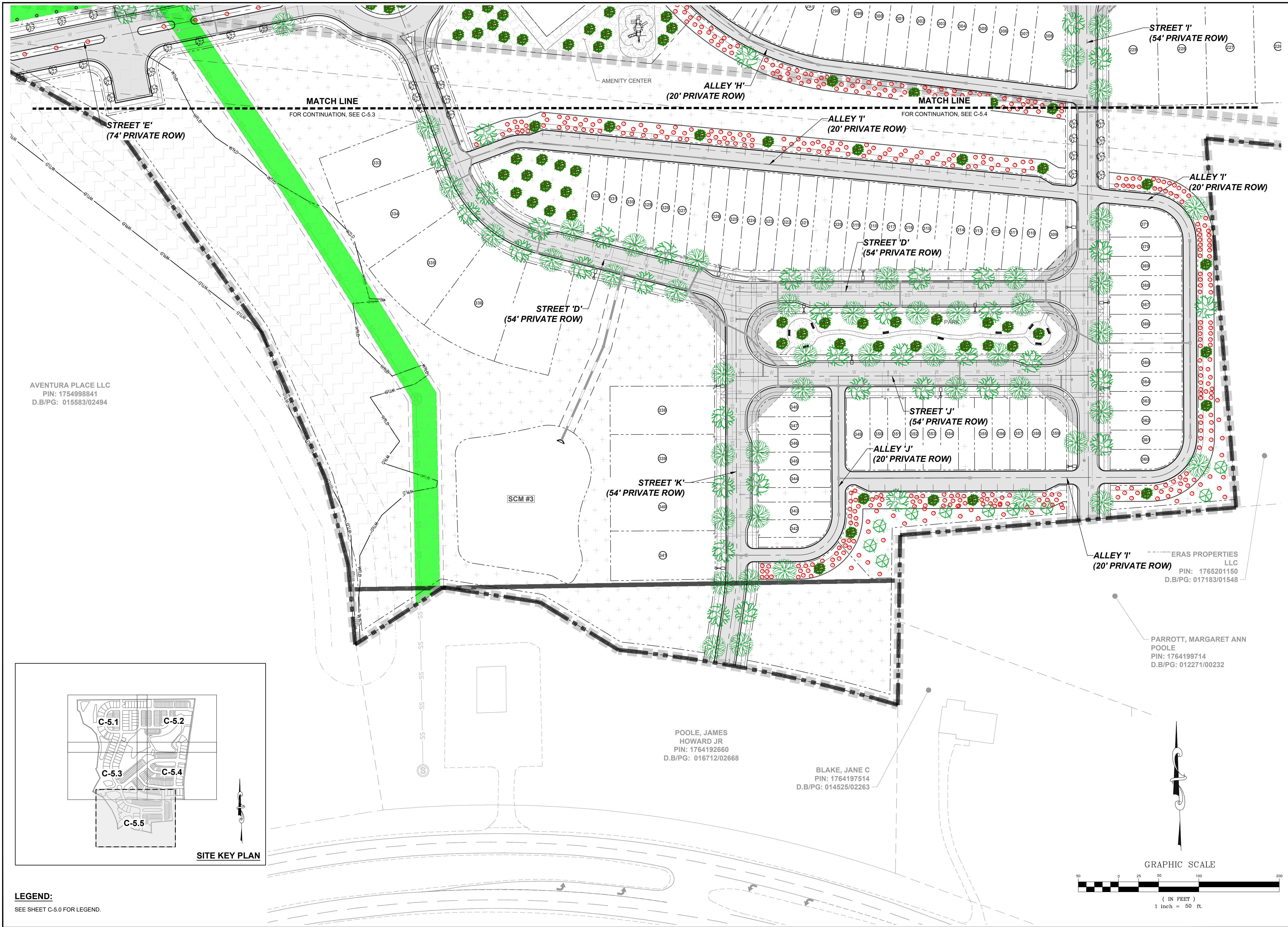


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| STRONG ROCK PROJECT | DESIGNED BY | JWL | SRG | JWL |
| NOT FOR CONSTRUCTION | SCALE | AS SHOWN | DRAWN BY | JWL |
| | CHECKED BY | | | |

PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
 MASTER PLAN
 DETAILED LANDSCAPE PLAN IV

DRAWING SHEET
C-5.4
 28 OF 42



AVENTURA PLACE LLC
PIN: 1754998841
D.B/PG: 015583/02494

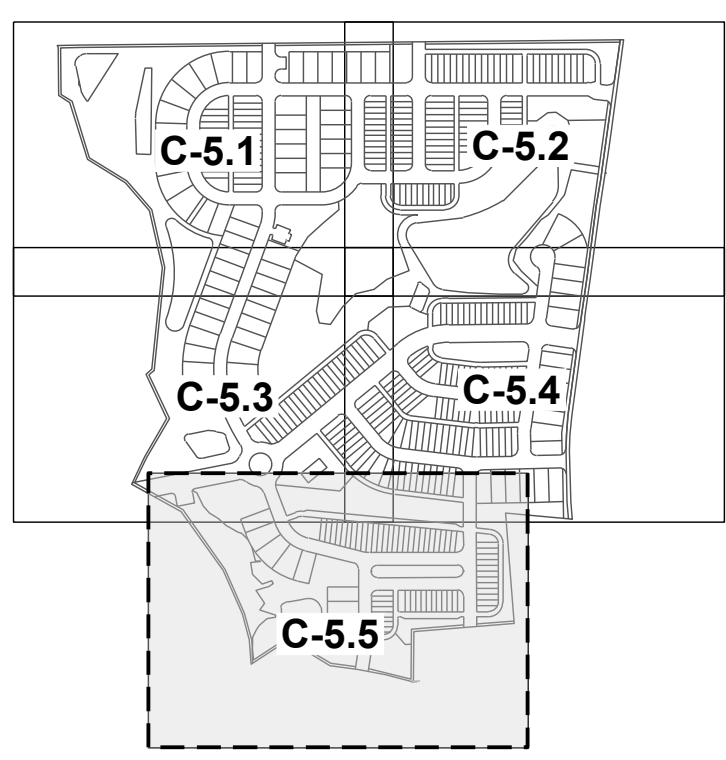
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POOLE, JAMES
HOWARD JR
PIN: 1764192660
D.B/PG: 016712/02668

BLAKE, JANE C
PIN: 1764197514
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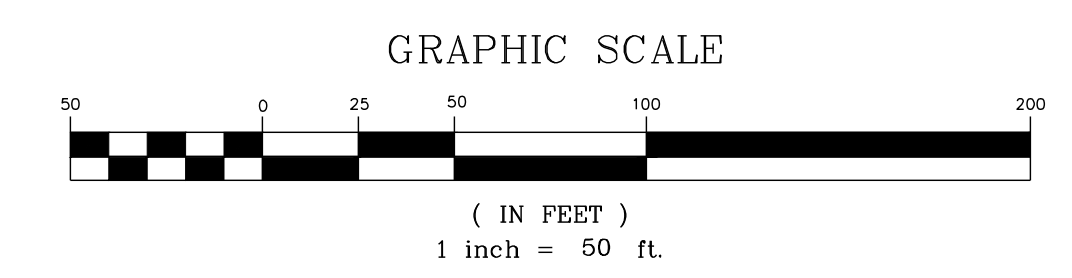
ERAS PROPERTIES
LLC
PIN: 1765201150
D.B/PG: 017183/01548

PARROTT, MARGARET ANN
POOLE
PIN: 1764199714
D.B/PG: 012271/00232



SITE KEY PLAN

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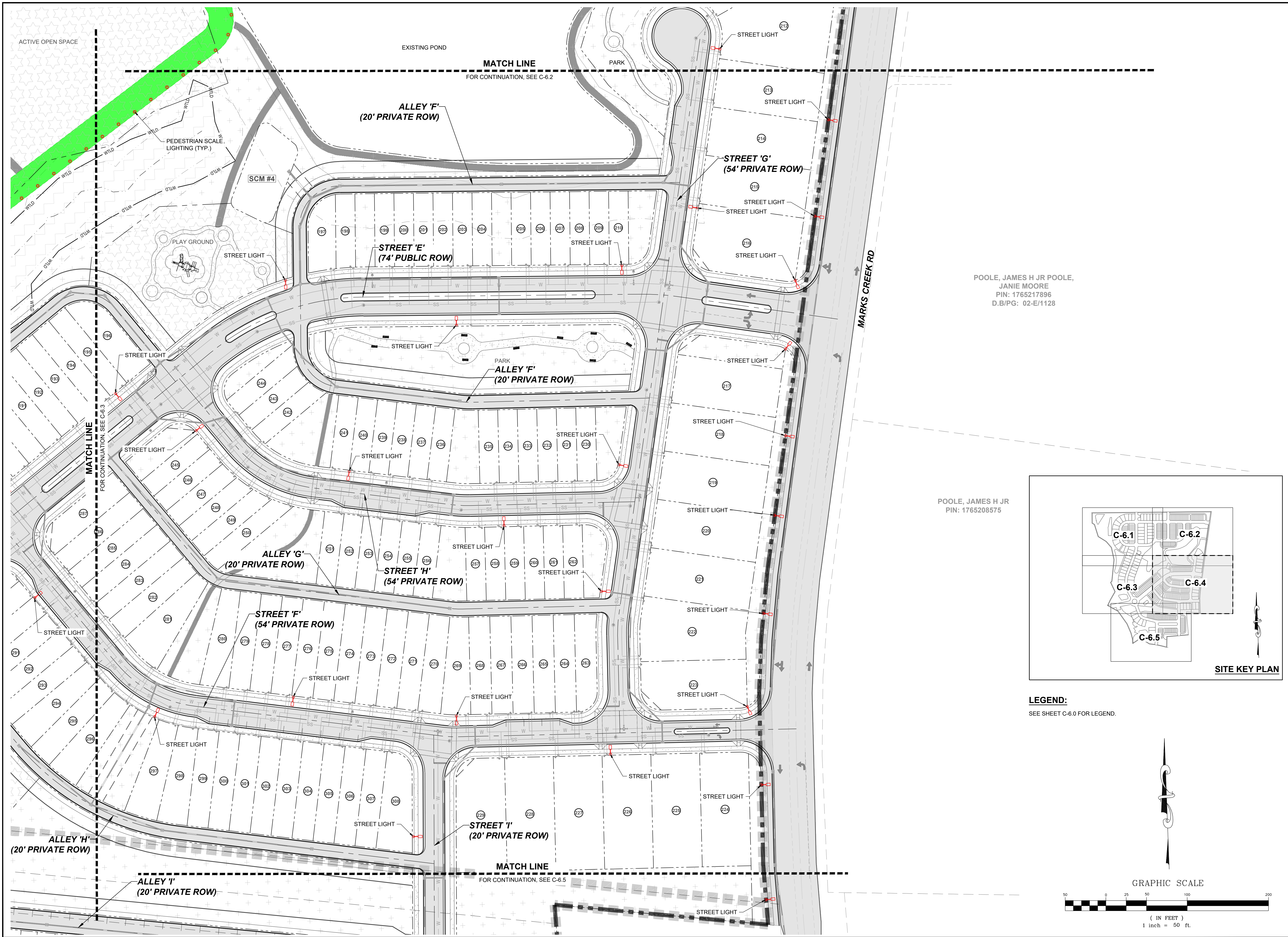


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|---------------------|----------------------|----------------|-------------|----------|------------|
| | | | JWL | SRG | JWL |

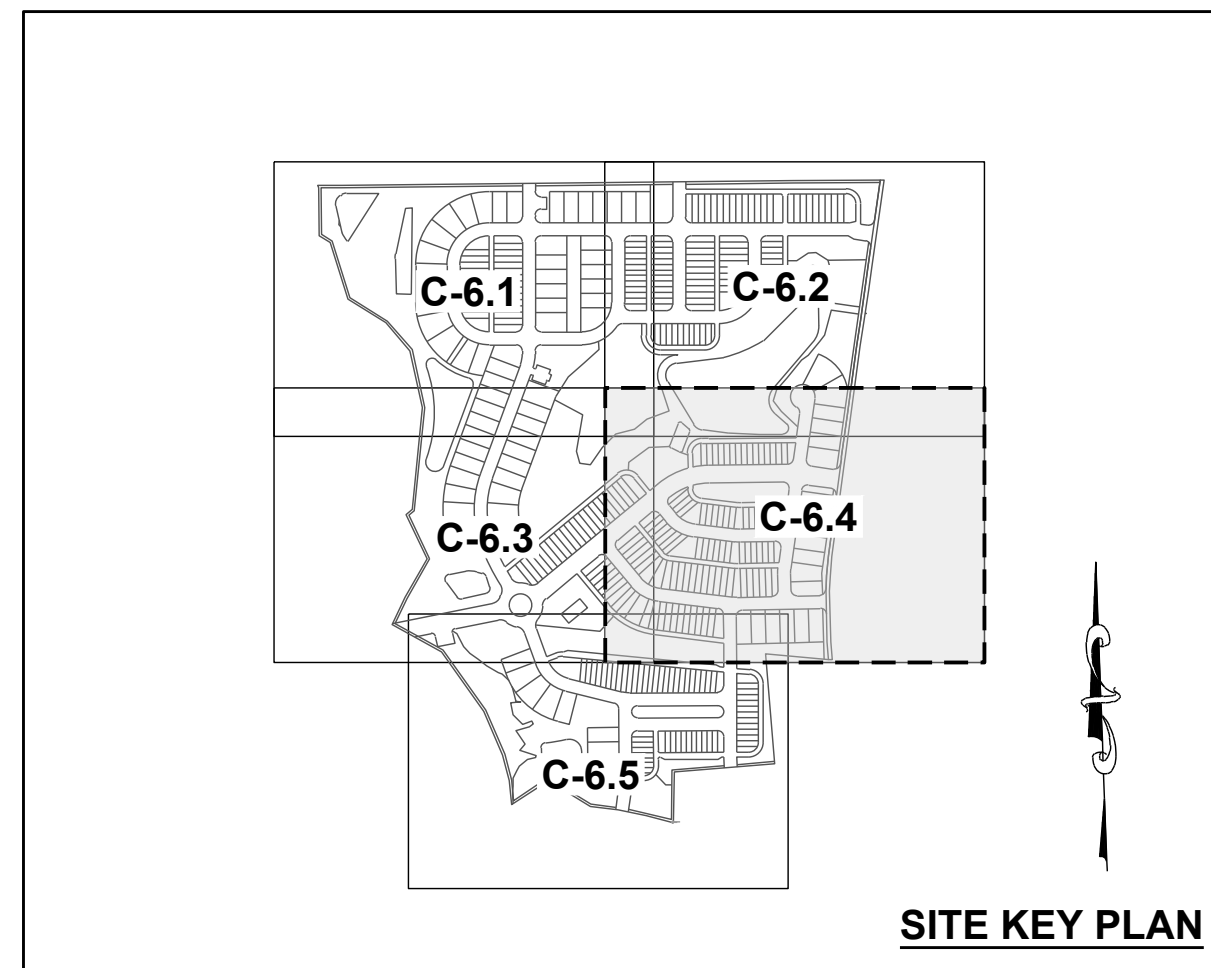
PRESERVE AT MARKS CREEK
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MASTER PLAN
DETAILED LANDSCAPE PLAN V

DRAWING SHEET
C-5.5

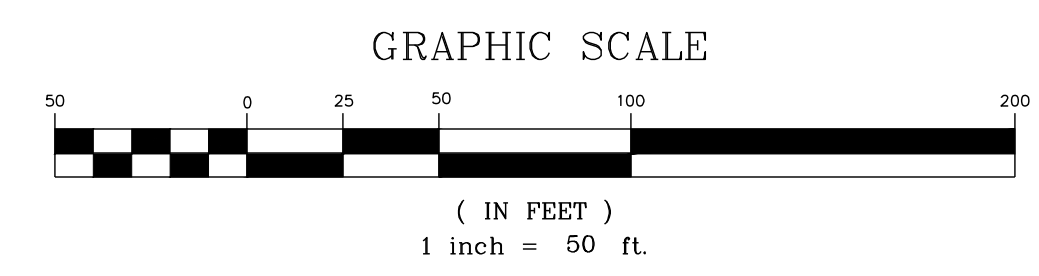


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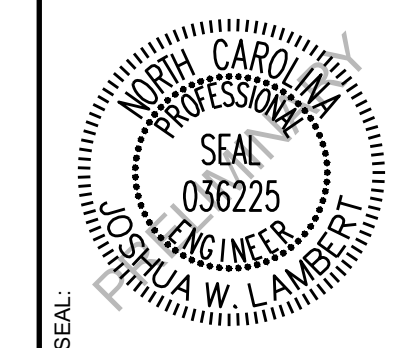
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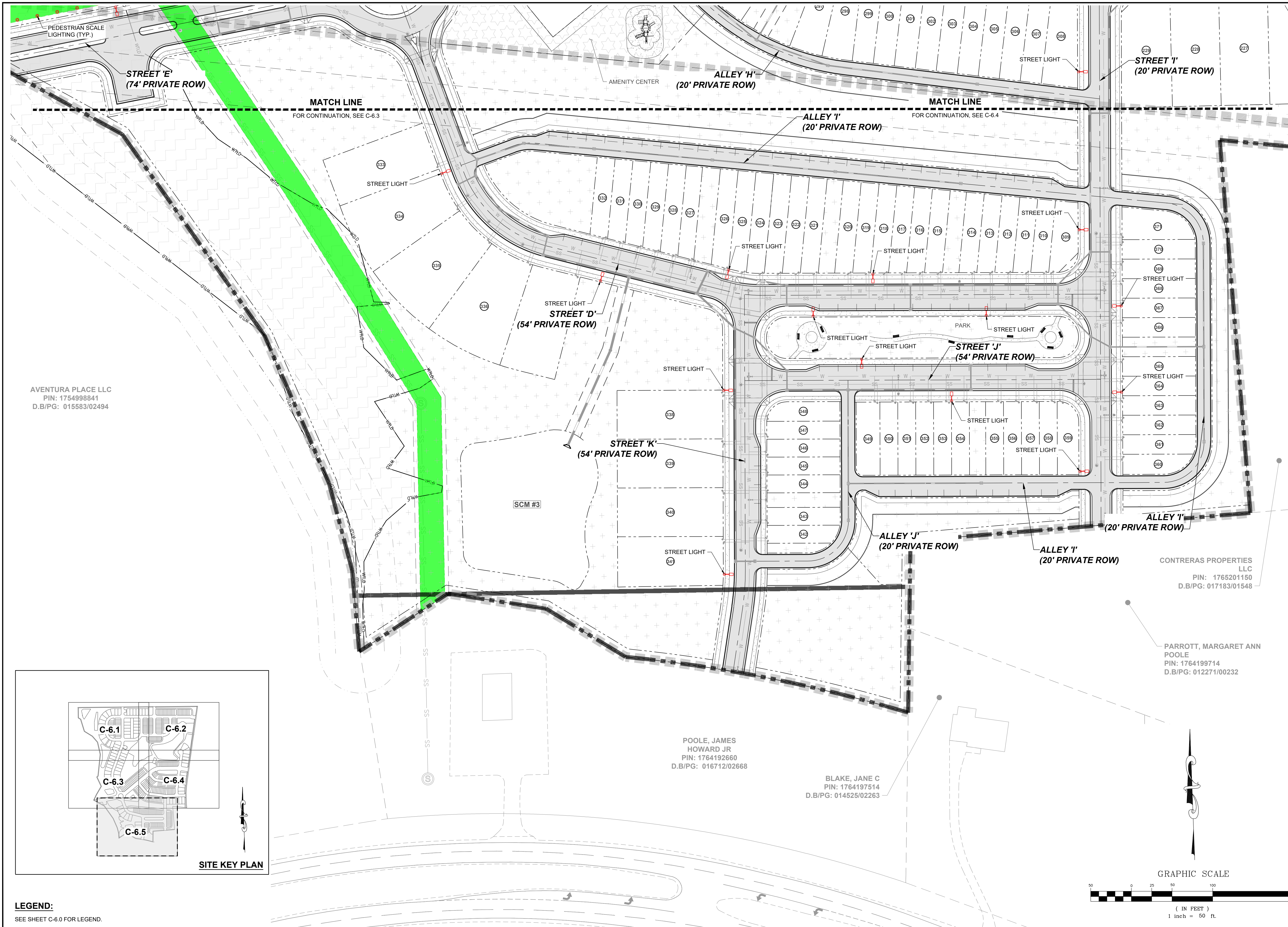
| NO. | REVISIONS | DATE | BY |
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STRONGROCK
 ENGINEERING GROUP
 STRONG ROCK ENGINEERING GROUP, PLLC / COMPANY LICENSE # P-2166
 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

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|---------------------|----------------------|----------------|-----------------|-----|-----|
| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | SRG | JWL |
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PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
 MASTER PLAN
 LIGHTING PLAN IV



AVENTURA PLACE LLC
 PIN: 1754998841
 D.B/PG: 015583/02494

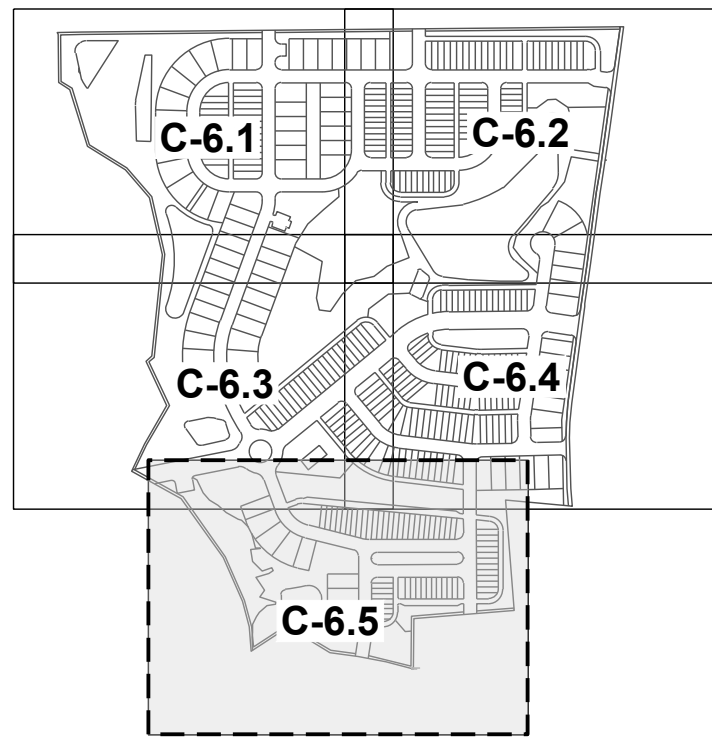
SCM #3

CONTRERAS PROPERTIES
 LLC
 PIN: 1765201150
 D.B/PG: 017183/01548

PARROTT, MARGARET ANN
 POOLE
 PIN: 1764199714
 D.B/PG: 012271/00232

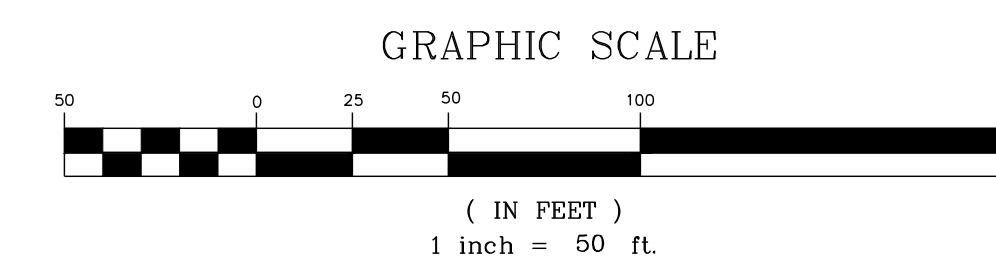
POOLE, JAMES
 HOWARD JR
 PIN: 1764192660
 D.B/PG: 016712/02668

BLAKE, JANE C
 PIN: 1764197514
 D.B/PG: 014525/02263



SITE KEY PLAN

LEGEND:
 SEE SHEET C-6.0 FOR LEGEND.



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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY | DRAWN BY | CHECKED BY |
|---------------------|----------------------|----------------|-------------|----------|------------|
| | | | JWL | SRG | JWL |

PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
 MASTER PLAN
 LIGHTING PLAN V

PAIR, HERBERT V TRUSTEE & PAIR, RACHEL H TRUSTEE
PIN: 1765122816
D.B/PG: 010412/01260

G&F PROPERTIES LLC
PIN: 1765224301
D.B/PG: 008139/00672

LEGEND:

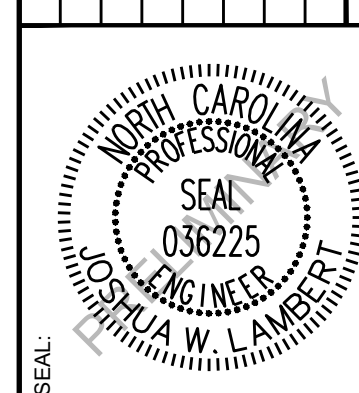
- PHASE LINE
- EXISTING PROPERTY LINE
- ROADWAY CENTER LINE
- PROPOSED PROPERTY LINE
- PASSIVE AND PRESERVED OPEN SPACE
- ACTIVE OPEN SPACE

SIGN LEGEND:

1. ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.

| SIGN | MUTCD STD. | SIZE |
|---------------------|------------|----------------|
| STOP | R1-1 3 | 30"x30" |
| 25 MPH | R2-1 | 24"x30" |
| ROAD CLOSED | R11-2 | 48"x30" |
| STREET NAME | D3-1 | VARIABLES"x12" |
| PEDESTRIAN CROSSING | W11-2 | 30" |
| PEDESTRIAN CROSSING | W16-7P | 30" |
| YIELD SIGN | R1-2 | 30"x30"x30" |
2. ALL SIGNS SHALL BE MOUNTED WITH 7-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 3-LB. GALV. STEEL U-CHANNEL POST SET IN 3-FT SIGN DEEP X 12-IN DIA. CONCRETE FOOTING. MUTCD STD. SIZE KNIGHTDALE AND/OR NCDOT PRIOR TO SIGN INSTALLATION.
3. ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY THE TOWN OF KNIGHTDALE.
4. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY THE TOWN OF KNIGHTDALE, NCDOT STANDARDS AND SPECIFICATIONS.
5. THE TOWN OF KNIGHTDALE REQUIRES ALL REGULATORY PAVEMENT MARKINGS TO BE HI-VIS THERMOPLASTIC, EXCEPT FOR PARKING SPACE STRIPING WHICH MAY BE WHITE PAINT, PER STREET NAME D3-1 VARIATION"x12" DETAIL 4.06.

| NO. | REVISIONS | DATE | BY |
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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE | DESIGNED BY | DRAWN BY | CHECKED BY |
|---------------------|----------------------|-------|-------------|----------|------------|
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PRESERVE AT MARKS CREEK
TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA
MASTER PLAN
OVERALL SIGNS & MARKINGS PLAN

DRAWING SHEET
C-7.0
36 OF 42



EMERALD POINTE HOMEOWNERS ASSN INC
PIN: 1765005901
D.B/PG: 008130/00585

EMERALD POINTE HOMEOWNERS ASSN INC
PIN: 1755909596
D.B/PG: 014540/00203

AVENTURA PLACE LLC
PIN: 1754998841
D.B/PG: 015583/02494

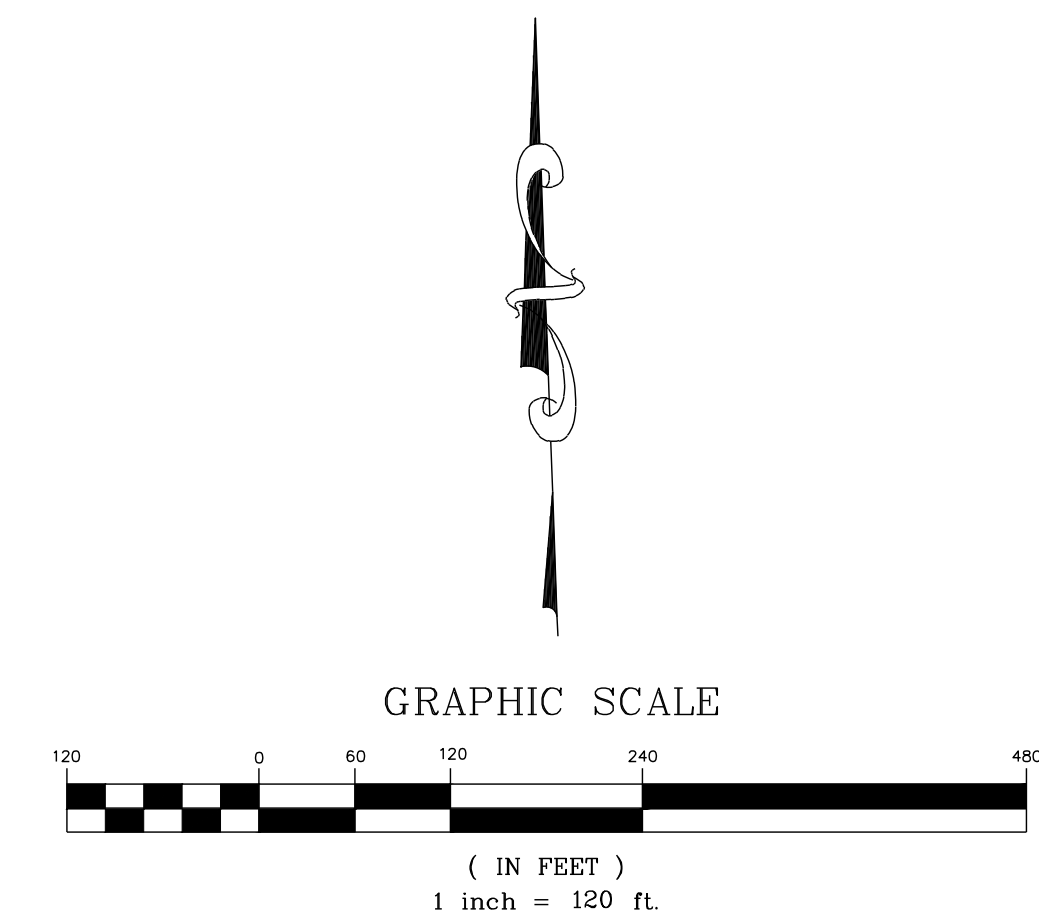
POOLE, JAMES H JR POOLE, JANIE MOORE
PIN: 1765217896
D.B/PG: 02-E/1128

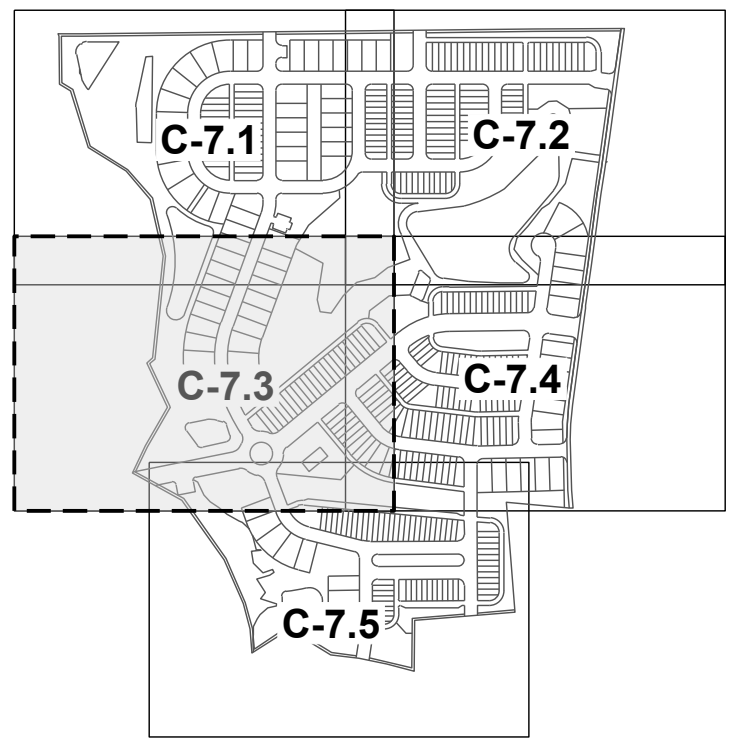
POOLE, JAMES H JR
PIN: 1765208575

CONTRERAS PROPERTIES LLC
PIN: 1765201150
D.B/PG: 017183/01548

BLAKE, JANE C
PIN: 1764197514
D.B/PG: 014525/02263

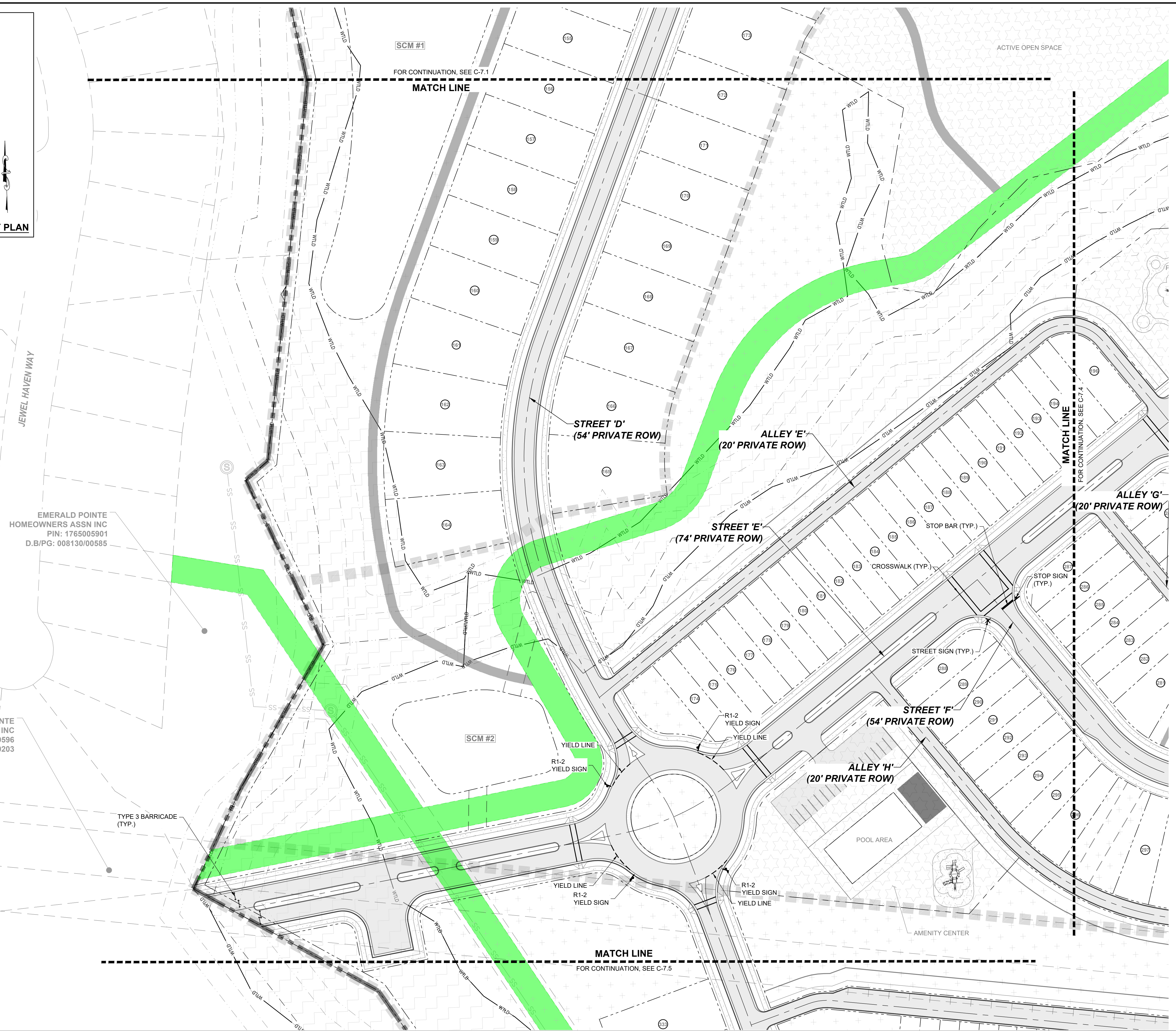
PARROTT, MARGARET ANN POOLE
PIN: 1764199714
D.B/PG: 012271/00232





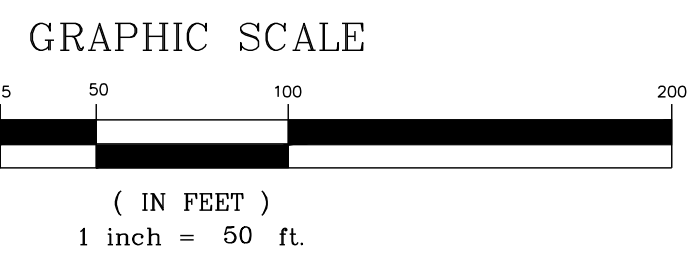
SITE KEY PLAN

LEGEND:
SEE SHEET C-7.0 FOR LEGEND.



EMERALD POINT HOMEOWNERS ASSN INC
PIN: 1765005901
D.B/PG: 008130/00585

EMERALD POINT HOMEOWNERS ASSN INC
PIN: 1755909596
D.B/PG: 014540/00203



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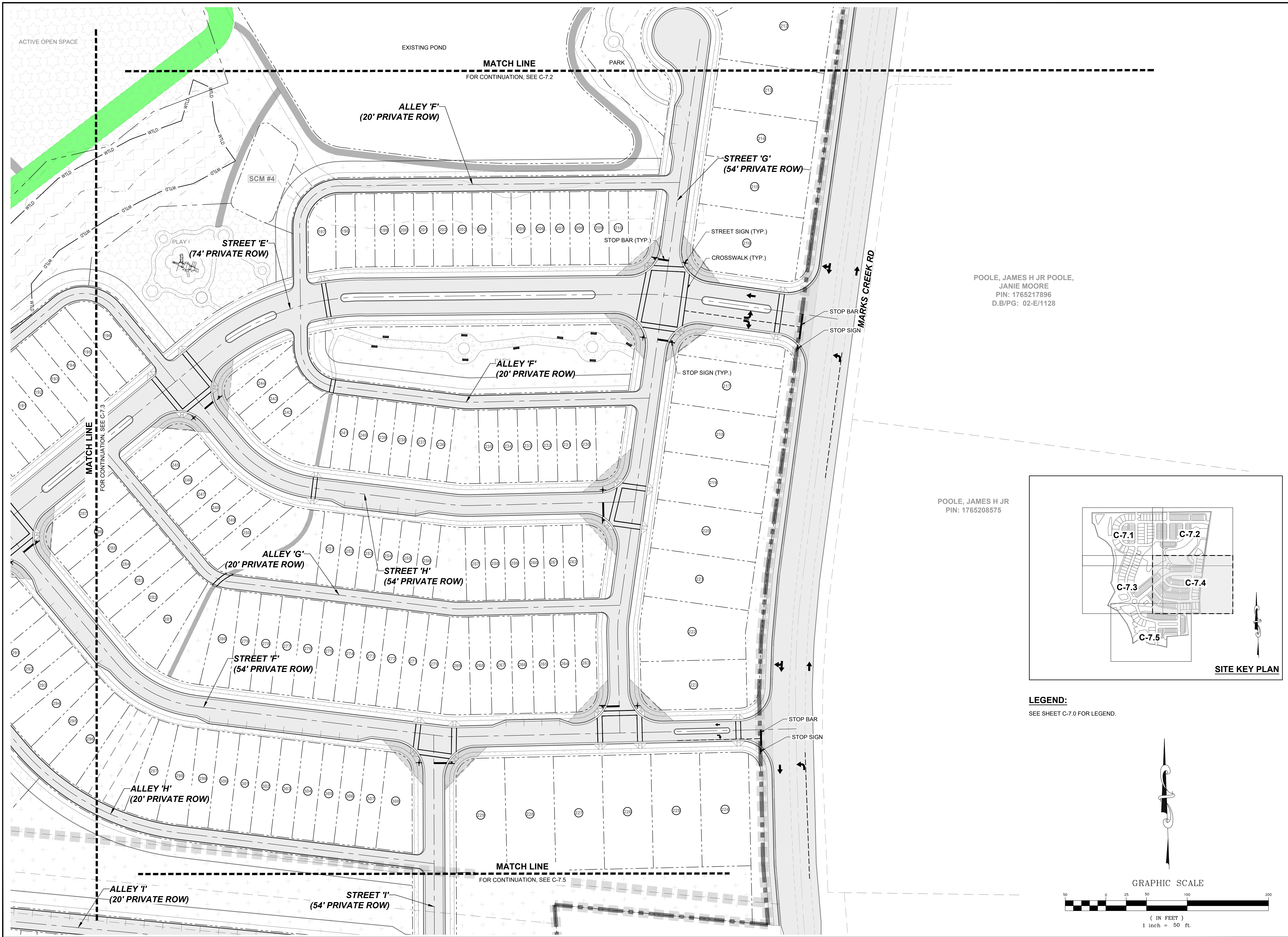


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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | SRG | CHECKED BY JWL |
|---------------------|----------------------|----------------|-----------------|-----|----------------|

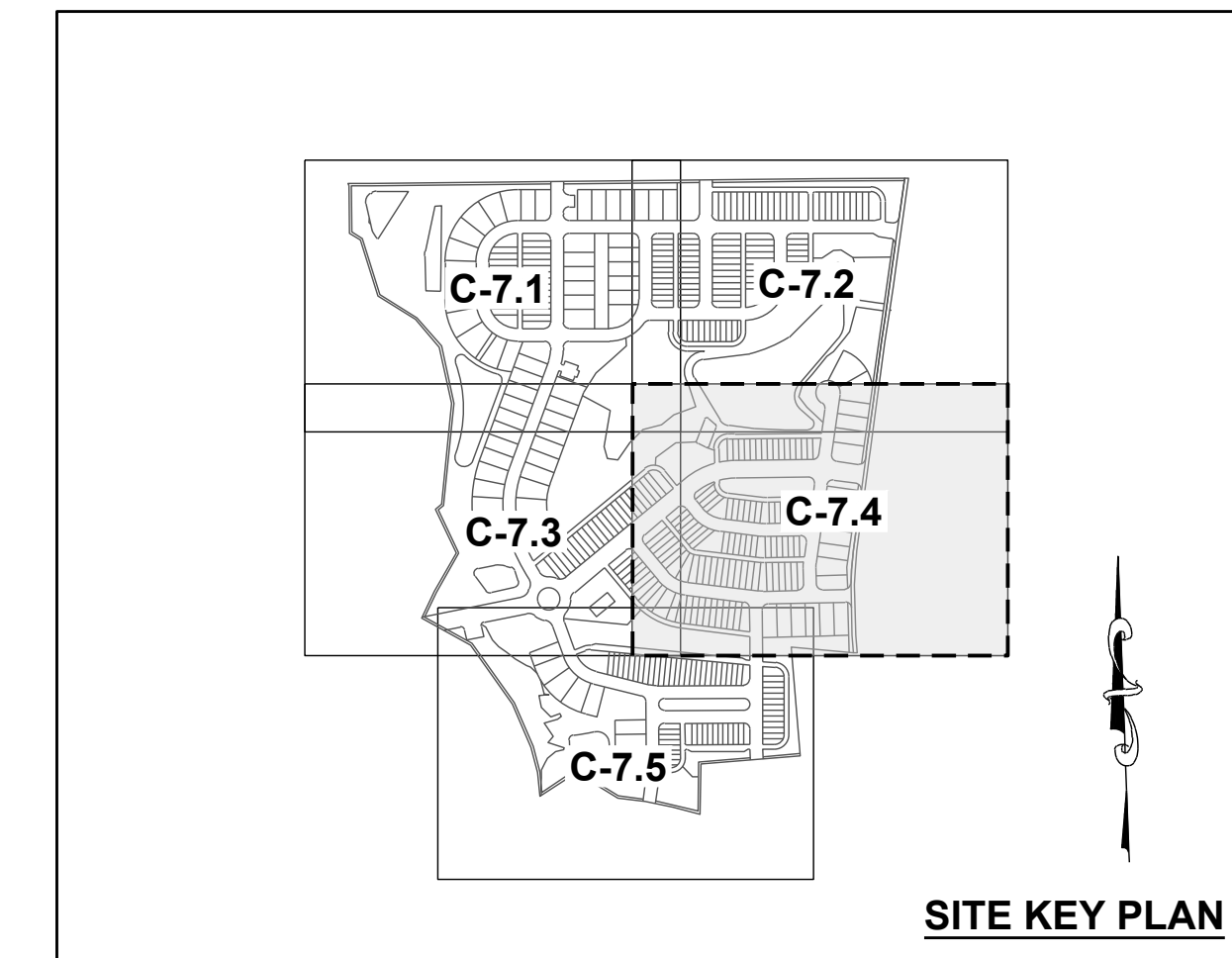
PRESERVE AT MARKS CREEK
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
MASTER PLAN
SIGNS & MARKING PLAN III

DRAWING SHEET
C-7.3
39 OF 42

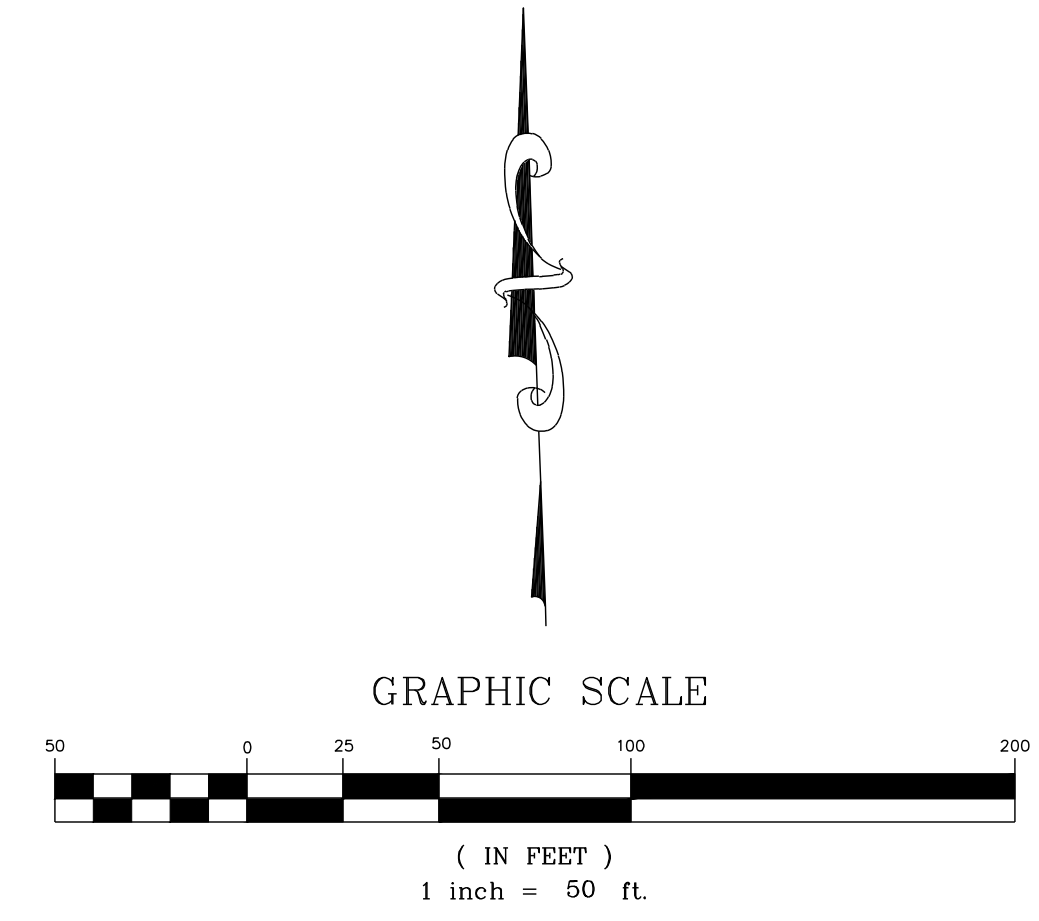


POOLE, JAMES H JR POOLE,
 JANIE MOORE
 PIN: 1765217896
 D.B/P.G: 02-E/1128

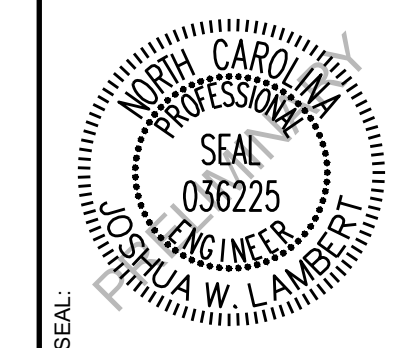
POOLE, JAMES H JR
 PIN: 1765208575



LEGEND:
 SEE SHEET C-7.0 FOR LEGEND.



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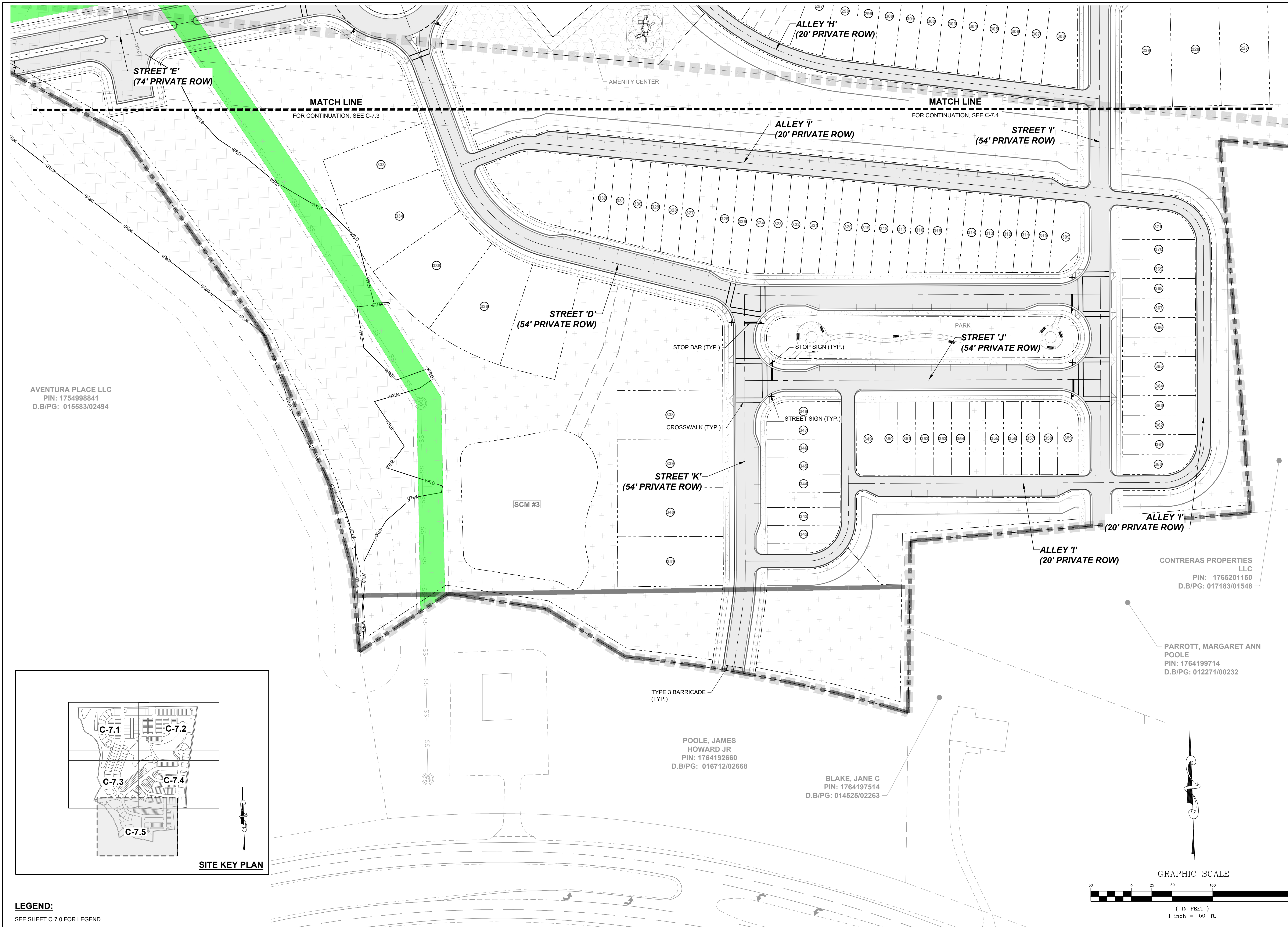


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 6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

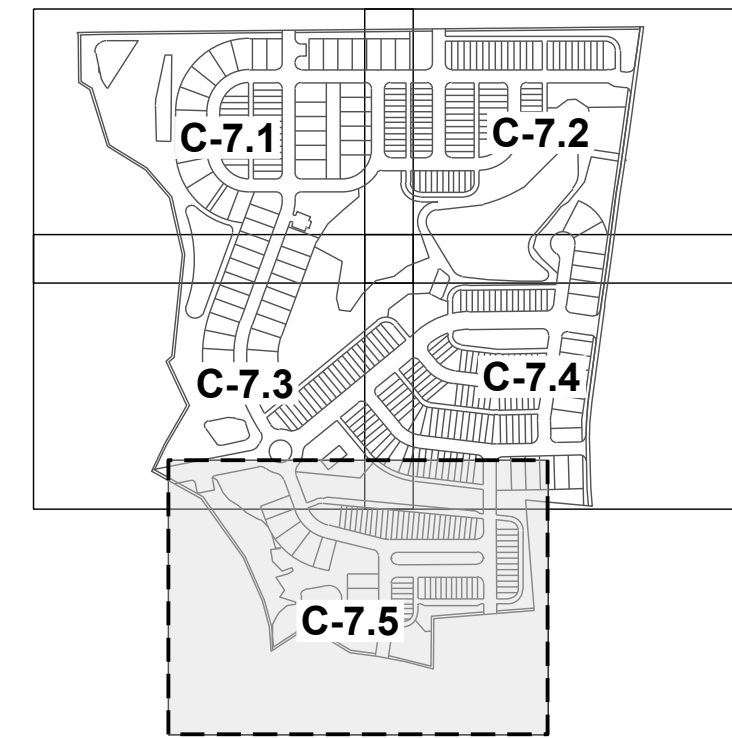
| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY | DRAWN BY | CHECKED BY |
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PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
 MASTER PLAN
 SIGNS & MARKINGS PLAN IV

DRAWING SHEET
C-7.4
 40 OF 42



AVENTURA PLACE LLC
 PIN: 1754998841
 D.B/PG: 015583/02494



SITE KEY PLAN

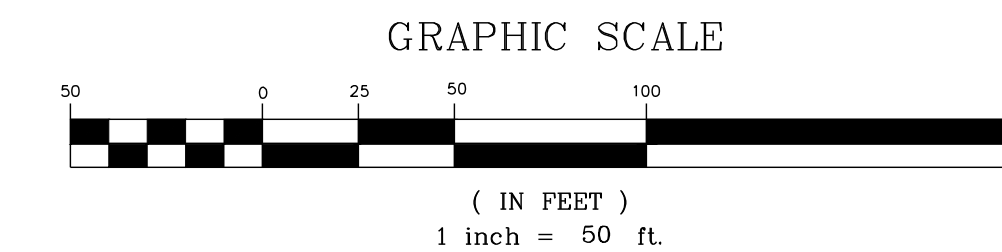
LEGEND:
 SEE SHEET C-7.0 FOR LEGEND.

POOLE, JAMES
 HOWARD JR
 PIN: 1764192660
 D.B/PG: 016712/02668

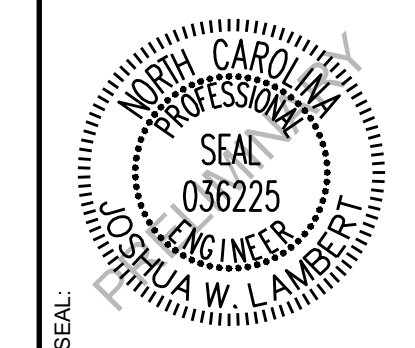
BLAKE, JANE C
 PIN: 1764197514
 D.B/PG: 014525/02263

CONTRERAS PROPERTIES
 LLC
 PIN: 1765201150
 D.B/PG: 017183/01548

PARROTT, MARGARET ANN
 POOLE
 PIN: 1764199714
 D.B/PG: 012271/00232



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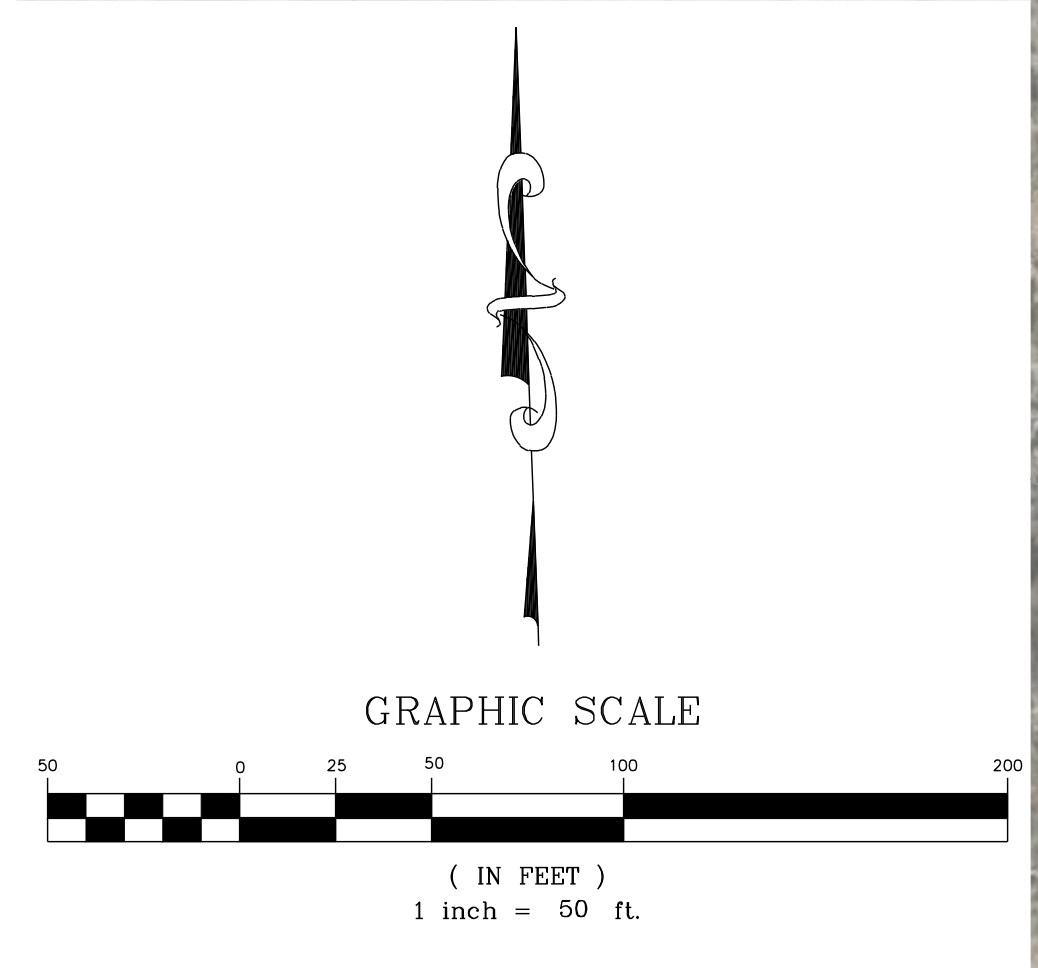


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PRESERVE AT MARKS CREEK
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
MASTER PLAN
SIGNS & MARKINGS PLAN V

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| STRONG ROCK PROJECT | DESIGNED BY | JWL |
| NOT FOR CONSTRUCTION | DRAWN BY | SRG |
| SCALE AS SHOWN | CHECKED BY | JWL |

PRESERVE AT MARKS CREEK
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA
MASTER PLAN
KNIGHTDALE BLVD ROADWAY IMPROVEMENTS PLAN

DRAWING SHEET
E-1.0

Kevin Lewis/Town of Knightdale Land Use Review Board
950 Steeple Square Ct.
Knightdale, NC 27545

RE: Preserve at Marks Creek (ZMA-11-20) – Summary of Plan Changes from Joint Public Hearing

Kevin Lewis and Town of Knightdale Land Use Review Board,

StrongRock Engineering Group, PLLC appreciates the feedback from the Town of Knightdale's Joint Public Hearing on May 19, 2022 as it relates to our proposed Preserve at Marks Creek project. Following the feedback heard during the hearing as well as follow-up conversations with Staff, the following aspects of the plan have been revised for your consideration:

1) Provided Parking

- Provided parking has been increased from **70** spaces to **182** spaces. These spaces have been sited in areas of denser development within the proposed plan.

2) Preservation of Natural Areas/Marks Creek Viewshed/Open Space

- The plans provide better clarity for the presentation of all open spaces on the site. This includes both the extensive preserved open spaces along the western property line and through the middle of the project area as well as the proposed programmed open spaces consisting of amenities, programmed parks, trails & greenways that exceed the total requirement within the Unified Development Ordinance.

Additionally, the area immediately surrounding Marks Creek is more clearly shown as preserved area. Any development that will occur in for this project area will only occur outside of the stream buffers areas on the east side of Marks Creek. There will be no changes from this project on the west side of Marks Creek. The only impact to Marks Creek will be a proposed greenway connection to Emerald Pointe via an existing greenway easement that is part of the Town of Knightdale's Comprehensive Plan. The crossing of Marks Creek will be achieved via an environmentally friendly and attractive bridge/boardwalk crossing.



TOWN OF KNIGHTDALE

950 Steeple Square Court
Knightdale, NC 27545
KnightdaleNC.gov

ORDINANCE #22-06-16-003
AN ORDINANCE TO AMEND THE UNIFIED DEVELOPMENT ORDINANCE
OF THE TOWN OF KNIGHTDALE
WHICH INCLUDES THE ZONING DISTRICT MAP

ZMA-11-20 Preserve at Marks Creek Planned Unit Development

WHEREAS, the Town of Knightdale has received a petition to amend the zoning of the property from Rural Transition (RT) to General Residential-3 Planned Unit Development (GR3-PUD); and

WHEREAS, the Town Council finds the proposed Zoning Map Amendment is consistent with the KnightdaleNext 2035 Comprehensive Plan as it addresses several of the guiding principles such as protecting the natural environment, extending the transportation network, and expanding home choices in Knightdale. Further, it is consistent with the Growth & Conservation Map's designation as a "Mixed Density Neighborhood" Place Type. Additionally, the proposal is consistent with the Street Network Map, Trails & Greenway Map, and the Mixed Density Residential Focus Study Area; and

WHEREAS, the request is reasonable and in the public interest as it aids in developing a vibrant, sustainable, and safe community design in which people not only desire to visit, but to also live, work, and play;

NOW, THEREFORE, BE IT ORDAINED by the Town Council of the Town of Knightdale, North Carolina:

SECTION 1: That the Unified Development Ordinance of the Town of Knightdale Code, which includes the Zoning District Map, be amended to rezone approximately 101.59 ± acres located in the Town of Knightdale's Extra Territorial Jurisdiction, on Marks Creek Road and identified as Wake County PINs 17541765-11-8263, 1765-11-2567, 1765-10-9558, 1765-21-2260, 1765-21-2492, and 1765-21-3753 from RT to GR3-PUD as indicated.

SECTION 2. That the additional conditions contained within the application identified as ZMA-11-20 and PUD document, and listed below apply as additional zoning conditions to the parcels of land identified as PINs 17541765-11-8263, 1765-11-2567, 1765-10-9558, 1765-21-2260, 1765-21-2492, and 1765-21-3753:

1. All single-family lots shall be a minimum of 60-foot-wide front-loaded units or 26-foot-wide rear-loaded lots. The minimum driveway length shall be a 25-feet for front-loaded lots.
2. The density of the development shall not exceed 3.62 units per acre, or 371 lots.

3. Architectural Standards: In addition to the elevations, the applicant agrees to the Single-Family and Townhome Dwelling Architectural Standards found in UDO Ch. 5.7 and 5.8, and the additional conditions listed below:
- a. Townhomes shall be two-story homes with a minimum width of 22' wide and have a minimum heated area of 1,500 square feet, 2 car garages will be provided.
 - b. Neo traditional single family detached homes shall be rear loaded two-story homes built on lots less than 60 feet wide with a minimum heated area of 1,600 square feet.
 - c. Single family ranch detached homes shall be built on lots at least 60 feet wide with a minimum heated area of 1,480 square feet, and no more than 25% of the ranch homes may be less than 1,500 square feet.
 - d. Traditional single family detached homes shall be two-story homes built on lots at least 60 feet wide with a minimum heated area of 2,100 square feet.
 - e. All homes will either consist of a single material of brick or stone or will have a combination of 2 or more of the following materials on the front façade (not including foundations): stone, brick, lap siding, fiber cement siding, shakes, or board and batten siding, with side and rear facades of fiber cement siding. When 2 materials are used, the materials shall be different but complimentary colors. Vinyl may only be used of soffits, fascia, and corner bounds.
 - f. All single family detached homes will have front porches with a minimum depth of 5 feet. Townhomes will have recessed front porches with a minimum depth of 3 feet.
 - g. All traditional single family detached homes will have a rear patio or decks a minimum of 10' x 10'. All single family ranch detached homes will have a minimum 6' x 10' covered patio.
 - h. Main roof pitches (excluding porches) fronting the street will be at least 7:12, with the exception of ranch homes in which 6:12 shall be allowed.
 - i. For every 30 feet (or fraction) of continuous side elevation (calculated on a per floor basis), there shall be one window or door added to the side elevations. Any siding break on the side of the home, such as a fireplace, side porch, or wall offsets may be used as an alternate to windows.
 - j. There shall be a minimum 12 inch overhang on every gable end for every home.
 - k. All dwelling units will have a 2 car garage.
 - l. Garages on all neo traditional single family detached homes and townhomes shall be alley fed.
 - m. All front loaded garage doors shall have glass windows and hardware.
 - n. All single family detached 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 or stone. Areas under porches may be enclosed with lattice.
 - o. All single family attached 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 or stone. Areas under porches may be enclosed with lattice.

- p. Any single family homes with a crawl space shall be wrapped in brick, or stone on all sides.
 - q. For front load single family detached homes, no more than 10% can have garage doors that exceed 45% of the overall width of the house, and in no cases can the garage door exceed 48% of the overall width of the house, garage doors greater than 12' in width shall be split bay.
 - r. All homes shall have front door glass inserts.
 - s. 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 be carriage style with window inserts and hardware.
4. Elevations of all homes shall be substantially similar to the elevations provided as a part of the Preserve at Marks Creek PUD and shall comply with these architectural standards.
 5. The community shall include homes with more than one elevation type.
 6. At least 50% of the single family detached homes will have front porches that extend the width of the front elevation of the home exclusive of the garage.
 7. The developer shall provide sufficient access from the southern part of the community to the amenity center.
 8. The submitted site plan (Exhibit A) and Planned Unit Development document (Exhibit B) will serve as the site-specific development plan. However, the applicant must submit Construction Drawings to the Town for approval that are in conformance with the approved conditions of the GR3-PUD zoning district, master plan comments, Unified Development Ordinance, and comments from the April 14, 2022 DRC meeting.

SECTION 3. That all laws and clauses of law in conflict herewith are hereby repealed to the extent of said conflict.

SECTION 4. That if this ordinance or application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions of this ordinance which can be given separate effect and to the end the provisions of this ordinance are declared to be severable.

SECTION 5. That this ordinance has been adopted following a duly advertised public hearing of the Town Council and following review and recommendation by the Land Use Review Board.

SECTION 6. That this ordinance shall be enforced as provided in G.S. 160A-175 or as provided for in the Knightdale Town Code.

SECTION 7. That this ordinance shall become effective upon its adoption by Town Council.

Adopted this 16th day of June, 2022

Jessica Day, Mayor

ATTEST and SEAL:

Heather M. Smith, Town Clerk