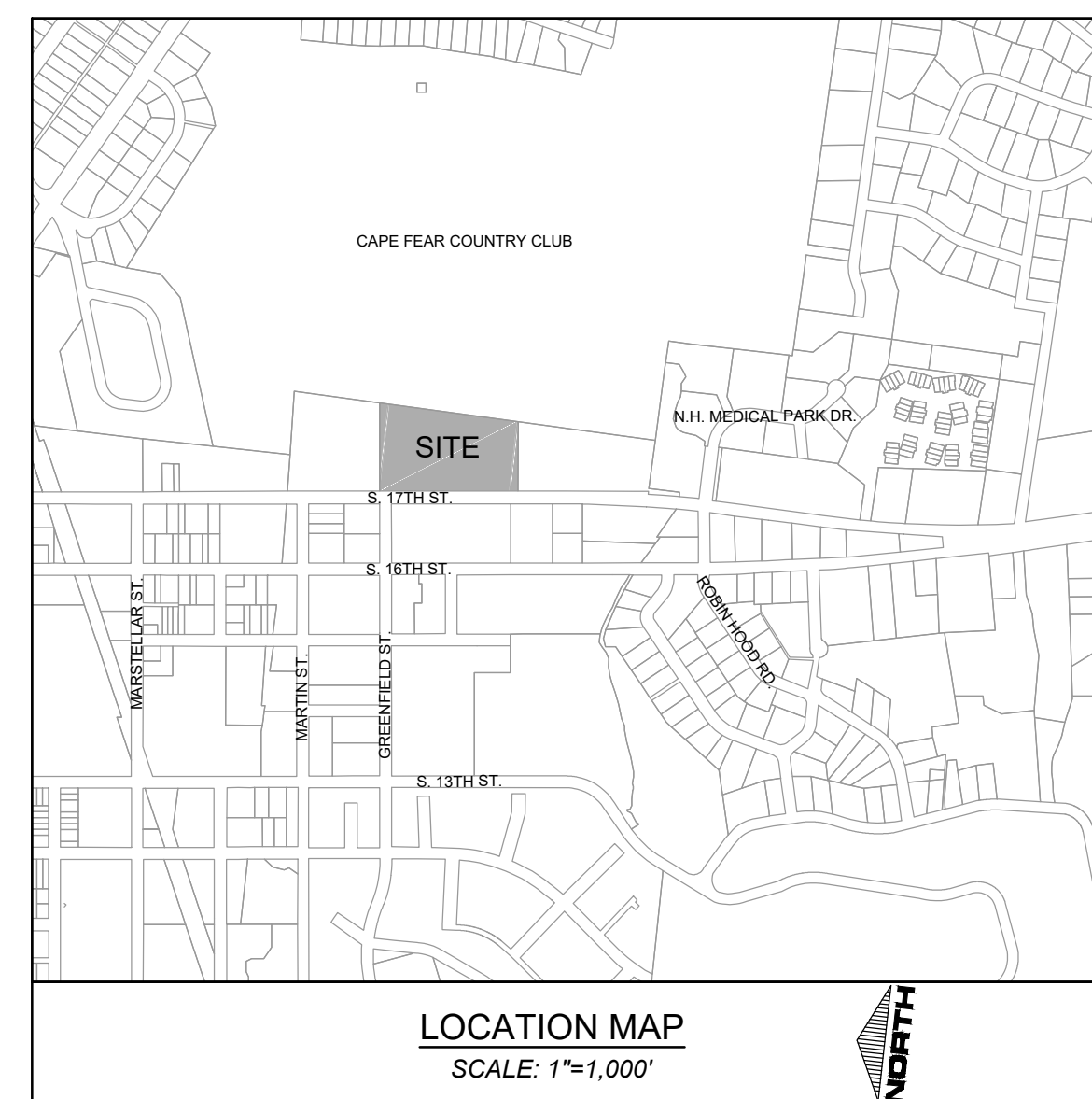


# 17TH STREET MIXED-USE

S. 17TH STREET  
CITY OF WILMINGTON, NORTH CAROLINA

DESIGN DOCUMENTS  
MARCH 2020

DPJ RESIDENTIAL, LLC  
1539 TIPPAAH PARK CT.  
CHARLOTTE, NC 28205



**NOTICE REQUIRED**

ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF SAID UTILITIES.

CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION.

CONTRACTORS SHALL CONTACT OVERHEAD ELECTRIC PROVIDER TO COMPLY WITH FEDERAL OSHA 1910.333 MINIMUM APPROACH DISTANCE TO ENERGIZED POWERLINES AND OSH 29 CFR 1926.1407-1411 MUST BE FOLLOWED.

CONTRACTOR SHALL CONTACT AT&T PRIOR TO ANY DEMOLITION TO ALLOW FOR AT&T TO DISCONNECT COMMUNICATIONS CABLES COMING INTO THE SITE.

**CONTACT THESE UTILITIES**

**CITY OF WILMINGTON PLANNING & DEVELOPMENT**  
ATTN: BRIAN CHAMBERS, PLANNER  
PH: 910-342-2782

ATTN: ZONING INSPECTIONS  
PH: 910-254-0900

**PIEDMONT NATURAL GAS**  
ATTN: CATHY PLEASANT  
PH: 910-251-2827

**EMERGENCY DIAL 911**  
POLICE - FIRE - RESCUE



Know what's below.  
Call before you dig.

**CAPE FEAR PUBLIC UTILITY AUTHORITY (WATER & SEWER)**  
ENGINEERING/INSPECTIONS  
PH: 910-332-6560

OPERATIONS/MAINTENANCE  
PH: 910-322-6550

**DUKE ENERGY**  
DISTRIBUTION CONSTRUCTION SERVICE  
DEP CSC PH: 1-800-452-2777

TRANSMISSION AGENT  
BILL WILDER  
PH: 910-772-4903

**AT&T/BELL SOUTH**  
ATTN: STEVE DAYVAULT (BUILDING ENGINEERING)  
PH: 910-341-0741

ATTN: JAMES BATSON, ENGINEERING  
PH: 910-341-1621

**SPECTRUM**  
PH: 910-763-4638

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**17TH STREET MIXED-USE**

PROJECT # 19331.PE

MARCH 18, 2020

**SHEET INDEX**

SHEET NUMBER	SHEET TITLE
C0.00	COVER SHEET
C1.00-C1.01	GENERAL & NPDES NOTES
C1.10	SITE INVENTORY PLAN
C2.00-C2.01	SITE & UTILITY PLAN
C3.00-C3.01	EROSION CONTROL PLAN
C4.00	GRADING & DRAINAGE PLAN
C4.10	FINE GRADING PLAN
C5.00 - C5.01	CIVIL SITE DETAILS
C5.10 - C5.15	EC & STORM DETAILS
C5.20 - C5.21	UTILITY DETAILS
C6.00 - C6.31	OFFSITE IMPROVEMENT PLANS
LP1.00-LP1.30	PLANTING PLAN
LP2.00	PLANTING AND SOIL NOTES
SD1.00	OVERALL HARDSCAPE PLAN
SD2.00-SD2.10	DETAILS

**CIVIL ENGINEER:**  
PARAMOUNTE ENGINEERING, INC.  
122 CINEMA DRIVE  
WILMINGTON, NORTH CAROLINA 28403  
ATTN: DANIEL FISK, P.E.  
PHONE: 910.791.6707

**LANDSCAPE ARCHITECT:**  
CLINE DESIGN ASSOCIATES, PA  
2923 S. TRYON STREET, SUITE 130  
CHARLOTTE, NORTH CAROLINA 28203  
ATTN: BRETT SEWARD, P.L.A.  
PHONE: 704.333.7272

<b>Approved Construction Plan</b>			
Name _____	Date _____	Public Services • Engineering Division	
Planning _____	Traffic _____	APPROVED STORMWATER MANAGEMENT PLAN	
Fire _____	Date _____	Permit # _____	Signed: _____

PREPARED BY:

**PARAMOUNTE**  
ENGINEERING, INC.  
122 Cinema Drive Wilmington, North Carolina 28403  
(910) 791-6707 (O) (910) 791-6760 (F)  
NC License #: C-2846



FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION



**GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT**  
Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

**SECTION E: GROUND STABILIZATION**

Site Area Description	Required Ground Stabilization Timeframes	
	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones unless there is zero slope -10 days for Falls Lake Watershed

**Note:** After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

**GROUND STABILIZATION SPECIFICATION**  
Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"><li>Temporary grass seed covered with straw or other mulches and tackifiers</li><li>Hydroseeding</li><li>Rolled erosion control products with or without temporary grass seed</li><li>Appropriately applied straw or other mulch</li><li>Plastic sheeting</li></ul>	<ul style="list-style-type: none"><li>Permanent grass seed covered with straw or other mulches and tackifiers</li><li>Geotextile fabrics such as permanent soil reinforcement matting</li><li>Hydroseeding</li><li>Shrubs or other permanent plantings covered with mulch</li><li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li><li>Structural methods such as concrete, asphalt or retaining walls</li><li>Rolled erosion control products with grass seed</li></ul>

**POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

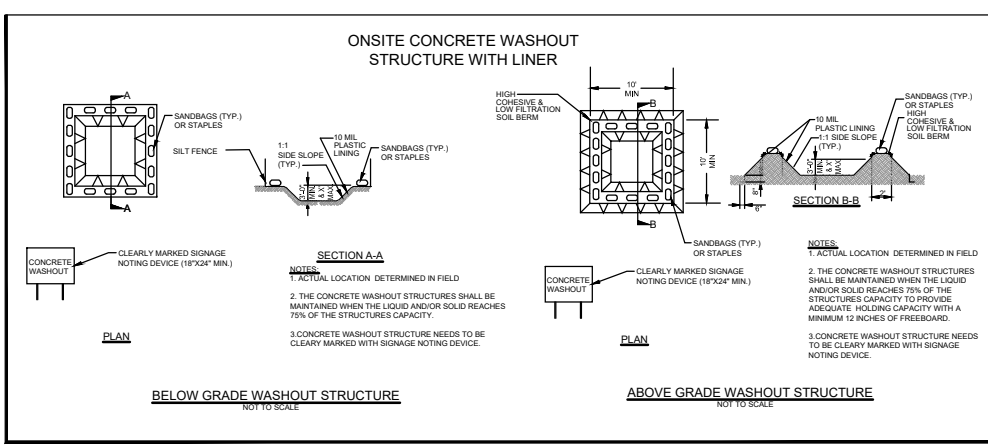
- EQUIPMENT AND VEHICLE MAINTENANCE**
- Maintain vehicles and equipment to prevent discharge of fluids.
  - Provide drip pans under any stored equipment.
  - Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
  - Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
  - Remove leaking vehicles and construction equipment from service until the problem has been corrected.
  - Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

- LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**
- Never bury or burn waste. Place litter and debris in approved waste containers.
  - Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
  - Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
  - Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
  - Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
  - Anchor all lightweight items in waste containers during times of high winds.
  - Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
  - Dispose waste off-site at an approved disposal facility.
  - On business days, clean up and dispose of waste in designated waste containers.

- PAINT AND OTHER LIQUID WASTE**
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
  - Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
  - Contain liquid wastes in a controlled area.
  - Containment must be labeled, sized and placed appropriately for the needs of site.
  - Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

- PORTABLE TOILETS**
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
  - Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
  - Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

- EARTHEN STOCKPILE MANAGEMENT**
- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
  - Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
  - Provide stable stone access point when feasible.
  - Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control.



- CONCRETE WASHOUTS**
- Do not discharge concrete or cement slurry from the site.
  - Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
  - Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
  - Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
  - Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
  - Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
  - Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
  - Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
  - Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
  - At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

- HERBICIDES, PESTICIDES AND RODENTICIDES**
- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
  - Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
  - Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
  - Do not stockpile these materials onsite.

- HAZARDOUS AND TOXIC WASTE**
- Create designated hazardous waste collection areas on-site.
  - Place hazardous waste containers under cover or in secondary containment.
  - Do not store hazardous chemicals, drums or bagged materials directly on the ground.

# NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

**PART III**  
**SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION A: SELF-INSPECTION**  
Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&S Measures	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	1. Identification of the measures inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Indication of whether the measures were operating properly. 5. Description of maintenance needs for the measure. 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	1. Identification of the discharge outfalls inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration. 5. Indication of visible sediment leaving the site. 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits. 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part II, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&S measures, cleaning and grubbing, installation of storm drainage facilities, completion of all land disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or assurance that they will be provided as soon as possible.

**NOTE:** The rain inspection resets the required 7 calendar day inspection requirement.

**PART III**  
**SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION B: RECORDKEEPING**  
**1. E&S Plan Documentation**  
The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&S Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&S Plan.	Initial and date each E&S Measure on a copy of the approved E&S Plan or complete, date and sign an inspection report that lists each E&S Measure shown on the approved E&S Plan. This documentation is required upon the initial installation of the E&S Measures or if the E&S Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&S Plan.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&S Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&S Measures.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

**2. Additional Documentation**  
In addition to the E&S Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This general permit as well as the certificate of coverage, after it is received.
- Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

**PART III**  
**SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION C: REPORTING**

**1. Occurrences that must be reported**  
Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.
  - Oil spills if:
    - They are 25 gallons or more,
    - They are less than 25 gallons but cannot be cleaned up within 24 hours,
    - They cause sheen on surface waters (regardless of volume), or
    - They are within 100 feet of surface waters (regardless of volume).
- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

**2. Reporting Timeframes and Other Requirements**  
After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"><li><b>Within 24 hours</b>, an oral or electronic notification.</li><li><b>Within 7 calendar days</b>, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.</li><li>If the stream is named on the <a href="#">NC 303(d) list</a> as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired waters conditions.</li></ul>
(b) Oil spills and release of hazardous substances per item 1(b)-(c) above	<ul style="list-style-type: none"><li><b>Within 24 hours</b>, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.</li></ul>
(c) Anticipated bypasses [40 CFR 122.41(i)(3)]	<ul style="list-style-type: none"><li><b>A report at least ten days before the date of the bypass, if possible.</b> The report shall include an evaluation of the anticipated quality and effect of the bypass.</li></ul>
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"><li><b>Within 24 hours</b>, an oral or electronic notification.</li><li><b>Within 7 calendar days</b>, a report that includes an evaluation of the quality and effect of the bypass.</li></ul>
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(j)(7)]	<ul style="list-style-type: none"><li><b>Within 24 hours</b>, an oral or electronic notification.</li><li><b>Within 7 calendar days</b>, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(j)(6)].</li><li>Division staff may waive the requirement for a written report on a case-by-case basis.</li></ul>

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit #: \_\_\_\_\_  
Signed: \_\_\_\_\_

**Approved Construction Plan**  
Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_

# NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



NOT RELEASED FOR CONSTRUCTION

**REVISIONS:**

No.	Description	Date

CLIENT INFORMATION: **DPJ Residential, LLC**  
1539 TIPPAH PARK CT.  
CHARLOTTE, NC 28205

**PARAMOUNT ENGINEERING**  
122 Cinema Drive  
Wilmington, North Carolina 28403  
(910) 791-6707 (O) (910) 791-6760 (F)  
NC License # C-2846

**NPDES NOTES**

17TH STREET MIXED-USE  
CITY OF WILMINGTON  
NORTH CAROLINA

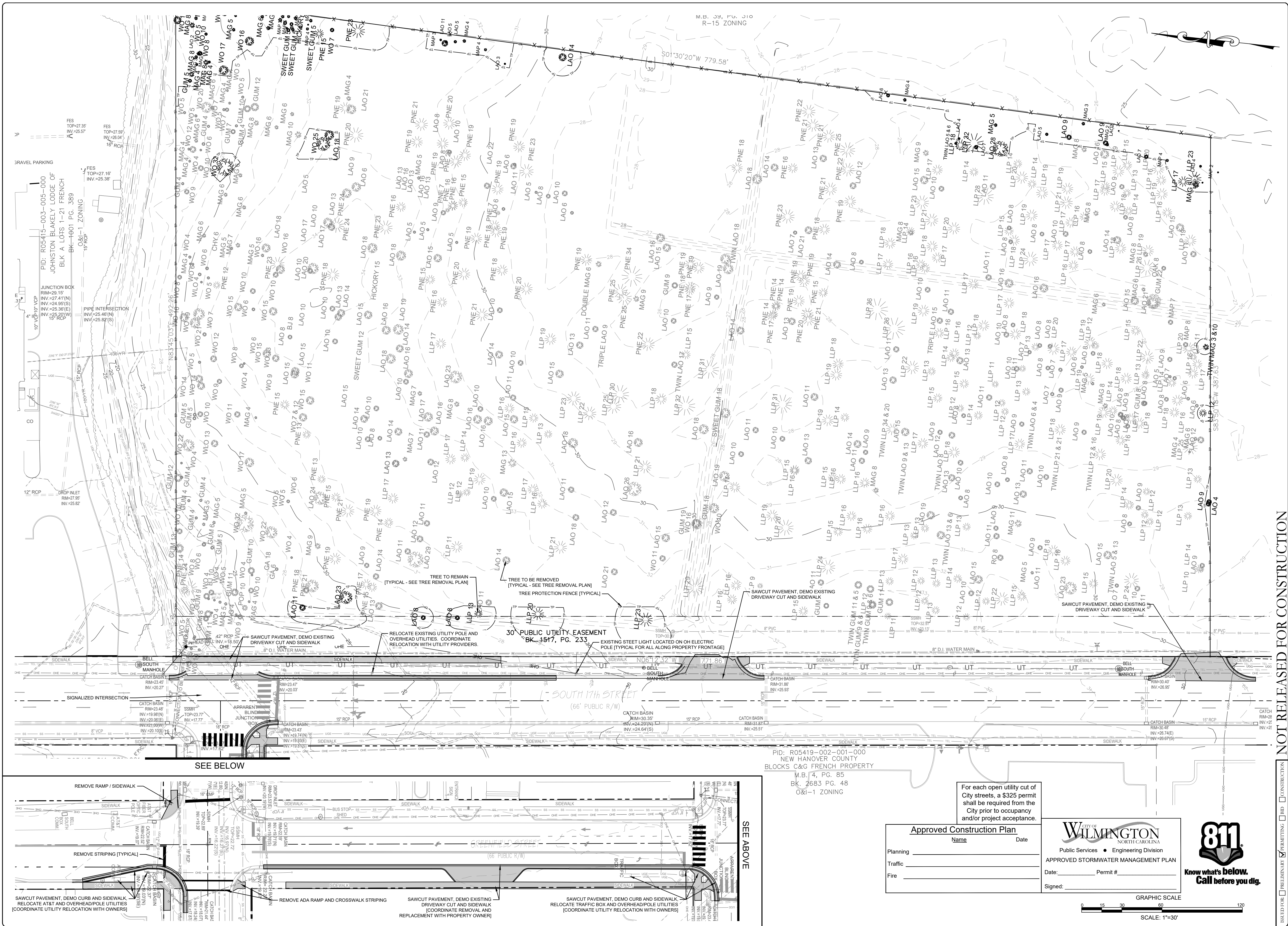
PROJECT STATUS  
CONCEPTUAL LAYOUT  
PRELIMINARY LAYOUT  
RELEASED FOR CONSTRUCTION

DRAWING INFORMATION  
DATE: 03/18/20  
AS NOTED  
DESIGNED  
DRAWN: DLF  
CHECKED: DJF

SEAL  
WILMINGTON NORTH CAROLINA  
040501  
ENGINEER  
PEI JOB#: 19331.PE

**C1.01**

PEI JOB#: 19331.PE



M.B. 39, P.G. 310  
R-15 ZONING

FES TOP-27.35  
INV=-25.57  
16" RCP

FES TOP-27.59  
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RIM=20.00  
INV=-20.00

8" VCP  
RIM=20.00  
INV=-20.00

8" VCP  
RIM=20.00  
INV=-20.00

FES TOP-27.59  
INV=-26.04  
16" RCP

FES TOP-27.59  
INV=-26.04  
16" RCP

PIPE INTERSECTION  
INV=-25.40(N)  
INV=-25.36(E)  
16" RCP

12" RCP  
DRAIN INLET  
RIM=27.95  
INV=-25.82

42" RCP  
PREHEAD  
RIM=18.50  
INV=-18.50

8" VCP  
RIM=20.00  
INV=-20.00

8" VCP  
RIM=20.00  
INV=-20.00

8" VCP  
RIM=20.00  
INV=-20.00

FES TOP-27.59  
INV=-26.04  
16" RCP

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PIPE INTERSECTION  
INV=-25.40(N)  
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16" RCP

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RIM=20.00  
INV=-20.00

8" VCP  
RIM=20.00  
INV=-20.00

8" VCP  
RIM=20.00  
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INV=-18.50

8" VCP  
RIM=20.00  
INV=-20.00

8" VCP  
RIM=20.00  
INV=-20.00

8" VCP  
RIM=20.00  
INV=-20.00

NOT RELEASED FOR CONSTRUCTION

<b>PROJECT STATUS</b> CONCEPTUAL LAYOUT: _____ PRELIMINARY LAYOUT: _____ RELEASED FOR CONSTRUCTION: _____		<b>DRAWING INFORMATION</b> DATE: 03/18/20 DRAWN BY: T.D.F. CHECKED BY: D.F. DESIGNED BY: D.F.
<b>SEAL</b> 		
<b>CLIENT INFORMATION</b> DPJ Residential, LLC 1539 TIPPAH PARK CT. CHARLOTTE, NC 28205		<b>GRAPHIC SCALE</b>  SCALE: 1"=30' PEI JOB#: 19331.PE
<b>SITE INVENTORY &amp; DEMO PLAN</b> 17TH STREET MIXED-USE CITY OF WILMINGTON NORTH CAROLINA		
<b>PARAMOUNT ENGINEERING, INC.</b> 122 Cinema Drive Wilmington, North Carolina 28403 (910) 791-6707 (O) (910) 791-6706 (F) NC License #: C-2846		<b>REVISIONS:</b> 1. PER NOTED COMMENTS

**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_

Traffic: \_\_\_\_\_

Fire: \_\_\_\_\_

**CITY OF WILMINGTON**  
NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit #: \_\_\_\_\_

Signed: \_\_\_\_\_



**C1.10**

**SITE KEYNOTES:**

- 1 24" CURB & GUTTER (TYPICAL - SEE DETAIL)
- 2 HEAVY DUTY PAVEMENT (TYPICAL - SEE DETAIL)
- 3 STANDARD DUTY PAVEMENT (TYPICAL - SEE DETAIL)
- 4 CONCRETE PAVEMENT (TYPICAL - SEE DETAIL)
- 5 CONCRETE SIDEWALK (TYPICAL - SEE DETAIL)
- 6 TYPE 1 HANDICAP RAMP (TYPICAL - SEE DETAIL)
- 7 TYPE 2 HANDICAP RAMP (TYPICAL - SEE DETAIL)
- 8 TYPE 3 HANDICAP RAMP (TYPICAL - SEE DETAIL)
- 9 VAN HANDICAP PARKING SPACE WITH SIGN. (TYPICAL - SEE DETAIL)
- 10 STANDARD HANDICAP PARKING SPACE WITH SIGN. (TYPICAL - SEE DETAIL)
- 11 CONCRETE DRAINAGE FLUME (TYPICAL - SEE DETAIL)
- 12 DUMPSTER WITH ENCLOSURE (TYPICAL - SEE DETAIL)
- 13 COMPACTOR WITH ENCLOSURE (TYPICAL - SEE DETAIL)
- 14 100 SPACE BICYCLE SHED
- 15 SITE LIGHTING (TYPICAL - DESIGN BY OTHERS - SEE DUKE POWER PLANS)
- 16 DECORATIVE HARDSCAPE (TYPICAL - DESIGN BY OTHERS - SEE CLINE DESIGN PLANS)
- 17 MODIFIED VALLEY CURB [SEE DETAIL]
- 18 TRANSITION FROM STD. CURB & GUTTER TO MODIFIED VALLEY CURB
- 19 EMERGENCY TURN-A-ROUND [GEOBLOCK PAVERS - SEE DETAIL]
- 20 R1-1 "STOP" SIGN & R3-5r "RIGHT ONLY" SIGN
- 21 R5-1 "DO NOT ENTER" SIGN
- 22 6 SPACE BICYCLE RACK
- 23 RAMP WITH HANDRAILS (SEE CLINE DESIGN PLANS)
- 24 R6-1 "ONE-WAY" SIGN

**CITY STANDARD NOTES:**

1. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
2. ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.
3. NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT, AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION METHODS.
4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND OR NC DOT STANDARDS.
5. ONCE STREETS ARE OPEN TO TRAFFIC, CONTACT TRAFFIC ENGINEERING TO REQUEST INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
6. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
7. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
8. CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
9. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
10. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
11. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
12. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
13. TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
14. A UTILITY CUT MAT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. IN CERTAIN CASES ENTIRE RESURFACING OF THE OPEN CUT AREA MAY BE REQUIRED.
15. ANY BROKEN OR MISSING SIDEWALK OR DRIVEWAY PANELS OR CURBING WILL BE REPLACED.
16. CONTACT THE CITY AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
17. WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CPFA) DETAILS AND SPECIFICATIONS.
18. PROJECT SHALL COMPLY WITH CAPE FEAR PUBLIC UTILITY AUTHORITY CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 343-3910 FOR INFORMATION.
19. IF THE CONTRACTOR DESIRES CPFA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
20. ANY IRRIGATION SYSTEM SUPPLIED BY CPFA WATER SHALL COMPLY WITH CPFA CROSS CONNECTION CONTROL REGULATIONS. CALL 343-3910 FOR INFORMATION.
21. ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
22. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CPFA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USC/COCHRAN OR ASSOCIATES.
23. CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATION, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
24. CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
25. UNDERGROUND FIRE LINES MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910.341.0698.
26. NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
27. CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-652-4949 PRIOR TO ANY DIGGING, CLEARING OR GRADING.
28. ANY PVC MAINS ARE TO BE MARKED WITH NO. 10 INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STRAPPED TO THE PIPE WITH DUCT TAPE, AND STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES AND FITTINGS, ACCESSIBLE IN ALL VALVE AND METER BOXES. ALL WATER MAINS ARE TO HAVE A MINIMUM OF 3' COVER.

**SITE INFORMATION:**

ADDRESS: 1625 S. 17TH STREET  
 PARCEL ID: R05419-003-001-000  
 CURRENT ZONING: O&I-1  
 MIXED USE  
 PROPOSED USE: 7.80 ACRES  
 OWNER INFORMATION: 17TH STREET WPG, LLC  
 PO BOX 15599  
 WILMINGTON, NC 28408  
 DEVELOPER INFORMATION: DPJ RESIDENTIAL, LLC  
 1539 TIPPAH PARK CT.  
 CHARLOTTE, NC 28205  
 FLOOD INFORMATION: THIS PARCEL IS LOCATED IN FLOOD ZONE X (WHICH IS NOT A SPECIAL FLOOD HAZARD AREA), WITH A PORTION IN THE NORTH WEST CORNER LOCATED IN FLOOD ZONE AE AS DETERMINED BY FEMA FLOOD MAP NUMBER 3720312700K, DATED AUGUST 28, 2018.  
 CAMA LAND USE CLASSIFICATION: URBAN  
 EASEMENTS: AS SHOWN

**TOTAL IMPERVIOUS AREA:**

EXISTING:	0 SF
EXISTING TO BE REMOVED:	0 SF
BUILDINGS:	80,209 SF
PAVEMENT:	125,062 SF
SIDEWALKS:	22,938 SF
OTHER (STEPPING STONES):	1,140 SF
FUTURE:	17,451 SF
<b>TOTAL:</b>	<b>246,800 SF</b>

**SITE TABULATIONS:**

- PH1 BLDG 5 BUILDING SF:	± 78,864 SF FOOTPRINT	± 302,294 GFA
- 1 STORY (45' HEIGHT) FLOOR AREA:	1 = 78,864 SF, 2 = 78,864 SF, 3 = 72,483 SF, 4 = 72,483 SF	
- TYPE VA - SPRINKLED		
- 1-BEDROOM = 179 UNITS		
- 2-BEDROOM = 91 UNITS		
- COMMERCIAL = ± 1,305 SF (1 UNIT)		
- FITNESS = ± 2,244 SF		
- CLUBHOUSE = ± 3,937 SF		
- LEASING = ± 1,927 SF		
- MAIL = ± 733 SF		
- TOTAL BUILDING COVERAGE (INCLUDES SECONDARY BUILDINGS):	(80,209 SF) / 7.80 AC = 23.6% COVERAGE	

**DIMENSIONAL REQUIREMENTS:**

O&I - 1 - OFFICE & INSTITUTIONAL DISTRICT 1	REQUIRED	PROVIDED
MINIMUM LOT AREA:	15,000 SF	7.80 ACRES
MINIMUM LOT WIDTH:	80'	77'
MAXIMUM LOT COVERAGE:	40%	23.6%
MINIMUM FRONT SETBACK:	20'	40'
MINIMUM REAR SETBACK (R-15):	25'	48' (Maintenance Shed)
25 FT + 1 FT * (EVERY FOOT OF HEIGHT OVER 20')	25'+1*(25)'= 50' (4-Story)	96' (4-Story)
MINIMUM SIDE SETBACK (NORTH SIDE):	10'	17'
MINIMUM SIDE SETBACK (SOUTH SIDE):	10'	143' (4-Story) / 110' (Maintenance)
MAXIMUM BUILDING HEIGHT:	45'	45'

**PARKING DATA:**

MINIMUM:	270 APARTMENTS @ 1 SPACE PER RESIDENTIAL UNIT (CDMU)	270 SPACES
	1,927 SF LEASING OFFICE @ 1 SPACE PER 300 SF	7 SPACES
	1,305 SF COMMERCIAL RETAIL @ 1 SPACE PER 400 GFA	5 SPACES (PER CITY STAFF)
		282 SPACES
MAXIMUM:	270 APARTMENTS @ 2.5 SPACES PER RESIDENTIAL UNIT (CDMU)	675 SPACES
	1,927 SF LEASING OFFICE @ 1 SPACE PER 300 SF	10 SPACES
	1,305 SF COMMERCIAL RETAIL @ 1 SPACE PER 200 GFA	692 SPACES
		<b>371 SPACES</b>
PROVIDED:	ADA SPACES REQUIRED (TOTAL)   ADA VAN ACCESSIBLE SPACES REQUIRED	911 SPACES
	ADA SPACES PROVIDED (TOTAL)   ADA VAN ACCESSIBLE SPACES PROVIDED	1218 SPACES
	BICYCLE PARKING REQUIRED	20 SPACES
	BICYCLE PARKING PROVIDED	106 SPACES

**WATER & SEWER DEMAND:**

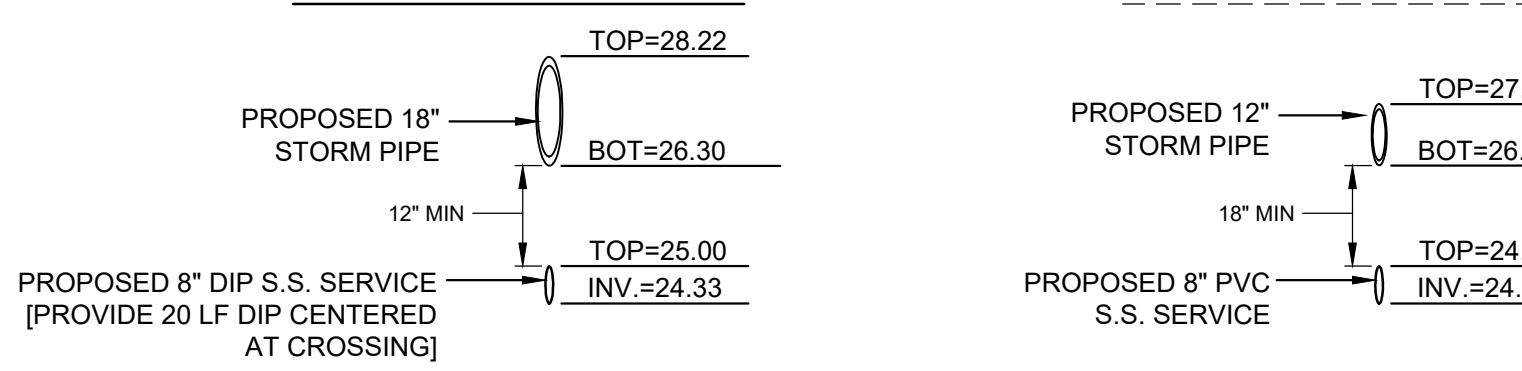
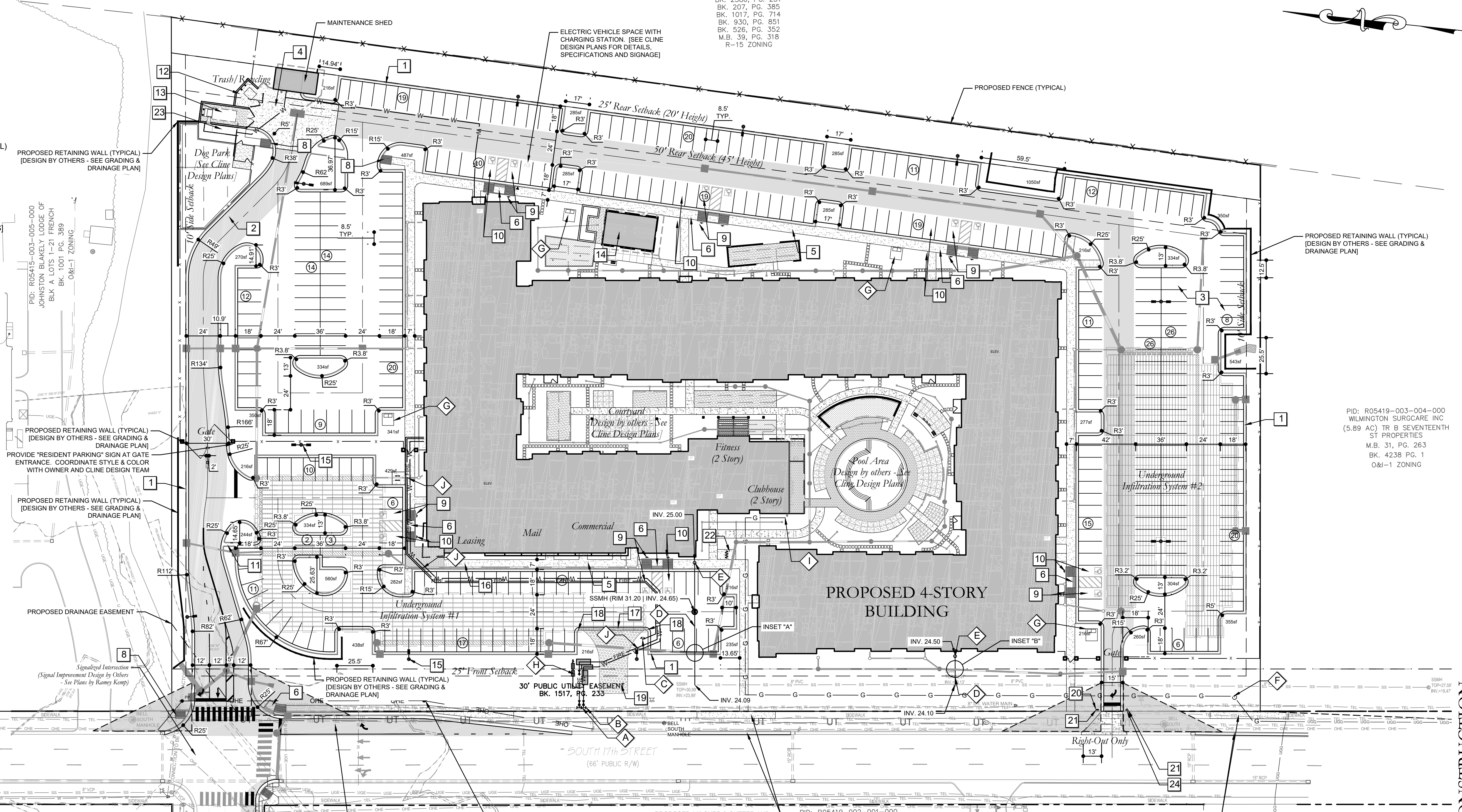
SEWER DEMAND: (1 & 2 Bdrm Multi-family = 240 GPD per Unit; Clubhouse = 5 GPD per seat; Pool = 10 GPD per person; Fitness = 50 GPD per 100 SF; Retail = 100 GPD PER 1,000 SF)

RESIDENTIAL PROJECTED FLOW =	64,800 GPD
CLUBHOUSE PROJECTED FLOW =	375 GPD
POOL PROJECTED FLOW =	650 GPD
FITNESS AREA PROJECTED FLOW =	2,250 GPD
COMMERCIAL PROJECTED FLOW =	130 GPD
<b>TOTAL =</b>	<b>68,225 GPD</b>
WATER DEMAND = SEWER DEMAND * 1.1 =	75,026 GPD

PID: R05419-003-006-000  
 CAPE FEAR COUNTRY CLUB INC  
 CAPE FEAR COUNTRY CLUB & ADJ  
 BK. 2386, PG. 257  
 BK. 207, PG. 385  
 BK. 1017, PG. 714  
 BK. 930, PG. 851  
 BK. 526, PG. 352  
 M.B. 59, PG. 318  
 R-15 ZONING

PID: R05419-003-004-000  
 WILMINGTON SURGCARE INC  
 (5.89 AC) TR B SEVENTEENTH  
 ST PROPERTIES  
 M.B. 31, PG. 263  
 BK. 4238 PG. 1  
 O&I-1 ZONING

PID: R05419-002-001-000  
 NEW HANDOVER COUNTY  
 BLOCKS C&G FRENCH PROPERTY  
 M.B. 4, PG. 85  
 BK. 2683 PG. 48  
 O&I-1 ZONING



- UTILITY KEYNOTES:**
- A CUT IN (1) 8" X 8" MJ TEE (1) 8" MJ GATE VALVE (DELINEATION VALVE)
  - B (1) 8" DCDA BFP
  - C 8" C-900 (DR-18) FIRE LINE. CONTRACTOR SHALL PROVIDE TRANSITION TO 8" DIP WITHIN 5' OF BUILDING ENVELOPE.
  - D (1) 8" X 4" MJ TAPPING SLEEVE (1) 4" X 3" MJ REDUCER (INSTALLED INSIDE VAULT ON CPFA SIDE OF METER)
  - E (1) 3" METER
  - F (1) 4" X 3" MJ REDUCER (1) 4" RPZ BFP
  - G 4" C-900 (DR-18) WATER SERVICE
  - H 6" C-900 (DR-18) FIRE SERVICE TO REMOTE MOUNTED FDC
  - I 8" PRIVATE SANITARY SEWER LATERAL AT 1.00% MINIMUM SLOPE
  - J SANITARY SEWER CONNECTION TO BUILDING [SEE PLUMBING PLANS]
  - K NATURAL GAS SERVICE TO COURTYARD AND POOL AREA. COORDINATE SERVICE CONNECTION WITH PIEDMONT NATURAL GAS REPRESENTATIVE.
  - L PROPOSED TRANSFORMER LOCATION [TYPICAL - COORDINATE WITH DUKE POWER] UNDERGROUND ELECTRIC FEEDER LINE TO BE COORDINATED WITH DUKE POWER

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**Approved Construction Plan**

Name	Date
Planning	
Traffic	
Fire	

**WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**811**  
 Know what's below.  
 Call before you dig.

GRAPHIC SCALE  
 0 20 40 80 160  
 SCALE: 1"=40'

NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:  
**DPJ Residential, LLC**  
 1539 TIPPAH PARK CT.  
 CHARLOTTE, NC 28205

122 Cinema Drive  
 Wilmington, North Carolina 28403  
 (910) 791-6707 (O) / (910) 791-6760 (F)  
 NC License #: C-2846

**PARAMOUNT ENGINEERING**

OVERALL SITE & UTILITY PLAN

17TH STREET MIXED-USE  
 CITY OF WILMINGTON  
 NORTH CAROLINA

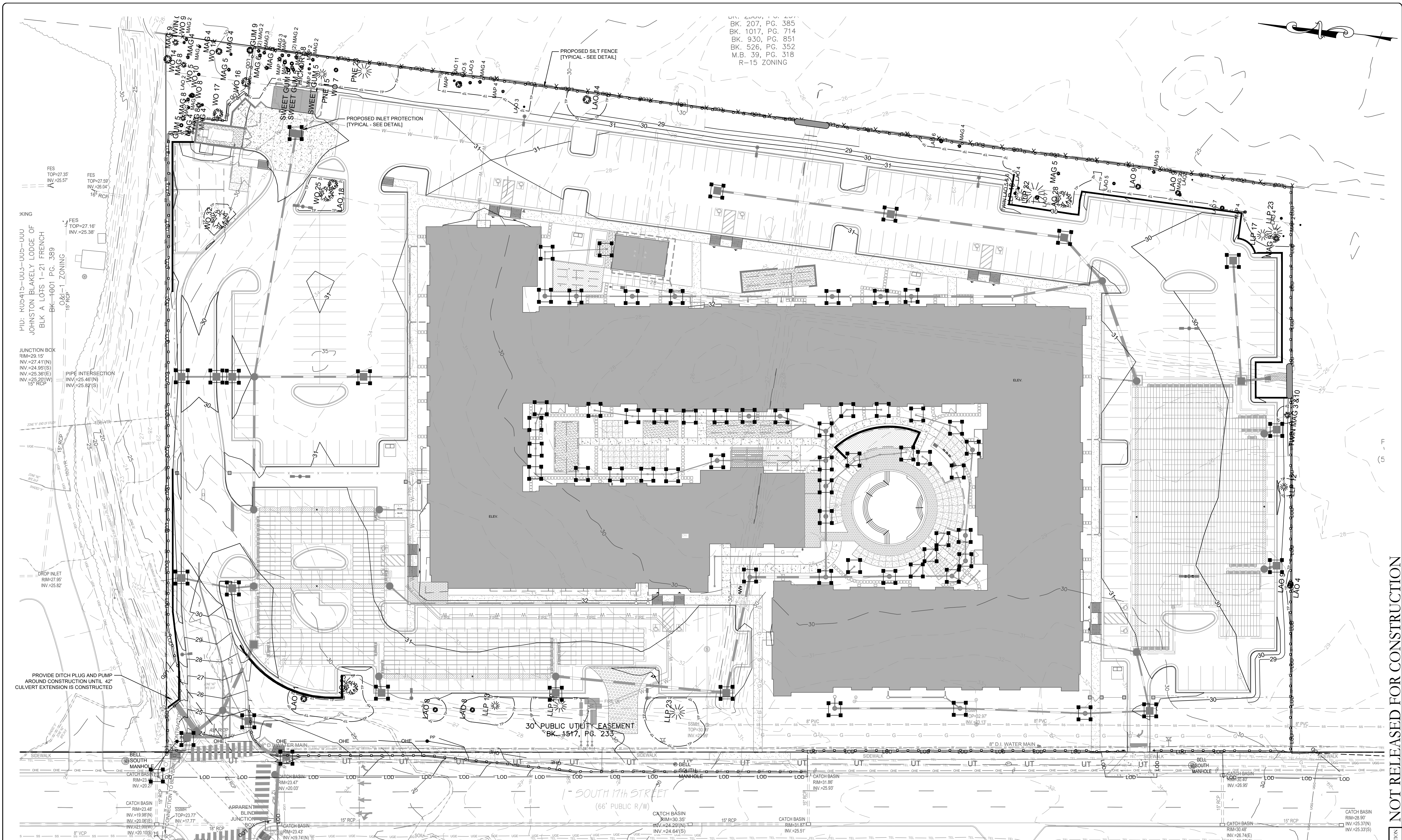
PROJECT STATUS:  
 CONCEPTUAL LAYOUT:  
 PRELIMINARY LAYOUT:  
 RELEASED FOR CONSTRUCTION

DRAWING INFORMATION:  
 DATE: 03.18.20  
 1" = 40' D.I.F.  
 1" = 40' D.I.F.  
 1" = 40' D.I.F.

SEAL

**C2.00**

PEI JOB#: 19331.PE

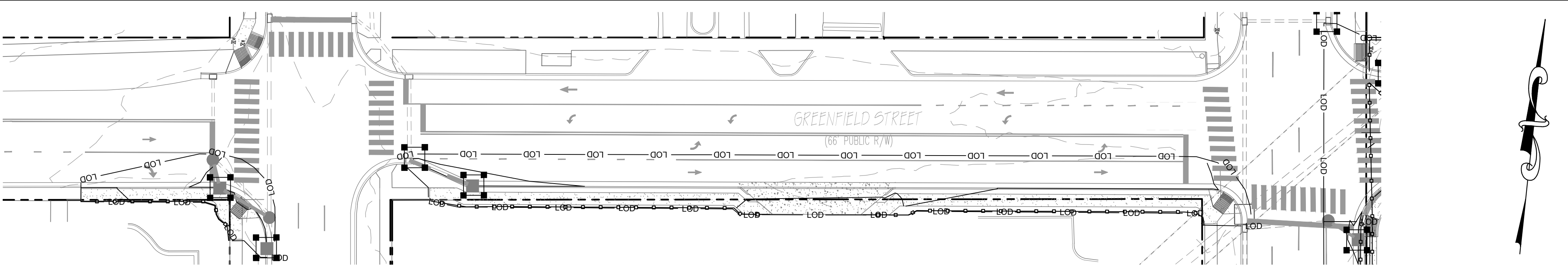
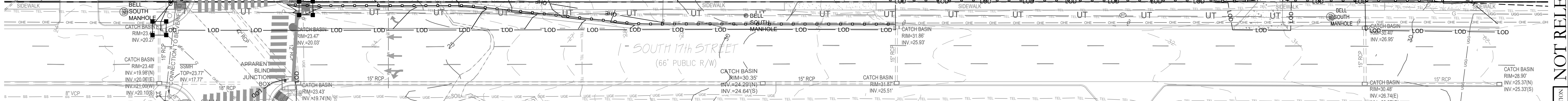


BK. 207, PG. 385  
 BK. 1017, PG. 714  
 BK. 930, PG. 851  
 BK. 526, PG. 352  
 M.B. 39, PG. 318  
 R-15 ZONING

FES TOP=27.35 INV=25.57  
 FES TOP=27.59 INV=28.04  
 FES TOP=27.16 INV=25.38  
 KING  
 PID: K05415-003-005-000  
 JOHNSTON BLAKELY LODGE OF  
 BLK A LOTS 1-21 FRENCH  
 BK-1001 PG. 389  
 O-61-1 ZONING  
 15' RCP  
 JUNCTION BOX  
 RIM=29.15'  
 NV=27.41(N)  
 NV=24.95(S)  
 NV=25.36(E)  
 NV=25.20(W)  
 INV=25.82'  
 PIPE INTERSECTION  
 INV=25.46(N)  
 INV=25.82(S)

PROVIDE DITCH PLUG AND PUMP  
 AROUND CONSTRUCTION UNTIL 42"  
 CULVERT EXTENSION IS CONSTRUCTED

30' PUBLIC UTILITY EASEMENT  
 BK. 1517, PG. 233



Approved Construction Plan

Name \_\_\_\_\_ Date \_\_\_\_\_

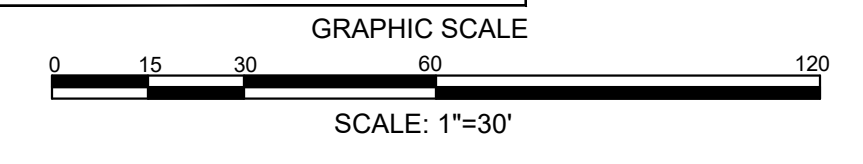
Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

Signed: \_\_\_\_\_

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_



NOT RELEASED FOR CONSTRUCTION

<b>PROJECT STATUS</b> CONCEPTUAL LAYOUT: _____ PRELIMINARY LAYOUT: _____ RELEASED FOR CONSTRUCTION: _____		<b>REVISIONS:</b> 1. PER NDOT COMMENTS
<b>DRAWING INFORMATION</b> DATE: 03/18/20 1" DWF 1" DWF 1" DWF 1" DWF		<b>CLIENT INFORMATION:</b> <b>DJ Residential, LLC</b> 1539 TIPPAH PARK CT. CHARLOTTE, NC 28205
<b>EROSION CONTROL PLAN</b> PHASE II 17TH STREET MIXED-USE CITY OF WILMINGTON NORTH CAROLINA		<b>PARAMOUNT ENGINEERING</b> 122 Cinema Drive Wilmington, North Carolina 28403 (910) 791-6707 (O) (910) 791-6766 (F) NC License #: C-2846
<b>SEAL</b> 		<b>C3.01</b> PEI JOB#: 19331.PE

NOTATION:

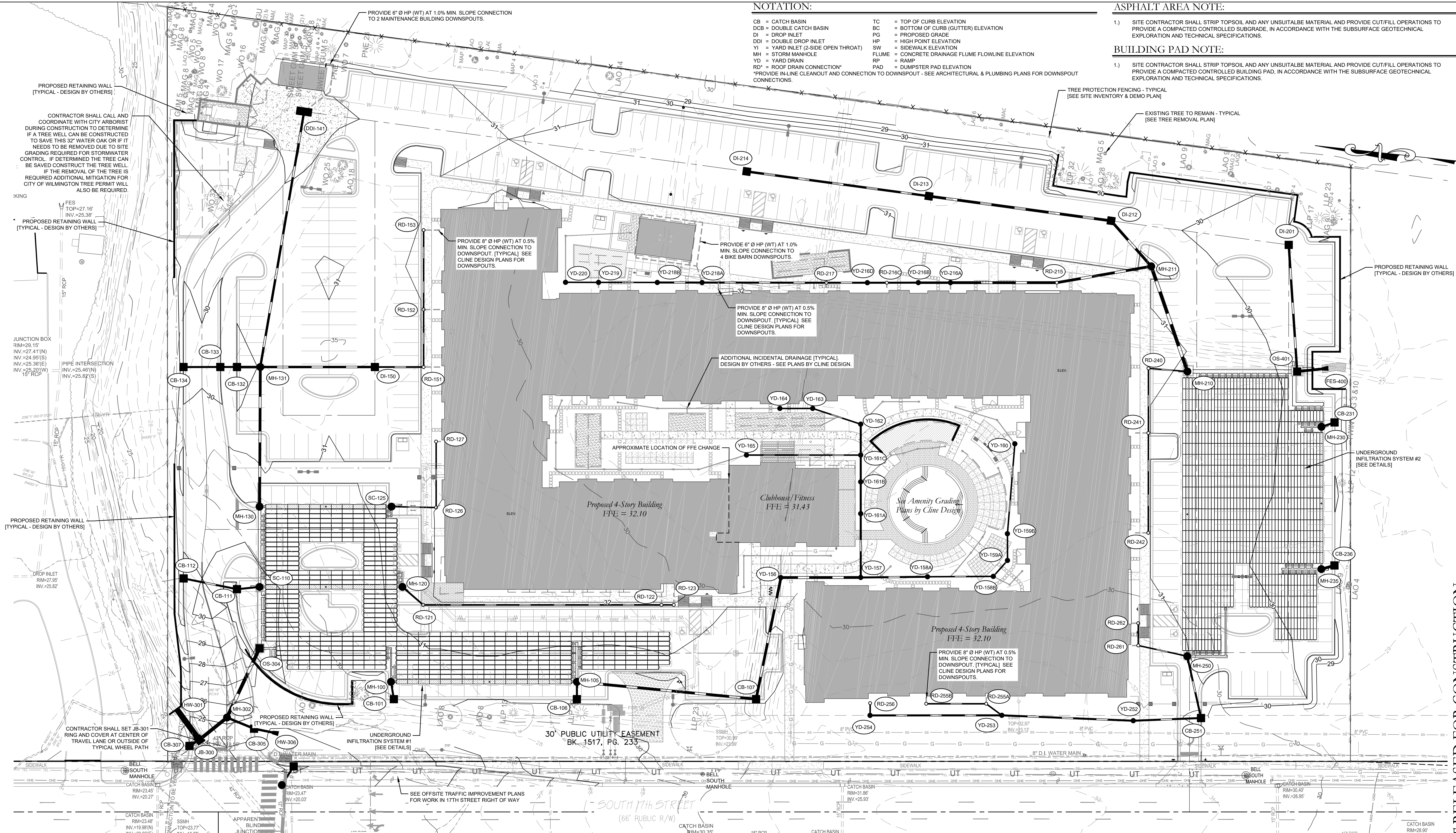
- CB = CATCH BASIN
DCB = DOUBLE CATCH BASIN
DI = DROP INLET
DDI = DOUBLE DROP INLET
YI = YARD INLET (2-SIDE OPEN THROAT)
MH = STORM MANHOLE
YD = YARD DRAIN
RD = ROOF DRAIN CONNECTION
PROVIDE IN-LINE CLEANOUT AND CONNECTION TO DOWNSPOUT - SEE ARCHITECTURAL & PLUMBING PLANS FOR DOWNSPOUT CONNECTIONS.

ASPHALT AREA NOTE:

- 1) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED SUBGRADE, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

BUILDING PAD NOTE:

- 1) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED BUILDING PAD, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.



- DRAINAGE NOTES:
1) DRAINAGE EASEMENT AND STORMWATER SYSTEM MAINTENANCE IS THE RESPONSIBILITY OF THE DEVELOPER OR HOA...
2) ALL IMPERVIOUS MUST DRAIN TO THE DESIGNED STORMWATER SYSTEM...
3) NO OBSTRUCTIONS ARE ALLOWED IN DRAINAGE EASEMENTS...
4) ALL STORM DRAINAGE STRUCTURES SHALL MEET NCDOT STANDARDS...
5) ALL CATCH BASIN (CB) RIM ELEVATIONS ARE LISTED AS THE 'GUTTER OF FLOWLINE ELEVATION'...

STORM SCHEDULE table with columns for Upstream Node, Downstream Node, Diameter, Invert, Pipe Length, Slope (%), Rim Elev, and Pipe Material. Includes a sub-table for 'APPROXIMATE LOCATION OF FFE CHANGE'.

STORM SCHEDULE table with columns for Upstream Node, Downstream Node, Diameter, Invert, Pipe Length, Slope (%), Rim Elev, and Pipe Material.

Approved Construction Plan form with fields for Name, Date, Planning, Traffic, Fire, and a signature line. Includes a 'NOT RELEASED FOR CONSTRUCTION' stamp and a 'C4.00' graphic scale.

Vertical sidebar containing project information: DPJ Residential, LLC; 1539 TIPPAAH PARK CT. CHARLOTTE, NC 28205; PARAMOUNT ENGINEERING; 122 Cinema Drive, Wilmington, NC 28403; and a 'NOT RELEASED FOR CONSTRUCTION' stamp.

**NOTATION:**

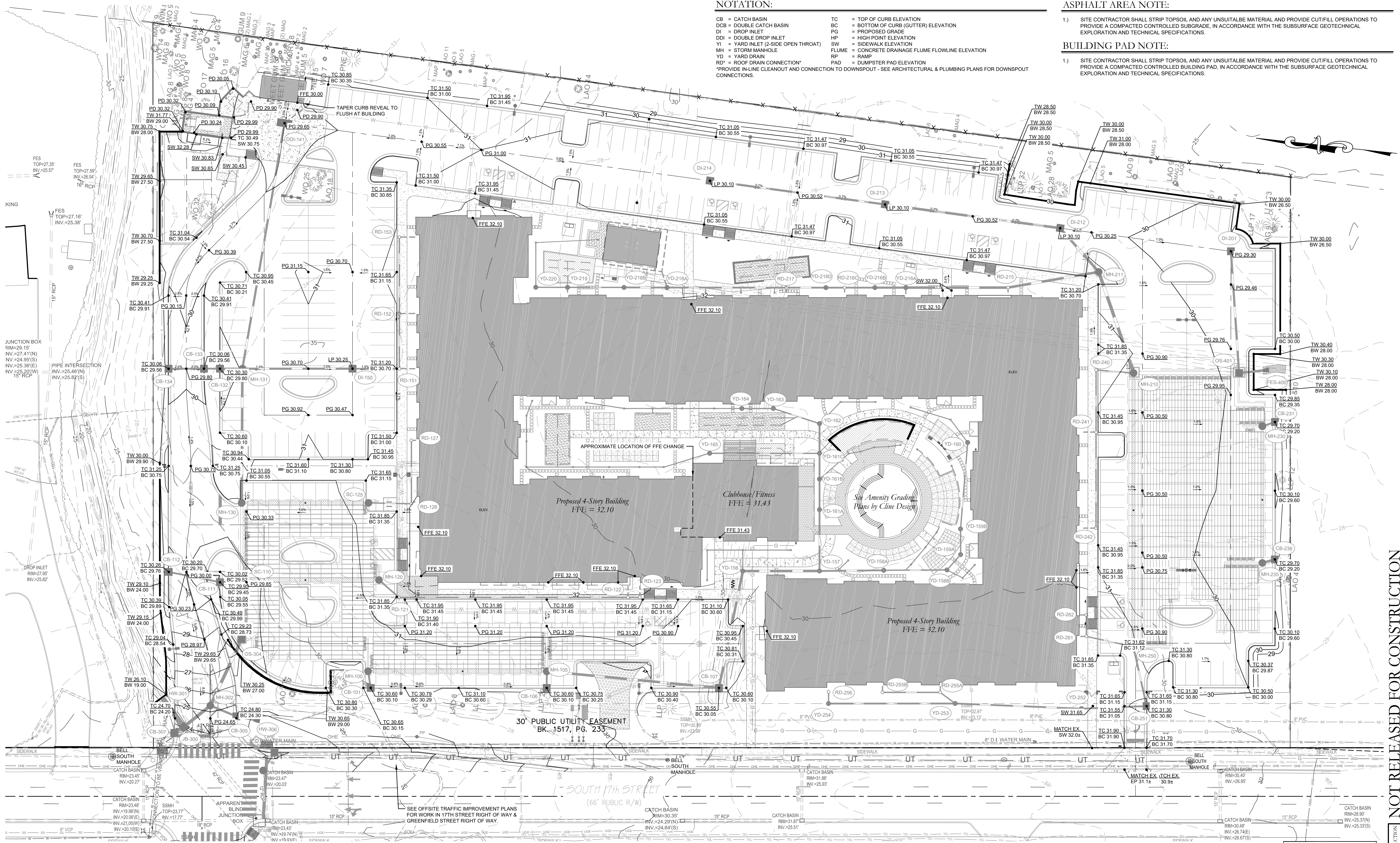
- CB = CATCH BASIN
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- YI = YARD INLET (2-SIDE OPEN THROAT)
- MH = STORM MANHOLE
- YD = YARD DRAIN
- RD = ROOF DRAIN CONNECTION
- TC = TOP OF CURB ELEVATION
- BC = BOTTOM OF CURB (GUTTER) ELEVATION
- PG = PROPOSED GRADE
- HP = HIGH POINT ELEVATION
- SW = SIDEWALK ELEVATION
- FLUME = CONCRETE DRAINAGE FLUME FLOWLINE ELEVATION
- RP = RAMP
- PAD = DUMPSTER PAD ELEVATION

**ASPHALT AREA NOTE:**

- 1) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED SUBGRADE, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

**BUILDING PAD NOTE:**

- 1) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED BUILDING PAD, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.



**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

**CITY OF WILMINGTON**  
NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.


**811**  
Know what's below.  
Call before you dig.

GRAPHIC SCALE

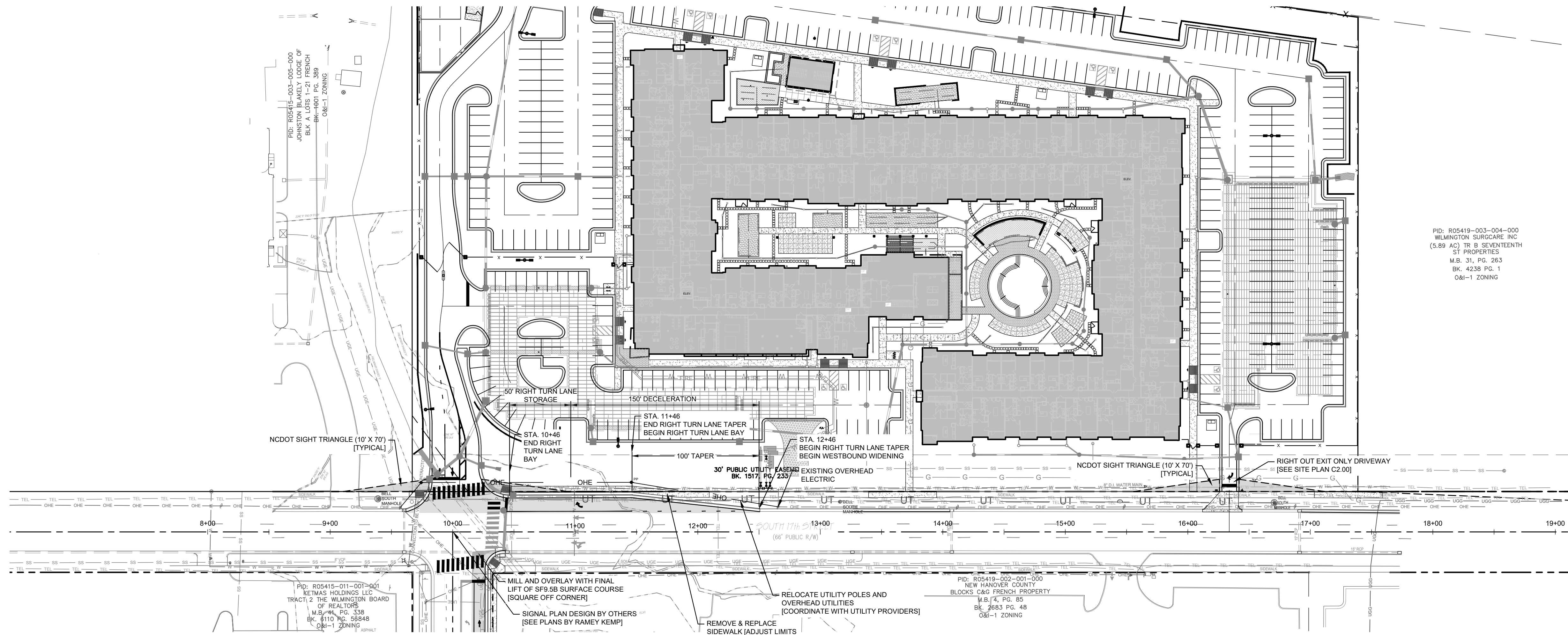
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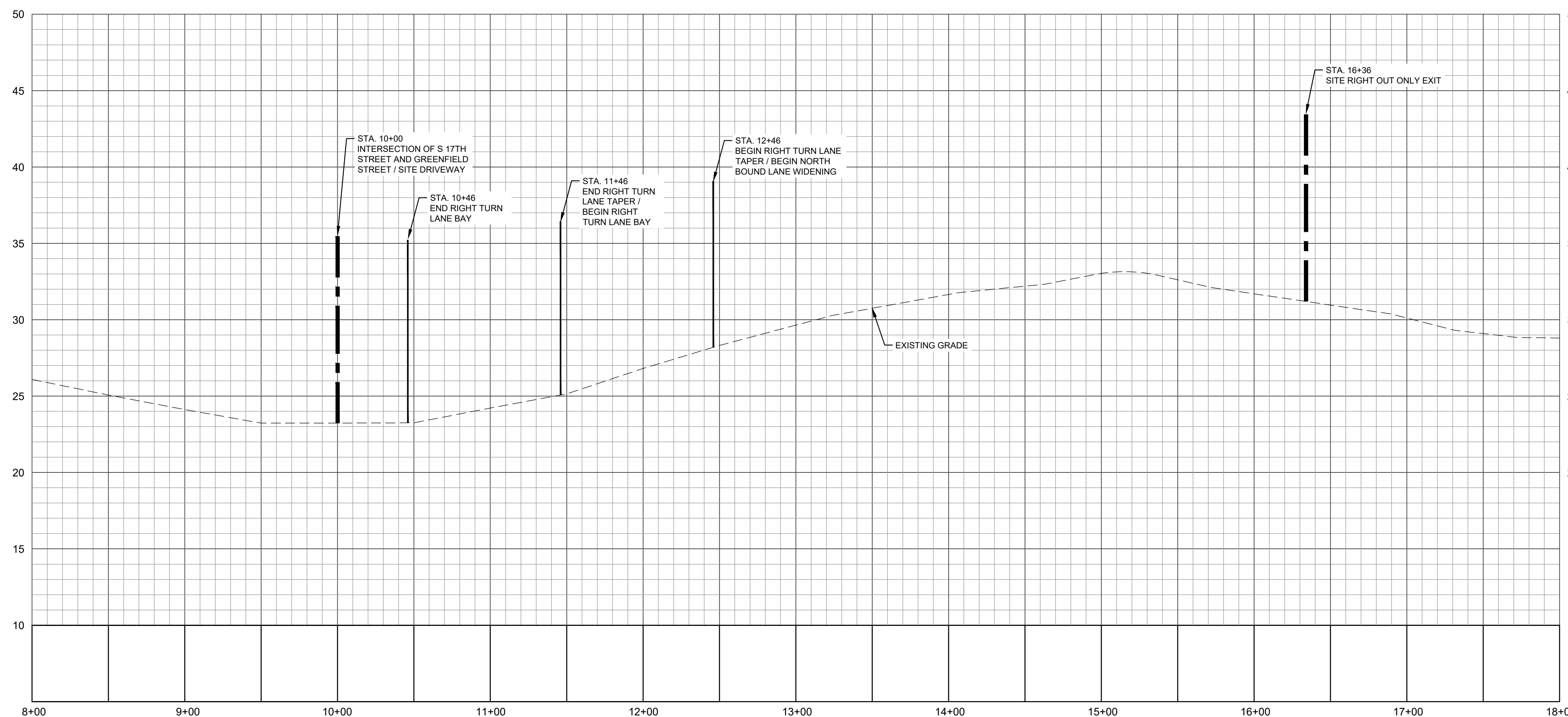
NOT RELEASED FOR CONSTRUCTION

REVISIONS: 1. REVISED CURB RETURN AT DOG WASH DOOR 2. REVISED PER AUS SUBMITTAL	CLIENT INFORMATION: <b>DPJ Residential, LLC</b> 1539 TIPPAH PARK CT. CHARLOTTE, NC 28205	PROJECT STATUS: CONCEPTUAL LAYOUT: PRELIMINARY LAYOUT: RELEASED FOR CONSTRUCTION	DRAWING INFORMATION: DATE: 03/18/20 1" DWF DESIGNED: [Signature] DRAWN: [Signature] CHECKED: [Signature]	SEAL 	C4.10
PROJECT INFORMATION: 17TH STREET MIXED-USE CITY OF WILMINGTON NORTH CAROLINA		PEI JOB#: 19331.PE		04.15.20 05.13.20	





PLAN VIEW: S. 17TH STREET STA. 8+00-18+00  
SCALE: 1"=50'



PROFILE VIEW: S. 17TH STREET STA. 8+00-18+00  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'

PID: R05419-003-004-000  
WILMINGTON SURGCARE INC  
(5.89 AC) TR B SEVENTEENTH  
ST PROPERTIES  
M.B. 31, PG. 263  
BK. 4238 PG. 1  
080-1 ZONING

PID: R05415-003-005-000  
JOINT VENTURE OF  
KEMAS HOLDINGS LLC  
OF REALTORS  
M.B. 31, PG. 338  
BK. 4100 PG. 4848  
080-1 ZONING

PID: R05415-011-001-001  
KEMAS HOLDINGS LLC  
TRACT 2 THE WILMINGTON BOARD  
OF REALTORS  
M.B. 31, PG. 338  
BK. 4100 PG. 4848  
080-1 ZONING

PID: R05418-002-001-000  
NEW HANOVER COUNTY  
BLOCKS C&G FRENCH PROPERTY  
M.B. 4, PG. 85  
BK. 2483 PG. 48  
080-1 ZONING



REVISIONS:

1.	PER NCDOT & CITY COMMENTS
2.	PER NCDOT & CITY COMMENTS

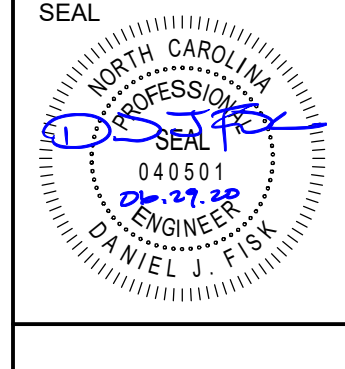
CLIENT INFORMATION:  
**DJI Residential, LLC**  
1539 TIPPAH PARK CT.  
CHARLOTTE, NC 28205

**PARAMOUNT**  
ENGINEERING INC.  
122 Cinema Drive  
Wilmington, North Carolina 28403  
(910) 791-6707 (O) (910) 791-6766 (F)  
NC License #: C-2846

NOT RELEASED FOR CONSTRUCTION

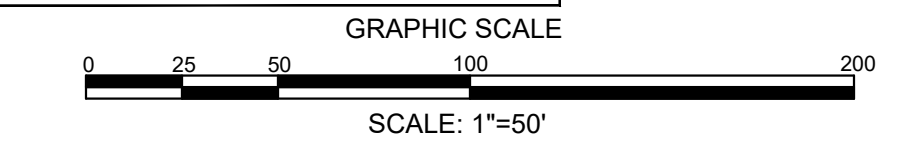
OFFSITE TRAFFIC IMPROVEMENTS  
GEOMETRIC PLAN  
17TH STREET MIXED-USE  
CITY OF WILMINGTON  
NORTH CAROLINA

PROJECT STATUS: CONCEPTUAL LAYOUT: PRELIMINARY LAYOUT: RELEASED FOR CONST:	DATE: 03/18/20 DRAWN: DDF DESIGNED: DDF CHECKED: DDF
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PEI JOB#: 19331.PE

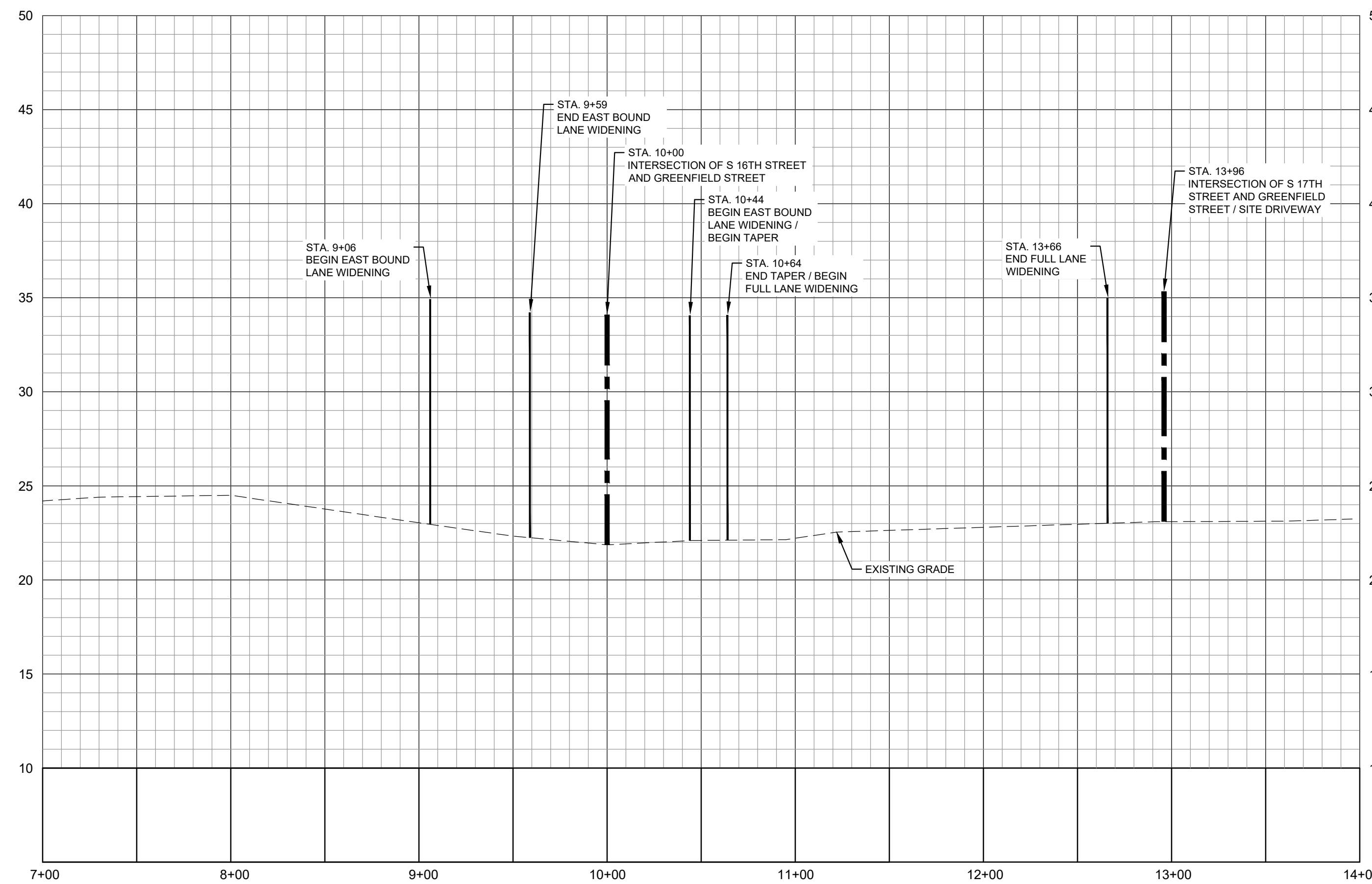
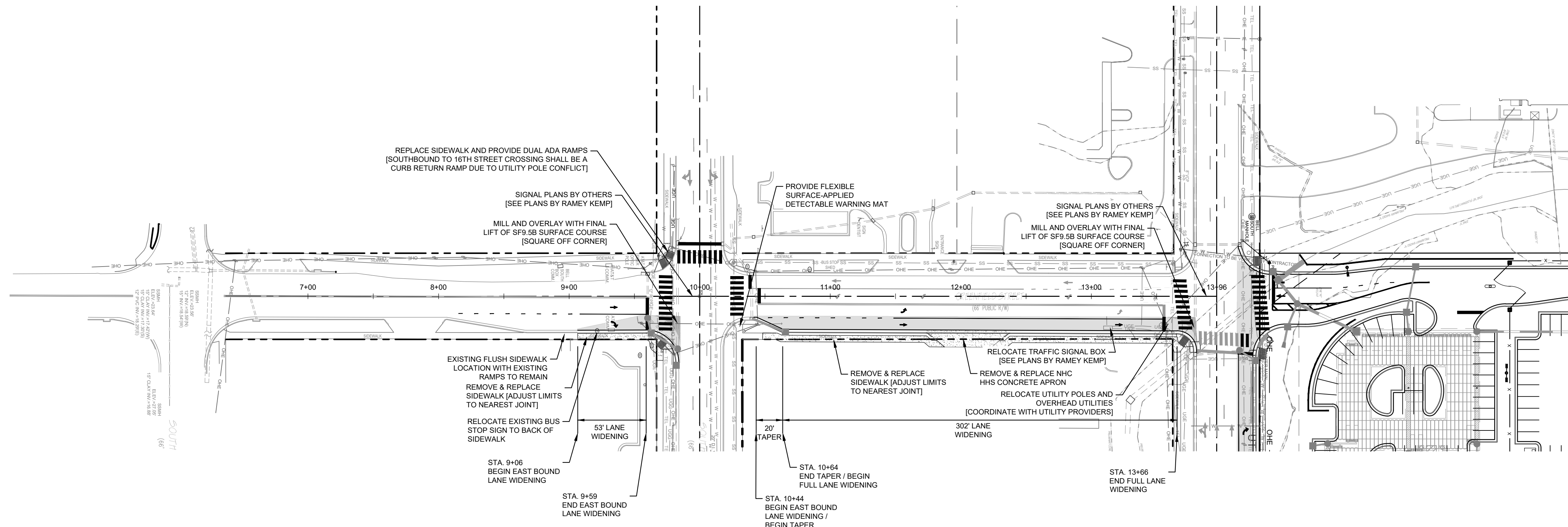
**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_



For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan

Name	Date
Planning _____	_____
Traffic _____	_____
Fire _____	_____



For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

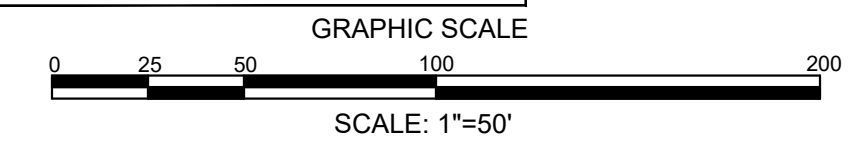
Traffic \_\_\_\_\_

Fire \_\_\_\_\_

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN

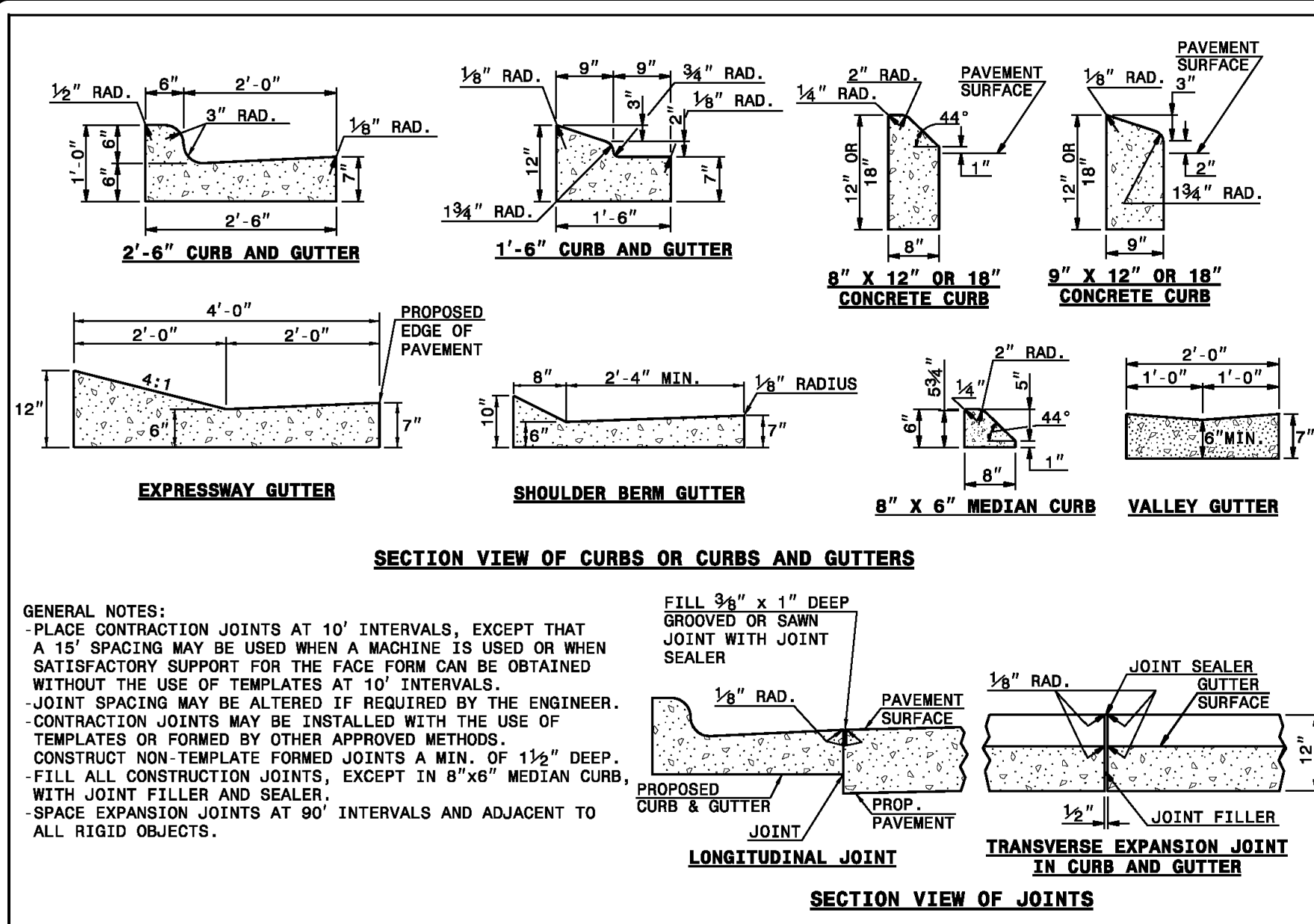
Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_



NOT RELEASED FOR CONSTRUCTION

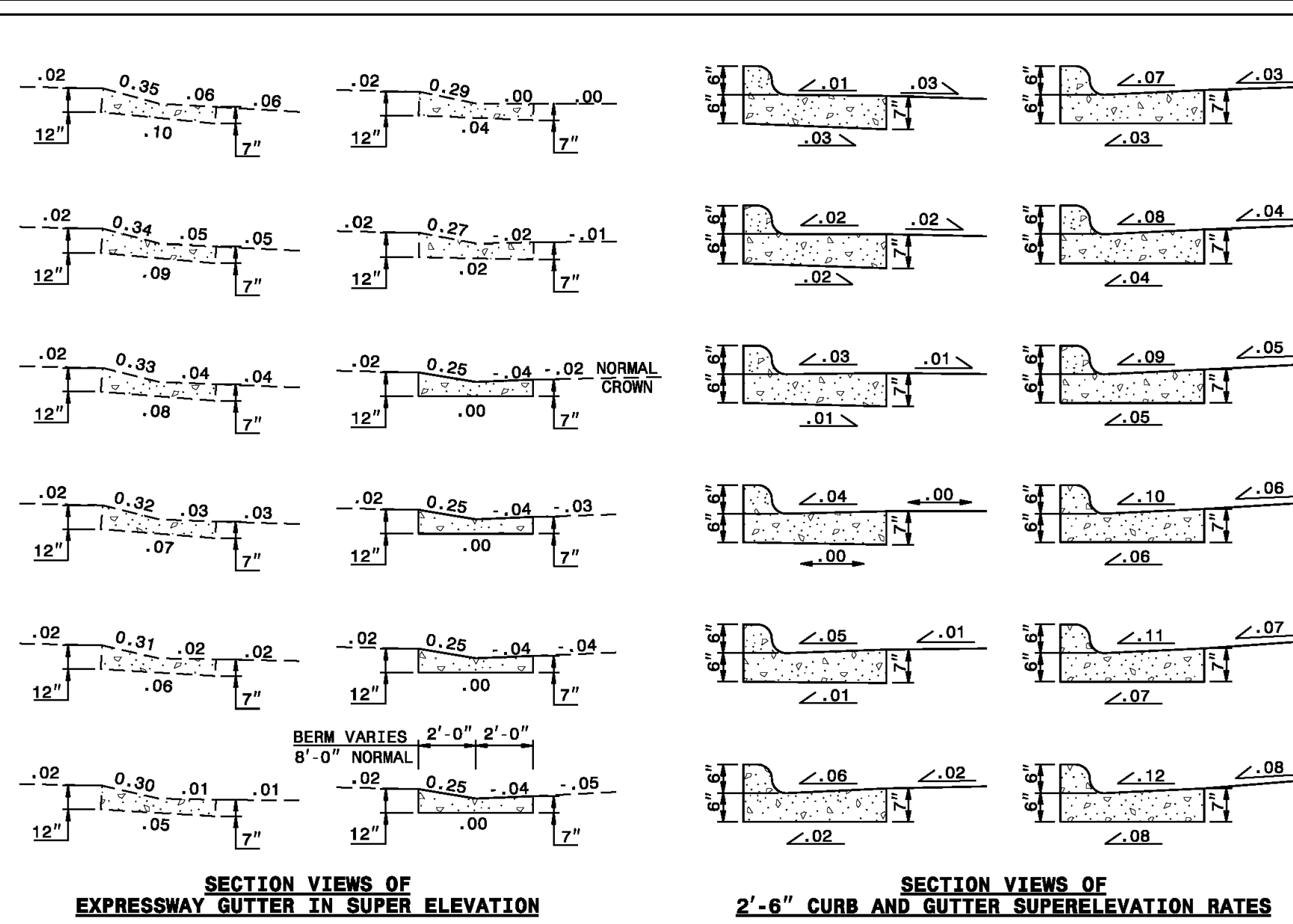
<b>PARAMOUNT ENGINEERING</b> 122 Cinema Drive Wilmington, North Carolina 28403 (910) 791-6707 (O) (910) 791-6766 (F) NC License #: C-2846		<b>CLIENT INFORMATION:</b> DPJ Residential, LLC 1539 TIPPAH PARK CT. CHARLOTTE, NC 28205
<b>PROJECT STATUS:</b> CONCEPTUAL LAYOUT: _____ PRELIMINARY LAYOUT: _____ RELEASED FOR CONST: _____	<b>DRAWING INFORMATION:</b> DATE: 03/18/20 1" DWF 1" DWF 1" DWF DESIGNED: _____ DRAWN: _____ CHECKED: _____	<b>REVISIONS:</b> 1. PER NCDOT & CITY COMMENTS 2. PER NCDOT & CITY COMMENTS 3. PER NCDOT & CITY COMMENTS
<b>OFFSITE TRAFFIC IMPROVEMENTS GEOMETRIC PLAN</b> 17TH STREET MIXED-USE CITY OF WILMINGTON NORTH CAROLINA		<b>PEI JOB#:</b> 19331.PE



STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**CONCRETE CURB, GUTTER AND CURB & GUTTER**

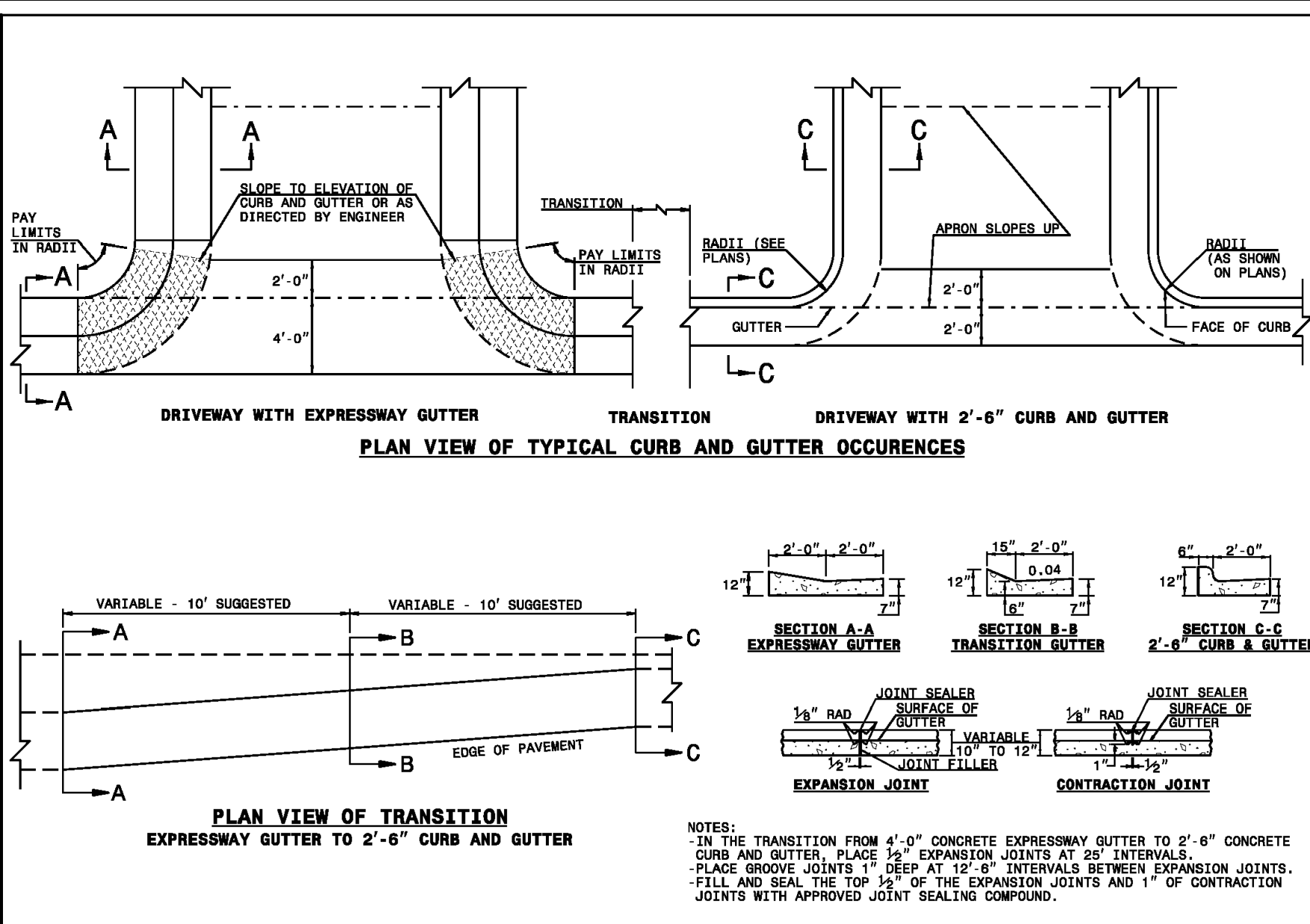
SHEET 1 OF 3  
 846.01



STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**CONCRETE CURB, GUTTER AND CURB & GUTTER**

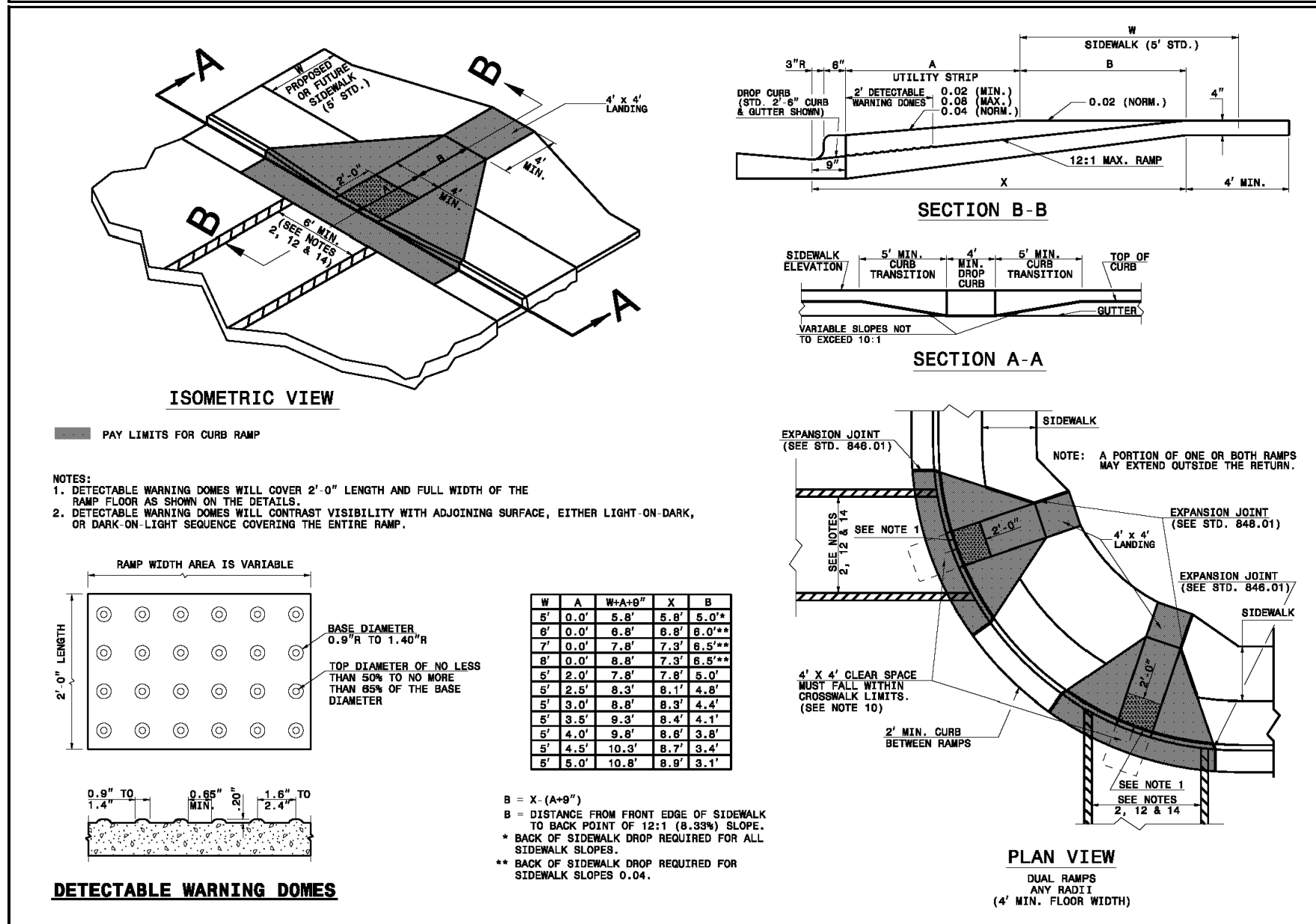
SHEET 2 OF 3  
 846.01



STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**CONCRETE CURB, GUTTER AND CURB & GUTTER**

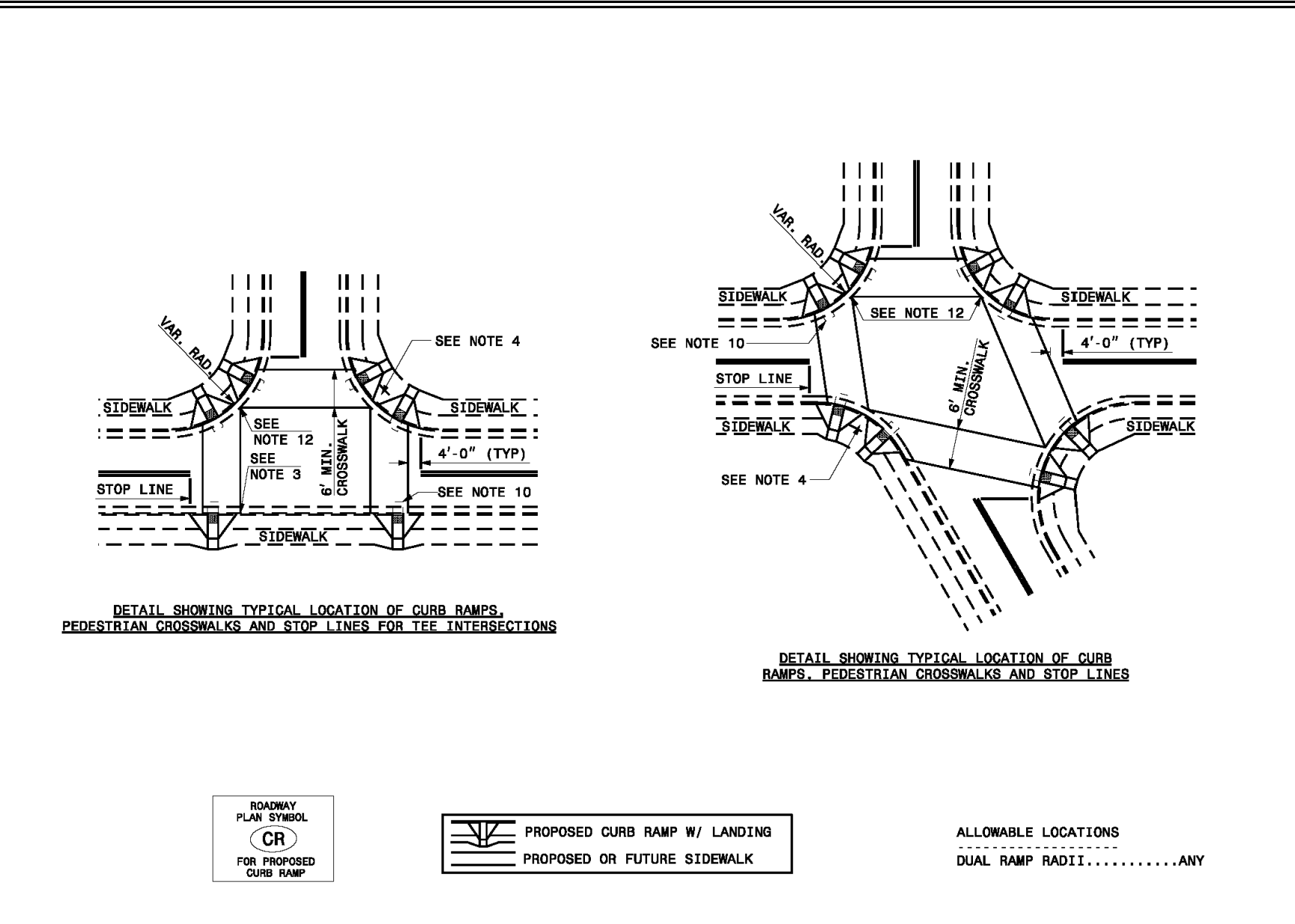
SHEET 3 OF 3  
 846.01



STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**CURB RAMP**

SHEET 1 OF 3  
 848.05



STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**CURB RAMP**

SHEET 2 OF 3  
 848.05

- NOTES:
- CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM, AND SLIP RESISTANT. CONSTRUCT THE CURB RAMP TYPE AS SHOWN IN THE PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER.
  - LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMPS OR MARKINGS AS SHOWN, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
  - COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4'x4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
  - SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
  - REFER TO THE PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
  - TERMINATE PARKING A MINIMUM OF 20' BACK OF A PEDESTRIAN CROSSWALK.
  - CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
  - CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% MAXIMUM.
  - ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
  - CONSTRUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10% MEASURED ALONG THE CURB LINE.
  - CONSTRUCT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
  - CONSTRUCT LANDINGS FOR SIDEWALK A MINIMUM OF 4'x4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. CONSTRUCT LANDINGS FOR MEDIAN ISLANDS A MINIMUM OF 5'x5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
  - TO USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA, MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGH THE ISLAND.
  - SMALL CHANNELIZATION ISLANDS THAT CAN NOT PROVIDE A 5'x5' LANDING AT THE TOP OF A RAMPS, WILL BE CUT THROUGH LEVEL WITH THE SURFACE STREET.
  - CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
  - PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AS SHOWN IN ROADWAY STANDARD DRAWING 848.01
  - PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE MUTCD.
  - CURB RAMPS THROUGH MEDIAN ISLANDS, SINGLE RAMPS AT DUAL CROSSWALKS OR LIMITED R/W SITUATIONS, WILL BE HANDLED BY SPECIAL DETAILS. CONTACT THE CONTRACT STANDARDS AND DEVELOPMENT UNIT FOR THE DETAILS OR FOR A SPECIAL DESIGN.

STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**CURB RAMPS**

SHEET 3 OF 3  
 848.05

City of Wilmington logo

**811**  
 Know what's below. Call before you dig.

APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

GRAPHIC SCALE: 0 25 50 100 200  
 SCALE: 1"=50'

NOT RELEASED FOR CONSTRUCTION

PROJECT STATUS:  PRELIMINARY  PERMITTING  CONSTRUCTION

OFFSITE TRAFFIC IMPROVEMENTS DETAILS

17TH STREET MIXED-USE CITY OF WILMINGTON NORTH CAROLINA

APPROVED CONSTRUCTION PLAN  
 Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_  
 Traffic: \_\_\_\_\_  
 Fire: \_\_\_\_\_

PROJECT INFORMATION: 07/28/20 11:07 AM D.D.F. D.D.F. D.D.F.

DRAWING INFORMATION: 07/28/20 11:07 AM D.D.F. D.D.F. D.D.F.

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 07/28/20 [Signature]

C6.02

PEI JOB#: 19331.PE

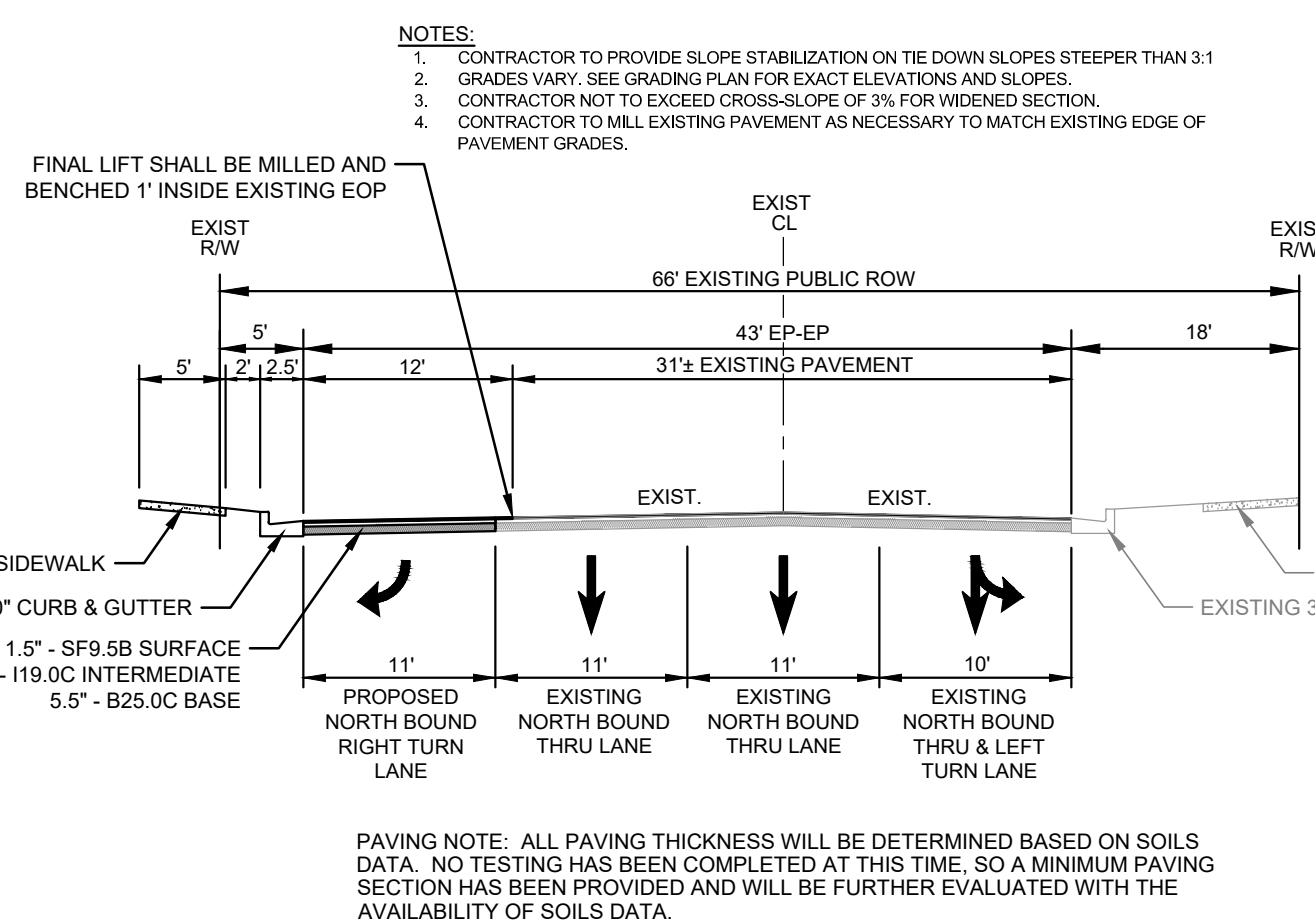
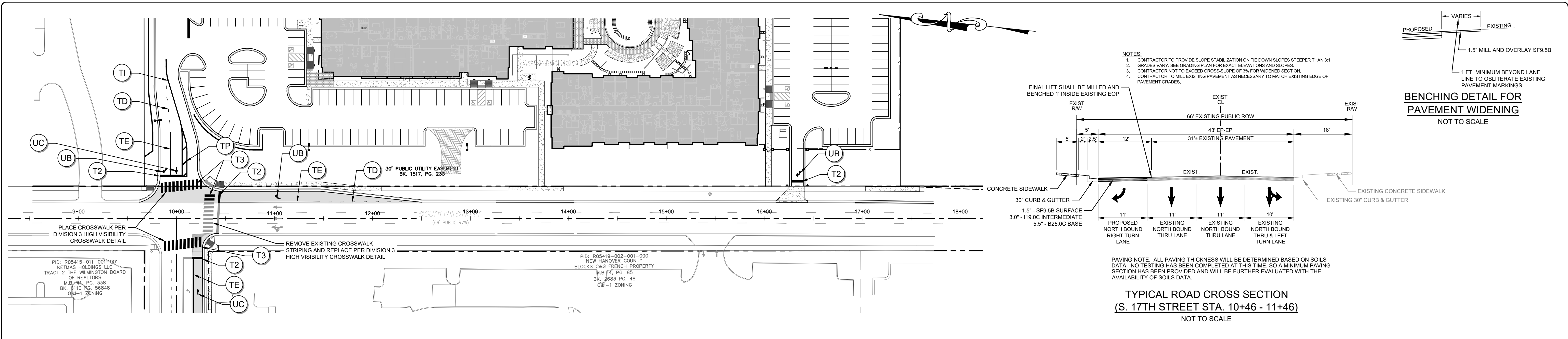
REVISIONS:

NO.	DESCRIPTION

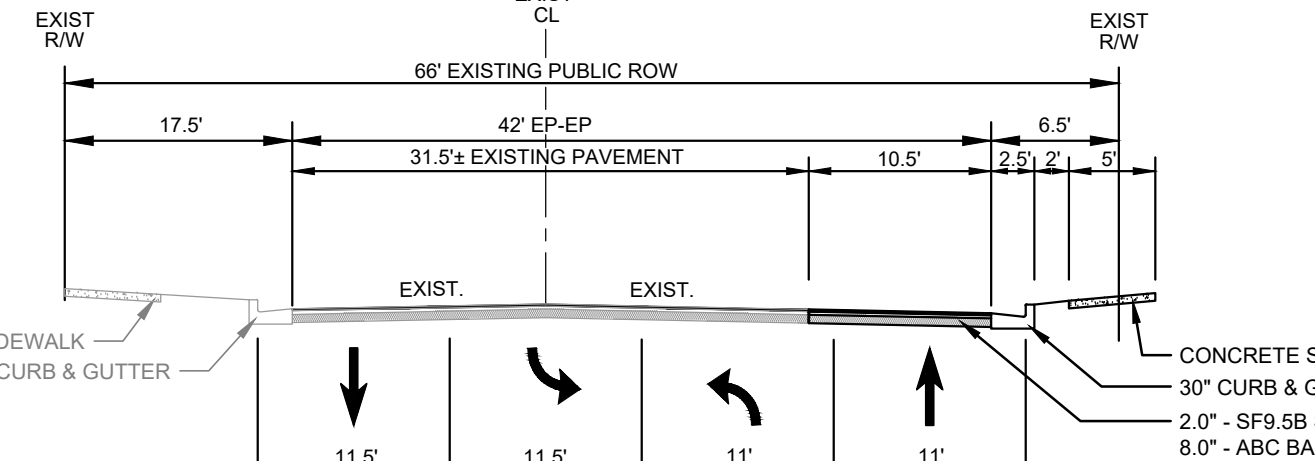
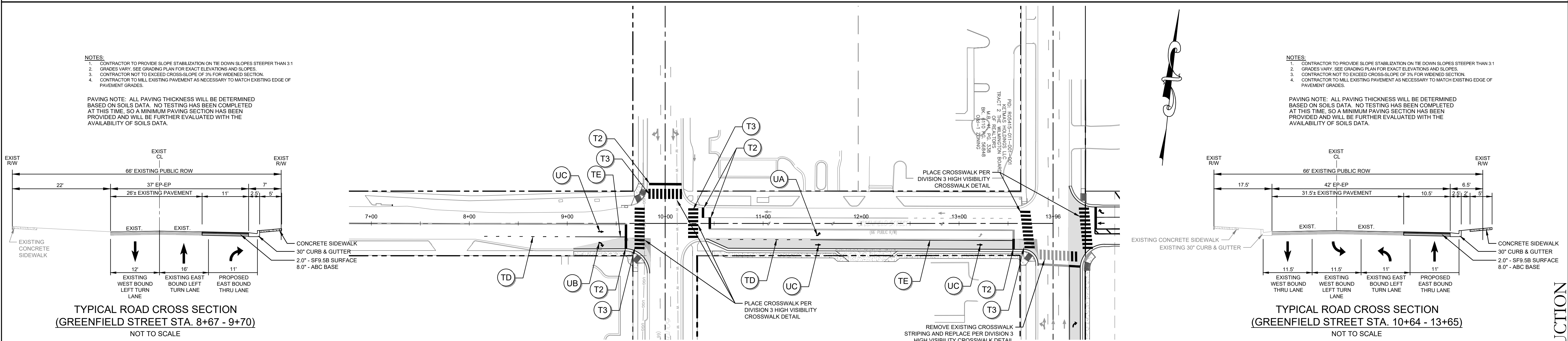
CLIENT INFORMATION:

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 1539 TIPPAH PARK CT.  
 CHARLOTTE, NC 28205

**PARAMOUNT ENGINEERING**  
 122 Cinema Drive  
 Wilmington, North Carolina 28403  
 (910) 791-6707 (O) (910) 791-6766 (F)  
 NC License #: C-2846



TYPICAL ROAD CROSS SECTION  
(S. 17TH STREET STA. 10+46 - 11+46)  
NOT TO SCALE



TYPICAL ROAD CROSS SECTION  
(GREENFIELD STREET STA. 10+64 - 13+65)  
NOT TO SCALE

NOTES:  
1. CONTRACTOR TO PROVIDE SLOPE STABILIZATION ON THE DOWN SLOPES STEEPER THAN 3:1  
2. GRADES VARY. SEE GRADING PLAN FOR EXACT ELEVATIONS AND SLOPES.  
3. CONTRACTOR NOT TO EXCEED CROSS-SLOPE OF 3% FOR WIDENED SECTION.  
4. CONTRACTOR TO MILL EXISTING PAVEMENT AS NECESSARY TO MATCH EXISTING EDGE OF PAVEMENT GRADES.

PAVING NOTE: ALL PAVING THICKNESS WILL BE DETERMINED BASED ON SOILS DATA. NO TESTING HAS BEEN COMPLETED AT THIS TIME. SO A MINIMUM PAVING SECTION HAS BEEN PROVIDED AND WILL BE FURTHER EVALUATED WITH THE AVAILABILITY OF SOILS DATA.

NOTES:  
1. CONTRACTOR TO PROVIDE SLOPE STABILIZATION ON THE DOWN SLOPES STEEPER THAN 3:1  
2. GRADES VARY. SEE GRADING PLAN FOR EXACT ELEVATIONS AND SLOPES.  
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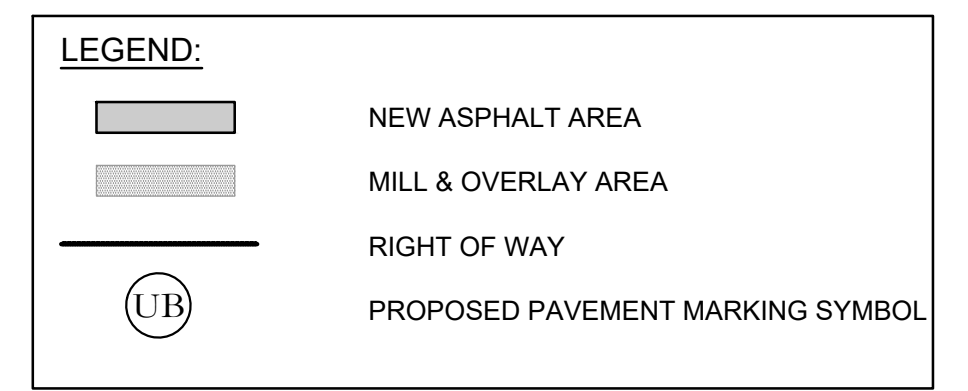
- NOTES:
- SNOW PLOWABLE PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH NCDOT'S STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES 2018 AND THE ROADWAY STANDARD DRAWINGS. CURB MOUNTED REFLECTORS ARE TO BE INSTALLED ON TRAFFIC ISLANDS.
  - PAVEMENT MARKINGS SHALL BE THE RESPONSIBILITY OF THE PERMITTEE. THE PERMITTEE SHALL HAVE THE PAVEMENT MARKINGS PRE-MARKED, INSPECTED, AND APPROVED BY NCDOT PERSONNEL PRIOR TO THE PLACEMENT OF FINAL PAVEMENT MARKINGS. CONTACT TRAFFIC SERVICES AT (910)341-0300 FOR PRE-MARKING INSPECTIONS OR FIELD CHANGES. CENTERLINE PAVEMENT MARKINGS SHALL BE INSTALLED THE SAME DAY RESURFACING IS ACCOMPLISHED. ALL OTHER PAVEMENT MARKINGS SHALL BE COMPLETED WITHIN 5 DAYS OF RESURFACING. PAVEMENT MARKINGS SHALL BE THERMOPLASTIC AND MEET THE NCDOT'S STANDARD SPECIFICATION FOR ROADS AND STRUCTURES AND NCDOT ROADWAY STANDARD DRAWINGS.
  - NEW ASPHALT AREA = 811 SY [380 SY 17TH STREET | 431 SY GREENFIELD STREET]
  - FOR ALL WORK WITHIN NCDOT RIGHT OF WAY, CONTRACTOR SHALL REFER TO NCDOT STANDARD DRAWINGS, LATEST VERSION, FOR STANDARD DETAILS. SOME OF THESE DETAILS ARE LOCATED ON THESE PLANS FOR CONVENIENCE.
  - PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH NCDOT STANDARD DRAWINGS 1205.01 AND 1205.04.
  - SITE CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS FOR ANY TEMPORARY OR PERMANENT UTILITY RELOCATION.
  - SITE CONTRACTOR SHALL COORDINATE WITH OWNERS OF EXISTING MAILBOX'S TO BE RELOCATED.
  - EXISTING DRIVEWAY CULVERTS SHALL REMAIN WHERE SHOWN ON THIS PLAN.
  - ALL PAVEMENT MARKINGS SHALL MATCH APPROVED SIGNAL PLANS BY RAMEY KEMP.

PAVEMENT MARKING LEGEND:  
CONTRACTOR SHALL REFER TO NCDOT STANDARD DETAIL #1205.01 FOR PAVEMENT MARKINGS

SYMBOL	DESCRIPTION	PAVEMENT MARKINGS			
TQ	WHITE CROSSWALK LINE	THERMOPLASTIC (8", 90MILS)	0 LF	TOTAL	0 LF
TD	3 FT - 9 FT WHITE MINISKIP WHITE SOLID LANE LINE YELLOW DOUBLE CENTER LINE	THERMOPLASTIC (4", 90MILS)	81 LF	TOTAL	611 LF
TE		THERMOPLASTIC (4", 90MILS)	405 LF		
TI		THERMOPLASTIC (4", 90MILS)	125 LF		
TP	YELLOW DIAGONAL	THERMOPLASTIC (8", 90MILS)	25 LF	TOTAL	25 LF
T2	WHITE STOPBAR WHITE CROSSWALK LINE	THERMOPLASTIC (24", 90MILS)	125 LF	TOTAL	715 LF
T3		THERMOPLASTIC (24", 90MILS)	590 LF		
UA	LEFT TURN ARROW	THERMOPLASTIC THICK SYMBOLS (90MILS)	1 EA	TOTAL	9 EA
UB	RIGHT TURN ARROW	THERMOPLASTIC THICK SYMBOLS (90MILS)	4 EA		
UC	STRAIGHT ARROW	THERMOPLASTIC THICK SYMBOLS (90MILS)	4 EA		

- COORDINATION NOTES:
- THE CONTRACTOR IS REQUIRED TO OBTAIN ANY/ALL PERMITS REQUIRED FOR CONSTRUCTION OF THESE PLANS.
  - ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND WITH CITY OF WILMINGTON, NEW HANOVER COUNTY, NCDOT, AND THE STATE OF NORTH CAROLINA.
  - THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THE PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE SITE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS. CONTRACTOR SHALL EMPLOY A PROFESSIONAL SURVEYOR TO PERFORM SITE IMPROVEMENT STAKEOUT(S).
  - ANYTIME WORK IS PERFORMED OFFSITE OR WITHIN AN EXISTING EASEMENT, THE CONTRACTOR IS TO NOTIFY THE HOLDER OF SAID EASEMENT AS TO THE NATURE OF PROPOSED WORK, AND TO FOLLOW ANY GUIDELINES OR STANDARDS WHICH ARE ASSOCIATED WITH OR REFERENCED IN THE RECORDED EASEMENT.

- TRAFFIC NOTES:
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY & FOR DRIVEWAY(S) ARE TO BE THERMOPLASTIC & MEET NCDOT STANDARDS.
  - TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
  - ALL TRAFFIC CONTROL SIGNS AND MARKINGS NOT WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
  - ANY OPEN CUTTING OF A NCDOT STREET REQUIRES AN ENCROACHMENT PERMIT. IN CERTAIN CASES, AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
  - ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.



For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_

Traffic: \_\_\_\_\_

Fire: \_\_\_\_\_

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit #: \_\_\_\_\_

Signed: \_\_\_\_\_

**811**  
Know what's below.  
Call before you dig.

GRAPHIC SCALE  
0 25 50 100 200  
SCALE: 1"=50'

REVISIONS:  
1. PER NCDOT & CITY COMMENTS  
2. PER NCDOT & CITY COMMENTS  
3. PER NCDOT & CITY COMMENTS

CLIENT INFORMATION:  
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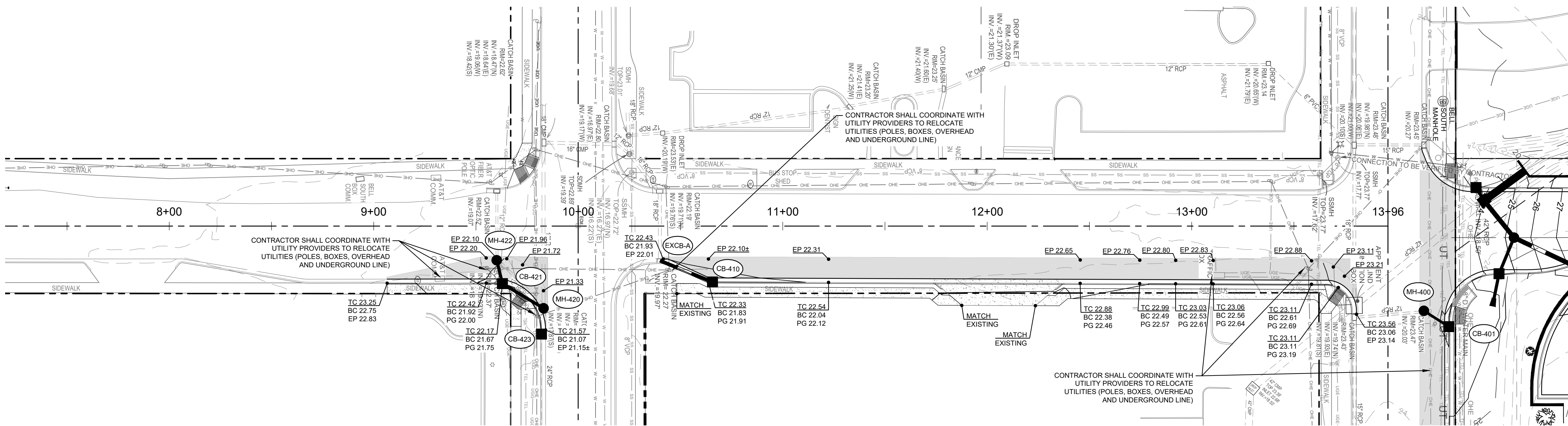
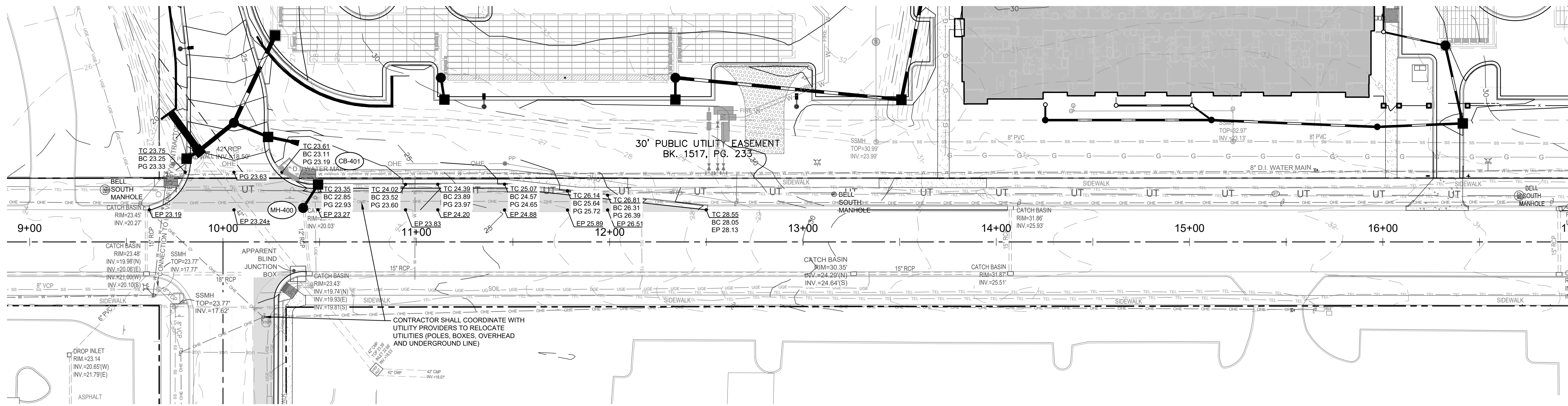
OFFSITE TRAFFIC IMPROVEMENTS STRIPING PLAN  
17TH STREET MIXED-USE  
CITY OF WILMINGTON  
NORTH CAROLINA

PROJECT STATUS:  
CONCEPTUAL LAYOUT:  
PRELIMINARY LAYOUT:  
RELEASED FOR CONST.:

DRAWING INFORMATION:  
DATE: 03/18/20  
DRAWN: T.D.F.  
DESIGNED: D.F.  
CHECKED: D.F.

SEAL  
NORTH CAROLINA PROFESSIONAL ENGINEER  
040501  
DA NIEL

**C6.10**  
PEI JOB#: 19331.PE



**NOTES:**

1. REFER TO GENERAL NOTES SHEET FOR ALL NOTES INCLUDING EROSION CONTROL & SEEDING.
2. CONTRACTOR TO FIELD VERIFY ALL EXISTING TIE IN GRADES PRIOR TO CONSTRUCTION.
3. ALL STEEL SHALL BE MADE IN AMERICA.

**LEGEND:**

- 25.11 — PROPOSED/EXISTING SPOT ELEVATION
- LOD — PROPOSED LIMITS OF DISTURBANCE
- ○ — PROPOSED SILT FENCE
- □ — PROPOSED INLET PROTECTION
- ■ — PROPOSED DRAINAGE INLET
- — PROPOSED DRAINAGE PIPE
- — NEW ASPHALT AREA
- — RIGHT OF WAY

**NOTATION:**

- CB = CATCH BASIN [NCDOT STD. 840.02 | 840.03]
- DI = DROP INLET (TOP OF GRATE) [NCDOT STD. 840.16 | 840.46]
- MH = STORM DRAIN MANHOLE (RIM)
- INV = STORM PIPE INVERT
- FES = FLARED END SECTION
- EG = EXISTING GRADE
- EP = PROPOSED EDGE OF PAVEMENT

**STORM SCHEDULE:**

Upstream Node	Downstream Node	Diameter (In)	Upstream Invert	Downstream Invert	Pipe Length (ft)	Slope (%)	Upstream Rim Elev	Downstream Rim Elev	Pipe Material
CB-401	MH-400	12	19.81	19.77	14	0.30	22.85	23.20	RCP III
CB-410	EXCB-A	18	19.79	19.71	28	0.30	21.83	21.93	RCP III
CB-421	MH-420	15	18.21	17.98	23	1.00	21.67	21.18	RCP III
MH-422	CB-421	15	18.33	18.21	12	1.00	22.11	21.67	RCP III

**STORM STRUCTURE NOTES:**

1. MH-400 - CONVERT EXISTING CATCH BASIN TO MANHOLE. CONTRACTOR SHALL EVALUATE STRUCTURAL STABILITY OF BOX AND PIPE AND REPLACE AS NEEDED.
2. MH-420 - CONVERT EXISTING CATCH BASIN TO MANHOLE. CONTRACTOR SHALL EVALUATE STRUCTURAL STABILITY OF BOX AND PIPE AND REPLACE AS NEEDED.
3. MH-422 - CONVERT EXISTING CATCH BASIN TO MANHOLE. CONTRACTOR SHALL EVALUATE STRUCTURAL STABILITY OF BOX AND PIPE AND REPLACE AS NEEDED.
4. CB-423 - CONTRACTOR SHALL CUT IN PROPOSED CATCH BASIN AND TIE TO EXISTING STORM PIPE.

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

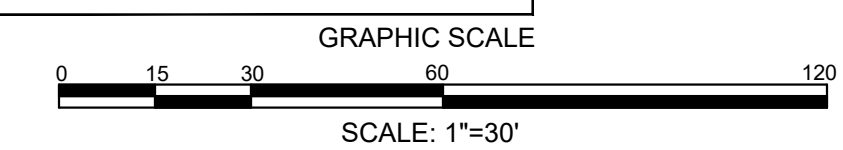
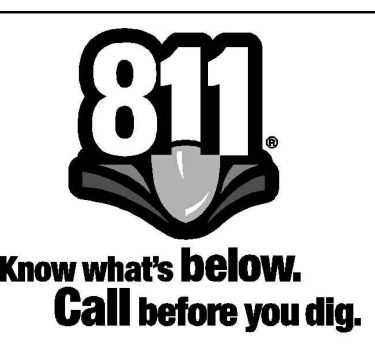
Traffic \_\_\_\_\_

Fire \_\_\_\_\_

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit #: \_\_\_\_\_

Signed: \_\_\_\_\_



NOT RELEASED FOR CONSTRUCTION

OFFSITE TRAFFIC IMPROVEMENTS  
GRADING & DRAINAGE PLAN

17TH STREET MIXED-USE  
CITY OF WILMINGTON  
NORTH CAROLINA

**PROJECT STATUS:**  
CONCEPTUAL LAYOUT: \_\_\_\_\_  
PRELIMINARY LAYOUT: \_\_\_\_\_  
RELEASED FOR CONST: \_\_\_\_\_

**DRAWING INFORMATION:**  
DATE: 03/18/20  
1" DWF  
DESIGNED: \_\_\_\_\_  
DRAWN: \_\_\_\_\_  
CHECKED: \_\_\_\_\_

**SEAL:**  
NORTH CAROLINA PROFESSIONAL ENGINEER  
DAVID W. WELLS  
040501  
DAVID W. WELLS

**C6.20**

PEI JOB#: 19331.PE

**CLIENT INFORMATION:**

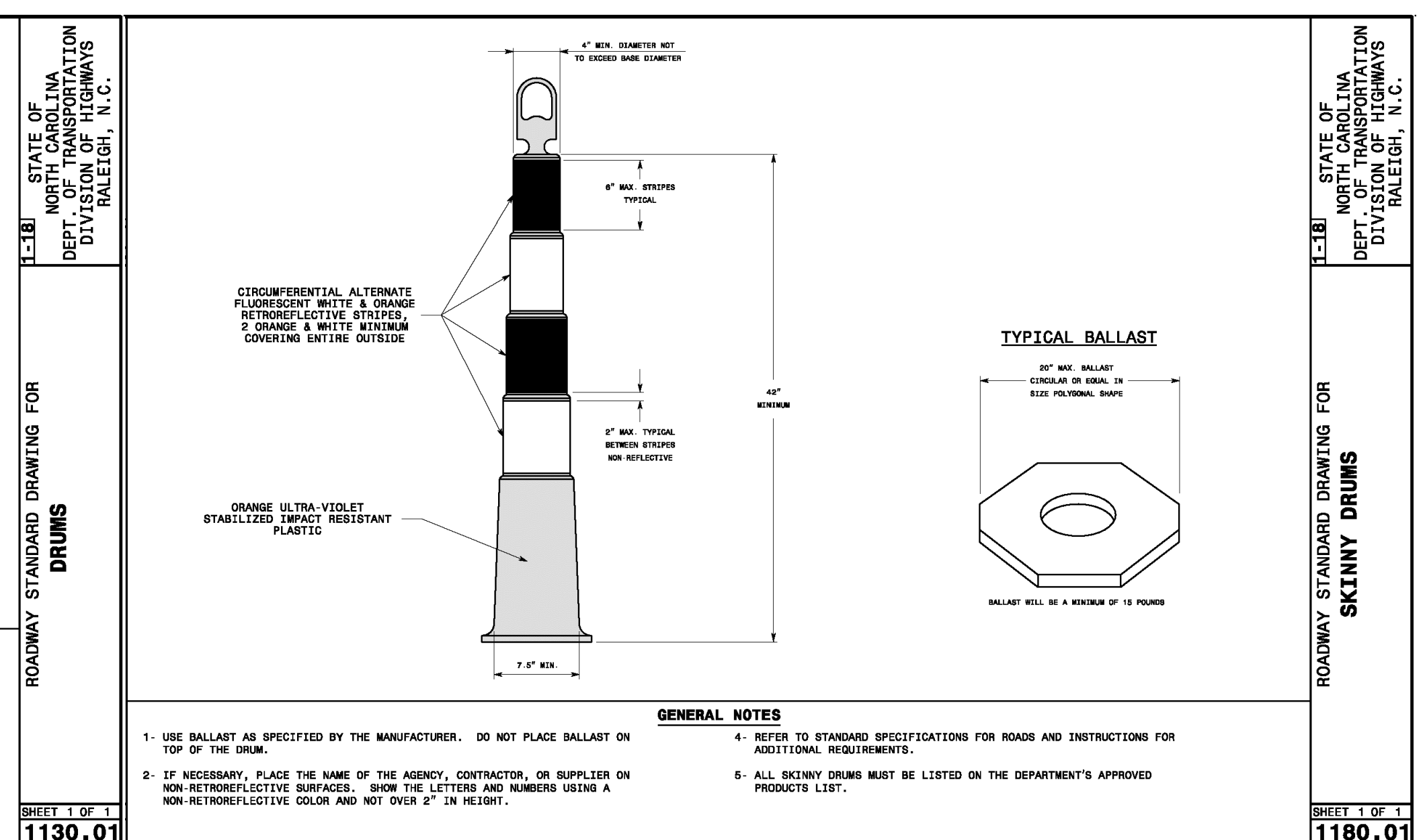
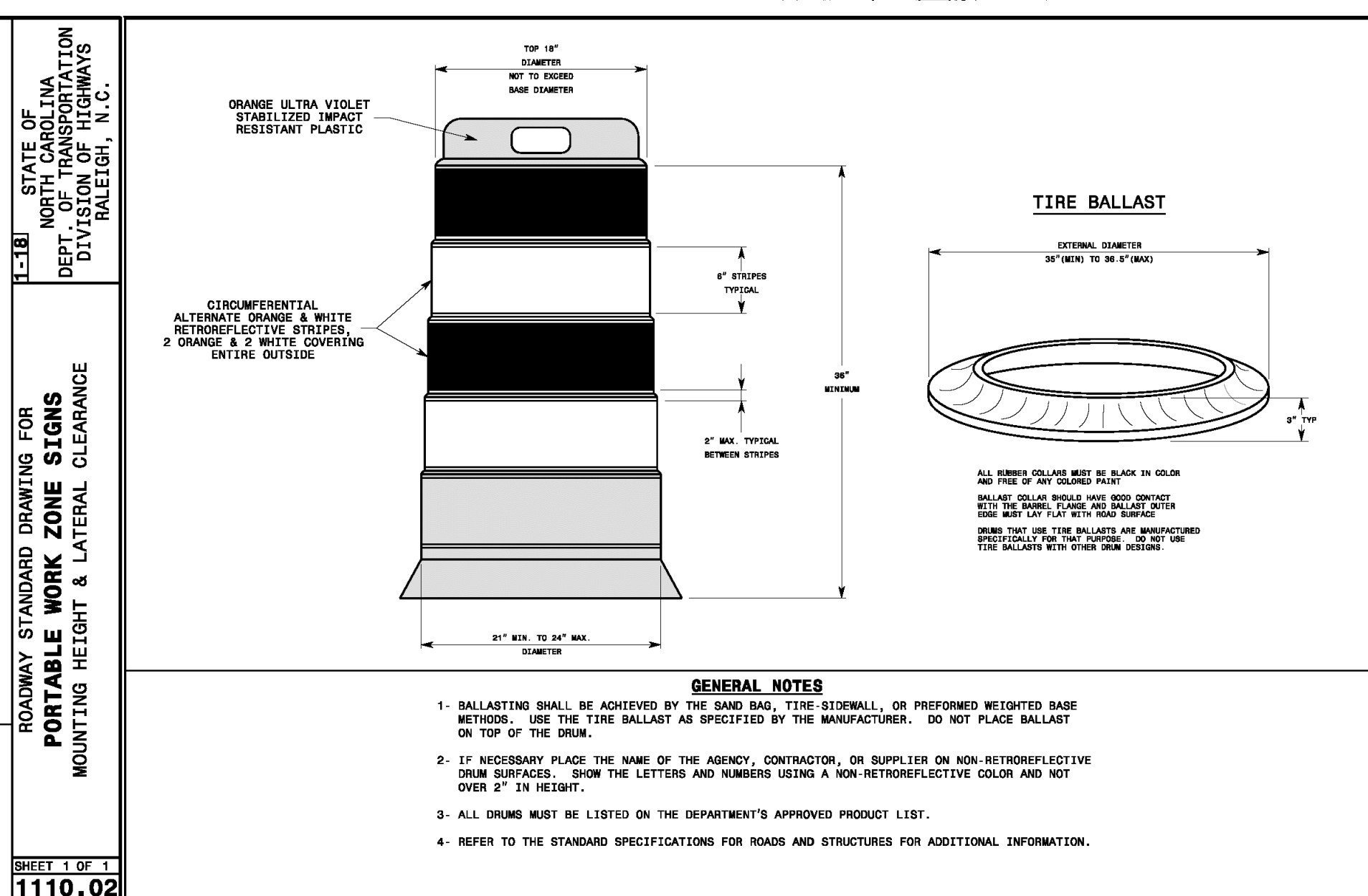
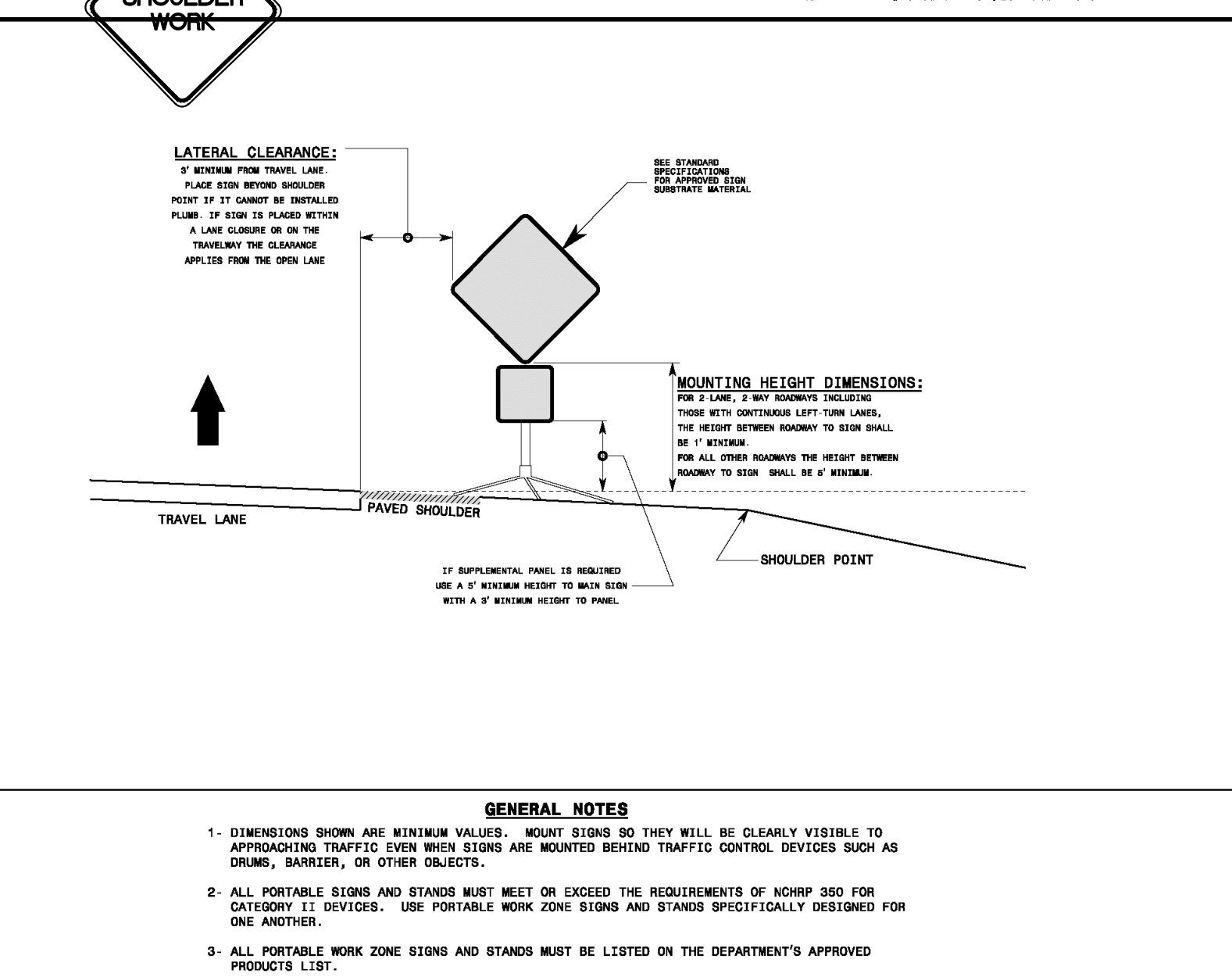
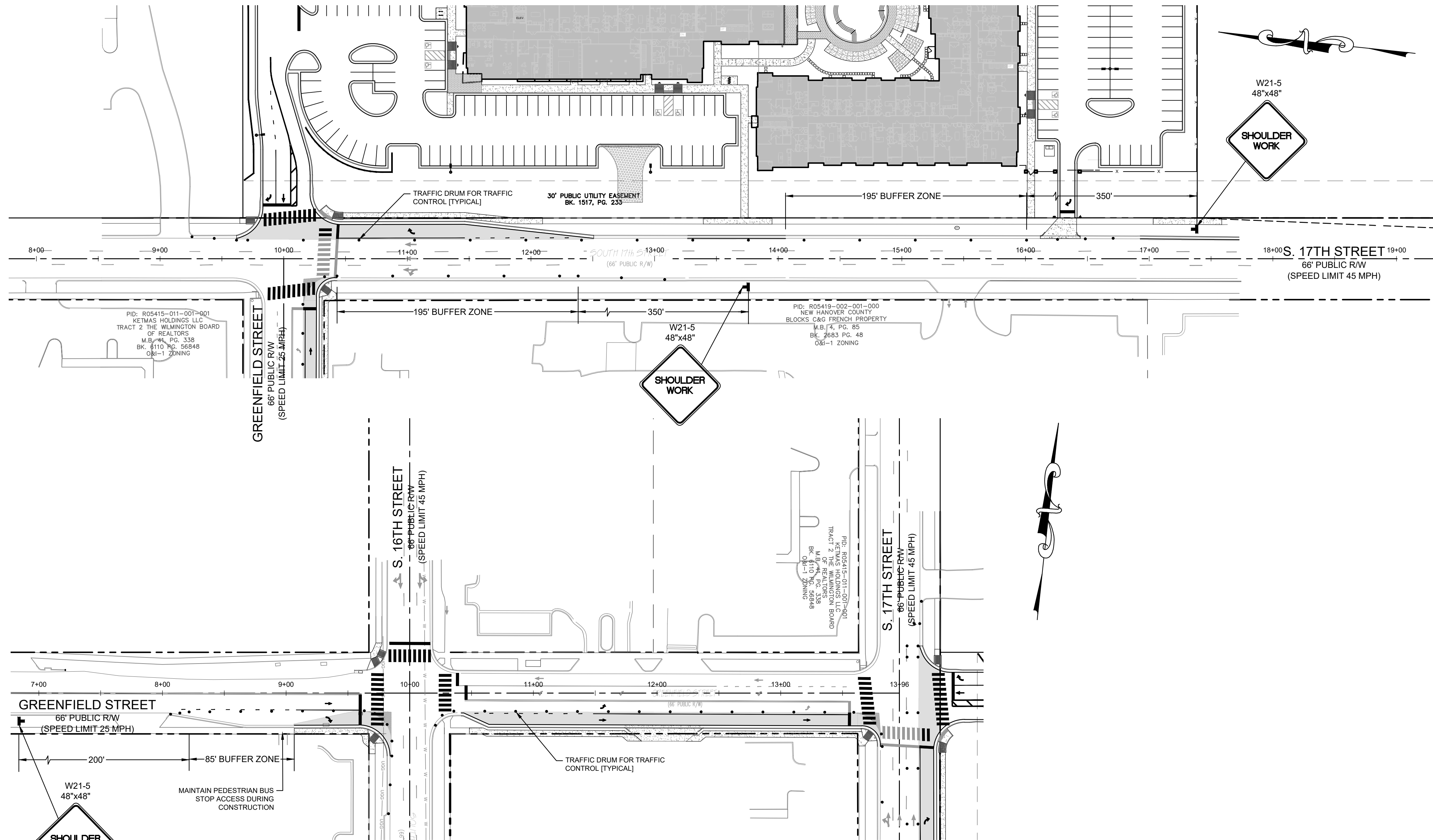
**PARAMOUNT ENGINEERING**  
122 Cinema Drive  
Wilmington, North Carolina 28403  
(910) 791-6707 (O) (910) 791-6766 (F)  
NC License #: C-2846

**CLIENT INFORMATION:**

**DJ Residential, LLC**  
1539 TIPPAH PARK CT.  
CHARLOTTE, NC 28205

**REVISIONS:**

NO.	DATE	DESCRIPTION
1.	06/20/20	PER NCDOT & CITY COMMENTS
2.	06/20/20	PER NCDOT & CITY COMMENTS
3.	07/29/20	PER NCDOT & CITY COMMENTS



**GENERAL NOTES**

- DIMENSIONS SHOWN ARE MINIMUM VALUES. MOUNT SIGNS SO THEY WILL BE CLEARLY VISIBLE TO APPROACHING TRAFFIC EVEN WHEN SIGNS ARE MOUNTED BEHIND TRAFFIC CONTROL DEVICES SUCH AS DRUMS, BARRIERS, OR OTHER OBJECTS.
- ALL PORTABLE SIGNS AND STANDS MUST MEET OR EXCEED THE REQUIREMENTS OF MCHDP 350 FOR CATEGORY 11 DEVICES. USE PORTABLE WORK ZONE SIGNS AND STANDS SPECIFICALLY DESIGNED FOR ONE ANOTHER.
- ALL PORTABLE WORK ZONE SIGNS AND STANDS MUST BE LISTED ON THE DEPARTMENT'S APPROVED PRODUCTS LIST.

**GENERAL NOTES**

- BALLASTING SHALL BE ACHIEVED BY THE SAND BAG, TIRE SIDEWALL, OR PERFORMED WEIGHTED BASE METHODS. USE THE TIRE BALLAST AS SPECIFIED BY THE MANUFACTURER. DO NOT PLACE BALLAST ON TOP OF THE DRUM.
- IF NECESSARY PLACE THE NAME OF THE AGENCY, CONTRACTOR, OR SUPPLIER ON NON-RETROREFLECTIVE DRUM SURFACES. SHOW THE LETTERS AND NUMBERS USING A NON-RETROREFLECTIVE COLOR AND NOT OVER 2" IN HEIGHT.
- ALL DRUMS MUST BE LISTED ON THE DEPARTMENT'S APPROVED PRODUCT LIST.
- REFER TO THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES FOR ADDITIONAL INFORMATION.

**GENERAL NOTES**

- USE BALLAST AS SPECIFIED BY THE MANUFACTURER. DO NOT PLACE BALLAST ON TOP OF THE DRUM.
- IF NECESSARY, PLACE THE NAME OF THE AGENCY, CONTRACTOR, OR SUPPLIER ON NON-RETROREFLECTIVE SURFACES. SHOW THE LETTERS AND NUMBERS USING A NON-RETROREFLECTIVE COLOR AND NOT OVER 2" IN HEIGHT.
- REFER TO STANDARD SPECIFICATIONS FOR ROADS AND INSTRUCTIONS FOR ADDITIONAL REQUIREMENTS.
- ALL SKINNY DRUMS MUST BE LISTED ON THE DEPARTMENT'S APPROVED PRODUCTS LIST.

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**PORTABLE WORK ZONE SIGNS**  
MOUNTING HEIGHT & LATERAL CLEARANCE

SHEET 1 OF 1  
**1110.02**

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**DRUMS**

SHEET 1 OF 1  
**1130.01**

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**SKINNY DRUMS**

SHEET 1 OF 1  
**1180.01**

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**CITY OF WILMINGTON**  
NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

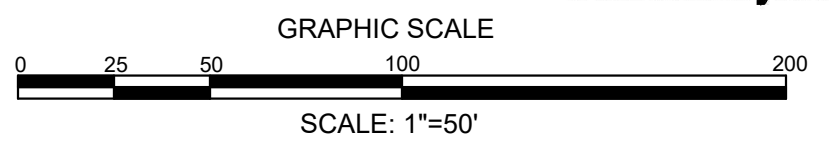
Approved Construction Plan

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_



NOT RELEASED FOR CONSTRUCTION

PROJECT STATUS  
CONCEPTUAL LAYOUT: \_\_\_\_\_  
PRELIMINARY LAYOUT: \_\_\_\_\_  
RELEASED FOR CONSTRUCTION: \_\_\_\_\_

DRAWING INFORMATION  
DATE: 03/18/20  
DRAWN BY: DAF  
CHECKED BY: DAF  
DESIGNED BY: DAF  
CREATED BY: DAF

OFFSITE TRAFFIC IMPROVEMENTS  
TRAFFIC CONTROL PLAN

17TH STREET MIXED-USE  
CITY OF WILMINGTON  
NORTH CAROLINA

PEI JOB#: 19331.PE

CLIENT INFORMATION

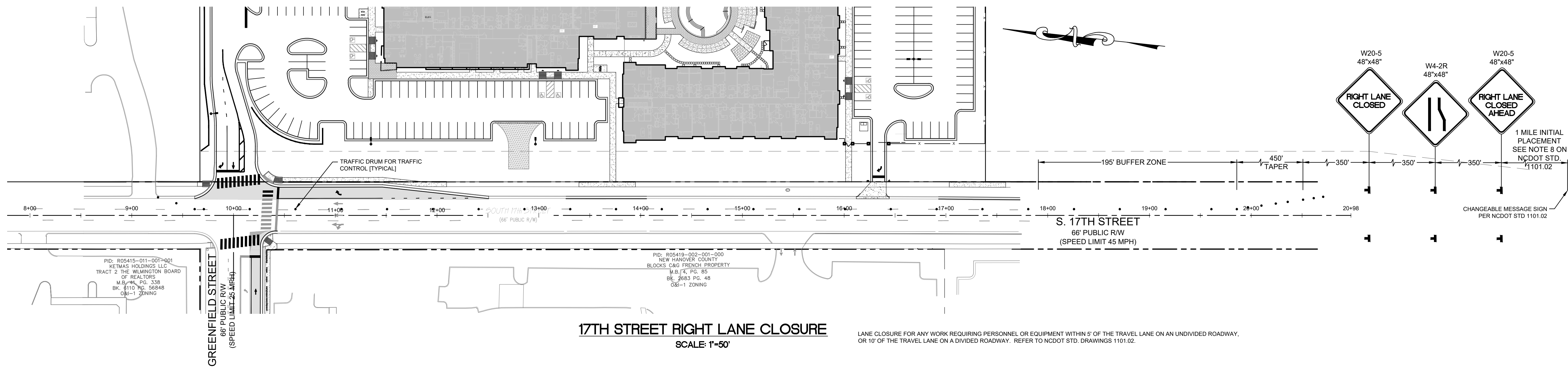
**PARAMOUNT ENGINEERING, INC.**  
122 Cinema Drive  
Wilmington, North Carolina 28403  
(910) 791-6707 (O) (910) 791-6766 (F)  
NC License #: C-2846

CLIENT INFORMATION

**DJI Residential, LLC**  
1539 TIPPAH PARK CT.  
CHARLOTTE, NC 28205

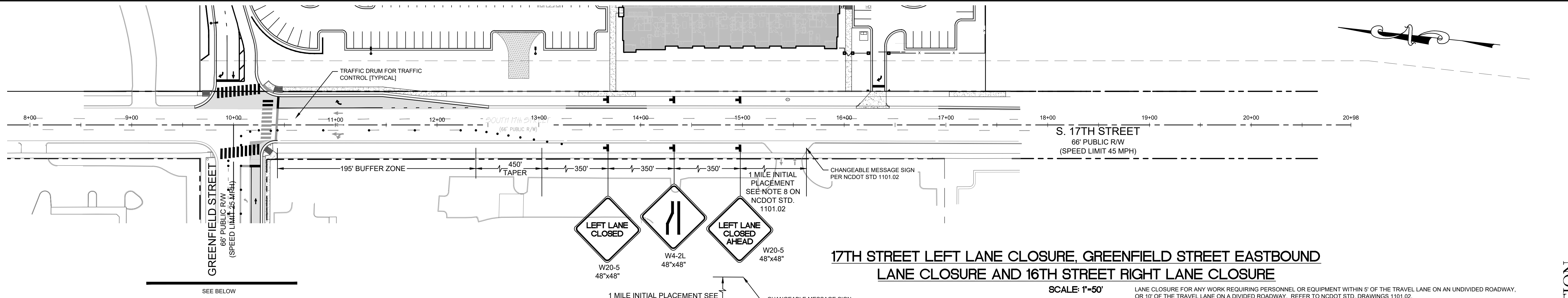
REVISIONS:

06/08/20	1. PER NCDOT & CITY COMMENTS
07/28/20	2. PER NCDOT & CITY COMMENTS



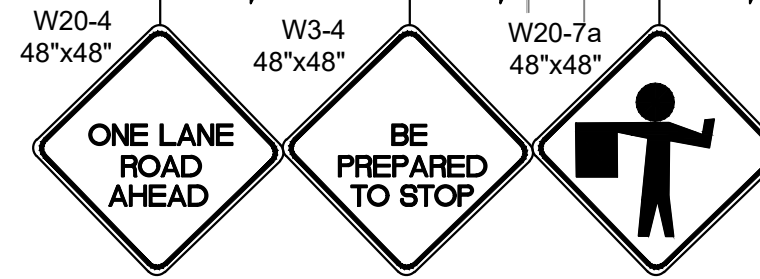
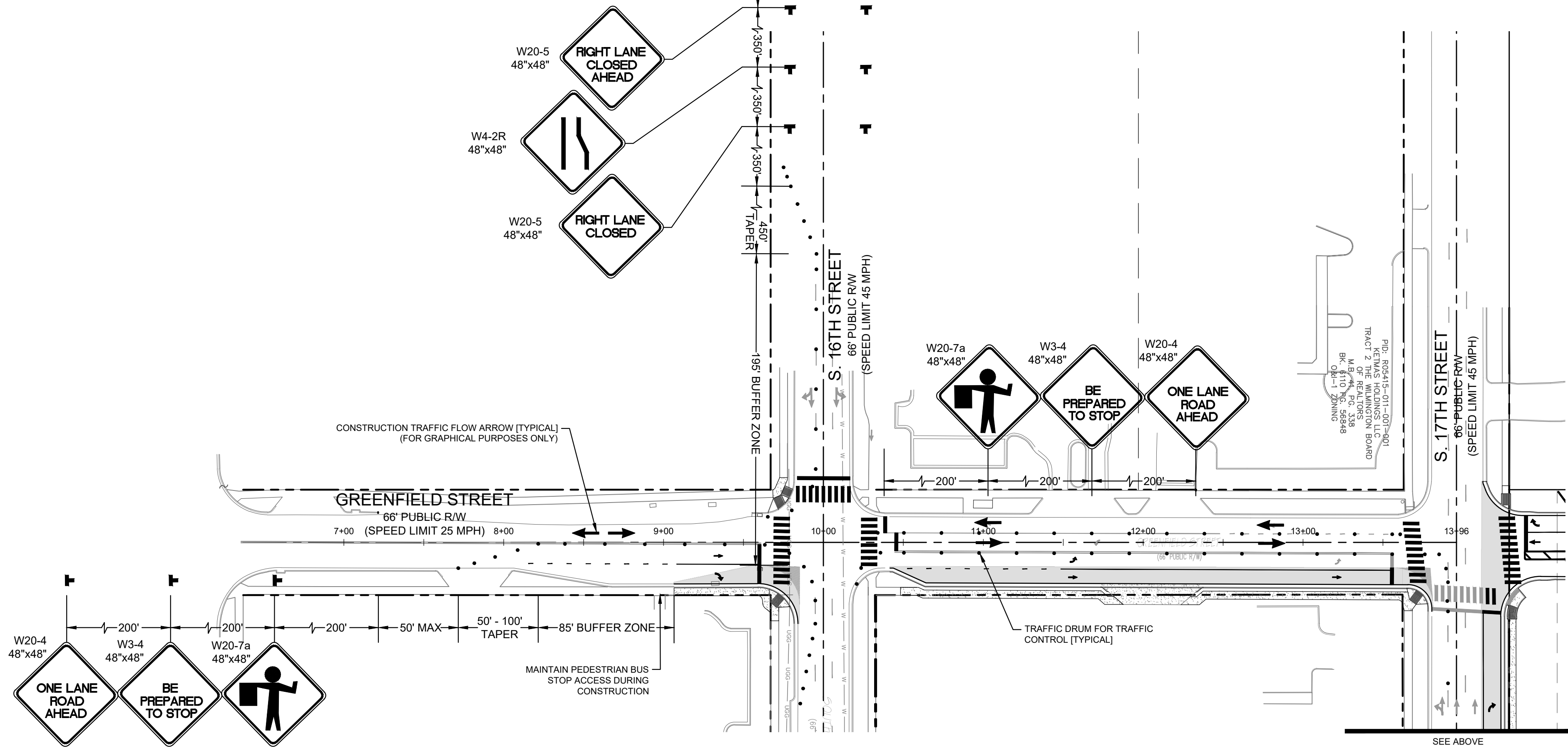
**17TH STREET RIGHT LANE CLOSURE**  
SCALE: 1"=50'

LANE CLOSURE FOR ANY WORK REQUIRING PERSONNEL OR EQUIPMENT WITHIN 5' OF THE TRAVEL LANE ON AN UNDIVIDED ROADWAY, OR 10' OF THE TRAVEL LANE ON A DIVIDED ROADWAY. REFER TO NCDOT STD. DRAWINGS 1101.02.



**17TH STREET LEFT LANE CLOSURE, GREENFIELD STREET EASTBOUND LANE CLOSURE AND 16TH STREET RIGHT LANE CLOSURE**  
SCALE: 1"=50'

LANE CLOSURE FOR ANY WORK REQUIRING PERSONNEL OR EQUIPMENT WITHIN 5' OF THE TRAVEL LANE ON AN UNDIVIDED ROADWAY, OR 10' OF THE TRAVEL LANE ON A DIVIDED ROADWAY. REFER TO NCDOT STD. DRAWINGS 1101.02.



**WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

**Approved Construction Plan**

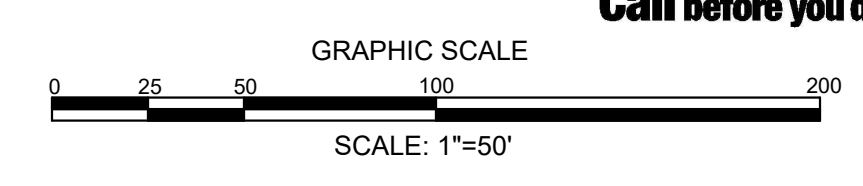
Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



REVISIONS:

06.08.20	1. PER NCDOT & CITY COMMENTS
07.28.20	2. PER NCDOT & CITY COMMENTS

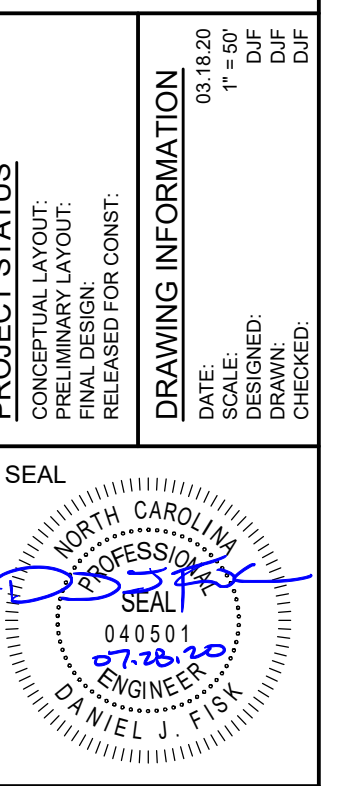
CLIENT INFORMATION:  
**DJ Residential, LLC**  
1539 TIPPAH PARK CT.  
CHARLOTTE, NC 28205

**PARAMOUNT ENGINEERING**  
122 Cinema Drive  
Wilmington, North Carolina 28403  
(910) 791-6707 (O) (910) 791-6766 (F)  
NC License #: C-2846

PROJECT STATUS:  
CONCEPTUAL LAYOUT: \_\_\_\_\_  
PRELIMINARY LAYOUT: \_\_\_\_\_  
RELEASED FOR CONSTRUCTION: \_\_\_\_\_

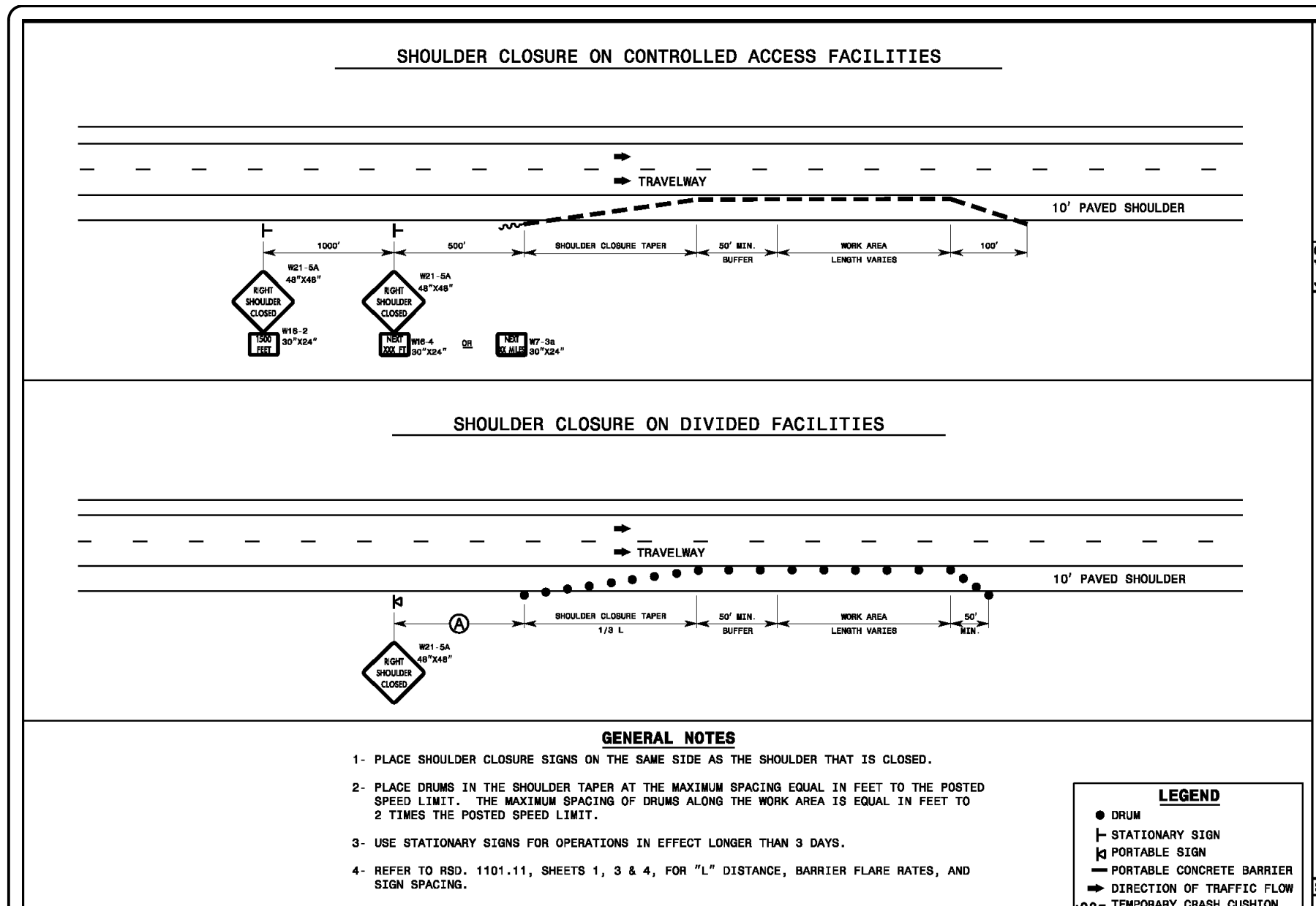
DRAWING INFORMATION:  
DATE: 03/18/20  
DRAWN BY: DDF  
DESIGNED BY: DDF  
CHECKED BY: DDF

OFFSITE TRAFFIC IMPROVEMENTS  
TRAFFIC CONTROL PLAN  
17TH STREET MIXED-USE  
CITY OF WILMINGTON  
NORTH CAROLINA



PEI JOB#: 19331.PE

NOT RELEASED FOR CONSTRUCTION



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TEMPORARY SHOULDER CLOSURES**

SHEET 1 OF 1  
**1101.04**

EXAMPLE OF "L" & "W" DESIGNATIONS

TAPER LENGTH CRITERIA FOR CHANNELIZING DEVICES IN WORK ZONES

TYPES OF TAPERS TAPER LENGTH

LEGEND

- DRUM
- STATIONARY SIGN
- PORTABLE SIGN
- PORTABLE CONCRETE BARRIER
- DIRECTION OF TRAFFIC FLOW
- TEMPORARY CRASH CUSHION

QUICK REFERENCE - "L" DISTANCE TABLE

POSTED SPEED (MPH)	MINIMUM LONGITUDINAL DISTANCE "L" (FEET) (ROUND UP)											
	LATERAL WIDTH "W" (FEET)											
10	1	2	3	4	5	6	7	8	9	10	11	12
20	10	16	20	30	36	40	60	66	80	70	76	80
25	15	25	35	45	55	65	75	85	95	105	115	120
30	16	30	45	60	75	90	105	120	135	150	165	180
35	20	40	60	80	100	120	140	160	180	200	220	240
40	30	60	90	110	135	160	180	210	240	270	300	330
45	40	80	120	160	200	240	270	310	360	400	450	510
50	50	100	150	200	250	300	360	420	480	540	600	660
55	60	120	180	240	300	360	420	480	540	600	660	720
60	70	140	210	280	360	440	520	600	680	760	840	920
65	80	160	240	320	400	480	560	640	720	800	880	960
70	90	180	270	360	450	540	630	720	810	900	990	1080

GENERAL NOTES

- TABLE FOR "L" DISTANCE IS BASED ON CHANNELIZATION TAPER FORMULA FROM THE MUTCD.
- SEE:
  - SPEED LIMIT FORMULA
  - 40 MPH OR LESS  $L_{min} = \frac{V \times S}{60}$
  - 45 MPH OR GREATER  $L_{min} = W \times S$
- MINIMUM TAPER LENGTH IN FEET (LONGITUDINAL DISTANCE)
  - W = WIDTH OF OFFSET IN FEET (LATERAL DISTANCE)
  - S = POSTED SPEED LIMIT, OR OFF-PEAK 85 PERCENTILE SPEED IN MPH PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH
- "L" DISTANCE IS FOR APPLICATION WITH CHANNELIZING DEVICES AND PAVEMENT MARKING TAPERS AND TRANSITIONS. CHANNELIZING DEVICES INCLUDE DRUMS, CONES, TUBULAR MARKERS, BARRICADES, RAISED ASPHALT ISLANDS, AND VERTICAL PANELS.

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TRAFFIC CONTROL DESIGN TABLES**  
"L" DISTANCE AND CHANNELIZING  
DEVICE TAPER CRITERIA

SHEET 1 OF 4  
**1101.11**

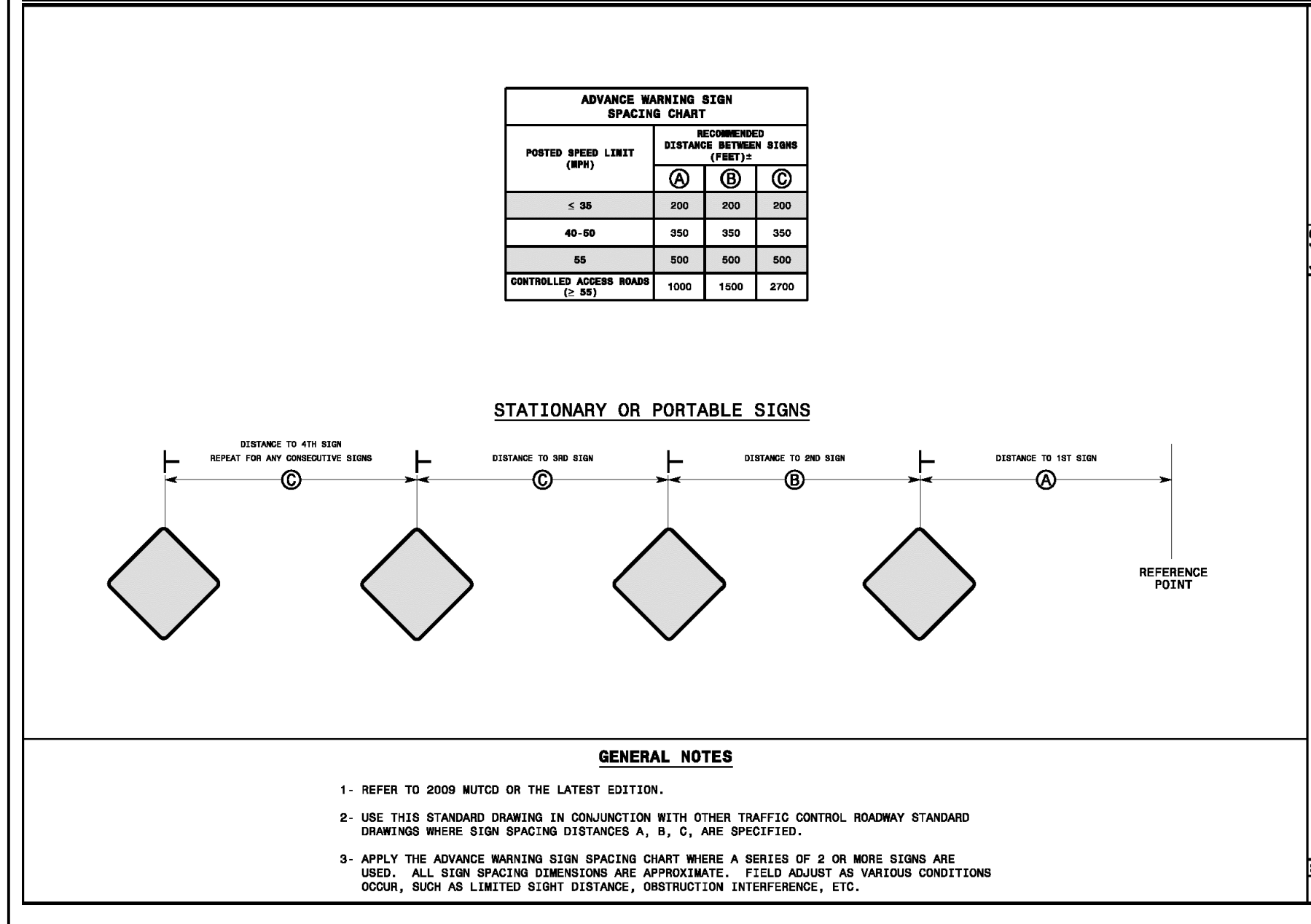
GENERAL NOTES

- TABLES ARE BASED ON THE AASHTO GREEN BOOK "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". MINIMUM SIGHT DISTANCE VALUES ARE FOR PASSENGER CAR VEHICLES ON NET AND LEVEL ROADWAYS. CONSULT THE AASHTO GREEN BOOK TO MAKE FINAL DETERMINATION OF STOPPING SIGHT DISTANCE REQUIREMENTS.
- BUFFER SPACE TABLE IS BASED ON THE BRAKING DISTANCE PORTION OF STOPPING SIGHT DISTANCE FOR NET AND LEVEL PAVEMENTS.
- USE OF STOPPING SIGHT DISTANCE IN TRAFFIC CONTROL PLAN APPLICATIONS INCLUDES PROVIDING SIGHT DISTANCE FOR TRAFFIC APPROACHING A LANE CLOSURE. PROVIDE 2-LANE, 2-WAY ROADWAYS STOPPING SIGHT DISTANCE TO THE FLAGGER. FOR LANE CLOSURES ON MULTILANE ROADWAYS PROVIDE STOPPING SIGHT DISTANCE TO THE BEGINNING OF THE LANE CLOSURE MERGE TAPER, OR FLASHING ARROW BOARD. EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED.
- USE OF MINIMUM PASSING SIGHT DISTANCE TABLE IN TRAFFIC CONTROL PLAN APPLICATIONS INCLUDES PROVIDING SIGHT DISTANCE REQUIREMENTS FOR PLACEMENT OF PAVEMENT MARKING PASSING/PASSING ZONES FOR 2-LANE, 2-WAY ROADWAYS.

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TRAFFIC CONTROL DESIGN TABLES**  
BUFFER SPACE & SIGHT DISTANCE

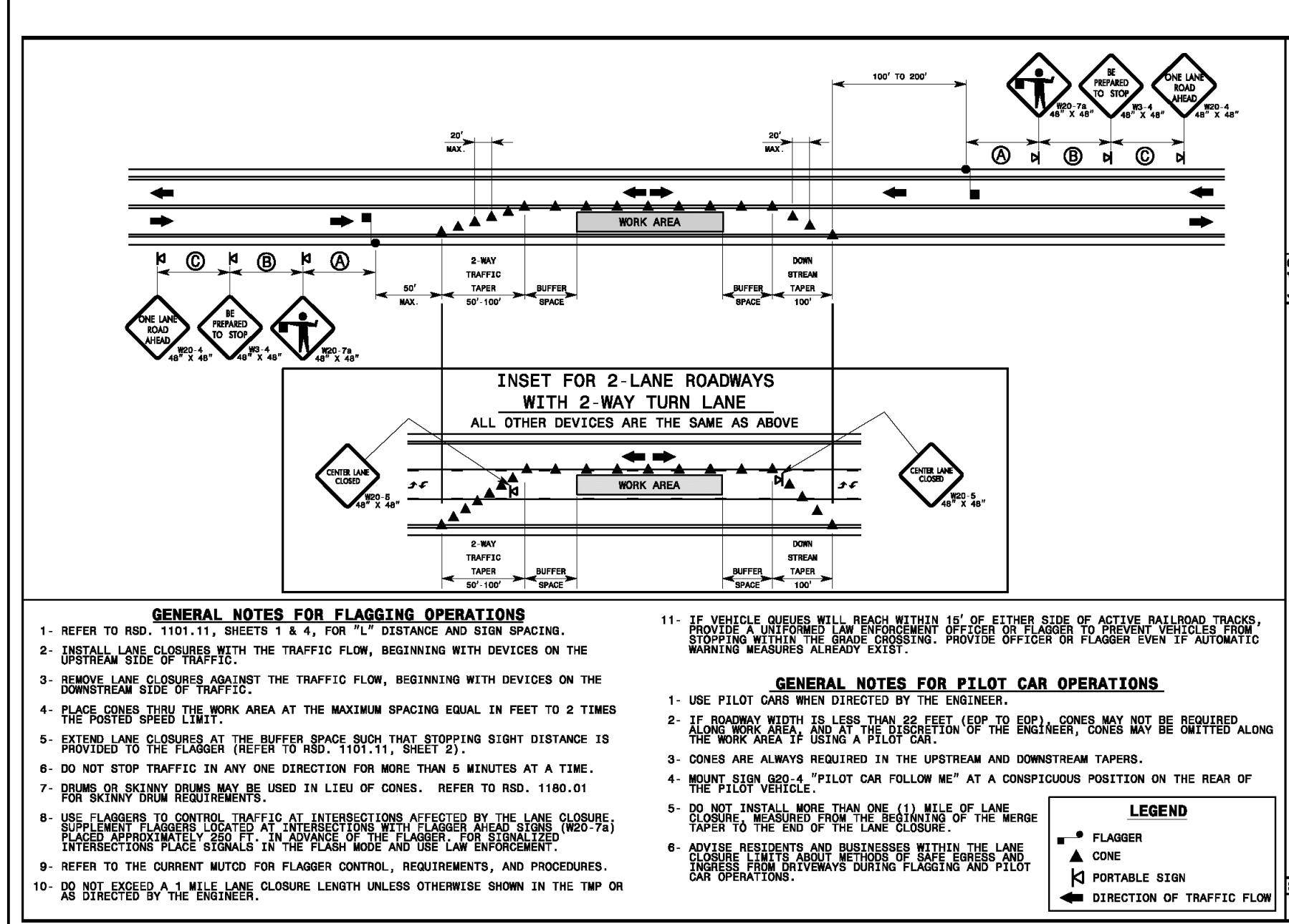
SHEET 2 OF 4  
**1101.11**



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TRAFFIC CONTROL DESIGN TABLES**  
SPACING OF TEMPORARY SIGNS IN SERIES

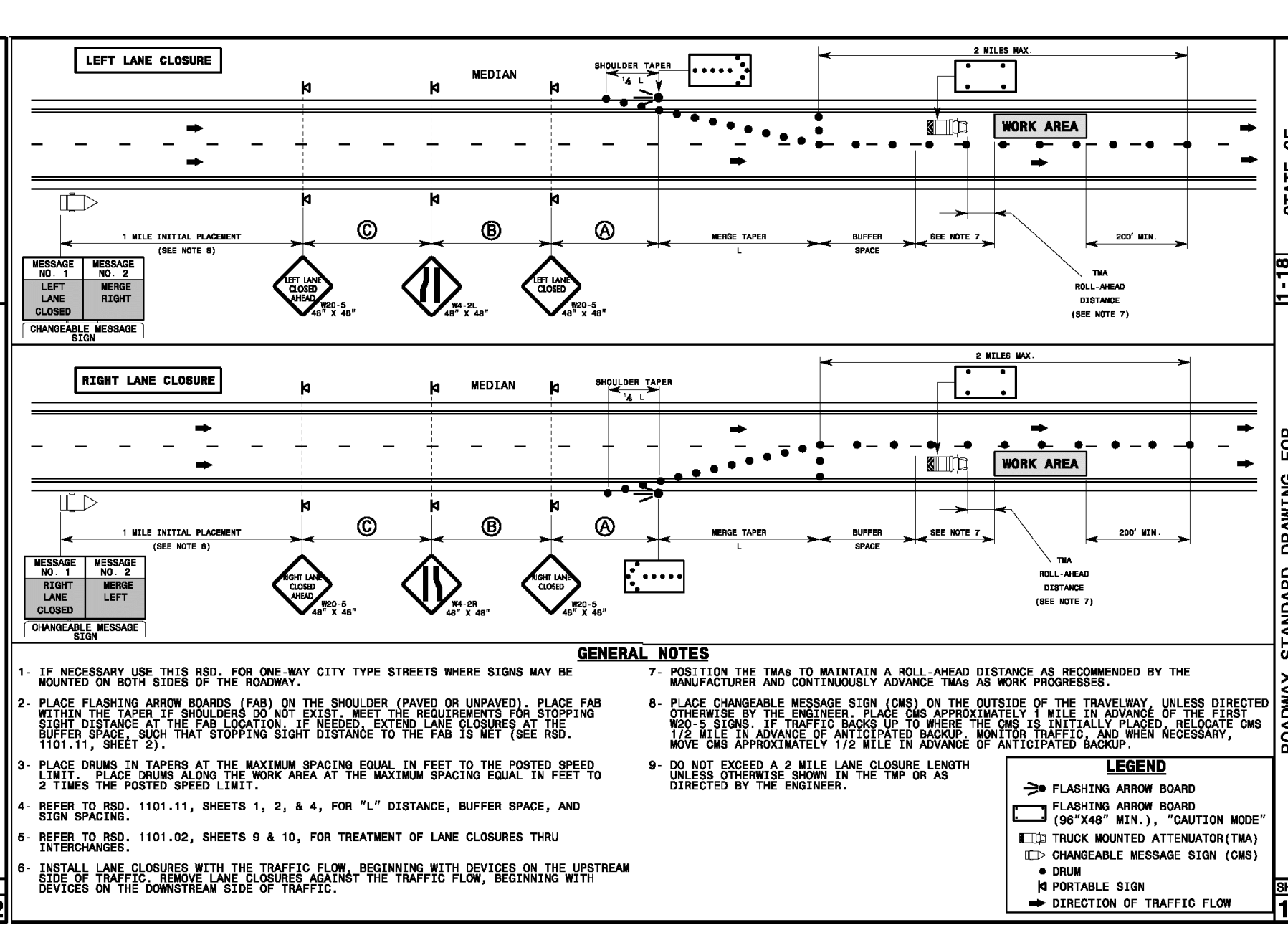
SHEET 4 OF 4  
**1101.11**



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TEMPORARY LANE CLOSURES**  
2-LANE, 2-WAY ROADWAY-1 LANE CLOSED

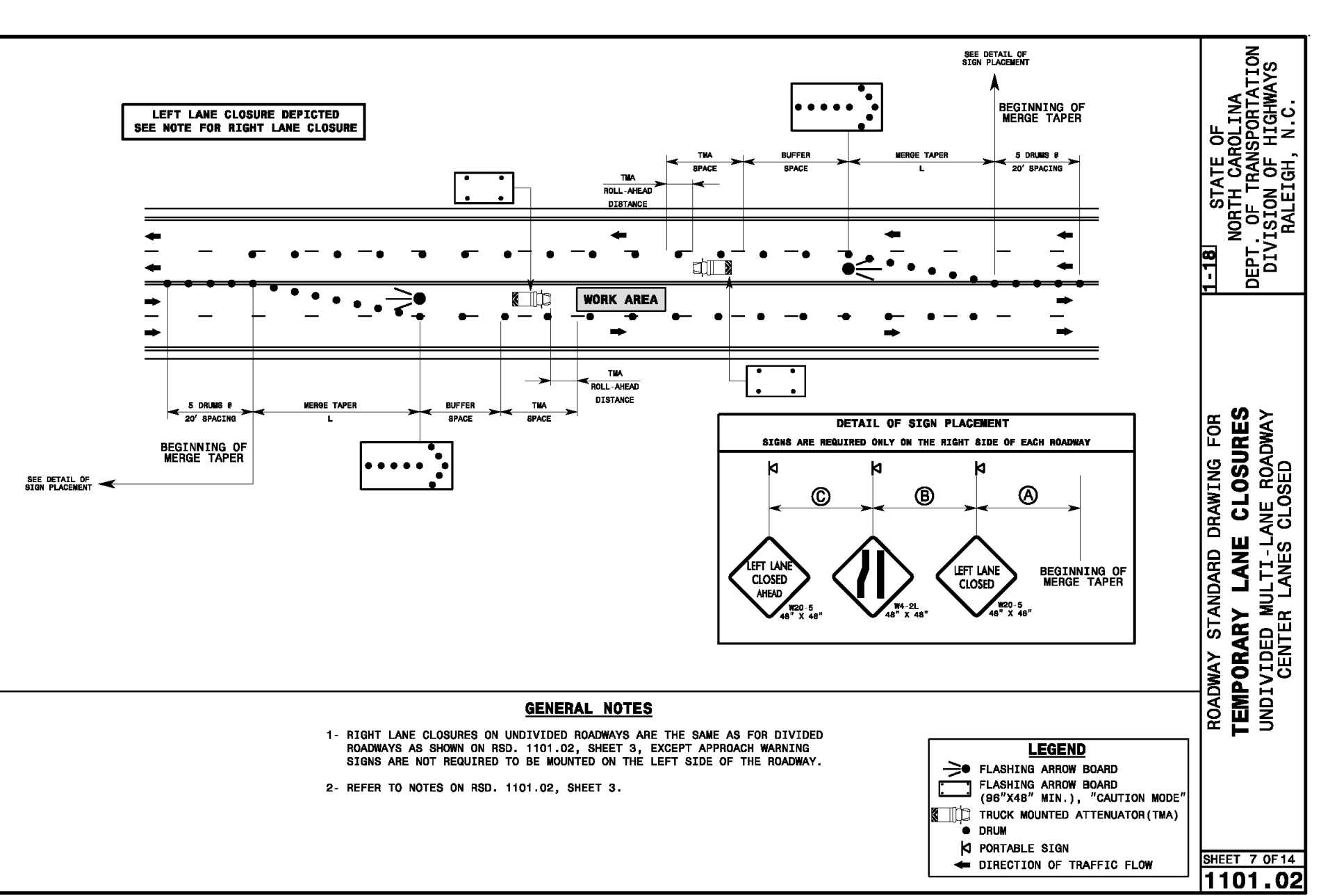
SHEET 1 OF 14  
**1101.02**



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TEMPORARY LANE CLOSURES**  
DIVIDED MULTI-LANE ROADWAY-1 LANE CLOSED  
(FOR ROADWAYS < 60 MPH)

SHEET 3 OF 14  
**1101.02**



STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TEMPORARY LANE CLOSURES**  
UNDIVIDED MULTI-LANE ROADWAY  
CENTER LANES CLOSED

SHEET 7 OF 14  
**1101.02**

APPROVED CONSTRUCTION PLAN

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

APPROVED CONSTRUCTION PLAN

Name \_\_\_\_\_ Date \_\_\_\_\_

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

GRAPHIC SCALE

0 25 50 100 200

SCALE: 1"=50'

WILMINGTON NORTH CAROLINA

811

Know what's below. Call before you dig.

SEAL

STATE OF NORTH CAROLINA PROFESSIONAL SEAL

DATE: 03/18/20  
1' DWF  
8' DDF  
8' DDF

PROJECT STATUS

CONCEPTUAL LAYOUT: \_\_\_\_\_

PRELIMINARY LAYOUT: \_\_\_\_\_

RELEASED FOR CONSTRUCTION: \_\_\_\_\_

DRAWING INFORMATION

DATE: 03/18/20

DESIGNED BY: \_\_\_\_\_

DRAWN BY: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_

PEI JOB#: 19331.PE

NOT RELEASED FOR CONSTRUCTION

OFFSITE TRAFFIC IMPROVEMENTS TRAFFIC CONTROL PLAN

177TH STREET MIXED-USE CITY OF WILMINGTON NORTH CAROLINA

REVISIONS:

1	PER MCDOT & CITY COMMENTS
---	---------------------------

CLIENT INFORMATION:

DJ Residential, LLC  
1539 TIPPAH PARK CT.  
CHARLOTTE, NC 28205

PARAMOUNT ENGINEERING INC.  
122 Cinema Drive  
Wilmington, North Carolina 28403  
(910) 791-6707 (O) (910) 791-6766 (F)  
NC License #: C-2846

APPROVED CONSTRUCTION PLAN

Name \_\_\_\_\_ Date \_\_\_\_\_

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

GRAPHIC SCALE

0 25 50 100 200

SCALE: 1"=50'

SEAL

STATE OF NORTH CAROLINA PROFESSIONAL SEAL

DATE: 03/18/20  
1' DWF  
8' DDF  
8' DDF

PROJECT STATUS

CONCEPTUAL LAYOUT: \_\_\_\_\_

PRELIMINARY LAYOUT: \_\_\_\_\_

RELEASED FOR CONSTRUCTION: \_\_\_\_\_

DRAWING INFORMATION

DATE: 03/18/20

DESIGNED BY: \_\_\_\_\_

DRAWN BY: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_

PEI JOB#: 19331.PE