



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

November 14, 2018

Mr. Lewis David Johnson Jr. &
Mr. Jonathan Murray Johnson
4005 Daytona Drive
Fayetteville, North Carolina 28311

Ms. Dorothy B. Page
1955 Neills Creek Road
Lillington, North Carolina 27546

ATTN: Mr. Kirk Kieffer
Cypress Creek EPC, LLC
601-A West Main Street
Carrboro, North Carolina 27510

SUBJECT: APPLICATION - DRIVEWAY ENTRANCE ONTO SR 1513 (NEILLS CREEK ROAD)
PERMIT NUMBER 18-043-054 (Clovelly Solar Site)
HARNETT COUNTY

To whom it may concern:

Please find attached for your file a copy of the Driveway Application, which has been properly executed. This Driveway Permit is approved subject to the provisions stated in the Permit Application Agreement and the following special provisions:

- **The required Performance and Indemnity Bond in the amount of \$20,000.00 was received by the District Engineer's office on September 26, 2018. The Division Engineer will release the Performance and Indemnity Bond one (1) year following satisfactory completion of the work. The applicant shall be responsible for notifying the bonding company after the year and providing a copy of the PERMIT to the financial institution.**
- **Driveway construction must be completed within one (1) year after the approval date.** This Driveway Permit becomes null and void after that time and the Applicant will be required to reapply for access. Consideration may be given for time extensions on a case by case basis.
- An executed copy of this Permit will be present at the construction site at all times during construction. NCDOT reserves the right to stop all work unless evidence of approval can be shown.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION SIX / DISTRICT TWO
POST OFFICE BOX 1150
FAYETTEVILLE, NC 28302

Telephone: (910) 364-0601
Fax: (910) 437-2529
Customer Service: 1-877-368-4968

Location:
600 SOUTHERN AVENUE
FAYETTEVILLE, NC 28306

Website: www.ncdot.gov

- Any change or alteration of the existing or proposed property use shall require a new Driveway Permit. Failure to secure required Permits prior to construction or change in property usage may result in the removal of the driveway at the expense of the Permittee.
- **Changes noted in red on the plans shall be incorporated into and made a part of the approved Permit.**
- All out parcels or excluded areas shall be served internally, with no additional access onto abutting roadways permitted. This condition should be conveyed in any buy, sell, lease, rent, or subdivision agreement.
- **It is the responsibility of the Permittee to provide inspection of the work that is performed on the right of way as a part of this Permit. This work includes, but is not limited to, culvert and drainage structure installation, roadway widening, grading work, pavement structure installation (subgrade, base, and pavement), and traffic marking and marker installation. Please note that the Permittee is also responsible for contacting Mr. Earl C. Locklear, Assistant District Engineer at (910) 364-0601 at least 24 hours prior to beginning construction and prior to "critical events," such as backfilling pipe, installing curb and gutter, and placing asphalt.**
- **Approval of the Driveway Permit does not constitute review or approval of subdivision streets for NCDOT maintenance.** If addition of subdivision streets to the State Maintenance System is desired, plans for review and a Petition for Addition shall be submitted to the District Engineer's office. For further information, contact Ms. Janet R. James, Engineering Technician, at (910) 364-0601.
- All materials and construction shall be in accordance with NCDOT Standards and Specifications, including but not limited to, the latest NCDOT *Standard Specifications for Roads and Structures*, the latest NCDOT *Roadway Standards Drawings*, and *NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way*.
- The traveling public shall be warned of construction with complete and proper signing and traffic control devices in accordance with the *current Manual on Uniform Traffic Devices* (MUTCD). No work shall be performed in the right of way unless this requirement is satisfied. NCDOT reserves the right to require a written traffic control plan for encroachment operations. All contractor personnel will be required to wear a class II ANSI approved safety vest while working within DOT rights of way.
- NCDOT does not guarantee the right of way on this road, nor will it be responsible for any claim for damages brought by any property owner by reason of the installation. All right of way and easements necessary for construction and maintenance shall be dedicated to NCDOT and proof of dedication shall be furnished to the District Engineer prior to beginning work.
- Two-way traffic shall be maintained at all times.
- **No lane of traffic on SR 1513 (Neills Creek Road) shall be closed or restricted between the hours of 6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m., or on Sundays, holidays, special events, or as directed by the Engineer.**

- **When personnel and/or equipment are working on the shoulder and within five (5) feet of an open travel lane, close the nearest open travel lane using Standard Drawing No. 1101.02 unless the work area is protected by barrier or guardrail. When personnel and/or equipment are working within a lane of travel of an undivided or divided facility, close the lane according to the traffic control plans, or as directed by the Engineer. Conduct the work so that all personnel and/or equipment remain within the closed travel lane. Do not work simultaneously, on both sides of an open travel way, within the same location, on a two-lane, two-way road. Do not perform work involving heavy equipment within fifteen (15) feet of the edge of travel way when work is being performed behind a lane closure on the opposite side of the travel way. Perform work only when weather and visibility conditions allow safe operations as directed by the Engineer.**
- NCDOT reserves the right to further limit, restrict, or suspend operations within the right of way if, in the opinion of NCDOT, safety or traffic conditions warrant such action.
- Mr. Frank West, Division Traffic Engineer, shall be notified at (910) 364-0606 prior to beginning work on the right of way if there are existing NCDOT signs, traffic signals, or signal equipment in or near the proposed work zone. Costs to relocate, replace, or repair NCDOT signs, signals, or associated equipment shall be the responsibility of the Permittee. Furthermore, any revisions to existing traffic signals or the installation of any new traffic signals shall require a Signal Agreement between the Permittee and the NCDOT. Additional information concerning this subject can be obtained from the Division Traffic Engineer.
- When surface area in excess of one acre will be disturbed, the Permittee shall submit a Sediment and Erosion Control Plan which has been approved by the appropriate regulatory agency or authority prior to beginning any work on the right of way. Failure to provide this information shall be grounds for suspension of operations.
- All erosion control devices and measures shall be constructed, installed, maintained, and removed by the Permittee in accordance with all applicable Federal, State, and Local laws, regulations, ordinances, and policies. All earth areas shall be re-graded and seeded in accordance with current NCDOT Standards and Specifications.
- It shall be the responsibility of the Permittee to determine the location of other utilities within the work zone. The Permittee shall be responsible for notifying other utility owners and providing protection and safeguards to prevent damage or interruption to existing facilities and to maintain accessibility to existing utilities.
- Curb cuts and ramps for handicapped persons shall be constructed in accordance with the current NCDOT "Standard for Wheelchair Ramp Curb Cuts" and the Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities.
- Access granted under this permit shall remain closed (i.e. barricaded) to all traffic until all requirements relating to traffic control and signalization have been satisfied.
- Any proposed landscaping or landscape plantings shall be approved by the Division Engineer under an NCDOT Planting Permit. For further information, please contact Mr. Keith Beverley, Division Roadside Environmental Engineer, at (910) 364-0603.
- Pre-cast concrete manholes, catch basins, or other drainage structures shall be pre-approved by NCDOT for use within highway rights of way.
- Manhole rings and covers, valve covers, and storm drainage grates and frames shall be traffic bearing types approved by NCDOT for use within highway Rights of Way.

- **The proposed driveway shall be paved to the right of way line of SR 1513 (Neills Creek Road) measured from the edge of existing pavement as shown on the attached plans.**
- **The proposed entrance onto SR 1513 (Neills Creek Road) shall be constructed with 25' ingress, egress, and regress edge of pavement radii as shown on the attached plans.**
- **The proposed entrance onto SR 1513 (Neills Creek Road) shall be constructed with 20' width roadway as shown on the attached plans.**
- The entrance grade shall be constructed in accordance with Figure 16 (attached).
- **Pipe, if required, shall be manufactured from reinforced concrete or steel, shall be a minimum diameter of 15 inches, a minimum of 20' in length, and shall be inspected for proper installation prior to backfilling. Contact Mr. Keith Anderson, County Maintenance Engineer, at (910) 893-4020 for inspection. Please provide at least 24 hours advance notice for inspection.**
- **Any drainage pipe shall be constructed with Division 3 of the latest NCDOT Standard Specifications for Roads and Structures and Amendments or Supplementals thereto and shall bear the stamp of approval by the NCDOT Materials and Tests Unit.**
- Trenching, bore pits and/or other excavations shall not be left overnight. The contractor shall comply with all OSHA requirements and provide a competent person on site to supervise excavation at all times.
- Excavated areas adjacent to pavement having more than a 2" drop shall be safed up at a 6:1 or flatter slope and designated by appropriate delineation during periods of inactivity, including, but not limited to, night and weekend hours. Excavated material shall not be placed on the roadway at any time.

Pavement Markings, Markers and Signing

- The Permittee shall be responsible for the removal, relocation, and / or installation of all pavement markings and NCDOT signs within the limits affected by the development. Pavement marking and signing plans shall be submitted to the District Engineer for approval prior to the installation of any signs and/or pavement markings.
- The Permittee has been approved to use NCDOT approved waterborne paint for all pavement markings (edge lines, lane lines and centerlines) on SR 1513 (Neills Creek Road) and thermoplastic pavement markings for all pavement markings (edge lines, lane lines and centerlines) and non-snowplowable markers on SR 1513 (Neills Creek Road). (The use of waterborne paint or thermoplastic pavement markings is to be determined according to the location of the site and AADT of the roadway).
- Pavement marking and marker changes shall be accomplished by completely covering the lines by means of asphalt overlaying or by an approved method of grinding. **In no case shall the application of liquid asphalt "tack" be accepted as an approved method for covering pavement markings.**
- All work performed under this section shall meet standards outlined in the current *Manual on Uniform Traffic Control Devices* (MUTCD) published by the Federal Highway Administration, NCDOT Supplement to the MUTCD, and the latest edition of the NCDOT *Roadway Standard Drawings*.

- The pavement marking contractor is required to have at least one member of every pavement marking crew that is working on the project, preferably the Crew Supervisor, be certified through the NCDOT Pavement Marking Technician Certification Process. For more information please contact the **Work Zone Traffic Control Unit** at (919) 773-2800 or <http://www.ncdot.org/doh/preconstruct/wztc/>”
- Prior to installing pavement markings, please contact Mr. Frank West, Division Traffic Engineer, shall be notified at (910) 364-0606 with the NCDOT Division Six Traffic Services Unit to review the proposed pavement-marking layout. This notification should take place a minimum of 48 hours in advance of the pavement marking installation.
- Failure to contact the Traffic Services Unit to review the pavement-marking layout prior to installation may result in the removal and reinstallation of the markings at the expense of the Permittee.

If additional information is required, please contact Mr. Lee R. Hines Jr., (Richie), PE, District Engineer, at (910) 364-0601.

Sincerely,



Lee R. Hines Jr. (Richie), PE
District Engineer

LRH:ecl

cc: Mr. Greg W. Burns, PE, Division Engineer
Mr. Keith Anderson, Highway Maintenance Engineer

APPLICATION IDENTIFICATION		N.C. DEPARTMENT OF TRANSPORTATION STREET AND DRIVEWAY ACCESS PERMIT APPLICATION
Driveway Permit No.	Date of Application <u>11-14-18</u>	
County: Harnett		
Development Name: Clovelly Solar		

LOCATION OF PROPERTY:

Route/Road: SR-1513 (Neills Creek Rd)

Exact Distance 1.3 Miles Feet N S E W

From the Intersection of Route No. SR-1516 (Old Coats Rd) and Route No. SR-1513 (Neills Creek Rd) Toward US-421

Property Will Be Used For: Residential /Subdivision Commercial Educational Facilities TND Emergency Services Other

Property: is is not within Lillington City Zoning Area.

AGREEMENT

- I, the undersigned property owner, request access and permission to construct driveway(s) or street(s) on public right-of-way at the above location.
- I agree to construct and maintain driveway(s) or street entrance(s) in absolute conformance with the current "Policy on Street and Driveway Access to North Carolina Highways" as adopted by the North Carolina Department of Transportation.
- I agree that no signs or objects will be placed on or over the public right-of-way other than those approved by NCDOT.
- I agree that the driveway(s) or street(s) will be constructed as shown on the attached plans.
- I agree that that driveway(s) or street(s) as used in this agreement include any approach tapers, storage lanes or speed change lanes as deemed necessary.
- I agree that if any future improvements to the roadway become necessary, the portion of driveway(s) or street(s) located on public right-of-way will be considered the property of the North Carolina Department of Transportation, and I will not be entitled to reimbursement or have any claim for present expenditures for driveway or street construction.
- I agree that this permit becomes void if construction of driveway(s) or street(s) is not completed within the time specified by the "Policy on Street and Driveway Access to North Carolina Highways".
- I agree to pay a \$50 construction inspection fee. Make checks payable to NCDOT. This fee will be reimbursed if application is denied.
- I agree to construct and maintain the driveway(s) or street(s) in a safe manner so as not to interfere with or endanger the public travel.
- I agree to provide during and following construction proper signs, signal lights, flaggers and other warning devices for the protection of traffic in conformance with the current "Manual on Uniform Traffic Control Devices for Streets and Highways" and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the District Engineer.
- I agree to indemnify and save harmless the North Carolina Department of Transportation from all damages and claims for damage that may arise by reason of this construction.
- I agree that the North Carolina Department of Transportation will assume no responsibility for any damages that may be caused to such facilities, within the highway right-of-way limits, in carrying out its construction.
- I agree to provide a Performance and Indemnity Bond in the amount specified by the Division of Highways for any construction proposed on the State Highway system.
- The granting of this permit is subject to the regulatory powers of the NC Department of Transportation as provided by law and as set forth in the N.C. Policy on Driveways and shall not be construed as a contract access point.
- I agree that the entire cost of constructing and maintaining an approved private street or driveway access connection and conditions of this permit will be borne by the property owner, the applicant, and their grantees, successors, and assignees.
- **I AGREE TO NOTIFY THE DISTRICT ENGINEER WHEN THE PROPOSED WORK BEGINS AND WHEN IT IS COMPLETED.**

SIGNATURES OF APPLICANT

PROPERTY OWNER (APPLICANT)
NAME Lewis David Johnson Jr.
SIGNATURE
ADDRESS 4005 Daytona Dr.
Fayetteville, NC 28311 Phone No. 910-709-9433

WITNESS
NAME Joseph Lee Murray Johnson
SIGNATURE
ADDRESS 4005 Daytona Dr
Fayetteville NC 28311

AUTHORIZED AGENT
COMPANY Cypress Creek EPC, LLC
SIGNATURE Kirk Kieffer
ADDRESS 601-A West Main Street
Carrboro, NC 27510 Phone No. 919-240-4815

WITNESS
NAME Kimberly Brooks
SIGNATURE
ADDRESS 601-A W. Main St.
Carrboro, NC 27510

APPROVALS

APPLICATION RECEIVED BY DISTRICT ENGINEER

SIGNATURE DATE

APPLICATION APPROVED BY LOCAL GOVERNMENTAL AUTHORITY (when required)

SIGNATURE TITLE DATE

APPLICATION APPROVED BY NCDOT

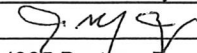
DE 11-14-18
SIGNATURE TITLE DATE

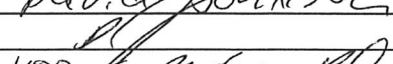
INSPECTION BY NCDOT

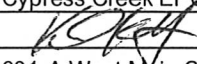
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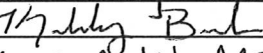
COMMENTS:

SIGNATURES OF APPLICANT

PROPERTY OWNER (APPLICANT)
NAME Jonathan Murray Johnson
SIGNATURE 
ADDRESS 4005 Daytona Dr.
Fayetteville, NC 28311 Phone No. 910-709-9433

WITNESS
NAME David Johnson
SIGNATURE 
ADDRESS 4005 Daytona Dr
Fayetteville NC 28311

AUTHORIZED AGENT
COMPANY Cypress Creek EPC, LLC
SIGNATURE  Kirk Kieffer
ADDRESS 601-A West Main Street
Carrboro, NC 27510 Phone No. 919-240-4815

WITNESS
NAME Kimberly Brooks
SIGNATURE 
ADDRESS 601-A W. Main St.
Carrboro, NC 27510

APPROVALS


APPLICATION RECEIVED BY DISTRICT ENGINEER

SIGNATURE DATE

APPLICATION APPROVED BY LOCAL GOVERNMENTAL AUTHORITY (when required)

SIGNATURE TITLE DATE

APPLICATION APPROVED BY NCDOT

 ^{ECC}
SIGNATURE DE TITLE 11-14-18 DATE

INSPECTION BY NCDOT

SIGNATURE TITLE DATE

COMMENTS:

SIGNATURES OF APPLICANT

PROPERTY OWNER (APPLICANT)		WITNESS	
NAME	Dorothy B. Page	NAME	Janet Gay
SIGNATURE	<i>Dorothy B. Page</i>	SIGNATURE	<i>Janet Gay</i>
ADDRESS	1955 Neills Creek Rd. Lillington, NC 27546	ADDRESS	15521 River Bend Trail Lanexa VA 23089
	Phone No. 910-893-3912		

AUTHORIZED AGENT		WITNESS	
COMPANY	Cypress Creek EPC, LLC	NAME	Kimberly Brooks
SIGNATURE	<i>Kirk Kietfer</i>	SIGNATURE	<i>Kimberly Brooks</i>
ADDRESS	601-A West Main Street Carrboro, NC 27510	ADDRESS	601-A W. Main St Carrboro, NC 27510
	Phone No. 919-240-4815		

APPROVALS

APPLICATION RECEIVED BY DISTRICT ENGINEER

SIGNATURE DATE

APPLICATION APPROVED BY LOCAL GOVERNMENTAL AUTHORITY (when required)

SIGNATURE TITLE DATE

APPLICATION APPROVED BY NCDOT

Tim R. Smith ^{ECL}

SIGNATURE TITLE DATE

DE 11-14-18

INSPECTION BY NCDOT

SIGNATURE TITLE DATE

COMMENTS:

TRAFFIC CONTROL AND WORK ZONE SAFETY

The Contractor shall maintain traffic during construction and provide, install, and maintain all traffic control devices in accordance with these project guidelines, the Project Special Provisions, North Carolina Department of Transportation Standard Specifications for Roads and Structures 2018, and the current edition of the Manual of Uniform Traffic Control Devices (MUTCD).

The Contractor shall utilize complete and proper traffic controls and traffic control devices during all operations. All traffic control and traffic control devices required for any operation shall be functional and in place prior to the commencement of that operation. Signs for temporary operations shall be removed during periods of inactivity. The Contractor is required to leave the project in a manner that will be safe to the traveling public and which will not impede motorists.

Traffic movements through lane closures on roads with two way traffic shall be controlled by flaggers stationed at each end of the work zone. In situations where sight distance is limited, the Contractor shall provide additional means of controlling traffic, including, but not limited to, two-way radios, pilot vehicles, or additional flaggers. Flaggers shall be competent personnel, adequately trained in flagging procedures, and furnished with proper safety devices and equipment, including, but not limited to, safety vests and stop/slow paddles.

All personnel when working in traffic areas or areas in close proximity to traffic shall wear an approved safety vest, or shirt or jacket which meets the color requirements of the Manual of Uniform Traffic Control Devices (MUTCD).

The Contractor shall comply with all applicable Federal, State, and local laws, ordinances, and regulations governing safety, health, and sanitation, and shall provide all safeguards, safety devices, and protective equipment, and shall take any other needed actions, on his own responsibility that are reasonably necessary to protect the life and health of employees on the job and the safety of the public, and to protect property in connection with the performance of the work covered by the contract.

Failure to comply with any of the requirements for safety and traffic control of this contract shall result in suspension of work as provided in subarticle 108-7(2) of the Standard Specifications.

SPECIFICATIONS FOR EROSION CONTROL

The Contractor shall seed all disturbed areas as directed by the Engineer, in accordance with Section 1660 of the Standard Specifications. Seeding and mulching shall immediately follow shoulder construction operations and in no case shall shoulder construction operations exceed seeding and mulching operations by more than two weeks without written permission of the Engineer. Failure to meet this requirement shall be cause to cease all operations until it can be met.

Seeding and Mulching: (East)

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined by the Engineer. All rates are in pounds per acre.

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

All Roadway Areas

March 1 - August 31		September 1 - February 28	
50#	Tall Fescue	50#	Tall Fescue
10#	Centipede	10#	Centipede
25#	Bermudagrass (hulled)	35#	Bermudagrass (unhulled)
500#	Fertilizer	500#	Fertilizer
4000#	Limestone	4000#	Limestone

Waste and Borrow Locations

March 1 - August 31		September 1 - February 28	
75#	Tall Fescue	75#	Tall Fescue
25#	Bermudagrass (hulled)	35#	Bermudagrass (unhulled)
500#	Fertilizer	500#	Fertilizer
4000#	Limestone	4000#	Limestone

Note: 50# of Bahiagrass may be substituted for either Centipede or Bermudagrass only upon Engineer's request.

Approved Tall Fescue Cultivars

2 nd Millennium	Duster	Magellan	Rendition
Avenger	Endeavor	Masterpiece	Scorpion
Barlexas	Escalade	Matador	Shelby
Barlexas II	Falcon II, III, IV & V	Matador GT	Signia
Barrera	Fidelity	Millennium	Silverstar
Barrington	Finesse II	Montauk	Southern Choice II
Biltmore	Firebird	Mustang 3	Stetson
Bingo	Focus	Olympic Gold	Tarheel
Bravo	Grande II	Padre	Titan Ltd
Cayenne	Greenkeeper	Paraiso	Titanium
Chapel Hill	Greystone	Picasso	Tomahawk
Chesapeake	Inferno	Piedmont	Tacer
Constitution	Justice	Pure Gold	Trooper
Chipper	Jaguar 3	Prospect	Turbo
Coronado	Kalahari	Quest	Ultimate
Coyote	Kentucky 31	Rebel Exeda	Watchdog
Davinci	Kitty Hawk	Rebel Sentry	Wolfpack
Dynasty	Kitty Hawk 2000	Regiment II	
Dominion	Lexington	Rembrandt	

On cut and fill slopes 2:1 or steeper Centipede shall be applied at the rate of 5 pounds per acre and add 20# of Sericea Lespedeza from January 1 - December 31.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

All areas seeded and mulched shall be tacked with asphalt. Crimping of straw in lieu of asphalt tack shall not be allowed on this project.

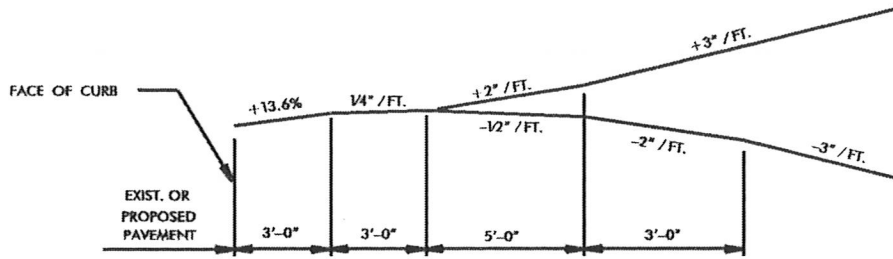
CRIMPING STRAW MULCH

Crimping shall be required on this project adjacent to any section of roadway where traffic is to be maintained or allowed during construction. In areas within six feet of the edge of pavement, straw is to be applied and then crimped. After the crimping operation is complete, an additional application of straw shall be applied and immediately tacked with a sufficient amount of undiluted emulsified asphalt.

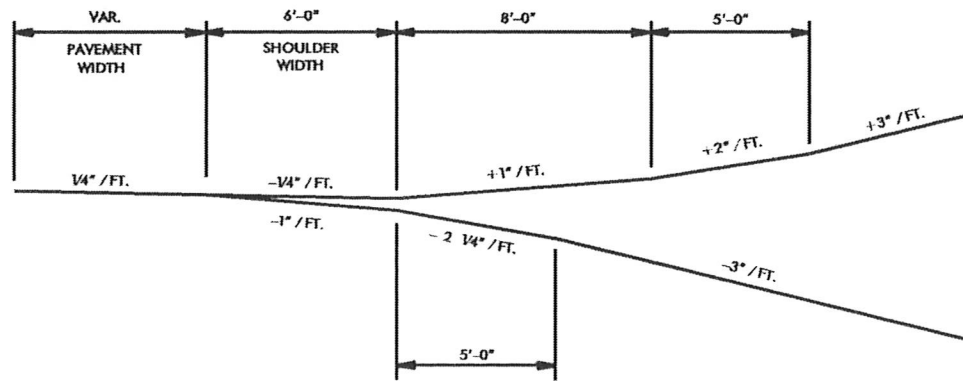
Straw mulch shall be of sufficient length and quality to withstand the crimping operation.

Crimping equipment including power source shall be subject to the approval of the Engineer providing that maximum spacing of crimper blades shall not exceed 8".

Within seven (7) calendar days to fourteen (14) calendar days of completion of any phase of grading, all disturbed areas shall be planted or otherwise provided with temporary or permanent ground cover, devices, or structures sufficient to restrain erosion. The Erosion and Sediment Control plan will identify the areas that require seven (7) and/or fourteen (14) calendar day ground stabilization. The Contractor is herein advised to follow all current regulations set forth by the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Water Quality (DWQ) as defined in the *General Stormwater Permit for Construction Activities NCG-010000*.



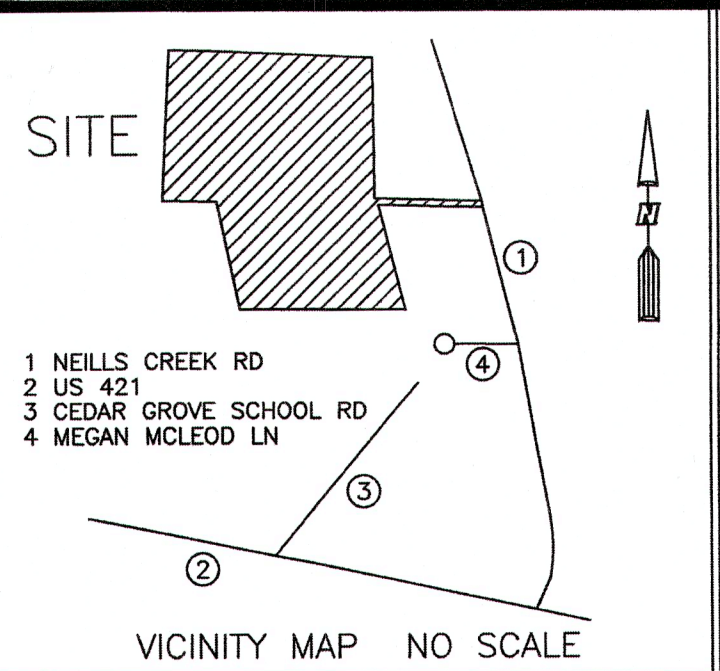
A. CURB & GUTTER SECTION



B. SHOULDER SECTION

FIGURE 6

DRIVEWAY TURNOUT GRADES



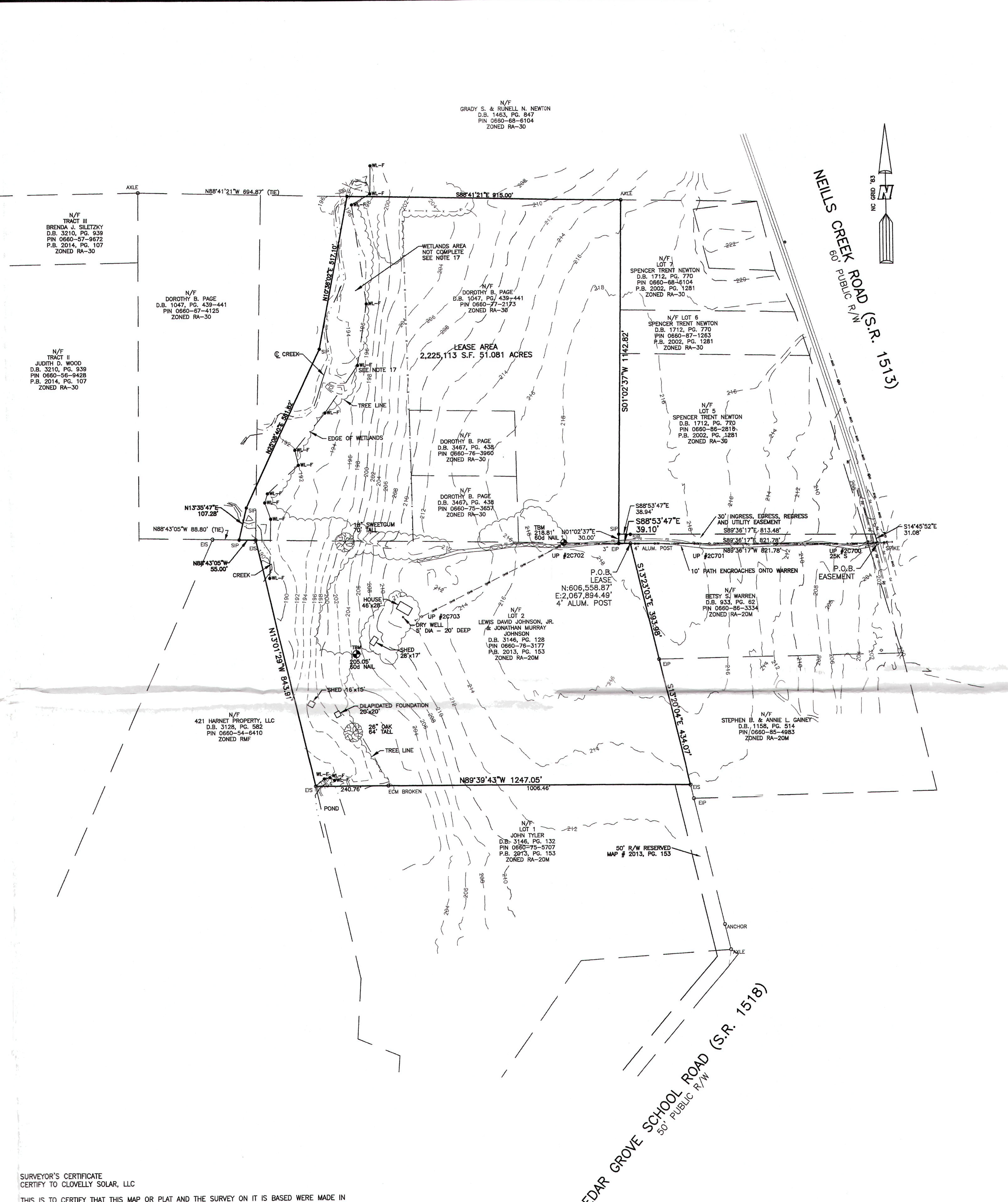
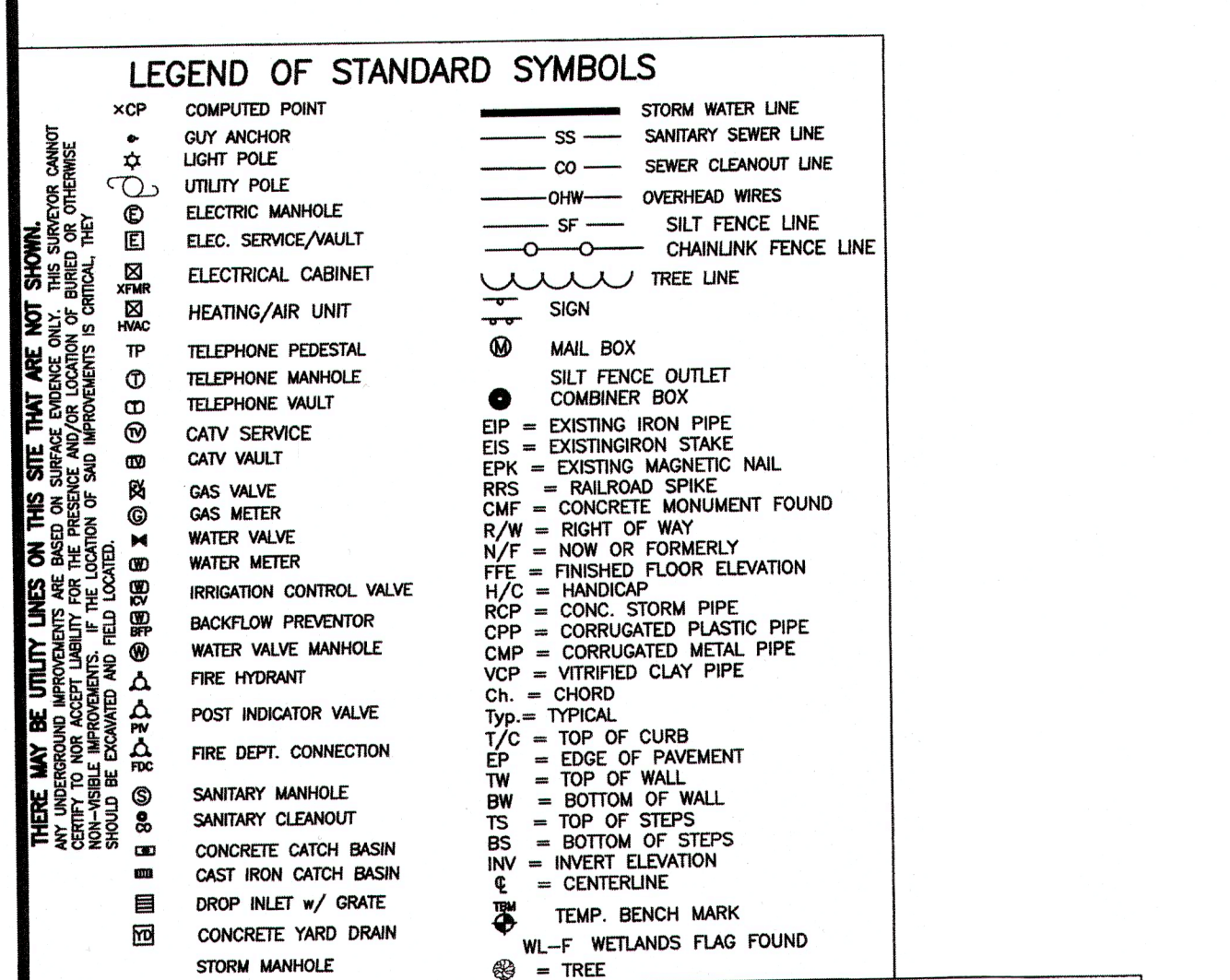
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DRIVEWAY PERMIT APPROVED

BY: *Ed Hill*

DATE: 11-14-18

ANY PARCELS OR EXCLUDED AREAS ARE TO BE SERVED INTERNALLY WITH NO ACCESS ONTO DEPARTMENTAL RIGHT OF WAY

- NOTES:
- ALL DISTANCES ARE N.C. GRID.
 - COMBINED SCALE FACTOR: 0.99987159
 - THE HORIZONTAL CONTROL FOR THIS SURVEY IS N.A.D. 83 (2011) AS ESTABLISHED USING THE NORTH CAROLINA GEODETIC SURVEY VIRTUAL REFERENCE SYSTEM, U.S. SURVEY FOOT, THE 95% ERROR ELLIPSES FOR THE SURVEY POINTS ARE N.0.05' AND E.0.05'.
 - THE VERTICAL CONTROL FOR THIS SURVEY IS N.A.V.D. 88 AS ESTABLISHED USING THE NORTH CAROLINA GEODETIC SURVEY VIRTUAL REFERENCE SYSTEM.
 - AREAS COMPUTED BY THE COORDINATE METHOD.
 - THE SURVEYOR RELIED UPON THE CITY OR COUNTY FOR COMPLIANCE WITH AND ENFORCEMENT OF ALL APPLICABLE ORDINANCES AND HAS MADE NO INTERPRETATIONS OF THE ORDINANCES.
 - THE WETLAND DELINEATION WAS PROVIDED BY: PILOT ENVIRONMENTAL, INC. DATED: JUNE 13, 2016. P.O. BOX 128, KERNERSVILLE, N.C. 27285. PHONE: 336-310-4527. IN ADDITION, JURISDICTIONAL WATERS AND WETLANDS APPEAR TO BE PRESENT UPON THE PARENT TRACT PER UNITED STATES ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT JURISDICTIONAL DETERMINATION ACTION ID, SAW-2015-01919 OF WHICH REFERENCE TO IS HEREIN MADE. ONLY THE WETLANDS DELINEATION LINE IN PROXIMITY OF THE LEASE AREA WAS SURVEYED.
 - ACCORDING TO FEMA FLOOD INSURANCE RATE MAP COMMUNITY PANEL # 3720066000, EFFECTIVE DATE: OCTOBER 3, 2006, THIS PROPERTY LIES IN ZONE "X" AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
 - ZONING: RA-30 AND RA-20M, SEE NOTE 16.
 - THE SURVEYOR HEREIN RELIED UPON CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NUMBERS: 16-07754WS WITH REVISION ONE JUNE 5, 2017 FOR REFERENCE DATA, TITLE SOURCE AND TITLE EXCEPTIONS FOR USE DURING THIS ALTA/NSPS SURVEY.
 - SUB-SURFACE UTILITY MARKING PROVIDED BY: SUPERIOR LOCATE, INC. P.O. BOX 167, SEDALIA, NORTH CAROLINA 27342. PHONE: 336-686-5129. THE SURVEYOR HEREIN DID NOT CONDUCT A BOUNDARY SURVEY OF THE PARENT TRACT IN CONJUNCTION WITH THIS EXHIBIT. ALL BOUNDARY LINES ARE SHOWN PER MAPS AND DEEDS REFERENCED HEREON, ORIENTED TO BEST FIT PROPERTY MONUMENTATION RECOVERED AS SHOWN.
 - PROPERTY LINES NOT SURVEYED IN CONJUNCTION WITH THE PRESENT MAPPING ARE SHOWN AS DASHED LINES.
 - THIS IS A SURVEY PREPARED FOR PURPOSES OF LOCATING AND DESCRIBING A LEASE AREA, WHICH HAS BEEN PREVIOUSLY SEPARATELY DESCRIBED IN DOCUMENTS CONVEYING AN INTEREST IN THE PARENT PARCEL.
 - PORTION OF PIN 212401043
 - ALTA/NSPS TABLE A:
 - ITEM 6(a)&(b) - BASED UPON THE HARNETT COUNTY UNIFIED DEVELOPMENT ORDINANCE THE SETBACKS ARE RA-20M AND RA-30
 - CLASSIFICATION IS RESIDENTIAL - AGRICULTURE (RA-20M AND RA-30)
 - SETBACKS ARE: FRONT 35', REAR 25', SIDE 10' AND CORNER SIDE 20'
 - BUILDING HEIGHTS RESTRICTED TO 35'
 - ITEM 7(b)(1)&(c) - BUILDINGS AS SHOWN
 - ITEM 16 - NONE OBSERVED
 - ITEM 20 - PROFESSIONAL LIABILITY INSURANCE IS IN EFFECT
 - WETLANDS DETERMINED AND LOCATED BY PILOT ENVIRONMENTAL AND FOUND DURING THE COURSE OF THIS SURVEY ARE DESIGNATED AS "W-L-F". MOST OF THE LOCATION FLAGS WERE NOT FOUND AND FLAGS THAT WERE FOUND WERE OLD SUCH THAT THE NUMBER COULD NOT BE DETERMINED.
 - TOPO IS NOT UP TO ALTA STANDARDS.
- REFERENCES:
- (SEE NOTE 10)
- D.B. 1047, PG. 439-441
 D.B. 3467, PG. 438-440
 D.B. 3146, PG. 128-131
 B.M. 98, PG. 472
 B.M. 2002, PG. 1281
 B.M. 2013, PG. 153



SURVEYOR'S CERTIFICATE
 CERTIFY TO CLOVELLY SOLAR, LLC

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS AND INCLUDES ITEMS 1, 2, 3, 4, 6(a), 6(c), 7(a), 7(b)(1), 7(c), 8, 9, 10(a)(1), 11, 13, 14, 16, 17, 19 AND 20 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JUNE 15 2017.

ITEM 11: PER REVISION 3 POST CONSTRUCTION AS BUILT; UNDERGROUND UTILITY MARKINGS WERE NOT PROVIDED POST CONSTRUCTION. THOSE SHOWN HEREIN AS UNDERGROUND ARE PER PRECONSTRUCTION UNDERGROUND MARKINGS THAT WERE PROVIDED TO THE SURVEYOR HEREIN.

DATE OF PLAT OR MAP: *June 23 2017*

Ch.P.
 CHARLES R. PIRATZKY
 6-23-17
 DATED



- Chicago Title Insurance Company ALTA Commitment Form
 Commitment Number: 16-07754WS Revision One (6/5/2017)
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 ALTA Commitment Form (06-17-06) Printed: 06-05-17 @ 01:16 PM
 1010460024.doc / Updated: 06-26-13 Page 9 NC-CI-FSAC-01080.365388-16-07754WS
 SCHEDULE B - SECTION II
 EXCEPTIONS
 Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company:
- DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTER, IF ANY, CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT.
 NOTE: THE ABOVE EXCEPTION WILL BE DELETED ONCE TITLE IS UPDATED, WITH NO NEW MATTERS REVEALED, AT THE TIME OF RECORDING AND ALL SCHEDULE B - SECTION I REQUIREMENTS HAVE BEEN MET.
 - TAXES OR ASSESSMENTS FOR THE YEAR 2016, AND SUBSEQUENT YEARS, NOT YET DUE OR PAYABLE.
 NOT A SURVEY MATTER
 - ALL DEFERRED TAXES. (APPLIES TO TRACTS ONE AND THREE AND EASEMENT AREA)
 NOT A SURVEY MATTER
 - THE CORRECTNESS OF THE SQUARE FOOTAGE/ACREAGE COMPUTATION CONTAINED IN THE DESCRIPTION OF THE LAND IS NOT INSURED.
 SEE SURVEY
 - ANY DISCREPANCY, CONFLICT, ACCESS, SHORTAGE IN AREA OR BOUNDARY LINES, ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OVERLAP, SETBACK, EASEMENT OR CLAIMS OF EASEMENT, RIPARIAN RIGHT, AND TITLE TO LAND WITHIN ROADS, WAYS, RAILROADS, WATERCOURSES, BURIAL GROUNDS, MARSHES, DREDED OR FILLED AREAS OR LAND BELOW THE MEAN HIGHWATER MARK OR WITHIN THE BOUNDS OF ANY ADJOINING BODY OF WATER, OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY A CURRENT INSPECTION AND ACCURATE AND COMPLETE LAND SURVEY OF THE LAND.
 PATH ENCROACHES SEE SURVEY
 - TERMS AND PROVISIONS OF THE LEASE BY AND BETWEEN DOROTHY B. PAGE (TRACTS ONE AND TWO) AND LEWIS DAVID JOHNSON, JR., AND JONATHAN MURRAY JOHNSON (TRACT THREE) AND THEIR RESPECTIVE SPOUSES, IF ANY AND CLOVELLY SOLAR, LLC A NORTH CAROLINA LIMITED LIABILITY COMPANY, A MEMORANDUM OF WHICH IS RECORDED IN BOOK _____ PAGE _____ HARNETT COUNTY REGISTRY.
 NOT A SURVEY MATTER
 - ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIALS HERETOFORE OR HEREAFTER FURNISHED, PERFORMED BY, THROUGH, WITH, OR AT THE DIRECTION OF THE INSURED OR ITS AFFILIATES, OR FURNISHED OR PERFORMED UNDER CONTRACTS BY THROUGH, OR WITH THE INSURED OR ITS AFFILIATES.
 NOT A SURVEY MATTER
 - DEED OF EASEMENT RECORDED IN BOOK 1308, PAGE 785, HARNETT COUNTY REGISTRY. (APPLIES TO TRACT ONE OF LEASE AREA)
 SEE SURVEY
 - ACCESS IS AVAILABLE ONLY BY WAY OF THAT DEED OF EASEMENT RECORDED IN BOOK 1308, PAGE 783 AND AS SHOWN ON MAP NO. 98-472, HARNETT COUNTY REGISTRY. (APPLIES TO TRACT ONE OF LEASE AREA)
 SEE SURVEY
 - EASEMENTS TO CAROLINA POWER & LIGHT COMPANY RECORDED IN BOOK 474, PAGE 155, BOOK 481, PAGE 280 AND BOOK 580, PAGE 88, HARNETT COUNTY REGISTRY. (APPLIES TO TRACT ONE AND TWO OF LEASE AREA)
 BLANKET EASEMENTS
 - ANY RIGHT, EASEMENT, SETBACK, INTEREST, CLAIM, ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATIONS OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE DISCLOSED BY PLAT(S) RECORDED IN MAP NO. 98-472 (APPLIES TO TRACTS ONE AND TWO OF LEASE AREA)
 SEE SURVEY
 - ACCESS IS AVAILABLE ONLY BY WAY OF THOSE DEEDS OF EASEMENT RECORDED IN BOOK 1308, PAGE 783 AND BOOK 1308, PAGE 785 AND AS SHOWN ON MAP NO. 98-472, HARNETT COUNTY REGISTRY. (APPLIES TO TRACT TWO OF LEASE AREA)
 SEE SURVEY
 - ANY RIGHT, EASEMENT, SETBACK, INTEREST, CLAIM, ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATIONS OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE DISCLOSED BY PLAT(S) RECORDED IN MAP NO. 2013-153. (APPLIES TO TRACT THREE OF LEASE AREA)
 SEE SURVEY
 - ACCESS IS AVAILABLE ONLY BY WAY OF EASEMENT OVER TRACT ONE AS SHOWN ON MAP NO. 2013-153, HARNETT COUNTY REGISTRY. (APPLIES TO TRACT THREE OF LEASE AREA)
 SEE SURVEY
 - TERMS AND PROVISIONS OF THE EASEMENT BY AND BETWEEN SPENCER TRENT NEWTON AND SPOUSE, IF ANY AND CLOVELLY SOLAR, LLC A NORTH CAROLINA LIMITED LIABILITY COMPANY RECORDED IN BOOK _____ PAGE _____ HARNETT COUNTY REGISTRY.
 - EASEMENTS TO CAROLINA POWER & LIGHT COMPANY RECORDED IN BOOK 308, PAGE 114, BOOK 431, PAGE 75 AND BOOK 958, PAGE 86, ALL IN HARNETT COUNTY REGISTRY. (APPLIES TO EASEMENT AREA ONLY)
 BLANKET EASEMENTS
 - RURAL LINE PERMIT TO CAROLINA TELEPHONE AND TELEGRAPH COMPANY RECORDED IN BOOK 08, HARNETT COUNTY REGISTRY. (APPLIES TO EASEMENT AREA ONLY)
 BLANKET EASEMENT
 - ANY RIGHT, EASEMENT, SETBACK, INTEREST, CLAIM, ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATIONS OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE DISCLOSED BY PLAT(S) RECORDED ON MAP NO. 2002-1281 AND PLAT CABINET E, SLIDE 121-D, HARNETT COUNTY REGISTRY. (APPLIES TO EASEMENT AREA ONLY)
- END OF SCHEDULE B - SECTION II

LAND DESCRIPTION

BEGINNING AT A 4' TALL ALUMINUM POST IN THE NORTHWEST CORNER OF LAND DESCRIBED IN D.B. 933 PG. 62 OF THE HARNETT COUNTY REGISTER OF DEEDS STANDING IN THE NAME OF BETSY S. WARREN, AT THE NORTHEAST CORNER OF LOT 2, JOHNSON FARMS, INC. RECORDED IN P.B. 2013 PG. 153 AND DESCRIBED IN D.B. 3146 PG. 128 STANDING IN THE NAME OF LEWIS AND JONATHAN JOHNSON AND IN THE SOUTHERN LINE LOT 5 OF PARKER'S PLACE MINOR SUBDIVISION IN P.B. 2002 PG. 1281 IN THE NAME OF SPENCER TRENT NEWTON RECORDED IN D.B. 1712 PG. 770 AND, HAVING STATE PLANE COORDINATES OF N: 806,558.87' AND E: 2,067,894.49' SAID POST BEING N 89°36'17" W A DISTANCE OF 821.78' FROM A SPIKE FOUND IN THE CENTERLINE OF NEILLS CREEK ROAD (NCSR 1513) AND RUNS FROM SAID POINT OF BEGINNING;

THENCE S13°23'03"E A DISTANCE OF 393.98' WITH THE COMMON LINE OF WARREN AND JOHNSON TO AN EIP IN THE NORTHERN LINE OF LANDS OF STEPHEN AND ANNIE GAINY RECORDED IN D.B. 1158 PG. 514 AND RUNS;

THENCE S13°20'04"E A DISTANCE OF 434.07' WITH GAINY TO AN EIS IN THE NORTHERN LINE OF LOT 1 OF JOHNSON FARMS, INC., LANDS OF JOHN TYLER RECORDED IN D.B. 3146 PG. 132 AND SHOWN ON PLAT P.B. 2013 PG. 153 AND RUNS;

THENCE N 89°39'43" W 1247.05, CROSSING OVER A BROKEN CONCRETE MONUMENT AT 1,006.46', WITH LOT 1 TO AN EXISTING IRON STAKE IN THE EASTERN LINE OF LANDS OF 421 HARNETT PROPERTY, LLC RECORDED IN D.B. 3128 PG. 582 AND RUNS;

THENCE N13°01'29"W A DISTANCE OF 843.91' WITH THE LINE OF 421 HARNETT PROPERTY, LLC TO AN EXISTING IRON STAKE IN THE SOUTHERN LINE OF LANDS IN THE NAME OF DOROTHY B. PAGE DESCRIBED IN D.B. 1047 PGS. 439-441 AND RUNS WITH PAGE AND 421 HARNETT PROPERTY, LLC;

THENCE N13°35'47"E A DISTANCE OF 107.28' ALONG THE WESTERN LINE OF LEASE PROPERTY AND RUNS;

THENCE N88°43'05"W A DISTANCE OF 55.00' TO AN IRON PIPE SET IN THE WESTERN LEASE LINE TO AN IRON PIPE SET AND RUNS;

THENCE N25°08'40"E A DISTANCE OF 581.82' ALONG THE WESTERN LEASE LINE TO AN IRON PIPE SET AND RUNS;

THENCE N10°38'02"E A DISTANCE OF 517.10' ALONG THE WESTERN LEASE LINE TO AN IRON PIPE SET IN THE SOUTHERN LINE OF GRADY AND RUSSELL NEWTON RECORDED IN D.B. 1463 PG. 847 AND RUNS;

THENCE S88°41'2"E A DISTANCE OF 915.00' WITH NEWTON TO AN EXISTING AXLE IN THE WESTERN LINE OF SPENCER NEWTON RECORDED IN D.B. 1712 PG. 770, SAID PROPERTY BEING LOT 7 OF PARKER'S PLACE SUBDIVISION P.B. 2002 PG. 1281 AND RUNS;

THENCE S01°02'37"W A DISTANCE OF 1,142.82' WITH THE WESTERN LINE OF LOTS 7, 6 AND 5 OF P.B. 2002 PG. 1281 TO EXISTING IRON PIPE IN SAID NORTHERN LINE OF JOHNSON AND RUNS;

THENCE S88°53'47"E A DISTANCE OF 39.10' TO THE POINT AND PLACE OF BEGINNING AND CONTAINING 51.081 6 ACRES OR 2,225,113 SQUARE FEET TO BE THE SAME MORE OR LESS.

EASEMENT
 TOGETHER WITH A 30' WIDE INGRESS, EGRESS, REGRESS AND UTILITY EASEMENT EXTENDING FROM THE WESTERN RIGHT-OF-WAY OF NEILLS CREEK ROAD TO THE EASTERN LINE OF THE PREMISES DESCRIBED HEREIN AND IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:
 BEGINNING AT A SPIKE IN THE CENTERLINE OF NEILLS CREEK ROAD AT THE EASTERN CORNER OF THE SOUTHERN LINE OF LOT 5 OF PARKER'S PLACE SUBDIVISION RECORDED IN P.B. 2013 PG. 181 AND THE NORTHEAST CORNER OF LANDS OF BETSY S. WARREN RECORDED IN D.B. 933 PG. 62 AND RUNS;

THENCE N 89°36'17" W A DISTANCE OF 821.78' WITH THE COMMON LINE OF LOT 5 AND WARREN TO A 4' ALUMINUM POST AT THE COMMON CORNER OF LOT 5, WARREN AND LOT 2 OF JOHNSON FARMS, INC. SUBDIVISION RECORDED IN P.B. 2013 PG. 153 AND RUNS;

THENCE N88°53'47"W A DISTANCE OF 39.10' WITH THE COMMON LINE LOT 2 JOHNSON FARMS, INC. AND SAID LOT 5 TO AN EXISTING IRON PIPE AND RUNS;

THENCE N 01°02'37"E A DISTANCE OF 30.00' TO AN IRON PIPE SET IN THE WESTERN LINE OF SAID LOT 5 AND RUNS;

THENCE S 88°53'47" E A DISTANCE OF 38.94 TO AN IRON PIPE SET AND RUNS;

THENCE S 89°36'17" E A DISTANCE OF 813.48 TO A POINT IN THE CENTERLINE OF NEILLS CREEK ROAD AND RUNS;

THENCE S 14°45'52" E A DISTANCE OF 31.08' TO THE POINT AND PLACE OF BEGINNING.

Sacks Surveying & Mapping, P.C.

3308-B Edgefield Road (336) 931-0566
 Greensboro, NC 27409 FAX 931-0558

www.sackssurveying.com FIRM LIC # C-2741

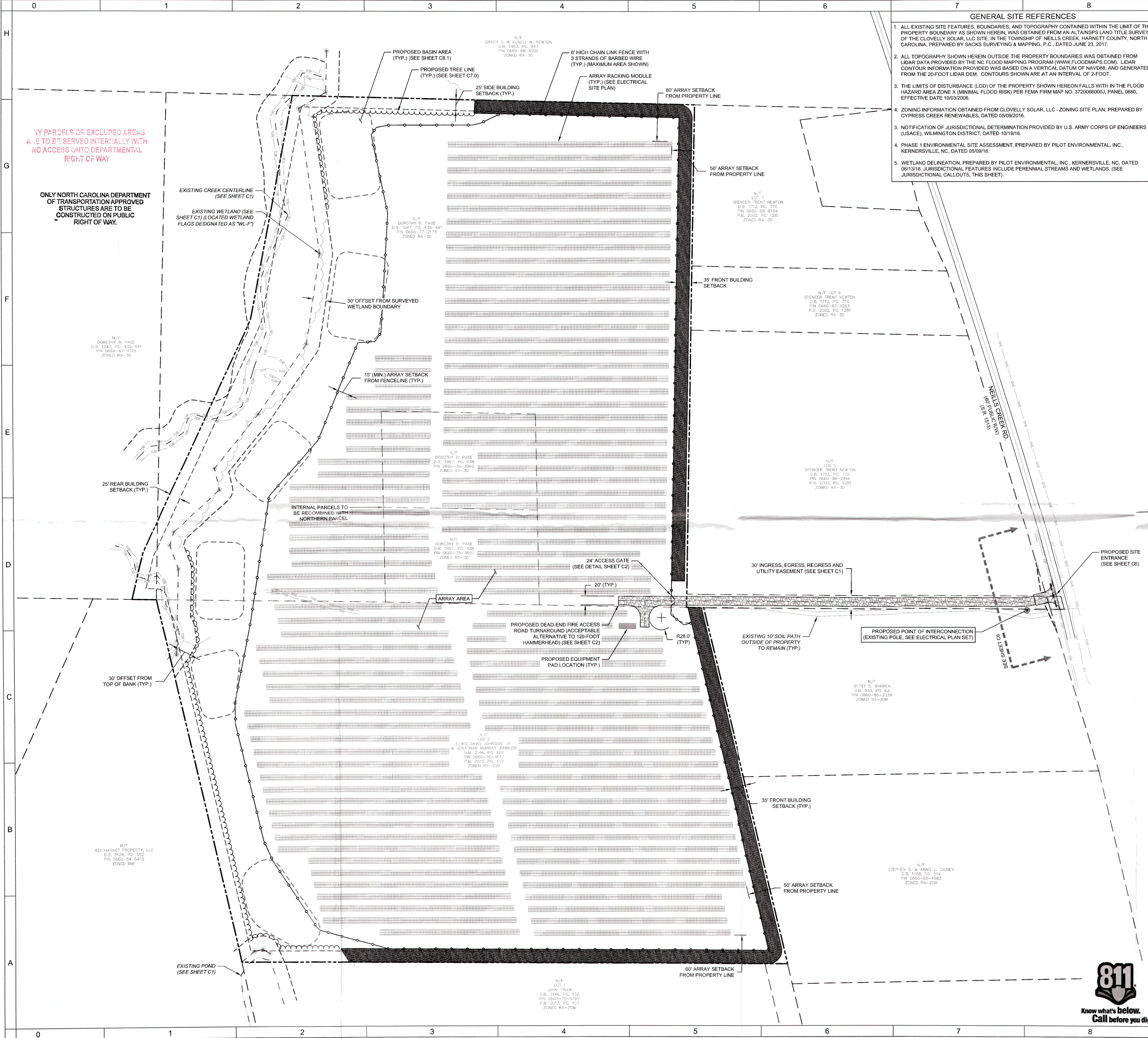
EXISTING CONDITIONS			
C1			
REVISED:	DATE: 06-22-17	ADDED TOPO	

ALTA/NSPS LAND TITLE SURVEY
 - prepared for -
 PROPERTY OF: DOGWOOD CREEK LAND HOLDINGS, LLC

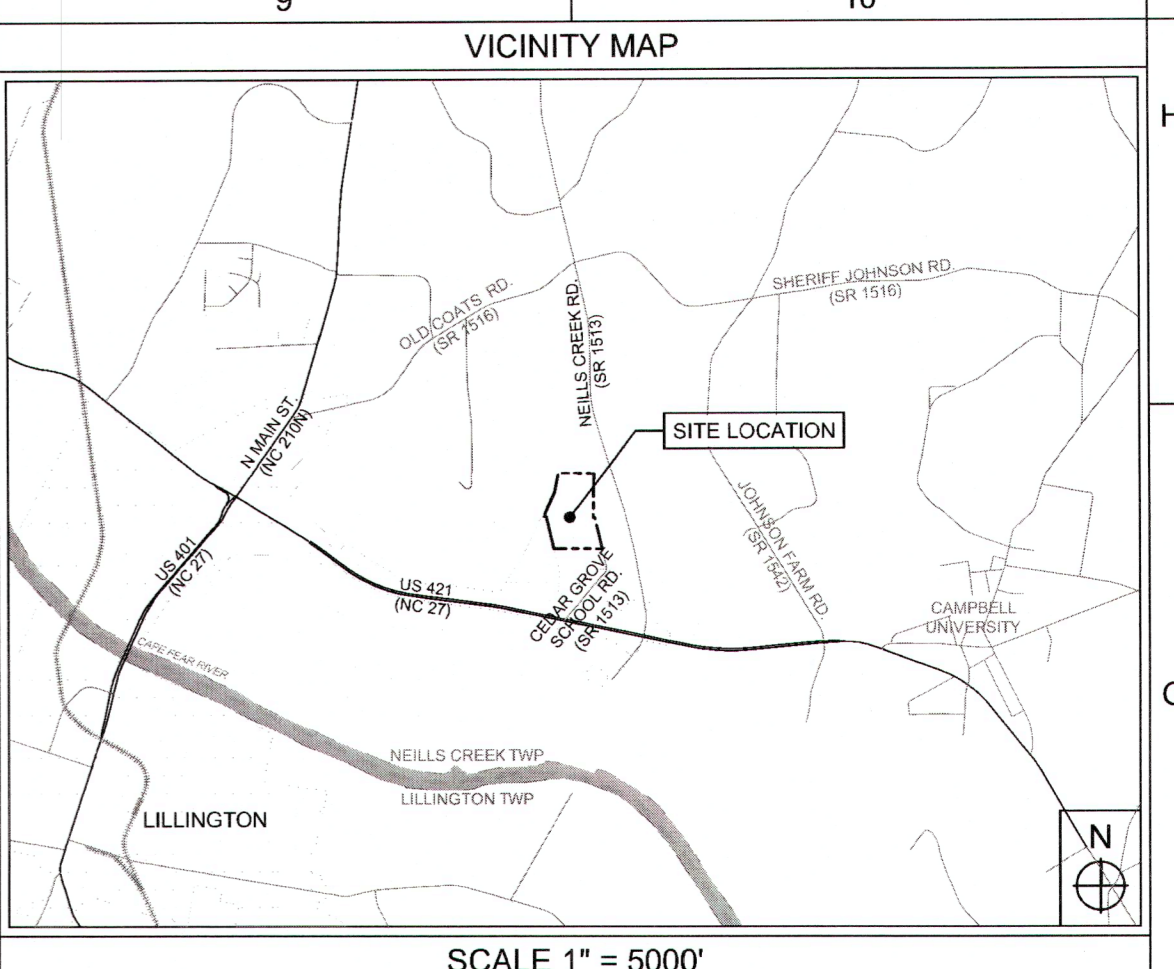
PROJECT: **CYPRESS CREEK RENEWABLES, LLC CLOVELLY**

NEILLS CREEK ROAD
 NEILLS CREEK TOWNSHIP, HARNETT COUNTY, NORTH CAROLINA

DRAWN BY: RAM	SHEET NAME:	SHEET NUMBER:
CHKD BY: CRP	ALTA/NSPS SURVEY	1 OF 1



- ### GENERAL SITE REFERENCES
1. ALL EXISTING SITE FEATURES, BOUNDARIES, AND TOPOGRAPHY CONTAINED WITHIN THE LIMIT OF THE PROPERTY BOUNDARY AS SHOWN HEREIN, WAS OBTAINED FROM AN ALTIMETRIC LAND TITLE SURVEY OF THE CLOVELLY SOLAR, LLC SITE, IN THE TOWNSHIP OF NEILLS CREEK, HARNETT COUNTY, NORTH CAROLINA, PREPARED BY SACKS SURVEYING & MAPPING, P.C., DATED JUNE 23, 2017.
 2. ALL TOPOGRAPHY SHOWN HEREIN OUTSIDE THE PROPERTY BOUNDARIES WAS OBTAINED FROM LIDAR DATA PROVIDED BY THE NC FLOOD MAPPING PROGRAM (WWW.FLOODMAPS.COM). LIDAR CONTOUR INFORMATION PROVIDED WAS BASED ON A VERTICAL DATUM OF NAVD83, AND GENERATED FROM THE 20-FOOT LIDAR DEM. CONTOURS SHOWN ARE AT AN INTERVAL OF 2-FOOT.
 3. THE LIMITS OF DISTURBANCE (LOD) OF THE PROPERTY SHOWN HEREON FALLS WITHIN THE FLOOD HAZARD AREA ZONE X (MINIMAL FLOOD RISK) PER FEMA FIRM MAP NO. 3720066000J, PANEL 0660, EFFECTIVE DATE 10/03/2006.
 4. ZONING INFORMATION OBTAINED FROM CLOVELLY SOLAR, LLC - ZONING SITE PLAN, PREPARED BY CYPRESS CREEK RENEWABLES, DATED 05/09/2016.
 5. NOTIFICATION OF JURISDICTIONAL DETERMINATION PROVIDED BY U.S. ARMY CORPS OF ENGINEERS (USACE), WILMINGTON DISTRICT, DATED 10/19/16.
 6. PHASE I ENVIRONMENTAL SITE ASSESSMENT, PREPARED BY PILOT ENVIRONMENTAL, INC., KERNERSVILLE, NC, DATED 05/09/16.
 7. WETLAND DELINEATION, PREPARED BY PILOT ENVIRONMENTAL, INC., KERNERSVILLE, NC, DATED 06/13/16. JURISDICTIONAL FEATURES INCLUDE PERENNIAL STREAMS AND WETLANDS. (SEE JURISDICTIONAL CALLOUTS, THIS SHEET).



SITE DATA

PIN #	DB/PG	ZONED	OWNER	OWNER ADDRESS
0660-77-2173	10477/438	RA-30	DOROTHY B. PAGE	1555 NEILLS CREEK RD, LILLINGTON, NC 27546
0660-76-3960	3467/438	RA-30	DOROTHY B. PAGE	
0660-76-3657	3467/438	RA-30	DOROTHY B. PAGE	
0660-76-3176	3146/128	RA-20M	LEWIS DAVID JOHNSON, JR. & JONATHAN MURRAY JOHNSON	4005 DAYTONA DR, FAYETTEVILLE, NC 28311

SITE ADDRESS	LAT/LONG	JURISDICTION	WATERSHED	RIVER BASIN
NEILLS CREEK ROAD, HARNETT CO., NC	35.4168 / -78.7739	HARNETT CO.	DRY CREEK	CAPE FEAR

CURRENT LAND USE	PROPOSED USE	DISTURBED AREA	ZONING	LEASE AREA
AGRICULTURAL	SOLAR ENERGY	47.2 AC	FIO-CD	± 49 AC

PER BA-CU-14-16 CUP APPROVED 08-09-15	REQUIRED	SELF-IMPOSED
PARCEL LINE SETBACKS	35 FT (FROM RW)	N/A
MIN. FRONT YARD	25 FT	N/A
MIN. SIDE YARD	25 FT	N/A
MIN. REAR YARD	25 FT	N/A

- ### GENERAL SITE NOTES
1. ALL RIGHT-OF-WAYS ARE PUBLIC, UNLESS NOTED OTHERWISE.
 2. COPIES OF ALL PERMITS AND APPROVED PLANS MUST BE KEPT ON-SITE IN A PERMIT BOX THAT IS CONSPICUOUSLY LOCATED AND EASILY ACCESSIBLE DURING CONSTRUCTION.
 3. A SEDIMENTATION & EROSION CONTROL PERMIT WILL BE OBTAINED FROM NCDCEQ.
 4. A DRIVEWAY PERMIT WILL BE APPROVED BY NCDOT PRIOR TO BEGINNING CONSTRUCTION. FINAL DRIVEWAY LOCATION(S) & REQUIREMENTS ARE SUBJECT TO PERMIT REVIEW AND APPROVAL.
 5. PROJECT AREA, INCLUDING CONSTRUCTION STAGING AREAS, WILL BE CLEARED AND GRUBBED AS NECESSARY. RETAINING PRE-DEVELOPMENT DRAINAGE PATTERNS (IE, NO MASS GRADING). A PORTION OF PROJECT AREAS MAY CONSIST OF TREE CLEARING ONLY (NO GRUBBING) TO ALLEVIATE SHADING OF THE ARRAY, AS INDICATED ON THE SITE PLAN. CONSTRUCTION STAGING AND AREAS SUBJECT TO RUTTING DURING CONSTRUCTION WILL BE TEMPORARILY STABILIZED WITH LOGGING MATS (WHICH WILL BE REMOVED FOLLOWING CONSTRUCTION) OR GRAVEL, WHICH WILL REMAIN AFTER CONSTRUCTION. SOIL CONDITIONS AND EQUIPMENT LOADS WILL DETERMINE FINAL DESIGN.
 6. ACCESS ISLES SHOWN ON THIS PLAN INDICATE CONSTRUCTION AND MAINTENANCE ACCESS POINTS FOR INGRESS/EGRESS PRIOR TO CONSTRUCTION. THESE ISLES ARE COMPACTED BY A SMOOTH DRUM OR SHEEPSFOOT ROLLER TO REDUCE/PREVENT RUTTING. SOIL ACCESS ISLES WILL BE SCARIFIED, AERATED, AND RE-SEED AFTER CONSTRUCTION. ACCESS ISLES TO INVERTERS MAY REQUIRE GRAVEL TO SUPPORT DELIVERY EQUIPMENT LOADS. FIRE MARSHALL MAY REQUIRE 20' GRAVEL DRIVE AROUND PERIMETER OF FENCED ARRAY AREA AFTER REVIEWING FINAL CONSTRUCTION DRAWINGS AND FIELD CONDITIONS. ACCESS ROADS SHALL BE CAPABLE OF SUPPORTING A VEHICLE GROSS WEIGHT OF 75,000 LBS.
 7. NO PERMANENT LIGHTING IS PROPOSED FOR THIS SITE.
 8. ONLY SITE SPECIFIC SIGNAGE IS ALLOWED. PROPOSED SIGNAGE SHALL BE ALUMINUM SIGNS ("DANGER - HIGH VOLTAGE" AND "DANGER - NO TRESPASSING") MEASURING 14" X 10" IN SIZE, WILL BE PLACED ON PERMANENT SECURITY FENCING, ALTERNATING EVERY 100' AROUND THE ARRAY.
 9. SITE ADDRESS NUMBER SHALL BE ON A SIGN AT LEAST 12" IN HEIGHT, IN A COLOR CONTRASTING WITH ITS BACKGROUND AND VISIBLE FROM THE ROADWAY.
 10. THE PHOTOVOLTAIC (PV) PANELS ARE TO BE LOCATED AND SITUATED SO GLARE DOES NOT CREATE A DISTRACTION OR NUISANCE TO TRAFFIC OR ADJACENT RESIDENTIAL PROPERTIES.
 11. SOLAR COMPONENTS MUST HAVE A UL LISTING, OR A LISTING FROM AN ALTERNATIVE TESTING AGENCY ACCEPTED BY THE LOCAL JURISDICTION HAVING AUTHORITY OVER THE PROJECT, AND MUST BE DESIGNED WITH ANTI-REFLECTIVE COATINGS(S).
 12. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE AND NORTH CAROLINA BUILDING CODE.
 13. NO STRUCTURE SHALL EXCEED A HEIGHT GREATER THAN FIFTEEN (15) FEET, EXCEPT FOR EXISTING POLES/OVERHEAD WIRING AND REQUIRED NEW INTERCONNECTION POLES REQUIRED BY UTILITY COMPANY AT POINT OF INTERCONNECTION. THIS IS MEASURED FROM FINISHED GRADE AT THE BASE OF THE STRUCTURE TO ITS HIGHEST POINT.
 14. THE ELECTRICAL DISCONNECT SWITCH SHALL BE CLEARLY IDENTIFIED AND UNOBSCTURED AT ALL TIMES. THE OWNER MUST FILE A MAP WITH THE TOWN OF GARNER PUBLIC SAFETY DEPARTMENT DEPICTING WHERE THE DISCONNECT SWITCH IS LOCATED, AND SUPPLY ALL EMERGENCY CONTACT INFORMATION TO EMERGENCY PERSONNEL TO HAVE ON FILE.
 15. ONE KNOX BOX SHALL BE OBTAINED FOR EACH OF THE ACCESS GATES INTO EACH OF THE ARRAY AREAS. THE LOCATION OF EACH BOX SHALL BE CLEARLY IDENTIFIED AND THE KEY FOR EACH GATE BE PLACED IN THE CORRESPONDING KNOX BOX. COMBINATION LOCKS ARE NOT ALLOWED.
 16. NCFE 503.1.1 - FIRE APPARATUS ROADS SHALL EXTEND INTO EACH SOLAR INSTALLATION AREA WITH APPROVED ACCESS OF NOT LESS THAN 20 FEET BETWEEN THE FENCE AND BEGINNING OF EACH ROW OF SOLAR PANELS. THIS SHALL EXTEND FROM THE BEGINNING OF THE GATE, AROUND TO ALL FOUR (4) SIDES OF SOLAR FARM, BACK TO THE BEGINNING ENTRANCE.

LEGEND

EXISTING CONDITIONS	PROPOSED CONDITIONS
100 YR FLOODPLAIN	BASIN AREA
BUILDING SETBACK	GRAVEL ACCESS
OVERHEAD ELECTRICAL	TREELINE
TREELINE	OVERHEAD ELECTRICAL
MAJOR CONTOURS	PROPERTY LINE
MINOR CONTOURS	SECURITY FENCE
PROPERTY BOUNDARY	VEGETATIVE BUFFER
PROPERTY (ADJOINER)	EASEMENT/BUFFER OFFSET
RIGHT-OF-WAY	
DITCH/STREAM	
WETLAND	

GRAPHIC SCALE

1" = 100'

NORTH

CYPRESS CREEK RENEWABLES

3250 OCEAN PARK BLVD., SUITE 355, SANTA MONICA, CA 90405
445 BUSH ST., 8TH FLOOR, SAN FRANCISCO, CA 94108
601-A WEST MAIN ST., CARBORO, NC 27510
130 ROBERTS ST., ASHEVILLE, NC 28801

CYPRESS CREEK EPC, LLC

601-A WEST MAIN STREET
CARBORO, NORTH CAROLINA 27510
(919) 240-4815 NC LICENSE: D-0383

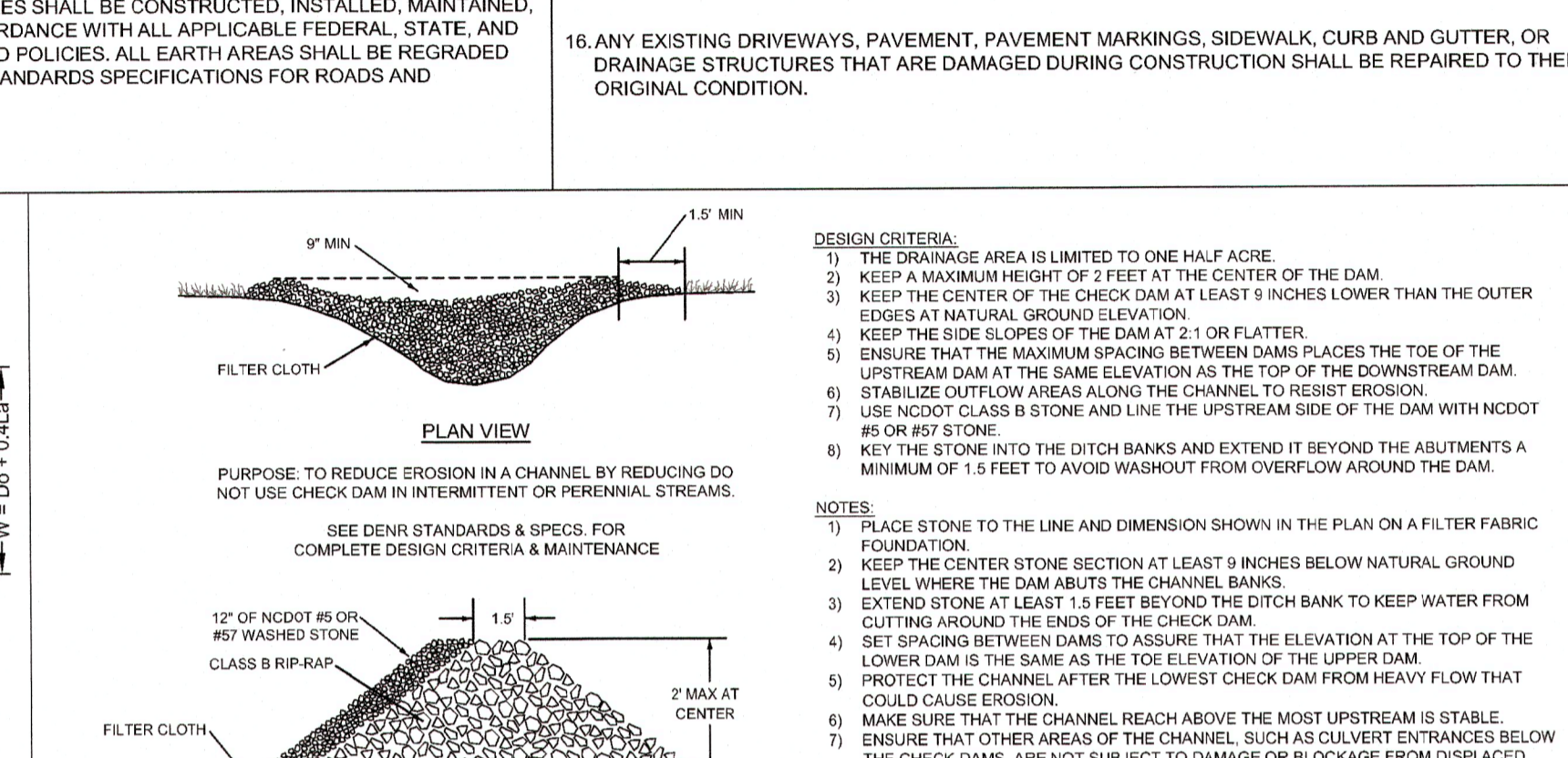
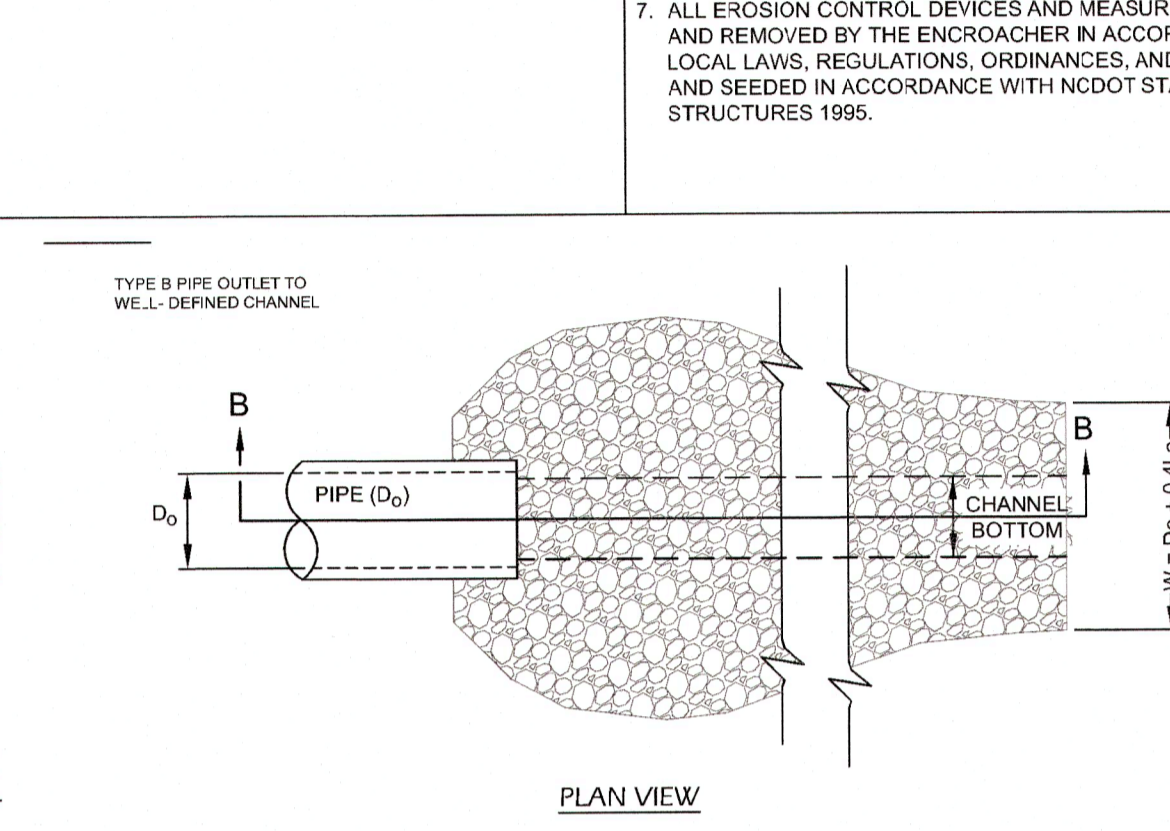
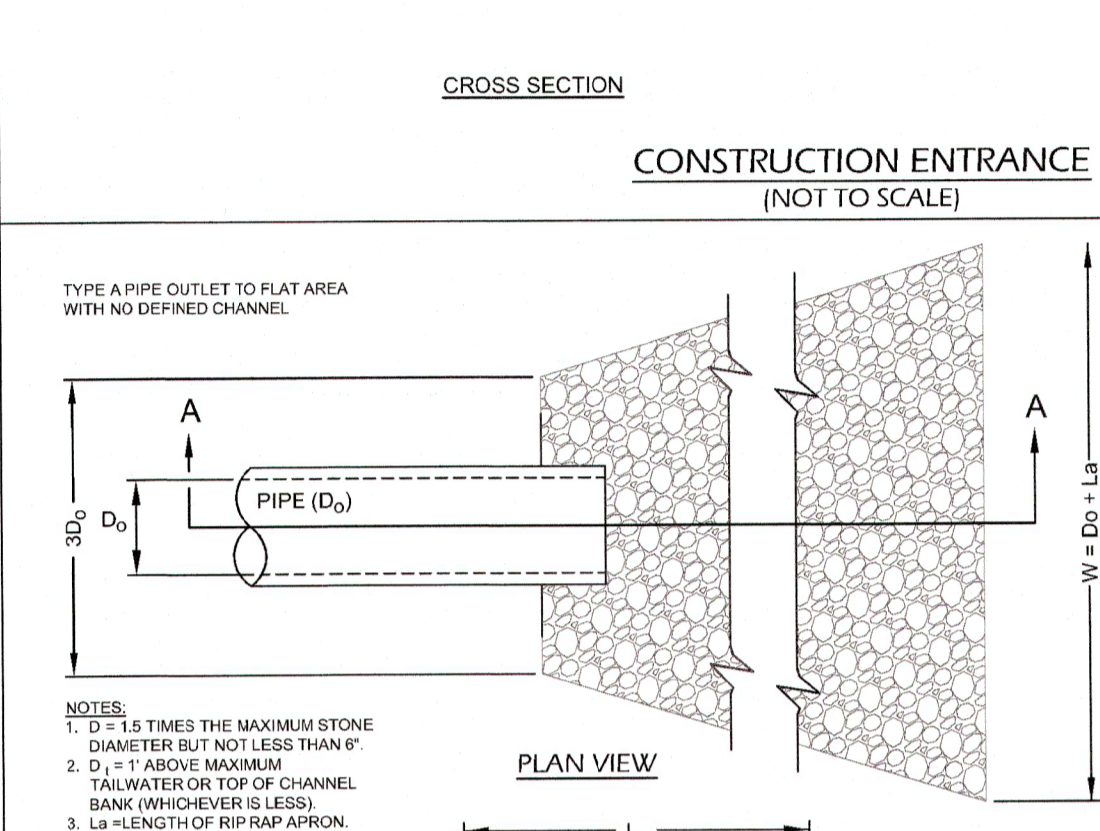
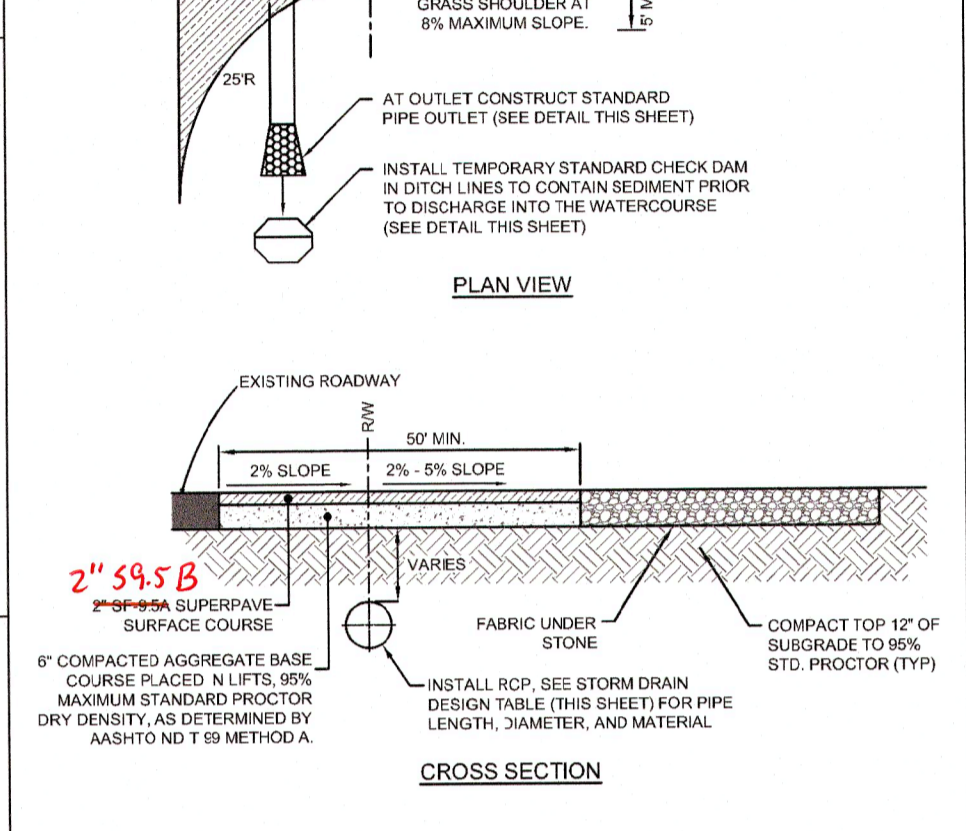
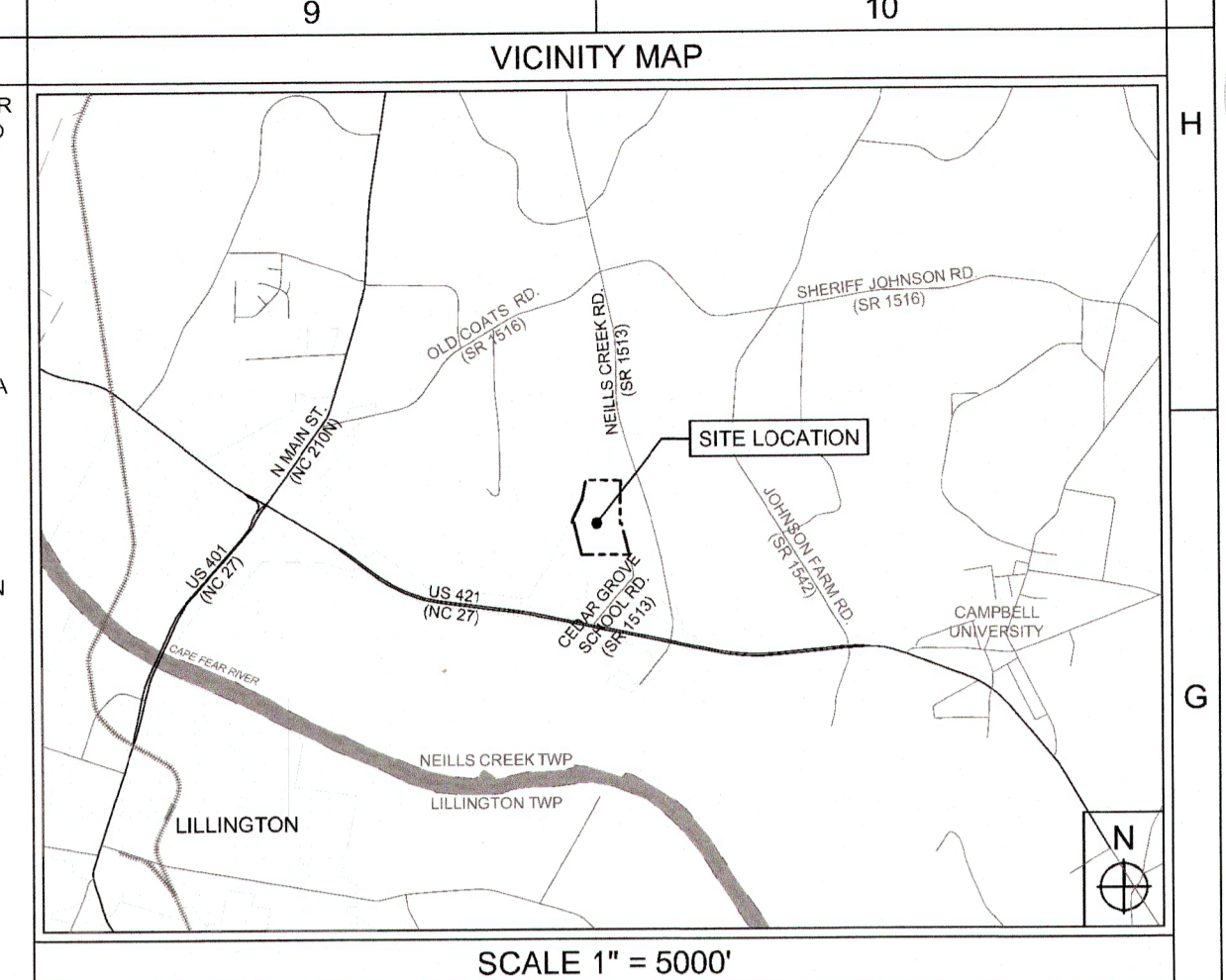
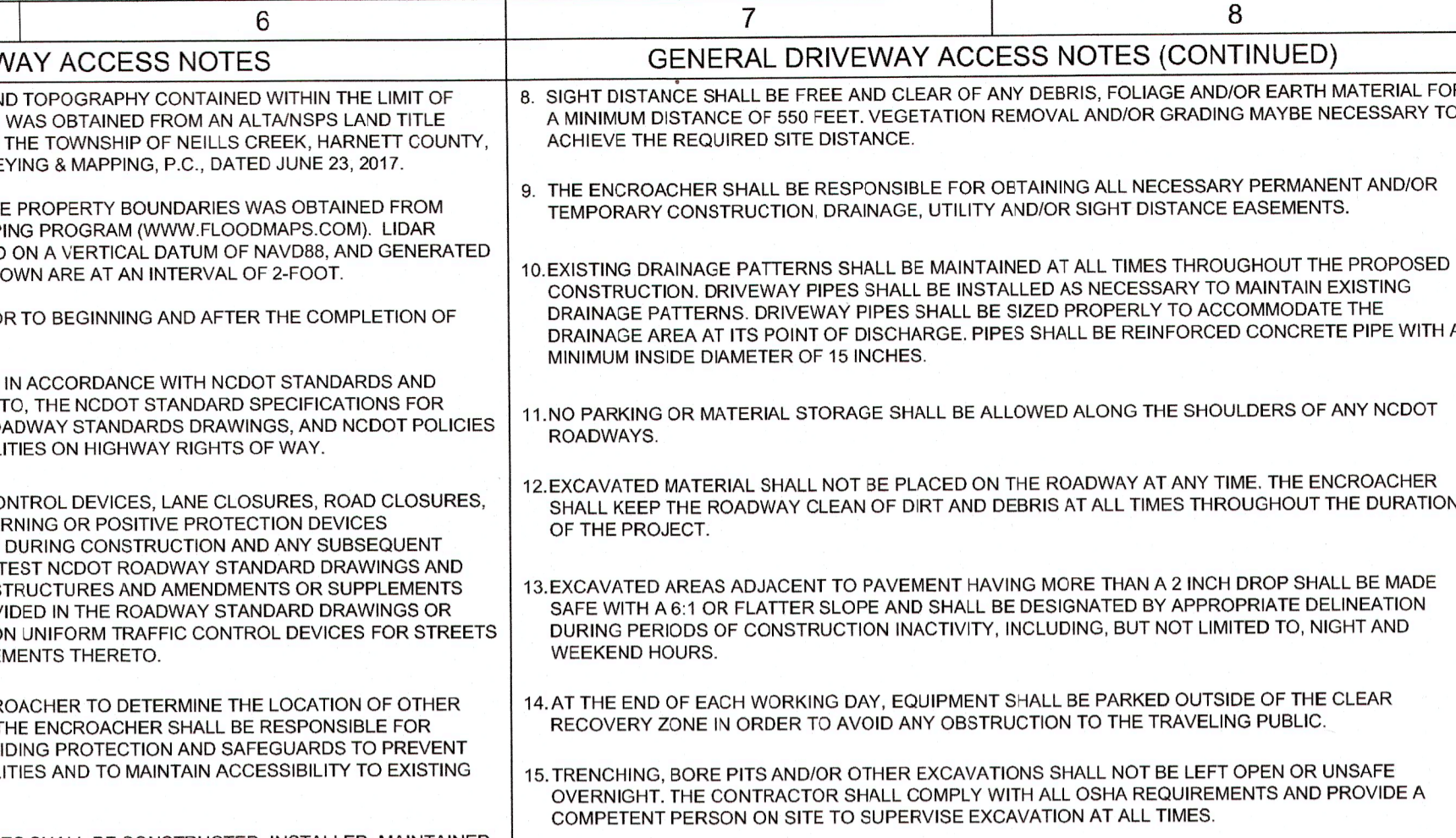
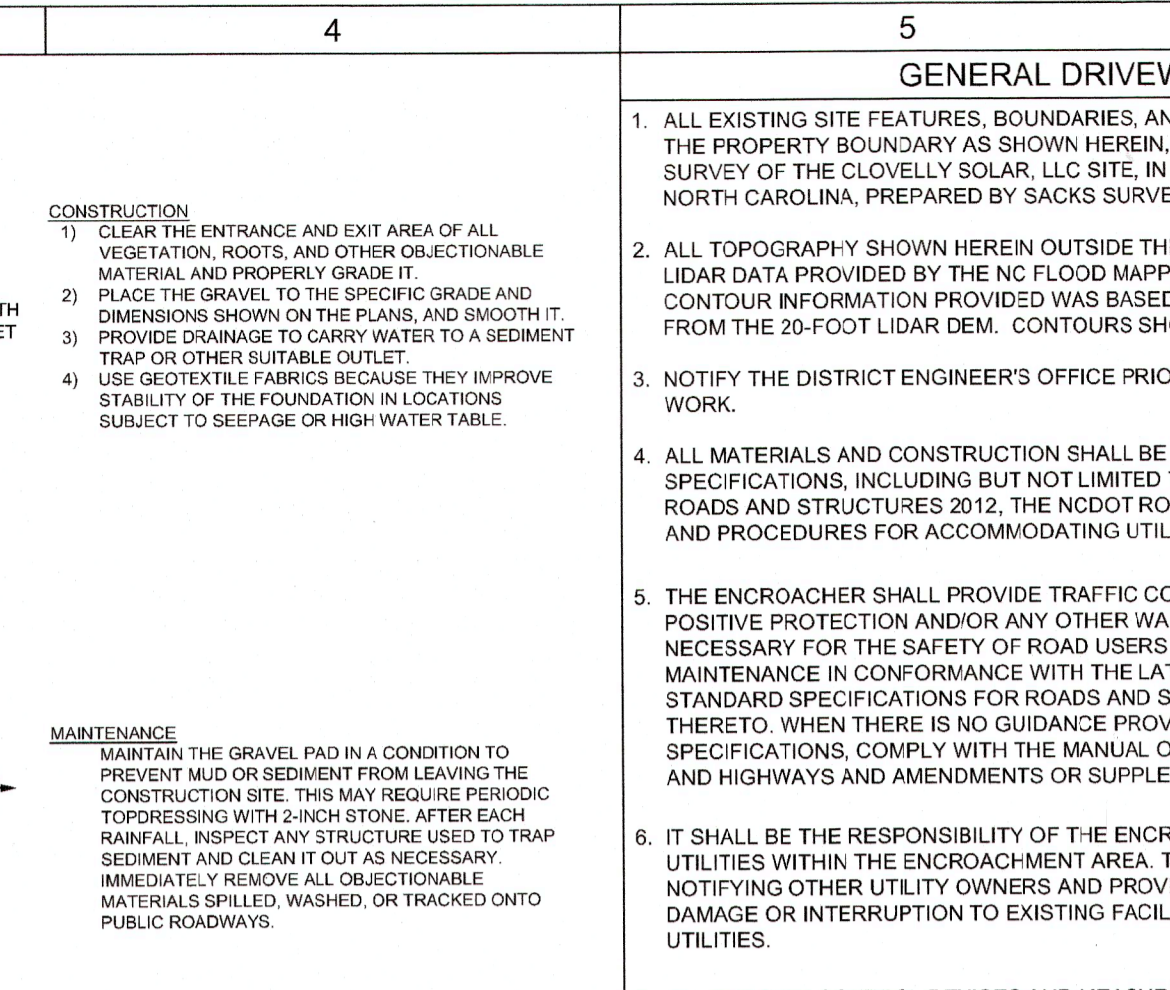
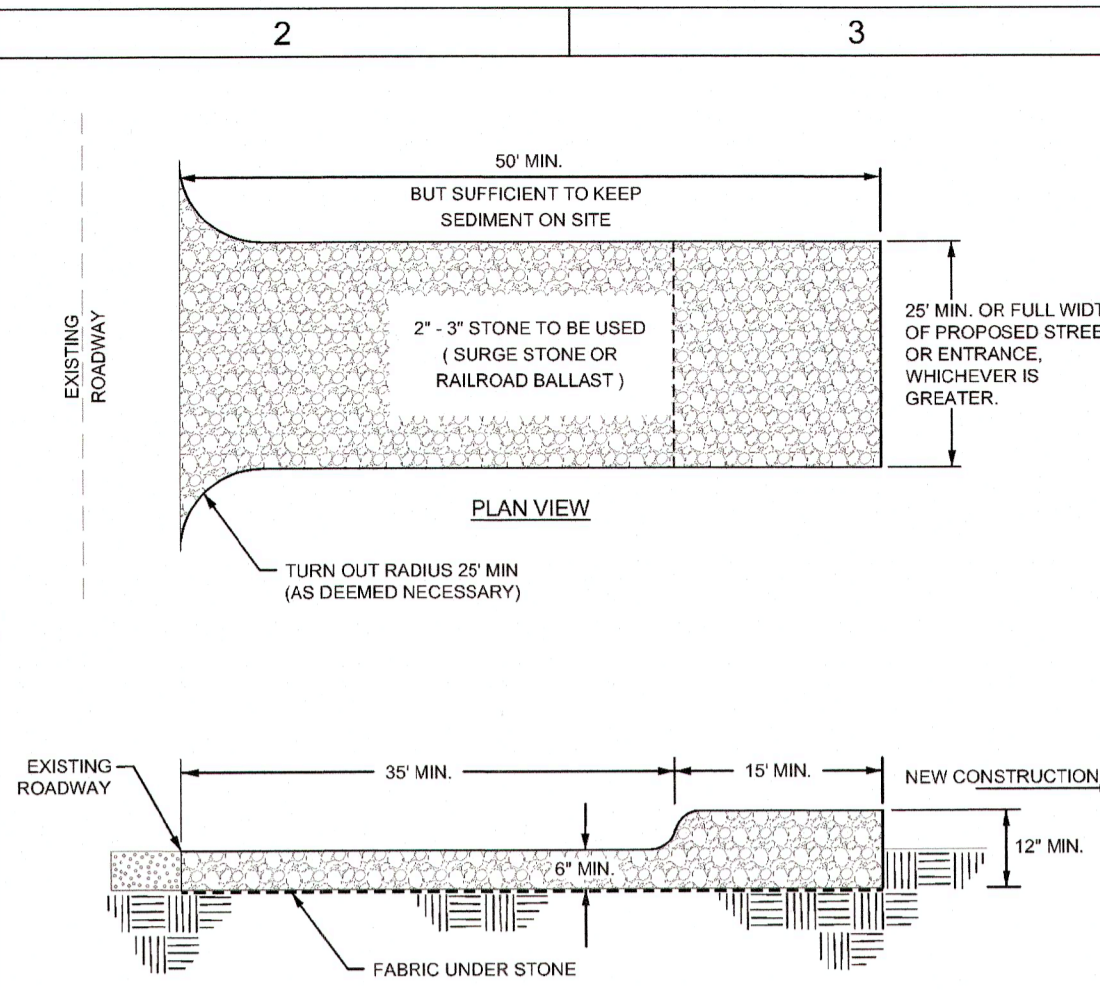
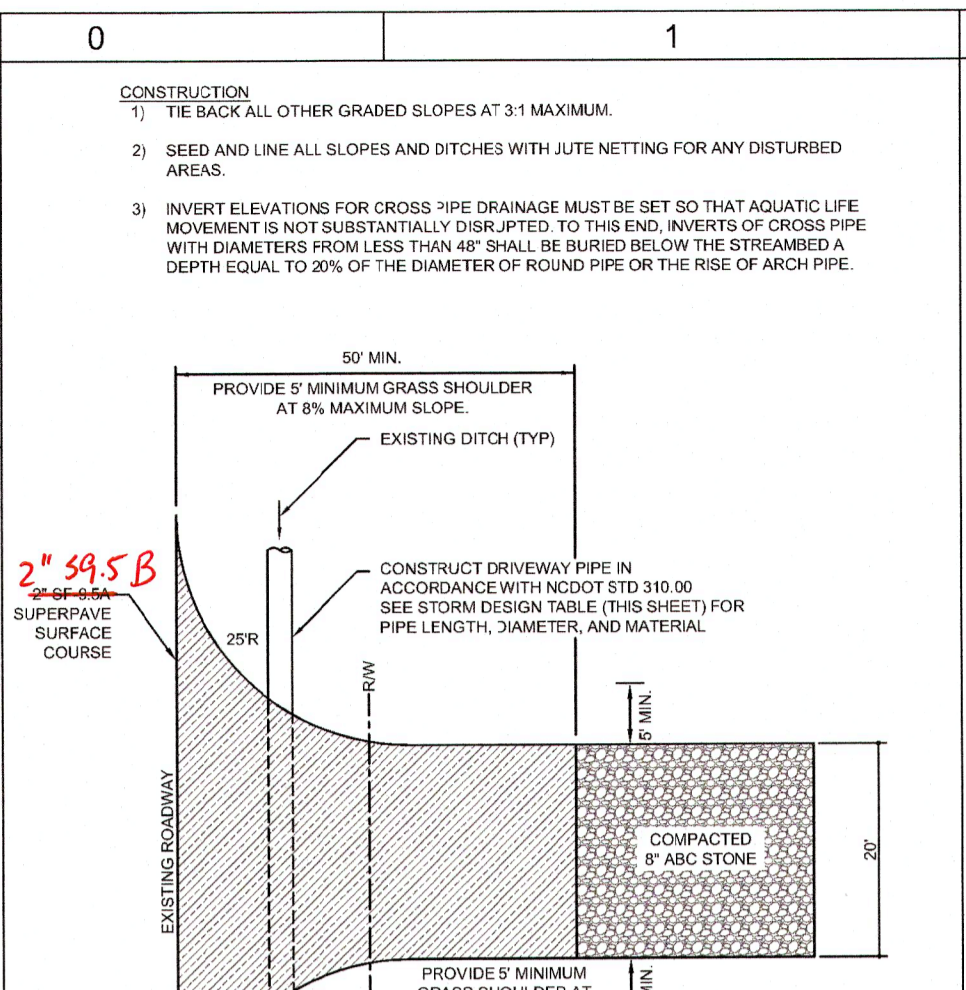
CLOVELLY SOLAR, LLC

NEILLS CREEK ROAD
NEILLS CREEK TOWNSHIP,
HARNETT COUNTY, NC

DATE: 07/24/17
DRAWN BY: WRB
CHECKED BY: KPB

OVERALL SITE PLAN

C3



SITE DATA

PIN #	DB/PC	ZONED	OWNER	OWNER ADDRESS
0655-77-2173	1047 / 438	RA-30	DORTHY B. PAGE	1855 NEILLS CREEK RD. LILLINGTON, NC 27546
0660-76-3960	3467 / 438	RA-30	DORTHY B. PAGE	
0680-76-3857	3467 / 438	RA-30	DORTHY B. PAGE	
0650-76-3176	3146 / 128	RA-30	LEWIS DAVID JOHNSON, JR. & JONATHAN MURRAY JOHNSON	4005 DAYTONA DR. FAYETTEVILLE, NC 28311

SITE ADDRESS: NEILLS CREEK ROAD, NEILLS CREEK TWP, HARNETT CO., NC

LAT/LONG: 35.41687 / -78.7739

JURISDICTION: HARNETT CO.

WATERSHED: DRY CREEK

RIVER BASIN: CAPE FEAR

CURRENT LAND USE: AGRICULTURAL

LAND USE CLASS: MEDIUM DENSITY RESIDENTIAL

DISTURBED AREA: 47.2 AC

LEASE AREA: ± 49 AC

PER BA-CU-14-16 CUP APPROVED 08-09-15

PARCEL LINE SETBACKS	REQUIRED	SELF IMPOSED
MIN. FRONT YARD	35 FT (FROM RW)	N/A
MIN. SIDE YARD	25 FT	N/A
MIN. REAR YARD	25 FT	N/A

BUILDING SETBACK: ---

OVERHEAD ELECTRICAL: ---

EXISTING UTILITY: ---

TREELINE: ---

MAJOR CONTOURS: ---

MINOR CONTOURS: ---

PROPERTY LINES: ---

RIGHT-OF-WAY: ---

STREET CENTERLINE: ---

SIGHT DISTANCE (FT) PER 10 MPH OF ARTERIAL DESIGN SPEED FOR APPROPRIATE ARTERIAL WIDTH CROSSING

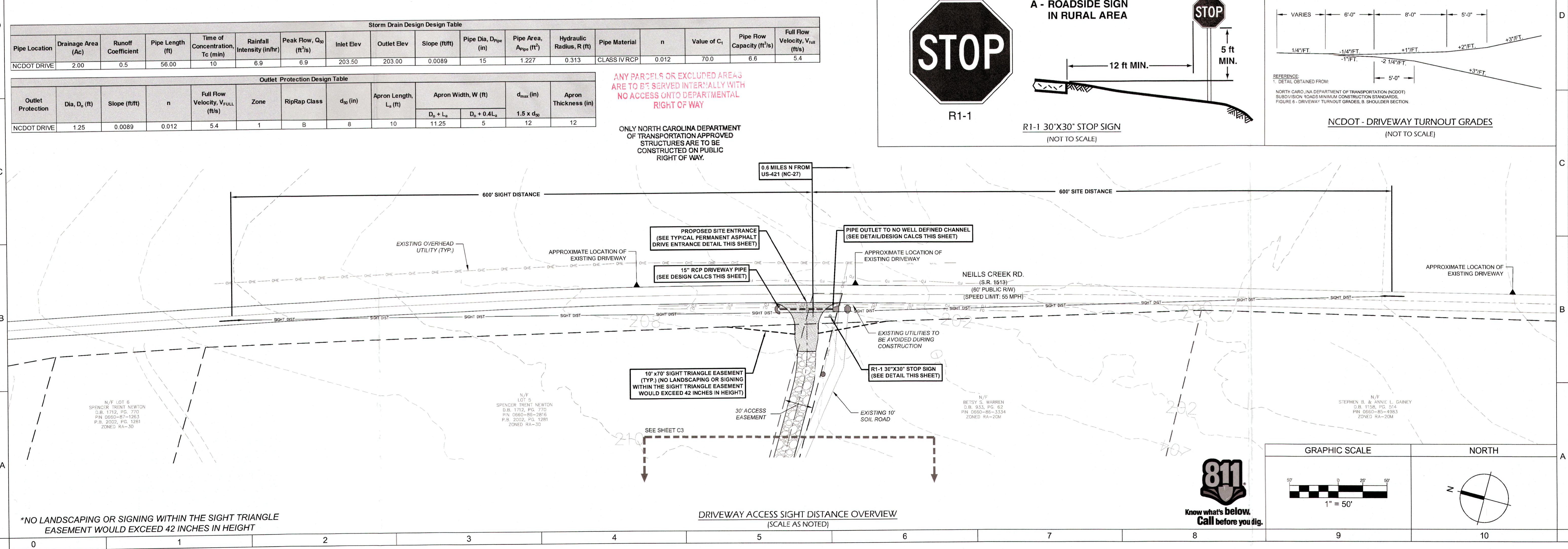
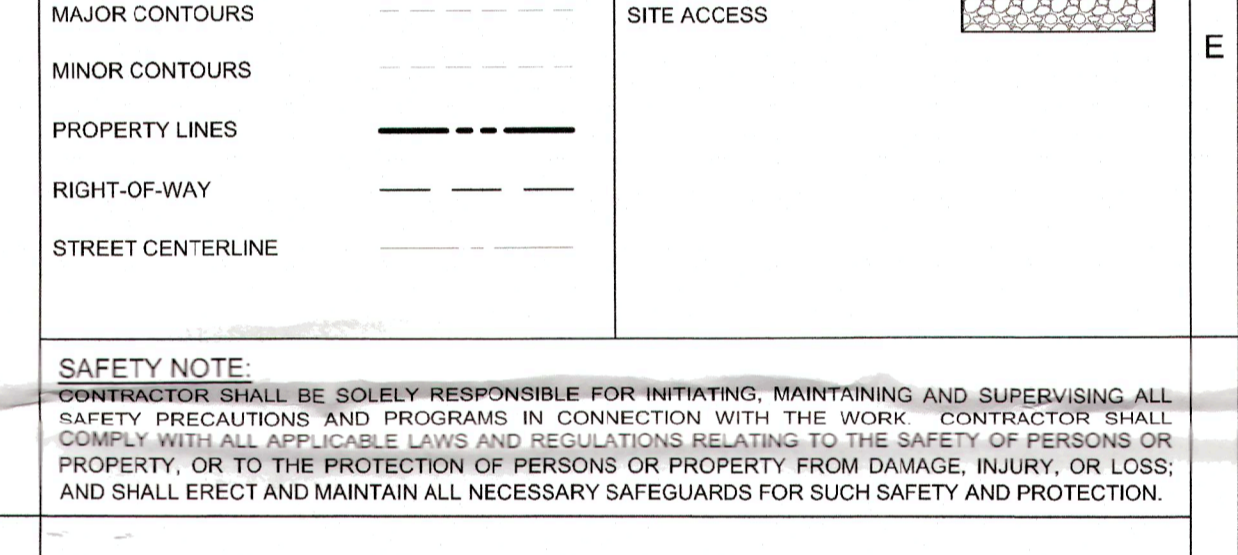
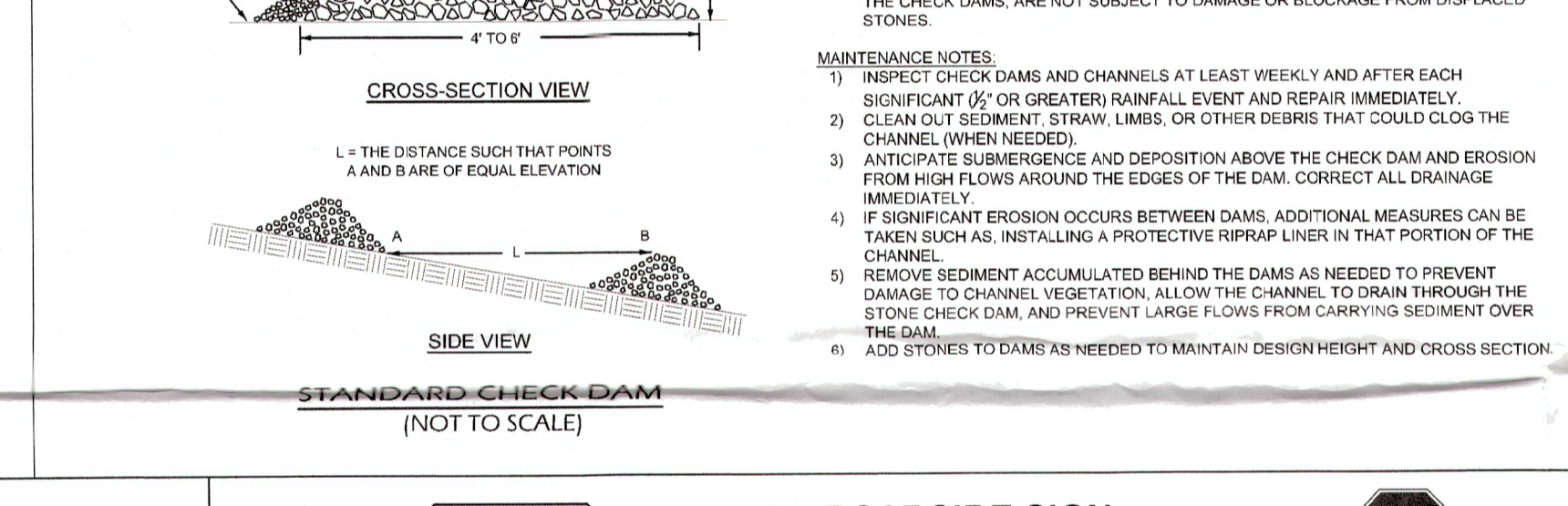
DESIGN VEHICLE CROSSING THE ARTERIAL	TWO LANES	FOUR LANES	SIX LANES
PASSENGER VEHICLE	100	120	130
SINGLE UNIT TRUCK	130	150	170
WB-50 TRACTOR TRAILER	170	200	210

Storm Drain Design Table

Pipe Location	Drainage Area (Ac)	Runoff Coefficient	Pipe Length (ft)	Time of Concentration, T _c (min)	Rainfall Intensity (in/hr)	Peak Flow, Q ₁₀ (ft ³ /s)	Inlet Elev	Outlet Elev	Slope (ft/ft)	Pipe Dia, D ₁₀ (in)	Pipe Area, A ₁₀ (ft ²)	Hydraulic Radius, R (ft)	Pipe Material	n	Value of C _f	Pipe Flow Capacity (ft ³ /s)	Full Flow Velocity, V ₁₀ (ft/s)
NCDOT DRIVE	2.00	0.5	56.00	10	6.9	6.9	203.50	203.00	0.0089	15	1.227	0.313	CLASS IV RCP	0.012	70.0	6.8	5.4

Outlet Protection Design Table

Outlet Protection	Dia, D _o (ft)	Slope (ft/ft)	n	Full Flow Velocity, V ₁₀ (ft/s)	Zone	RipRap Class	d ₅₀ (in)	Apron Length, L ₁ (ft)	Apron Width, W (ft)	d _{max} (in)	Apron Thickness (in)
NCDOT DRIVE	1.25	0.0089	0.012	5.4	1	B	8	10	11.25	5	12



CYPRESS CREEK RENEWABLES
 3250 OCEAN PARK BLVD., SUITE 355 - SANTA MONICA, CA 90405
 4415 BUSH ST., 8TH FLOOR - SAN FRANCISCO, CA 94108
 7701 ST. ALSTON AVE. - SACRAMENTO, CA 95814
 5310 SOUTH ALSTON AVE. - BLDG 300 - DURHAM, NC 27713
 130 ROBERTS ST. - ASHEVILLE, NC 28801

CYPRESS CREEK EPC, LLC
 5310 SOUTH ALSTON AVE., BLDG. 300
 DURHAM, NORTH CAROLINA 27713
 (919) 240-4815 NC LICENSE: D-0383

CLOVELLY SOLAR, LLC
 NEILLS CREEK ROAD
 NEILLS CREEK TOWNSHIP,
 HARNETT COUNTY, NC

DATE: 7/24/17
 DRAWN BY: WRB
 CHECKED BY: KPB
 DRIVEWAY ACCESS
 C6