

**Buncombe County Planning Board  
November 7, 2016**

The Buncombe County Planning Board met on November 7, 2016 in the meeting room at 30 Valley Street. Members present were Gene Bell, Nancy Waldrop, Thad Lewis, David Rittenberg, Dusty Pless, Joan Walker, Robert Martin, and Parker Sloan. Also present were Michael Frue, Staff Attorney; Jon Creighton, Planning Director; and Debbie Truempy, Gillian Phillips and Shannon Capezzali, Planning staff.

**Call to Order**

Gene Bell called the meeting to order at 9:37 am.

**Approval of Agenda**

Dusty Pless made a motion to approve the agenda. The motion was seconded by Nancy Waldrop and passed unanimously.

**Approval of Minutes (October 17, 2016)**

The October 3, 2016 minutes were misidentified as the October 17, 2016 minutes, therefore the minutes from the October 3, 2016 meeting will be reviewed at the next regularly scheduled Planning Board meeting.

**Public Hearings**

**SUB2016-00457:** *Jon Kinnard of Brooks Engineering, on behalf of Andana, LLC was seeking a revision to Phase III of the Sovereign Oaks major subdivision (previous assigned case #SUB2016-00251) and located on tax lot PIN # 9679-15-8673, further described as an un-addressed property extending north and west from Wandering Oaks Way.*

The Board was provided with the submitted revised site plan (Attachment A) and proposed staff conditions (Attachment B). Gillian Phillips reviewed the proposed subdivision revision and staff conditions for the Board. The proposed revision is to alter the previously approved road location. David Rittenberg requested information about the minimum lot size requirements for lot 90 which contains steeper portions than the rest of the development. Gillian Phillips stated that the development is only subject to the regular zoning requirements and is not located within any overlays. Robert Martin requested information about the road access for lot 9. Jon Kinnard of Brooks Engineering stated that water infrastructure will be accessed from road C. The developer is revising the road in order to provide better access to lots. Thad Lewis stated that the Fire Department has notified the developer that a siren-activated gate is required at the site.

Nancy Waldrop made a motion to approve the revised Master Plan for Sovereign Oaks. The motion was seconded by Joan Walker and passed unanimously.

Joan Walker made a motion to grant preliminary approval to the revised Phase III with the proposed staff conditions. The motion was seconded by Parker Sloan and passed unanimously.

Gene Bell asked for public comment. There was none.

**ZPH2016-00018:** The Board continued their discussion of the proposed revisions to the Subdivision Ordinance. Gillian Phillips reviewed the new proposed changes with the Board. She also clarified the

three year limit for further divisions to Special or Family subdivisions in order to require that additional divisions within the three year period would require minor subdivision road standards.

Joan Walker made a motion for the Board to hold a public hearing on December 5, 2016 on the proposed Subdivision Ordinance amendments. The motion was seconded by Robert Martin and passed unanimously.

### **Discussion**

Debbie Truempy reviewed with the Board the proposed changes to the text of the Zoning Ordinance of Buncombe County specifically related to the definitions of Planned Unit Developments – commercial (CPUD) and residential or mixed use (RPUD). Current definitions for RPUDs and CPUDs conflict with uses in the Permitted Use Table. Staff seeks to revise the definitions of the RPUD and CPUD in order to align them with the Permitted Use Table. Thad Lewis requested information about the zoning districts that allow Fire Stations and questioned why they could not be allowed in all districts.

### **Public Comment**

Dede Stiles requested information about the advertising of the proposed Subdivision Ordinance amendments to the public. Gillian Phillips stated that the draft Subdivision revisions will be placed on the Buncombe County Planning website as a link, and a legal ad will be placed in the local newspaper.

### **Adjourn**

The meeting was adjourned at 10:21 a.m.

## ATTACHMENT B

Buncombe County Planning Board Meeting  
Recommended Staff Conditions  
**SUB2013-00372 (Revision of Master Plan)**  
**SUB2016-00457 (Revision of Phase III)**  
November 7, 2016  
Sovereign Oaks

### **SUB2013-00372 (Master Plan)**

Staff recommends approval with no conditions to the revised master plan.

### **SUB2016-000457(Revision of previously approved Phase III)**

*A soils investigation for feasibility of septic tanks and surveyed boundaries of the tract, were provided for Phase I of this development (SUB2015-00030)*

*Phase III was previously approved by the Buncombe County Planning Board at their 7/18/2016 meeting (SUB2016-00251). The submitted plans is a revision of the previously approved plans.*

If approved by the Buncombe County Planning Board, the applicant shall provide the following information on a revised set of plans (if necessary) submitted to the Buncombe County Department of Planning and Development:

1. Provide proof of approval of E-911 addressing
2. Provide a written statement from the Buncombe County Erosion Control Officer stating that a revised Erosion Control Plan has been submitted and approved for the project.
3. Provide a written statement from the Buncombe County Stormwater Administrator stating that a revised Stormwater Plan has been submitted and approved for the project.
4. Provide proof of approval of system design for City of Asheville water lines. Proof of acceptance of the water lines into the City of Asheville's water system will be required prior to recordation of a final plat or release of a financial guarantee.
5. Provide proof of approval of the Buncombe County Fire Marshal.

SUB2016-00457  
 REVIOUS OF PHASE 3 OF SOVEREIGN OAKS  
 PREVIOUS CASE:  
 SUB2016-00251  
 APPROVED WITH CONDITIONS AT THE 11/7/2016 PB MEETING

# SOVEREIGN OAKS - PHASE 3

(Formerly known as Old Coggins Farm)

ATTACHMENT A

## NOTES

### PROJECT INFORMATION:

- PROJECT ADDRESS: 5 WANDERING OAKS WAY, ASHEVILLE NC 28804
- PARCEL ID: 9679-16-0279
- TOTAL PROJECT AREA: 169.01 AC.
- DISTURBED AREA: 5.56 ACRES (PHASE 3).
- PROJECT LOCATION: LAT: 35°36'46"N LON: -82°27'48"E.
- THIS SITE IS IN A DELINEATED FLOOD PANEL 9679J, MAP 3700967900J
- TOPO IS FLOWN TOPO PROVIDED BY WNC SURVEYORS AND ENGINEERS.
- POWER PROVIDED BY DUKE ENERGY
- CABLE PROVIDED BY CHARTER COMMUNICATIONS.
- EXISTING WOODED AREA: 34.3 AC EXISTING OPEN AREA: 13.1 AC
- EXISTING LAND USE: AGRICULTURE/RESIDENTIAL

### GENERAL NOTES:

- ANY CONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE JOB SITE AND LOCATION OF ALL EXISTING FACILITIES AND UNDERGROUND UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR WILL BE UNILATERALLY RESPONSIBLE FOR ANY DAMAGE DONE TO EXISTING FACILITIES AND UNDERGROUND UTILITIES THAT ARE SHOWN OR NOT SHOWN ON THESE PLANS; AND IF DAMAGED, SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS BEFORE SUBMITTING HIS BID.
- THE CONTRACTOR SHALL RE-SET ALL MANHOLE COVERS, CATCH BASIN GRATES AND ANY OTHER UTILITY ACCESS COVERS TO FINISH PAVEMENT SURFACE OR SIDEWALK GRADE.
- PROTECT UNDERGROUND UTILITIES AND THEIR APPURTENANCES TO REMAIN ON SITE FROM DAMAGE DURING CONSTRUCTION OPERATIONS. PROVIDE SHORING AND OTHER METHODS OF PROTECTIONS AS NEEDED TO ENSURE THE CONDITION AND OPERATION OF THOSE UTILITIES TO REMAIN. CONTRACTOR SHALL CONFIRM AS ENCOUNTERED AND COORDINATE AS NECESSARY.
- THE ENGINEER WILL NOT BE CONTINUOUSLY PRESENT IN THE FIELD. IT IS SPECIFICALLY UNDERSTOOD THAT HE DOES NOT UNDERTAKE NOR ASSUME ANY OBLIGATION FOR SUPERVISION OF CONSTRUCTION SAFETY MEASURES TAKEN DURING THE COURSE OF CONSTRUCTION, RESPONSIBILITY FOR SCHEDULING THE WORK, FOR INSURING COMPLETE COMPLIANCE WITH THE CONTRACT DOCUMENTS, AND/OR ALL CODE REQUIREMENTS, RULES AND REGULATION OF ANY PUBLIC OR PRIVATE AUTHORITY HAVING JURISDICTION OVER THE WHOLE OR ANY PART OF THE WORK. IN ADDITION, THE ENGINEER NEITHER UNDERTAKES, ASSUMES, NOR GUARANTEES THE WORK AND/OR PERFORMANCE OF THE CONTRACTOR.

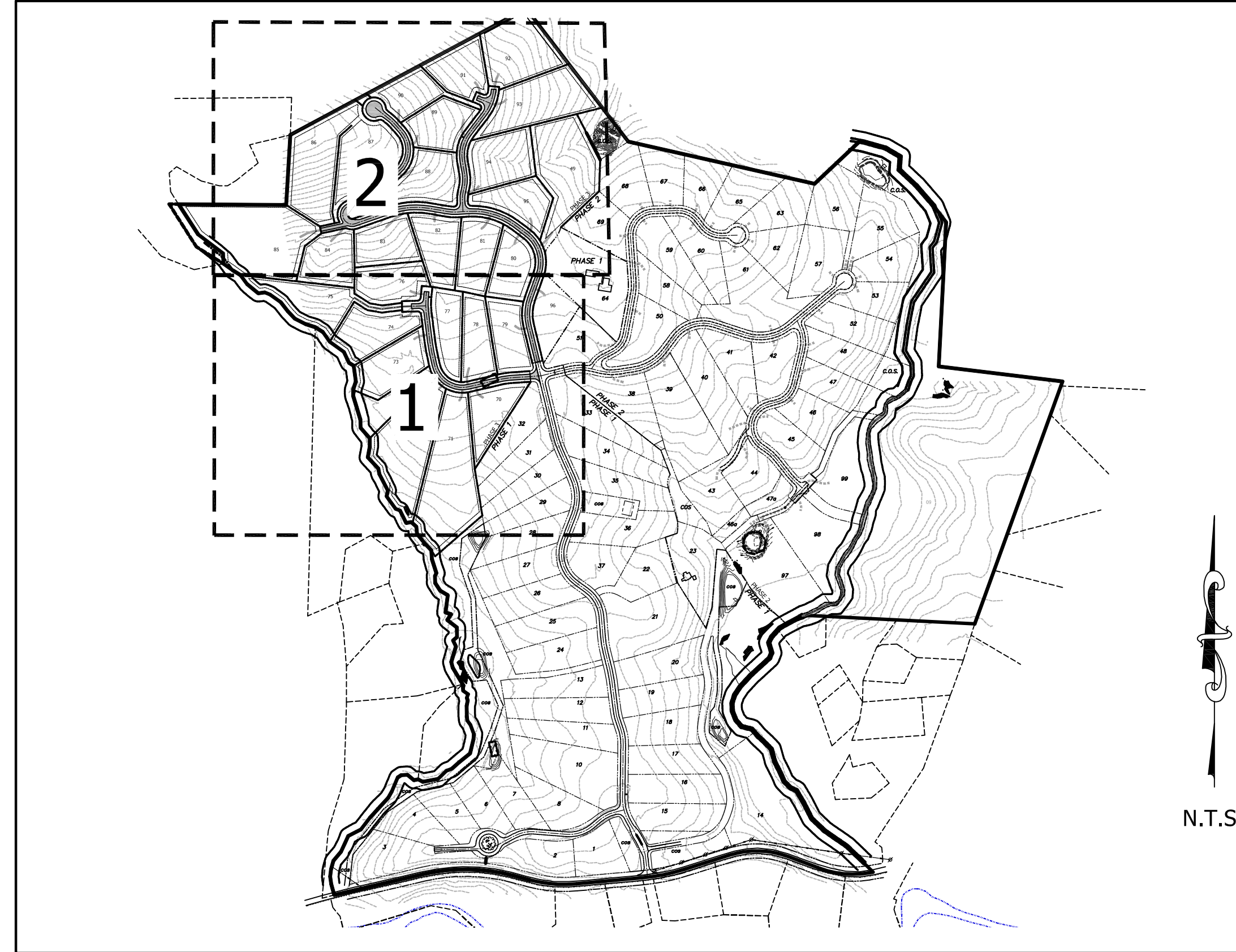
### GRADING AND EROSION CONTROL NOTES:

- The only site work to be allowed to take place prior to the full installation of erosion control measures will be the cutting of trees. Clearing, tree removal operations cannot begin until permits are secured and erosion control measures are in place.
- In accordance with the NPDES general stormwater permit, the following conditions must be met:
  - The erosion control plan must be implemented - deviations are a violation of the permit
  - A copy of all plans must be retained by the permit
  - Deposition of sediment offsite or in a stream or wetland are considered a violation of the permit.
  - Visible deposition of sediment shall be reported to BUNCOMBE COUNTY within 24 hours of inspection.
  - A rain gauge shall be maintained on site.
  - A written record of the daily rainfall amounts shall be retained.
  - At least once per week, each erosion control measure shall be inspected to ensure that it is operating correctly and records maintained.
- Inspections shall also be made within 24 hours of rain events over 1/2 inch.
- The quality of all stormwater discharges shall be observed and recorded.
- If any visible sedimentation is leaving the site or entering waters of the state, corrective action shall be taken immediately to control the discharge of sediments.
- Self-inspection records shall be kept on site and made available to the Erosion Control Inspector upon request.
- All drainage easements must be grassed and/or rip-rapped per the plans to control erosion.
- The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to, or concurrent with, land-disturbing activities.
- Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source and an amended plan be submitted and approved showing modified erosion control devices.
- The site shall receive temporary/permanent seeding within 7 days of completion of grading operations.
- All work in the NCDOT right-of-way to be done in accordance with NCDOT specifications and standards.
- Contractor to provide inlet protection at each structure as storm system is constructed.
- All grading and erosion control operations and installations must be done in accordance with BUNCOMBE COUNTY's engineering standard specifications and details.
- Install and maintain temporary sediment basins during rough grading.
- Provide watertight joints on any storm drains where velocities exceed 15 ft/sec (see pipe chart).
- All perimeter dikes, swales, slopes, and ditches, and all slopes steeper than 3:1 shall be stabilized in 7 days. All other slopes must be stabilized in 14 days.

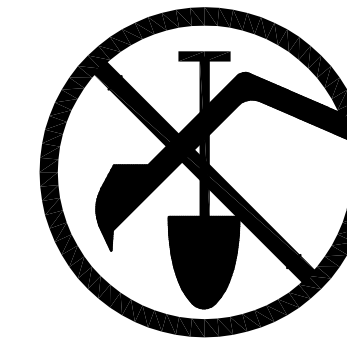
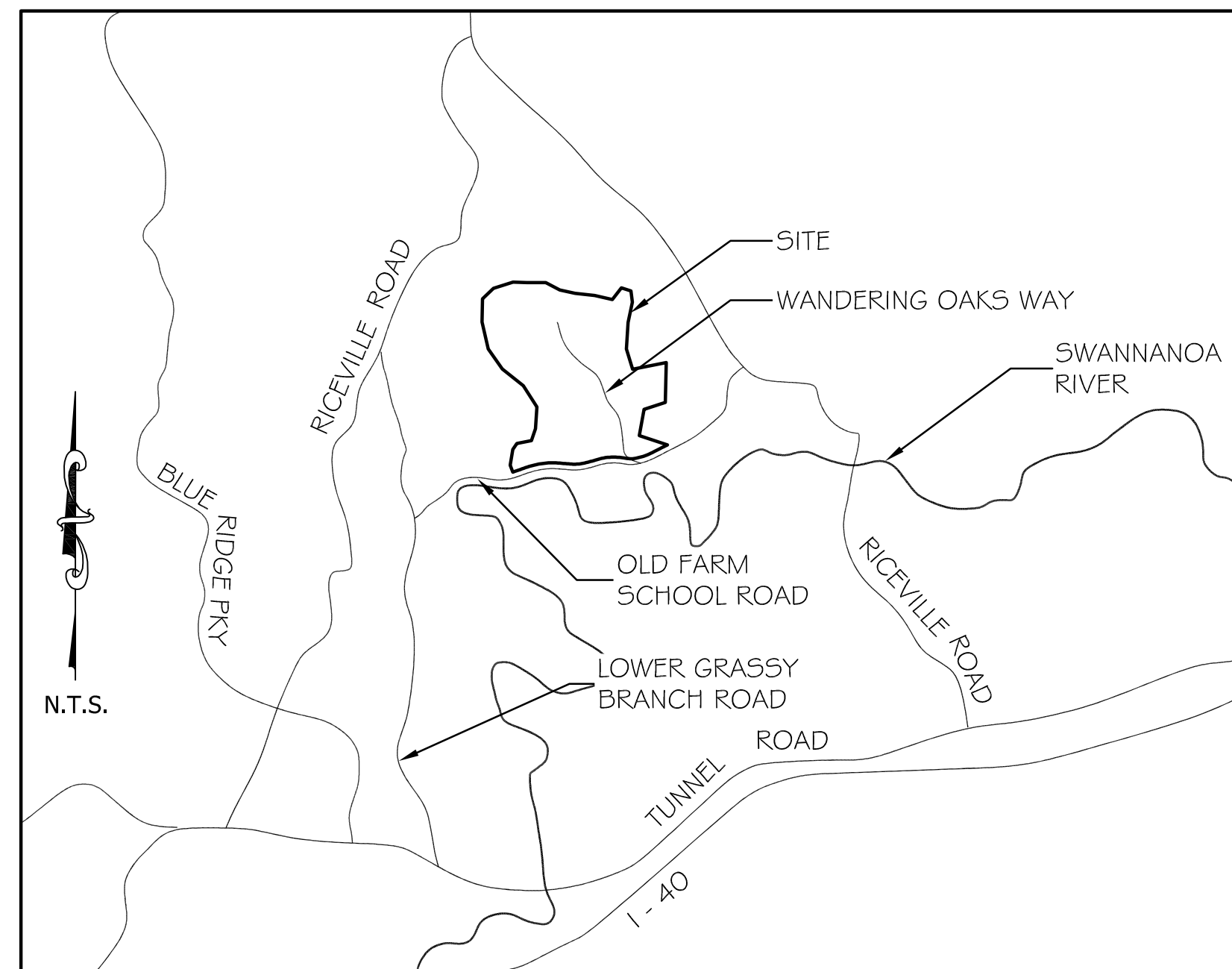
### INSPECTION SCHEDULE:

- NO CONSTRUCTION SHALL COMMENCE PRIOR TO A PRECONSTRUCTION MEETING WITH THE PROJECT ENGINEER, THE CONTRACTOR, AND A REPRESENTATIVE OF THE BUNCOMBE COUNTY.
- NO EQUIPMENT SUBSTITUTION SHALL BE MADE WITHOUT MANUFACTURER(S) AND PROJECT ENGINEER'S APPROVAL.
- FINAL INSPECTION SHALL COMMENCE AFTER SITE STABILIZATION.

## PROJECT MAP



## VICINITY MAP



BEFORE YOU DIG I  
 CALL 1-800-632-4949  
 N.C. ONE-CALL CENTER  
 IT'S THE LAW I

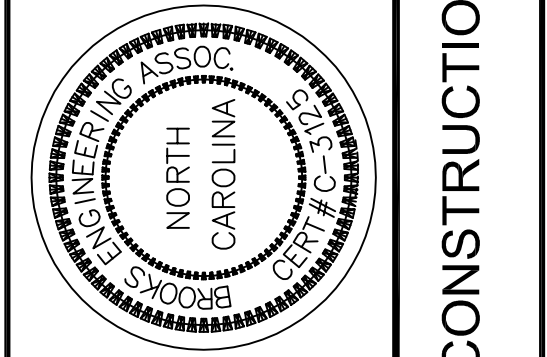
## PROJECT INFO

|                                   |  |
|-----------------------------------|--|
| <b>DEVELOPER:</b>                 | <b>CONTACT INFO:</b>   |
| ANDANA, LLC                       | CONTACT: ANDY BAKER<br>54 BARTLETT STREET<br>ASHEVILLE, NC 28801<br>P: 828-645-8815<br>EMAIL: andy@fmc.carolina.com          |
| <b>ENGINEER:</b>                  | <b>CONTACT INFO:</b>   |
| BROOKS ENGINEERING ASSOCIATES, PA | CONTACT: JOHN KINNAIRD, PE<br>17 ARLINGTON STREET<br>ASHEVILLE, NC 28801<br>P: 828-232-4700<br>EMAIL: jkinnaird@brooksea.com |
| <b>SURVEYOR:</b>                  | <b>CONTACT INFO:</b>   |
| BROOKS ENGINEERING ASSOCIATES, PA | CONTACT: PAUL SEXTON, PE<br>17 ARLINGTON STREET<br>ASHEVILLE, NC 28801<br>P: 828-232-4700<br>EMAIL: psexton@brooksea.com     |
| <b>OWNER:</b>                     | <b>CONTACT INFO:</b>   |
| ANDANA, LLC                       | 88 OLD COGGINS PLACE<br>ASHEVILLE, NC 28804  |

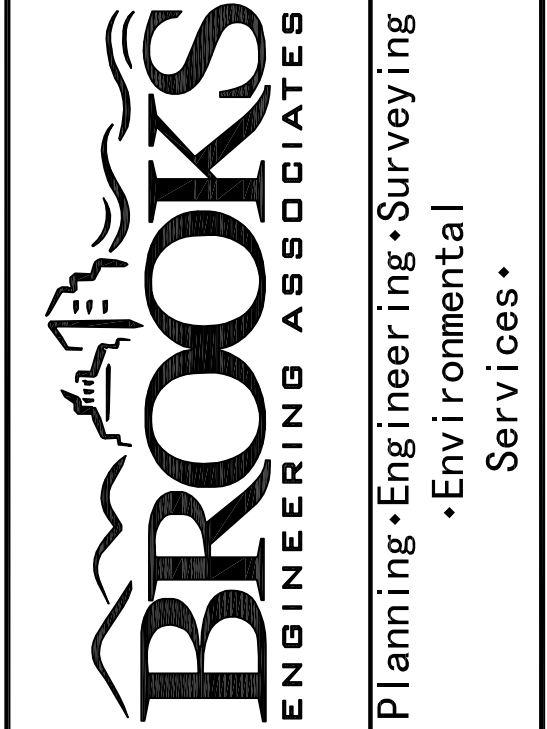
## SHEET INDEX

| SHEET NO.: | SHEET TITLE                           |
|------------|---------------------------------------|
| C-0        | COVER SHEET                           |
| MP-1.1     | MASTER PLAN                           |
| MP-1.2     | MASTER PLAN WITH SLOPE ANALYSIS       |
| MP-1.3     | MASTER PLAN WITH STABILITY MAP        |
| C-1.1      | PRELIMINARY PLAT & SITE PLAN (1 OF 2) |
| C-1.2      | PRELIMINARY PLAT & SITE PLAN (2 OF 2) |
| C-2.1      | GRADING & STORMWATER PLAN (1 OF 2)    |
| C-2.2      | GRADING & STORMWATER PLAN (2 OF 2)    |
| C-2.3      | STORMWATER PROFILES                   |
| C-3.1      | WATER EXTENSION PLAN (1 OF 2)         |
| C-3.2      | WATER EXTENSION PLAN (2 OF 2)         |
| C-4.1      | ROAD AND WATER PROFILES               |
| C-4.2      | ROAD AND WATER PROFILES               |
| C-5.1      | SITE DETAILS                          |
| C-5.2      | STORMWATER AND E/C DETAILS            |
| C-5.3      | STORMWATER AND E/C DETAILS            |
| C-5.4      | STORMWATER AND E/C DETAILS            |
| C-5.5      | STORMWATER AND E/C DETAILS            |
| C-5.6      | UTILITY DETAILS                       |
| C-5.7      | UTILITY DETAILS                       |

| No. | REVISIONS/SUBMISSIONS                | Date       |
|-----|--------------------------------------|------------|
| 1   | SUBMITTAL TO PLANNING BOARD          | 6/17/2016  |
| 2   | SUBMITTAL TO C.O.A. WATER DEPARTMENT | 6/29/2016  |
| 3   | REVISIONS PER C.O.A. WATER COMMENTS  | 9/6/2016   |
| 4   | CONSTRUCTION DOCS ISSUED             | 10/21/2016 |



Designed: JHK  
 Drawn: MIG  
 Checked: JHK  
 Scale: AS NOTED  
 Date: 6-17-2016  
 17 Arlington Street  
 Asheville, N.C. 28801  
 Phone: 1-828-232-4700  
 Fax: 1-828-232-1331  
 www.brooksea.com



SOVEREIGN OAKS  
 PHASE 3  
 NORTH CAROLINA  
 BUNCOMBE COUNTY

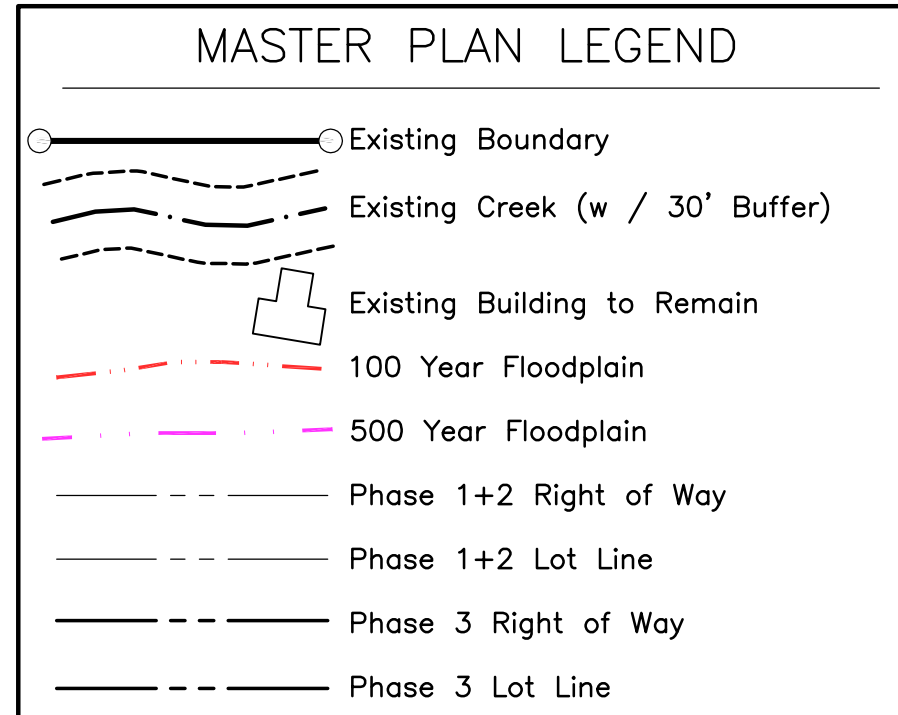
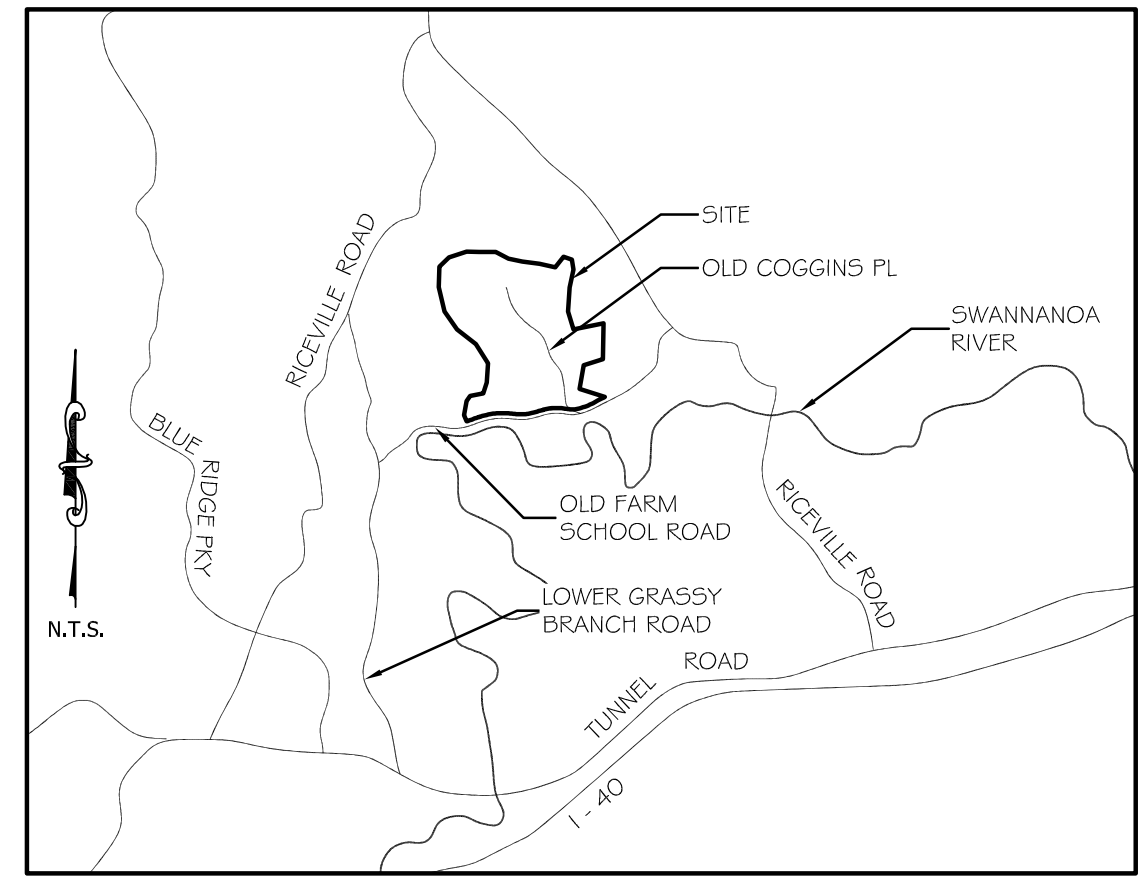
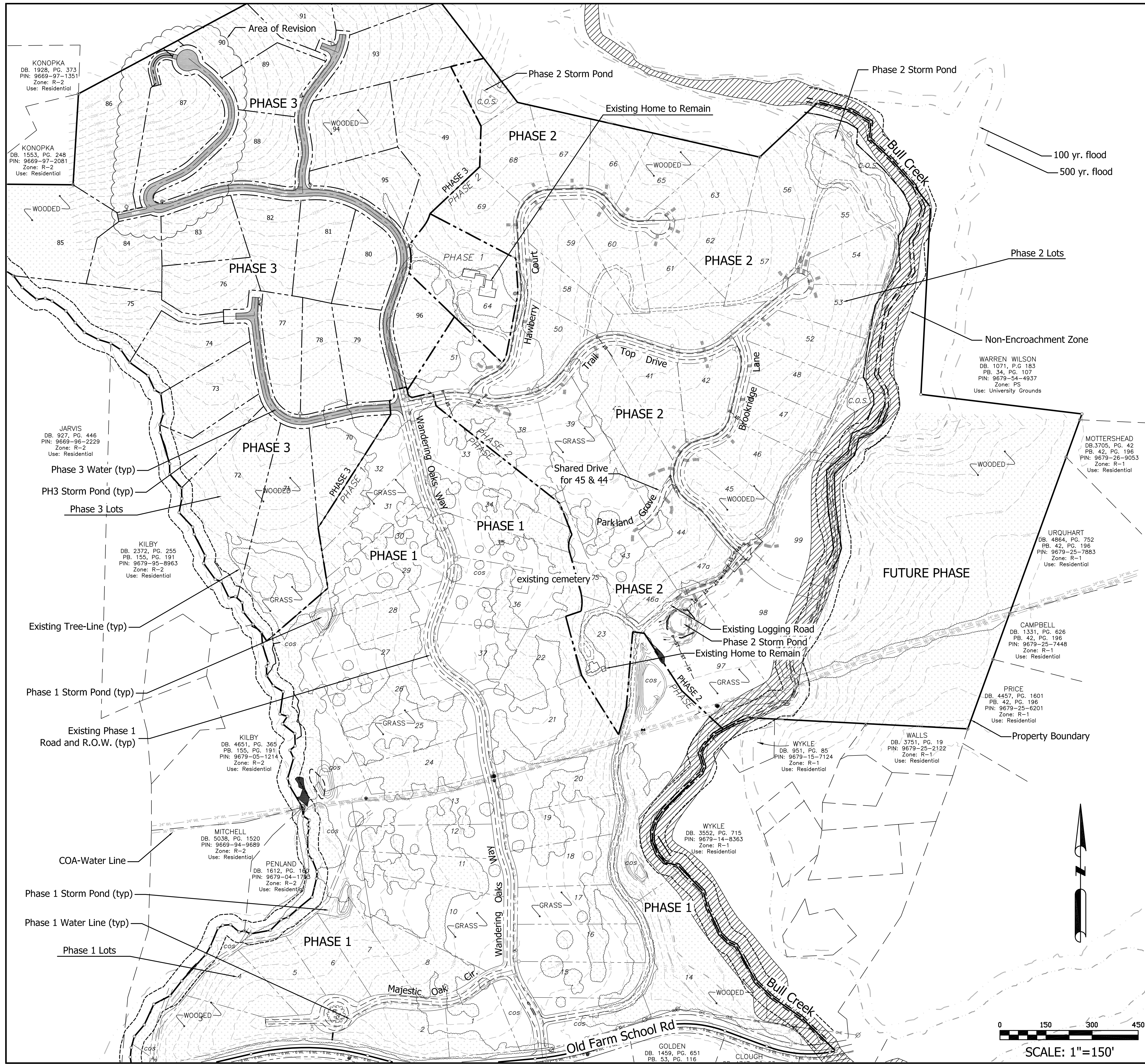
Project No:  
 433816  
 C-0  
 Drawing Title:  
 COVER SHEET

Revision/Submission number with a triangle indicates changes made on this sheet.

CONSTRUCTION DOCUMENTS

Planning • Engineering • Surveying  
 • Environmental  
 Services •

COVER SHEET



**MASTER PLAN NOTES**

|   |                    |
|---|--------------------|
| Subdivision Name:                                       | SOVEREIGN OAKS     |
| Total Project Area:                                     | 169.106 Ac.        |
| PIN No.:  | 9679-16-0279       |
| Existing Zoning:  | R-2                |
| Township:   | Swannanoa          |
| Allowed Number of Units per Zoning:                     | 2,028 (12 / acre)  |
| Proposed Number of Residential units:                   | 99 units           |
| Total Density:  | 0.59 units / acre  |
| Max. Building Height:                                   | 35'                |
| Water:  | CITY OF ASHEVILLE  |
| Water Supply Watershed:                                 | N/A                |
| Sewer:  | Septic Systems     |
| Length of Private Two-Way Roads:                        | 8,430 linear feet  |
| Length of Shared Drives:                                | 4,500 linear feet  |
| Total Length of Roads / Drives:                         | 12,930 linear feet |
| Disturbed Area:   | 35 ACRES           |
| (Infrastructure and houses)                             |                    |
| Average Natural Slope:                                  | 19.4%              |
| % of Property over 35% in Slope:                        | 9.7% (16.4 ac)     |
| (Property is NOT a Drastic Variation Hillside property) |                    |

Note: Portions of this site lie within the 100yr floodplain.  
Note: Construction estimated to begin May 2015.

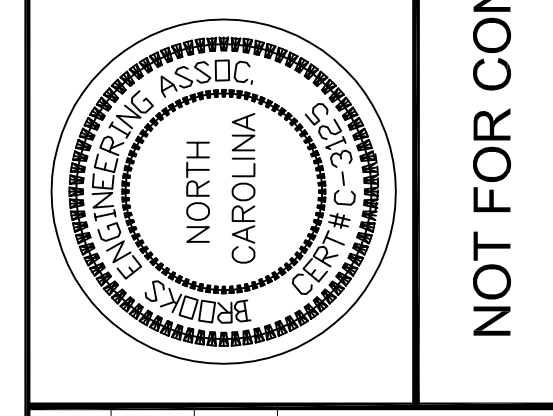
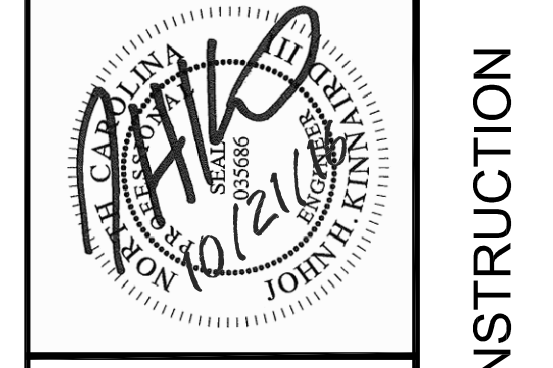
**DEVELOPMENT NOTES**

|           |   |
|-----------|---|
| DEVELOPER | COGGINS FARMS, LLC<br>DAVID CASE<br>54 BARTLETT STREET<br>ASHEVILLE, NC 28801<br>828-774-5274   |
| ENGINEER  | JOHN KINNAIRD, PE<br>BROOKS ENGINEERING ASSOCIATES, PA<br>ASHEVILLE, NC 28801<br>828-232-4700   |
| SURVEYOR  | PAUL SEXTON, PE RLS<br>BROOKS ENGINEERING ASSOCIATES, PA<br>ASHEVILLE, NC 28801<br>828-232-4700 |

**DEVELOPMENT TIMETABLE**

THE PROJECT WILL BEGIN IN THE SPRING OF 2015, AND COMPLETED IN THE SUMMER OF 2020. THE PROJECT WILL BE DEVELOPED IN THREE PHASES. INFRASTRUCTURE SHALL BE CONSTRUCTED FROM THE MAIN ENTRANCE AND PROCEED NORTHWARD THROUGH THE PROPERTY.

| Date                  |   |
|-----------------------|---|
| REVISIONS/SUBMISSIONS |   |
| No.                   | 1 |



Reviewed: MCB  
Scale: 1"=150'  
Drawn: DJD  
Checked: JHK  
Date: 05-17-2016

17 Arlington Street  
Asheville, N.C. 28801  
Phone: 1-828-232-4700  
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www.brooksea.com

**BROOKS ENGINEERING ASSOCIATES**

Planning • Engineering • Surveying  
• Environmental Services •

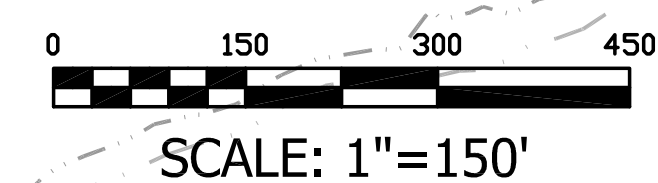
SOVEREIGN OAKS  
MASTER PLANS

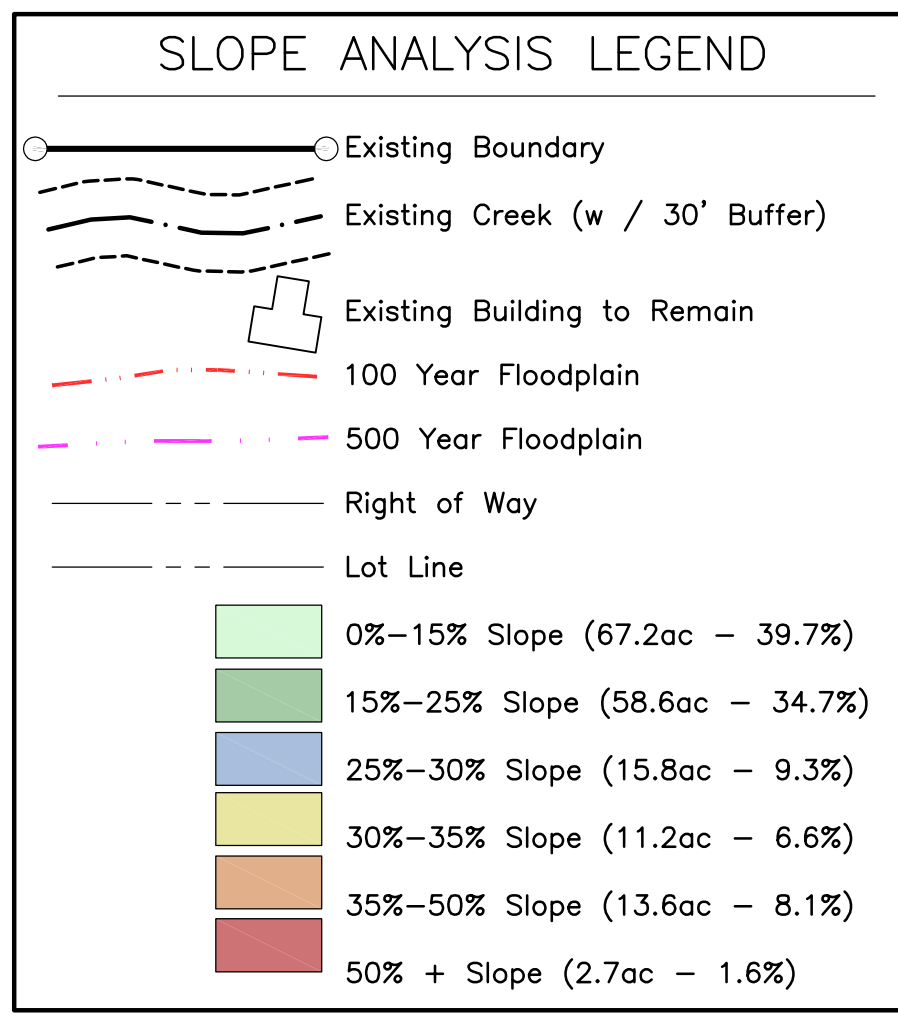
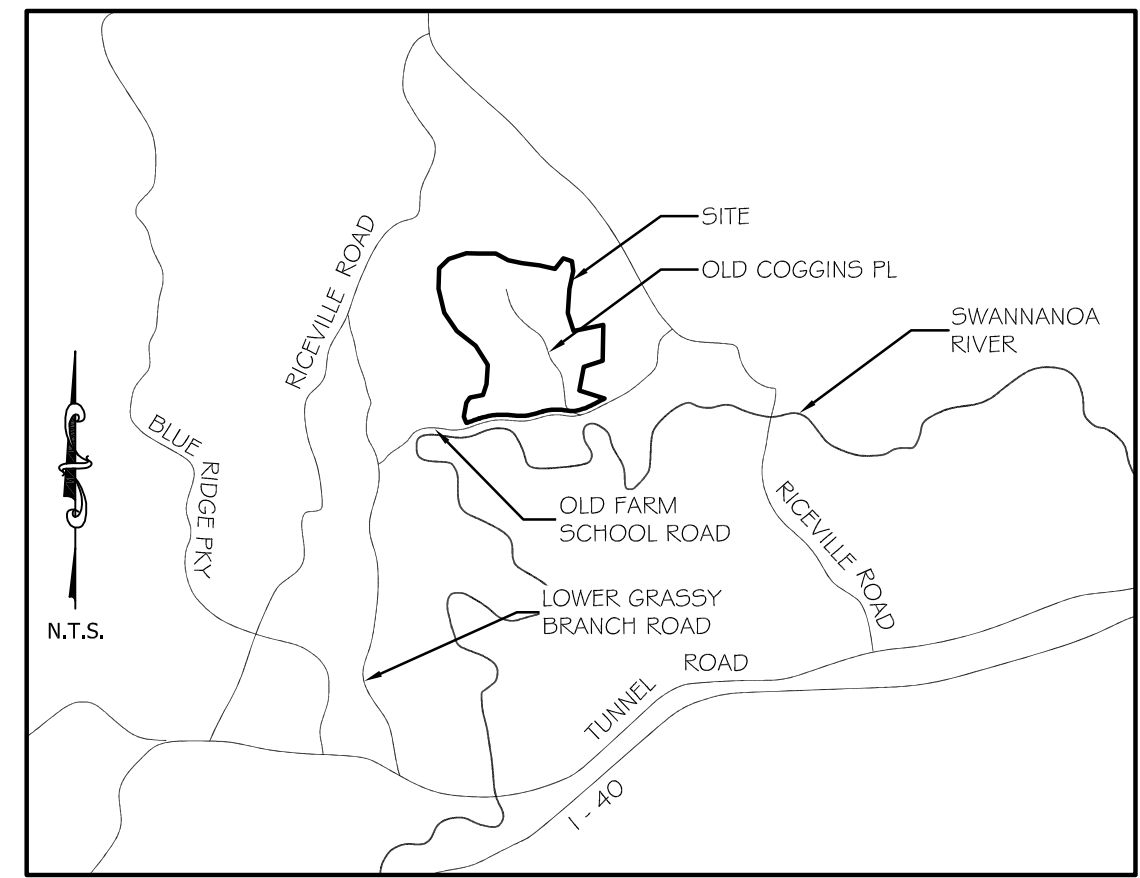
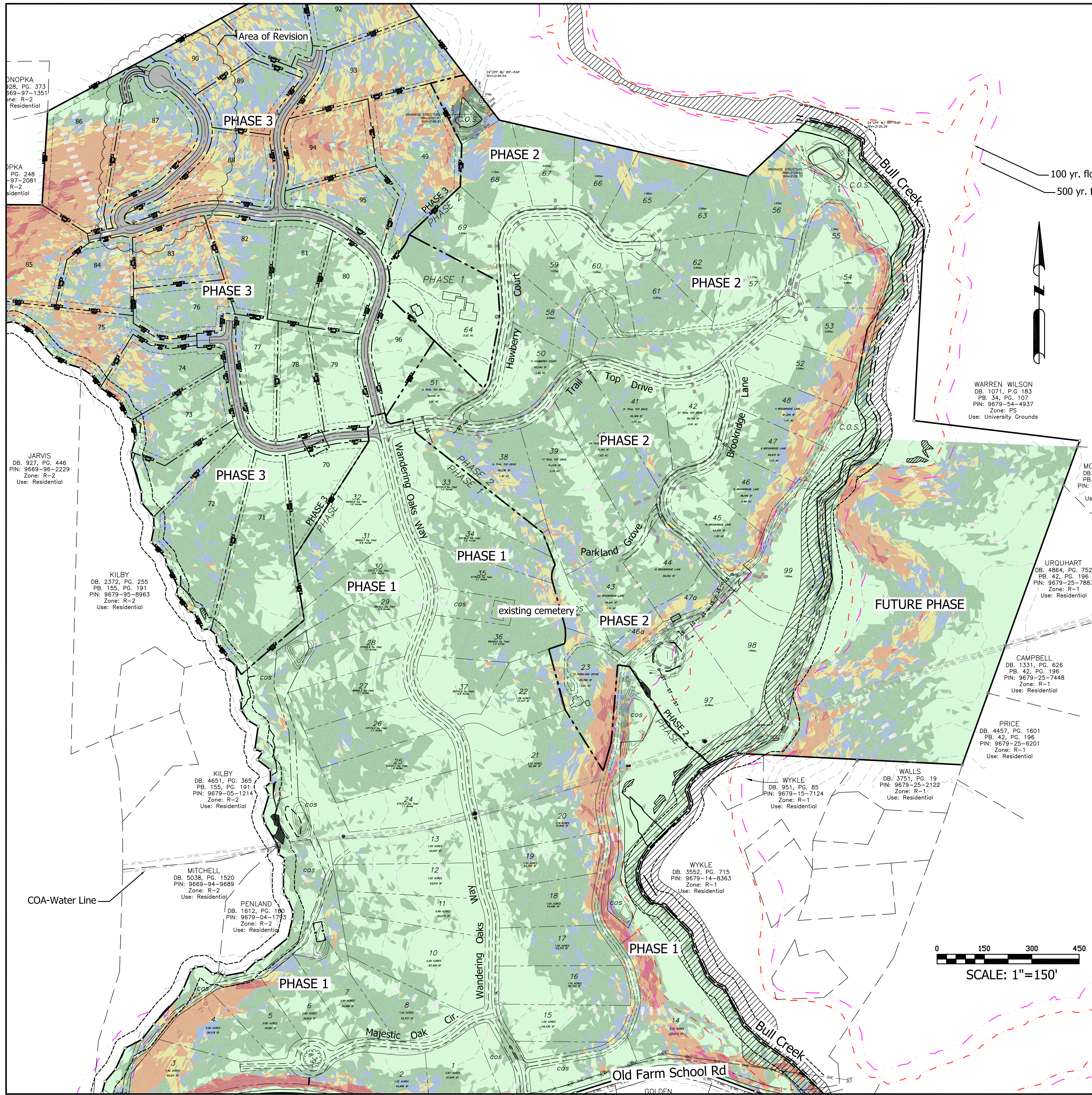
BUNCOMBE COUNTY NORTH CAROLINA

Project No: 433816  
MP-1.1  
Drawing Title: MASTER PLAN

Revision/Submission number with a triangle indicates changes made on this sheet.

NOT FOR CONSTRUCTION





**MASTER PLAN NOTES**

Subdivision Name: SOVEREIGN OAKS  
 Total Project Area: 169.106 Ac.  
 PIN No.: 9679-16-0279  
 Existing Zoning: R-2  
 Township: Swannanoa

Allowed Number of Units per Zoning: 2,028 (12 / acre)  
 Proposed Number of Residential units: 99 units  
 Total Density: 0.59 units / acre  
 Max. Building Height: 35'

Water: CITY OF ASHEVILLE  
 Water Supply Watershed: N/A  
 Sewer: Septic Systems  
 Length of Private Two-Way Roads: 8,430 linear feet  
 Length of Shared Roads: 4,500 linear feet  
 Total Length of Drives / Drives: 12,930 linear feet  
 Disturbed Area: 35 ACRES  
 (Infrastructure and houses)

Average Natural Slope: 19.4%  
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 (Property is NOT a Drastic Variation Hillside property)

Note: Portions of this site lie within the 100yr floodplain.  
 Note: Construction estimated to begin May 2015.

**DEVELOPMENT NOTES**

DEVELOPER: COGGINS FARMS, LLC  
 DAVID CASE  
 54 BARTLETT STREET  
 ASHEVILLE, NC 28801  
 828-774-5274

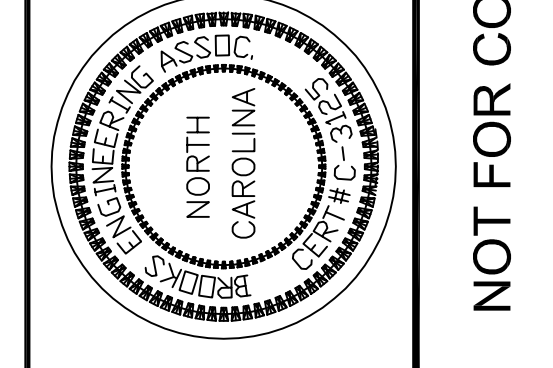
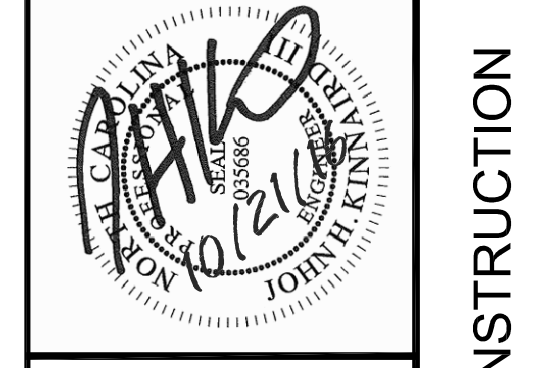
ENGINEER: JOHN KINNAIRD, PE  
 BROOKS ENGINEERING ASSOCIATES, PA  
 ASHEVILLE, NC 28801  
 828-232-4700

SURVEYOR: PAUL SEXTON, PE RLS  
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 ASHEVILLE, NC 28801  
 828-232-4700

**DEVELOPMENT TIMETABLE**

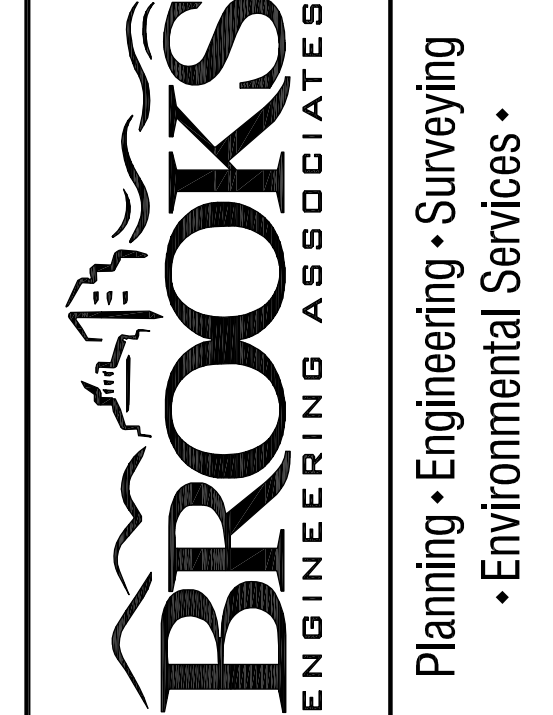
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Reviewed: MCB  
 Scale: 1"=150'  
 Drawn: DJD  
 Checked: JHK  
 Date: 10-16-15

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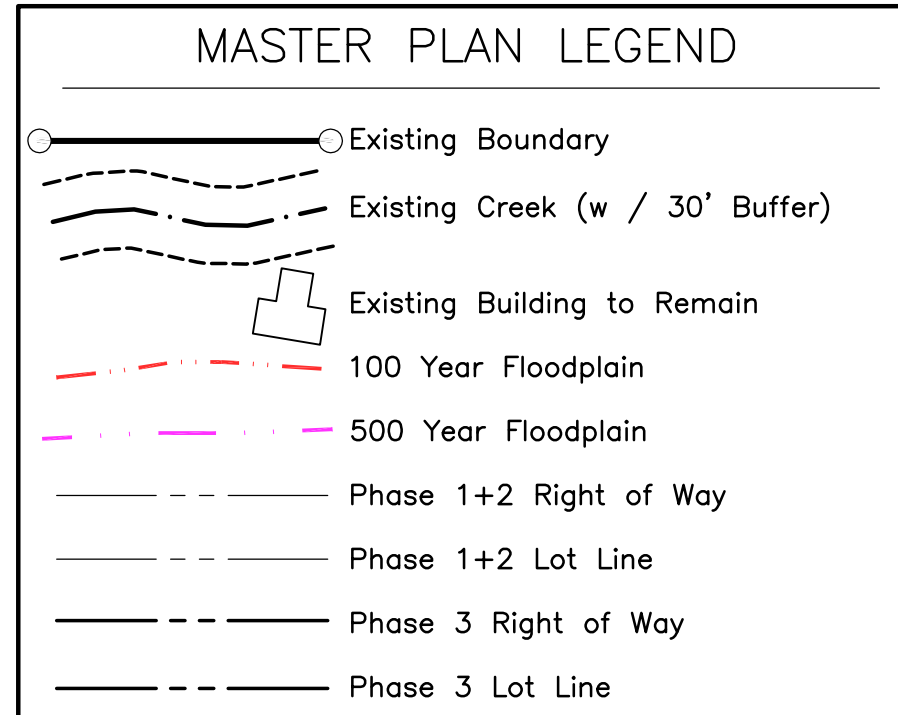
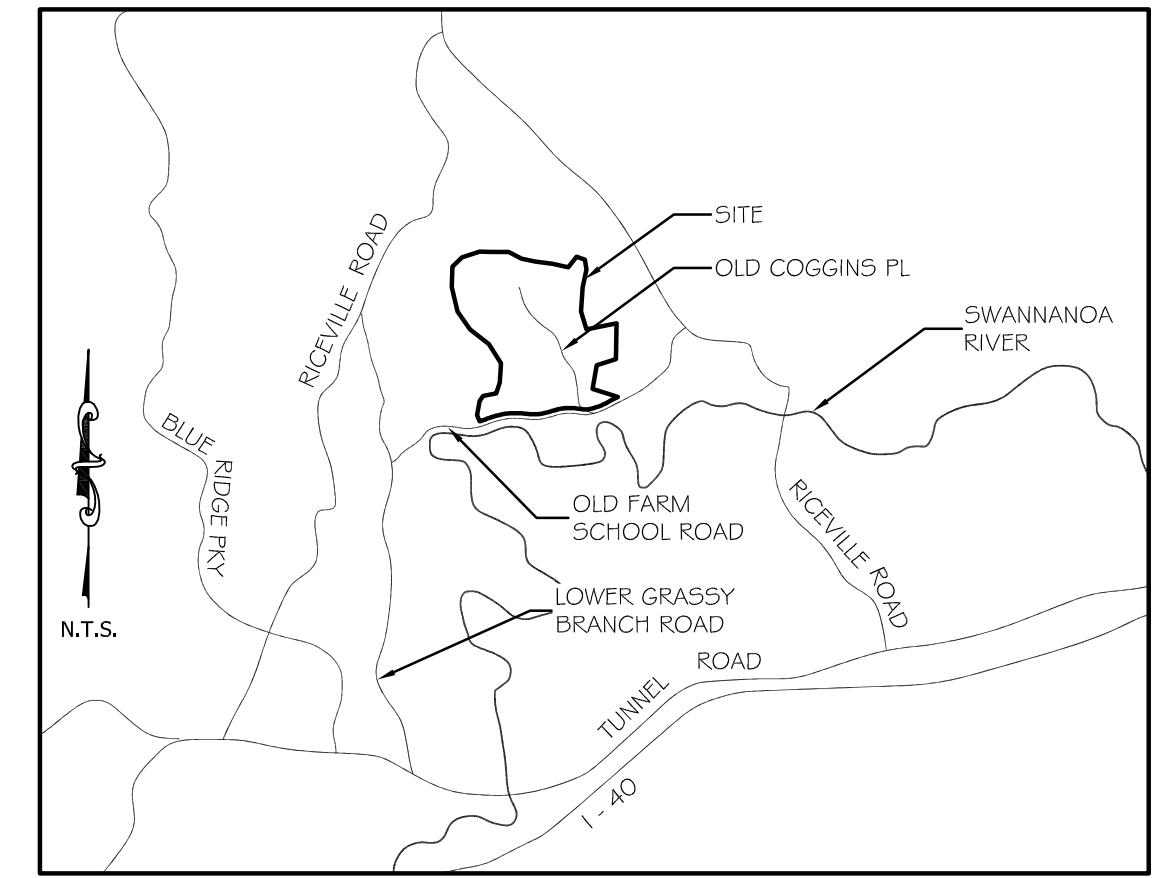
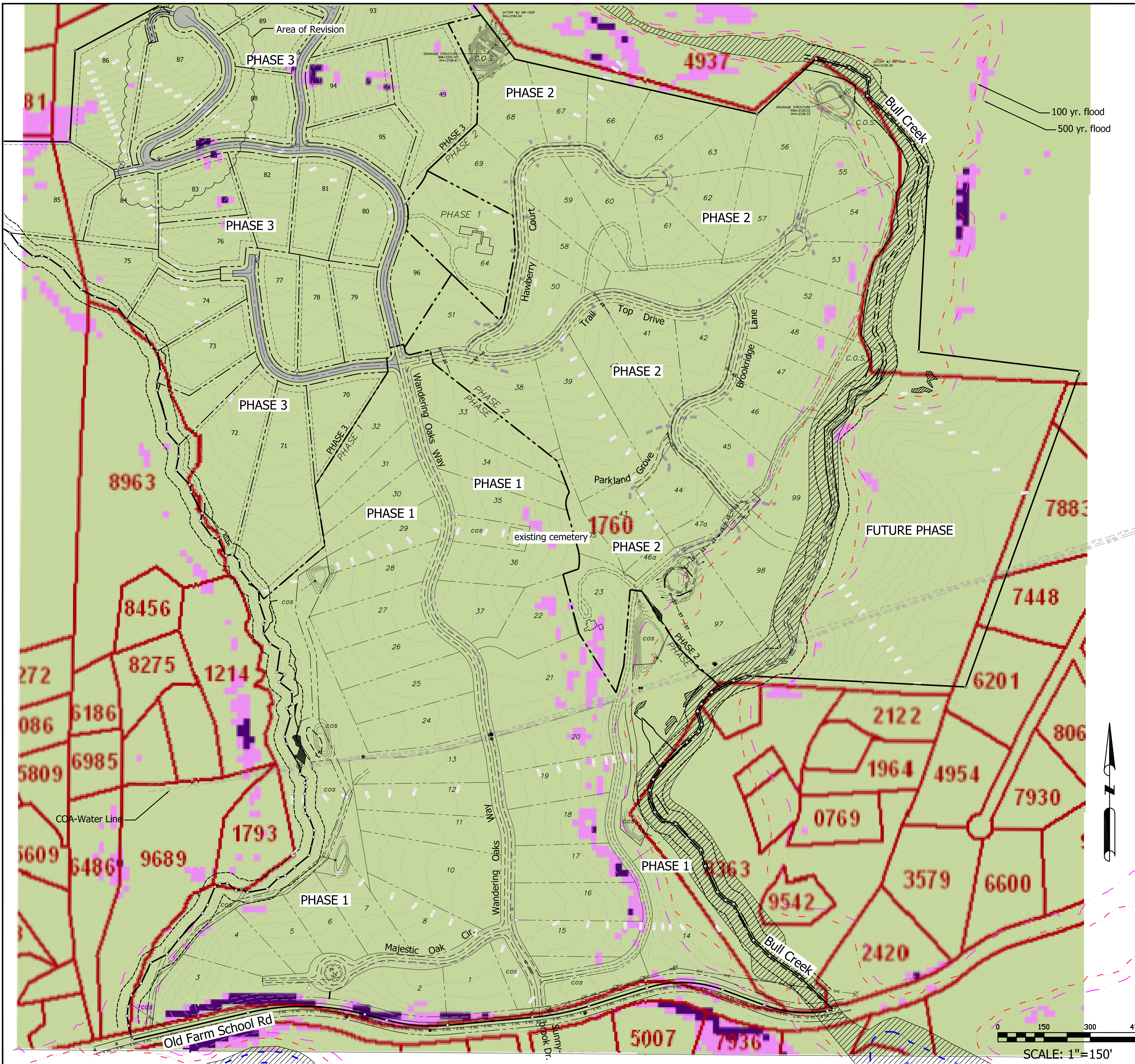


SOVEREIGN OAKS  
 MASTER PLANS

BUNCOMBE COUNTY  
 NORTH CAROLINA

Project No: 433816  
 MP-1.2  
 Drawing Title: MASTER PLAN WITH SLOPE ANALYSIS

NOT FOR CONSTRUCTION



**MASTER PLAN NOTES**

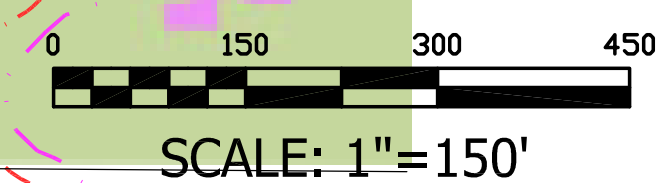
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**DEVELOPMENT NOTES**

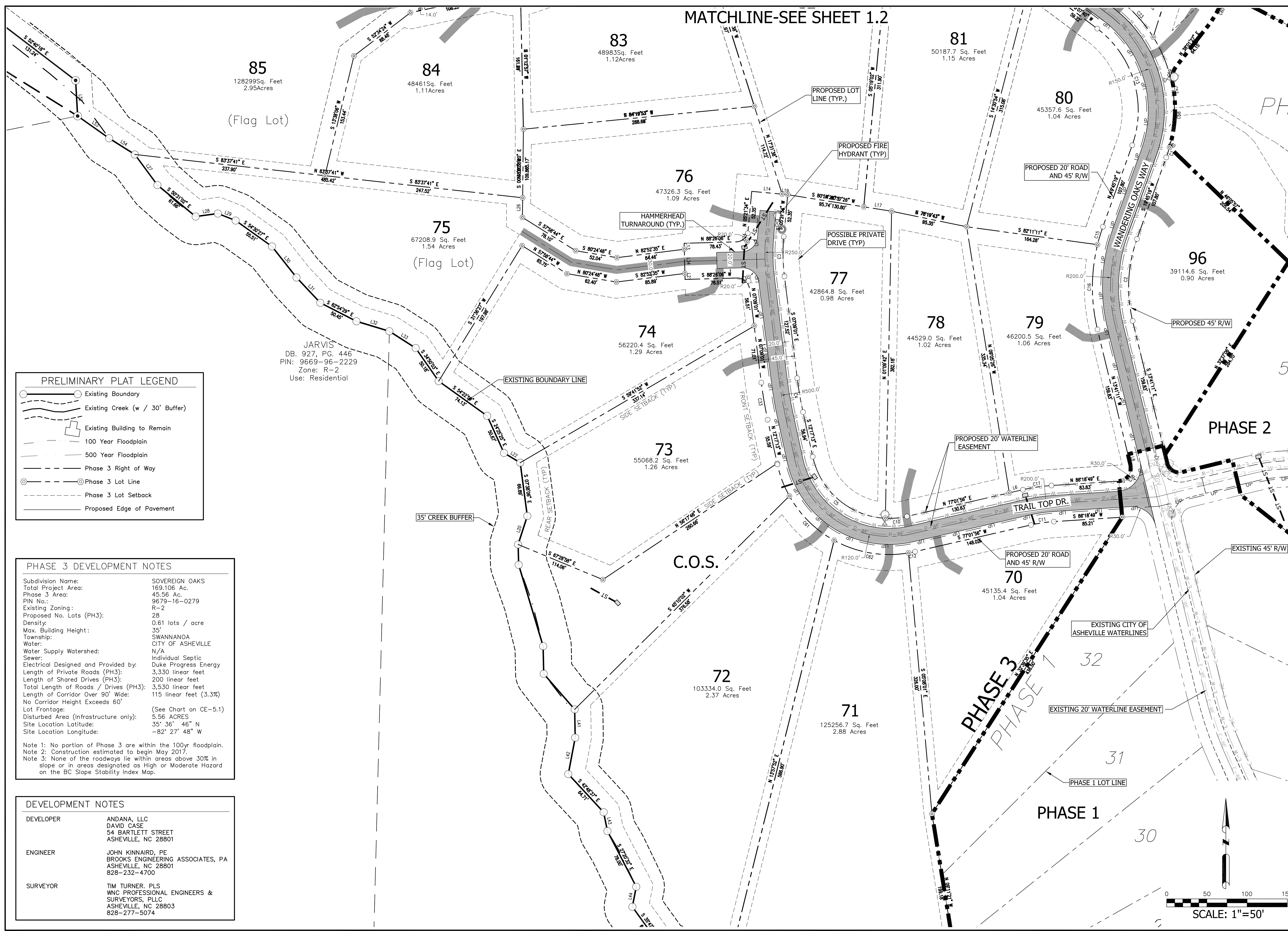
|           |   |
|-----------|---|
| DEVELOPER | COGGINS FARMS, LLC<br>DAVID CASE<br>54 BARTLETT STREET<br>ASHEVILLE, NC 28801<br>828-774-5274   |
| ENGINEER  | JOHN KINNAIRD, PE<br>BROOKS ENGINEERING ASSOCIATES, PA<br>ASHEVILLE, NC 28801<br>828-232-4700   |
| SURVEYOR  | PAUL SEXTON, PE RLS<br>BROOKS ENGINEERING ASSOCIATES, PA<br>ASHEVILLE, NC 28801<br>828-232-4700 |

**DEVELOPMENT TIMETABLE**

THE PROJECT WILL BEGIN IN THE SPRING OF 2015, AND COMPLETED IN THE SUMMER OF 2020. THE PROJECT WILL BE DEVELOPED IN THREE PHASES. INFRASTRUCTURE SHALL BE CONSTRUCTED FROM THE MAIN ENTRANCE AND PROCEED NORTHWARD THROUGH THE PROPERTY.



| Project No:<br><b>433816</b>                            | MP-1.3                | SOVEREIGN OAKS<br>MASTER PLANS  |  | NORTH CAROLINA   |  |  |     |                       |      |   |  |  |
|---|-----------------------|---|--|--|--|--|-----|-----------------------|------|---|--|--|
| Drawing Title:<br><b>MASTER PLAN WITH STABILITY MAP</b> |                       | BUNCOMBE COUNTY   |  | ENGINEERING ASSOCIATES   |  |  |     |                       |      |   |  |  |
|   |                       | <b>BROOKS</b>   |  | ENGINEERING ASSOCIATES   |  |  |     |                       |      |   |  |  |
|   |                       | Planning • Engineering • Surveying  |  | • Environmental Services •   |  |  |     |                       |      |   |  |  |
|   |                       | 17 Arlington Street<br>Asheville, N.C. 28801<br>Phone: 1-828-232-4700<br>Fax: 1-828-232-1331<br>www.brookssea.com |  |  |  |  |     |                       |      |   |  |  |
|   |                       |   |  | <b>NOT FOR CONSTRUCTION</b>  |  |  |     |                       |      |   |  |  |
|   |                       |   |  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">No.</th> <th style="width: 10%;">REVISIONS/SUBMISSIONS</th> <th style="width: 10%;">Date</th> </tr> <tr> <td style="text-align: center;">1</td> <td></td> <td></td> </tr> </table> |  |  | No. | REVISIONS/SUBMISSIONS | Date | 1 |  |  |
| No.   | REVISIONS/SUBMISSIONS | Date  |  |  |  |  |     |                       |      |   |  |  |
| 1   |                       |   |  |  |  |  |     |                       |      |   |  |  |



MATCHLINE-SEE SHEET 1.2

85  
128299 Sq. Feet  
2.95 Acres  
(Flag Lot)

84  
48461 Sq. Feet  
1.11 Acres

83  
48983 Sq. Feet  
1.12 Acres

81  
50187.7 Sq. Feet  
1.15 Acres

80  
45357.6 Sq. Feet  
1.04 Acres

75  
67208.9 Sq. Feet  
1.54 Acres  
(Flag Lot)

76  
47326.3 Sq. Feet  
1.09 Acres

77  
42864.8 Sq. Feet  
0.98 Acres

78  
44529.0 Sq. Feet  
1.02 Acres

79  
46200.5 Sq. Feet  
1.06 Acres

96  
39114.6 Sq. Feet  
0.90 Acres

74  
56220.4 Sq. Feet  
1.29 Acres

73  
55068.2 Sq. Feet  
1.26 Acres

72  
103334.0 Sq. Feet  
2.37 Acres

71  
125256.7 Sq. Feet  
2.88 Acres

70  
45135.4 Sq. Feet  
1.04 Acres

**PRELIMINARY PLAT LEGEND**

- Existing Boundary
- Existing Creek (w / 30' Buffer)
- Existing Building to Remain
- 100 Year Floodplain
- 500 Year Floodplain
- Phase 3 Right of Way
- Phase 3 Lot Line
- Phase 3 Lot Setback
- Proposed Edge of Pavement

**PHASE 3 DEVELOPMENT NOTES**

Subdivision Name: SOVEREIGN OAKS  
 Total Project Area: 169,106 Ac.  
 Phase 3 Area: 45.56 Ac.  
 PIN No.: 9679-16-0279  
 Existing Zoning: R-2  
 Proposed No. Lots (PH3): 28  
 Density: 0.61 lots / acre  
 Max. Building Height: 35'  
 Township: SWANNANOA CITY OF ASHEVILLE  
 Water: N/A  
 Water Supply Watershed: Individual Septic  
 Sewer: Duke Progress Energy  
 Electrical Designed and Provided by: 3,330 linear feet  
 Length of Private Roads (PH3): 200 linear feet  
 Length of Shared Drives (PH3): 3,530 linear feet  
 Total Length of Roads / Drives (PH3): 115 linear feet (3.3%)  
 Length of Corridor Over 90' Wide: No Corridor Height Exceeds 60'  
 Lot Frontage: (See Chart on CE-5.1)  
 Disturbed Area (Infrastructure only): 5.56 ACRES  
 Site Location Latitude: 35° 36' 46" N  
 Site Location Longitude: -82° 27' 48" W

Note 1: No portion of Phase 3 are within the 100yr floodplain.  
 Note 2: Construction estimated to begin May 2017.  
 Note 3: None of the roadways lie within areas above 30% in slope or in areas designated as High or Moderate Hazard on the BC Slope Stability Index Map.

**DEVELOPMENT NOTES**

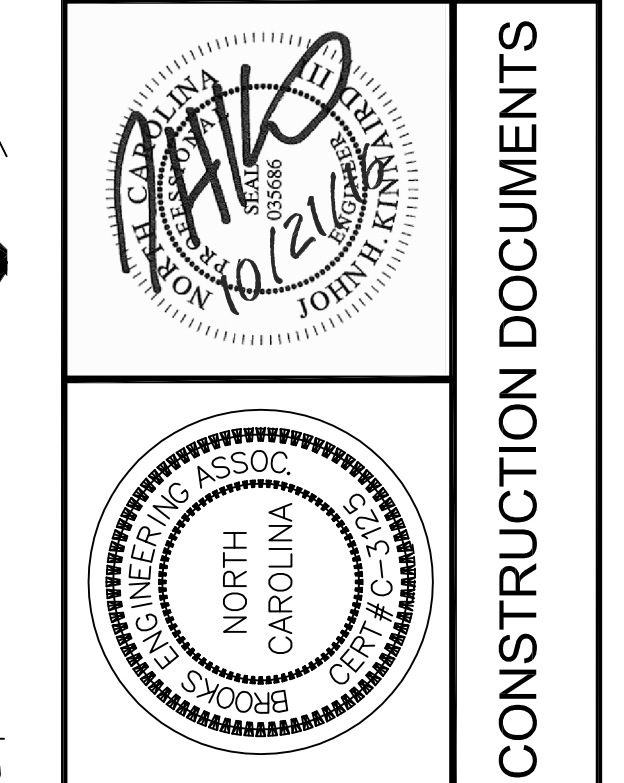
DEVELOPER: ANDANA, LLC  
 DAVID CASE  
 54 BARTLETT STREET  
 ASHEVILLE, NC 28801

ENGINEER: JOHN KINNAIRD, PE  
 BROOKS ENGINEERING ASSOCIATES, PA  
 ASHEVILLE, NC 28801  
 828-232-4700

SURVEYOR: TIM TURNER, PLS  
 WNC PROFESSIONAL ENGINEERS & SURVEYORS, PLLC  
 ASHEVILLE, NC 28803  
 828-277-5074

**REVISIONS/SUBMISSIONS**

| No. | Date       | REVISIONS/SUBMISSIONS                |
|-----|------------|--------------------------------------|
| 1   | 6/17/2016  | SUBMITTAL TO PLANNING BOARD          |
| 2   | 6/29/2016  | SUBMITTAL TO C.O.A. WATER DEPARTMENT |
| 3   | 9/6/2016   | REVISIONS PER C.O.A. WATER COMMENTS  |
| 4   | 10/21/2016 | CONSTRUCTION DOCS ISSUED             |



Designed: JHK  
 Drawn: MIG  
 Checked: JHK

Scale: 1"=50'  
 Date: 6-17-2016

17 Arlington Street  
 Asheville, N.C. 28801  
 Phone: 1-828-232-4700  
 Fax: 1-828-232-1331  
 www.brookssea.com

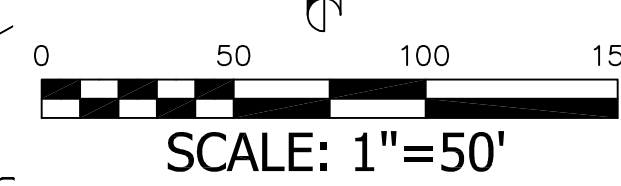
**BROOKS ENGINEERING ASSOCIATES**  
 Planning • Engineering • Surveying  
 • Environmental Services •

Project No: 433816  
 Drawing Title: PRELIMINARY PLAT & SITE PLAN

SOVEREIGN OAKS  
 PHASE 3

BUNCOMBE COUNTY  
 NORTH CAROLINA

C-1.1



CONSTRUCTION DOCUMENTS



**PHASE 3 DEVELOPMENT NOTES**

Subdivision Name: SOVEREIGN OAKS  
 Total Project Area: 169.106 Ac.  
 Phase 3 Area: 45.56 Ac.  
 PIN No.: 9679-16-0279  
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 Proposed No. Lots (PH3): 28  
 Density: 0.61 lots / acre  
 Max. Building Height: 35'  
 Township: SWANNANOA  
 City: CITY OF ASHEVILLE  
 Water: N/A  
 Water Supply Watershed: N/A  
 Sewer: Individual Septic  
 Electrical Designed and Provided by: Duke Progress Energy  
 Length of Private Roads (PH3): 3,330 linear feet  
 Length of Shared Drives (PH3): 200 linear feet  
 Total Length of Roads / Drives (PH3): 3,530 linear feet  
 Length of Corridor Over 90° Wide: 115 linear feet (3.3%)  
 No Corridor Height Exceeds 60'  
 Lot Frontages: (See Chart on CE-5.1)  
 Disturbed Area (Infrastructure only): 5.56 ACRES  
 Site Location Latitude: 35° 36' 46" N  
 Site Location Longitude: -82° 27' 48" W

Note 1: No portion of Phase 3 are within the 100yr floodplain.  
 Note 2: Construction estimated to begin May 2017.  
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**PRELIMINARY PLAT LEGEND**

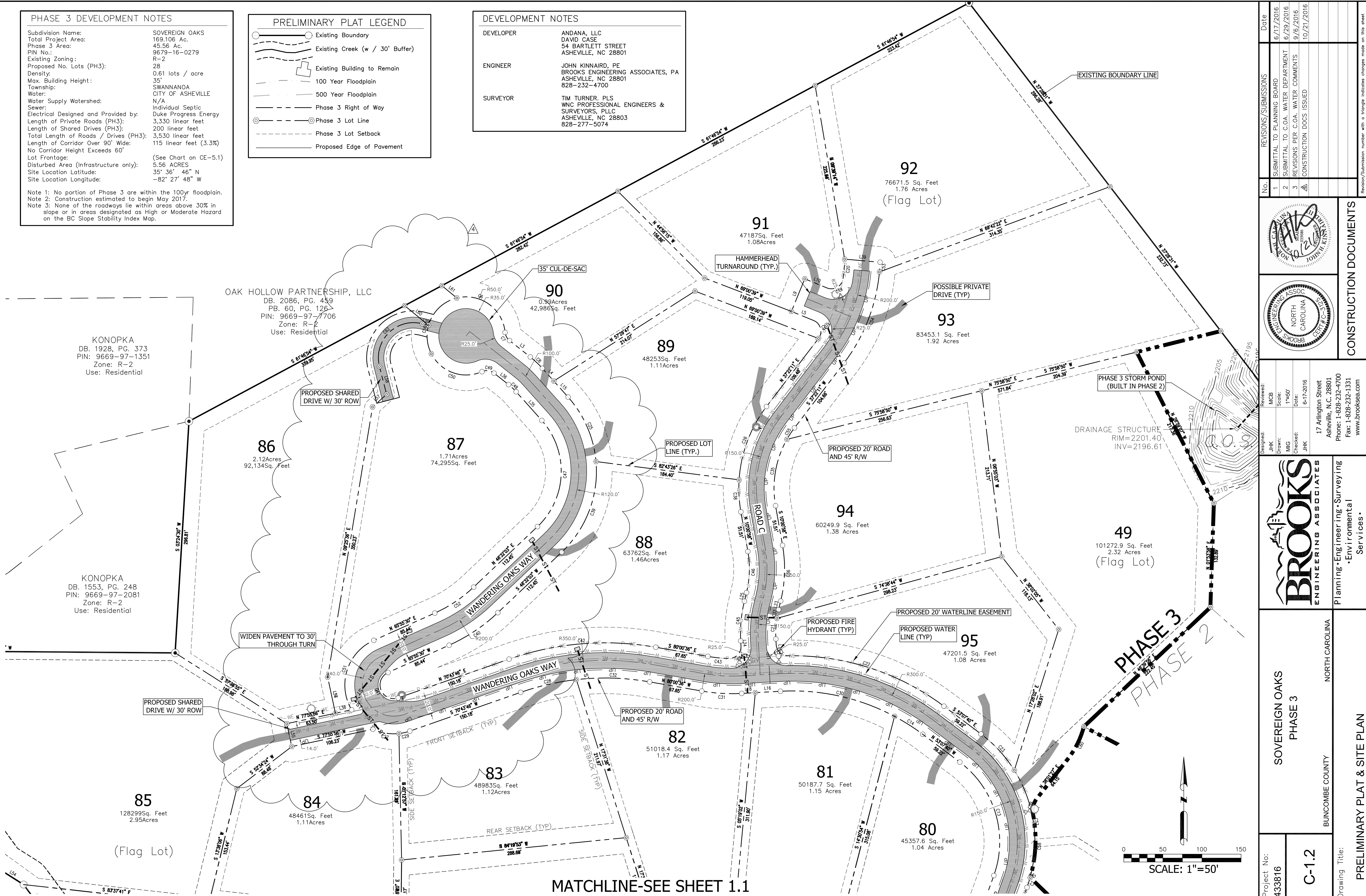
- Existing Boundary
- Existing Creek (w / 30' Buffer)
- Existing Building to Remain
- 100 Year Floodplain
- 500 Year Floodplain
- Phase 3 Right of Way
- Phase 3 Lot Line
- Phase 3 Lot Setback
- Proposed Edge of Pavement

**DEVELOPMENT NOTES**

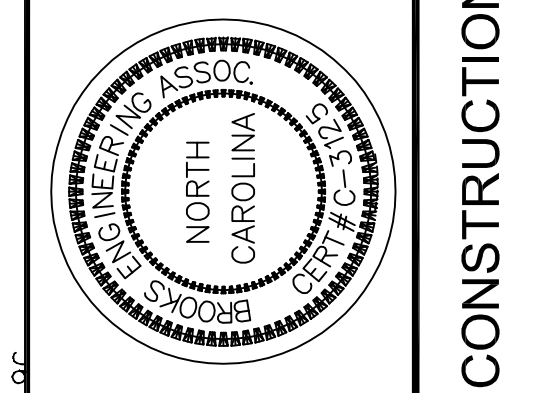
DEVELOPER: ANDANA, LLC  
 DAVID CASE  
 54 BARTLETT STREET  
 ASHEVILLE, NC 28801

ENGINEER: JOHN KINNAIRD, PE  
 BROOKS ENGINEERING ASSOCIATES, PA  
 ASHEVILLE, NC 28801  
 828-232-4700

SURVEYOR: TIM TURNER, PLS  
 WNC PROFESSIONAL ENGINEERS &  
 SURVEYORS, PLLC  
 ASHEVILLE, NC 28803  
 828-277-5074



| No. | REVISIONS/SUBMISSIONS                | Date       |
|-----|--------------------------------------|------------|
| 1   | SUBMITTAL TO PLANNING BOARD          | 6/17/2016  |
| 2   | SUBMITTAL TO C.O.A. WATER DEPARTMENT | 6/29/2016  |
| 3   | REVISIONS PER C.O.A. WATER COMMENTS  | 9/6/2016   |
| 4   | CONSTRUCTION DOCS ISSUED             | 10/21/2016 |



Reviewed: MCB  
 Scale: 1"=50'  
 Drawn: MIG  
 Checked: JHK  
 Date: 6-17-2016

17 Arlington Street  
 Asheville, N.C. 28801  
 Phone: 1-828-232-4700  
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 www.brookssea.com

**BROOKS**  
 ENGINEERING ASSOCIATES

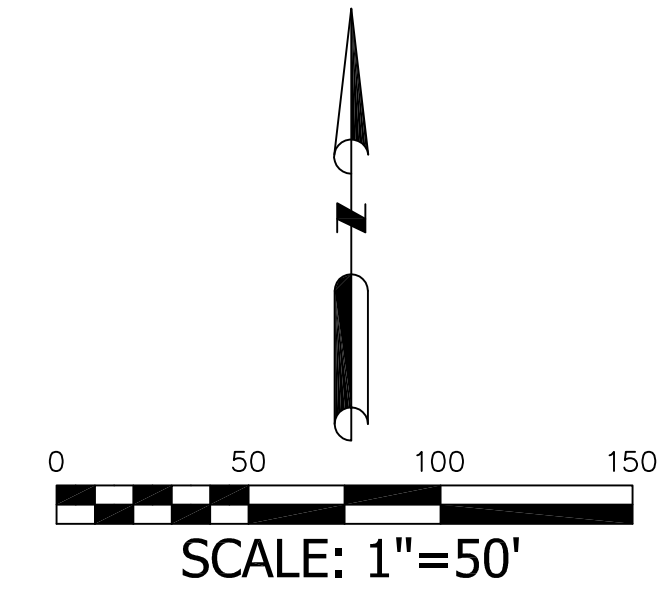
Planning • Engineering • Surveying  
 • Environmental Services •

SOVEREIGN OAKS  
 PHASE 3

BUNCOMBE COUNTY NORTH CAROLINA

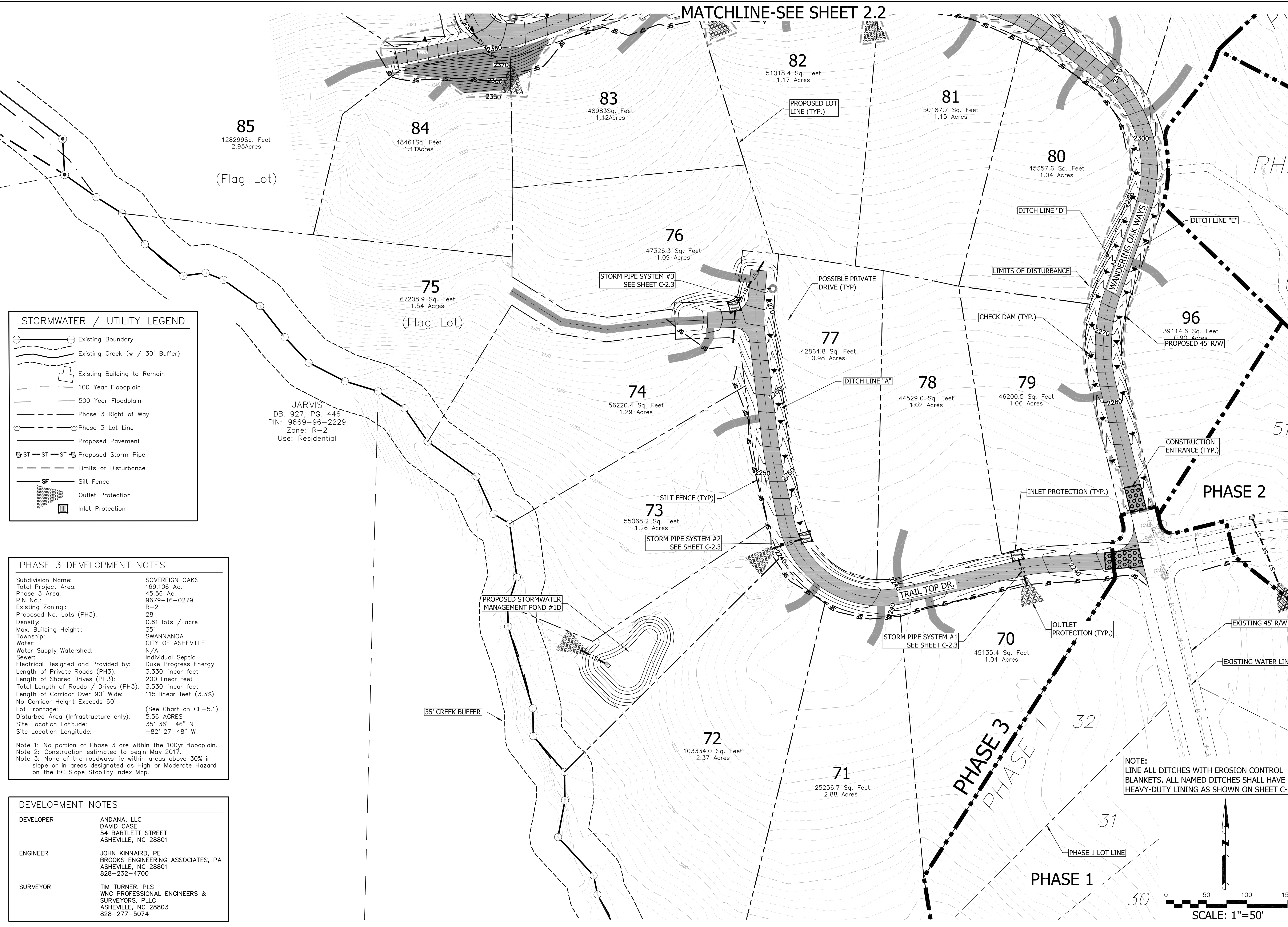
Project No: 433816  
 C-1.2

Drawing Title: PRELIMINARY PLAT & SITE PLAN



MATCHLINE-SEE SHEET 1.1

MATCHLINE-SEE SHEET 2.2



**STORMWATER / UTILITY LEGEND**

- Existing Boundary
- Existing Creek (w / 30' Buffer)
- Existing Building to Remain
- 100 Year Floodplain
- 500 Year Floodplain
- Phase 3 Right of Way
- Phase 3 Lot Line
- Proposed Pavement
- Proposed Storm Pipe
- Limits of Disturbance
- Silt Fence
- Outlet Protection
- Inlet Protection

**PHASE 3 DEVELOPMENT NOTES**

Subdivision Name: SOVEREIGN OAKS  
 Total Project Area: 169.106 Ac.  
 Phase 3 Area: 45.56 Ac.  
 PIN No.: 9679-16-0279  
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 Proposed No. Lots (PH3): 28  
 Density: 0.61 lots / acre  
 Max. Building Height: 35'  
 Township: SWANNANOA  
 City: CITY OF ASHEVILLE  
 Water: N/A  
 Water Supply Watershed: N/A  
 Sewer: Individual Septic  
 Electrical Designed and Provided by: Duke Progress Energy  
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 Length of Shared Drives (PH3): 200 linear feet  
 Total Length of Roads / Drives (PH3): 3,530 linear feet  
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 No Corridor Height Exceeds 60'  
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 Disturbed Area (Infrastructure only): 5.56 ACRES  
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 Site Location Longitude: -82° 27' 48" W

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**DEVELOPMENT NOTES**

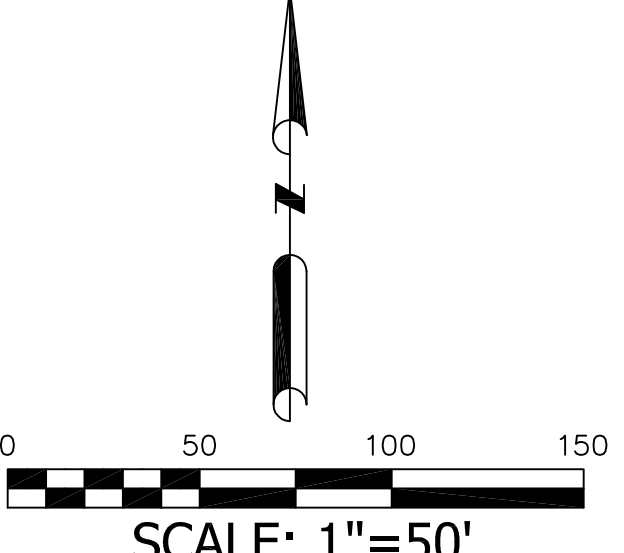
DEVELOPER: ANDANA, LLC  
 DAVID CASE  
 54 BARTLETT STREET  
 ASHEVILLE, NC 28801

ENGINEER: JOHN KINNAIRD, PE  
 BROOKS ENGINEERING ASSOCIATES, PA  
 ASHEVILLE, NC 28801  
 828-232-4700

SURVEYOR: TIM TURNER, PLS  
 WNC PROFESSIONAL ENGINEERS &  
 SURVEYORS, PLLC  
 ASHEVILLE, NC 28803  
 828-277-5074

JARVIS  
 DB. 927, PG. 446  
 PIN: 9669-96-2229  
 Zone: R-2  
 Use: Residential

NOTE:  
 LINE ALL DITCHES WITH EROSION CONTROL  
 BLANKETS. ALL NAMED DITCHES SHALL HAVE  
 HEAVY-DUTY LINING AS SHOWN ON SHEET C-5.2



|  |   |
|--|---|
| No. 1<br>SUBMITTAL TO PLANNING BOARD<br>6/17/2016<br>2<br>SUBMITTAL TO C.O.A. WATER DEPARTMENT<br>6/29/2016<br>3<br>REVISIONS PER C.O.A. WATER COMMENTS<br>9/6/2016<br>4<br>CONSTRUCTION DOCS ISSUED<br>10/21/2016 | Date<br>6/17/2016<br>6/29/2016<br>9/6/2016<br>10/21/2016  |
|  | REVISIONS/SUBMISSIONS   |
|  | CONSTRUCTION DOCUMENTS  |
|  | Project No:<br>433816<br>C-2.1<br>Drawing Title:<br>GRADING & STORMWATER PLAN                                     |
| SOVEREIGN OAKS<br>PHASE 3  | NORTH CAROLINA<br>BUNCOMBE COUNTY   |
| BROOKS<br>ENGINEERING ASSOCIATES<br>Planning • Engineering • Surveying<br>• Environmental<br>Services •  | 17 Arlington Street<br>Asheville, N.C. 28801<br>Phone: 1-828-232-4700<br>Fax: 1-828-232-1331<br>www.brookssea.com |

| PHASE 3 DEVELOPMENT NOTES             |                        |
|---------------------------------------|------------------------|
| Subdivision Name:                     | SOVEREIGN OAKS         |
| Total Project Area:                   | 169,106 Ac.            |
| Phase 3 Area:                         | 45.56 Ac.              |
| PIN No.:                              | 9679-16-0279           |
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| Max. Building Height:                 | 35'                    |
| Township:                             | SWANNANOA              |
| Water:                                | CITY OF ASHEVILLE      |
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| Site Location Latitude:               | 35° 36' 46" N          |
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| DEVELOPMENT NOTES |   |
|-------------------|---|
| DEVELOPER         | ANDANA, LLC<br>DAVID CASE<br>54 BARTLETT STREET<br>ASHEVILLE, NC 28801                                    |
| ENGINEER          | JOHN KINNAIRD, PE<br>BROOKS ENGINEERING ASSOCIATES, PA<br>ASHEVILLE, NC 28801<br>828-232-4700             |
| SURVEYOR          | TIM TURNER, PLS<br>WNC PROFESSIONAL ENGINEERS &<br>SURVEYORS, PLLC<br>ASHEVILLE, NC 28803<br>828-277-5074 |

**NOTE:**  
LINE ALL DITCHES WITH EROSION CONTROL BLANKETS. ALL NAMED DITCHES SHALL HAVE HEAVY-DUTY LINING AS SHOWN ON SHEET C-5.2

| STORMWATER / UTILITY LEGEND |                                 |
|-----------------------------|---------------------------------|
|                             | Existing Boundary               |
|                             | Existing Creek (w / 30' Buffer) |
|                             | Existing Building to Remain     |
|                             | 100 Year Floodplain             |
|                             | 500 Year Floodplain             |
|                             | Phase 3 Right of Way            |
|                             | Phase 3 Lot Line                |
|                             | Proposed Pavement               |
|                             | Proposed Storm Pipe             |
|                             | Limits of Disturbance           |
|                             | Silt Fence                      |
|                             | Outlet Protection               |
|                             | Inlet Protection                |

| No. | REVISIONS/SUBMISSIONS                | Date       |
|-----|--------------------------------------|------------|
| 1   | SUBMITTAL TO PLANNING BOARD          | 6/17/2016  |
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| 3   | REVISIONS PER C.O.A. WATER COMMENTS  | 9/6/2016   |
|     | CONSTRUCTION DOCS ISSUED             | 10/21/2016 |

Professional Engineer Seal for John H. Kinnaird, PE, License No. 10088, State of North Carolina.

Professional Engineer Seal for Brooks Engineering Associates, Inc., License No. C-3333, State of North Carolina.

**CONSTRUCTION DOCUMENTS**

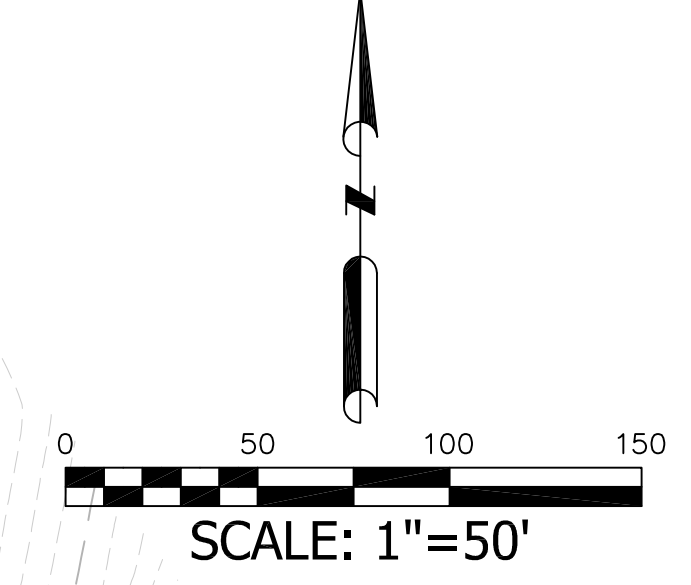
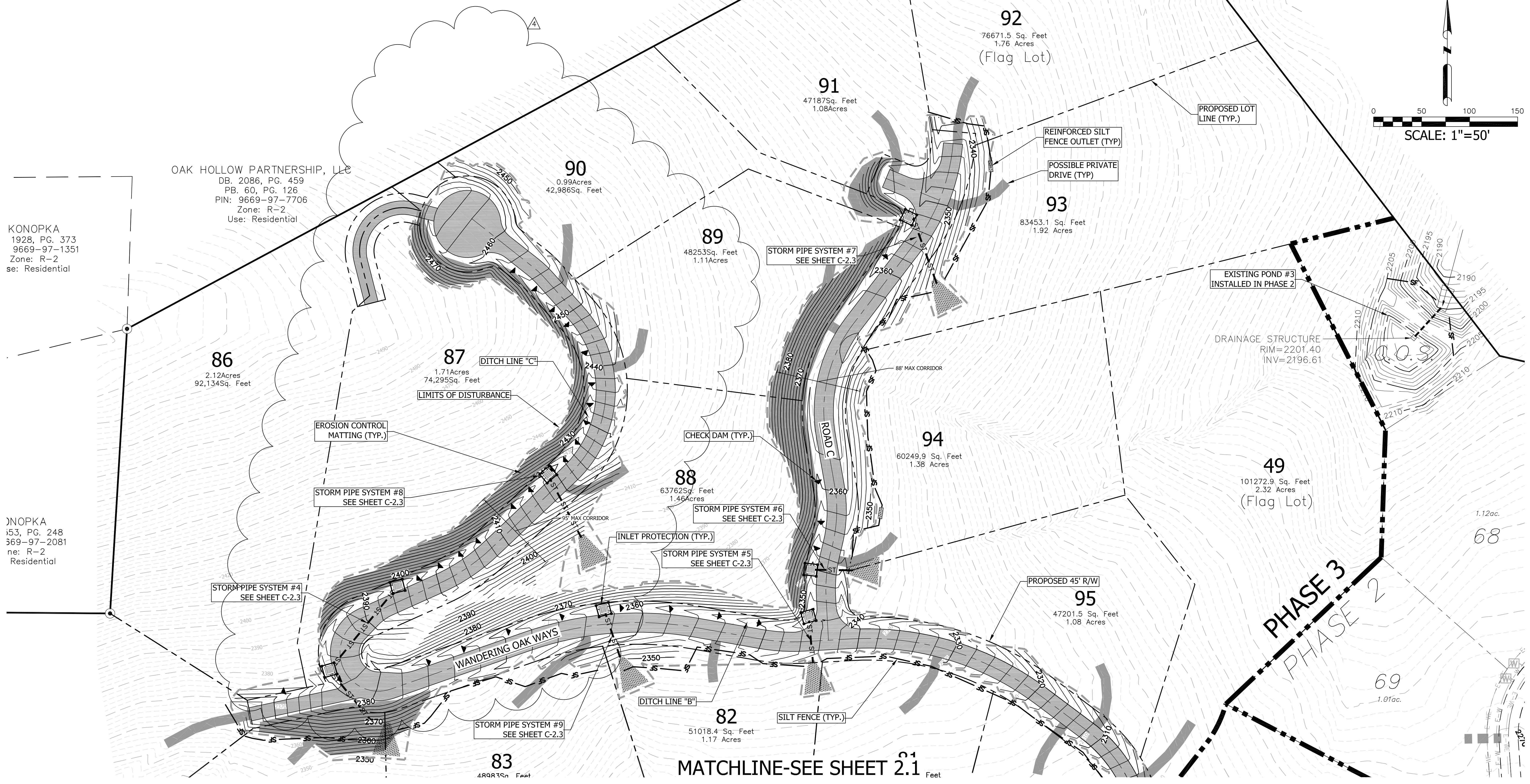
|           |           |
|-----------|-----------|
| Designed: | JHK       |
| Drawn:    | MIG       |
| Checked:  | JHK       |
| Scale:    | 1"=50'    |
| Date:     | 6-17-2016 |
| Reviewed: | MCB       |

17 Arlington Street  
Asheville, N.C. 28801  
Phone: 1-828-232-4700  
Fax: 1-828-232-1331  
www.brookssea.com

**BROOKS ENGINEERING ASSOCIATES**  
Planning • Engineering • Surveying • Environmental Services •

|               |                                |
|---------------|--------------------------------|
| Project No:   | 433816                         |
| Sheet No:     | C-2.2                          |
| Project Name: | SOVEREIGN OAKS PHASE 3         |
| Location:     | BUNCOMBE COUNTY NORTH CAROLINA |

Drawing Title:  
**GRADING & STORMWATER PLAN**

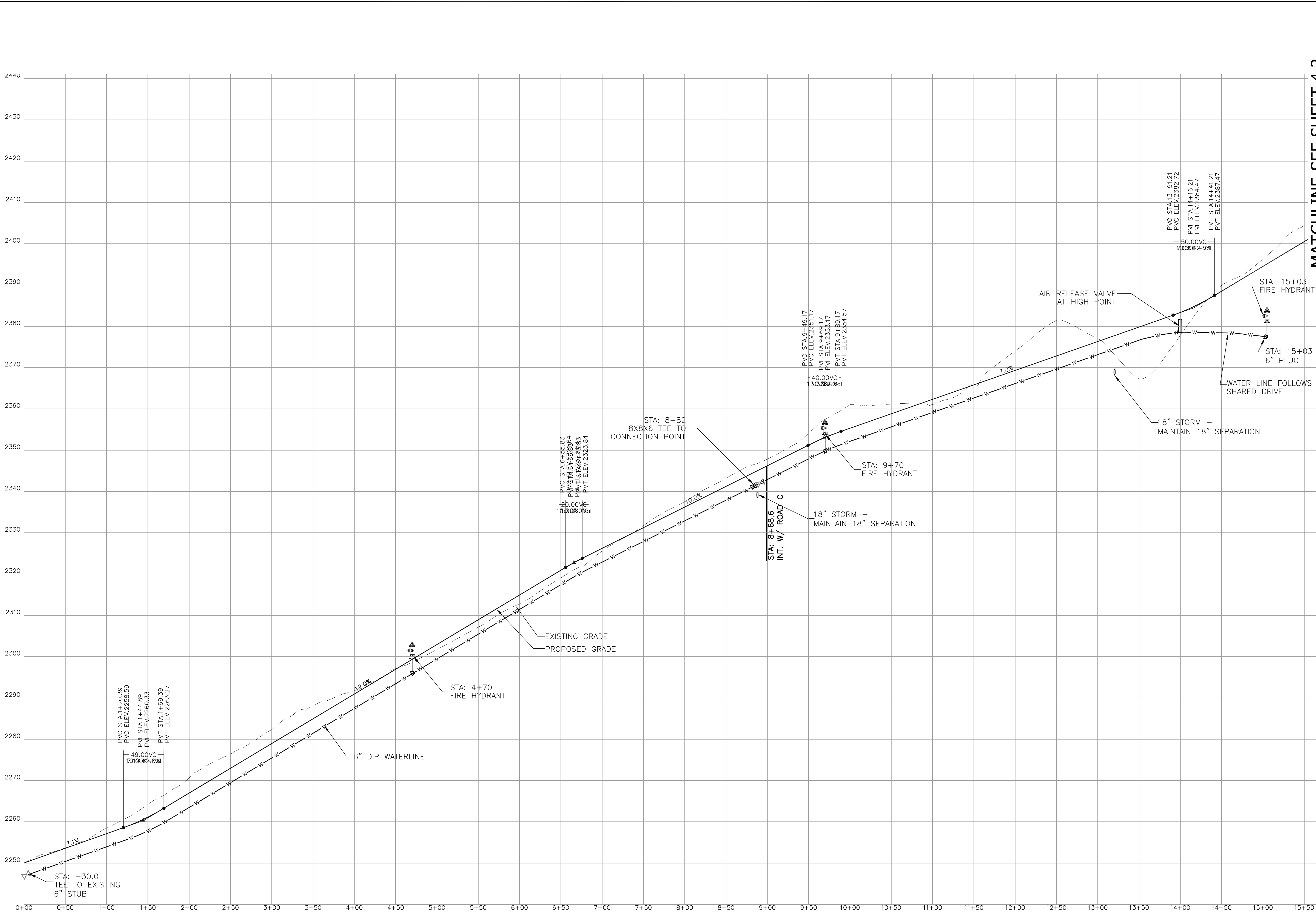


KONOPKA  
1928, PG. 373  
9669-97-1351  
Zone: R-2  
Use: Residential

OAK HOLLOW PARTNERSHIP, LLC  
DB. 2086, PG. 459  
PB. 60, PG. 126  
PIN: 9669-97-7706  
Zone: R-2  
Use: Residential

KONOPKA  
153, PG. 248  
9669-97-2081  
Zone: R-2  
Use: Residential

MATCHLINE-SEE SHEET 2.1

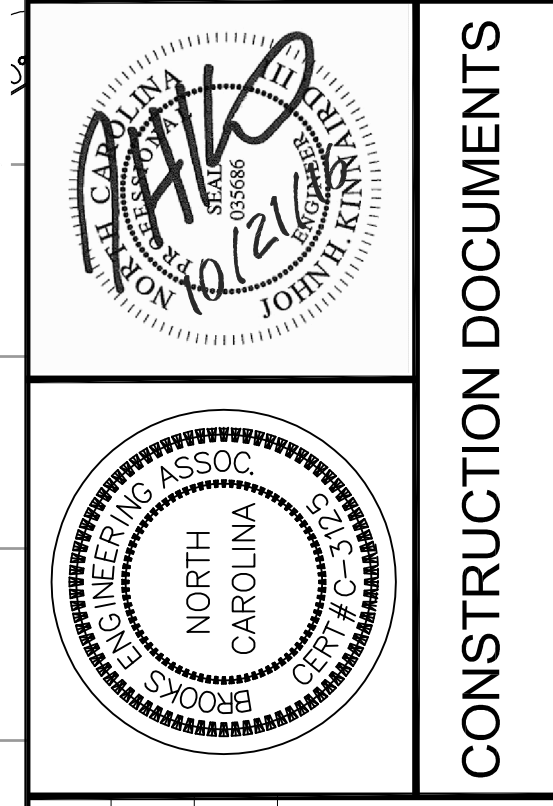


H SCALE: 1"=50  
 V SCALE: 1"=10

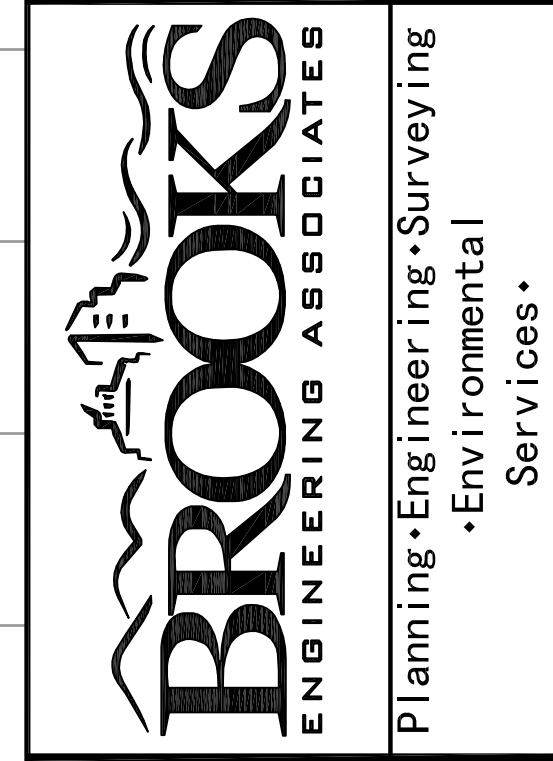
WANDERING OAKS WAY

MATCHLINE-SEE SHEET 4.2

| No. | REVISIONS/SUBMISSIONS                | Date       |
|-----|--------------------------------------|------------|
| 1   | SUBMITTAL TO PLANNING BOARD          | 6/17/2016  |
| 2   | SUBMITTAL TO C.O.A. WATER DEPARTMENT | 6/29/2016  |
| 3   | REVISIONS PER C.O.A. WATER COMMENTS  | 9/6/2016   |
| 4   | CONSTRUCTION DOCS ISSUED             | 10/21/2016 |



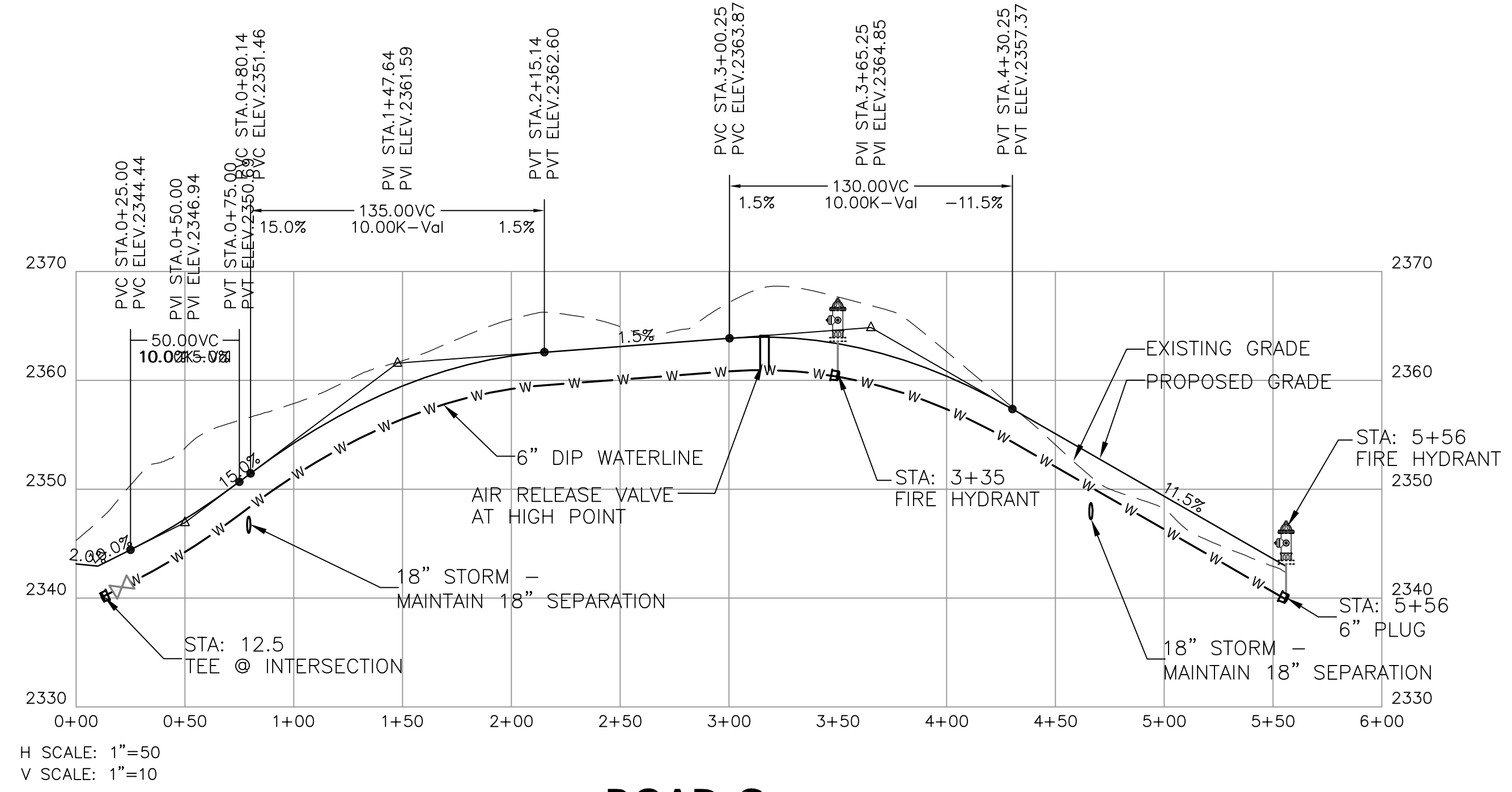
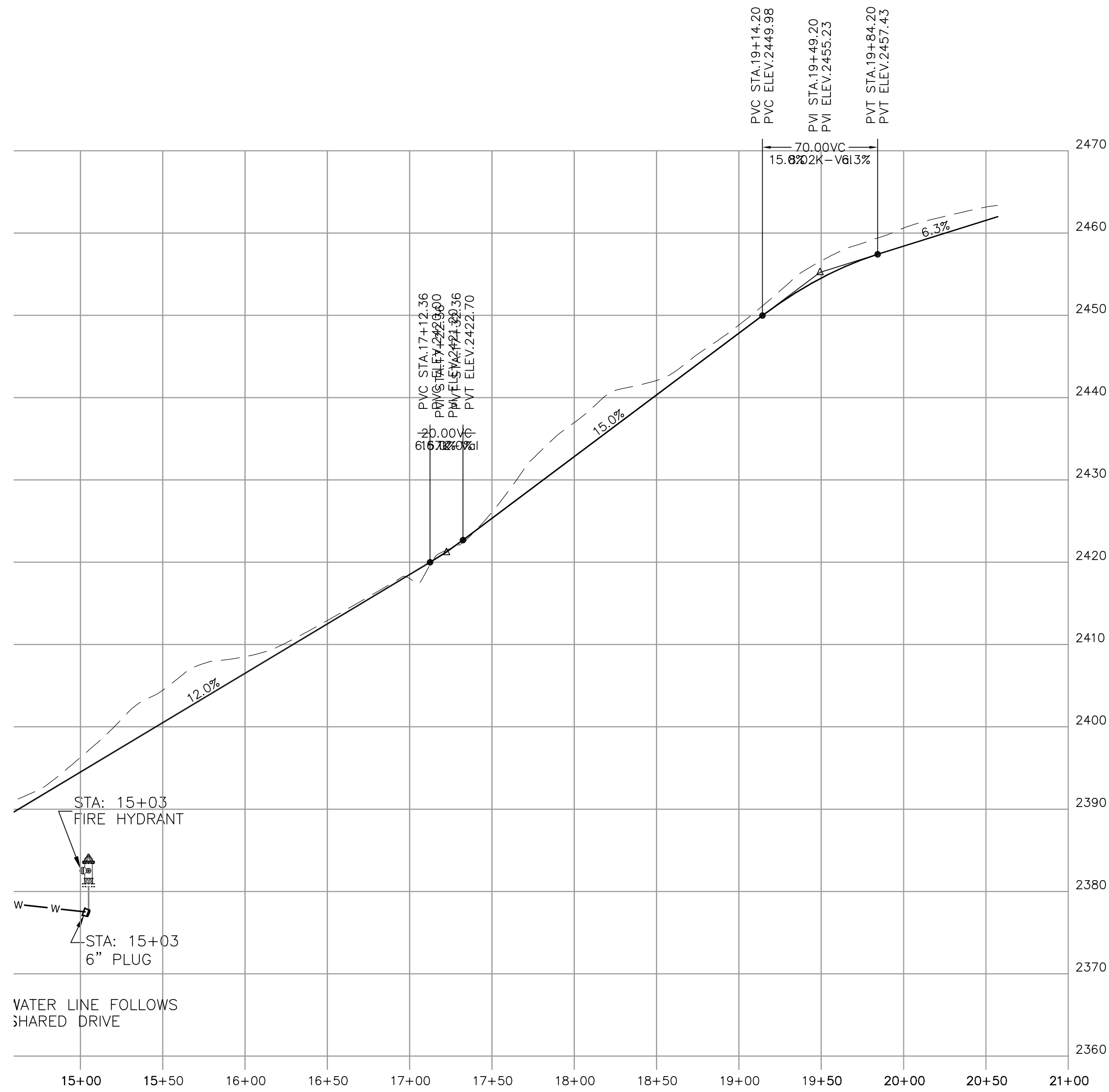
Reviewed: MCB  
 Scale: 1"=50'  
 Date: 6-17-2016  
 Designed: JHK  
 Drawn: MIG  
 Checked: JHK  
 17 Arlington Street  
 Asheville, N.C. 28801  
 Phone: 1-828-232-4700  
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 www.brookssea.com



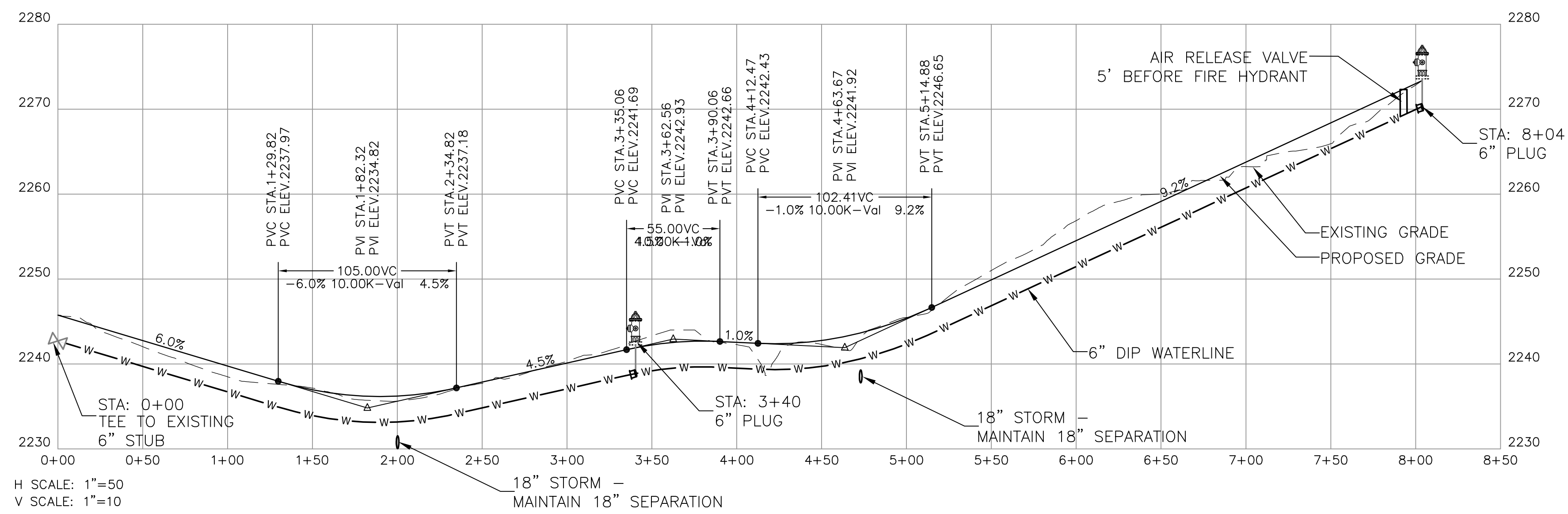
Project No: 422715  
**C-4.1**  
 Drawing Title: ROAD PROFILES  
 SOVEREIGN OAKS PHASE 3  
 BUNCOMBE COUNTY NORTH CAROLINA  
 Planning • Engineering • Surveying  
 • Environmental Services •

CONSTRUCTION DOCUMENTS

Revision/Submission number with a triangle indicates changes made on this sheet.



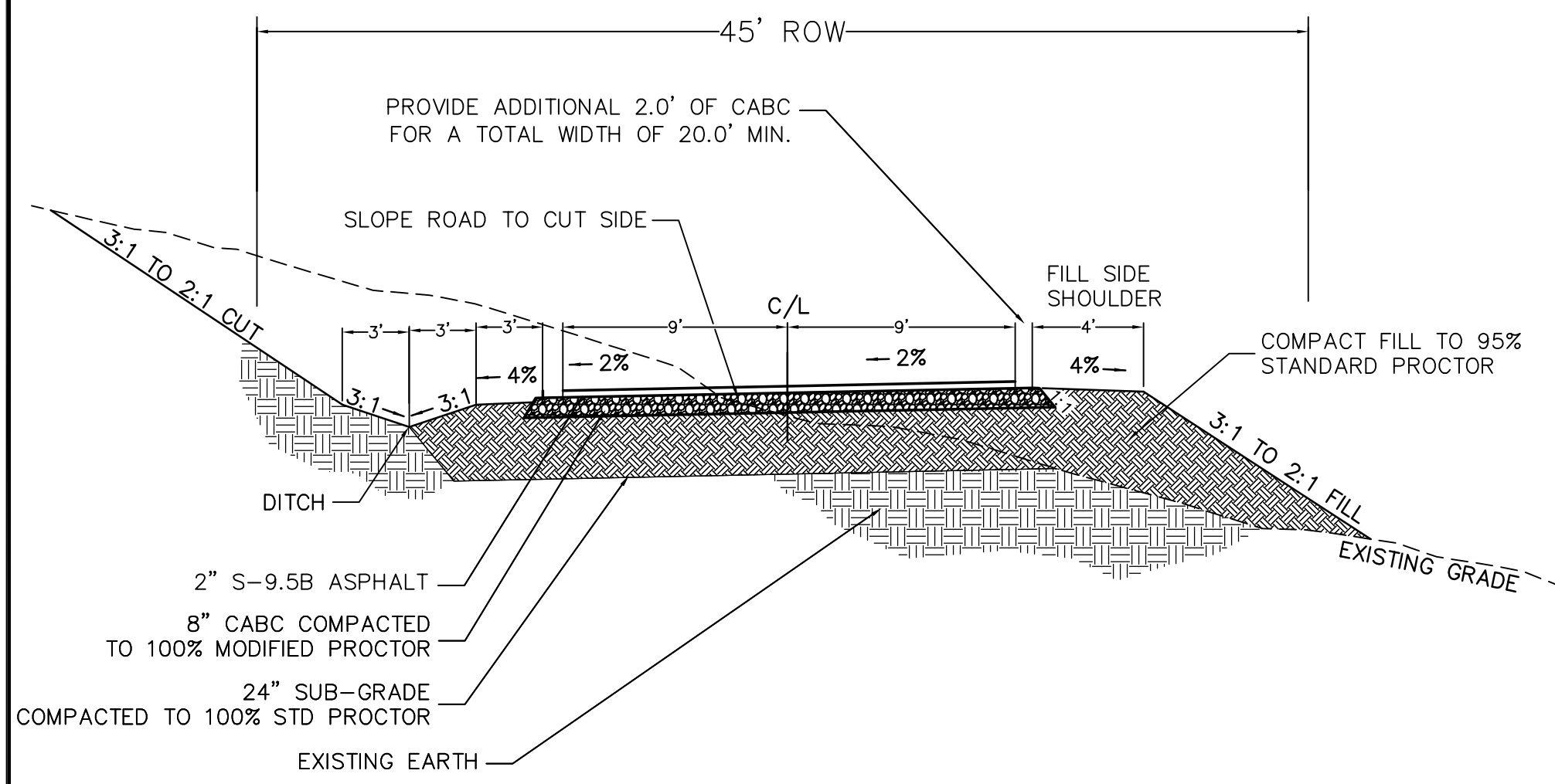
ROAD C



TRAIL TOP DRIVE

|  |       |                           |                 |                |                       |   |            |
|--|-------|---------------------------|-----------------|----------------|-----------------------|---|------------|
| Project No:<br><b>422715</b>   | C-4.2 | SOVEREIGN OAKS<br>PHASE 3 | BUNCOMBE COUNTY | NORTH CAROLINA | REVISIONS/SUBMISSIONS | No.   | Date       |
|  |       |                           |                 |                |                       | 1   | 6/17/2016  |
|  |       |                           |                 |                |                       | 2   | 6/29/2016  |
|  |       |                           |                 |                |                       | 3   | 9/6/2016   |
|  |       |                           |                 |                |                       | 4   | 10/21/2016 |
|  |       |                           |                 |                |                       | SUBMITTAL TO PLANNING BOARD   |            |
|  |       |                           |                 |                |                       | SUBMITTAL TO C.O.A. WATER DEPARTMENT  |            |
|  |       |                           |                 |                |                       | REVISIONS PER C.O.A. WATER COMMENTS   |            |
|  |       |                           |                 |                |                       | CONSTRUCTION DOCS ISSUED  |            |
|  |       |                           |                 |                |                       | Revision/Submission number with a triangle indicates changes made on this sheet.                        |            |
|  |       |                           |                 |                |                       |   |            |
|  |       |                           |                 |                |                       |   |            |
| Designed: JHK<br>Drawn: MIG<br>Checked: JHK  |       |                           |                 |                |                       | Reviewed: MCB<br>Scale: 1"=50'<br>Date: 6-17-2016   |            |
| 17 Arlington Street<br>Asheville, N.C. 28801<br>Phone: 1-828-232-4700<br>Fax: 1-828-232-1331<br>www.brooksea.com |       |                           |                 |                |                       | BROOKS<br>ENGINEERING ASSOCIATES<br>Planning • Engineering • Surveying<br>• Environmental<br>Services • |            |
| ROAD PROFILES  |       |                           |                 |                |                       | CONSTRUCTION DOCUMENTS  |            |

NOTE:  
1. DITCH SHALL HAVE A MAXIMUM 3:1  
SIDE SLOPE ON EACH SIDE FOR 1  
VERTICAL FOOT FROM THE BOTTOM OF  
DITCH.



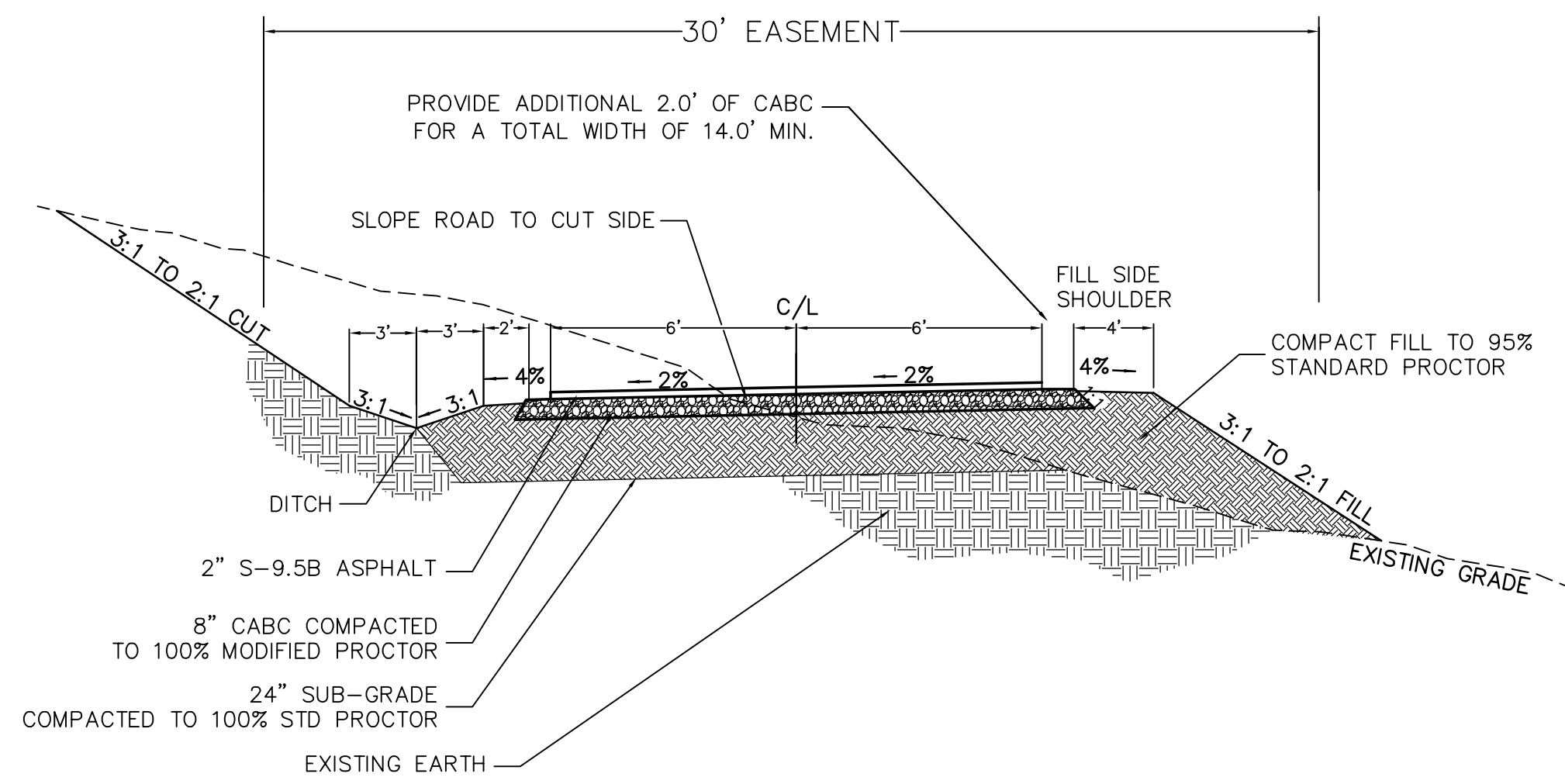
NOTES:

- \*\*FILL SIDE SHOULDER TO BE A MINIMUM 4' TRAVELABLE SURFACE WHERE AVERAGE CROSS SLOPE IS STEEPER THAN 30% AND ROAD GRADE IS STEEPER THAN 15%
- \*\*PAVEMENT WIDTH TO INCREASE FOR RADII LESS THAN 90 DEGREES ACCORDING TO THE FOLLOWING: R>=90=NO CHANGE; R>70 AND R<90=25% INCREASE; R>60 AND R<70=35% INCREASE; R>50 AND R<60=45% INCREASE; R<=50=50% INCREASE
- \*\*NO BASE COURSE SHALL BE PLACED ON MUCK, PIPE CLAY, ORGANIC MATTER, OR OTHER UNSUITABLE MATERIAL.
- \*\*\*\*ANY ROADS CONSTRUCTED IN AREAS IN EXCESS OF 30% SHALL REQUIRE CONSULTATION WITH A LICENSED GEOTECHNICAL ENGINEER. PRIOR TO FINAL SUBMISSION APPROVAL OR RELEASE OF GUARANTEE OF IMPROVEMENTS, A REPORT BY THE GEOTECHNICAL ENGINEER SHALL BE REQUIRED CERTIFYING THAT THE RECOMMENDATIONS WERE FOLLOWED DURING CONSTRUCTION.

1 20' WIDE MAIN ROAD CROSS SECTION

SCALE=NTS

NOTE:  
1. DITCH SHALL HAVE A MAXIMUM 3:1  
SIDE SLOPE ON EACH SIDE FOR 1  
VERTICAL FOOT FROM THE BOTTOM OF  
DITCH.



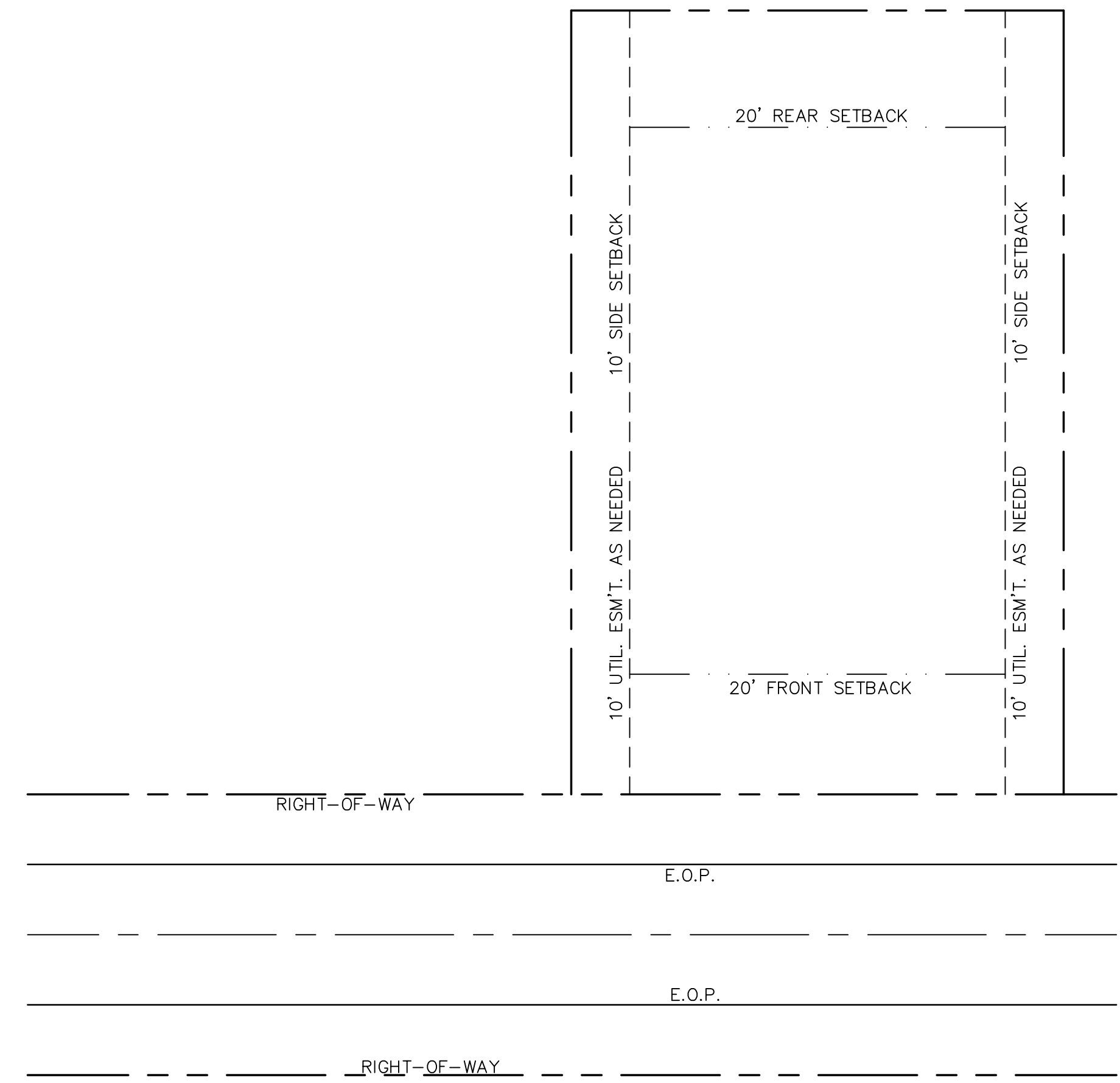
NOTES:

- \*\*FILL SIDE SHOULDER TO BE A MINIMUM 4' TRAVELABLE SURFACE WHERE AVERAGE CROSS SLOPE IS STEEPER THAN 30% AND ROAD GRADE IS STEEPER THAN 15%
- \*\*PAVEMENT WIDTH TO INCREASE FOR RADII LESS THAN 90 DEGREES ACCORDING TO THE FOLLOWING: R>=90=NO CHANGE; R>70 AND R<90=25% INCREASE; R>60 AND R<70=35% INCREASE; R>50 AND R<60=45% INCREASE; R<=50=50% INCREASE
- \*\*NO BASE COURSE SHALL BE PLACED ON MUCK, PIPE CLAY, ORGANIC MATTER, OR OTHER UNSUITABLE MATERIAL.

2 SHARED DRIVE CROSS SECTION

SCALE=NTS

STANDARD LOT



3 TYPICAL LOT DIMENSIONS

SCALE=NTS

| CURVE | ARC LENGTH | RADIUS  | DELTA ANGLE | CHORD BEARING | CHORD LENGTH |
|-------|------------|---------|-------------|---------------|--------------|
| C1    | 13.26'     | 172.50' | 4°24'20"    | S 17°33'09" W | 13.26'       |
| C2    | 103.60'    | 177.50' | 33°26'30"   | S 03°02'04" W | 102.14'      |
| C3    | 49.67'     | 227.50' | 12°30'35"   | S 00°53'44" E | 49.57'       |
| C4    | 42.81'     | 477.50' | 5°08'11"    | S 09°43'07" E | 42.79'       |
| C5    | 127.30'    | 97.50'  | 74°48'37"   | S 49°41'31" E | 118.45'      |
| C6    | 113.23'    | 50.00'  | 129°45'05"  | S 70°02'12" E | 90.54'       |
| C7    | 12.18'     | 15.00'  | 46°32'35"   | S 28°25'57" E | 11.85'       |
| C8    | 21.14'     | 122.50' | 9°53'24"    | S 46°45'33" E | 21.12'       |
| C9    | 27.57'     | 15.00'  | 105°19'28"  | N 13°01'40" W | 23.85'       |
| C10   | 27.01'     | 97.50'  | 15°52'15"   | N 84°58'03" E | 26.92'       |
| C11   | 28.75'     | 177.50' | 9°16'53"    | S 81°40'22" W | 28.72'       |
| C12   | 8.27'      | 142.50' | 3°19'36"    | S 78°41'44" W | 8.27'        |
| C13   | 162.19'    | 127.50' | 72°52'59"   | N 16°41'10" W | 151.47'      |
| C14   | 42.80'     | 277.50' | 8°50'10"    | N 57°32'45" W | 42.75'       |
| C15   | 23.33'     | 222.50' | 6°00'25"    | N 16°45'06" E | 23.32'       |
| C16   | 108.54'    | 222.50' | 27°28'05"   | N 00°01'51" E | 105.52'      |
| C17   | 36.04'     | 222.50' | 9°16'53"    | N 81°40'22" E | 36.00'       |
| C18   | 28.05'     | 16.00'  | 100°26'41"  | N 36°32'09" E | 24.99'       |
| C19   | 27.05'     | 15.00'  | 103°20'33"  | N 60°38'20" E | 23.53'       |
| C20   | 25.38'     | 177.50' | 8°11'29"    | N 04°52'19" E | 25.36'       |
| C21   | 28.42'     | 127.50' | 11°52'23"   | S 02°44'27" W | 28.37'       |
| C22   | 225.53'    | 322.50' | 40°04'04"   | S 73°09'42" E | 220.96'      |
| C23   | 63.42'     | 172.50' | 21°03'59"   | S 42°36'40" E | 63.07'       |
| C24   | 10.41'     | 272.50' | 2°11'17"    | N 04°15'55" E | 10.41'       |
| C25   | 91.53'     | 142.50' | 36°48'07"   | S 23°24'47" E | 89.96'       |
| C26   | 101.58'    | 172.50' | 33°44'20"   | N 20°30'01" E | 100.12'      |
| C27   | 34.08'     | 62.50'  | 31°14'20"   | N 80°30'24" W | 33.66'       |
| C28   | 73.14'     | 327.50' | 12°47'44"   | S 77°07'38" W | 72.99'       |
| C29   | 14.34'     | 62.50'  | 13°08'40"   | S 77°18'06" W | 14.31'       |
| C30   | 151.26'    | 277.50' | 31°13'54"   | N 77°34'77" W | 149.40'      |
| C31   | 51.20'     | 222.50' | 13°11'06"   | N 86°36'10" W | 51.02'       |
| C32   | 94.11'     | 327.50' | 16°27'53"   | N 88°14'33" W | 93.79'       |
| C33   | 46.84'     | 522.50' | 5°08'11"    | N 09°43'07" W | 46.83'       |
| C34   | 4.04'      | 272.50' | 0°50'57"    | N 06°43'33" W | 4.04'        |
| C35   | 87.83'     | 127.50' | 39°28'10"   | S 09°43'07" W | 86.10'       |
| C36   | 71.75'     | 172.50' | 23°49'58"   | S 21°40'02" W | 71.24'       |
| C37   | 11.44'     | 127.50' | 5°08'22"    | S 11°14'50" W | 11.43'       |
| C38   | 41.09'     | 172.50' | 13°38'49"   | N 03°11'33" W | 40.99'       |
| C39   | 128.20'    | 142.50' | 51°32'46"   | S 20°45'40" W | 123.92'      |
| C40   | 75.30'     | 222.50' | 19°23'27"   | S 36°13'46" W | 74.94'       |
| C41   | 53.51'     | 172.50' | 17°51'44"   | S 21°40'22" W | 53.97'       |
| C42   | 190.23'    | 372.50' | 29°15'38"   | N 85°21'55" E | 188.17'      |
| C43   | 27.23'     | 177.50' | 8°47'21"    | S 84°24'17" E | 27.20'       |
| C44   | 24.71'     | 15.00'  | 94°23'47"   | N 44°00'09" E | 22.01'       |
| C45   | 51.22'     | 172.50' | 17°00'45"   | N 05°18'38" E | 51.03'       |
| C46   | 53.04'     | 127.50' | 23°49'58"   | N 01°54'02" E | 52.65'       |
| C47   | 150.34'    | 97.50'  | 88°20'54"   | N 02°21'36" E | 135.88'      |
| C48   | 13.38'     | 77.50'  | 9°53'24"    | N 46°45'33" W | 13.36'       |
| C49   | 16.29'     | 15.00'  | 62°13'21"   | N 82°48'55" W | 15.50'       |
| C50   | 75.79'     | 50.00'  | 86°50'48"   | N 70°30'12" W | 68.74'       |
| C51   | 105.22'    | 62.50'  | 96°27'30"   | N 17°41'45" E | 93.23'       |
| C52   | 60.07'     | 177.50' | 19°32'27"   | N 86°13'45" E | 59.79'       |
| C53   | 12.38'     | 226.18' | 3°08'10"    | S 03°37'51" W | 12.38'       |
| C54   | 126.42'    | 226.18' | 32°01'31"   | S 21°12'41" W | 124.78'      |
| C55   | 17.62'     | 127.50' | 7°54'59"    | S 33°24'42" W | 17.60'       |
| C56   | 62.98'     | 50.00'  | 72°10'03"   | N 09°00'14" E | 58.90'       |
| C57   | 142.74'    | 172.50' | 47°24'39"   | S 08°21'21" E | 138.70'      |
| C58   | 81.83'     | 172.50' | 27°10'50"   | N 02°35'37" E | 81.07'       |
| C59   | 21.39'     | 25.00'  | 49°01'15"   | N 13°30'50" E | 20.74'       |
| C60   | 46.56'     | 115.00' | 23°11'56"   | N 26°25'29" E | 46.25'       |
| C61   | 79.39'     | 142.50' | 31°52'21"   | N 45°13'54" W | 78.37'       |
| C62   | 95.62'     | 142.50' | 38°28'54"   | N 80°25'02" W | 93.84'       |
| C63   | 93.31'     | 45.00'  | 118°46'29"  | N 45°03'17" E | 77.47'       |

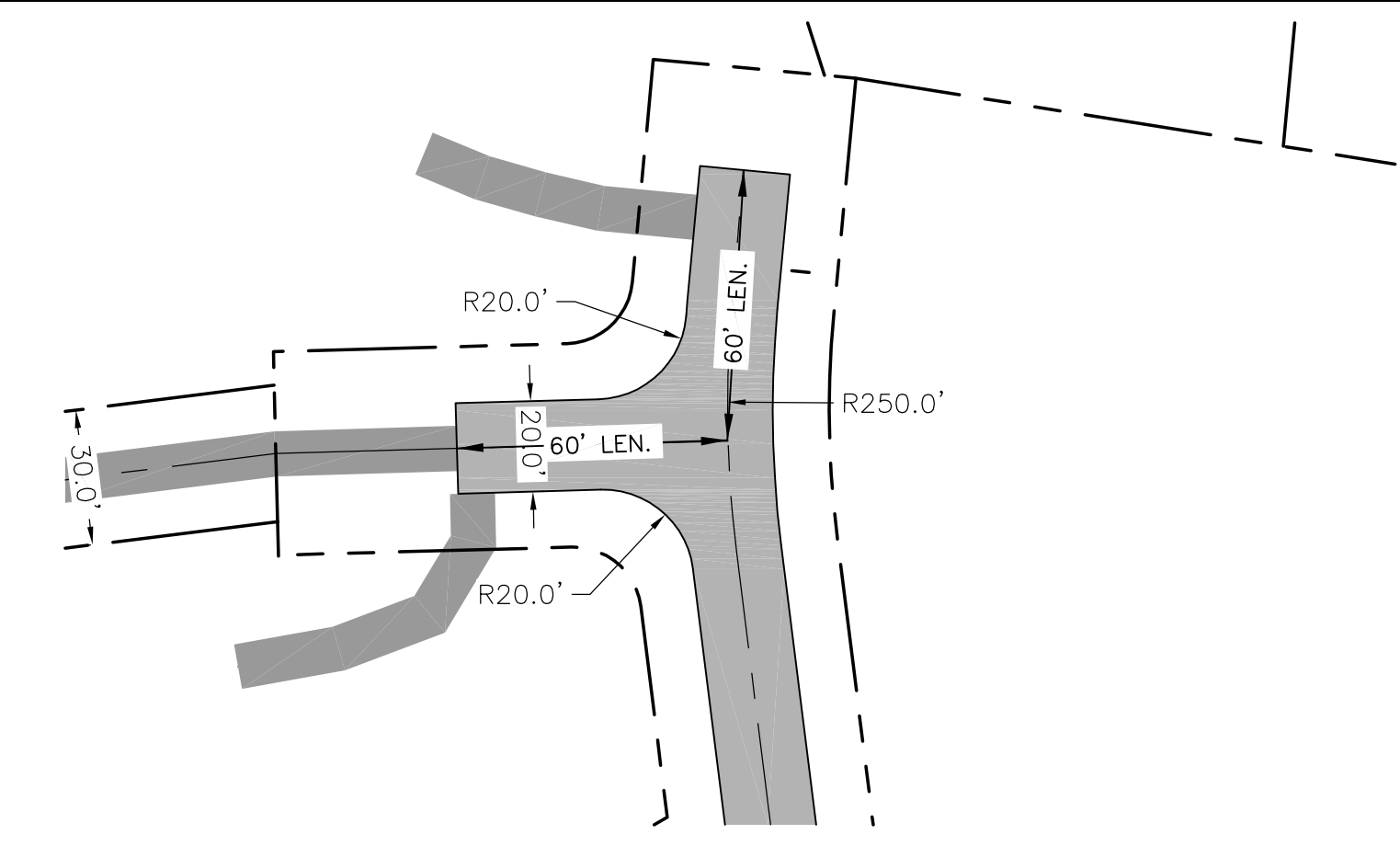
4 LINE/ CURVE TABLES & LOT FRONTAGE CALCS

SCALE=NTS

| LINE | BEARING       | DISTANCE |
|------|---------------|----------|
| L1   | S 13°41'11" E | 11.25'   |
| L2   | S 51°42'15" E | 33.87'   |
| L3   | S 41°48'51" E | 21.85'   |
| L4   | N 67°41'24" W | 30.69'   |
| L5   | N 77°01'56" E | 17.39'   |
| L6   | N 05°26'23" W | 0.01'    |
| L7   | N 13°41'11" W | 14.11'   |
| L8   | N 22°18'36" W | 45.00'   |
| L9   | S 67°41'24" E | 30.61'   |
| L10  | S 03°11'44" E | 22.11'   |
| L11  | N 86°48'16" E | 2.15'    |
| L12  | N 01°27'28" W | 7.43'    |
| L13  | N 84°38'26" W | 37.99'   |
| L14  | S 41°48'51" E | 27.41'   |
| L15  | N 86°48'16" W | 32.23'   |
| L16  | N 80°57'26" E | 35.07'   |
| L17  | N 86°48'16" W | 17.47'   |
| L18  | N 84°38'26" E | 7.01'    |
| L19  | S 17°53'11" W | 37.29'   |
| L20  | N 01°27'28" W | 7.42'    |
| L21  | S 58°55'16" E | 23.53'   |
| L22  | S 13°49'01" W | 11.27'   |
| L23  | N 03°11'44" W | 6.64'    |
| L24  | N 13°49'01" E | 11.27'   |
| L25  | N 00°38'20" E | 24.45'   |
| L26  | S 36°27'47" E | 47.28'   |
| L27  | N 82°16'10" E | 27.84'   |
| L28  | S 68°30'14" E | 23.81'   |
| L29  | S 38°15'33" E | 49.20'   |
| L30  | S 43°16'21" E | 43.24'   |
| L31  | S 73°08'42" E | 42.83'   |
| L32  | S 57°22'12" E | 38.82'   |
| L33  | N 01°27'28" W | 30.15'   |
| L34  | N 41°48'51" W | 48.36'   |
| L35  | S 51°42'15" W | 23.54'   |
| L36  | S 12°04'04" E | 47.21'   |
| L37  | N 77°55'56" E | 21.21'   |
| L38  | S 85°03'11" E | 45.41'   |
| L39  | S 48°05'57" E | 0.19'    |
| L40  | S 00°57'42" E | 35.19'   |
| L41  | S 10°42'27" W | 46.13'   |
| L42  | S 11°26'20" E | 23.92'   |
| L43  | S 10°56'27" W | 25.40'   |
| L44  | S 70°03'54" E | 20.10'   |
| L45  | N 79°17'18" E | 21.40'   |
| L46  | S 48°03'39" E | 7.85'    |
| L47  | S 48°03'39" E | 21.40'   |
| L48  | S 06°33'11" E | 30.86'   |
| L49  | S 43°54'54" E | 39.89'   |
| L50  | S 33°03'40" E | 30.48'   |
| L51  | S 03°10'13" E | 44.40'   |
| L52  | S 54°44'45" E | 48.03'   |
| L53  | S 57°44'17" E | 37.74'   |
| L54  | N 12°04'04" W | 30.00'   |
| L55  | N 12°04'04" W | 47.21'   |
| L56  | N 47°55'29" E | 24.24'   |
| L57  | N 14°20'58" W | 36.77'   |
| L58  | S 75°32'28" E | 8.16'    |
| L59  | S 50°32'26" E | 39.60'   |
| L60  | S 50°32'26" E | 24.79'   |

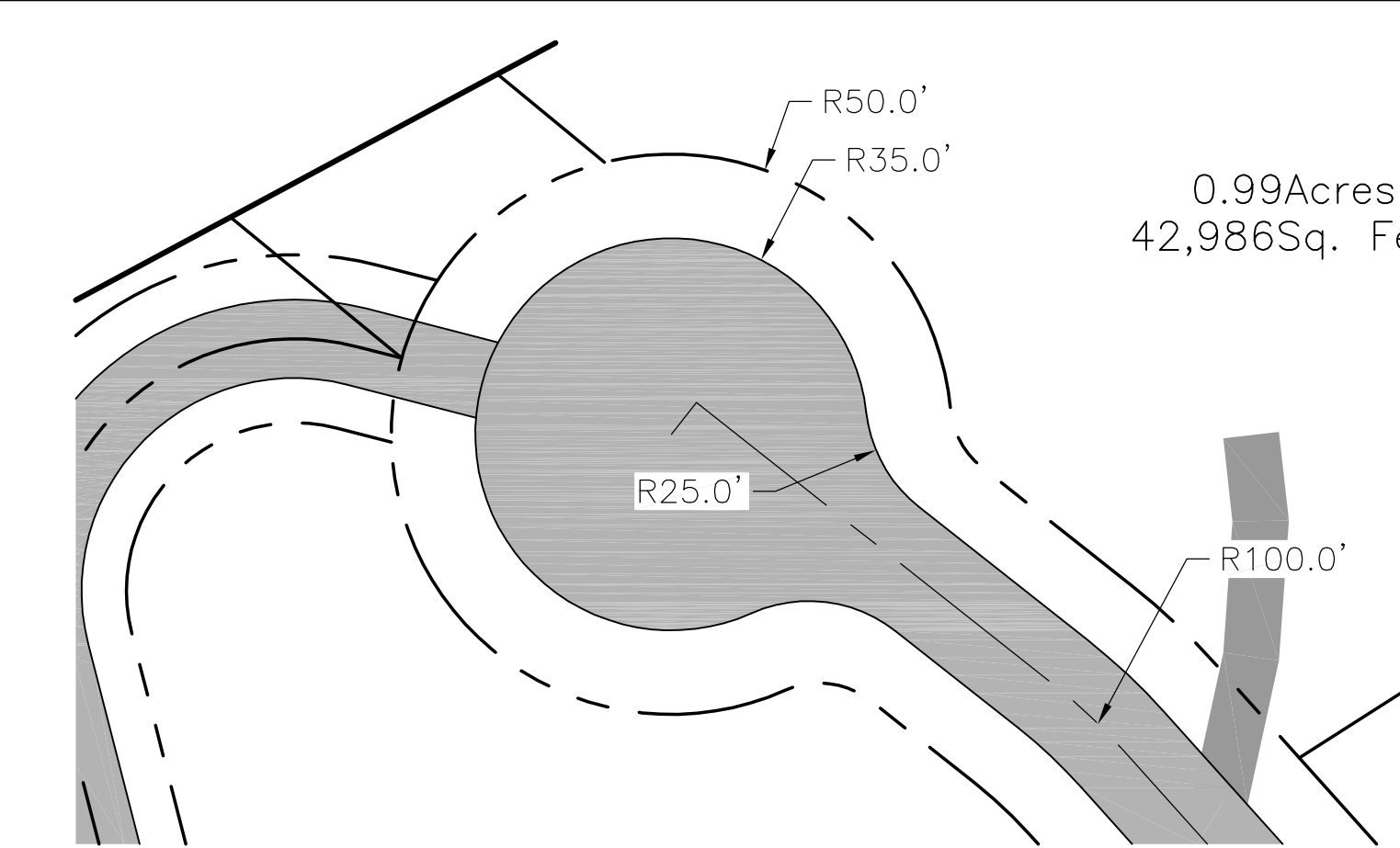
SOVEREIGN OAKS - PHASE 3 LOT CALCS

| Lot # | Lot % Slope | Min. Lot Frontage | Lot Frontage |
|-------|-------------|-------------------|--------------|
| 70    | 4.17%       | N/A               |              |
| 71    | 12.12%      | N/A               |              |
| 72    | 13.29%      | N/A               |              |
| 73    | 11.60%      | N/A               |              |
| 74    | 20.17%      | 58.7              | 75.1         |
| 75    | 17.38%      | N/A               |              |
| 76    | 24.14%      | 74.6              | 114.4        |
| 77    | 11.06%      | N/A               |              |
| 78    | 12.19%      | N/A               |              |
| 79    | 12.23%      | N/A               |              |
| 80    | 13.12%      | N/A               |              |
| 81    | 17.51%      | N/A               |              |
| 82    | 24.00%      | 74.0              | 229.4        |
| 83    | 26.69%      | 84.8              | 235.8        |
| 84    | 24.95%      | 77.8              | 133.1        |
| 85    | 16.80%      | N/A               |              |
| 86    | 32.76%      | 109.0             | 122.8        |
| 87    | 22.25%      | 67.0              | 243.7        |
| 88    | 21.09%      | 62.4              | 300.0        |
| 89    | 29.05%      | 94.2              | 115.0        |
| 90    | 28.48%      | 91.9              | 159.0        |
| 91    | 14.60%      | N/A               |              |
| 92    | 14.00%      | N/A               |              |
| 93    | 29.20%      | 94.8              | 244.5        |
| 94    | 21.10%      | 62.4              | 275.2        |
| 95    | 19.90%      | 57.6              | 335.3        |
| 96    | 17.63%      | N/A               |              |
| 97    | 10.61%      | N/A               |              |



5 TYPICAL HAMMER-HEAD DIMENSIONS

SCALE=NTS



6 CUL-DE-SAC DIMENSIONS

SCALE=NTS

|                              |       |                                       |                                   |                           |  |  |   |                  |                    |                    |
|------------------------------|-------|---------------------------------------|-----------------------------------|---------------------------|--|--|---|------------------|--------------------|--------------------|
| Project No:<br><b>433816</b> | C-5.1 | Drawing Title:<br><b>SITE DETAILS</b> | BUNCOMBE COUNTY<br>NORTH CAROLINA | SOVEREIGN OAKS<br>PHASE 3 |  | Planning • Engineering • Surveying<br>• Environmental Services • | 17 Arlington Street<br>Asheville, N.C. 28801<br>Phone: 1-828-232-4700<br>Fax: 1-828-232-1331<br>www.brookssea.com | Designed:<br>JHK | Reviewed:<br>MCB   | Date:<br>6-17-2016 |
|                              |       |                                       |                                   |                           |  |  |   | Drawn:<br>MIG    | Scale:<br>1"=50'   | Date:<br>6-17-2016 |
|                              |       |                                       |                                   |                           |  |  |   | Checked:<br>JHK  | Date:<br>6-17-2016 | Date:<br>6-17-2016 |
|                              |       |                                       | REVISIONS/SUBMISSIONS             |                           |  | CONSTRUCTION DOCUMENTS   |   |                  |                    |                    |
|                              |       |                                       | No. 1                             |                           |  | SUBMITTAL TO PLANNING BOARD                                      |   |                  |                    |                    |
|                              |       |                                       | No. 2                             |                           |  | SUBMITTAL TO C.O.A. WATER DEPARTMENT                             |   |                  |                    |                    |
|                              |       |                                       | No. 3                             |                           |  | REVISIONS PER C.O.A. WATER COMMENTS                              |   |                  |                    |                    |
|                              |       |                                       | No. 4                             |                           |  | CONSTRUCTION DOCS ISSUED   |   |                  |                    |                    |