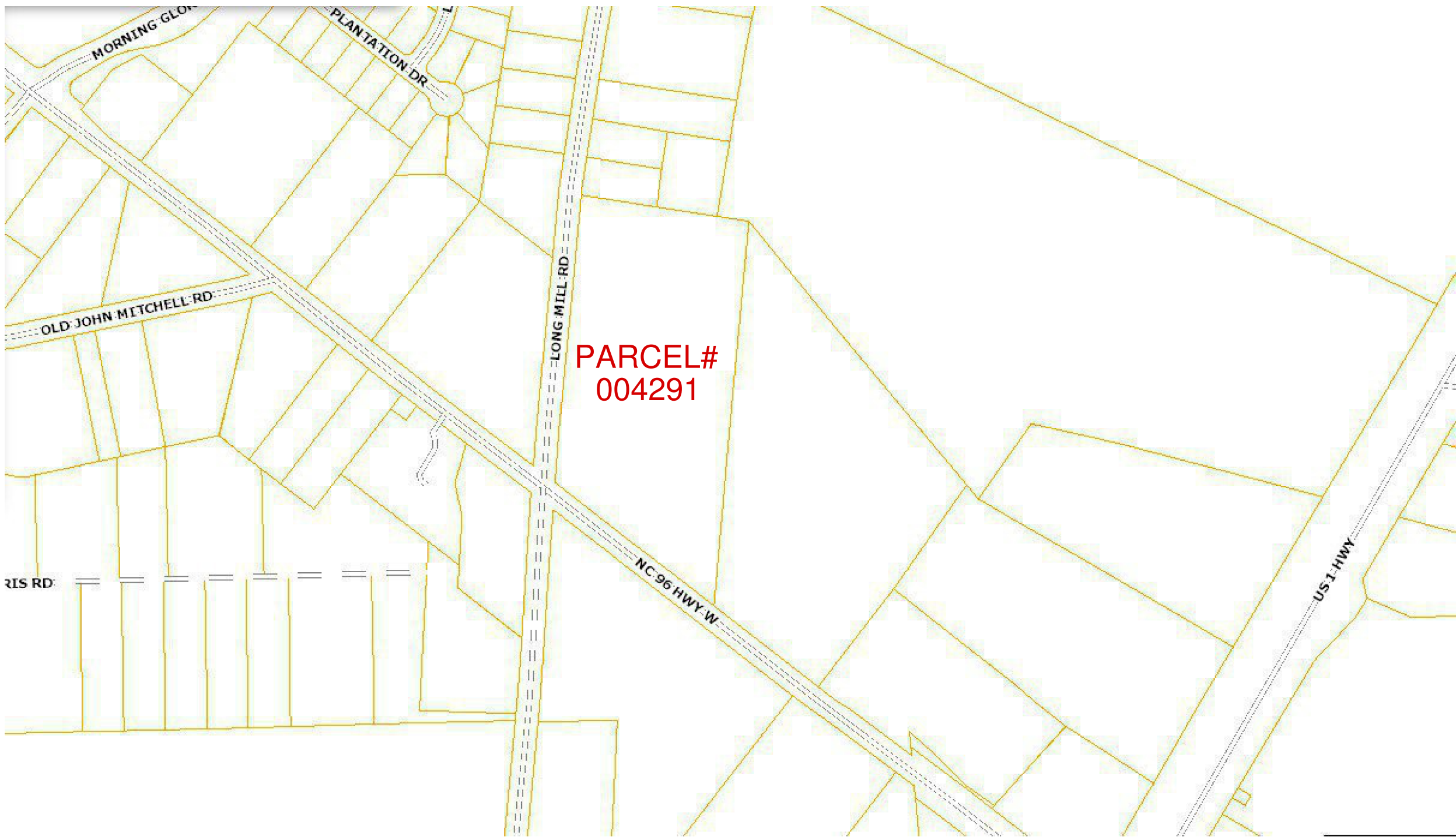


5644 NC HWY 96 YOUNGSVILLE, NC FRANKLIN COUNTY

| Page Index |
|-------------------------------|
| C-0 Cover Sheet |
| C-1 Existing Conditions |
| C-2 Site Plan |
| C-3 Grading & Stormwater Plan |
| C-4 Erosion Control Plan |
| L-1 Landscaping Plan |
| LP-1 Lighting Plan |



VICINITY MAP



2022 AERIAL PHOTOGRAPHY

Current Landowner and Applicant Information

Craig Rooth
5644 NC HWY 96
Youngsville, NC
919-605-8733 (e-mail: cjrooth@aol.com)

Civil/Site Engineer Information

Robert W. Brantly, P.E.
Engineering & Environmental Science Company
3008 Anderson Dr. Suite 102
Raleigh, NC 27609
919-781-7798 (e-mail: e2s@bellsouth.net)

Project Information

Applicant: Craig Rooth
Project Location: 5644 NC HWY 96
Youngsville, NC 27596

Pin Numbers: 1843-75-4807
Parcel Number: 004291
Deed Book/Page: 1154/808
Zoning: NB
Planning/Zoning Jurisdiction: Franklin County
Existing Use: Office and Outdoor Storage/Parking
Proposed Use: Office and Outdoor Storage/Parking
Total Lot Area: 10 ac.
Proposed Land Disturbance: 0.78 acres
Existing Impervious Surface (Pre-2005)
Roof: 17,105 sf
Concrete: 24,652 sf
Asphalt: 18,945 sf
Gravel: 166,382 sf
TOTAL: 227,084 sf (52.1%)
Proposed Impervious Surface (Including Post-2005)
Gravel: 90,035 sf
Bike Path: 2,740 sf
Driveway/Turn Lane: 2,308 sf
TOTAL: 95,083 SF
Total Impervious Surface After Construction: 322,167 sf (73.9%)

NOTE: SITE IS NOT LOCATED WITHIN REGULATED FLOODPLAIN.

NOTE: SITE IS LOCATED IN TAR RIVER BASIN.

NOTE: NO NEW SIGNAGE IS PROPOSED.

NOTE: THE OVERNIGHT OCCUPANCY AND/OR IDLING OF TRACTOR TRAILERS/TRANSFER TRUCKS IS PROHIBITED.

NOTE: THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR THE CONTINUED PROPER MAINTENANCE OF ALL LANDSCAPING MATERIALS AND SHOULD KEEP THEM IN A PROPER, NEAT, AND ORDERLY APPEARANCE, FREE FROM REFUSE AND DEBRIS. ALL DEAD OR UNHEALTHY PLANT MATERIAL SHOULD BE REPLACED TO MAINTAIN THE QUALITY OF THE LANDSCAPING.

4/6/23

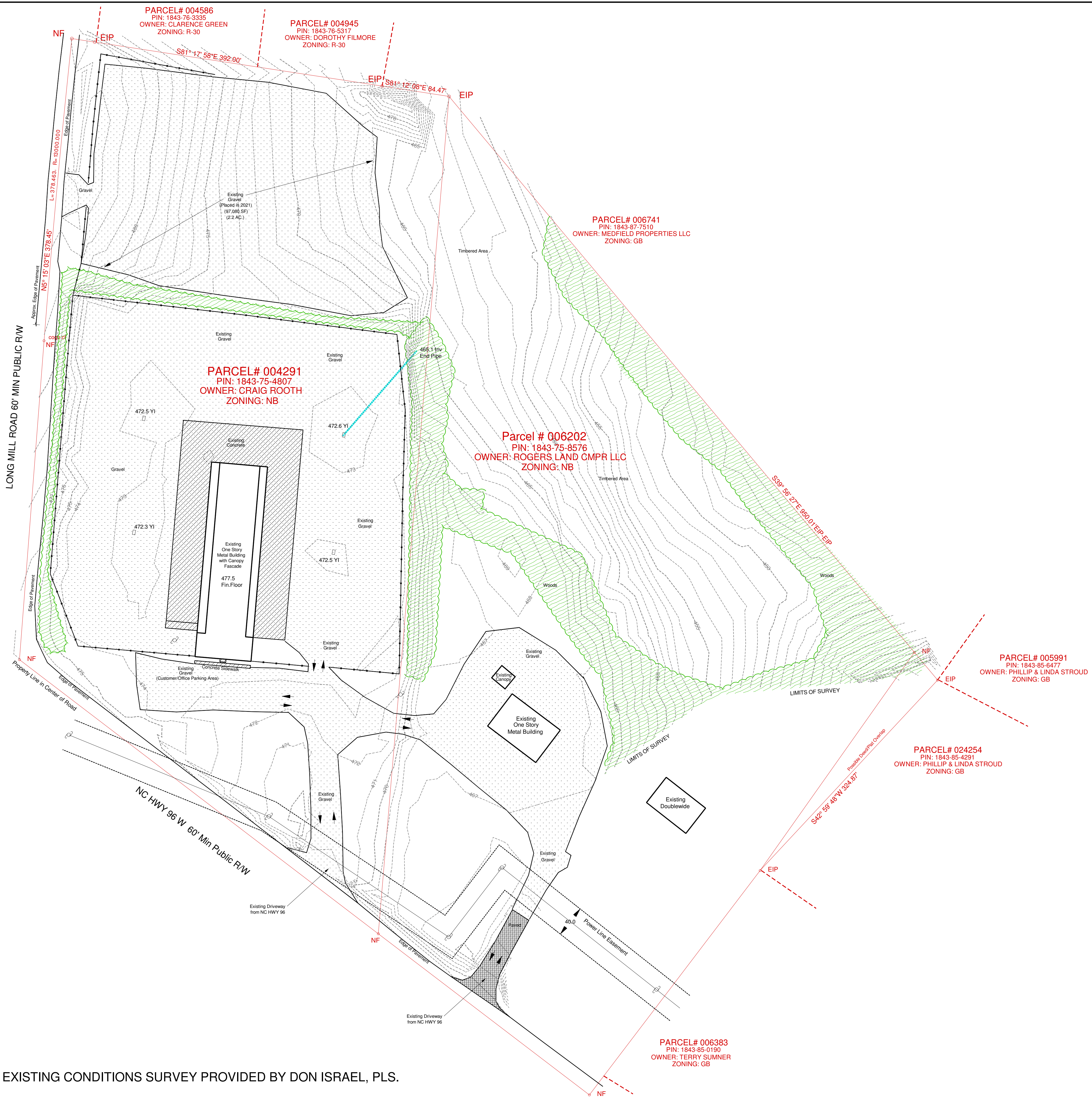


ENGINEERING & ENVIRONMENTAL
SCIENCE COMPANY
3008 Anderson Drive Suite 102
Raleigh, NC 27609
(919) 781-7798

Sheet No.
C-0

Legend

- Property Line
- Adjacent Property Lines
- Sidewalk
- Stormwater Pipe
- Fence
- 1 ft. Contours
- 5 ft. Contours
- Power Pole
- Overhead Utilities/Electrical
- Existing Treeline
- Gravel Surface
- Concrete Surface
- Ashpalt Surface
- Wooded Area



NOTE: EXISTING CONDITIONS SURVEY PROVIDED BY DON ISRAEL, PLS.

NOT FOR CONSTRUCTION- FOR REVIEW ONLY



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(919) 781-7798

4/6/23



EXISTING CONDITIONS
SYSTEMS AND REPLACEMENT SALES, INC.
5644 NC HWY96
YOUNGSVILLE, NC 27596
FRANKLIN COUNTY

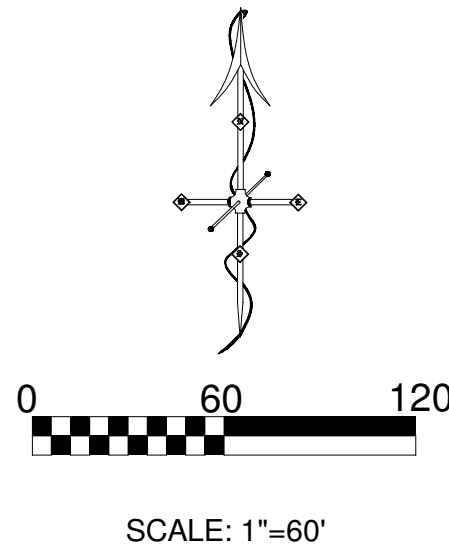
DATE:
04/06/2023

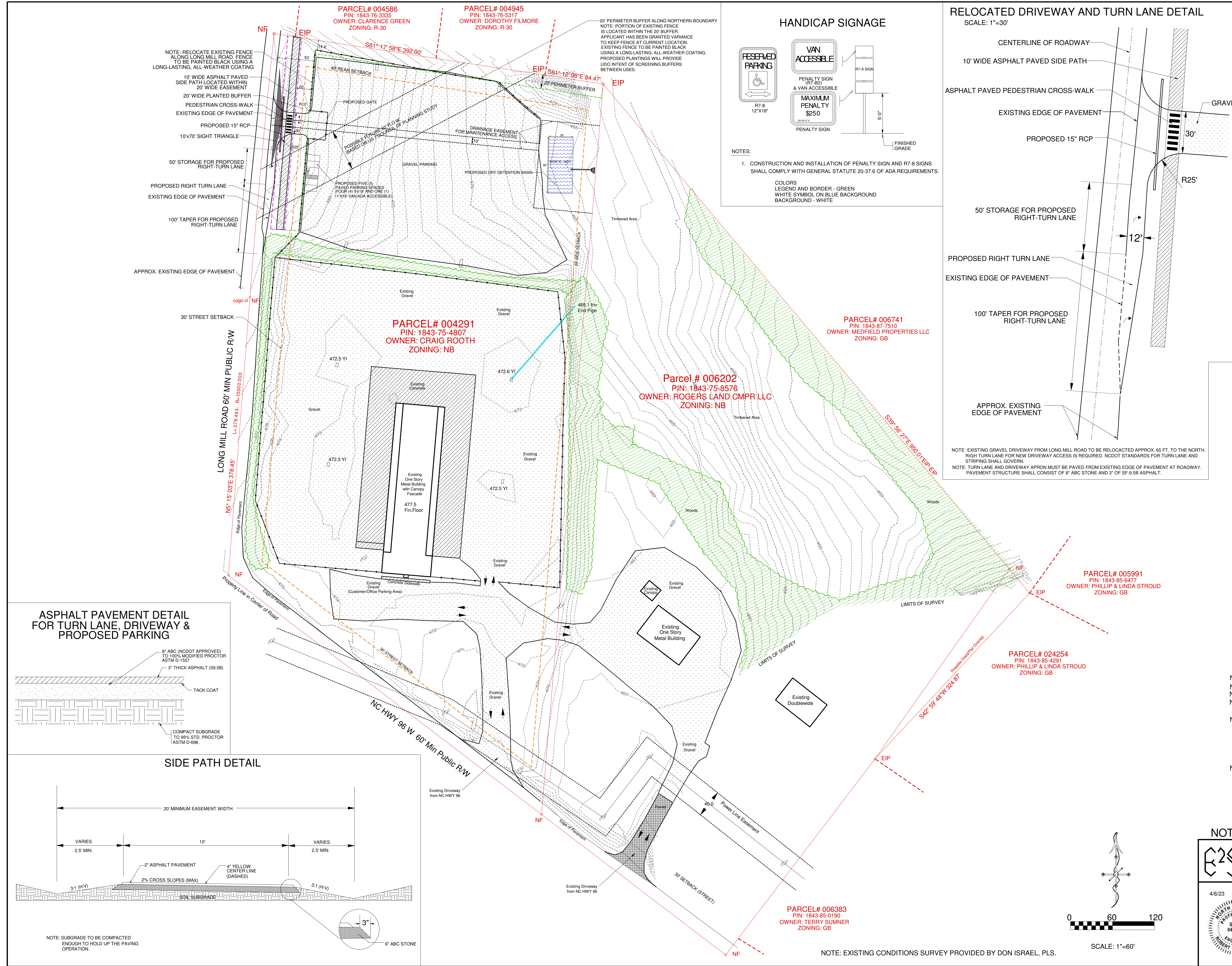
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RWB

REVISED:

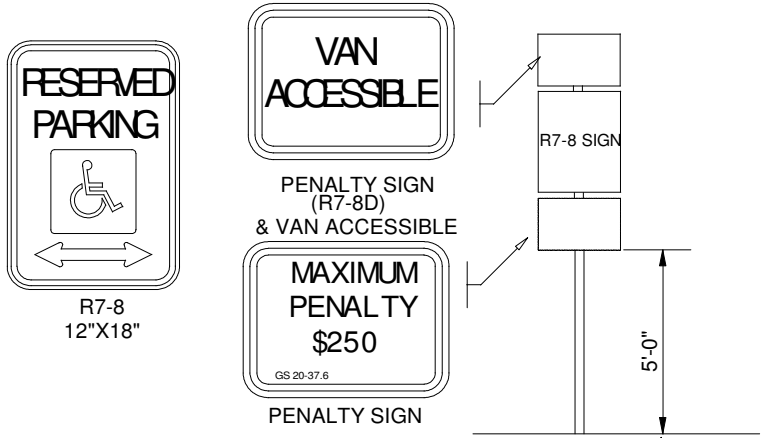
SCALE:
1"=60'
Sheet No.

C-1





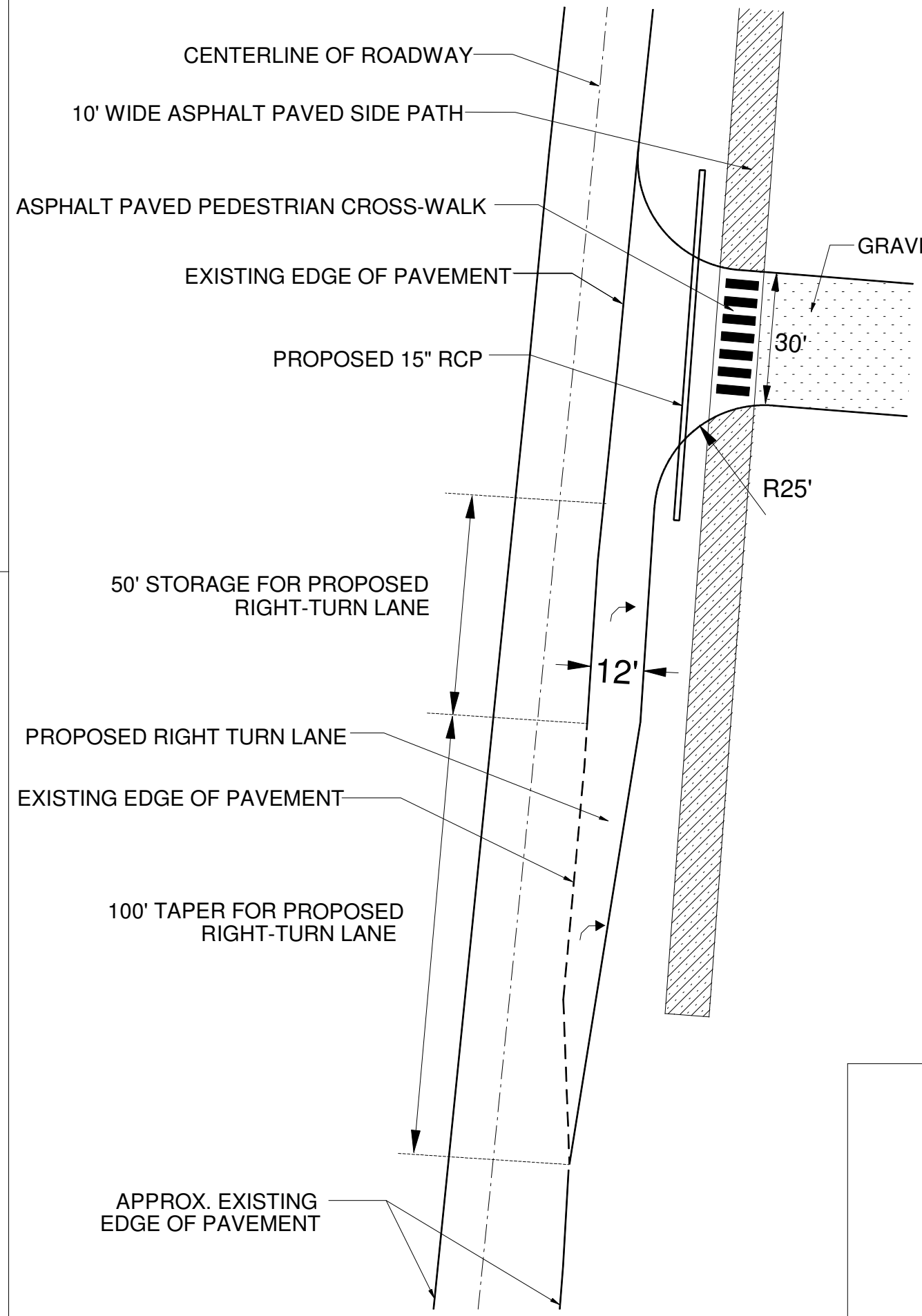
HANDICAP SIGNAGE



NOTES:
1. CONSTRUCTION AND INSTALLATION OF PENALTY SIGN AND R7-8 SIGNS SHALL COMPLY WITH GENERAL STATUTE 20-37.6 OF ADA REQUIREMENTS.
COLORS
LEGEND AND BORDER - GREEN
WHITE SYMBOL ON BLUE BACKGROUND
BACKGROUND - WHITE

RELOCATED DRIVEWAY AND TURN LANE DETAIL

SCALE: 1"=30'



NOTE: EXISTING GRAVEL DRIVEWAY FROM LONG MILL ROAD TO BE RELOCATED APPROX. 65 FT. TO THE NORTH. RIGHT TURN LANE FOR NEW DRIVEWAY ACCESS IS REQUIRED. NCDOT STANDARDS FOR TURN LANE AND STRIPING SHALL GOVERN.
NOTE: TURN LANE AND DRIVEWAY APRON MUST BE PAVED FROM EXISTING EDGE OF PAVEMENT AT ROADWAY. PAVEMENT STRUCTURE SHALL CONSIST OF 8" ABC STONE AND 3" OF SF-9.5B ASPHALT.

Legend

- Property Line
- Adjacent Property Lines
- Sidewalk
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- Fence
- Building Setbacks
- Buffer Yards
- Easements
- 1 ft. Contours
- 5 ft. Contours
- Power Pole
- Overhead Utilities/Electrical
- Existing Treeline
- Gravel Surface
- Concrete Surface
- Ashphalt Surface
- Wooded Area
- Existing Light Pole

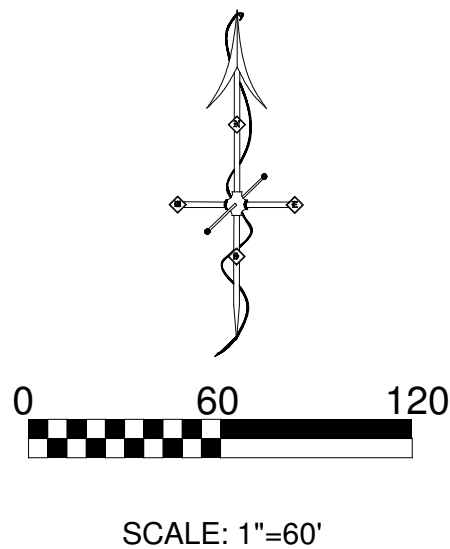
PROJECT DATA TABLE

| | |
|---|--|
| Applicant: Mr. Craig Rooth | |
| Project Location: 5644 NC HWY 96 | |
| Youngsville, NC 27596 | |
| Pin Numbers: 1843-75-4807 | |
| Parcel Number: 004291 | |
| Deed Book/Page: 1154/808 | |
| Zoning: NB | |
| Planning/Zoning Jurisdiction: Franklin County | |
| Existing Use: Office and Outdoor Storage/Parking | |
| Proposed Use: Office and Outdoor Storage/Parking | |
| Total Lot Area: 10 ac. | |
| Proposed Land Disturbance: 0.78 acres | |
| Existing Impervious Surface (Pre-2005) | |
| Roof: 17,105 sf | |
| Concrete: 24,652 sf | |
| Asphalt: 18,945 sf | |
| Gravel: 166,382 sf | |
| TOTAL: 227,084 sf (52.1%) | |
| Proposed Impervious Surface (Including Post-2005) | |
| Gravel: 90,035 sf | |
| Bike Path: 2,740 sf | |
| Driveway/Turn Lane: 2,308 sf | |
| TOTAL: 95,083 SF | |
| Total Impervious Surface After Construction: 322,167 sf (73.9%) | |

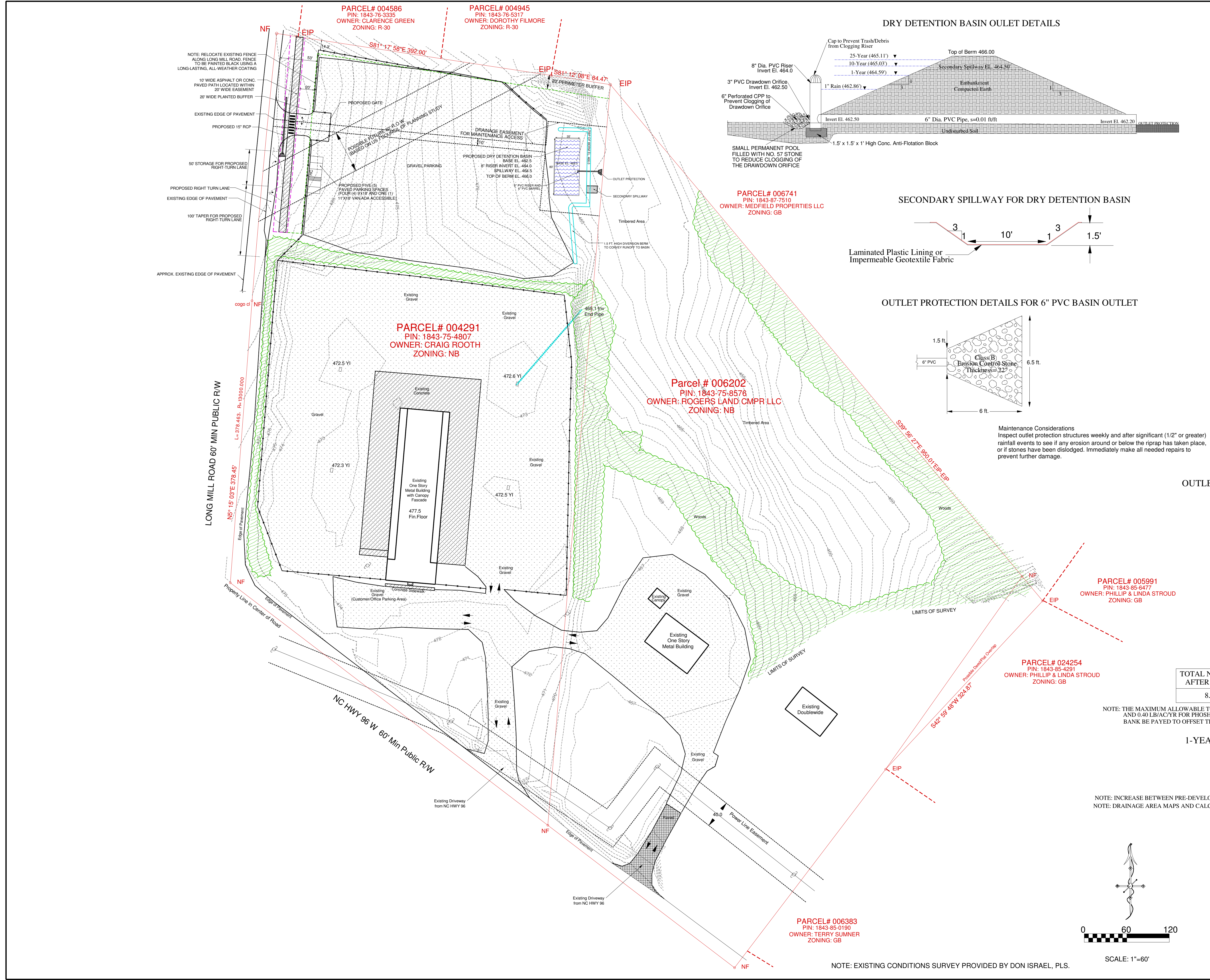
NOTE: SITE IS NOT LOCATED WITHIN REGULATED FLOODPLAIN.
NOTE: SITE IS LOCATED IN TAR RIVER BASIN.
NOTE: NO NEW SIGNAGNE IS PROPOSED.
NOTE: THE OVERNIGHT OCCUPANCY AND/OR IDLING OF TRACTOR TRAILERS/TRANSFER TRUCKS IS PROHIBITED.
NOTE: THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR THE CONTINUED PROPER MAINTENANCE OF ALL LANDSCAPING MATERIALS AND SHOULD KEEP THEM IN A PROPER, NEAT, AND ORDERLY APPEARANCE, FREE FROM REFUSE AND DEBRIS. ALL DEAD OR UNHEALTHY PLANT MATERIAL SHOULD BE REPLACED TO MAINTAIN THE QUALITY OF THE LANDSCAPING.
NOTE: ACCESS EASEMENT TO BE RECORDED FOR THE PROPOSED DRY DETENTION BASIN.

NOT FOR CONSTRUCTION- FOR REVIEW ONLY

| | | |
|--|--|--------------------------------------|
| | ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY 3008 Anderson Drive Suite 102 Raleigh, NC 27609 (919) 781-7798 | DATE: 04/06/2023 |
| | | DRAWN: RWB |
| | PROPOSED SITE PLAN SYSTEMS AND REPLACEMENT SALES, INC. 5644 NC HWY96 YOUNGSVILLE, NC 27596 FRANKLIN COUNTY | REVISED: |
| | | SCALE: 1"=60' Sheet No. C-2 |



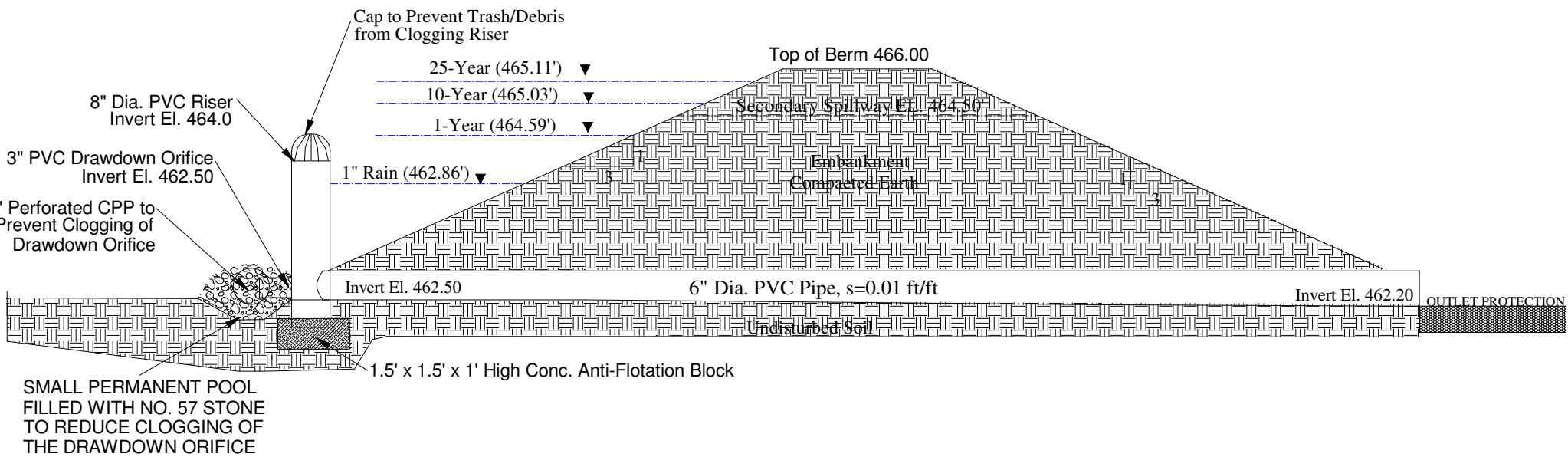
NOTE: EXISTING CONDITIONS SURVEY PROVIDED BY DON ISRAEL, PLS.



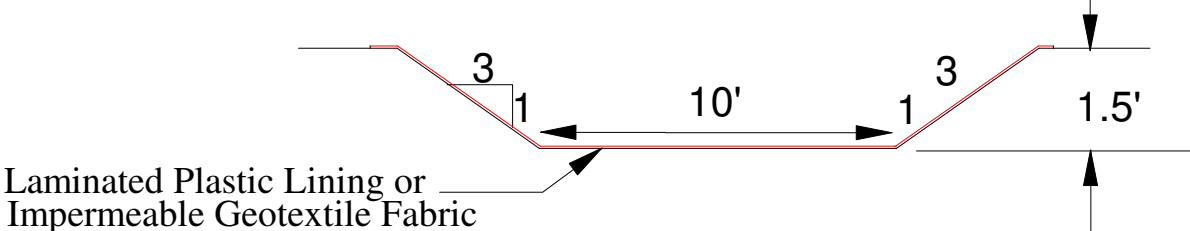
Legend

- Property Line
- Adjacent Property Lines
- Sidewalk
- Stormwater Pipe
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- Easements
- 1 ft. Contours
- 5 ft. Contours
- Power Pole
- Overhead Utilities/Electrical
- Existing Treeline
- Gravel Surface
- Concrete Surface
- Asphalt Surface
- Wooded Area

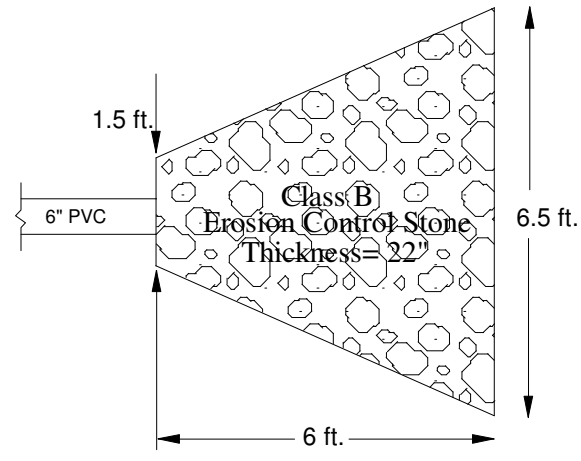
DRY DETENTION BASIN OULET DETAILS



SECONDARY SPILLWAY FOR DRY DETENTION BASIN

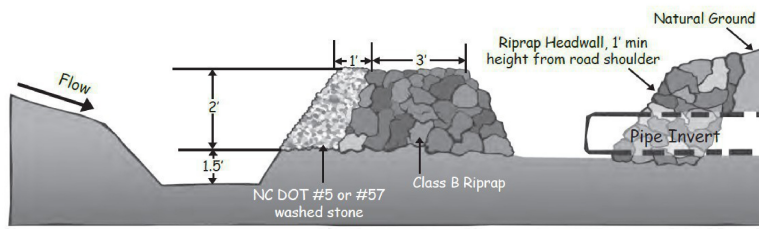


OUTLET PROTECTION DETAILS FOR 6" PVC BASIN OUTLET

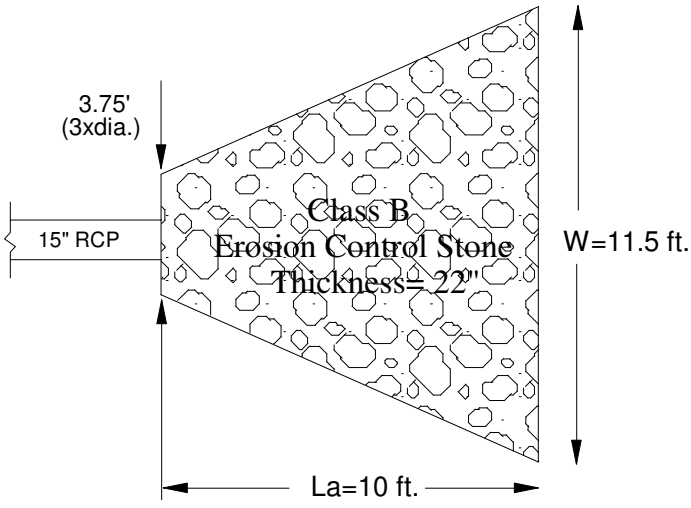


Maintenance Considerations
Inspect outlet protection structures weekly and after significant (1/2" or greater) rainfall events to see if any erosion around or below the riprap has taken place, or if stones have been dislodged. Immediately make all needed repairs to prevent further damage.

INLET PROTECTION FOR CULVERT



OUTLET PROTECTION DETAILS FOR 15" RCP DRIVEWAY CULVERT



NUTRIENT EXPORT CALCULATIONS

| TOTAL NITROGEN EXPORT AFTER DEVELOPMENT | TOTAL PHOSPHORUS EXPORT AFTER DEVELOPMENT |
|---|---|
| 8.32 LB/AC/YR | 1.02 LB/AC/YR |

NOTE: THE MAXIMUM ALLOWABLE TOTAL NITROGEN EXPORT FOR THE TAR-PAMLICO RIVER BASIN IS 4.0 LB/AC/YR FOR NITROGEN AND 0.40 LB/AC/YR FOR PHOSPHORUS. IT IS PROPOSED THAT A ONE TIME OFFSET PAYMENT TO AN APPROVED MITIGATION BANK BE PAID TO OFFSET THE ADDITIONAL NITROGEN AND PHOSPHORUS EXPORT FOR THE SITE.

1-YEAR, 24-HR RAIN EVENT CALCULATIONS

| PRE-DEV PEAK FLOW (CFS) | POST-DEV PEAK FLOW (CFS) |
|-------------------------|--------------------------|
| 20.77 | 22.47 |

NOTE: INCREASE BETWEEN PRE-DEVELOPMENT AND POST-DEVELOPMENT 1-YR, 24 HR. PEAK FLOW LEAVING SITE IS LESS THAN 10%
NOTE: DRAINAGE AREA MAPS AND CALCULATIONS PROVIDED WITH STORMWATER EVALUATION NARRATIVE.

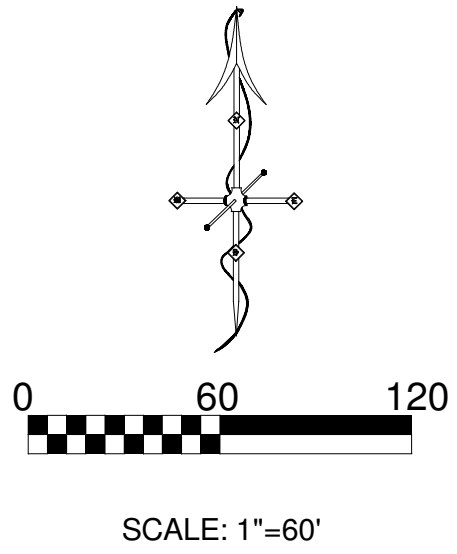
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ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY
3008 Anderson Drive Suite 102
Raleigh, NC 27609
(919) 781-7798

4/6/23

GRADING AND STORMWATER PLAN
SYSTEMS AND REPLACEMENT SALES, INC.
5644 NC HWY96
YOUNGVILLE, NC 27596
FRANKLIN COUNTY

DATE: 04/06/2023
DRAWN: RWB
REVISED:
SCALE: 1"=60'
Sheet No.
C-3



NOTE: EXISTING CONDITIONS SURVEY PROVIDED BY DON ISRAEL, PLS.

Legend

- Property Line
- Adjacent Property Lines
- Sidewalk
- Stormwater Pipe
- Fence
- Building Setbacks
- Buffer Yards
- Easements
- 1 ft. Contours
- 5 ft. Contours
- Power Pole
- Overhead Utilities/Electrical
- Limits of Disturbance
- Existing Treeline
- Gravel Surface
- Concrete Surface
- Ashpalt Surface
- Wooded Area

PROPOSED LIMITS OF DISTURBANCE= 0.78 ACRES

Note: Site contractor to ensure that land disturbance is kept to less than 1 acre. If more than 1 acre is disturbed, then Erosion & Sediment Control permit from NCDEQ is required.

CONSTRUCTION SEQUENCE

- OBTAIN PLAN APPROVALS AND ALL APPLICABLE PERMITS.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCE TO SITE FROM LONG MILL ROAD. EXISTING DRIVEWAY FROM LONG MILL ROAD IS TO BE REMOVED. PROVIDE INLET AND OUTLET PROTECTION FOR PROPOSED 15" RCP AT NEW DRIVEWAY LOCATION.
- INSTALL SILT FENCE DOWNSLOPE OF PROPOSED BASIN AS SHOWN ON PLAN.
- INSTALL THE 1.5 FT. HIGH DIVERSION BERM AS SHOWN ON THE PLANS.
- CONSTRUCT RIGHT TURN LANE INTO SITE FROM LONG MILL ROAD.
- CONSTRUCT PAVED PARKING PAD AS SHOWN ON PLANS.
- INSTALL SKIMMER BASIN AS SHOWN ON THE PLAN.

Silt Fence Specifications

- Steel posts shall be a minimum of 8 ft. long, weight a minimum of 1.5 lbs/ft, and have projections to aid in fastening the wire or fabric. Steel posts shall also have a metal plate welded near the bottom such that when the post is driven to the proper depth, the plate will be below the ground level for added stability.
- Woven Wire Fence shall conform to the requirements of ASTM A 116, Class I zinc coating for wire. The fence shall be at least 32 in. high and shall have at least 6 line horizontal wires. Stay (vertical) wires shall be spaced 12 in. apart. The top and bottom wires shall be 10 gauge. All other wires shall be 12 1/2 gauge.
- Fiber Fabric shall be composed of fibers consisting of long, thin synthetic polymers composed of at least 80% by weight of polypropylene, polyethylene, or polyesters. The fibers shall be formed into a network such that the filaments are woven into dimensional stability relative to each other. The fiber fabric shall be free of any treatment or coating which might adversely affect its physical properties after installation. The fabric shall be free of defects or flaws which significantly affect its physical and/or filtering properties. The fabric shall have a minimum width of 36 inches.

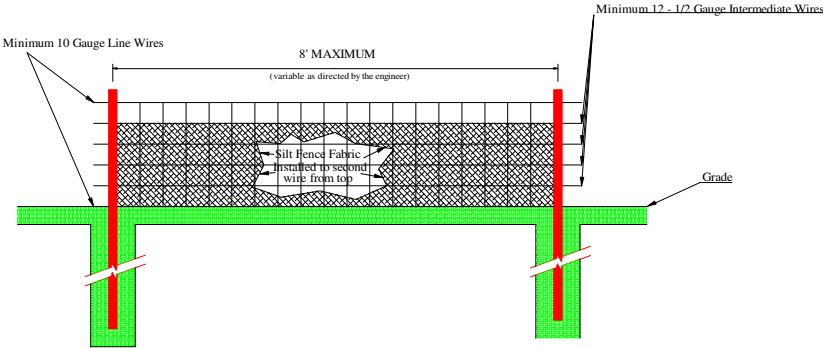
The filter fabric shall be furnished with suitable wrapping for protection against moisture and extended ultraviolet prior to placement.

The filter fabric shall meet the following minimum physical requirements:

| PROPERTY* | TEST METHOD | REQUIRED VALUE |
|---|-------------|-----------------------------|
| Tensile Strength | ASTM D 4832 | 400 Newton (90 lb) |
| Elongation | ASTM D 4832 | <50% fabric self supporting |
| Apparent Opening Size (AOS)** | ASTM D 4753 | 200 microns |
| Permeability | ASTM D 4401 | 0.01 Sec. |
| Ultraviolet Stability (retained strength after 500 hrs of ultraviolet exposure) | ASTM D 4355 | 70% |

- A 6 in. x 6 in. trench shall be dug on the upstream side of the silt fence. The silt fence shall be placed and covered up the top for the remainder of the fabric width. The trench shall then be backfilled and tamped. Silt fence fabric shall be spliced together only at supporting posts with a minimum of 6 in. of overlap and in such a manner to prevent air from passing between the two ends. At the time of installation, the fabric will be rejected if it has any defects, deterioration, or other damage incurred during manufacture, transportation, or storage.

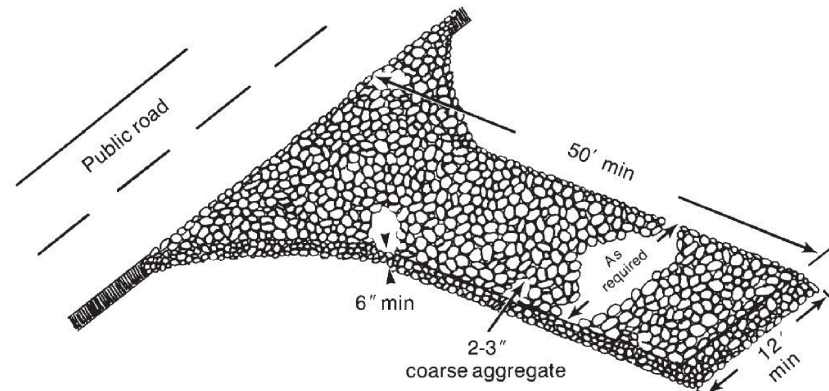
SILT FENCE DETAILS



Silt Fence Maintenance Considerations

- Inspect silt fences at least once a week and after each rainfall. Make any required repairs immediately.
- Should the fabric of a sediment fence collapse, tear, decompose or become ineffective, replace it promptly.
- Remove the sediment deposits as necessary to provide adequate storage volume for the next rain and to reduce pressure on the fabric. Take care to avoid undermining the fence during cleanup.
- Remove all logging materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

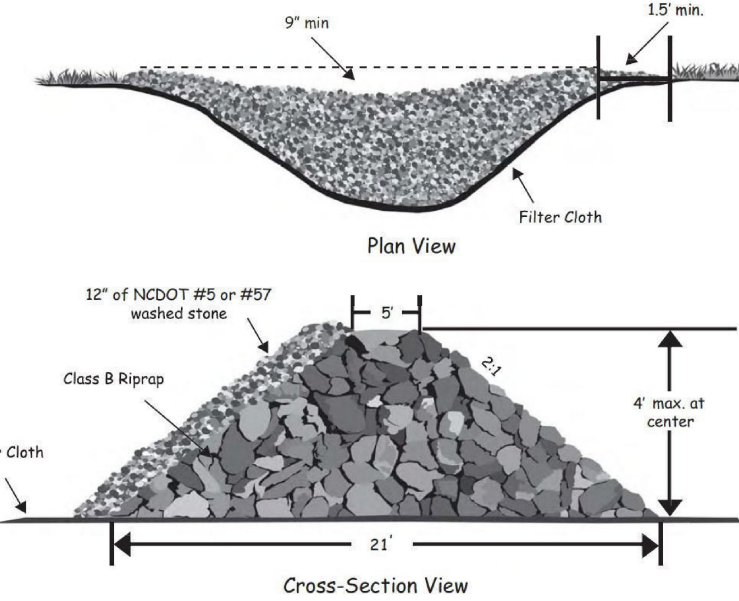
CONSTRUCTION ENTRANCE



- Notes:
- Clear the entrance/exit area of all vegetation, roots and other objectionable material.
 - Place 2-3" coarse aggregate.

Maintenance Considerations: Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2-inch stone. Immediately remove all objectionable materials spilled, washed, or tracked onto public roadways.

STONE CHECK DAM DETAILS



- Construction Specifications
- Place stone to the lines and dimensions shown in the plan on a filter fabric foundation.
 - Keep the center stone section at least 9 inches below natural ground level where the dam abuts the channel banks.
 - Extend stone at least 1.5 feet beyond the ditch bank (Figure 6.83b) to keep water from cutting around the ends of the check dam.
 - Set spacing between dams to assure that the elevation at the top of the lower dam is the same as the toe elevation of the upper dam.
 - Protect the channel after the lowest check dam from heavy flow that could cause erosion.
 - Make sure that the channel reach above the most upstream dam is stable.
 - Ensure that other areas of the channel, such as culvert entrances below the check dams, are not subject to damage or blockage from displaced stones.

Maintenance

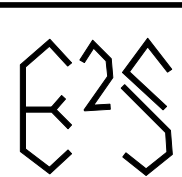
Inspect check dams and channels at least weekly and after each significant (1/2 inch or greater) rainfall event and repair immediately. Clean out sediment, straw, limbs, or other debris that could clog the channel when needed.

Anticipate submergence and deposition above the check dam and erosion from high flows around the edges of the dam. Correct all damage immediately. If significant erosion occurs between dams, additional measures can be taken such as, installing a protective riprap liner in that portion of the channel (Practice 6.31, Riprap-line and Paved Channels).

Remove sediment accumulated behind the dams as needed to prevent damage to channel vegetation, allow the channel to drain through the stone check dam, and prevent large flows from carrying sediment over the dam. Add stones to dams as needed to maintain design height and cross section.

NOTE: EXISTING CONDITIONS SURVEY PROVIDED BY DON ISRAEL, PLS.

NOT FOR CONSTRUCTION- FOR REVIEW ONLY

| | | | |
|---|---|---|--------------------------------------|
|  ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY 3008 Anderson Drive Suite 102 Raleigh, NC 27609 (919) 781-7798 |  | EROSION CONTROL PLAN SYSTEMS AND REPLACEMENT SALES, INC. 5644 NC HWY96 YOUNGVILLE, NC 27596 FRANKLIN COUNTY | DATE: 04/06/2023 |
| | | | DRAWN: RWB |
| | | | REVISED: |
| | | | SCALE: 1"=60' Sheet No. C-4 |



TYPICAL FENCE SECTION AND GATE ALONG LONG MILL ROAD



NOTE: EXISTING FENCE/GATE TO BE RELOCATED ASH SHOWN, AND PAINTED BLACK USING A LONG-LASTING, ALL-WEATHER COATING.

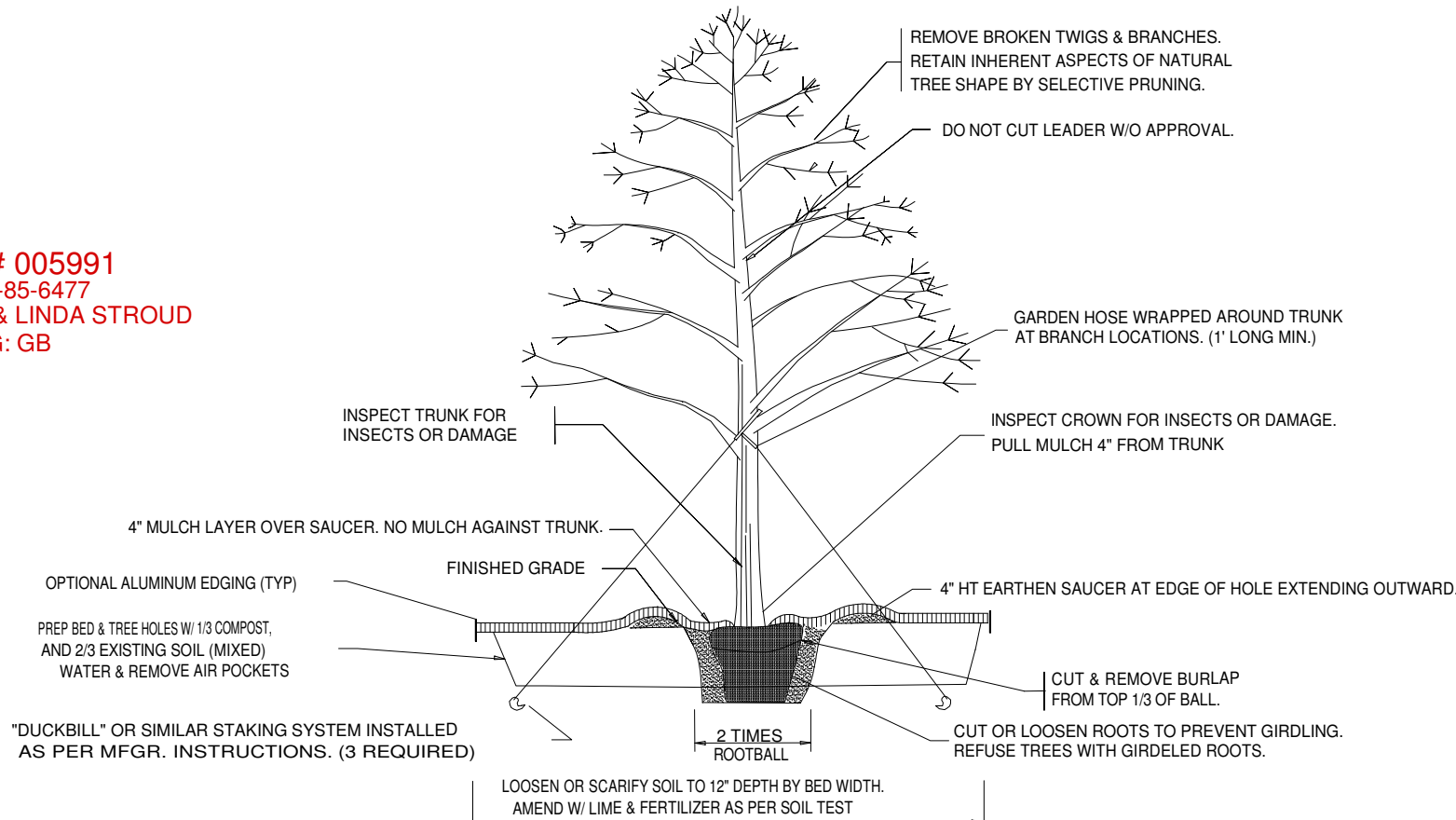
TYPICAL FENCE SECTION ALONG NORTHERN PROPERTY LINE



NOTE: EXISTING FENCE TO BE PAINTED BLACK USING A LONG-LASTING, ALL-WEATHER COATING.

Legend

- Property Line
- Adjacent Property Lines
- Sidewalk
- Stormwater Pipe
- Fence
- Building Setbacks
- Buffer Yards
- Easements
- 1 ft. Contours
- 5 ft. Contours
- Power Pole
- Overhead Utilities/Electrical
- Existing Treeline
- Gravel Surface
- Concrete Surface
- Ashpalt Surface
- Wooded Area
- Existing Light Pole
- Proposed Canopy Tree Planting
- Proposed Evergreen Tree Planting



TREE PLANTING AND STAKING DETAIL

NTS

NOTE: THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR THE CONTINUED PROPER MAINTENANCE OF ALL LANDSCAPING MATERIALS AND SHOULD KEEP THEM IN A PROPER, NEAT, AND ORDERLY APPEARANCE, FREE FROM REFUSE AND DEBRIS. ALL DEAD OR UNHEALTHY PLANT MATERIAL SHOULD BE REPLACED TO MAINTAIN THE QUALITY OF THE LANDSCAPING.

PLANTING LIST FOR PROPOSED BUFFERS

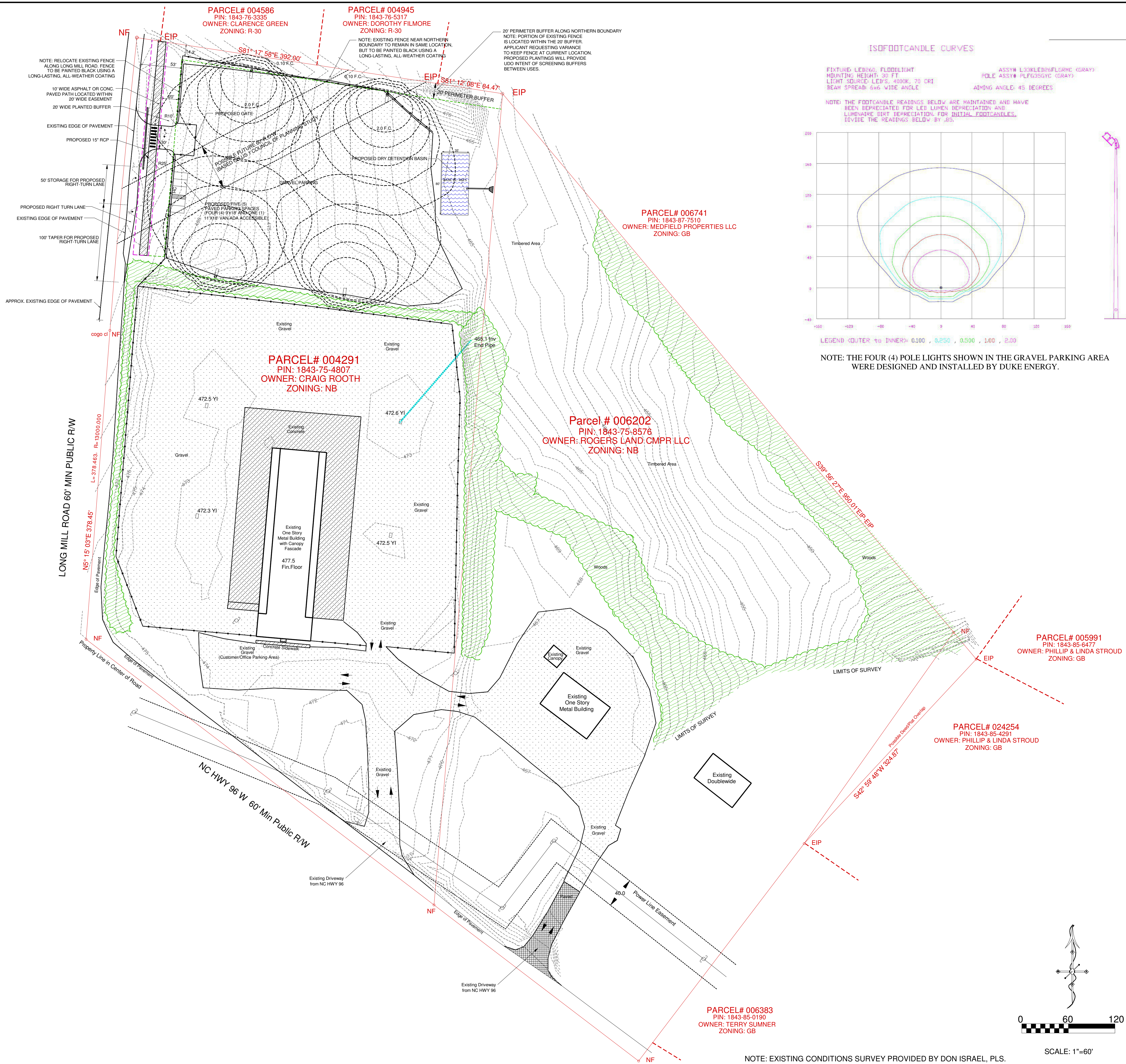
| Qty | Material Type | Species | Symbol | Minimum Size at Installation | Minimum Mature Size | Spacing |
|-----|----------------|-----------------------------|--------|------------------------------|---------------------|---------|
| 6 | Canopy Tree | American elm (Ulmus spp.) | AE | 2" Caliper, 8' Height | 30' Height | 40' |
| 21 | Evergreen Tree | American holly (Ilex opaca) | AH | 1" Caliper, 6' Height | 15' Height | 20' |

NOTE: STAGGER EVERGREEN PLANTINGS ALONG NORTHERN BUFFER TO FORM 2 ROWS AS SHOWN.
NOTE: IF PLANT SPECIES CHANGE, APPROVAL MUST BE OBTAINED FROM FRANKLIN COUNTY PLANNING DEPARTMENT.

NOTE: EXISTING CONDITIONS SURVEY PROVIDED BY DON ISRAEL, PLS.

NOT FOR CONSTRUCTION- FOR REVIEW ONLY

| | | |
|--|--|--------------------------------------|
| | ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY 3008 Anderson Drive Suite 102 Raleigh, NC 27609 (919) 781-7798 | DATE: 04/06/2023 |
| | | DRAWN: RWB |
| | LANDSCAPING PLAN SYSTEMS AND REPLACEMENT SALES, INC. 5644 NC HWY 96 YOUNGVILLE, NC 27596 FRANKLIN COUNTY | REVISED: |
| | | SCALE: 1"=60' Sheet No. L-1 |



Legend

Property Line

Adjacent Property Lines

Sidewalk

Stormwater Pipe

Fence

Building Setbacks

Buffer Yards

Easements

1 ft. Contours

5 ft. Contours

Power Pole

Overhead Utilities/Electrical

Existing Treeline

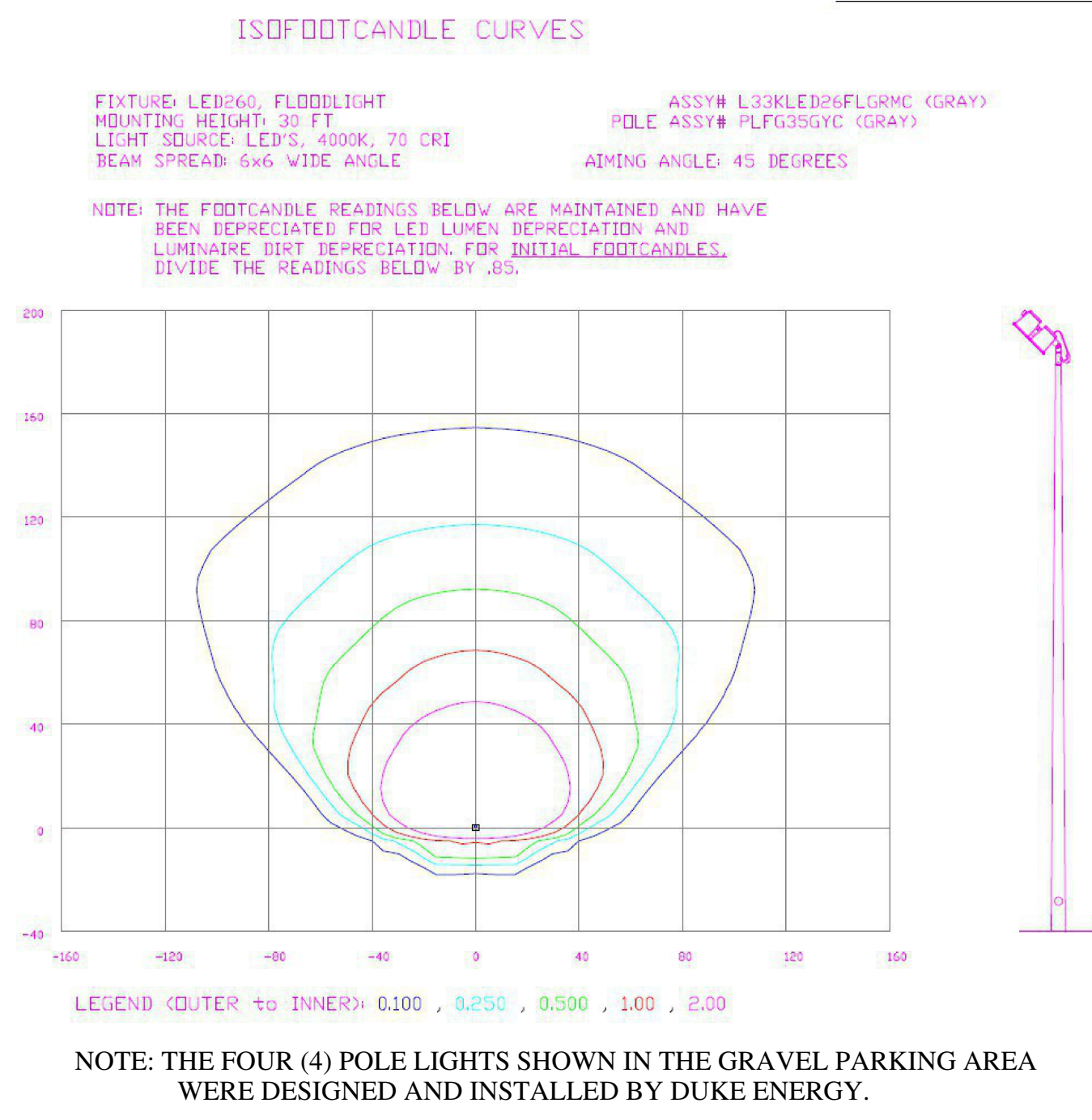
Gravel Surface

Concrete Surface

Asphalt Surface

Wooded Area

Existing Light Pole



NOTE: EXISTING CONDITIONS SURVEY PROVIDED BY DON ISRAEL, PLS.

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ENGINEERING & ENVIRONMENTAL
SCIENCE COMPANY

3008 Anderson Drive Suite 102
Raleigh, NC 27609
(919) 781-7798

4/6/23

SEAL
041984
ENGINEER
ROBERT W. BRANN

DATE:
04/06/2023

DRAWN:
RWB

REVISED:

SCALE:
1"=60'

Sheet No.
LP-1

LIGHTING PLAN
SYSTEMS AND REPLACEMENT SALES, INC.
5644 NC HWY96
YOUNGVILLE, NC 27596
FRANKLIN COUNTY