



FINAL  
APPROVAL

ENGINEERING  
PCO / DETENTION / DRAINAGE PLAN

EROSION CONTROL

URBAN FORESTRY  
TREE ORDINANCE

CDOT

NOTE: SCHEDULE PRE-CONSTRUCTION MEETING  
AT LEAST 48 HRS. PRIOR TO ANY LAND  
DISTURBING ACTIVITY USING THE ONLINE  
FORM AT <http://development.charmeck.org>

APPROVED

APPROVED

APPROVED

APPROVED

PRELIMINARY PLANNED  
MULTI-FAMILY SUBDIVISION  
APPROVAL  
CHARLOTTE-MECKLENBURG PLANNING DEPARTMENT  
BY: Joshua Weaver 2-8-2017

DEVELOPER

Double Oaks Development, LLC  
4601 Charlotte Park Drive, Suite 350  
Charlotte, NC 28217  
(704) 342-0933  
Contact: Jim Donaldson

LANDSCAPE ARCHITECT

LandDesign, Inc.  
223 N. Graham Street  
Charlotte, NC 28202  
(704) 333-0325  
Contact: Richard Petersheim

CIVIL ENGINEER

LandDesign, Inc.  
223 N. Graham Street  
Charlotte, NC 28202  
(704) 333-0325  
Contact: Frank McMahan

SURVEYOR

NorStar Land Surveying, Inc.  
192-A N. Church Street  
Charlotte, NC 28205  
704.721.6651  
Contact: Scott Dyer

# BRIGHTWALK PHASE 7B MULTI-FAMILY

## DOUBLE OAKS

MECKLENBURG COUNTY

CHARLOTTE, NORTH CAROLINA

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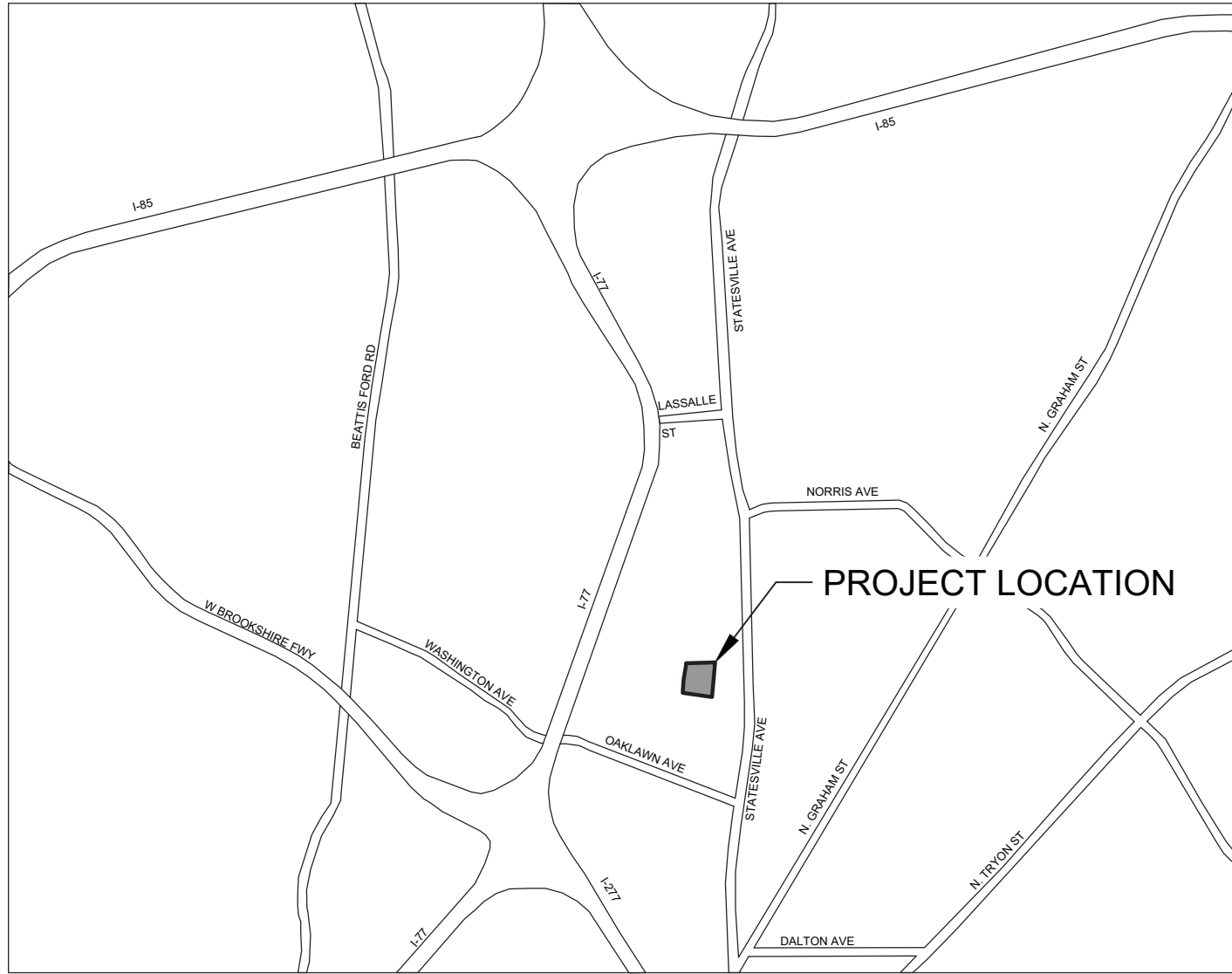
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- Reserved -	

### VICINITY MAPS



Double Oaks Development Table

Development Area #1	Development Area #2
Proposed Zoning: NS (SPA)	Proposed Zoning: NS (SPA)
Proposed Use: Multi-Family and Attached Club House Uses	Proposed Use: Mixed Use (retail/office/restaurants 15,000 SF)
Tree Save Area: 0 acres	Tree Save Area: 0 acres
Number of Allowed Dwelling Units: 48 Multi-Family units	Number of Allowed Dwelling Units: 70 Multi-Family units
Total Units Proposed/Constructed: 48 Multi-Family units (Kohler Avenue)	Total Units Proposed/Constructed: 0 Units
Area: 2.38 acres	Area: 1.28 acres
Development Area #3	Development Area #4/ Easement
Proposed Zoning: NS (SPA)	Proposed Zoning: NS (SPA)
Proposed Use: Mixed Use (retail/office/restaurants 20,000 SF)	Proposed Use: Green way/ park via easement
Tree Save Area: 0 acres	Tree Save Area: 0.85 acres
Number of Allowed Dwelling Units: 230 Multi-Family Units	Number of Allowed Dwelling Units: 0 Units
Total Units Proposed/Constructed: 0 Units	Total Units Proposed/Constructed: 0 Units
Area: 3.03 acres	Area: 2.88 acres
Development Area #5	Development Area #6
Proposed Zoning: NS (SPA)	Proposed Zoning: NS (SPA)
Proposed Use: Multi-Family	Proposed Use: Multi-Family and/or single family attached
Tree Save Area: 0 acres	Tree Save Area: 0 acres
Number of Allowed Dwelling Units: 72 residential attached dwelling or multi-family Units	Number of Allowed Dwelling Units: 72 residential attached dwelling or multi-family Units
Total Units Proposed/Constructed: 72 multi-family units (Gables II)	Total Units Proposed/Constructed: 0 Units
Area: 1.44 acres	Area: 1.85 acres
Development Area #7	Development Area #7A
Proposed Zoning: UR-2 (CD)	Proposed Zoning: UR-2 (CD)
Proposed Use: Residential / Green way park via easement	Proposed Use: Residential / Green way park via easement
Tree Save Area: 0 acres	Tree Save Area: 0.52 acres
Number of Allowed Dwelling Units: 400 attached or detached dwelling units/homes and a outdoor recreation use.	Number of Allowed Dwelling Units: 40 multi-family, attached or detached dwelling units/homes.
Total Units Proposed/Constructed: 108 Units - Brightwalk Phase 1 (5 single family detached lots, 14 single family attached lots for sale), Brightwalk Phase 2 (14 single family detached lots for sale), Brightwalk Phase 3 (14 single family detached lots, 37 single family attached lots for sale), Brightwalk Phase 4 (51 single family detached lots for sale), Brightwalk Phase 5 (50 single family attached lots for sale), Brightwalk Phase 7 (6 single family detached lots for sale, 24 single family attached lots for sale)	Total Units Proposed/Constructed: 0 Units
Area: 39.92 acres	Area: 4.28 acres
Development Area #8	Development Area #9
Proposed Zoning: UR-2 (CD)	Proposed Zoning: UR-2 (CD)
Proposed Use: Multi-Family, Single Family Attached, Child Care Center	Proposed Use: Residential: Single Family (Attached & Detached) and Accessory uses
Tree Save Area: 0 acres	Tree Save Area: 0 acres
Number of Allowed Dwelling Units: 150 residential attached dwelling or multi-family units. Child care facility for up to 79 kids	Number of Allowed Dwelling Units: 40 residential single family (attached & detached) and accessory uses.
Total Units Proposed/Constructed: 96 multi-family units for rent (Statesville Ave. Apartments) 5,300 SF Child care facility.	Total Units Proposed/Constructed: 31 single family attached lots for sale
Area: 7.05 acres	Area: 1.752 acres
Development Area #10	Development Area #11
Proposed Zoning: UR-2 (CD)	Proposed Zoning: UR-2 (CD)
Proposed Use: Right of Way or Residential: Single Family (Attached & Detached), Multi-Family, and accessory uses	Proposed Use: Residential: Single Family (Attached & Detached), Multi-Family, and accessory uses
Tree Save Area: 0 acres	Tree Save Area: 0 acres
Number of Allowed Dwelling Units: 14 residential single family (attached & detached), multi family, and accessory uses.	Number of Allowed Dwelling Units: 50 residential single family (attached & detached), multi family, and accessory uses.
Total Units Proposed/Constructed: 0 units	Total Units Proposed/Constructed: 17 units
Area: 0.417 acres	Area: 1.005 acres
Development Area #12	
Proposed Zoning: UR-2 (CD)	
Proposed Use: Residential: Single Family (Attached & Detached) and Accessory uses	
Tree Save Area: 0 acres	
Number of Allowed Dwelling Units: 14 residential single family (attached & detached), multi family, and accessory uses.	
Total Units Proposed/Constructed: 2 single family detached lots for sale	
Area: 0.587 acres	

REVISIONS:  
09-10-15 REVISED PER CITY COMMENTS  
12-13-16 STAP FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE

DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FJM  
SCALE: NTS  
PROJECT #: 1015225  
SHEET #:

C-1.0

Brightwalk Phase 7B - Multi-Family  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC

COVER

LandDesign

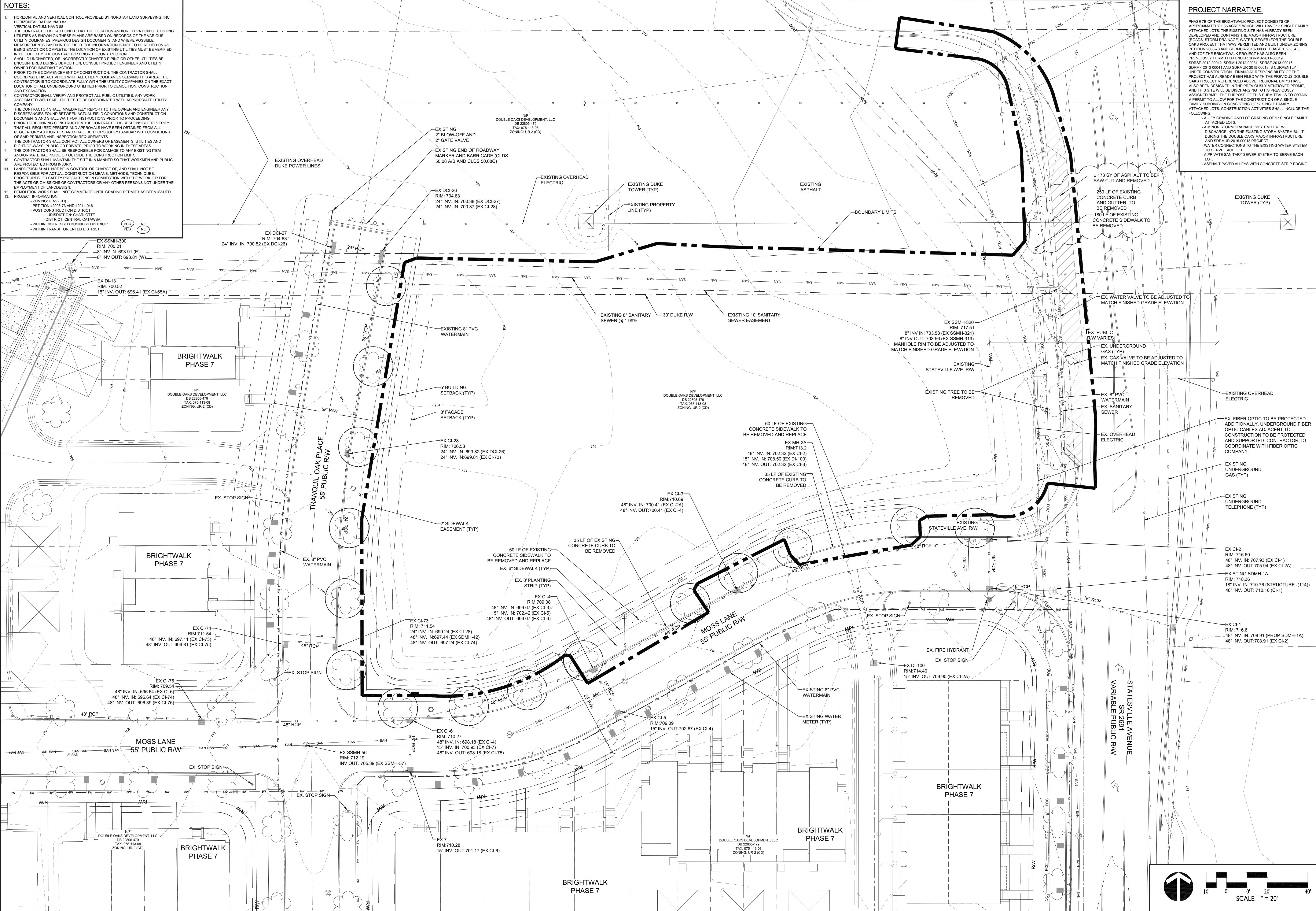
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V: 704.333.0325 F: 704.332.3246  
www.LandDesign.com  
NC Engineering Firm License # C-0658





- NOTES:
- HORIZONTAL AND VERTICAL CONTROL PROVIDED BY NORSTAR LAND SURVEYING, INC.
  - HORIZONTAL DATUM: NAVD 83  
VERTICAL DATUM: NAVD 88
  - THE CONTRACTOR IS CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, PREVIOUS DESIGN DOCUMENTS, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF EXISTING UTILITIES MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
  - SHOULD UNCHARTED, OR INCORRECTLY CHARTED PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING DEMOLITION, CONSULT PROJECT ENGINEER AND UTILITY OWNER FOR IMMEDIATE ACTION.
  - PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH ALL UTILITY COMPANIES SERVING THIS AREA. THE CONTRACTOR IS TO COORDINATE FULLY WITH THE UTILITY COMPANIES ON THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DEMOLITION, CONSTRUCTION, AND EXCAVATION.
  - CONTRACTOR SHALL VERIFY AND PROTECT ALL PUBLIC UTILITIES. ANY WORK ASSOCIATED WITH SAID UTILITIES TO BE COORDINATED WITH APPROPRIATE UTILITY COMPANY.
  - THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE OWNER AND ENGINEER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTIONS PRIOR TO PROCEEDING.
  - PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE TO VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED FROM ALL REGULATORY AUTHORITIES AND SHALL BE THOROUGHLY FAMILIAR WITH CONDITIONS OF SAID PERMITS AND INSPECTION REQUIREMENTS.
  - THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHT-OF-WAYS, PUBLIC OR PRIVATE, PRIOR TO WORKING IN THESE AREAS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING ITEM AND/OR MATERIAL INSIDE OR OUTSIDE THE CONSTRUCTION LIMITS.
  - CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC ARE PROTECTED FROM INJURY.
  - LANDDESIGN SHALL NOT BE IN CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR ACTUAL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, OR SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK, OR FOR THE ACTS OR OMISSIONS OF CONTRACTORS OR ANY OTHER PERSONS NOT UNDER THE EMPLOYMENT OF LANDDESIGN.
  - DEMOLITION WORK SHALL NOT COMMENCE UNTIL GRADING PERMIT HAS BEEN ISSUED.
  - PROJECT INFORMATION:
    - ZONING: UR-2 (CD)
    - PETITION #2008-73 AND #2014-046
    - POST CONSTRUCTION DISTRICT
    - JURISDICTION: CHARLOTTE
    - DISTRICT: CENTRAL CATAWBA
    - WITHIN DISTRESSED BUSINESS DISTRICT
    - WITHIN TRANSIT ORIENTED DISTRICT

YES NO



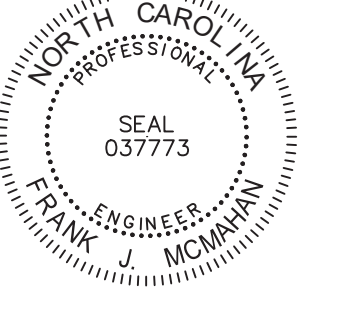
**PROJECT NARRATIVE:**

PHASE 7B OF THE BRIGHTWALK PROJECT CONSISTS OF APPROXIMATELY 1.35 ACRES WHICH WILL HAVE 17 SINGLE FAMILY ATTACHED LOTS. THE EXISTING SITE HAS ALREADY BEEN DEVELOPED AND CONTAINS THE MAJOR INFRASTRUCTURE (ROADS, STORM DRAINAGE, WATER, SEWER) FOR THE DOUBLE OAKS PROJECT THAT WAS PERMITTED AND BUILT UNDER ZONING PETITION 2008-73 AND SDRMUR-2015-0003. PHASE 1, 2, 3, 4, 5 AND 7 OF THE BRIGHTWALK PROJECT HAS ALSO BEEN PREVIOUSLY PERMITTED UNDER SDRMUR-2011-0019, SDRSF-2012-0012, SDRMUR-2012-00031, SDRSF-2013-00016, SDRMF-2013-00041 AND SDRMUR-2015-00018 IS CURRENTLY UNDER CONSTRUCTION. FINANCIAL RESPONSIBILITY OF THE PROJECT HAS ALREADY BEEN FILED WITH THE PREVIOUS DOUBLE OAKS PROJECT REFERENCED ABOVE. REGIONAL BMPs HAVE ALSO BEEN DESIGNED IN THE PREVIOUSLY MENTIONED PERMIT, AND THIS SITE WILL BE DISCHARGING TO ITS PREVIOUSLY ASSIGNED BMP. THE PURPOSE OF THIS SUBMITTAL IS TO OBTAIN A PERMIT TO ALLOW FOR THE CONSTRUCTION OF A SINGLE FAMILY SUBDIVISION CONSISTING OF 17 SINGLE FAMILY ATTACHED LOTS. CONSTRUCTION ACTIVITIES SHALL INCLUDE THE FOLLOWING:

- ALLEY GRADING AND LOT GRADING OF 17 SINGLE FAMILY ATTACHED LOTS
- A MINOR STORM DRAINAGE SYSTEM THAT WILL DISCHARGE INTO THE EXISTING STORM SYSTEM BUILT DURING THE DOUBLE OAKS MAJOR INFRASTRUCTURE AND SDRMUR-2015-00018 PROJECT
- WATER CONNECTIONS TO THE EXISTING WATER SYSTEM TO SERVE EACH LOT
- A PRIVATE SANITARY SEWER SYSTEM TO SERVE EACH LOT
- ASPHALT PAVED ALLEYS WITH CONCRETE STRIP EDGING.

**LandDesign**

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**Brightwalk Phase 7B - Multi-Family**  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC

**EXISTING CONDITIONS AND DEMOLITION PLAN**

**REVISIONS:**

NO.	DATE	REVISION
09	10/15	REVISED PER CITY COMMENTS
12	12/16	REVISED PER CITY COMMENTS
13	12/16	REVISED PER CITY COMMENTS
14	12/16	REVISED PER CITY COMMENTS

DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FM  
SCALE: 1" = 20'  
PROJECT #: 1015225  
SHEET #:

**C-1.1**



# SITE DATA (EXISTING):

Owner: Double Oaks Development, LLC  
 Address: 4801 Charlotte Park Dr., Suite # 350  
 Charlotte, NC 28217  
 Site Address: Unassigned  
 Existing Zoning: NS  
 Tax Parcel Numbers: 075-105-43  
 075-105-30  
 075-105-37  
 075-105-02  
 Existing Zoning: R-22 MF  
 Tax Parcel Numbers: 075-111-01  
 075-124-02  
 075-123-01  
 075-112-01  
 075-113-04  
 075-113-01  
 Existing Zoning: I-2  
 Tax Parcel Numbers: 079-043-03  
 Existing Zoning: R-8  
 Tax Parcel Numbers: 075-114-23  
 075-114-24

# SITE DATA (PROPOSED):

**Development Area 1**  
 Proposed Zoning: NS (SPA)  
 Proposed Use: Multi-Family & attached Club House uses  
 (See Development Standards)  
 Dwelling Units: 48  
 Area: +/- 2.38 ac.

**Development Area 2**  
 Proposed Zoning: NS (SPA)  
 Proposed Use: Mixed Use (Retail/Office: < 15,000 SF)  
 (See Development Standards)  
 Dwelling Units: Up to 70  
 Area: +/- 1.28 ac.

**Development Area 3**  
 Proposed Zoning: NS (SPA)  
 Proposed Use: Mixed Use (Retail/Office: < 20,000 SF)  
 (See Development Standards)  
 Dwelling Units: Up to 230  
 Area: +/- 3.03 ac.

**Development Area 4/Easement**  
 Proposed Zoning: NS (SPA)  
 Proposed Use: Green Way / Park via Easement  
 (See Development Standards)  
 Area: +/- 2.88 ac.

**Development Area 5**  
 Proposed Zoning: NS (SPA)  
 Proposed Use: Multi-Family  
 (See Development Standards)  
 Dwelling Units: 72  
 Area: +/- 1.44 ac.

**Development Area 6**  
 Proposed Zoning: NS  
 Proposed Use: Multi-Family and for Single Family Attached  
 (See Development Standards)  
 Dwelling Units: Up to 72  
 Area: +/- 1.85 ac.

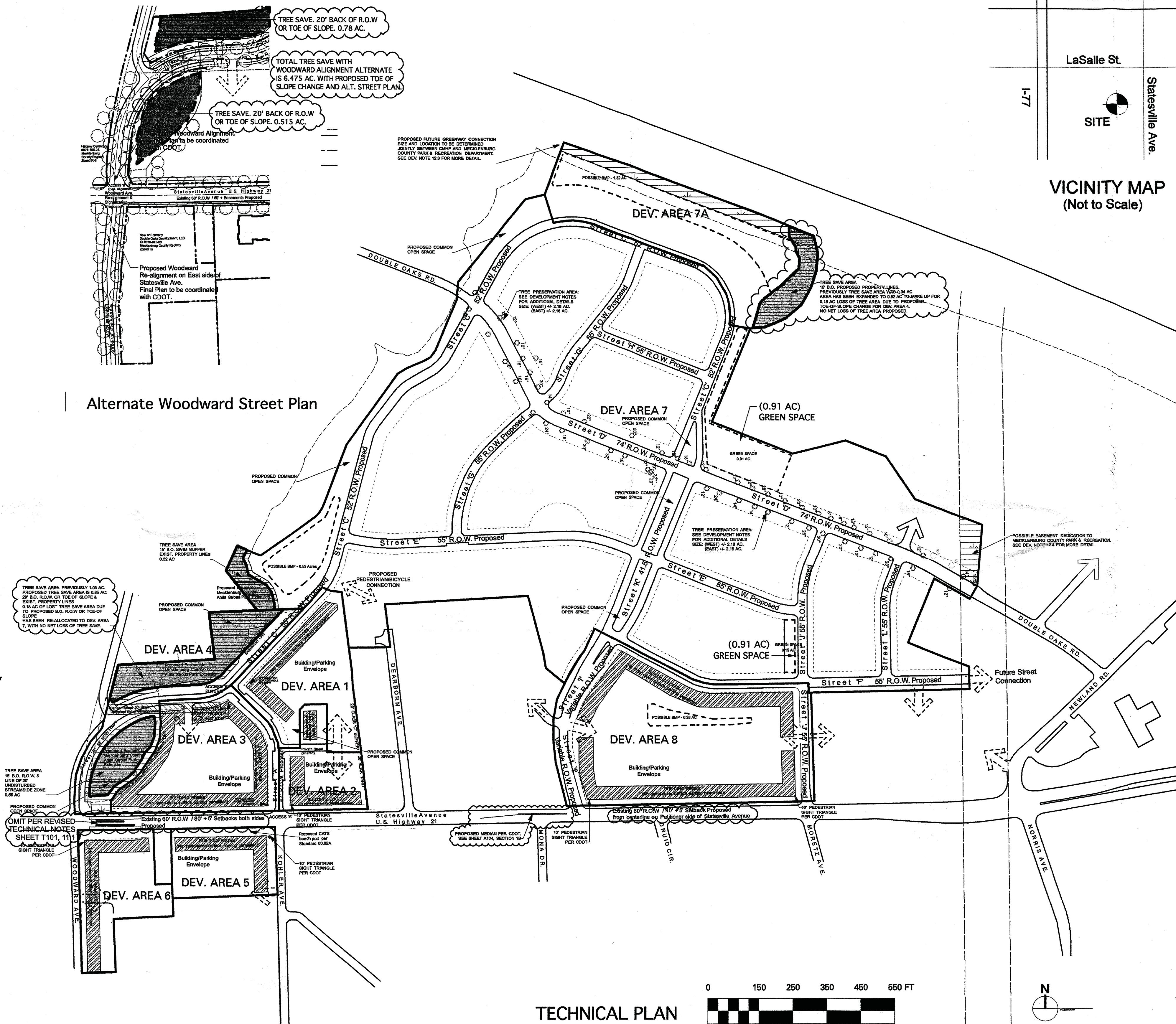
**Development Area 7**  
 Proposed Zoning: UR-2 (CD)  
 Proposed Use: Residential / Green Way Park via Easement  
 (See Development Standards)  
 Dwelling Units: Up to 400  
 Area: +/- 39.92 ac.  
 Site Area in Easement: +/- 0.32 ac.

**Development Area 7A**  
 Proposed Zoning: UR-2 (CD)  
 Proposed Use: Residential / Green Way Park via Easement  
 (See Development Standards)  
 Dwelling Units: Up to 40  
 Area: +/- 4.26 ac.

**Development Area 8**  
 Proposed Zoning: UR-2 (CD)  
 Proposed Use: Multi-Family, Single Family Attached, Child Care Center  
 (See Development Standards)  
 Dwelling Units: Up to 150  
 Area: +/- 7.05 ac.

**TOTAL SITE AREA:** +/- 64.11 ac.  
**EASEMENT AREA DEDICATION:** +/- 3.59 ac.  
**NET AREA:** +/- 60.51 ac.  
**PROPOSED TREE SAVE AREA:** +/- 6.58 ac.  
**PROPOSED MINIMUM PARKING STANDARDS:**  
 1.0/1 dwelling unit (NS zone)  
 1.0/1 dwelling unit (UR-2 zone)  
 1.0/125 of minimum (restaurants)  
 1.0/450 of minimum (retail/non-retail)  
 1.0/550 of minimum (office)

# Alternate Woodward Street Plan



# TECHNICAL PLAN

shook kelley

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 F 704 377 0953  
 www.shookkelley.com

850 South Robertson Blvd.  
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 F 310 659 9528

NOT FOR CONSTRUCTION

Prepared for:  
 CHMP  
 Charlotte Mecklenburg Housing Partnership  
 David Howard  
 4801 Charlotte Park Drive  
 Charlotte, NC 28217  
 704.342.0933 p

# Double Oaks Phase II

Petition #2008-  
 Charlotte, NC

Key	Date	Description
1	2008_02_15	First Submittal
2	2008_05_15	Second Submittal
3	2008_06_16	Public Hearing
4	2008_06_25	Zoning Committee
5	2008_07_21	City Council
6	2009_01_30	Amendment to Petition
7	2009_03_11	Second Amendment to Petition
8	2010_01_11	Third Amendment to Petition
9	2010_05_05	Fourth Amendment to Petition

# Technical Plan Petition #2008-73 Fourth Amendment to Petition

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 Project name: Project / 07024  
 CAD File Name: 08\_0125\_DO\_ZONING\_PLAN.MCD

# DOUBLE OAKS PHASE II RE-ZONING PLAN SUBMITTAL FOR ADMINISTRATIVE AMENDMENT 4

SP101

LandDesign

LANDDESIGN, INC.  
 CORPORATE  
 SEAL  
 NORTH CAROLINA

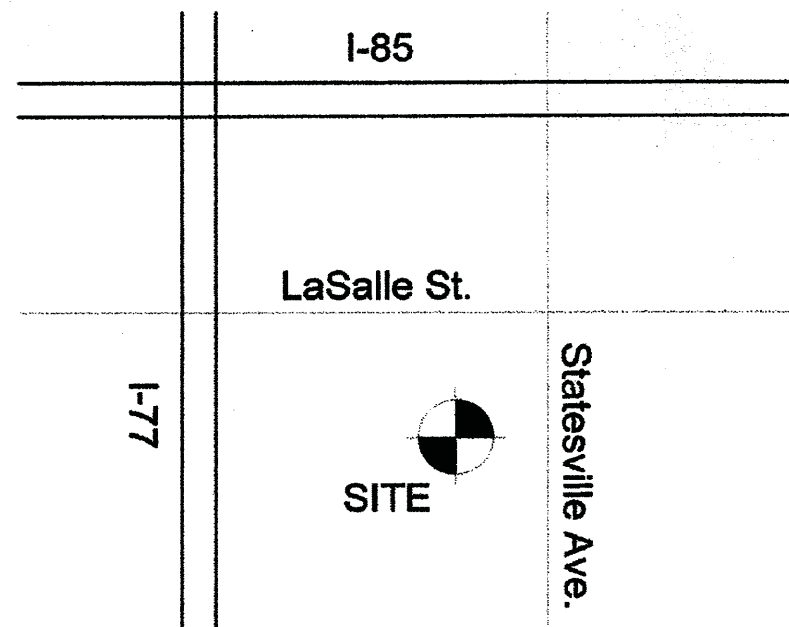
Brightwalk Phase 7B - Multi-Family  
 City of Charlotte, Mecklenburg County, North Carolina  
 Double Oaks Development, LLC  
 REZONING PLAN

REVISIONS:  
 09-10-15 REVISED PER CITY COMMENTS  
 12-13-16 STAP FOR 4 ADDITIONAL LOTS  
 ALONG STATESVILLE AVE

DATE: JULY 9, 2015  
 DESIGNED BY: ARW  
 DRAWN BY: ARW  
 CHECKED BY: FM  
 SCALE: NTS  
 PROJECT #: 1015225  
 SHEET #:

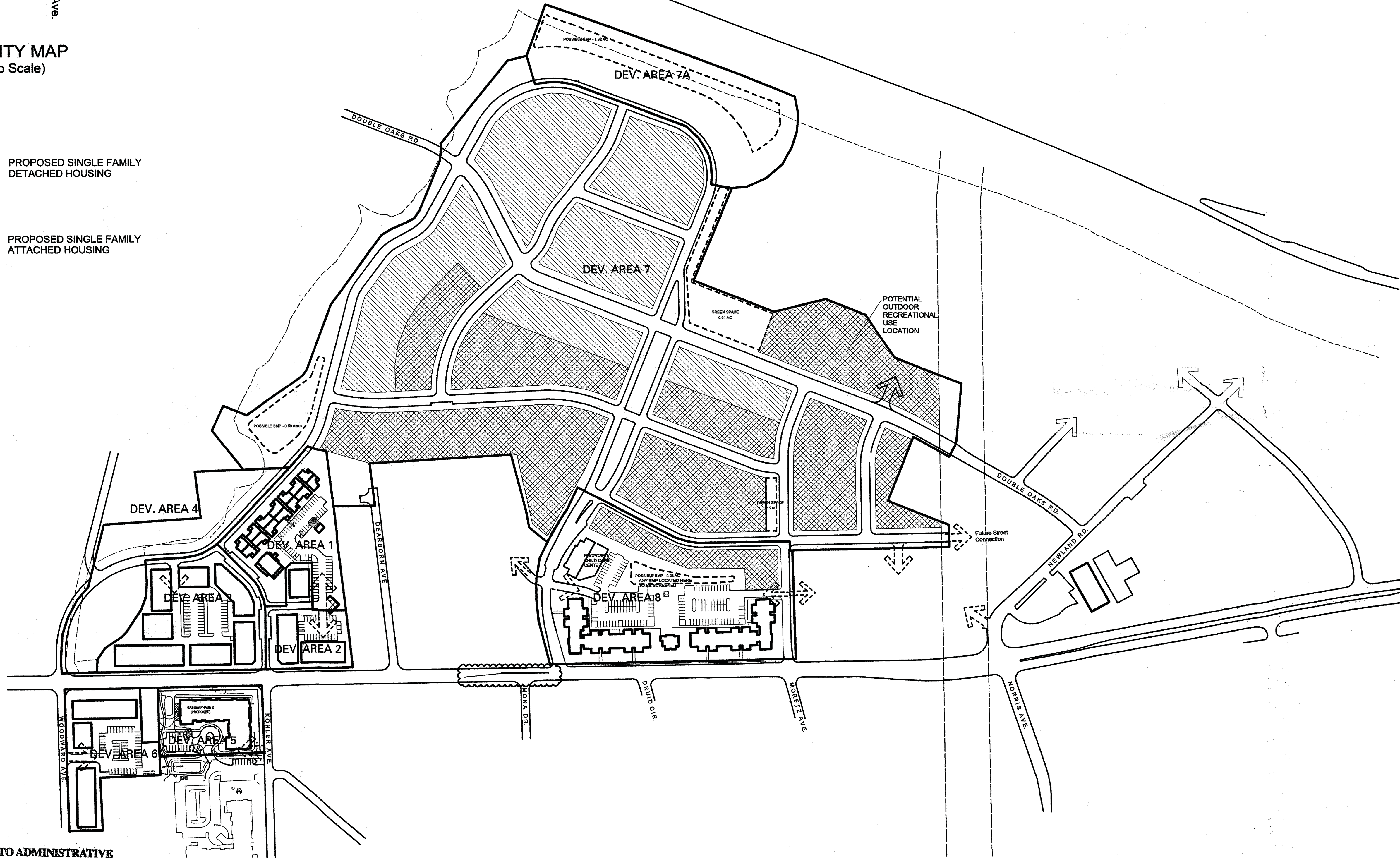
C-1.2





VICINITY MAP  
(Not to Scale)

- PROPOSED SINGLE FAMILY  
DETACHED HOUSING
- PROPOSED SINGLE FAMILY  
ATTACHED HOUSING

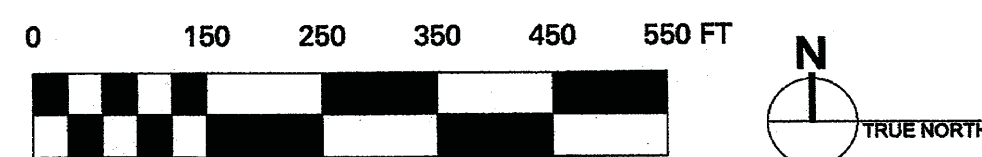


ATTACHED TO ADMINISTRATIVE  
APPROVAL

DATED: 6-29-2016

BY: DEBRA D. CAMPBELL

SCHEMATIC PLAN



shook kelley

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Los Angeles, CA 90035-1621

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www.shookkelley.com

NOT FOR CONSTRUCTION

Prepared for:  
CMHP  
Charlotte-Mecklenburg Housing Partnership  
David Howard  
4601 Charlotte Park Drive  
Charlotte, NC 28217  
704.342.0553 p

## Double Oaks Phase II

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Charlotte, NC

Key	Date	Description
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2	2008_05_13	Revised Submittal
3	2008_06_16	Public Hearing
4	2008_06_25	Zoning Committee
5	2008_07_21	City Council
6	2009_01_30	Amendment Petition
7	2009_03_11	Second Amendment to Petition
8	2010_01_11	Third Amendment to Petition
9	2010_05_05	Fourth Amendment to Petition

### Schematic Plan Petition #2008-73 Fourth Amendment to Petition

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CAD File Name: Site Plan\_96\_Units\_Schem\_10\_0111

### DOUBLE OAKS PH. II RE-ZONING PLAN SUBMITTAL FOR ADMINISTRATIVE AMENDMENT 4

# SP102

LandDesign

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Charlotte, NC 28202  
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www.LandDesign.com  
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Brightwalk Phase 7B - Multi-Family  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC

REZONING PLAN

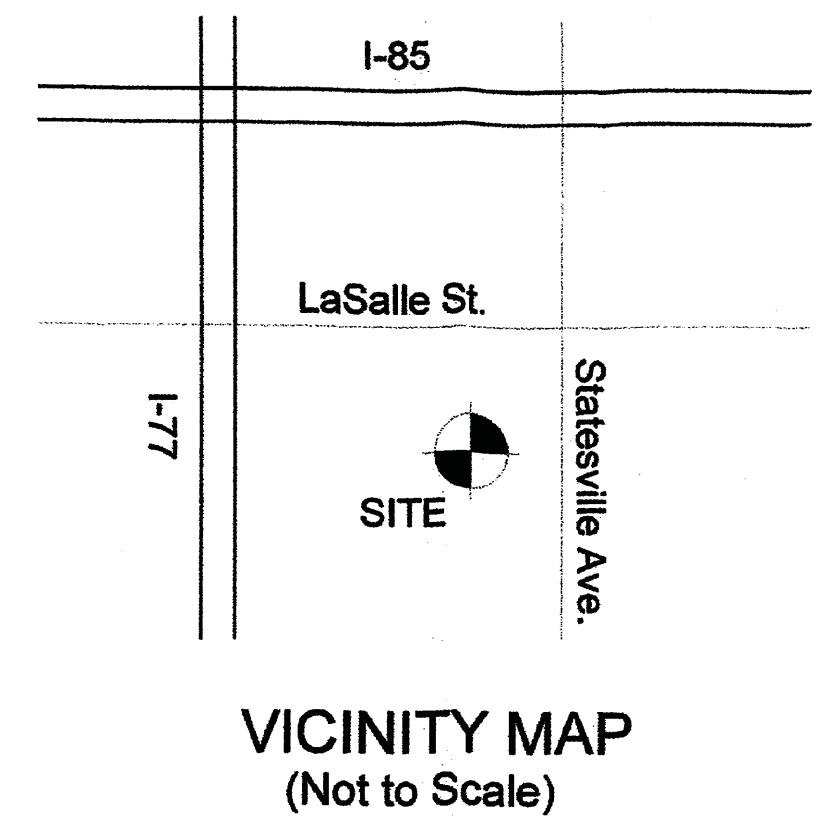
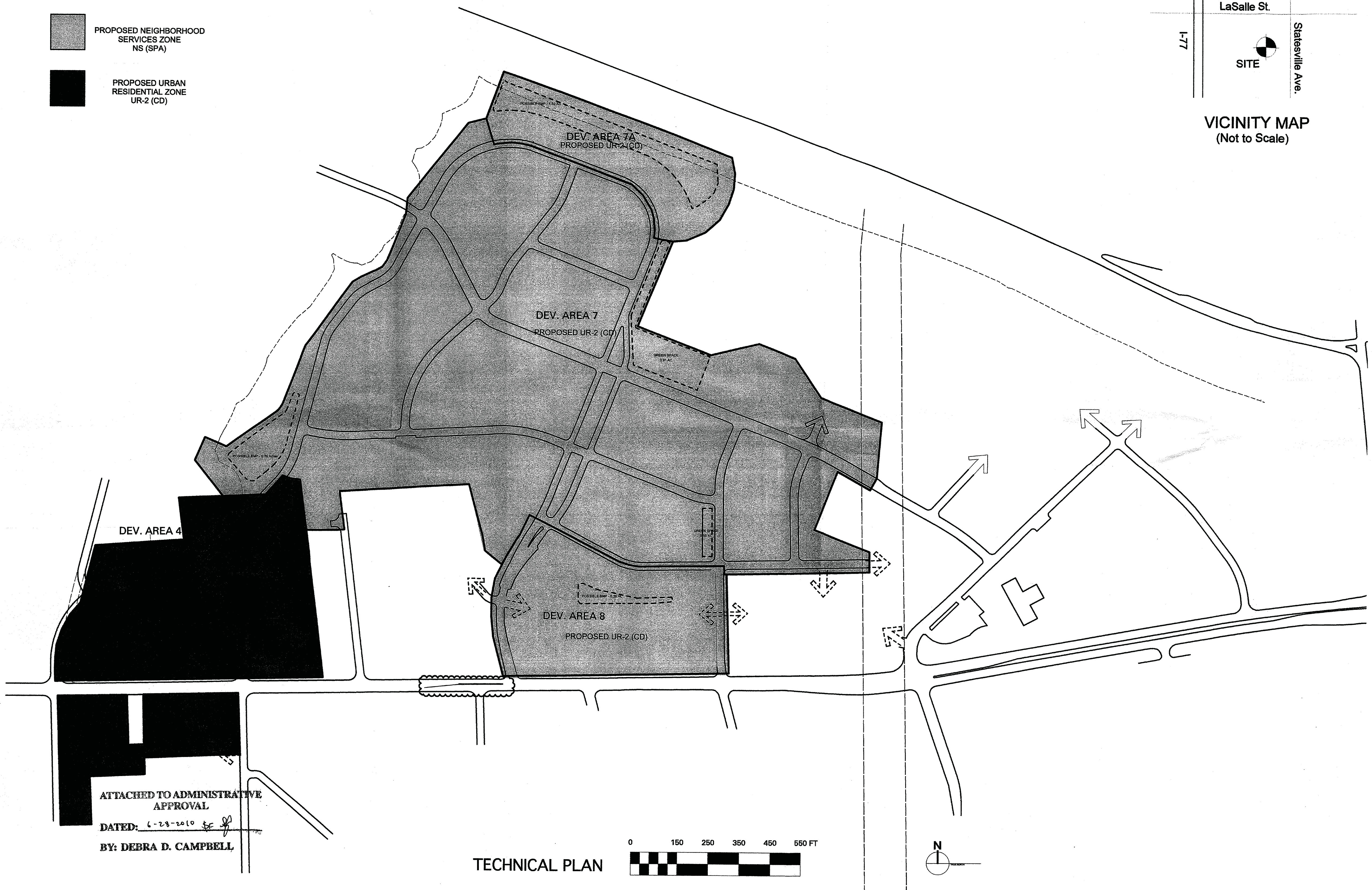
REVISIONS:  
09-10-15 REVISED PER CITY COMMENTS  
12-13-16 STAP FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE

DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FM  
SCALE: NTS  
PROJECT #: 1015225  
SHEET #:

C-1.3



- PROPOSED NEIGHBORHOOD SERVICES ZONE  
NS (SPA)
- PROPOSED URBAN RESIDENTIAL ZONE  
UR-2 (CD)



**shook kelley**

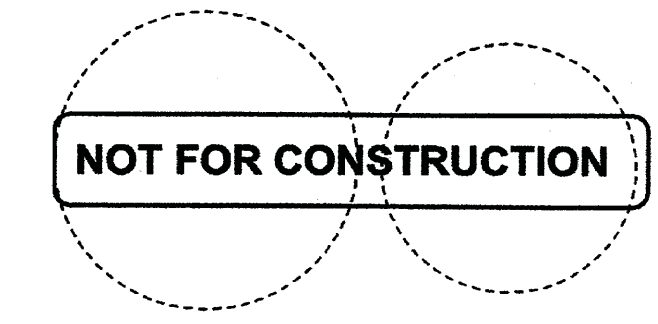
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[www.shookkelley.com](http://www.shookkelley.com)



Prepared for:  
CMIHP  
Charlotte Mecklenburg Housing Partnership  
David Howard  
4801 Charlotte Park Drive  
Charlotte, NC 28217  
704.342.0933 p

# Double Oaks Phase II

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8	2010_01_11	Third Amendment to Petition
9	2010_05_05	Fourth Amendment to Petition

## Proposed Zoning Boundaries Technical Plan Petition #2008-73 Fourth Amendment to Petition

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Project name#: Project / 07024  
CAD File Name: Site Ppan\_96\_Units\_Zone\_10\_0111

## DOUBLE OAKS PHASE II RE-ZONING PLAN SUBMITTAL FOR ADMINISTRATIVE AMENDMENT 4

# SP103

DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FM  
SCALE: NTS  
PROJECT #: 1015225  
SHEET #:  
**C-1.4**

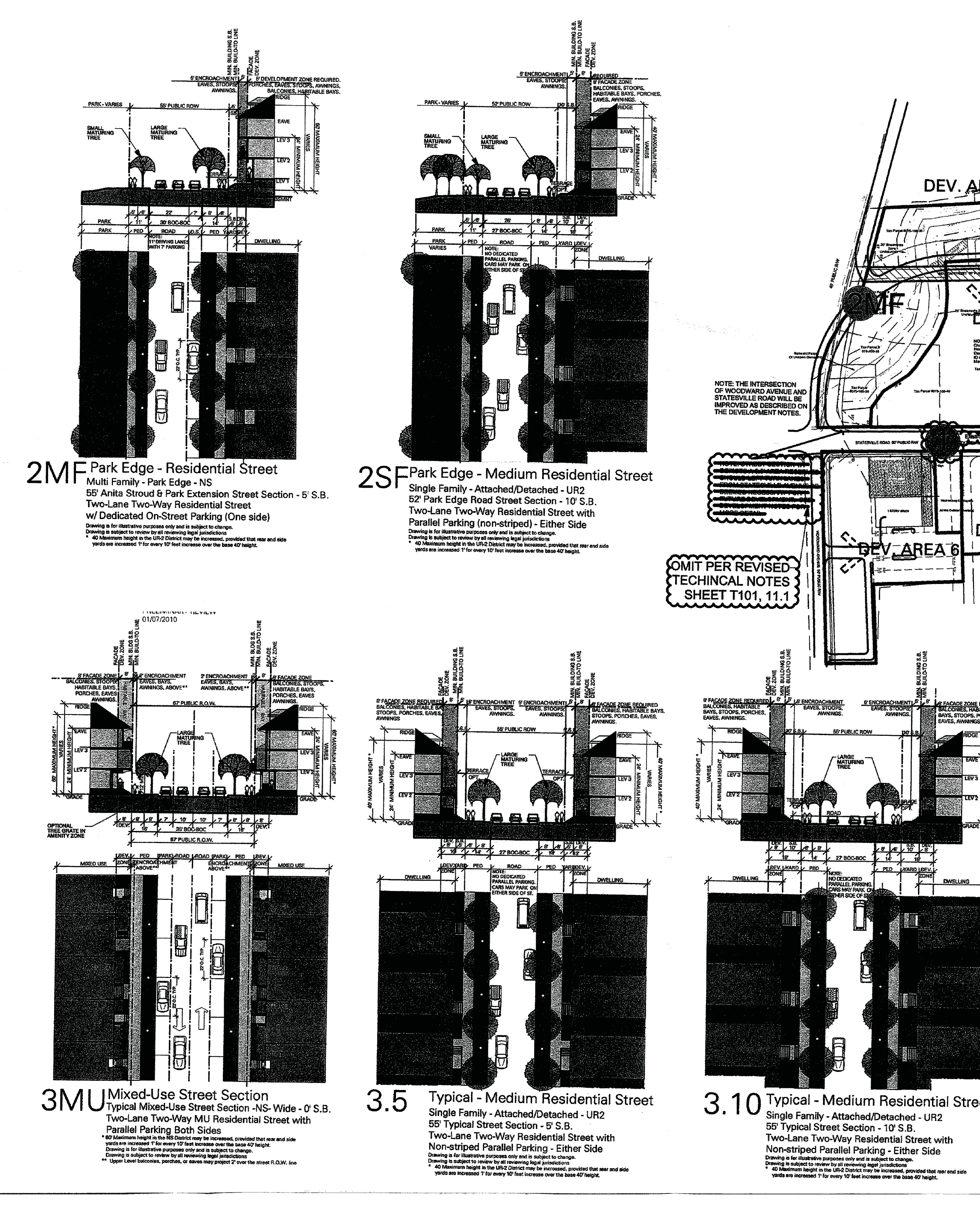
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NC Engineering Firm License # C-0658

LANDDESIGN, INC.  
CORPORATE  
SEAL  
NORTH CAROLINA

**Brightwalk Phase 7B - Multi-Family**  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC  
**REZONING PLAN**





shook kelley™

2151 Hawkins Street Suite 400 Charlotte, NC 28203-4927	850 South Robertson Blvd. Suite One Los Angeles, CA 90035-1621
T 704 377 0661 F 704 377 0953	T 310 659 9482 F 310 659 9528

**NOT FOR CONSTRUCTION**

Prepared for:  
CMHP  
Charlotte Mecklenburg Housing Partnership  
David Howard  
4601 Charlotte Park Drive  
Charlotte, NC 28217  
704.342.0933 p

## Double Oaks Phase II

Petition #2008-  
Charlotte, NC

Key	Date	Description
1	2008_02_15	First Submittal
2	2008_05_13	Revised Submittal
3	2008_06_16	Public Hearing
4	2008_06_25	Zoning Committee
5	2008_07_21	City Council
6	2009_01_30	Amendment to Petition
7	2009_03_11	Second Amendment to Petition
8	2010_01_01	Third Amendment to Petition
9	2010_03_02	3RD Amendment Note Revision
10	2010_05_05	Fourth Amendment to Petition

**Street Sections  
& Abandonment  
Technical Plan  
Petition #2008-73  
Fourth Amendment to Petition**

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Shook Kelley, Inc.

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Project name#: Project / 07024

CAD File Name: 10\_01\_11 DO Zoning Plan v2008.wxd

**DOUBLE OAKS PH. II  
RE-ZONING PLAN SUBMITTAL  
FOR ADMINISTRATIVE AMENDMENT 4**

# SP104





CONCEPTUAL VIEW "A"  
Woodward Avenue

DOUBLE OAKS - VIEW 2 - 4.21.08



CONCEPTUAL VIEW "B"  
Statesville Avenue

DOUBLE OAKS - VIEW 4 - 4.23.08

NOTE: These Conceptual Streetscape Renderings depict the general intent of the Petitioner with respect to scale, articulation, rhythm, massing, proportions and design elements. Modifications or alterations to these renderings may occur.

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## Double Oaks Phase II

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2	2008_05_13	Second Submittal
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4	2008_06_25	Zoning Committee
5	2008_07_21	City Council
6	2009_01_30	Amendment to Petition
7	2009_04_06	Second Amendment to Petition

## Conceptual Streetscapes Schematic Plan Petition #2008-73

ATTACHED TO ADMINISTRATIVE  
APPROVAL

DATED: 05-13-2009

BY: DEBRA D. CAMPBELL

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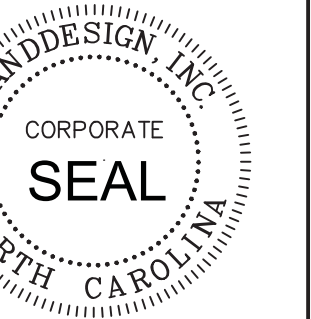
Project name#: Project / 07024  
CAD File Name: 08\_0125\_DO\_ZONING\_PLAN.MCD

## DOUBLE OAKS PHASE II RE-ZONING PLAN SUBMITTAL FOR PUBLIC HEARING

SP105

LandDesign

223 N Graham Street  
Charlotte, NC 28202  
V: 704.333.0325 F: 704.333.3246  
www.LandDesign.com  
NC Engineering Firm License # C-0658



Brightwalk Phase 7B - Multi-Family  
City of Charlotte, Mecklenburg County, North Carolina

Double Oaks Development, LLC  
REZONING PLAN

REVISIONS:  
09.10.15 REVISED PER CITY COMMENTS  
12.13.16 RTAP FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE

DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: EFM  
SCALE: 1"=40'  
PROJECT #: 1015225  
SHEET #:

C-1.6





View - Double Oaks Road Bridge  
Intersection of Anita Stroud Park ▲



View - Kohler Avenue towards The McNeil Apartments  
at the Stateville Avenue Intersection ▲



View - Woodward Ave. at Anita Stroud Park ▲



View - Future Norris St. & Double Oaks Road  
at the Stateville Avenue Intersection ▲

2014-046 PHASE 3 - DOUBLE OAKS / BRIGHTWALK

2008-073 APPROVED CONCEPT RENDERINGS

APPROVED BY  
CITY COUNCIL

JUL 21 2014



shook kelley

2101 Hawkins Street, Suite 400, Charlotte, NC 28203  
T 704.377.0801 F 704.377.0803  
www.shookkelley.com Charlotte / Los Angeles

Double Oaks - Brightwalk Phase 3 Rezoning Petition  
Statesville Ave - Double Oaks Rd. - Moss St. & Tranquil Oak Lane  
The Housing Partnership, 4601 Charlotte Park Dr., STE 350, Charlotte, NC, 28217  
704.342.0833 p / 704.342.2745 f, EMAIL - fcdodson@cmhp.org  
REZONING SUBMITTAL PETITION

REVISIONS:  
06/20/2014 Rezoning Revisions #2

DATE: JULY 9, 2015  
DESIGNED BY: Shook/Kelley  
CHECKED BY: FSJ  
PROJECT #: 107024 / 50  
SHEET #: SP002

REVISIONS:  
09-10-15 REVISED PER CITY COMMENTS  
12-13-16 STAP FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE  
.....  
DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FM  
SCALE: 1/8" = 1'-0"  
PROJECT #: 1015225  
SHEET #:

C-1.8

Brightwalk Phase 7B - Multi-Family  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC  
REZONING PLAN

LandDesign  
223 N Graham Street Charlotte, NC 28202  
V. 704.333.0325 F. 704.333.3246  
www.LandDesign.com  
NC Engineering Firm License # C-0658









1. DEVELOPMENT DATA TABLE:  
DEVELOPMENT AREAS 9, 10, 11, 12 TOTAL:  
DEVELOPMENT AREA 9:

1a. SITE ACREAGE (DEV AREA 9):  
1b. TAX PARCELS:

1c. EXISTING & PROPOSED ZONING:  
1d. EXISTING USES:  
1e. PROPOSED USES:  
1f. NUMBER OF RESIDENTIAL USES BY HOUSING TYPE:  
1g. SQUARE FOOTAGE OF NON-RESIDENTIAL USES BY TYPE:  
1h. FLOOR AREA RATIO:  
1i. MAXIMUM BUILDING HEIGHT:  
1j. NUMBER AND/OR RATIO OF PARKING SPACES:  
1k. AMOUNT OF OPEN SPACE:

DEVELOPMENT AREA 10 (PROPOSED ROW):  
1a. SITE ACREAGE (DEV AREA 10):  
1b. TAX PARCELS:

1c. EXISTING & PROPOSED ZONING:  
1d. EXISTING USES:  
1e. PROPOSED USES:  
1f. NUMBER OF RESIDENTIAL USES BY HOUSING TYPE:  
1g. SQUARE FOOTAGE OF NON-RESIDENTIAL USES BY TYPE:  
1h. FLOOR AREA RATIO:  
1i. MAXIMUM BUILDING HEIGHT:  
1j. NUMBER AND/OR RATIO OF PARKING SPACES:  
1k. AMOUNT OF OPEN SPACE:

DEVELOPMENT AREA 11:  
1a. SITE ACREAGE (DEV AREA 11):  
1b. TAX PARCELS:

1c. EXISTING & PROPOSED ZONING:  
1d. EXISTING USES:  
1e. PROPOSED USES:  
1f. NUMBER OF RESIDENTIAL USES BY HOUSING TYPE:  
1g. SQUARE FOOTAGE OF NON-RESIDENTIAL USES BY TYPE:  
1h. FLOOR AREA RATIO:  
1i. MAXIMUM BUILDING HEIGHT:  
1j. NUMBER AND/OR RATIO OF PARKING SPACES:  
1k. AMOUNT OF OPEN SPACE:

DEVELOPMENT AREA 12:  
1a. SITE ACREAGE (DEV AREA 12):  
1b. TAX PARCELS:

1c. EXISTING & PROPOSED ZONING:  
1d. EXISTING USES:  
1e. PROPOSED USES:  
1f. NUMBER OF RESIDENTIAL USES BY HOUSING TYPE:  
1g. SQUARE FOOTAGE OF NON-RESIDENTIAL USES BY TYPE:  
1h. FLOOR AREA RATIO:  
1i. MAXIMUM BUILDING HEIGHT:  
1j. NUMBER AND/OR RATIO OF PARKING SPACES:  
1k. AMOUNT OF OPEN SPACE:

2. GENERAL PROVISIONS:

2a. APPLICABILITY OF ORDINANCE NOTES:

2b. ALTERATIONS:

3. OPTIONAL PROVISIONS:

4a. PERMITTED USES:  
4b. ALLOWED USES:  
4c. PROHIBITED USES:  
4d. OTHER USE RESTRICTIONS:

5. TRANSPORTATION:

5a. TRANSPORTATION IMPROVEMENTS CONSTRUCTED  
IN CONJUNCTION WITH DEVELOPMENT

5b. PUBLIC VS. PRIVATE STREETS:

5c. CATS PUBLIC TRANSPORTATION

5d. PARKING CATEGORY - SURFACE

5e. LOCATION OF PROPOSED PEDESTRIAN IMPROVEMENTS

5f. EXISTING THOROUGHFARES

5g. EXISTING RESIDENTIAL STREETS

6. ARCHITECTURAL STANDARDS:

6a. BUILDING MATERIALS

6b. BUILDING SCALE & NUMBER OF BUILDINGS

6c. TREATMENT OF URBAN DESIGN AND ARCHITECTURAL ELEMENTS

6d. TREATMENT OF SOLID WASTE AND RECYCLING ENCLOSURES

6e. FENCEWALL STANDARDS

7. STREETScape & LANDSCAPING:

7a. STREETScape (SIDEWALK AND PLANTING STRIP) STANDARDS

7b. BUFFER/SCREENING TREATMENT

8. ENVIRONMENTAL FEATURES:

8a. TREE SAVE AREAS

8b. SITE INTERNAL TREES & LANDSCAPE

8c. PCOO TREATMENT

9. PARKS, GREENWAYS & OPEN SPACE:

9a. CONNECTIONS TO PARK & OR GREENWAY

10. FIRE PROTECTION:

10a. FIRE LANE TREATMENT

11. SIGNAGE:

11a. SIGN LIMITATIONS - SIZE, TYPE, LOCATION

12. LIGHTING:

12a. LIMITATIONS ON TYPE OR LOCATION OF LIGHTING

12b. PEDESTRIAN SCALE LIGHTING

13. PHASING:

13a. DEVELOPMENT PHASING BY USE OR AREA

14. OTHER:

14a. UNDERGROUNDING OF UTILITIES

14b. POTENTIAL LOCATION OF DUMPSTERS & RECYCLING CONTAINERS

14c.

3.374 AC, 166,151.1 Sq. Ft.

1795 AC, 78,332.43 Sq. Ft.

(PORTION OF) ID #07511308 - DEED BK. 22805, PG. 479 - MECKLENBURG COUNTY REGISTRY, DOUBLE OAKS DEVELOPMENT, LLC, PROPOSED ZONING UR-2(CD)

EXISTING ZONING R-22(MF) - VACANT LAND, RESIDENTIAL, SINGLE-FAMILY (ATTACHED & DETACHED) AND ACCESSORY USES, UP TO 40 RESIDENTIAL DWELLING UNITS

55' (FIFTY-FIVE FEET)

0.417 AC, 18,156.93 Sq. Ft.

(PORTION OF) ID #07511308 - DEED BK. 22805, PG. 479 - MECKLENBURG COUNTY REGISTRY, DOUBLE OAKS DEVELOPMENT, LLC, PROPOSED ZONING UR-2(CD)

EXISTING ZONING R-22(MF) - VACANT LAND, NEW STREET R.O.W. OR RESIDENTIAL: SINGLE-FAMILY (ATTACHED & DETACHED), MULTI-FAMILY AND ACCESSORY USES, UP TO 14 RESIDENTIAL DWELLING UNITS

55' (FIFTY-FIVE FEET)

1.078 AC, 46,393.28 Sq. Ft.

(PORTION OF) ID #07511308 - DEED BK. 22805, PG. 479 - MECKLENBURG COUNTY REGISTRY, DOUBLE OAKS DEVELOPMENT, LLC, PROPOSED ZONING UR-2(CD)

EXISTING ZONING R-22(MF) - VACANT LAND, RESIDENTIAL, SINGLE-FAMILY (ATTACHED & DETACHED), MULTI-FAMILY AND ACCESSORY USES, UP TO 50 RESIDENTIAL DWELLING UNITS

55' (FIFTY-FIVE FEET)

0.587 AC, 22,571.47 Sq. Ft.

(PORTION OF) ID #07511308 - DEED BK. 22805, PG. 479 - MECKLENBURG COUNTY REGISTRY, DOUBLE OAKS DEVELOPMENT, LLC, PROPOSED ZONING UR-2(CD)

EXISTING ZONING R-22(MF) - VACANT LAND, RESIDENTIAL, SINGLE-FAMILY (ATTACHED & DETACHED) AND ACCESSORY USES, UP TO 14 RESIDENTIAL DWELLING UNITS

55' (FIFTY-FIVE FEET)

UNLESS MORE STRINGENT STANDARDS ARE ESTABLISHED BY THESE DEVELOPMENT STANDARDS, ALL DEVELOPMENT STANDARDS ESTABLISHED UNDER THE ZONING ORDINANCE, THE "ORDINANCE" FOR THE UR-2(CD) ZONING CLASSIFICATION SHALL BE FOLLOWED.

ALTERATION OF THE CONDITIONAL PLAN IS SUBJECT TO SECTION 6.207 ALTERATIONS TO APPROVAL

55' (FIFTY-FIVE FEET)

SINGLE-FAMILY (ATTACHED & DETACHED), MULTIFAMILY AND ACCESSORY USES, STREET EXTENSION R.O.W.

NA

ROAD ALIGNMENTS / CROSS SECTIONS FOR INTERNAL STREETS TO BE CONSISTENT WITH APPROVED 2008-073 PETITION MOSS ST. EXTENSION - PROPOSED PUBLIC ROADWAY CROSS SECTION (27' B.O.C-B.O.C) WITH 55' R.O.W.

TRANQUIL OAKS DR. EXTENSION - PROPOSED PUBLIC ROADWAY CROSS SECTION (27' B.O.C-B.O.C) WITH 55' R.O.W.

PROPOSED PRIVATE ALLEY PER CITY LAND USE STANDARDS - 14' PRIVATE ALLEY WITH 20' R.O.W.

PETITIONER TO COORDINATE FINAL ACCESS & INTERSECTION DESIGNS WITH CDOT/NC DOT DURING PERMITTING PROCESS

PETITIONER TO RETAIN EXIST. BUS STOP LOCATION. NEW PAD DETAIL 60.018 TO BE COORDINATED DURING REVIEW & PERMIT PROCESS

6' PUBLIC SIDEWALK & 6' LANDSCAPE STRIP AT PROPOSED EXTENSION OF MOSS ST. & TRANQUIL OAKS DR.

8' PUBLIC SIDEWALK & 8' LANDSCAPE STRIP AT NORTH SIDE OF EXISTING MORETZ ST.

STATESVILLE AVENUE - PROPOSED MODIFICATION FOR CURB-CUT FOR MOSS ST. EXTENSION CONNECTION

DOUBLE OAKS DR., TRANQUIL OAKS DR. & MORETZ AVE. & MOSS STREET

1 (ONE) CURB-CUT PROPOSED AT STATESVILLE AVENUE/US HWY 21

BUILDINGS CONSTRUCTED ON THE SITE MAY USE A VARIETY OF BUILDING MATERIALS. THE BUILDING MATERIALS USED FOR THE BUILDINGS (OTHER THAN STRUCTURED PARKING FACILITIES) WILL BE A COMBINATION OF THE FOLLOWING:

GLASS, BRICK, STONE, SIMULATED STONE, PRE-CAST STONE, PRECAST CONCRETE, SYNTHETIC STONE, STUCCO, CEMENTITIOUS SIDING (SUCH AS HAROLD PLANK), EIFS OR WOOD VINYL AS A BUILDING MATERIAL WILL NOT BE ALLOWED EXCEPT ON WINDOWS AND SOFFITS

MAXIMUM BUILDING HEIGHT OF 55' NUMBER OF BUILDINGS AS PROPOSED PER THE INDIVIDUAL DEVELOPMENT AREAS 9, 11, 12 & ROW AREA 10 ALONG WITH ALLOWABLE ACCESSORY STRUCTURES

BUILDINGS ALONG PUBLIC AND PRIVATE STREETS SHALL HAVE CLEAR WINDOWS, GLASS AND DOORS THAT FACE THESE RESPECTIVE STREETS. THE WALLS OF THE BUILDINGS FACING THESE STREETS SHALL BE VARIED WITH A FREQUENCY OF WINDOWS, DOORS AND OTHER ARCHITECTURAL TREATMENTS

LONG EXPANSES OF BLANK WALLS WITH NO OPENINGS AND MINIMAL CHANGES IN MATERIAL OR ARCHITECTURAL TREATMENT OVER 20' LONG WILL NOT BE ALLOWED. BLANK

WALLS SHALL BE TREATED WITH SOME COMBINATION OF LANDSCAPING, BUILDING ARTICULATION, VARIED BUILDING FACADE PLANES, CANOPIES, PEDESTRIAN ORIENTED LIGHTS, PUBLIC ART OR OTHER SIMILAR TREATMENT

THE PRINCIPAL RESIDENTIAL BUILDINGS THAT FRONT ON A PUBLIC OR PRIVATE STREET WILL BE DESIGNED WITH BUILDING ENTRANCES THAT FACE THE ABUTTING PUBLIC OR PRIVATE STREET, EXCEPT THAT BUILDINGS WITH FRONTAGE ON TWO STREETS (EITHER PUBLIC OR PRIVATE OR TWO LEGS OF A ROUNDABOUT) MAY HAVE AN ENTRANCE TO ONLY ONE STREET

METER BANKS, BPP'S, ROOFTOP HVAC AND RELATED MECHANICAL EQUIPMENT AND OTHER SIMILAR UTILITIES WILL BE SCREENED WHERE VISIBLE FROM PUBLIC VIEW AT GRADE LEVEL

ENCLOSURES AS PRESCRIBED BY THE ORDINANCE

SIDEWALK AND PLANTING STRIP AS PRESCRIBED BY THE ORDINANCE IN COORDINATION WITH URBAN FORESTRY. REQUIRED BUFFERS OR SCREENING AS PRESCRIBED BY THE ORDINANCE.

AS PRESCRIBED BY THE ORDINANCE. THE PETITIONER SHALL COMPLY WITH THE CITY OF CHARLOTTE POST CONSTRUCTION CONTROLS ORDINANCE.

SITE/MONUMENT AND/OR BUILDING/WALL SIGNS AS PRESCRIBED BY THE ORDINANCE.

INTERNAL SITE LIGHTING AS PRESCRIBED BY THE ORDINANCE. MAXIMUM HEIGHT OF ANY FREESTANDING FIXTURE WILL NOT EXCEED 20 FEET. ALL FIXTURES INSTALLED WILL BE SHIELDED WITH FULL CUT OFF FIXTURES, CAPPED AND DOWNWARDLY DIRECTED.

PEDESTRIAN SCALE LIGHTING ALONG THE PUBLIC STREET R.O.W. AND INTERNAL SITE PARKING AS PRESCRIBED BY THE ORDINANCE. FINAL LAYOUT AND DESIGN TO BE COORDINATED WITH DUKE ENERGY.

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PEDESTRIAN SCALE LIGHTING ALONG THE PUBLIC STREET R.O.W. AND INTERNAL SITE PARKING AS PRESCRIBED BY THE ORDINANCE. FINAL LAYOUT AND DESIGN TO BE COORDINATED WITH DUKE ENERGY.

PHASE 3  
DOUBLE OAKS/BRIGHTWALK

2014-046  
TECHNICAL REZONING SUBMITTAL  
PLAN & NOTES

NOW OR FORMERLY  
New Life Fellowship Center  
of Charlotte, Inc.  
Deed Bk. 16306, Pg. 755  
ID #07512201  
Mecklenburg Co. Registry

NOW OR FORMERLY  
Double Oaks Development, LLC  
Deed Bk. 22805, Pg. 196  
ID #07511308  
Mecklenburg Co. Registry

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Double Oaks Development, LLC  
Deed Bk. 22805, Pg. 196  
ID #07511308  
Mecklenburg Co. Registry

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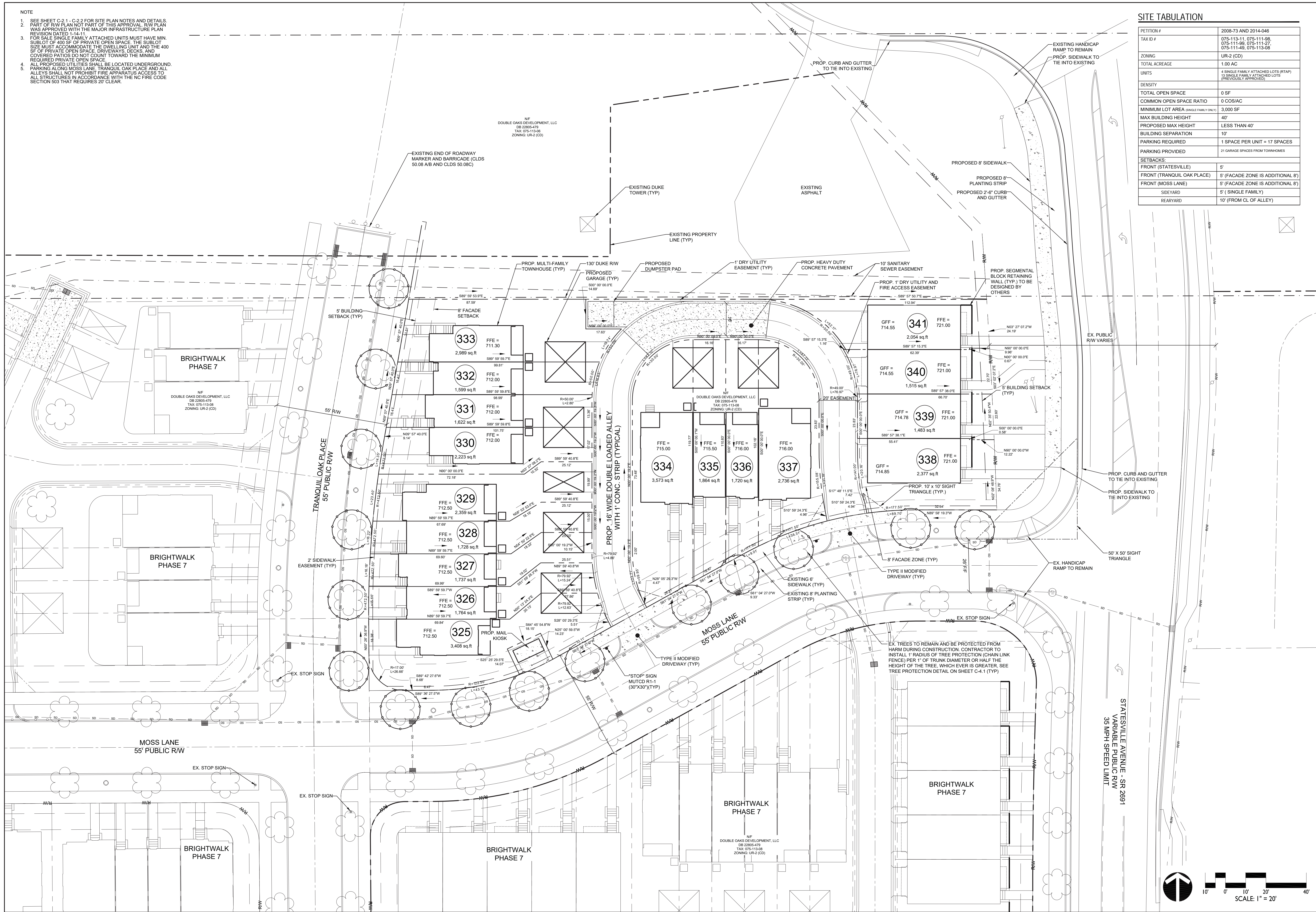
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ID #07511308  
Mecklenburg Co. Registry



- NOTE
- SEE SHEET C-2.1 - C-2.2 FOR SITE PLAN NOTES AND DETAILS.
  - PART OF RW PLAN NOT PART OF THIS APPROVAL. RW PLAN WAS APPROVED WITH THE MAJOR INFRASTRUCTURE PLAN REVISION DATED 1-14-11.
  - FOR SALE SINGLE FAMILY ATTACHED UNITS MUST HAVE MIN. SUBLOT OF 400 SF OF PRIVATE OPEN SPACE. THE SUBLOT SIZE MUST ACCOMMODATE THE DWELLING UNIT AND THE 400 SF OF PRIVATE OPEN SPACE. DRIVEWAYS, DECKS, AND COVERED PATIOS DO NOT COUNT TOWARD THE MINIMUM REQUIRED PRIVATE OPEN SPACE.
  - ALL PROPOSED UTILITIES SHALL BE LOCATED UNDERGROUND.
  - PARKING ALONG MOSS LANE, TRANQUIL OAK PLACE AND ALLEYS SHALL NOT PROHIBIT FIRE APPARATUS ACCESS TO ALL STRUCTURES IN ACCORDANCE WITH THE NC FIRE CODE SECTION 503 THAT REQUIRES 20' CLEAR.



SITE TABULATION

PETITION #	2008-73 AND 2014-046
TAX ID #	075-113-11, 075-111-98, 075-111-99, 075-111-27, 075-111-49, 075-113-88
ZONING	UR-2 (CD)
TOTAL ACREAGE	1.00 AC
UNITS	4 SINGLE FAMILY ATTACHED LOTS (RTAP), 13 SINGLE FAMILY ATTACHED LOTS (PREVIOUSLY APPROVED)
DENSITY	
TOTAL OPEN SPACE	0 SF
COMMON OPEN SPACE RATIO	0 COS/AC
MINIMUM LOT AREA (SINGLE FAMILY ONLY)	3,000 SF
MAX BUILDING HEIGHT	40'
PROPOSED MAX HEIGHT	LESS THAN 40'
BUILDING SEPARATION	10'
PARKING REQUIRED	1 SPACE PER UNIT = 17 SPACES
PARKING PROVIDED	21 GARAGE SPACES FROM TOWNHOMES
SETBACKS:	
FRONT (STATESVILLE)	5'
FRONT (TRANQUIL OAK PLACE)	5' (FACADE ZONE IS ADDITIONAL 8')
FRONT (MOSS LANE)	5' (FACADE ZONE IS ADDITIONAL 8')
SIDEYARD	5' (SINGLE FAMILY)
REARYARD	10' (FROM CL OF ALLEY)

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12/21/16

Brightwalk Phase 7B - Multi-Family  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC

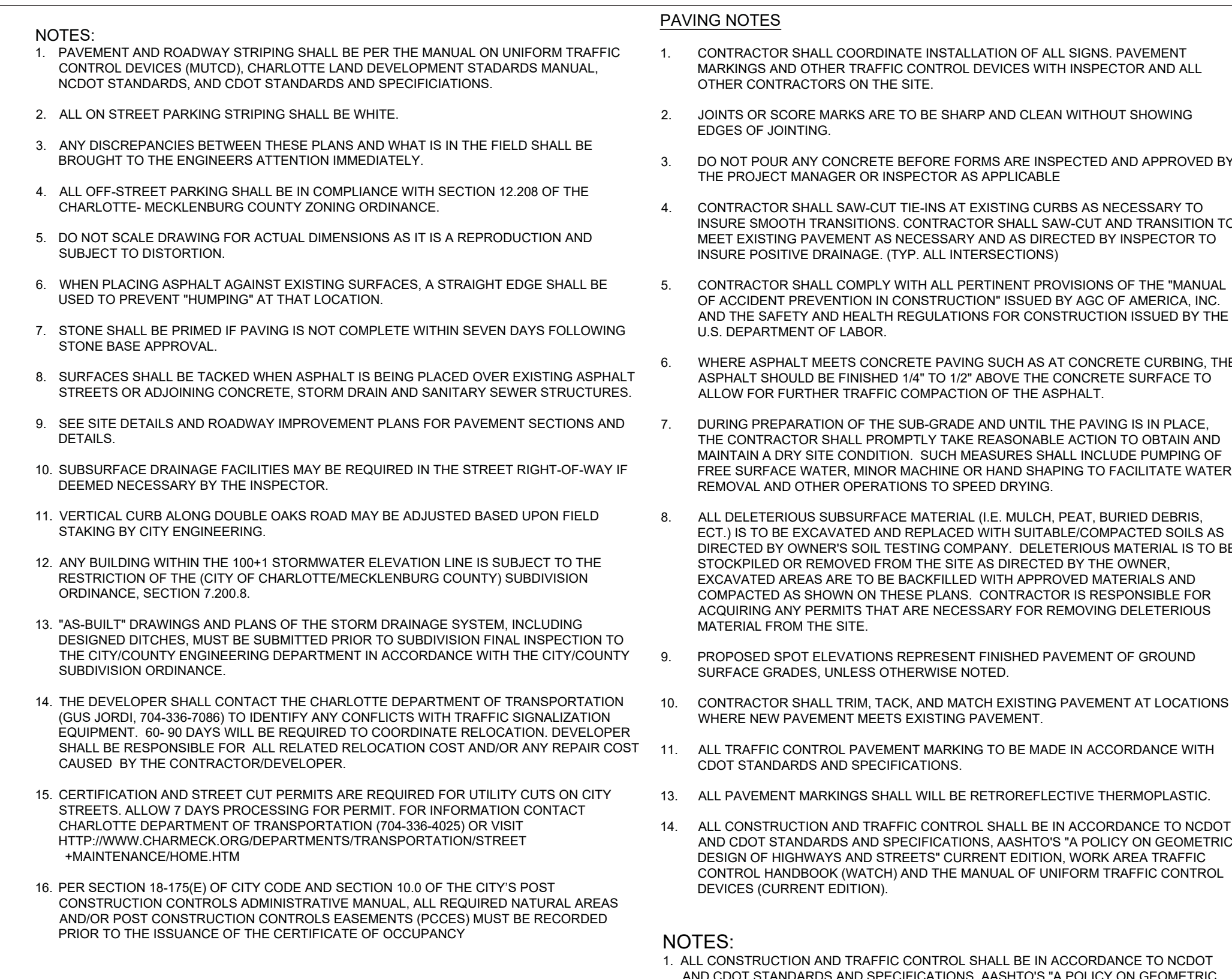
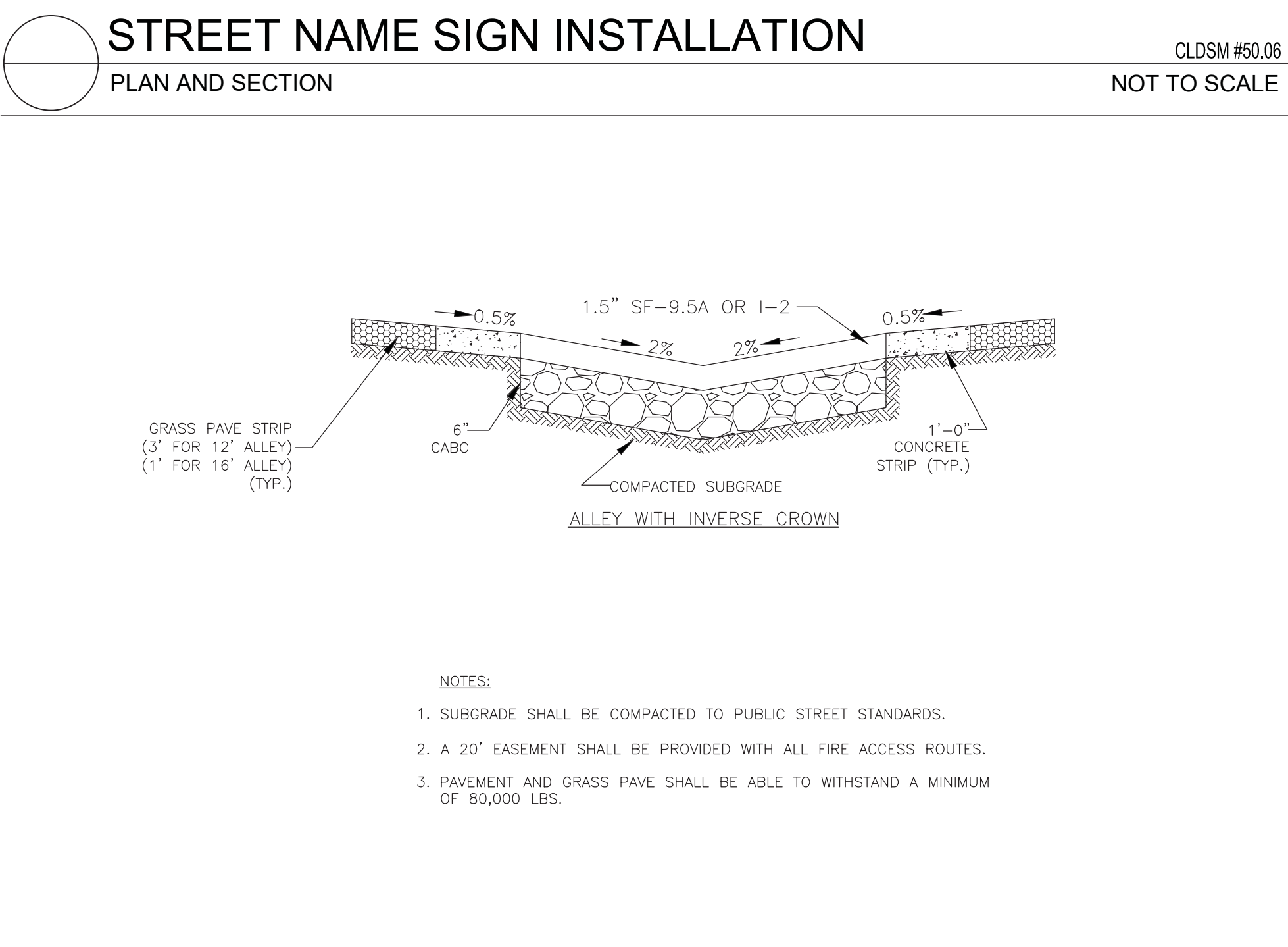
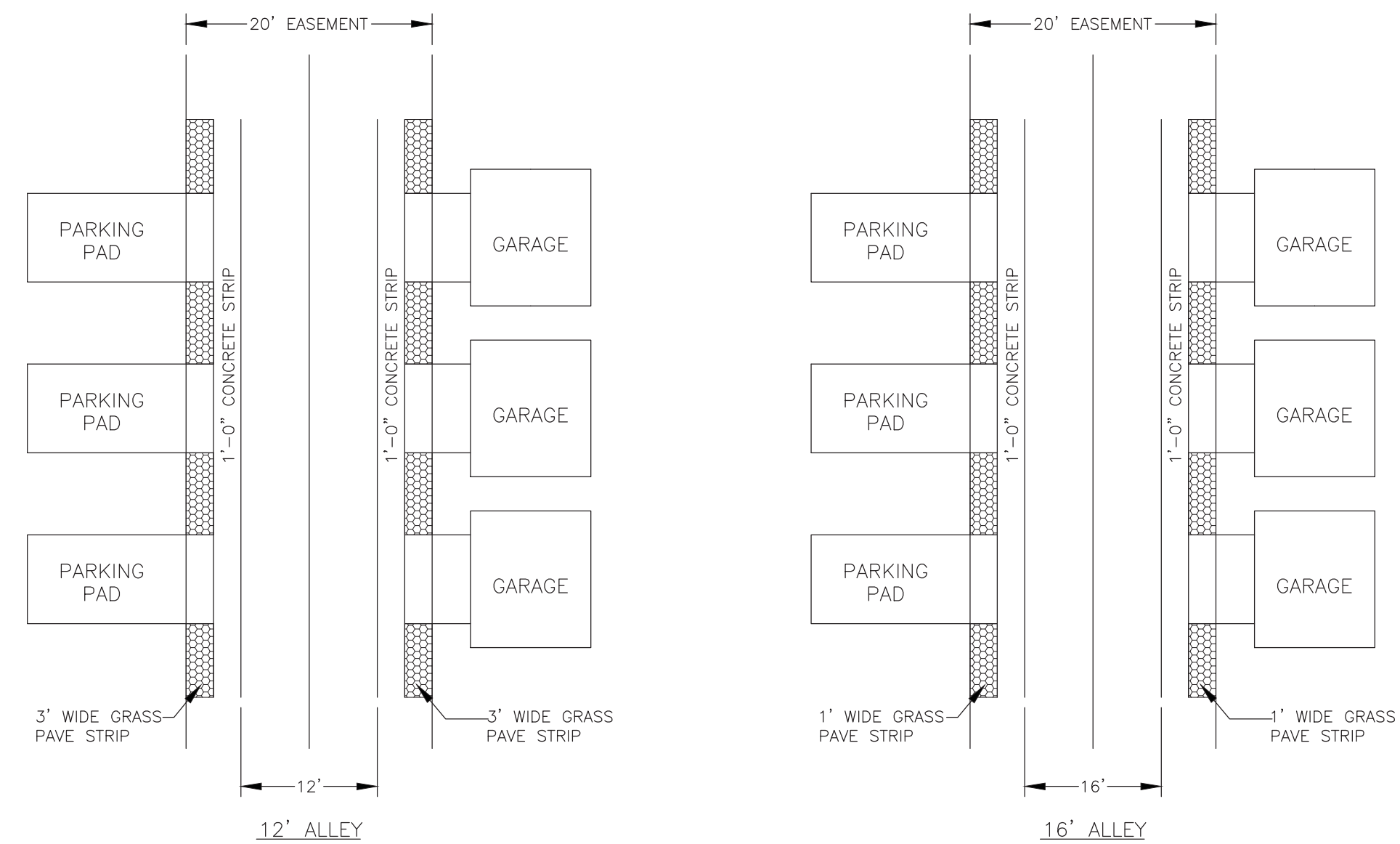
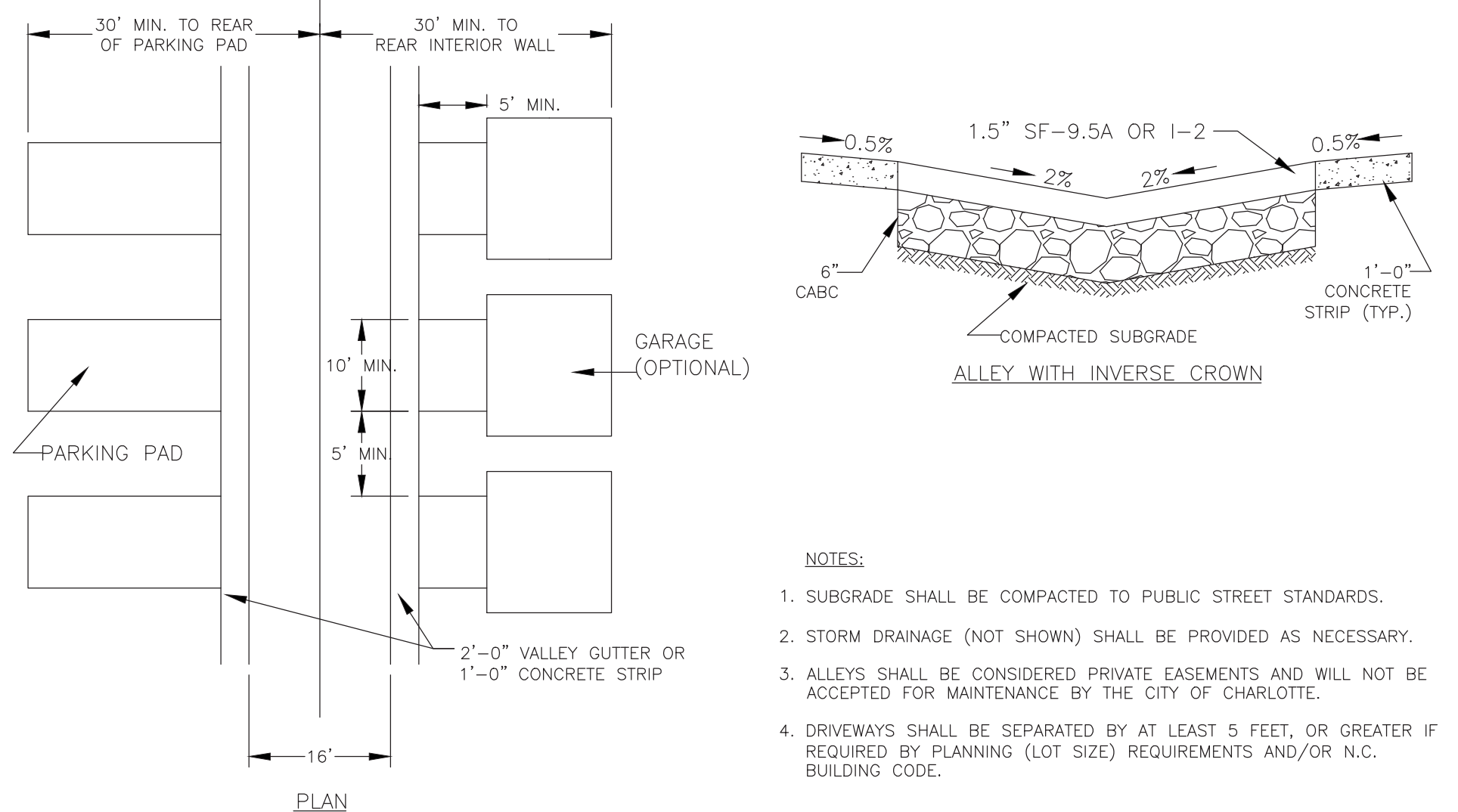
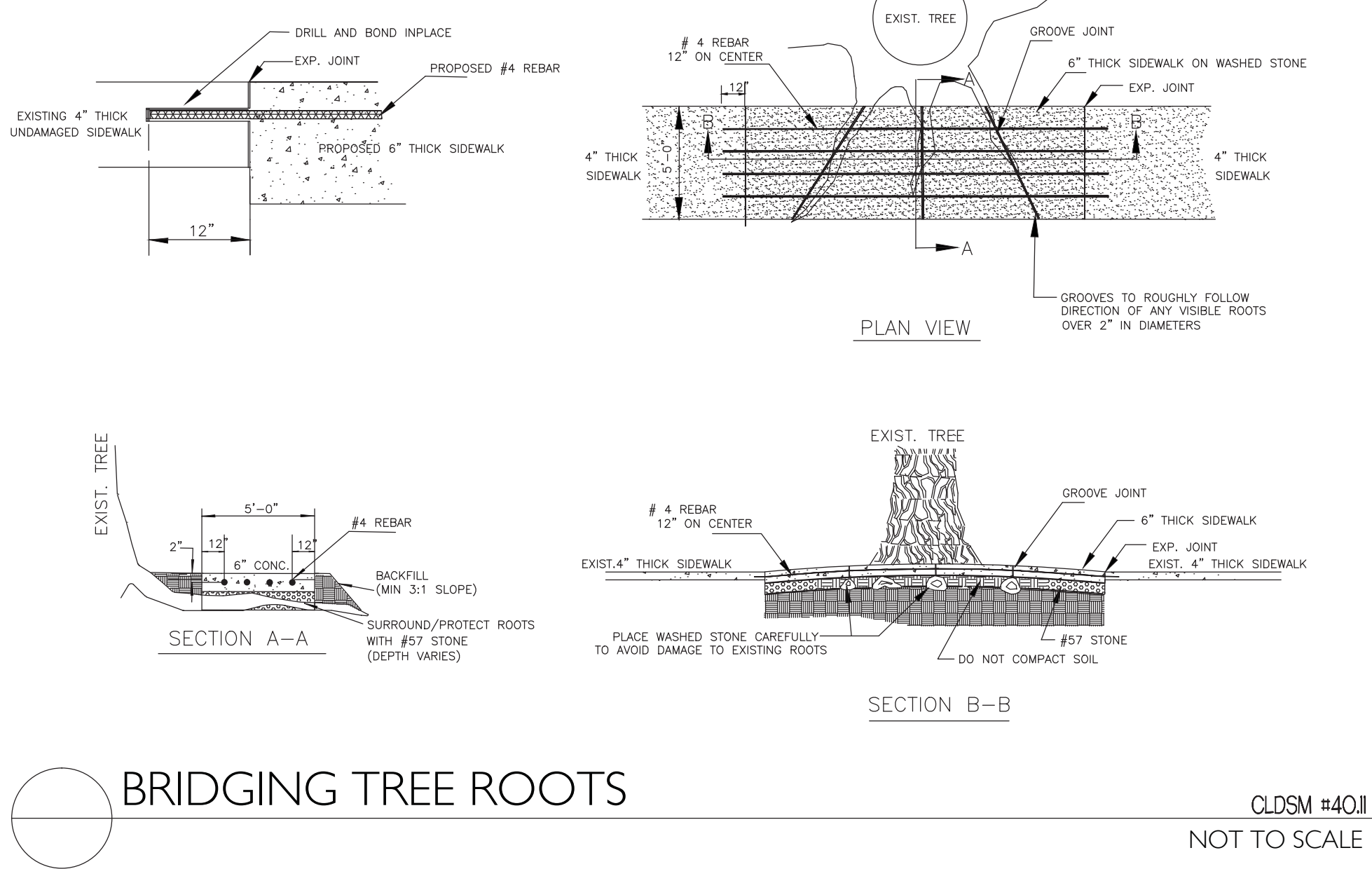
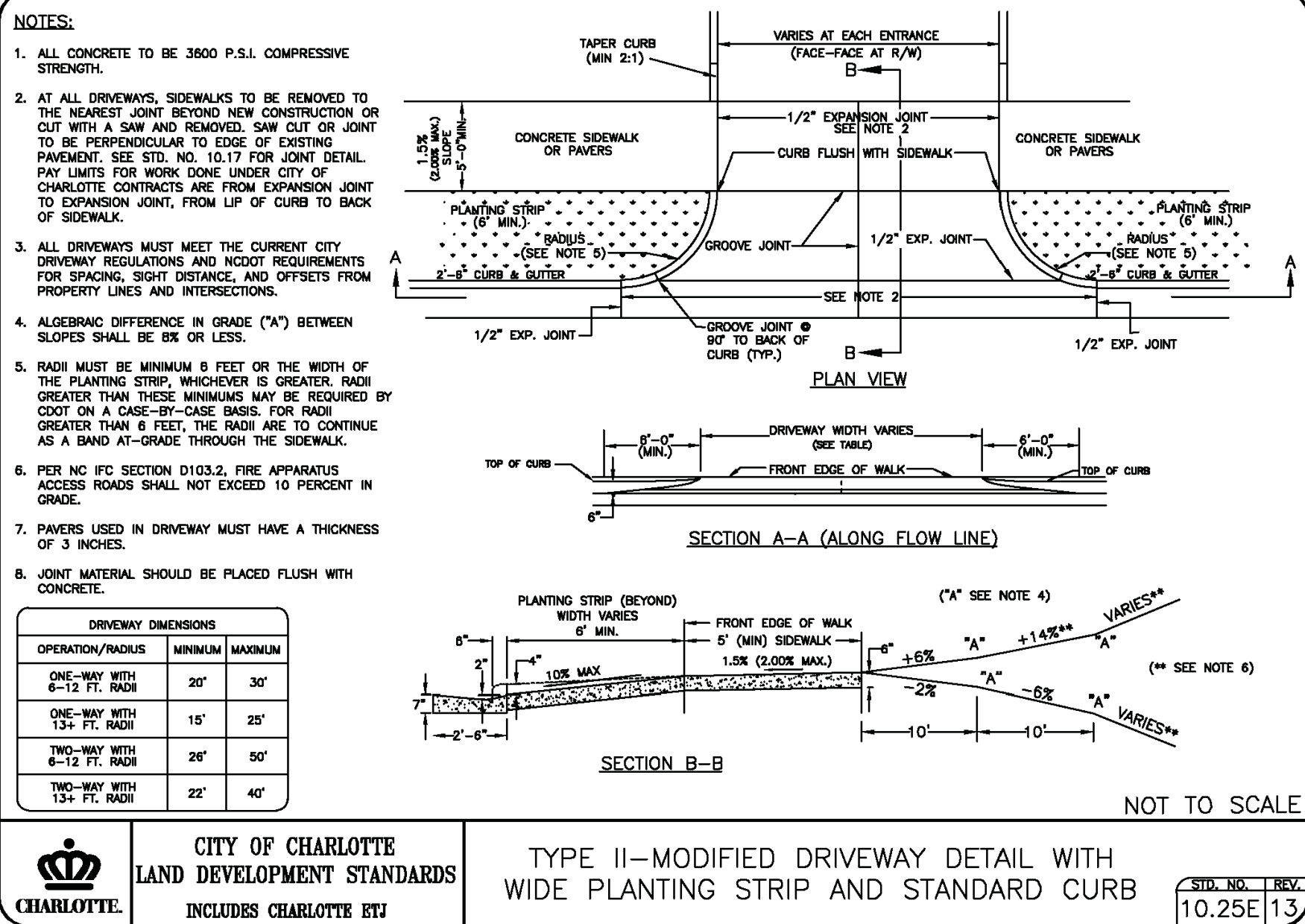
OVERALL SITE PLAN

REVISIONS:  
09.10.15 REVISED PER CITY COMMENTS  
12.21.16 RTAP FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE

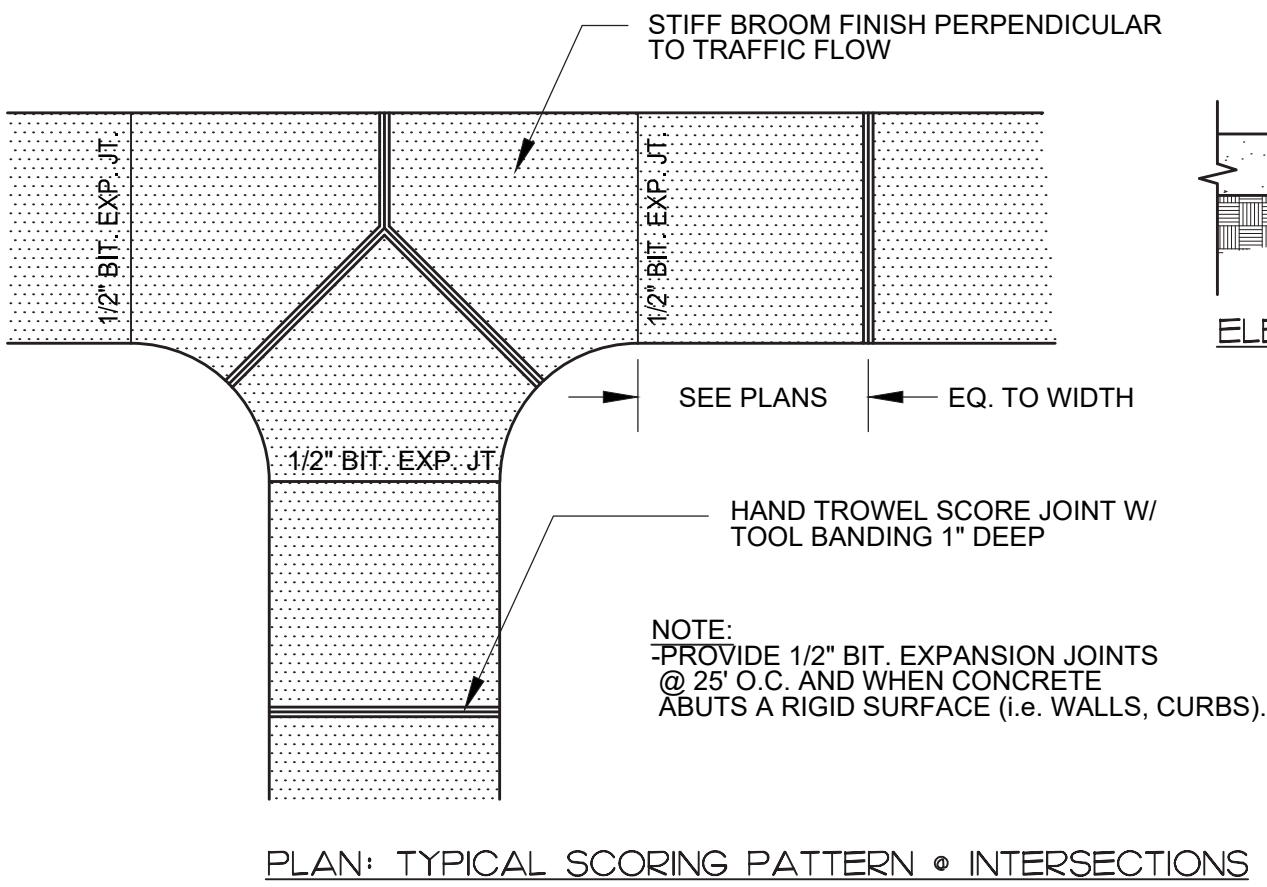
DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FM  
SCALE: 1" = 20'  
PROJECT #: 1015225  
SHEET #:

C-2.0

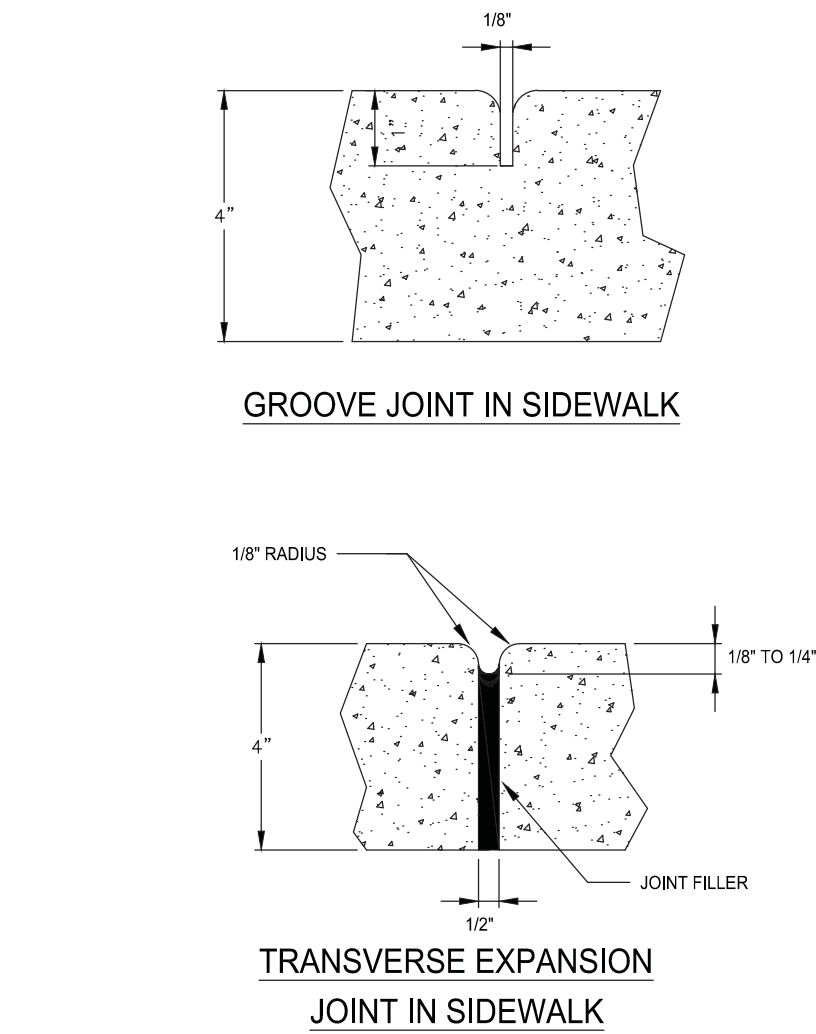








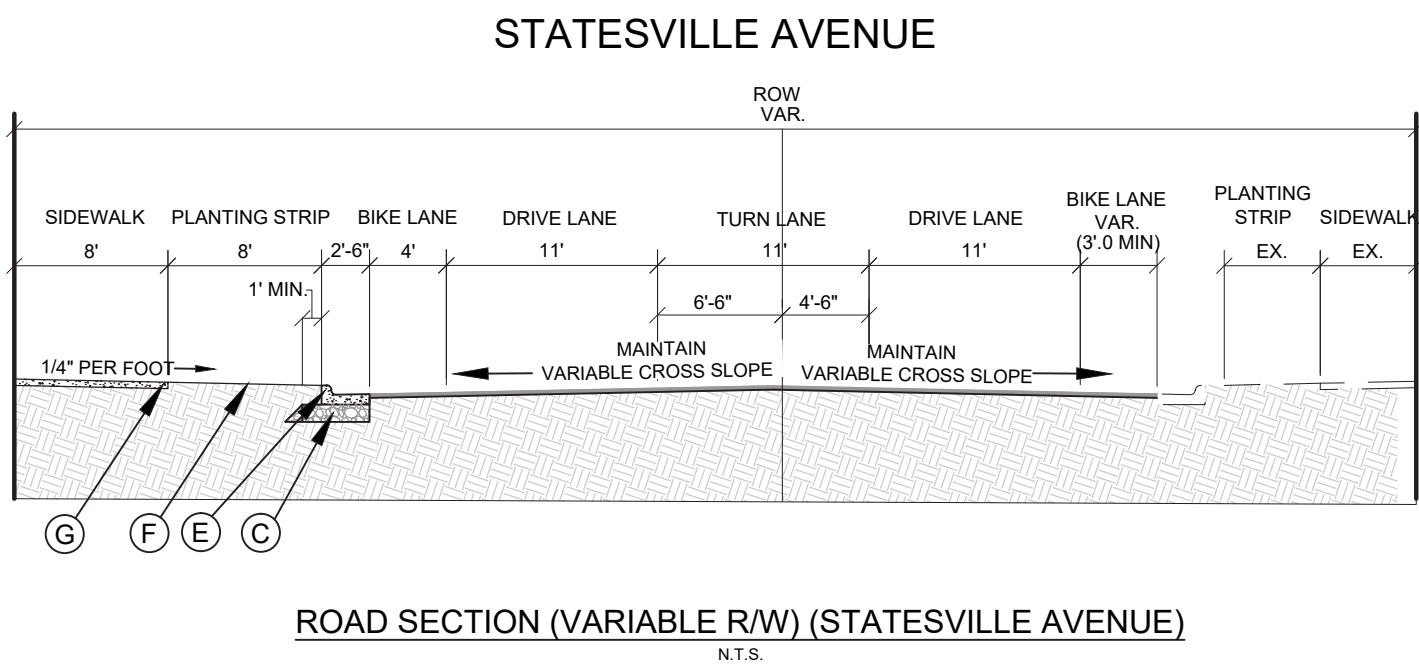
CONCRETE SIDEWALK  
PLAN / ELEVATION  
NOT TO SCALE



CONCRETE SIDEWALKS  
NOT TO SCALE

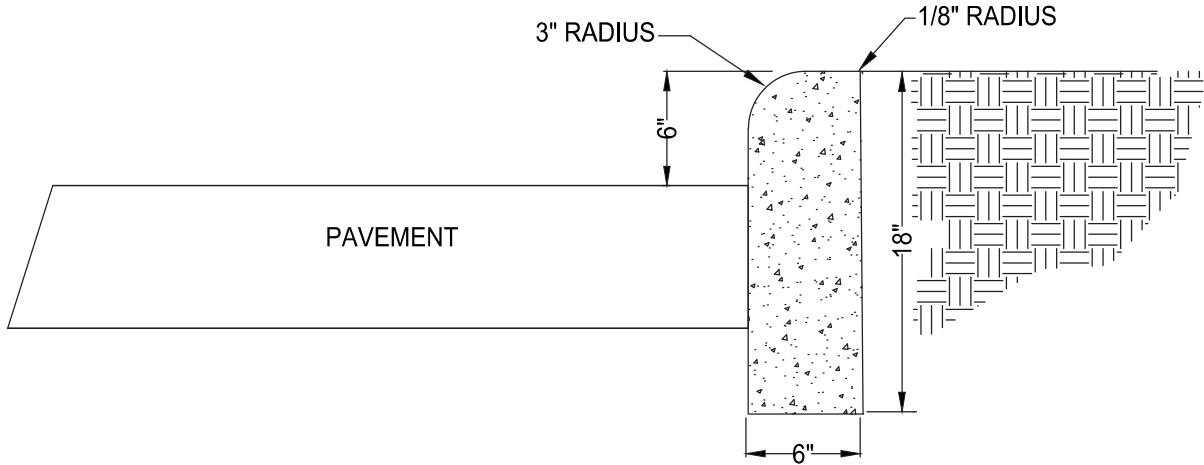
STATESVILLE AVENUE SECTIONS KEY:  
(SHALL BE IN ACCORDANCE WITH CLDSM 11.00)

- (C) BASE COURSE  
10\"/>

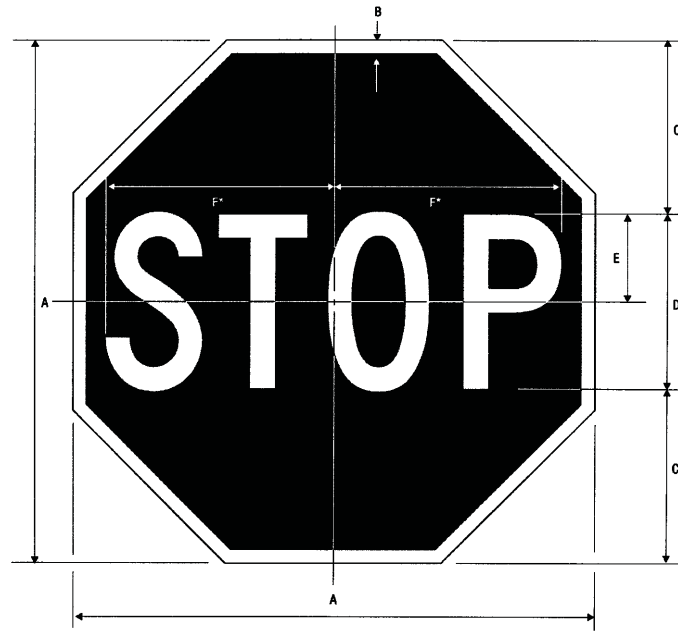


NOTES:

- CONTRACTION JOINTS SHALL BE SPACED AT 10-FOOT INTERVALS. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.
- CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/2\"/>



6\"/>



R1-1

\*Median spacing 40ft

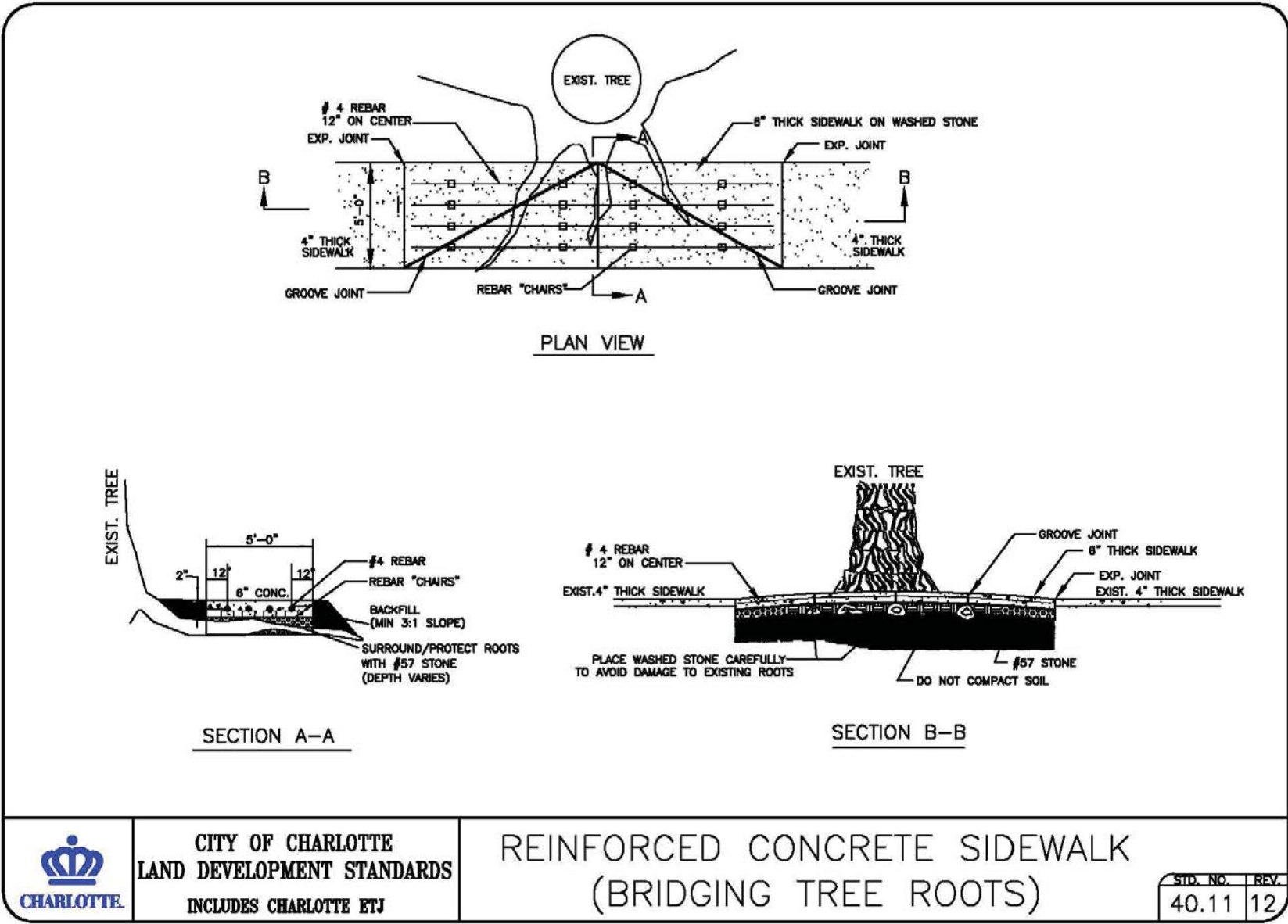
A	B	C	D	E	F
18	275	6	6.0	3	775
24	255	6	6.0	4	755
30	75	10	10.0	5	625
36	275	10	10.0	6	755
42	150	10	10.0	6	255

COLOR: LEGEND - WHITE (REFLECTIVE)  
BACKGROUND - RED (REFLECTIVE)

NOTES:

- CONTRACTOR TO INSTALL 30"x30" R1-1 "STOP" SIGN AT ALL DRIVEWAY LOCATIONS LEAVING THE SITE AND 24"x24" R1-1 "STOP" SIGN AT ALL LOCATIONS INDICATED ON THE LAYOUT PLAN.
- CONTRACTOR SHALL INSTALL R1-1 "STOP" SIGNS PER CURRENT CDOT, CLDSM, AND MUTCD STANDARDS AND SPECIFICATIONS.

STOP SIGN  
ELEVATION  
NTS



CITY OF CHARLOTTE  
LAND DEVELOPMENT STANDARDS  
INCLUDES CHARLOTTE RTJ

REINFORCED CONCRETE SIDEWALK  
(BRIDGING TREE ROOTS)

40.11 12

ADDITIONAL GRADING NOTES

- REFER TO SITE PLAN FOR RELATED NOTES.
- ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADE.
- ALL ELEVATIONS ARE IN REFERENCE TO THE BENCH MARK WHICH MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO BREAKING GROUND.
- ALL FILL TO BE COMPACTED TO 98% A.A.S.H.O. STANDARD COMPACTION UNLESS OTHERWISE NOTED.
- THE PROPOSED CONTOURS SHOWN IN DRIVES, PARKING LOTS AND SIDEWALKS ARE FINISHED ELEVATIONS INCLUDING ASPHALT. REFER TO PAVEMENT CROSS-SECTION DATA TO ESTABLISH CORRECT SUB-BASE OR AGGREGATE BASE COURSE ELEVATION.
- APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES.
- LIMITS OF CLEARING SHOWN ON EROSION CONTROL PLANS ARE BASED ON CUT AND FILL SLOPES OR OTHER GRADING REQUIREMENTS.
- ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION SHOWN ON THE GRADING PLAN IS SUBJECT TO A FINE.
- STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON DENUDED AREAS AND ESPECIALLY WHEN THE CONSTRUCTION SEQUENCE REQUIRES IT. ALL AREAS ARE TO BE SEED OR LANDSCAPE WITHIN 21 DAYS OF COMPLETION OF GRADING.
- CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES AS INDICATED ON EROSION CONTROL PLANS. NO EROSION CONTROL DEVICE MEASURE MAY BE REMOVED UNTIL THE SITE IS STABILIZED.
- ON-SITE BURIAL PITS REQUIRE AN ON-SITE DEMOLITION LANDFILL PERMIT FROM THE ZONING ADMINISTRATOR.
- ALL SLOPES NOT OTHERWISE NOTED SHALL BE 2:1 OR FLATTER.
- THE CITY ENGINEERING DEPARTMENT SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF THE COMMENCEMENT OF CONSTRUCTION ACTIVITY.
- NON-STANDARD ITEMS (IE: PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE CHARLOTTE DEPARTMENT OF TRANSPORTATION/NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION.
- PRIOR TO PLAT RECORDED, OFF SITE RW AND/OR CONSTRUCTION EASEMENTS ARE REQUIRED TO BE OBTAINED ACCORDING TO THE GUIDELINES OF THE "OFF SITE RW ACQUISITION PROCESS". THESE NEEDED RW AND CONSTRUCTION LIMITS ARE CLEARLY SHOWN ON THE ROADWAY IMPROVEMENT PLAN.
- THE DEVELOPER SHALL CONTACT THE CHARLOTTE DEPARTMENT OF TRANSPORTATION (GUS JORDI, 704-336-7086) TO IDENTIFY ANY CONFLICTS WITH TRAFFIC SIGNALIZATION EQUIPMENT. 60-90 DAYS WILL BE REQUIRED TO COORDINATE RELOCATION. DEVELOPER SHALL BE RESPONSIBLE FOR ALL RELATED RELOCATION COST AND/OR ANY REPAIR COST CAUSED BY THE CONTRACTOR/DEVELOPER.
- SUBSURFACE DRAINAGE FACILITIES MAY BE REQUIRED IN THE STREET RIGHT-OF-WAY IF DEEMED NECESSARY BY THE INSPECTOR.
- CURB AND GUTTER SHOWN ON PLANS ALONG MOSS LAKE MAY BE ADJUSTED BASED UPON FIELD STAKING BY CITY ENGINEERING. ASSOCIATED STORM DRAINAGE MAY ALSO REQUIRE MODIFICATION BASED UPON FIELD CONDITIONS.
- HIGH-DENSITY POLYETHYLENE (HDPE) STORM DRAINAGE PIPE INSTALLED WITHIN EXISTING OR PROPOSED PUBLIC STREET RIGHT-OF-WAY MUST BE APPROVED BY THE CITY'S INSPECTOR PRIOR TO ANY BACKFILL BEING PLACED.
- BACKFILL MATERIAL MUST BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF THE MATERIAL WITHIN THE PUBLIC STREET RIGHT-OF-WAY.

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LANDDESIGN, INC.  
CORPORATE  
SEAL  
NORTH CAROLINA

NORTH CAROLINA  
REGISTERED PROFESSIONAL ENGINEER  
J. MCMAHON

12/21/16

Brightwalk Phase 7B - Multi-Family  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC

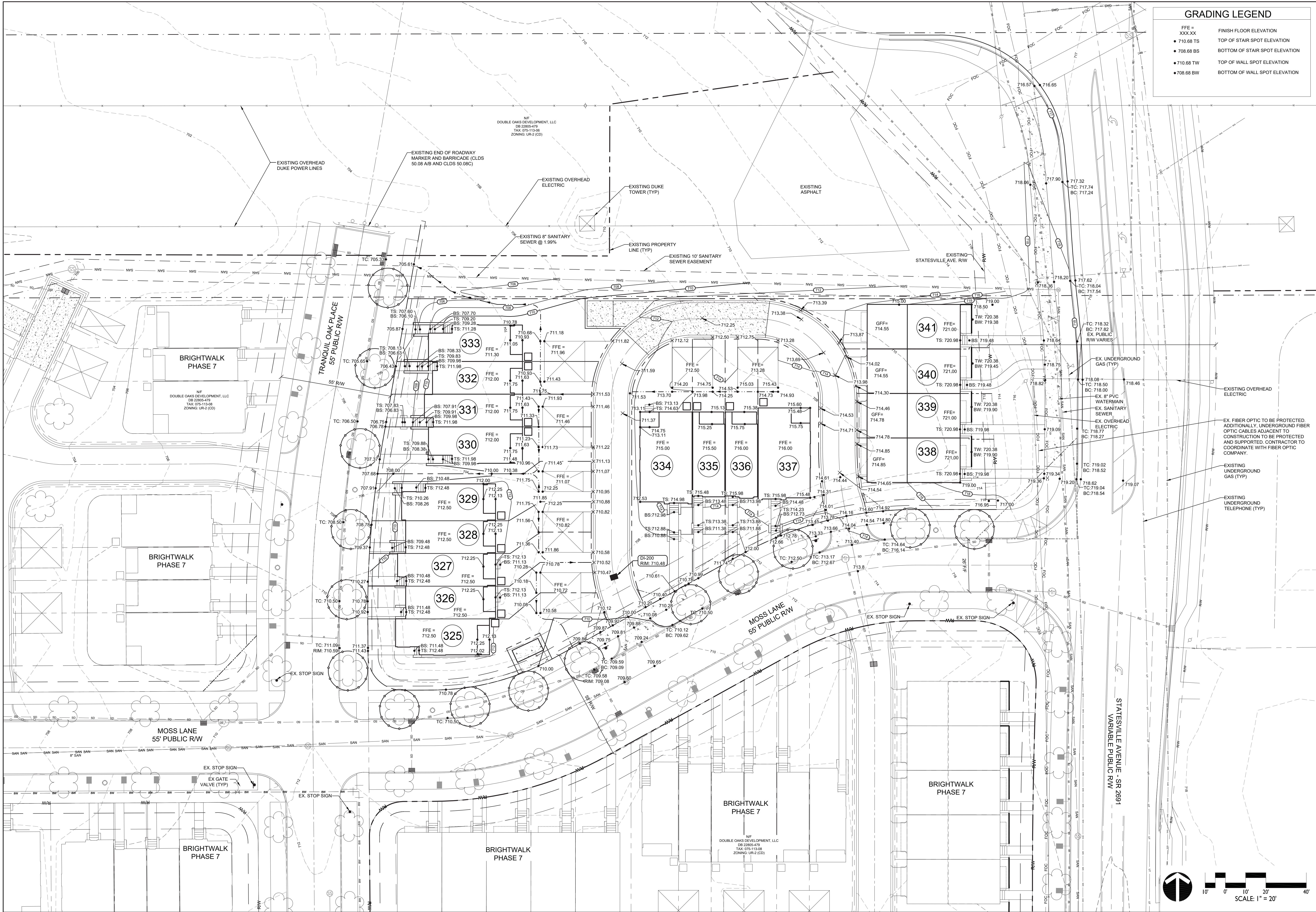
SITE DETAILS

REVISIONS:  
09-10-15 REVISED PER CITY COMMENTS  
12-13-16 STAP FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE

DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FM  
SCALE: N.T.S.  
PROJECT #: 1015225  
SHEET #:

C-2.2



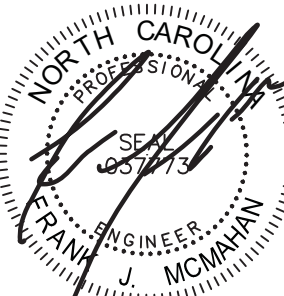


GRADING LEGEND

- |             |                                |
|-------------|--------------------------------|
| FFE =       | FINISH FLOOR ELEVATION         |
| • 710.68 TS | TOP OF STAIR SPOT ELEVATION    |
| • 708.68 BS | BOTTOM OF STAIR SPOT ELEVATION |
| • 710.68 TW | TOP OF WALL SPOT ELEVATION     |
| • 708.68 BW | BOTTOM OF WALL SPOT ELEVATION  |

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12/21/16

Brightwalk Phase 7B - Multi-Family  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC

GRADING PLAN

REVISIONS:  
09-10-15 REVISED PER CITY COMMENTS  
12-13-16 R1P FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE  
09-08-15 REVISED PER SEWER MAIN

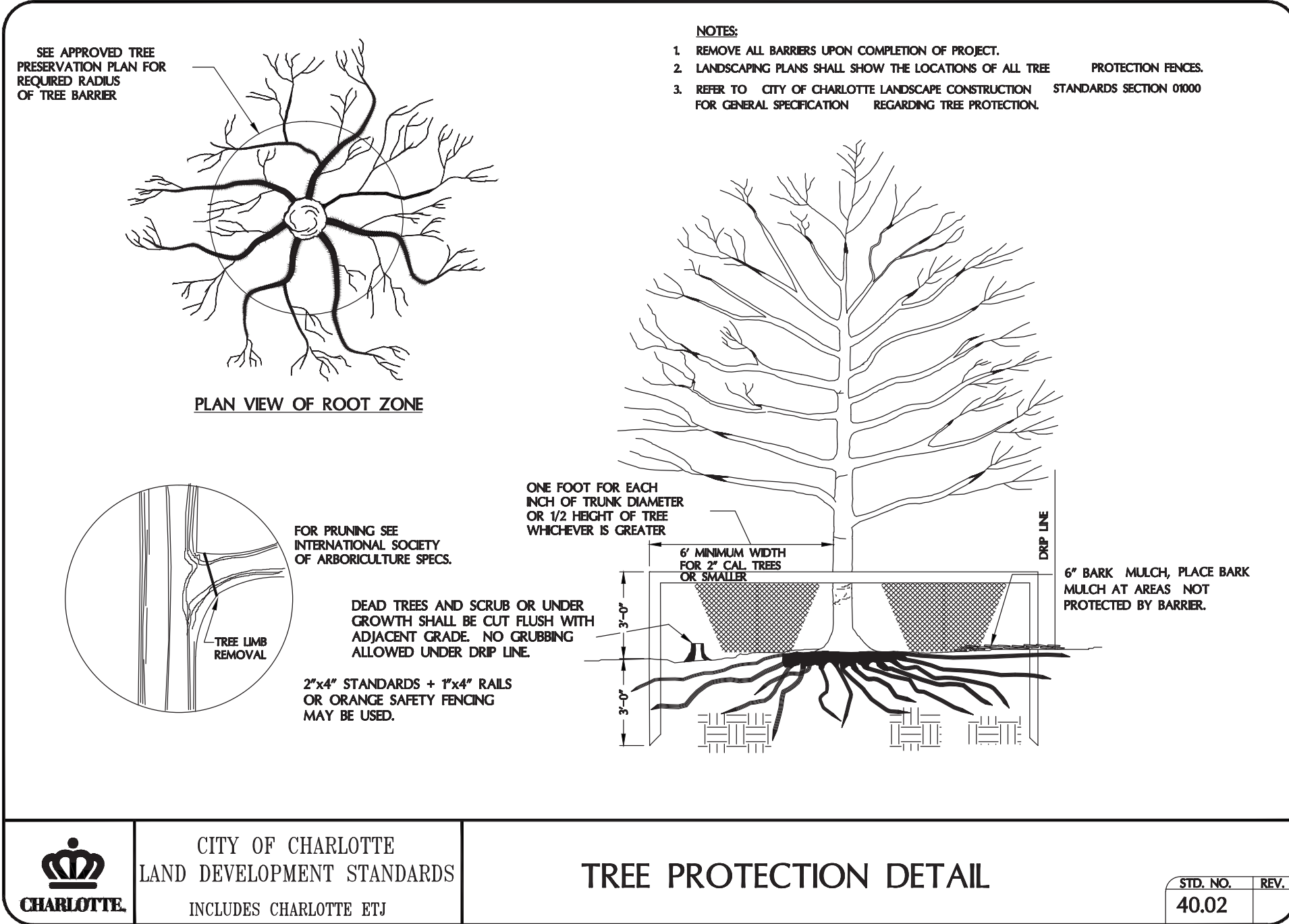
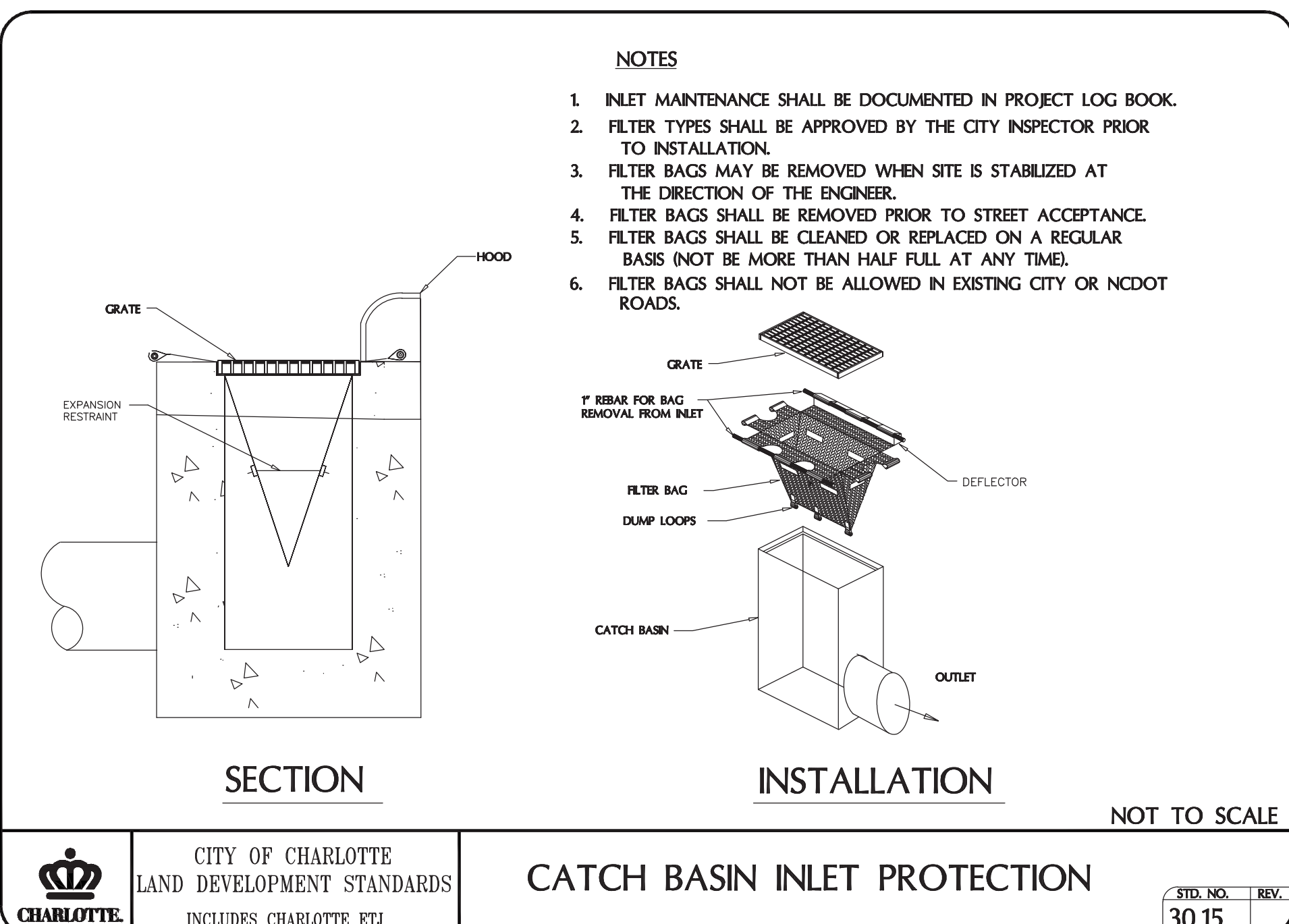
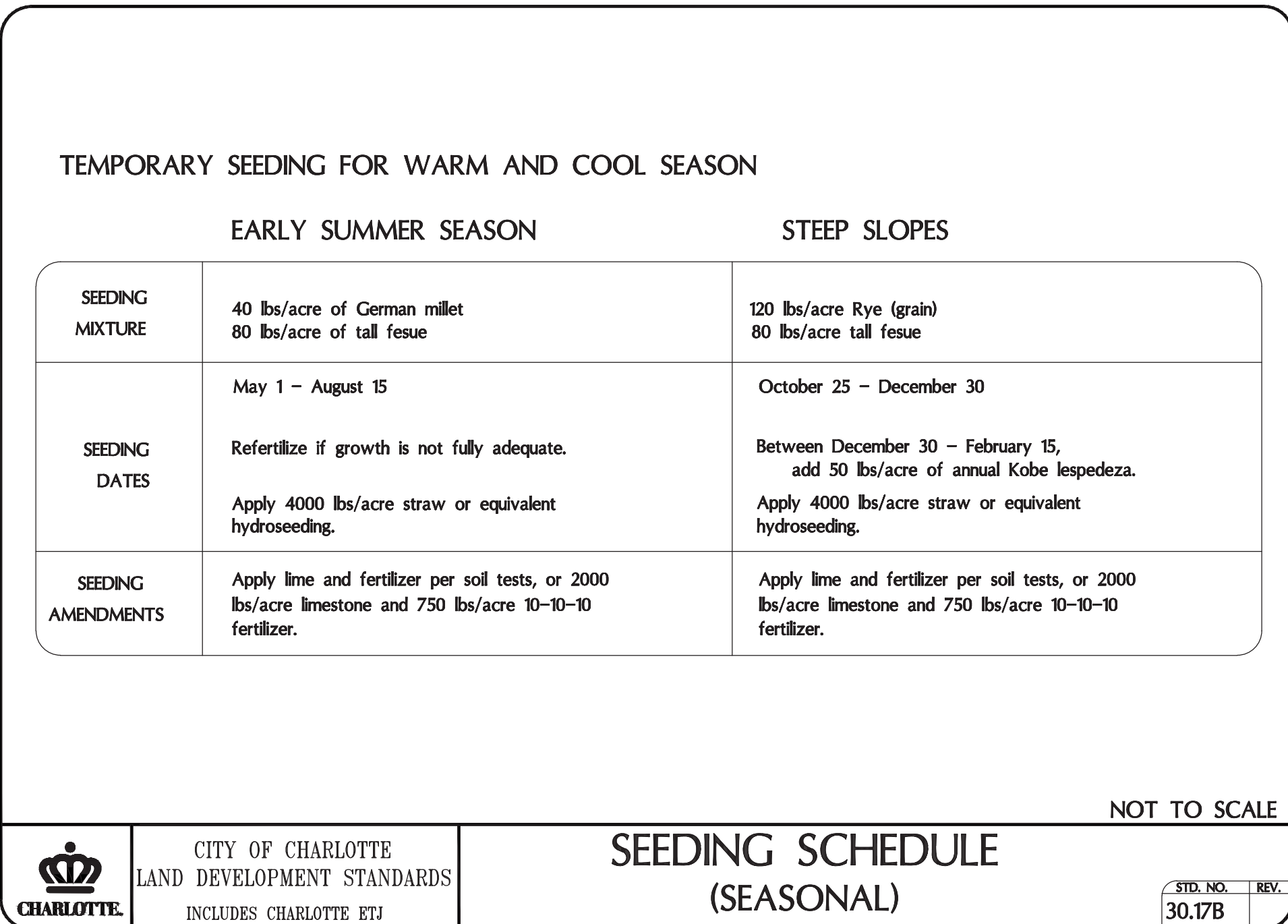
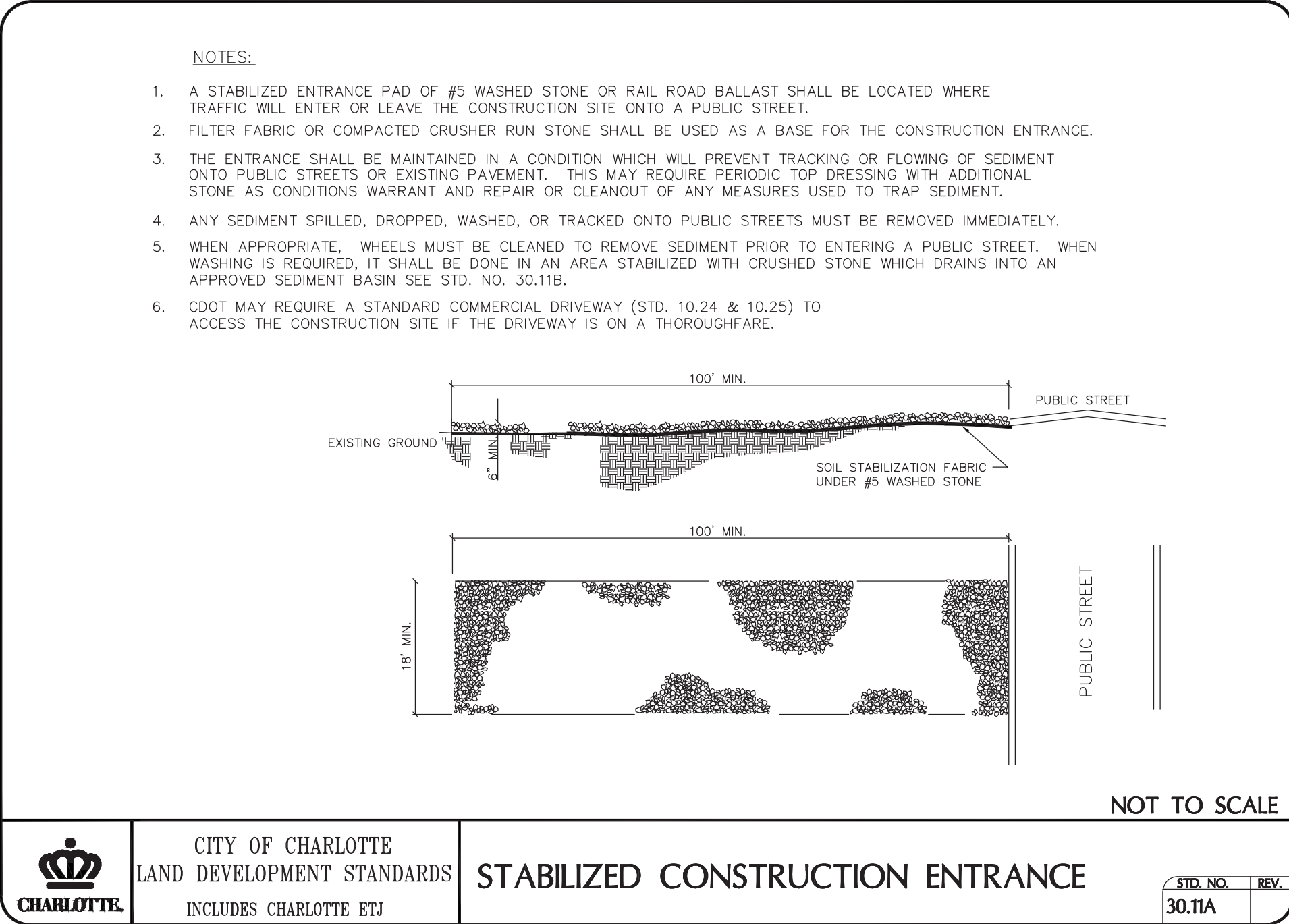
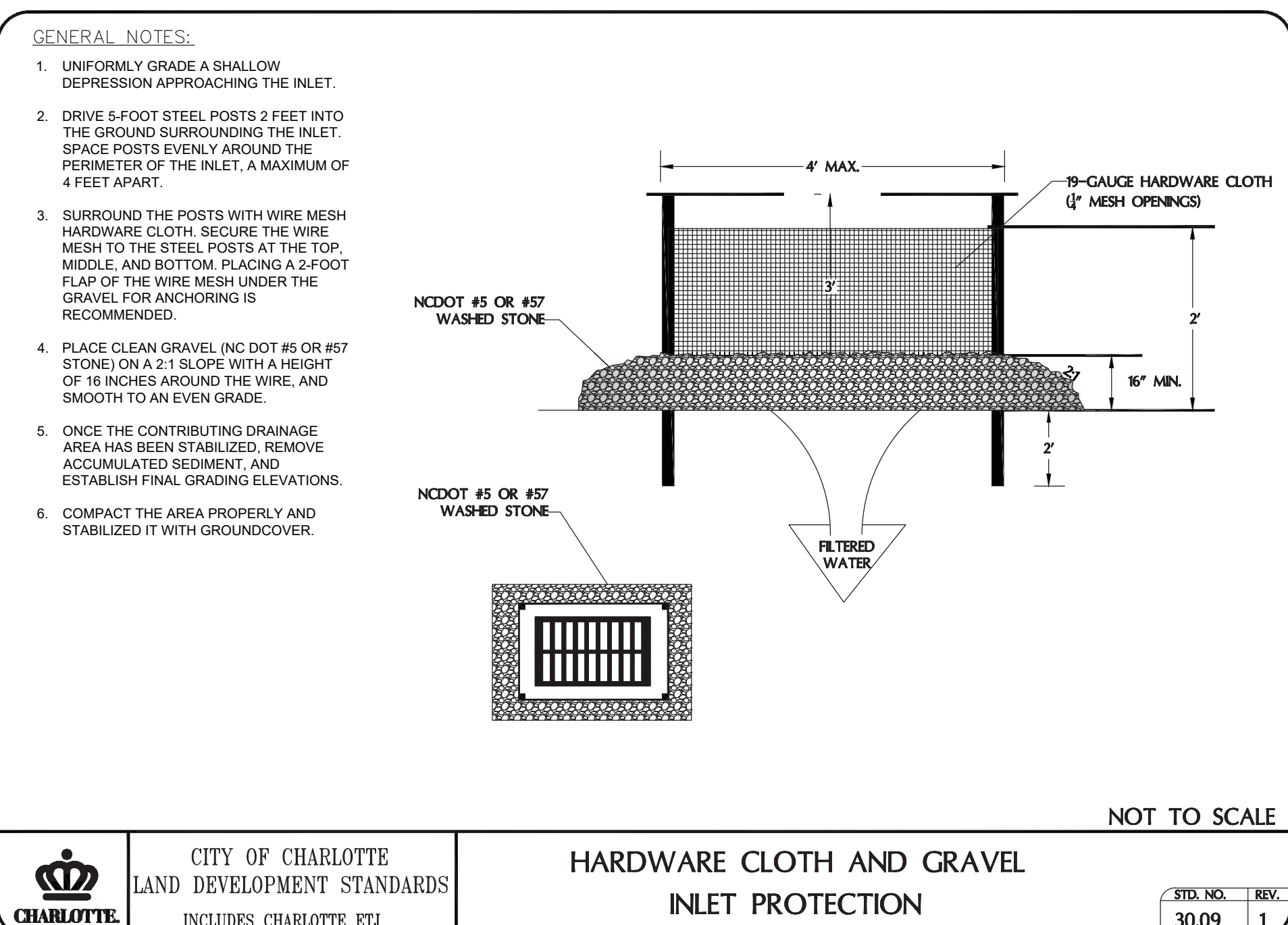
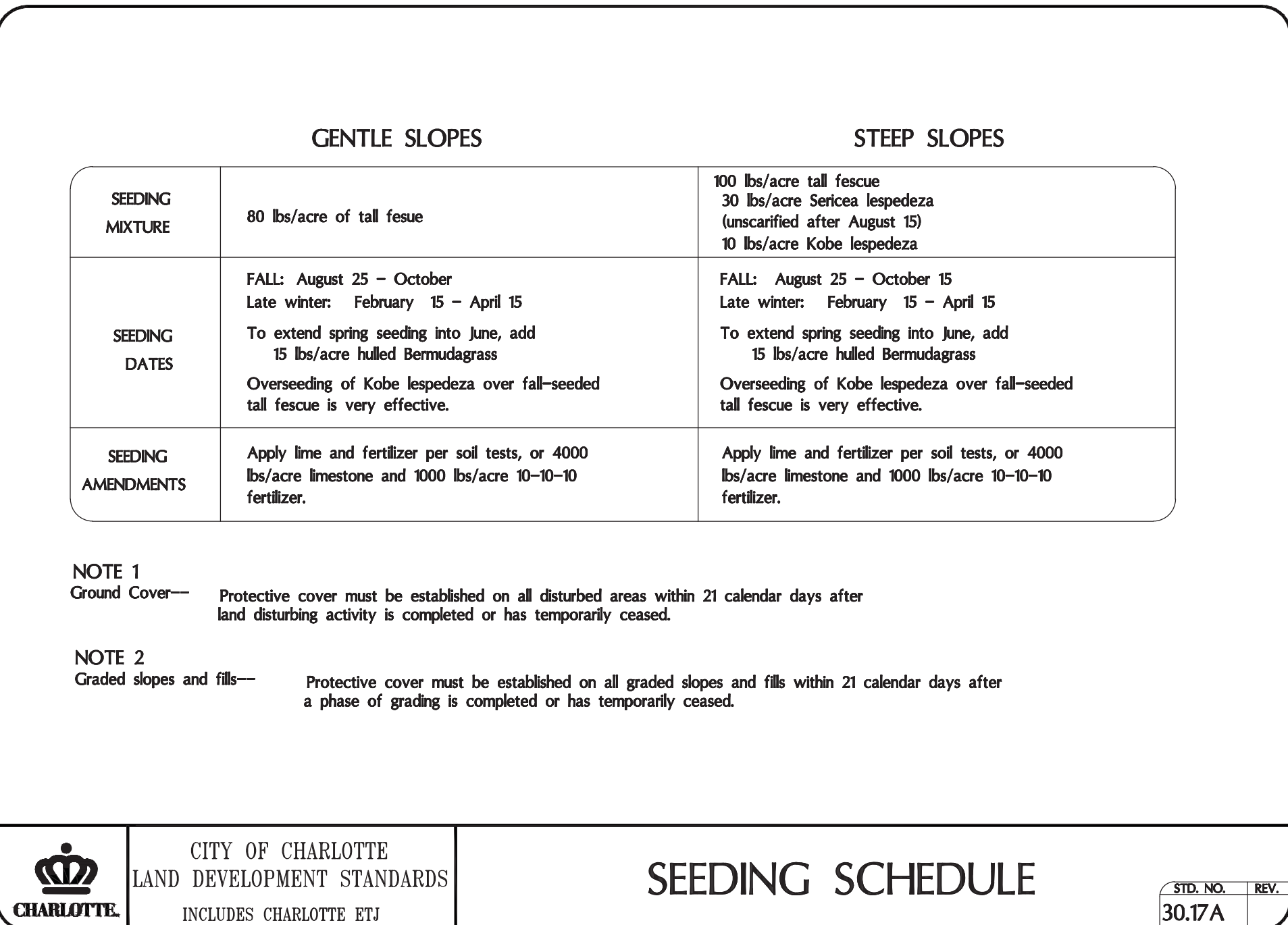
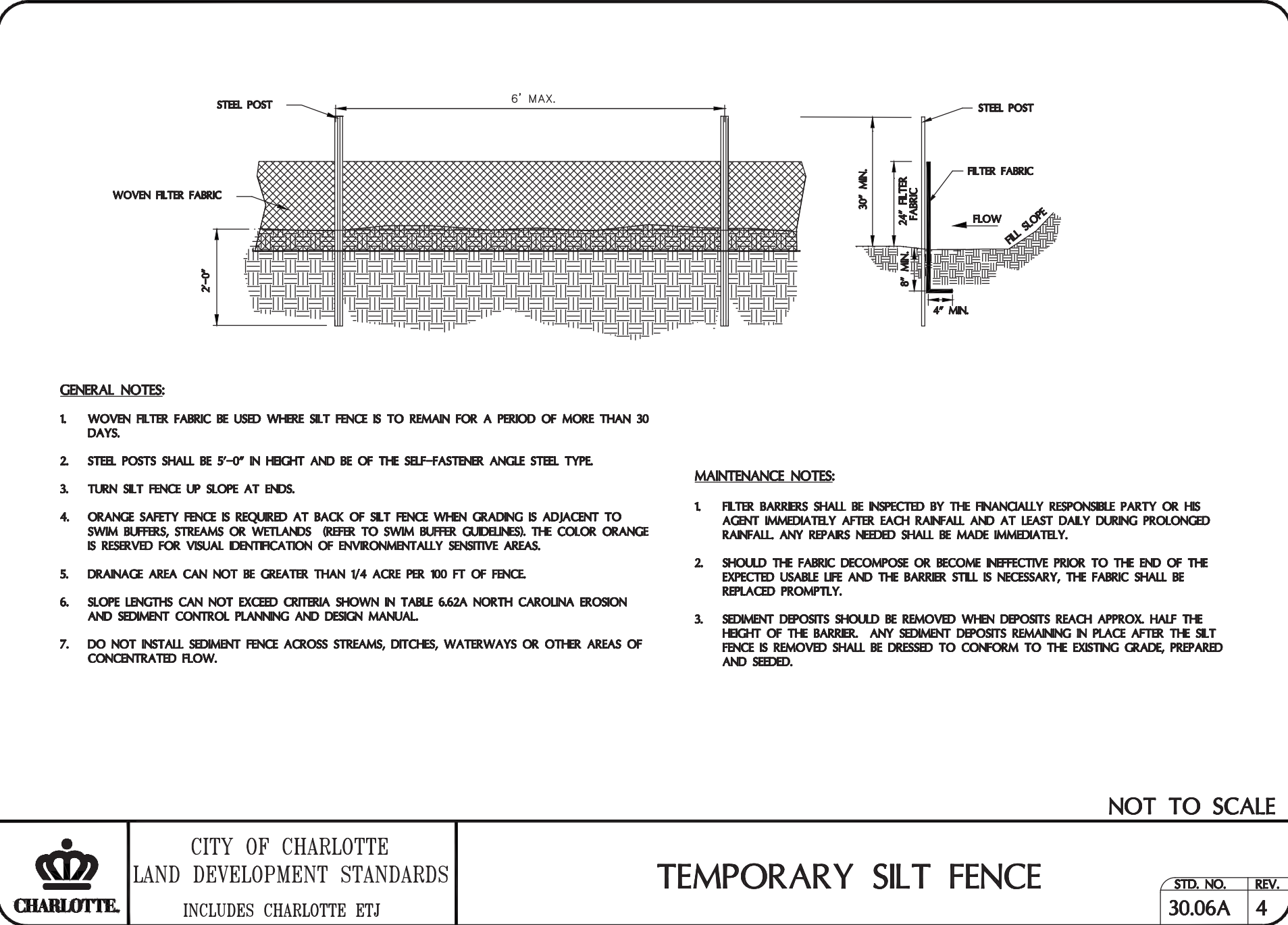
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DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FM  
SCALE: 1" = 20'  
PROJECT #: 1015225  
SHEET #:

C-3.0









EROSION CONTROL NOTES:

1. ALL "STD." NUMBERS REFER TO THE CHARLOTTE LAND DEVELOPMENT STANDARDS MANUAL.
2. ON-SITE BURIAL PITS REQUIRE AN ON-SITE DEMOLITION LANDFILL PERMIT FROM THE ZONING ADMINISTRATOR.
3. ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN IS SUBJECT TO A FINE.
4. GRADING 1 ACRE OR MORE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION AND SUBJECT TO A FINE.
5. ALL AREAS MUST BE SEEDED AND MULCHED WITHIN 21 CALENDAR DAYS. REFER TO EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS.
6. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE CITY ENGINEERING DEPARTMENT.
7. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. FILL SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING (CLDSM #30.16).
8. A GRADING PLAN MUST BE SUBMITTED FOR ANY LOT GRADING EXCEEDING ONE ACRE THAT WAS NOT PREVIOUSLY APPROVED. DRIVEWAY PERMIT FOR CONSTRUCTION ENTRANCES IN NCDOT RIGHT OF WAY MUST BE PRESENTED AT PRE-CONSTRUCTION MEETING.
9. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPT. OF AGRICULTURE, AND THE CHARLOTTE EROSION CONTROL ORDINANCE.
10. PERMANENT CUT AND FILL SLOPES PLACED ON A SUITABLE FOUNDATION SHOULD BE CONSTRUCTED AT 2:1 (HORIZONTAL TO VERTICAL) OR FLATTER. PERMANENT SLOPES OF 3:1 SHOULD BE CONSTRUCTED WHERE MOWING IS DESIRABLE AND AS INDICATED. IF FILL MATERIAL IS BROUGHT ONTO THE PROPERTY OR IF WASTE MATERIAL IS HAULED FROM THE PROPERTY THEN THE CONTRACTOR SHALL DISCLOSE THE LOCATION OF ANY ON-SITE AND/OR OFF-SITE BARROW LOCATION AND/OR WASTE BURIAL LOCATION TO THE EROSION CONTROL INSPECTOR.
11. LIMITS OF CLEARING SHOWN ARE BASED ON CUT AND FILL SLOPES OR OTHER GRADING REQUIREMENTS.
12. CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES AS INDICATED PRIOR TO GRADING OPERATIONS. NO DEVICE MAY BE REMOVED WITHOUT APPROVAL OF EROSION CONTROL COORDINATOR.
13. CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY WITH EXISTING CONTOURS.
14. TOTAL DENUDE AREA = 1.50 AC (0.63 PREVIOUSLY DENUDE UNDER PHASE 7 AND 0.73 PREVIOUSLY DENUDE UNDER PHASE 7B) 0.14 AC DENUDE UNDER PHASE 7B RTAP.
15. ANCHOR SILT FENCE WITH STONE ON TREE PROTECTION ZONES. DO NOT BURY.
16. ALL EROSION CONTROL DEVICES SHOULD BE CHECKED PERIODICALLY AND AFTER EVERY MAJOR STORM EVENT. IF ANY FAILURES ARE FOUND, THEY SHOULD BE REPAIRED AS SOON AS POSSIBLE.
17. WHEN DEMOLISHING BUILDING STRUCTURES, ALL PARTS OF BUILDING ABOVE AND BELOW GROUND ARE TO BE REMOVED (ROOF, WALLS, FOOTINGS, ETC.) ANY ASSOCIATED DEMOLITION PERMITS AND METHODS OF DEMOLITION ARE TO BE OBTAINED AND ARRANGED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

SOIL TYPES

CeB2	CECIL SANDY CLAY LOAM, 2 TO 8 PERCENT SLOPES, ERODED
CeD2	CECIL SANDY CLAY LOAM, 8 TO 15 PERCENT SLOPES, ERODED
CuB	CECIL-URBAN LAND COMPLEX, 2 TO 8 PERCENT SLOPES

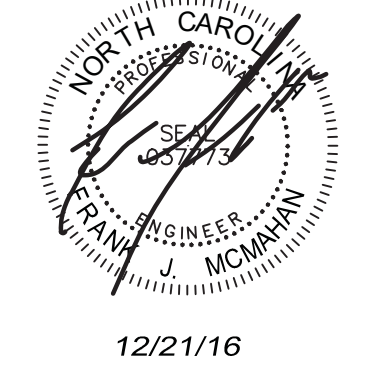
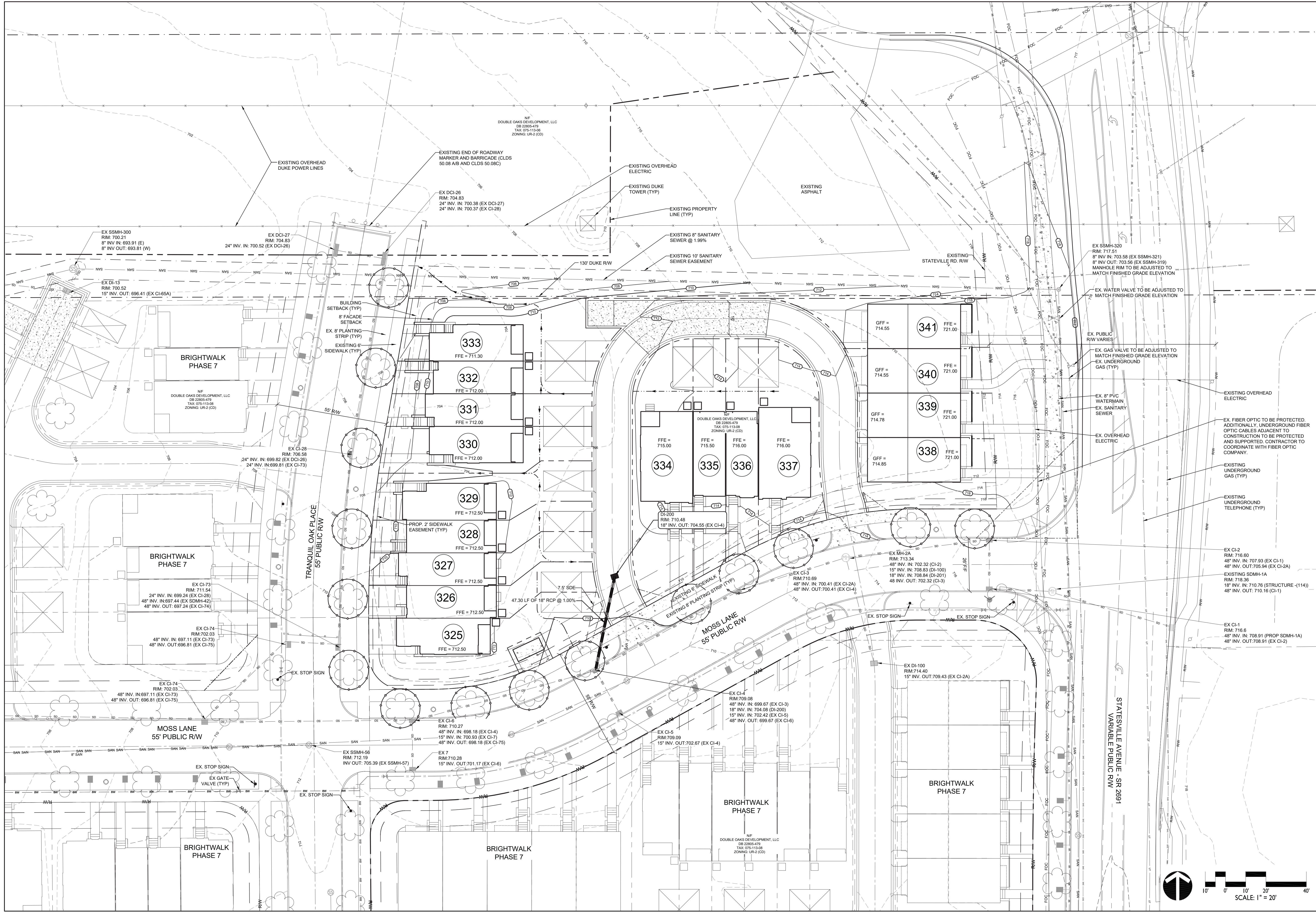
CONSTRUCTION SEQUENCE:

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE CITY OF CHARLOTTE ENGINEERING DEPARTMENT.
2. FLAG THE CONSTRUCTION LIMITS AND MARK ANY TREES, WETLANDS, OR EXISTING STRUCTURES NOTED TO REMAIN.
3. SETUP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH EROSION CONTROL INSPECTOR OF THE CITY OF CHARLOTTE ENGINEERING DEPARTMENT TO DISCUSS EROSION CONTROL MEASURES. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS A VIOLATION OF CHAPTER 17 OF THE CITY CODE AND IS SUBJECT TO FINE.
4. PRIOR TO ANY CLEARING OR INSTALLATION OF EROSION CONTROL DEVICES, CONTRACTOR SHALL STAKE CLEARING LIMITS AND STAKE ALL TREES, STRUCTURES, AND WETLANDS TO REMAIN AND BE PROTECTED. ALL BUFFERS AND WETLANDS SHALL BE CLEARLY DELINEATED IN THE FIELD TO BE PROTECTED.
5. INSTALL TEMPORARY CONSTRUCTION ENTRANCE AND PERIMETER CONSTRUCTION FENCING AND SILT FENCE. TIRE WASH MAY BE REQUIRED IF CONSTRUCTION ENTRANCE IS NOT SUFFICIENT TO RETAIN SOIL. CONTRACTOR TO BLOCK ALL POSSIBLE ENTRANCES TO SITE BESIDES APPROVED CONSTRUCTION ENTRANCE W/ FENCING AND ORANGE BARRELS.
6. INSTALL SILT FENCE, INLET PROTECTION, SEDIMENT TRAPS, DIVERSION DITCHES, TREE PROTECTION, AND ANY OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
7. CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND GRADING MAY BEGIN.
8. GENERAL CONTRACTOR SHALL ENSURE THAT EROSION CONTROL MEASURES ARE IN PLACE AND FUNCTIONING PRIOR TO AND DURING GRADING OPERATIONS.
9. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
10. CONTRACTOR SHALL INSTALL ALL STORM DRAINAGE, UTILITY AND PAVEMENT IMPROVEMENTS PER PLAN SET.
11. INSTALL INLET PROTECTION FOR STORM DRAINAGE STRUCTURES AS SHOWN ON PLANS.
12. STABILIZE PAVED AREAS WITH STONE BASE AND SEED SIDE SLOPES AS AREAS ARE BROUGHT TO FINISHED GRADE.
13. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDE AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE. ALL SLOPES MUST BE SEEDED AND MULCHED WITHIN 21 DAYS. REFER TO EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS.
14. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF ANY EROSION CONTROL MEASURES.
15. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPT. OF AGRICULTURE, CITY OF CHARLOTTE EROSION CONTROL ORDINANCE, AND THE CHARLOTTE LAND DEVELOPMENT STANDARDS MANUAL.

TREE PROTECTION NOTES:

1. NO SOIL DISTURBANCE OR COMPACTION. CONSTRUCTION MATERIALS, TRAFFIC BURIAL PITS, TRENCHING OR OTHER LAND DISTURBANCE ACTIVITY ALLOWED IN TREE SAVE AREAS.
2. TREE PROTECTION FENCE/BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, GRADING, OR CONSTRUCTION BEGINS, AND NOT REMOVED UNTIL FINAL INSPECTION.
3. TREE PROTECTION FENCE/BARRICADES MUST MEET OR EXCEED TREE ORDINANCE STANDARDS.
4. BEFORE GRADING/CLEARING/CONSTRUCTION BEGINS, CALL (704) 336-4255 FOR INSPECTION OF TREE PROTECTION BARRICADES BY URBAN FORESTER.
5. NO GRUBBING WITHIN TREE PROTECTION ZONE. LEAVE SOIL AND LEAF LITTER UNDISTURBED. SUPPLEMENT WITH 1-2 INCHES OF MULCH. RE-SEED WITH GRASS ONLY IN DISTURBED/GRADED AREAS.
6. BRUSH, VINES, AND SMALL TREES (8 IN. DIAMETER, OR AS SMALL AS 2 IN. CALIPER) MAY BE HAND-CLEARED ONLY. CUT FLUSH WITH GROUND SURFACE. EXISTING TREES MAY BE LIMBED UP 6 FEET (LEAVING AT LEAST 1/3 OF THE BRANCHES TO IMPROVE VISIBILITY. EXPOSED TREE ROOTS MUST BE CLEANLY CUT WITH A SHARP PRUNING TOOL. BACKFILL ASAP TO MINIMIZE EXPOSURE TO THE AIR.
7. VIOLATIONS OF THE TREE PROTECTION REQUIREMENTS ARE SUBJECT TO FINES, AND/OR IMMEDIATE CORRECTIVE ACTION/INITIATION.
8. ALL TREES ON PUBLIC PROPERTY ARE PROTECTED BY ORDINANCE AND REMOVAL MUST BE APPROVED BY THE CITY ARBORIST (704) 336-4262.



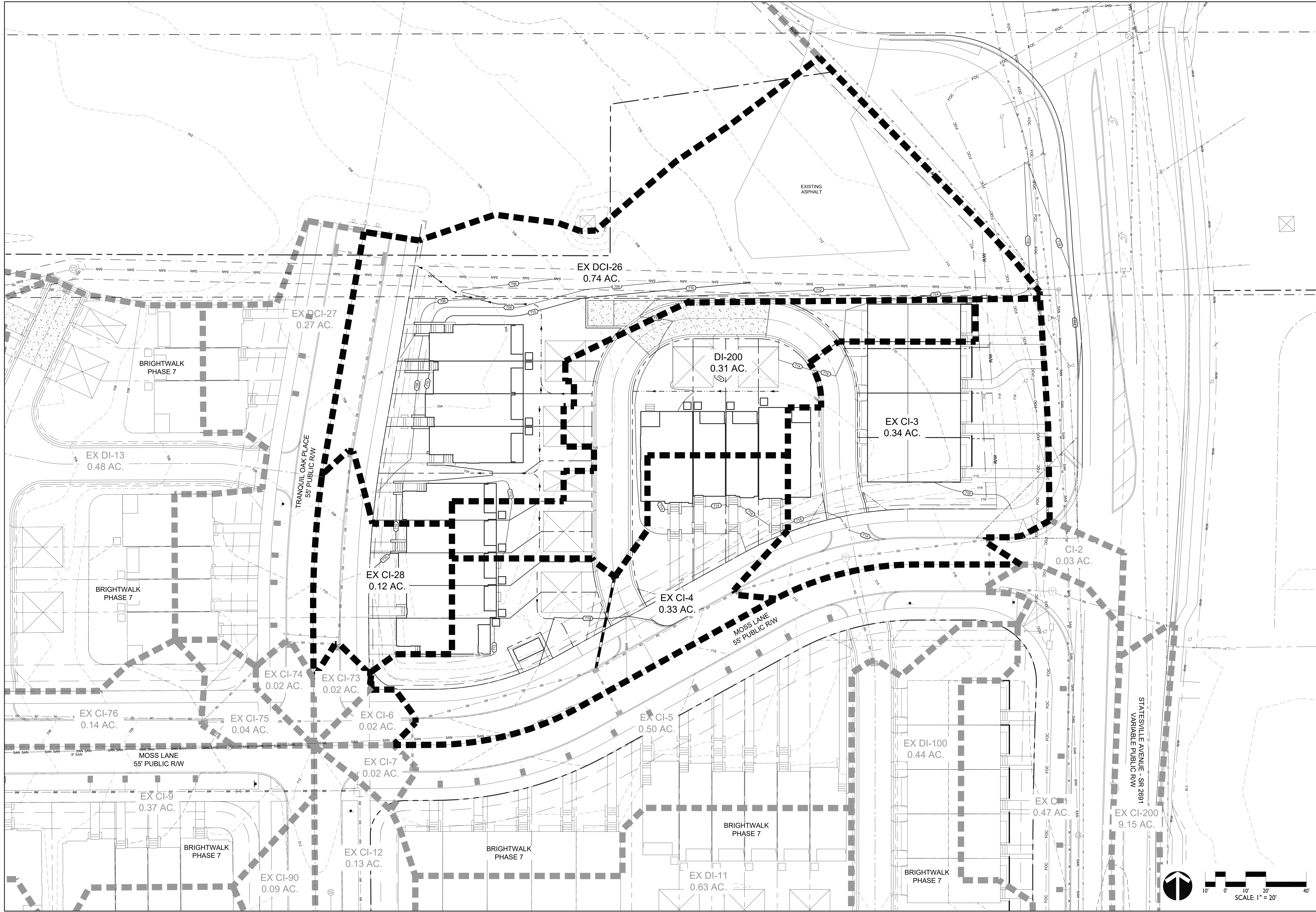


**Brightwalk Phase 7B - Multi-Family**  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC  
**STORM DRAINAGE PLAN**

DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FM  
SCALE: 1" = 20'  
PROJECT #: 1015225  
SHEET #:  
**C-5.0**

REVISIONS:  
09.10.15 REVISED PER CITY COMMENTS  
12.13.16 R14P FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE

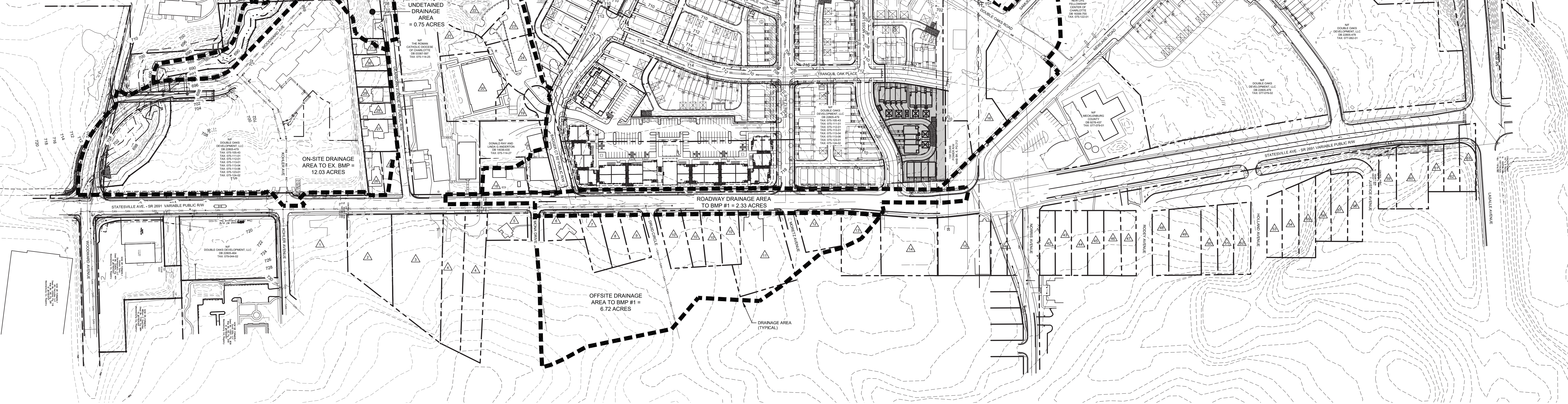






PROPERTY OWNERS			
1) NF REVOCABLE TRUST LITTLE M FRANKS AND WILLIAM CRAWFORD DB 1826-48 TAX: 079-048-24	18) NF ROBINSON STATESVILLE AVENUE LLC DB 13946-141 TAX: 075-114-26	35) NF ANDREA DENISE HARRIS DB 18999-800 TAX: 075-098-23	52) NF GREG T FRIMPONG DB 8133-240 TAX: 077-073-05
2) NF MINH N NGUYEN AND NU THI NGUYEN DB 8196-687 TAX: 079-048-22	19) NF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE DB 04019-210 TAX: 075-114-28	36) NF LOTTIE V RIVERS DB 9682-234 TAX: 075-098-18	53) NF ZIBERNA PRATT DB 11929-913 TAX: 077-072-12
3) NF 21ST JUMP STREET LLC AND JAMES E HARRIS ENTERPRISES INC DB 21162-120 TAX: 079-048-52	20) NF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE DB 03790-458 TAX: 075-114-29	37) NF MECKLENBURG COUNTY DB 82074-437 TAX: 075-098-17	54) NF ZIBERNA PRATT DB 11929-916 TAX: 077-072-11
4) NF TRAN LAM DB 20337-288 TAX: 079-048-56	21) NF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE DB 03790-528 TAX: 075-114-30	38) NF ELIANE W CAROUTHERS AND JOHN T CAROUTHERS DB 8007-475 TAX: 075-098-10	55) NF STATESVILLE AVENUE PRESBYTERIAN CHURCH DB 3527-212 TAX: 077-072-10
5) NF REALTY ENTERPRISE LLC DB 29439-711 TAX: 079-048-20	22) NF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE DB 15725-797 TAX: 075-114-31	39) NF CITY OF CHARLOTTE DB 8031-282 TAX: 075-098-09	56) NF CITY OF CHARLOTTE DB 18480-815 TAX: 077-072-09
6) NF REALTY ENTERPRISE LLC DB 20466-236 TAX: 079-048-21	23) NF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE DB 15725-797 TAX: 075-114-32	40) NF DOUBLE OAKS DEVELOPMENT LLC DB 22805-479 TAX: 075-123-04	57) NF LAWRENCE E ESSIE MCCOY DB 3010-315 TAX: 077-072-08
7) NF RIP INVESTMENTS LLC DB 19789-86 TAX: 079-048-03	24) NF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE DB 15725-797 TAX: 075-114-33	41) NF CITY OF CHARLOTTE DB 12376-647 TAX: 079-068-05	58) NF NEW WAVES OF JOY DB 23162-887 TAX: 077-072-07
8) NF SANDRA MCKEY AND REGINA M SEBASTIAN DB 18025-437 TAX: 079-048-02	25) NF B FRANK K MATTHEWS AND JOHN F RINGER JR DB 05706-469 TAX: 075-114-16	42) NF AARON MOORE DB 17029-602 TAX: 077-072-22	59) NF RUEAN ROBINSON HARRIS DB 6134-466 TAX: 075-197-05
9) NF MATTIE ROCTIA DIGGS AND ROBBIE DIGGS HARRISON DB 18027-894 TAX: 079-048-01	26) NF JULIE HUNTLEY AND MARY C HUNTLEY DB 8865-408 TAX: 075-114-15	43) NF AARON MOORE DB 17029-602 TAX: 077-072-23	60) NF CITY OF CHARLOTTE DB 16381-347 TAX: 077-197-04
10) NF SONYA F CALDWELL DB 05363-528 TAX: 079-048-05	27) NF LESLIE C ANDERSON DB N/A TAX: 075-114-17	44) NF AARON MOORE DB 17029-602 TAX: 077-072-24	61) NF CITY OF CHARLOTTE DB 16381-347 TAX: 077-197-02
11) NF FOR ALL PEOPLE UNITED HOUSE OF PRAYER DB 03043-384 TAX: 079-051-01	28) NF CARL D BARRINO DB 07829-498 TAX: 075-114-19	45) NF AARON MOORE DB 17029-602 TAX: 077-072-25	62) NF CITY OF CHARLOTTE DB 16381-347 TAX: 077-197-01
12) NF WILLIE AND VIVIAN HARRIS DB 01686-340 TAX: 079-058-09	29) NF BILLY G CUTHBERTSON DB 18632-564 TAX: 075-114-21	46) NF ST LUKE BAPTIST CHURCH DB 8222-702 TAX: 077-072-26	63) NF CITY OF CHARLOTTE DB 16381-347 TAX: 077-197-01
13) NF NEW CALVARY PENTECOSTAL HOUSE CHURCH DB 06179-890 TAX: 079-058-08	30) NF DAROLD B DELANEY AND RENEE T DELANEY DB 18988-512 TAX: 075-114-22	47) NF ST LUKE BAPTIST CHURCH DB 8222-702 TAX: 077-072-27	
14) NF WILLIE J MCCOMBS AND MILDRED K MCCOMBS DB 8342-248 TAX: 079-058-07	31) NF MECKLENBURG COUNTY DB 82074-437 TAX: 075-113-05	48) NF BRETT FURNISS DB 23222-444 TAX: 077-073-09	
15) NF NOAH ALEXANDER SHERILL DB 23626-845 TAX: 079-058-06	32) NF MECKLENBURG COUNTY DB 82074-437 TAX: 075-124-01	49) NF SANCTUARY OF THE LIVING WORD DB 21761-116 TAX: 077-073-08	
16) NF CITY OF CHARLOTTE DB N/A TAX: 075-113-02	33) NF MAXIMIN COLETTE SKINNER AND CHARLOTTE LABATAT FOR HUMANITY DB 8991-051 TAX: 075-101-01	50) NF GLORIA H TUCKER DB 27028-833 TAX: 077-073-07	
17) NF PRESBYTERIAN CHURCH OF CHARLOTTE DB 07079-857 TAX: 075-113-03		51) NF MICHAEL K HOWZE DB 6918-200 TAX: 077-073-06	

NOTE:  
SEE DOUBLE OAKS MAJOR  
INFRASTRUCTURE PLANS  
(SDRMUR-2010-00033) FOR ADDITIONAL  
DA INFORMATION, DETENTION  
INFORMATION AND BMP INFORMATION.



NOTES:

- POST-DEVELOPED DRAINAGE AREA = 84.62 ACRES  
- EXISTING BMP = 12.03 ACRES  
- BMP #1 = 62.39 ACRE  
- UNDETAINED = 10.20 ACRES
- TIME OF CONCENTRATION  
- EXISTING BMP = 0.0833 HOURS (5 MINUTES)  
- BMP #1 = 0.0833 HOURS (5 MINUTES)  
- UNDETAINED = 0.0833 HOURS (5 MINUTES)
- HYDRAULIC SOILS GROUP = B

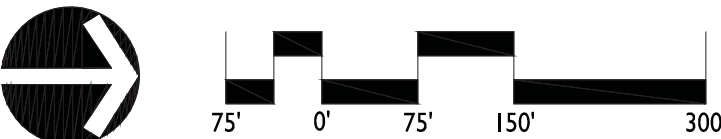
- CURVE NUMBERS  
EXISTING BMP WEIGHTED CURVE NUMBER = 85  
- 12.03 ACRES RESIDENTIAL DISTRICTS (1/8 ACRE) = 85  
BMP #1 WEIGHTED CURVE NUMBER = 96  
- 53.34 ACRES RESIDENTIAL DISTRICTS (1/8 ACRE) = 85  
- 6.72 ACRES URBAN DISTRICTS = 92  
- 2.33 ACRES IMPERVIOUS AREA = 98  
UNDETAINED AREA WEIGHTED CURVE NUMBER = 64  
- 8.94 ACRES OPEN SPACE = 61  
- 1.26 ACRES RESIDENTIAL DISTRICTS (1/8 ACRE) = 85

- UNDETAINED FLOW RATES  
- 1-INCH - 6 HOUR STORM = 27.65 CFS  
- 1 YEAR - 24 HOUR STORM = 128.39 CFS  
- 2 YEAR - 24 HOUR STORM = 192.89 CFS  
- 10 YEAR - 6 HOUR STORM = 308.45 CFS  
- 25 YEAR - 6 HOUR STORM = 378.29 CFS  
- 50 YEAR - 6 HOUR STORM = 434.02 CFS

- ROUTED FLOW RATES  
- 1-INCH - 6 HOUR STORM = 1.35 CFS  
- 1 YEAR - 24 HOUR STORM = 5.58 CFS  
- 2 YEAR - 24 HOUR STORM = 11.03 CFS  
- 10 YEAR - 6 HOUR STORM = 40.51 CFS  
- 25 YEAR - 6 HOUR STORM = 94.65 CFS  
- 50 YEAR - 6 HOUR STORM = 182.57 CFS

- PRE-DEVELOPED TO POST-DEVELOPED FLOW COMPARISONS  
2 YEAR - 24 HOUR STORM  
- PRE-DEVELOPED = 19.06 CFS  
- POST-DEVELOPED = 11.03 CFS  
10 YEAR - 6 HOUR STORM  
- PRE-DEVELOPED = 41.85 CFS  
- POST-DEVELOPED = 40.51 CFS  
25 YEAR - 6 HOUR STORM  
- PRE-DEVELOPED = 132.70 CFS  
- POST-DEVELOPED = 94.65 CFS

SOIL TYPES  
Ur - Urban Land (Group B)  
CeB2 - Cecil Sand: Clay Loam, 2 to 8 Percent Slopes (Group B)  
CeD2 - Cecil Sand: Clay Loam, 8 to 15 Percent Slopes (Group B)  
CuB - Cecil-Urban Land Complex, 2 to 8 Percent Slopes (Group B)



REVISIONS:  
09-10-15 REVISED PER CITY COMMENTS  
12-13-16 STAP FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE

DATE: JULY 9, 2015  
DESIGNED BY: MLG  
DRAWN BY: MLG  
CHECKED BY: FM  
SCALE: 1"=150'  
PROJECT #: 1015225  
SHEET #:

**LandDesign**

223 N Graham Street Charlotte, NC 28202  
V: 704.333.0325 F: 704.333.3246  
www.LandDesign.com  
NC Engineering Firm License # C-0658

LANDDESIGN, INC.  
CORPORATE  
SEAL  
NORTH CAROLINA

NORTH CAROLINA  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF NORTH CAROLINA  
JULY 2010  
JAMES MCMATH

12/21/16

**Brightwalk Phase 7B - Multi-Family**  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC  
PCCO COMPLIANCE MAP



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

**PART SECTION  
6\" WALL**

**PART SECTION  
6\" WALL WITH 4\" LIP**

**PART SECTION  
8\" WALL**

**PART SECTION  
8\" WALL WITH 4\" LIP**

ENGLISH STANDARD DRAWING FOR  
**CONCRETE BASE PAD**  
FOR DRAINAGE STRUCTURES

**PART SECTION  
OF END ELEVATION**

**GENERAL NOTES:**

USE THIS STANDARD WITH ALL DRAINAGE STRUCTURES  
USING REINFORCED CONCRETE P.I.P.E. SET IN BASE SLAB.

**TABLES OF QUANTITIES FOR PIPE SET IN PAD**

PIPE D	"W"	"W1"	"T"	C.Y. QUANTITIES WHEN I IS		
				12"	16"	20"
12"	1'-1 7/8"	0'-7 7/8"	0'-2"	0.005	0.007	0.008
15"	1'-3 5/8"	0'-6 5/8"	0'-2"	0.006	0.008	0.010
18"	1'-5 1/4"	0'-10 3/8"	0'-2"	0.007	0.010	0.012
24"	1'-8 3/4"	1'-0 3/8"	0'-3"	0.011	0.014	0.018
30"	2'-0 1/4"	1'-2 3/4"	0'-3 1/2"	0.014	0.018	0.023
36"	2'-3 3/4"	1'-5 3/8"	0'-4"	0.017	0.023	0.025
42"	2'-7 1/8"	1'-7"	0'-5 1/4"	0.025	0.030	0.038
48"	2'-10 5/8"	1'-8 3/4"	0'-5 3/4"	0.028	0.038	0.047
54"	3'-2 1/8"	1'-10 1/2"	0'-6 1/4"	0.035	0.047	0.058
60"	3'-5 5/8"	2'-0 1/4"	0'-6 3/4"	0.042	0.056	0.071
66"	3'-9"	2'-2 1/4"	0'-7 1/4"	0.050	0.067	0.084
72"	4'-0 1/2"	2'-3 3/4"	0'-7 3/4"	0.059	0.078	0.098

SHEET 1 OF 1

**840.00**

TABLES OF QUANTITIES FOR PIPE SET IN PAD						
PIPE D	DM	W1	T	C.Y. QUANTITIES WHEN L IS		
				12"	16"	20"
12"	1'-1 7/8"	0'-7 7/8"	0'-2"	0.005	0.007	0.008
15"	1'-3 9/8"	0'-8 1/8"	0'-2"	0.006	0.008	0.010
18"	1'-5 1/4"	0'-10 3/8"	0'-2"	0.007	0.010	0.012
24"	1'-8 3/4"	1'-0 1/8"	0'-3"	0.011	0.014	0.018
30"	2'-0 3/4"	1'-2 3/4"	0'-3 1/2"	0.014	0.018	0.023
36"	2'-2 1/4"	1'-5 9/8"	0'-4"	0.017	0.023	0.025
42"	2'-7 1/8"	1'-7 1/2"	0'-5 1/4"	0.023	0.030	0.038
48"	2'-10 5/8"	1'-8 3/4"	0'-6 3/4"	0.028	0.038	0.047
54"	3'-3 1/2"	1'-10 1/2"	0'-8 1/4"	0.035	0.047	0.058
60"	3'-9 5/8"	2'-0 1/4"	0'-8 3/4"	0.042	0.056	0.071
66"	4'-0 1/2"	2'-2 1/4"	0'-9 1/4"	0.050	0.067	0.084
72"	4'-3 3/8"	2'-3 3/4"	0'-7 3/4"	0.059	0.078	0.098

GENERAL NOTES:  
USE THIS STANDARD WITH ALL DRAINAGE STRUCTURES  
USING REINFORCED CONCRETE PIPE SET IN BASE SLAB.

SHEET 1 OF 1	ENGLISH STANDARD DRAWING FOR <b>CONCRETE BASE PAD FOR DRAINAGE STRUCTURES</b>	7-06	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
840.00			

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PLAN**  
WITH GRATE & FRAME REMOVED

7-08

**GENERAL NOTES:**

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL DROP INLETS OVER 3'-0" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS MATCH COMPLY WITH STD. DRAWING B40-86.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR 2" KEYWAY OR #4 BAR DOMELS AT 12" CENTERS AS DIRECTED BY THE UNDERLIER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. B40-90.

CONSTRUCT WITH PIPE CORNERS MATCHING.

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.

INSTALL STONE DRAINING OR A MINIMUM OF 1 CUBIC FOOT OF NO. 75M STONE IN A POROUS FABRIC BAG OR WARP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER. COVERED ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.

**SECTION X-X**

**SECTION Y-Y**

**DOWEL**

**CONCRETE STANDARD DRAWING FOR CONCRETE DROP INLET**

12" THIN 30" PIPE

**TABLE 1**

**DIMENSIONS AND QUANTITIES FOR DROP INLET (BASED ON MIN. HEIGHT, H)**

DIMENSIONS OF BOX & PIPE		CURB VARIOUS		EXTRACTIONS FOR ONE PIPE		
PIPE	SPAN	WIDTH	MIN. HEIGHT	WALL PER. IN BOX	CORNER	
D	A	B	H	BOTTOM	C.W.	
12"	3'-0"	2'-0"	2'-0"	0.222	0.592	0.015
15"	3'-0"	2'-0"	2'-0"	0.222	0.648	0.023
18"	3'-0"	2'-0"	2'-0"	0.222	0.703	0.033
24"	3'-0"	2'-0"	2'-0"	0.222	0.814	0.059
30"	3'-0"	2'-0"	2'-0"	0.222	0.923	0.082

**TABLE 2**

**DIMENSIONS AND QUANTITIES FOR DROP INLET (BASED ON MIN. HEIGHT, H)**

DIMENSIONS OF BOX & PIPE		CURB VARIOUS		EXTRACTIONS FOR ONE PIPE		
PIPE	SPAN	WIDTH	MIN. HEIGHT	WALL PER. IN BOX	CORNER	
D	A	B	H	BOTTOM	C.W.	
12"	3'-0"	2'-0"	2'-0"	0.222	0.592	0.015
15"	3'-0"	2'-0"	2'-0"	0.222	0.648	0.023
18"	3'-0"	2'-0"	2'-0"	0.222	0.703	0.033
24"	3'-0"	2'-0"	2'-0"	0.222	0.814	0.059
30"	3'-0"	2'-0"	2'-0"	0.222	0.923	0.082

**TABLE 3**

**DIMENSIONS AND QUANTITIES FOR DROP INLET (BASED ON MIN. HEIGHT, H)**

DIMENSIONS OF BOX & PIPE		CURB VARIOUS		EXTRACTIONS FOR ONE PIPE		
PIPE	SPAN	WIDTH	MIN. HEIGHT	WALL PER. IN BOX	CORNER	
D	A	B	H	BOTTOM	C.W.	
12"	3'-0"	2'-0"	2'-0"	0.222	0.592	0.015
15"	3'-0"	2'-0"	2'-0"	0.222	0.648	0.023
18"	3'-0"	2'-0"	2'-0"	0.222	0.703	0.033
24"	3'-0"	2'-0"	2'-0"	0.222	0.814	0.059
30"	3'-0"	2'-0"	2'-0"	0.222	0.923	0.082

**TABLE 4**

**DIMENSIONS AND QUANTITIES FOR DROP INLET (BASED ON MIN. HEIGHT, H)**

DIMENSIONS OF BOX & PIPE		CURB VARIOUS		EXTRACTIONS FOR ONE PIPE		
PIPE	SPAN	WIDTH	MIN. HEIGHT	WALL PER. IN BOX	CORNER	
D	A	B	H	BOTTOM	C.W.	
12"	3'-0"	2'-0"	2'-0"	0.222	0.592	0.015
15"	3'-0"	2'-0"	2'-0"	0.222	0.648	0.023
18"	3'-0"	2'-0"	2'-0"	0.222	0.703	0.033
24"	3'-0"	2'-0"	2'-0"	0.222	0.814	0.059
30"	3'-0"	2'-0"	2'-0"	0.222	0.923	0.082

**TABLE 5**

**DIMENSIONS AND QUANTITIES FOR DROP INLET (BASED ON MIN. HEIGHT, H)**

DIMENSIONS OF BOX & PIPE		CURB VARIOUS		EXTRACTIONS FOR ONE PIPE		
PIPE	SPAN	WIDTH	MIN. HEIGHT	WALL PER. IN BOX	CORNER	
D	A	B	H	BOTTOM	C.W.	
12"	3'-0"	2'-0"	2'-0"	0.222	0.592	0.015
15"	3'-0"	2'-0"	2'-0"	0.222	0.648	0.023
18"	3'-0"	2'-0"	2'-0"	0.222	0.703	0.033
24"	3'-0"	2'-0"	2'-0"	0.222	0.814	0.059
30"	3'-0"	2'-0"	2'-0"	0.222	0.923	0.082

**TABLE 6**

**DIMENSIONS AND QUANTITIES FOR DROP INLET (BASED ON MIN. HEIGHT, H)**

DIMENSIONS OF BOX & PIPE		CURB VARIOUS		EXTRACTIONS FOR ONE PIPE	
PIPE	SPAN	WIDTH	MIN. HEIGHT	WALL PER. IN BOX	CORNER
D	A	B	H	BOTTOM	C.W.

ENGLISH STANDARD DRAWING FOR <b>CONCRETE DROP INLET</b> 12" THRU-30" PIPE	7-08 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
SHEET 1 OF 1 <b>840.14</b>	

STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

7-08

ENGLISH STANDARD DRAWING FOR  
**BRICK DROP INLET**  
12" THRU 30" PIPE

SHEET 1 OF 1  
**840.15**

Y  
X  
X  
Y  
**PLAN**  
WITH COPING REMOVED

TOP ELEVATION  
12" TO 18" THICK  
FRAME AND GRATE  
SEE NOTE  
**SECTION X-X**

**GENERAL NOTES:**

1. MORTAR JOINTS 1/2" ± 1/8" THICK.
2. USE CLASS "B" CONCRETE THROUGHOUT.
3. USE FORMS FOR CONSTRUCTION OF THE BOTTOM SLAB.
4. USE #4 BAR DOWELS AT 12" CENTERS.
5. DEDUCT FOR PIPE(S) FROM TOTAL CU. YDS. OF BRICK MASONRY.
6. PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.98.
7. USE BRICK OR CONCRETE BLOCK WHICH COMPLY WITH THE REQUIREMENT OF SECTION 840 OF THE STANDARD SPECIFICATIONS.
8. IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, AND AS SHOWN ON STD. NO. 840.00.
9. 6'-0" IN HEIGHT OR LESS, USE 8" WALL. OVER 6'-0" IN HEIGHT, 12" WALL TO 6'-0" FROM TOP OF WALL AND 8" WALL FOR THE REMAINING 6'-0". QUANTITIES TO BE ADJUSTED ACCORDINGLY.
10. CONSTRUCT WITH PIPE CROWNS MATCHING.
11. DO NOT USE BRICK MASONRY DROP INLET IN LOCATIONS SUBJECT TO TRAFFIC.
12. CHAMFER ALL EXPOSED CORNERS 1".
13. DRAWING NOT TO SCALE.

12" TO 18" THICK  
FRAME AND GRATE  
SEE NOTE  
**SECTION Y-Y**


#4 BAR  
12"  
1/2"  
**DOWEL**

DIMENSIONS AND QUANTITIES FOR DROP INLET (BASED ON MIN. HEIGHT, 12")									
DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONCRETE		CUBIC YARDS BRICK MASONRY		DEDUCTIONS FOR ONE PIPE	
PIPE	SPAN	WIDTH	MIN. HEIGHT	MIN.	HEIGHT	BOTTOM SLAB	WALL PER FOOT FT.	TOTAL BRICK MASONRY FOR MIN. HEIGHT	R.C.
12"	3'-0"	2'-0"	2'-0"	0.268	0.313	0.522	0.020	0.592	
15"	3'-0"	2'-0"	2'-0"	0.268	0.313	0.600	0.031	0.631	0.047
18"	3'-0"	2'-0"	2'-0"	0.268	0.313	0.678	0.044	0.685	
24"	3'-0"	2'-0"	2'-0"	0.268	0.313	0.835	0.078	0.913	0.115
30"	3'-0"	2'-0"	2'-0"	0.268	0.313	0.981	0.102	1.072	

ENGLISH STANDARD DRAWING FOR <b>BRICK DROP INLET</b> 12" THRU-30" PIPE	7-06 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
SHEET 1 OF 1 <b>840.15</b>	

DWG	SHEET TITLE	SPECIAL REQUIREMENTS AND NOTES
300.01	METHOD OF PIPE INSTALLATION = METHOD A	
310.02	PARALLEL PIPE END SECTION--PRECAST CONCRETE FOR 15" TO 24" PIPE	REQUIRED IN RIGHT OF WAY WITHIN THE ETJ
310.03	CROSS PIPE END SECTION--PRECAST CONCRETE FOR 18" TO 30" PIPE	REQUIRED IN RIGHT OF WAY WITHIN THE ETJ
310.10	DRIVEWAY PIPE CONSTRUCTION USING NO SPECIAL END SECTIONS	ONLY AT LOCATIONS APPROVED BY THE CITY ENGINEER
815.03	PIPE UNDERDRAIN AND BLIND DRAIN	
816.03	GEOCOMPOSITE SHOULDER DRAIN	
838.01	CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
	15" THRU 48" PIPE 90° SKEW	NOTE 1
838.02	CONCRETE ENDWALL AND SLURGE GATE 15" THRU 36" PIPE--90° SKEW	NOTE 1
838.04	CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
	17"x13" THRU 71"x47" PIPE ARCH 90° SKEW	NOTE 1
838.05	CONCRETE "L" ENDWALL FOR SINGLE PIPE CULVERTS 15" THRU 48" PIPE	NOTE 1
838.06	CONCRETE "L" ENDWALL FOR SINGLE PIPE CULVERTS 17"x13" THRU 71"x47"	NOTE 1
	71"x47" PIPE ARCH	NOTE 1
838.07	CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
	40"x31" THRU 66"x51" PIPE ARCH 90° SKEW	NOTE 1
838.08	CONCRETE "L" ENDWALL FOR SINGLE PIPE CULVERTS 40"x32"	NOTE 1
	THRU 66"x51" PIPE ARCH	NOTE 1
838.10	CONCRETE ENDWALL FOR OUTFALL 4'-6" OR 8" PIPE	NOTE 1
838.11	BRICK ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
	15" THRU 48" 90° SKEW	NOTE 1
838.14	BRICK ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS 17"x31"	NOTE 1
	THRU 71"x47" 90° SKEW	NOTE 1
838.15	BRICK "L" ENDWALL FOR SINGLE PIPE CULVERTS 15" THRU 48" PIPE	NOTE 1
838.16	BRICK "L" ENDWALL FOR SINGLE PIPE CULVERTS 17"x13" THRU	NOTE 1
	71"x47" PIPE ARCH	NOTE 1
838.17	BRICK ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS 40"x31"	NOTE 1
	THRU 66"x51" PIPE ARCH 90° SKEW	NOTE 1
838.18	BRICK ENDWALL FOR SINGLE PIPE CULVERTS 40"x31" THRU	NOTE 1
	66"x51" PIPE ARCH 90° SKEW	NOTE 1
838.20	BRICK ENDWALL FOR OUTFALL 4", 6" AND 8" PIPE	NOTE 1
838.21	REINFORCED CONCRETE ENDWALL FOR SINGLE 54" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.22	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 54" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.27	REINFORCED CONCRETE ENDWALL FOR SINGLE 60" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.28	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 60" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.33	REINFORCED CONCRETE ENDWALL FOR SINGLE 66" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.34	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 66" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.39	REINFORCED CONCRETE ENDWALL FOR SINGLE 72" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.40	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 72" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD

NOTE 1: FOR ALL STRUCTURES -- NCDOT REQUIRES CLASS B CONCRETE (2500PSI), THE CITY REQUIRES 3600 PSI CONCRETE STRENGTH @ 28 DAYS. 3600 PSI CONCRETE SHALL BE USED IN ALL CITY AND ETJ PROJECTS.




**CITY OF CHARLOTTE**  
LAND DEVELOPMENT STANDARDS  
INCLUDES CHARLOTTE ETJ

**NCDOT STANDARDS**  
APPROVED FOR USE IN THE CITY OF CHARLOTTE  
AND CHARLOTTE ETJ

STD. NO.  
**20.00A**

DWG	SHEET TITLE	SPECIAL REQUIREMENTS AND NOTES
838.45	NOTES FOR REINFORCED CONCRETE ENDWALL STANDARD DRAWINGS 838.21 THRU 838.40	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.51	REINFORCED BRICK ENDWALL FOR SINGLE 54" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.52	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 54" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.57	REINFORCED BRICK ENDWALL FOR SINGLE 60" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.58	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 60" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.63	REINFORCED BRICK ENDWALL FOR SINGLE 66" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.64	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 66" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.67	REINFORCED BRICK ENDWALL FOR SINGLE 72" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.70	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 72" PIPE 90° SKEW	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.75	NOTES FOR REINFORCED BRICK ENDWALL STANDARD DRAWINGS 838.51 THRU 838.70	NOTE 1 SEE CLDS 20.17 FOR SPLASH PAD
838.80	PRECAST CONCRETE ENDWALL FOR SINGLE 12" THRU 72" PIPE 90° SKEW	
840.00	CONCRETE BASE PAD FOR DRAINAGE STRUCTURES	
840.01	BRICK CATCH BASIN 15" THRU 54" PIPE	
840.02	CONCRETE CATCH BASIN 12" THRU 54" PIPE	
840.03	FRAME, GRATE BASIN 12" THRU 54" PIPE	
840.04	CONCRETE OPEN THROAT CATCH BASIN 12" THRU 48" PIPE	TYPE F AND G GRATES ARE OPTIONAL WITHIN THE CITY LIMITS NOTE 1: OPENINGS PERMITTED IN 4 SIDES OUTSIDE OF STREET R/W MANHOLE RING AND COVER REQUIRED IN TOP SLAB SEE CLDS 20.05 A&B
840.05	BRICK OPEN THROAT CATCH BASIN 15" THRU 48" PIPE	NOTE 1: OPENINGS PERMITTED IN 4 SIDES OUTSIDE OF STREET R/W MANHOLE RING AND COVER REQUIRED IN TOP SLAB SEE CLDS 20.05 A&B
840.14	CONCRETE DROP INLET 12" THRU 30" PIPE	NOTE 1
840.15	BRICK DROP INLET 12" THRU 30" PIPE	NOTE 1
840.16	DROP INLET FRAME AND GRATE FOR USE WITH DWGS. 840.14 & 840.15	NOTE 1
840.17	CONCRETE GRATED DROP INLET TYPE "A" 12" THRU 72" PIPE	NOTE 1
840.18	CONCRETE GRATED DROP INLET TYPE "B" 12" THRU 36" PIPE	NOTE 1
840.19	CONCRETE GRATED DROP INLET TYPE "C" 12" THRU 36" PIPE	NOTE 1
840.20	FRAMES AND WIDE SLOT FLAT GRATES	NOT FOR USE IN PEDESTRIAN AREAS
840.22	FRAMES AND WIDE SLOT SAG GRATES	NOT FOR USE IN PEDESTRIAN AREAS
840.24	FRAMES AND NARROW SLOT SAG GRATES	
840.25	ANCHORAGE FOR FRAMES BRICK OR CONCRETE	
840.26	BRICK GRATED DROP INLET TYPE "A" 12" THRU 72" PIPE	
840.27	BRICK GRATED DROP INLET TYPE "B" 12" THRU 36" PIPE	
840.28	BRICK GRATED DROP INLET TYPE "D" 12" THRU 36" PIPE	
840.29	FRAMES AND NARROW SLOT FLAT GRATES	
840.30	DRIVEWAY DROP INLET	

NOTE 1: FOR ALL STRUCTURES – NCDOT requires CLASS B CONCRETE (2500PSI). THE CITY REQUIRES 3600 PSI CONCRETE STRENGTH @ 28 DAYS. 3600 PSI CONCRETE SHALL BE USED IN ALL CITY AND ETJ PROJECTS.



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NCDOT STANDARDS  
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AND CHARLOTTE ETJ

STD. NO.  
**20.00C**

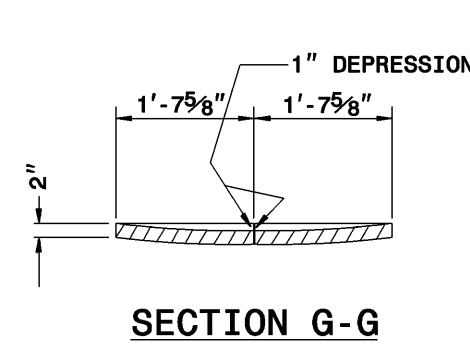
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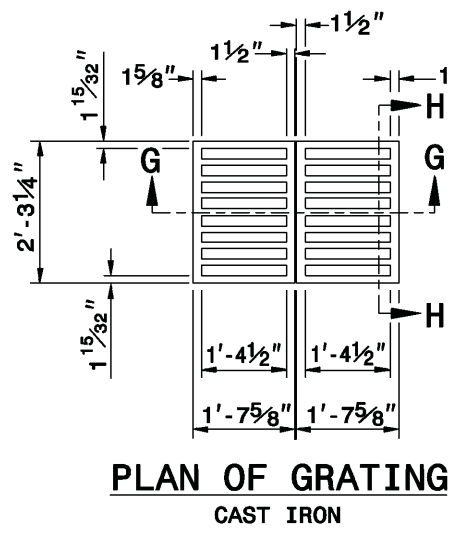
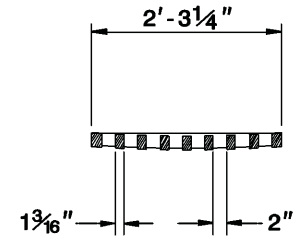
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

7-08  
ENGLISH STANDARD DRAWING FOR  
DROP INLET FRAME AND GRATES  
FOR USE WITH STD. DWS 840.14 AND 840.15

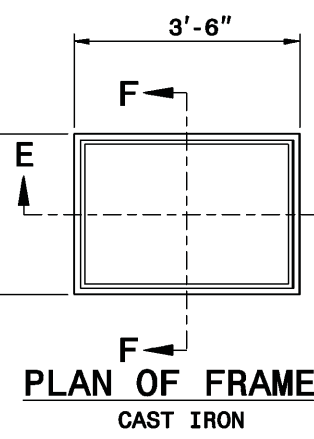
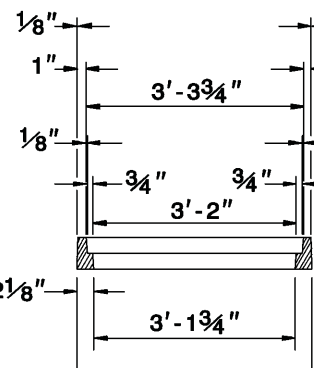
SHEET 1 OF 1  
840.16



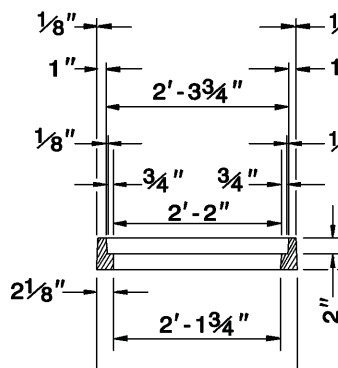
SECTION H-H



SECTION E-E



SECTION F-F



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RALEIGH, N.C.

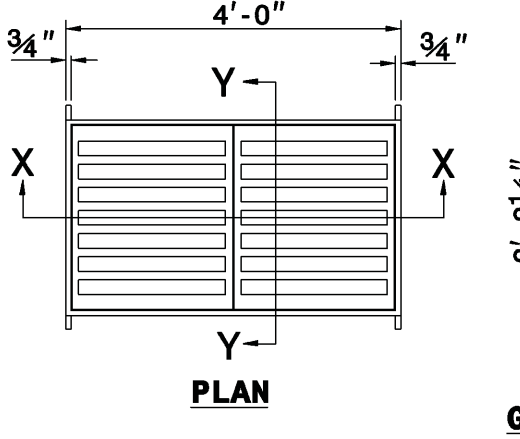
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ENGLISH STANDARD DRAWING FOR  
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FOR USE WITH STD. DWS 840.14 AND 840.15

SHEET 1 OF 1  
840.16

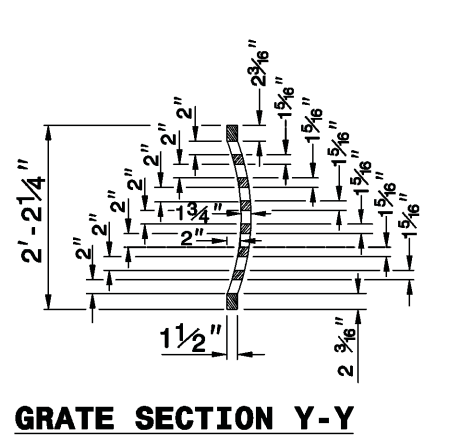
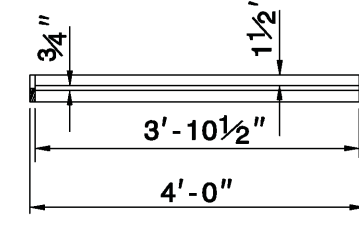
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7-08  
ENGLISH STANDARD DRAWING FOR  
FRAMES AND NARROW SLOT SAG GRATES

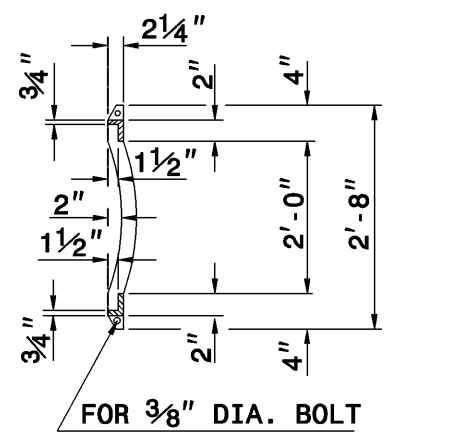
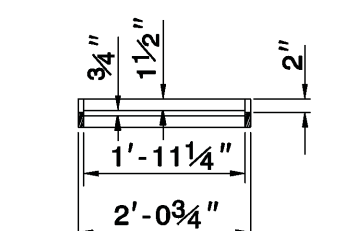
SHEET 1 OF 1  
840.24



GRATE SECTION X-X



FRAME SECTION X-X



NOTE:  
SEE STD. DWG. 840.25  
FOR FRAME ANCHORAGE.

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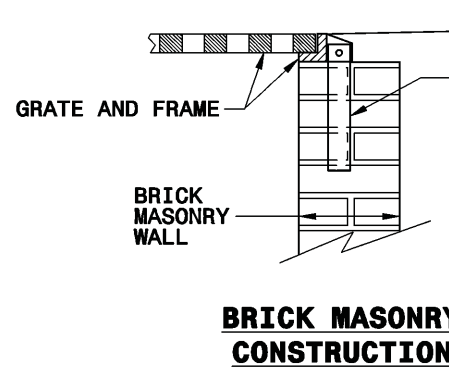
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ENGLISH STANDARD DRAWING FOR  
FRAMES AND NARROW SLOT SAG GRATES

SHEET 1 OF 1  
840.24

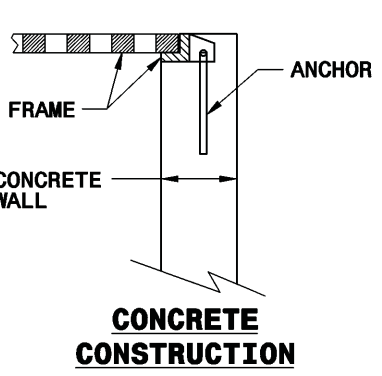
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7-08  
ENGLISH STANDARD DRAWING FOR  
ANCHORAGE FOR FRAMES  
BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1  
840D25



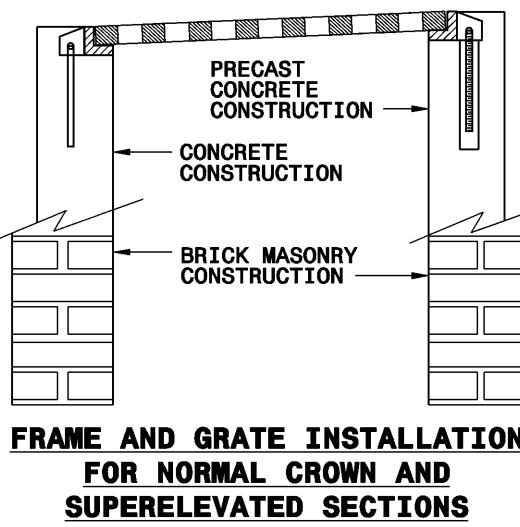
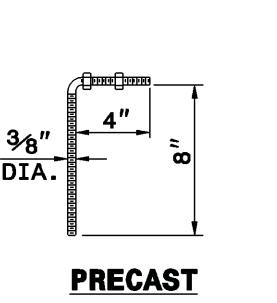
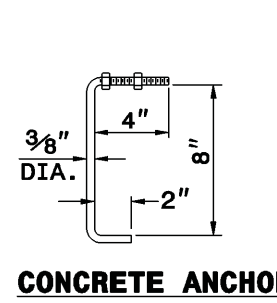
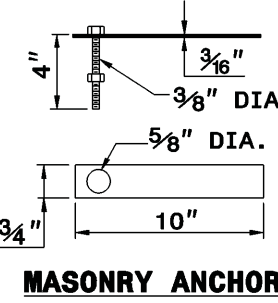
CONCRETE CONSTRUCTION



PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF  
FRAME FOR GRATED DROP INLET

NOTE:  
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL  
OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



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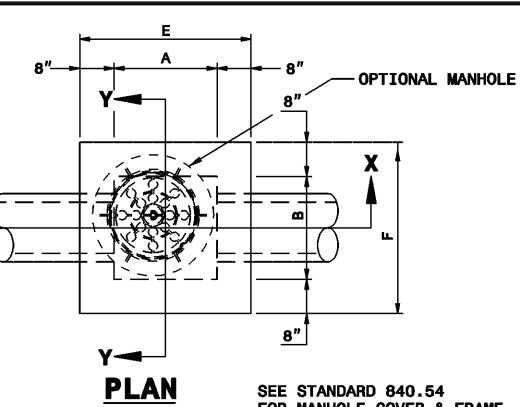
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ENGLISH STANDARD DRAWING FOR  
ANCHORAGE FOR FRAMES  
BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1  
840D25

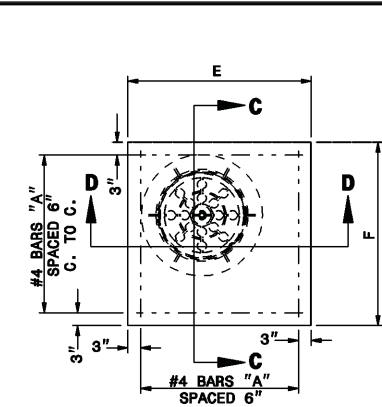
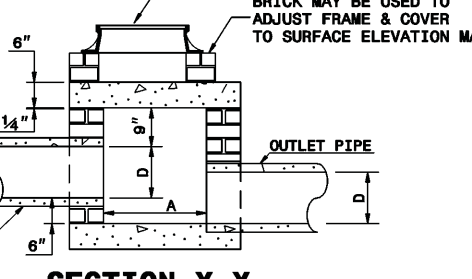
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7-08  
ENGLISH STANDARD DRAWING FOR  
BRICK JUNCTION BOX  
(WITH OPTIONAL MANHOLE)

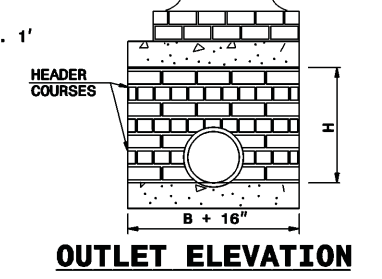
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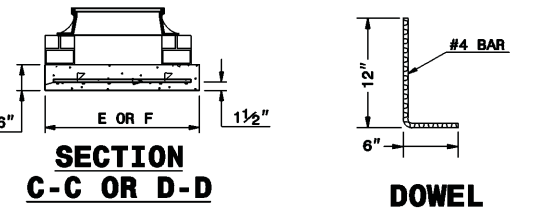
SECTION X-X



SECTION Y-Y



GENERAL NOTES:  
CHAMFER ALL EXPOSED CORNERS 1".  
USE CLASS "B" CONCRETE THROUGHOUT.  
USE #4 BARS DOWELS AT 12" CENTERS.  
MORTAR JOINTS 1/2" x 1/2" THICK.  
CONCAVE TOO ALL EXPOSED JOINTS.  
USE FORMS TO CONSTRUCT THE BOTTOM SLAB.  
JUNIOR BRICK WILL BE PERMITTED. CONCRETE BRICK OR 4"  
SOLID CONCRETE BLOCKS MAY BE USED IN LIEU OF CLAY BRICK.  
FOR 8'-0" IN HEIGHT OR LESS, USE 6" WALL. OVER 8'-0" IN  
HEIGHT, USE 12" WALL TO 8'-0" FROM TOP OF WALL, AND 6" WALL  
FOR THE REMAINING 8'-0". ADJUST DIMENSIONS AND QUANTITIES  
ACCORDINGLY.  
IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX,  
ADD TO BASE AS SHOWN ON STANDARD NO. 840.00.  
PROVIDE ALL JUNCTION BOXES OVER 3'-6" IN DEPTH WITH STEPS  
12" ON CENTERS IN ACCORDANCE WITH STD. NO. 840.06.  
ADJUST THE STEEL, CONCRETE AND BRICK MASONRY QUANTITIES  
TO INCLUDE THE ADDITION OF THE MANHOLE (I.E., GUARANTEE BARS  
SHORTENED AROUND OPENING IN TOP SLAB, ADDITIONAL VARIABLE  
HEIGHT BRICK MASONRY, OPENING IN TOP SLAB.)  
MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO  
TOP ELEVATION IS 12 FEET.



DOWEL

DIMENSIONS AND QUANTITIES FOR BRICK JUNCTION BOXES									
DIMENSIONS OF BOX AND PIPE				REINFORCEMENT BARS		TOP SLAB DIMENSIONS		CAST MASONRY	
PIPE	SPAN	WIDTH	HEIGHT	NO.	LENGTH	E	F	CONC.	BRICK MASONRY
D	A	B	H					TOP & BOTTOM	MIN. WALL PER FT. OF
IN.	IN.	IN.	IN.					CONC. OR BRICK	CONC. OR BRICK
12"	2'-0"	2'-0"	2'-3"	12	3'-1"	3'-4"	3'-4"	0.412	0.501
15"	2'-0"	2'-0"	2'-6"	12	3'-1"	3'-4"	3'-4"	0.412	0.501
18"	2'-4"	2'-4"	2'-9"	14	3'-5"	3'-8"	3'-8"	0.498	0.614
24"	3'-0"	3'-0"	3'-5"	16	4'-1"	4'-4"	4'-4"	0.695	1.176
30"	3'-4"	3'-4"	3'-9"	16	4'-5"	4'-8"	4'-8"	0.897	1.481
36"	4'-0"	4'-0"	4'-5"	20	5'-1"	5'-4"	5'-4"	1.053	1.899
42"	4'-8"	4'-8"	4'-9"	22	5'-9"	6'-0"	6'-0"	1.393	2.503
48"	5'-4"	5'-4"	5'-5"	26	6'-5"	6'-8"	6'-8"	1.646	2.940
54"	6'-10"	6'-10"	6'-9"	28	6'-11"	7'-2"	7'-2"	1.902	3.502
60"	6'-8"	6'-8"	6'-3"	30	7'-7"	7'-10"	7'-10"	2.272	4.113
66"	7'-1"	7'-1"	6'-9"	32	8'-2"	8'-5"	8'-5"	2.624	4.778

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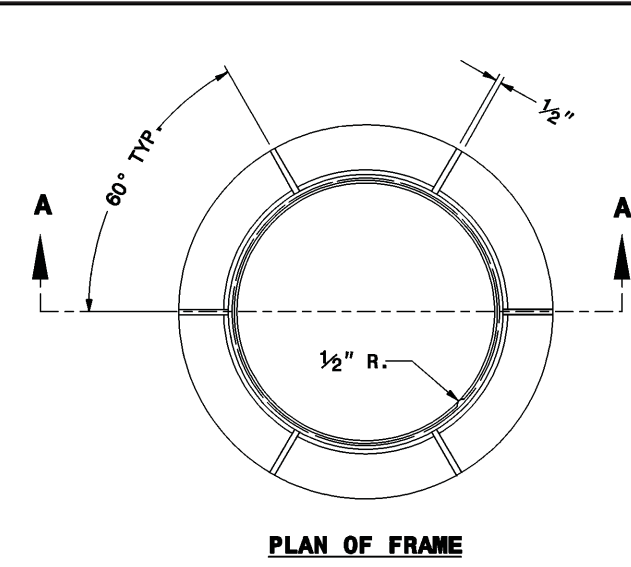
7-08  
ENGLISH STANDARD DRAWING FOR  
BRICK JUNCTION BOX  
(WITH OPTIONAL MANHOLE)

SHEET 1 OF 1  
840.32

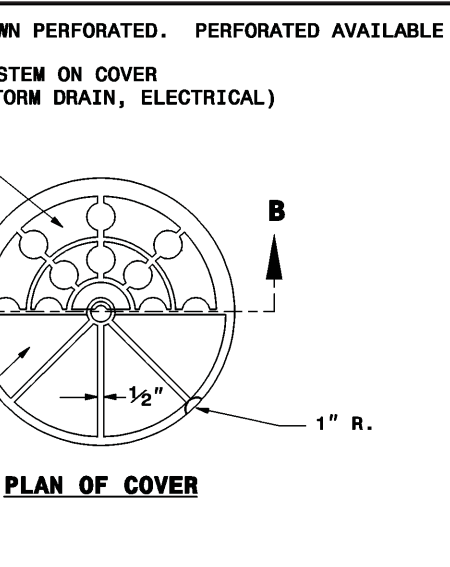
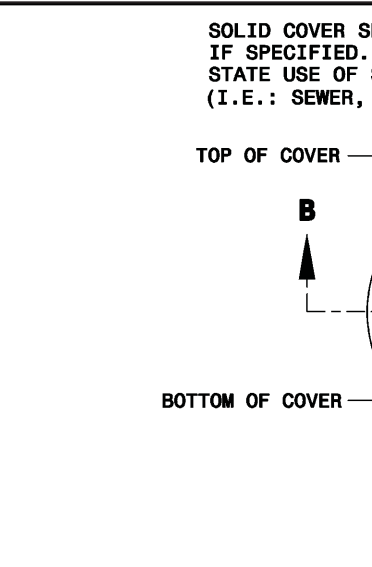
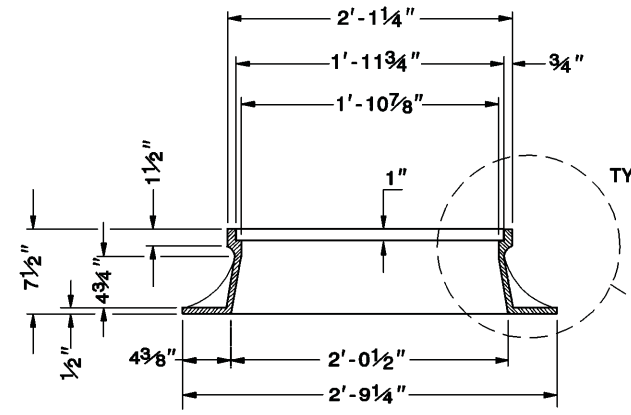
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7-08  
ENGLISH STANDARD DRAWING FOR  
MANHOLE FRAME AND COVER

SHEET 1 OF 1  
840.54



SECTION A-A



MINIMUM WEIGHTS - LBS.  
FRAME - 180  
COVER - 120  
TOTAL - 300  
SPECIFICATION  
CLASS 30 IRON MEETING  
ASTM A-48

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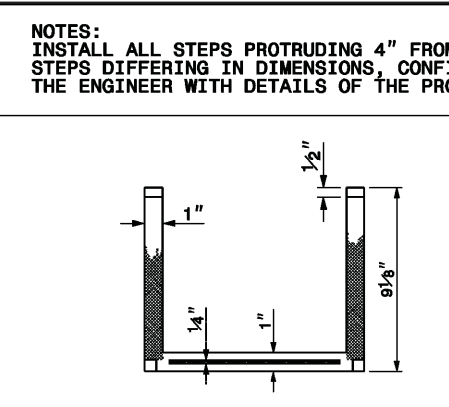
7-08  
ENGLISH STANDARD DRAWING FOR  
MANHOLE FRAME AND COVER

SHEET 1 OF 1  
840.54

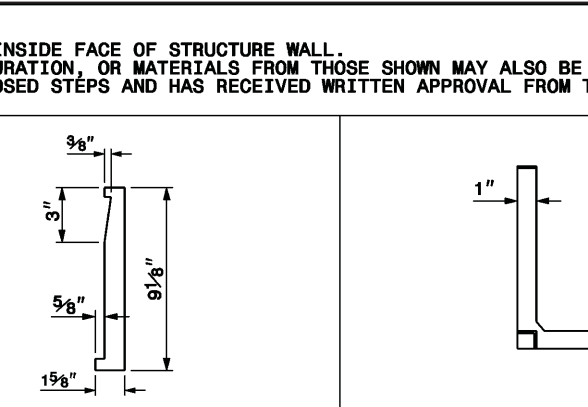
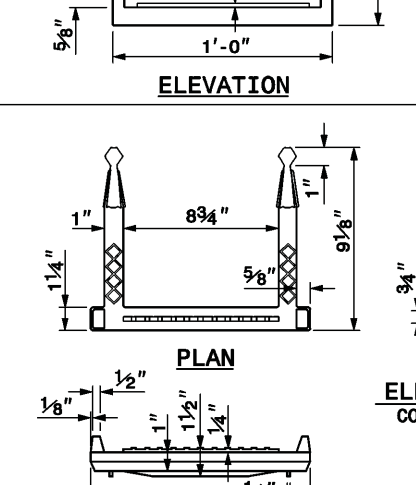
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DIVISION OF HIGHWAYS  
RALEIGH, N.C.

7-08  
ENGLISH STANDARD DRAWING FOR  
DRAINAGE STRUCTURE STEPS

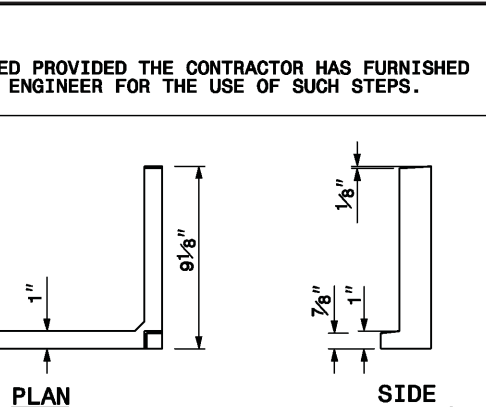
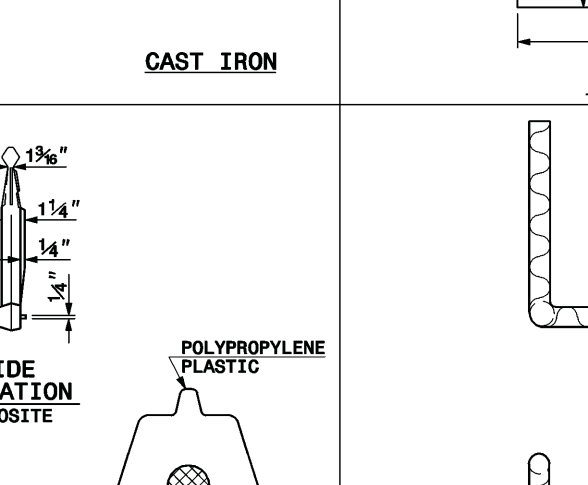
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840.66



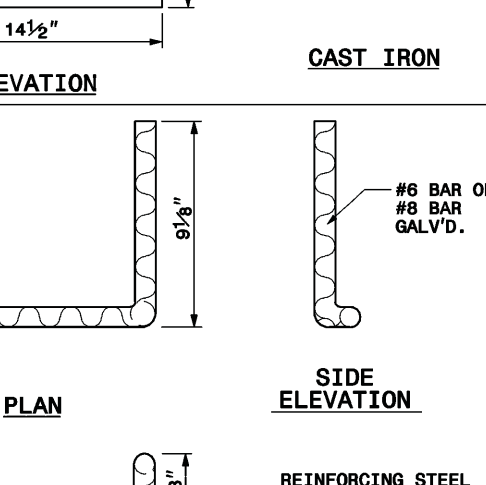
SECTION A-A



SECTION B-B



SECTION C-C

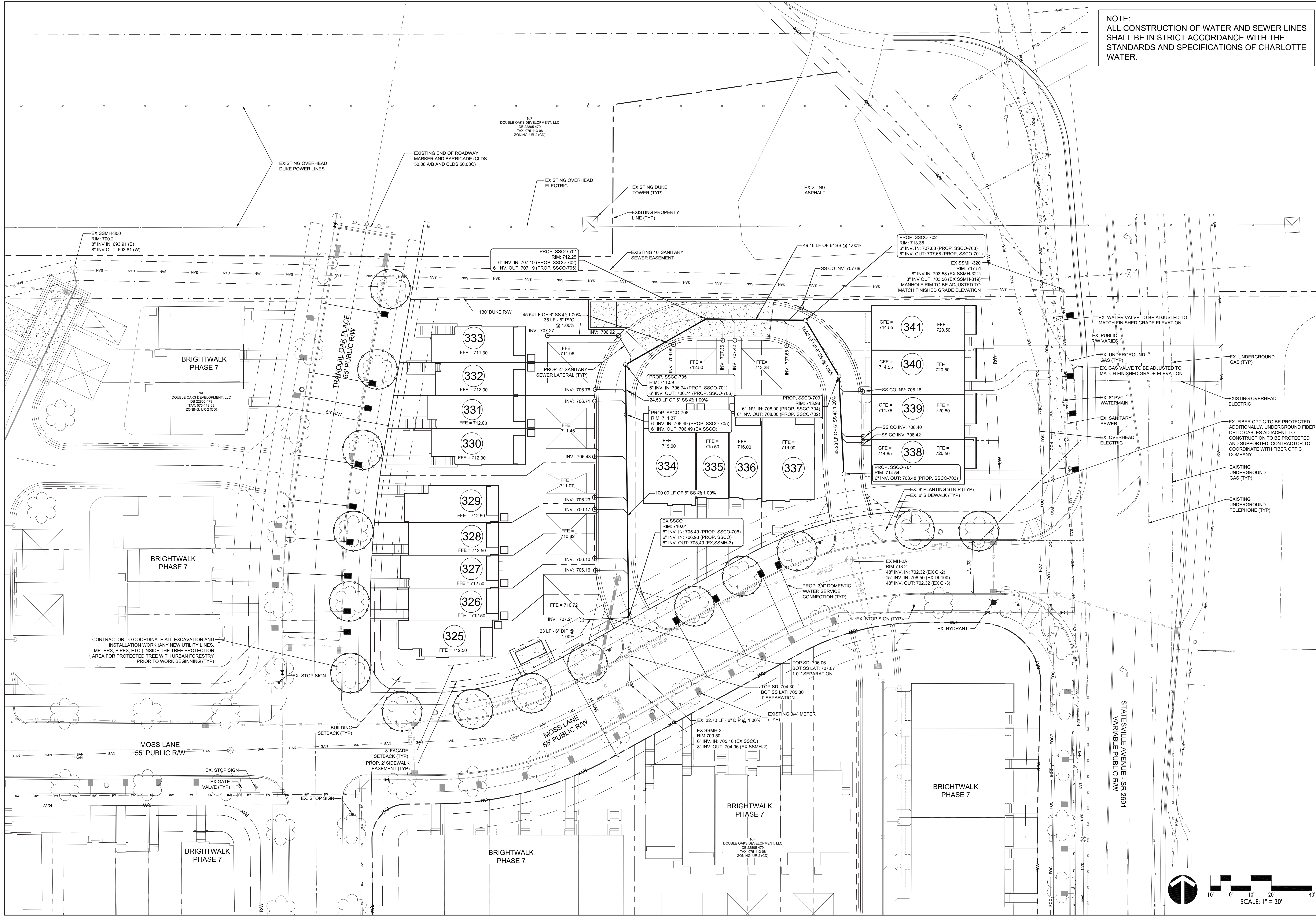


STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

7-08  
ENGLISH STANDARD DRAWING FOR  
DRAINAGE STRUCTURE STEPS

SHEET 1 OF 1  
840.66





NOTE:  
ALL CONSTRUCTION OF WATER AND SEWER LINES  
SHALL BE IN STRICT ACCORDANCE WITH THE  
STANDARDS AND SPECIFICATIONS OF CHARLOTTE  
WATER.

REVISIONS:

09-10-15 REVISED PER CITY COMMENTS  
09-12-16 REVISED PER CITY COMMENTS  
09-08-15 REVISED PER SEWER MAIN

DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FM  
SCALE: 1" = 20'  
PROJECT #: 1015225  
SHEET #:

C-6.0

223 N Graham Street  
V. 704.333.0325 F. 704.333.3246  
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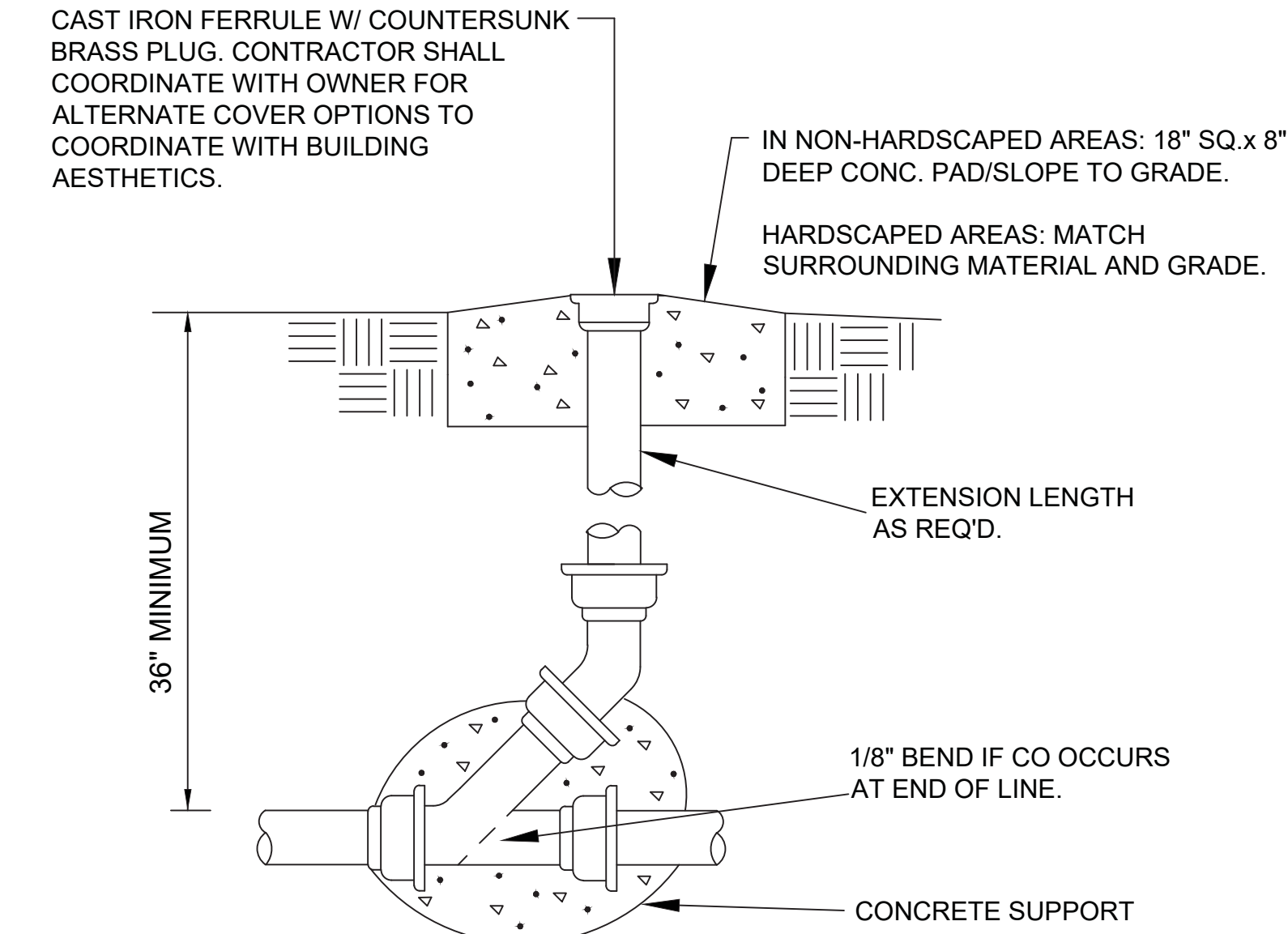
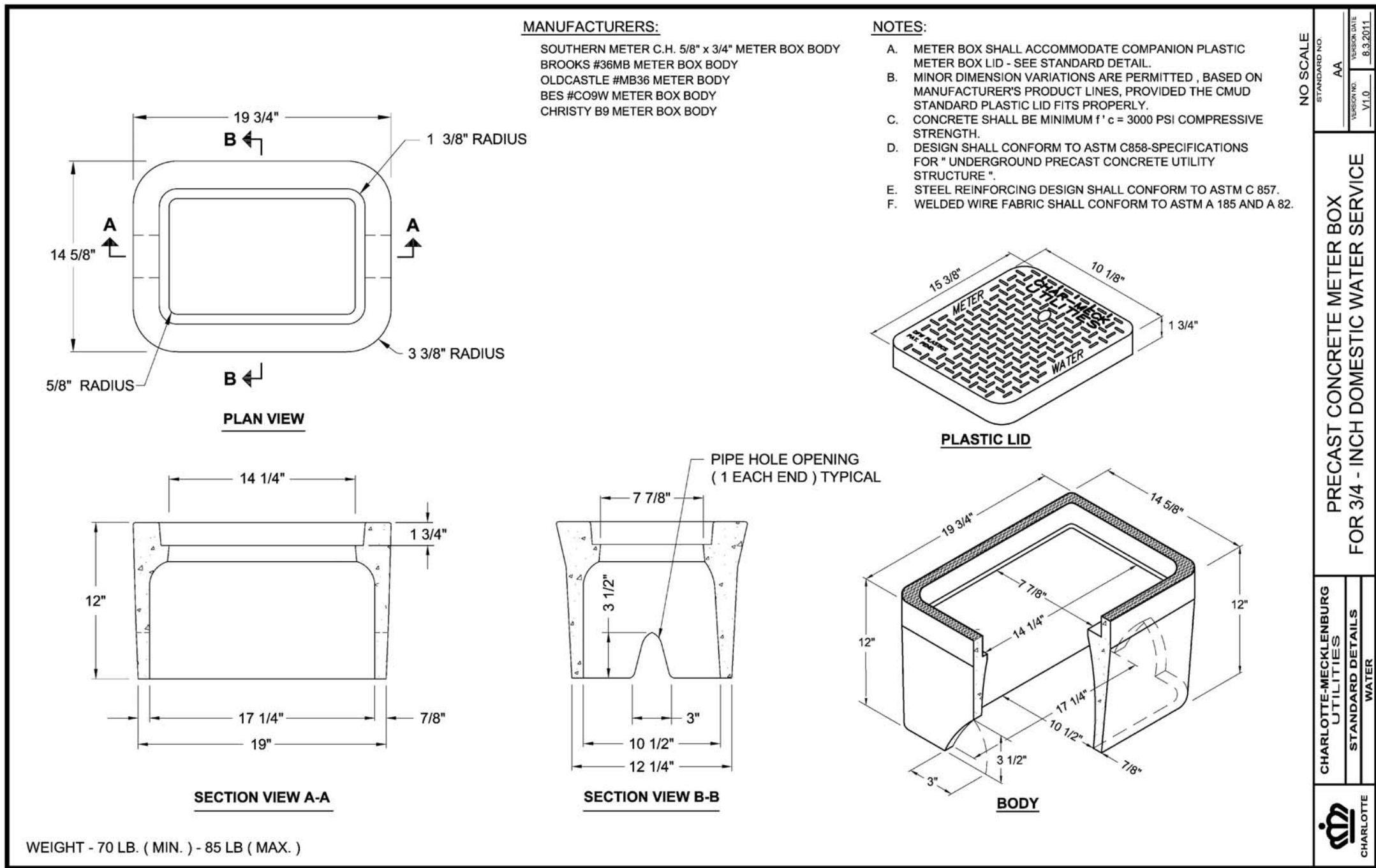
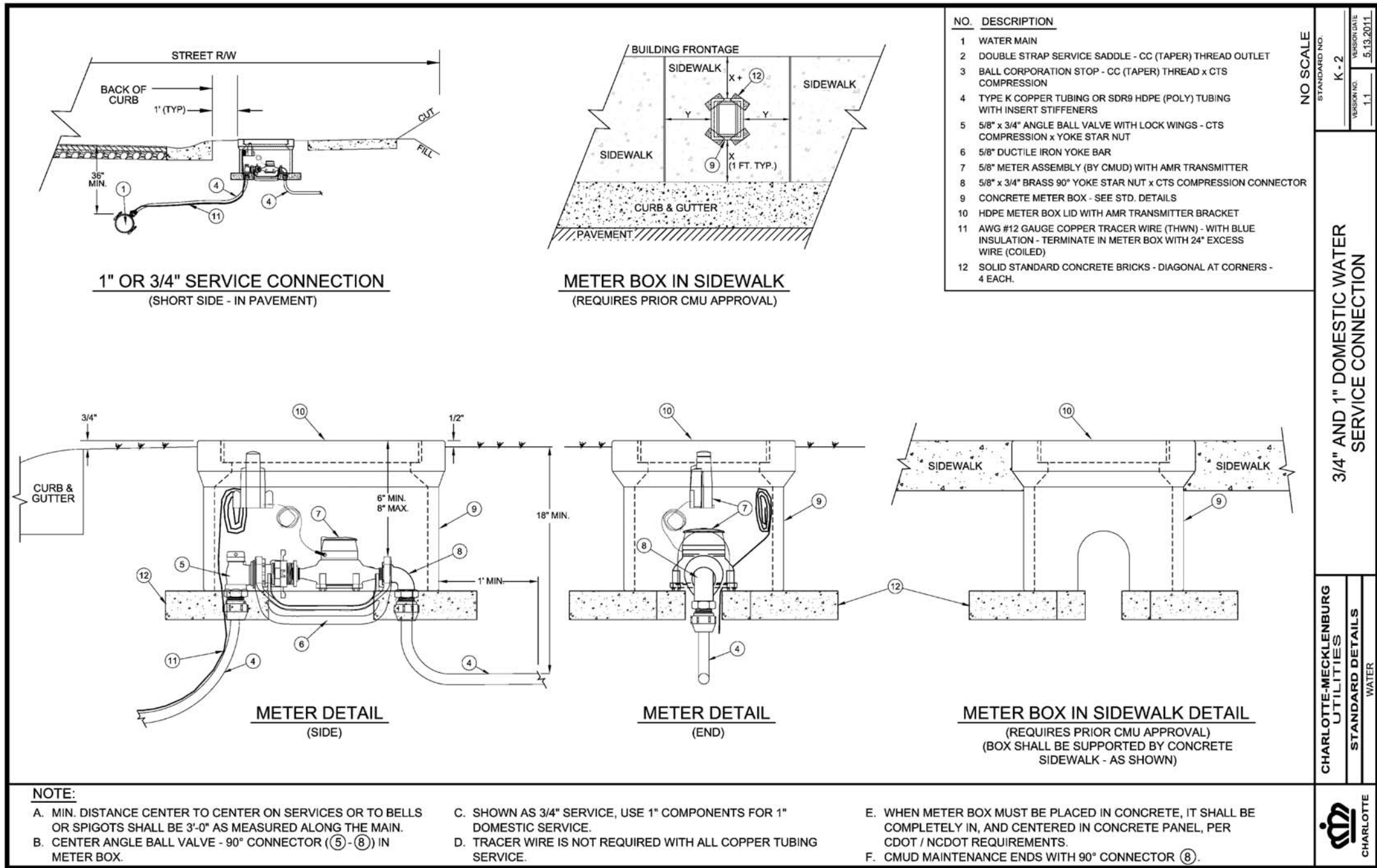
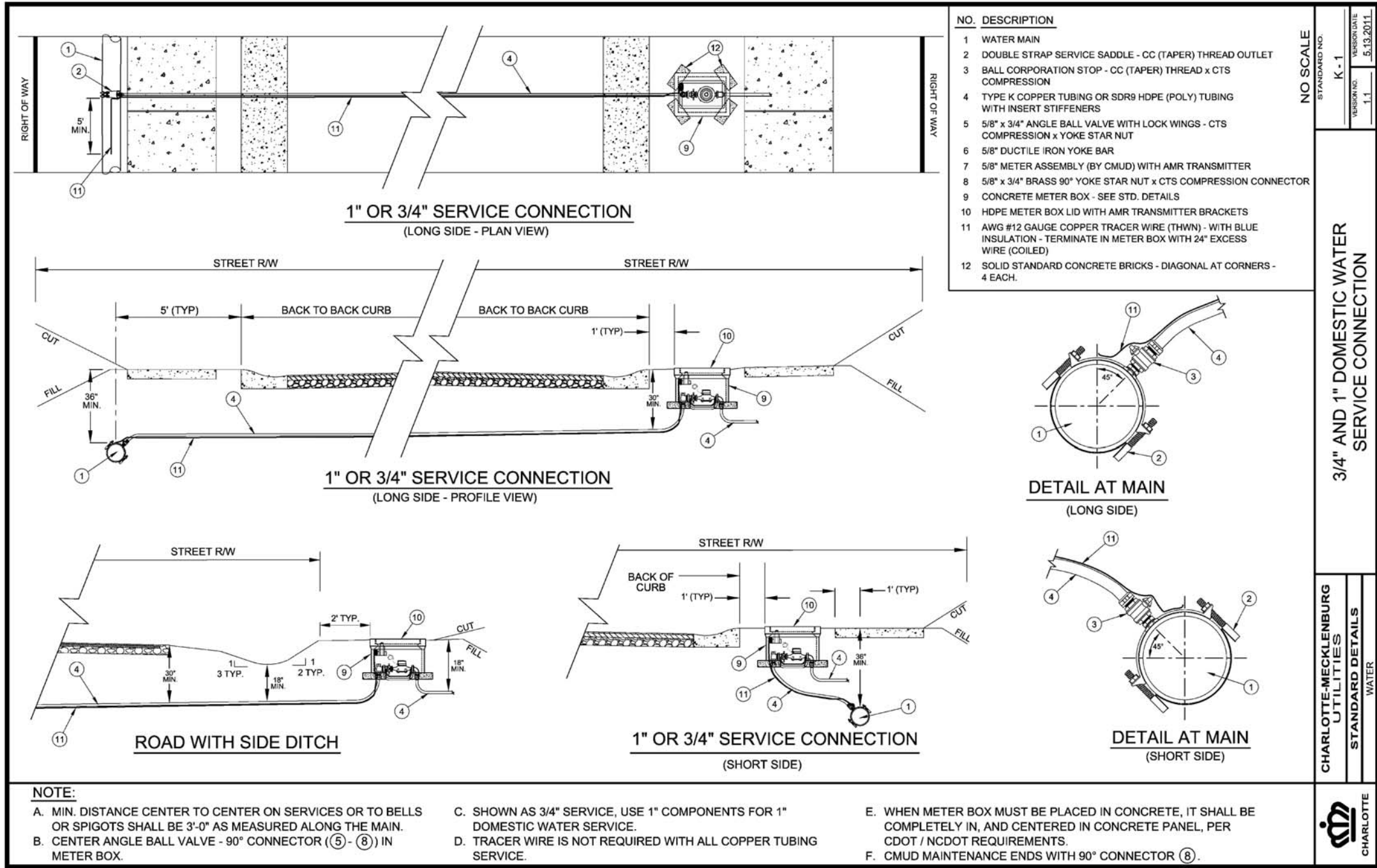
CORPORATE  
SEAL  
NORTH CAROLINA

12/21/16

Brightwalk Phase 7B - Multi-Family  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC

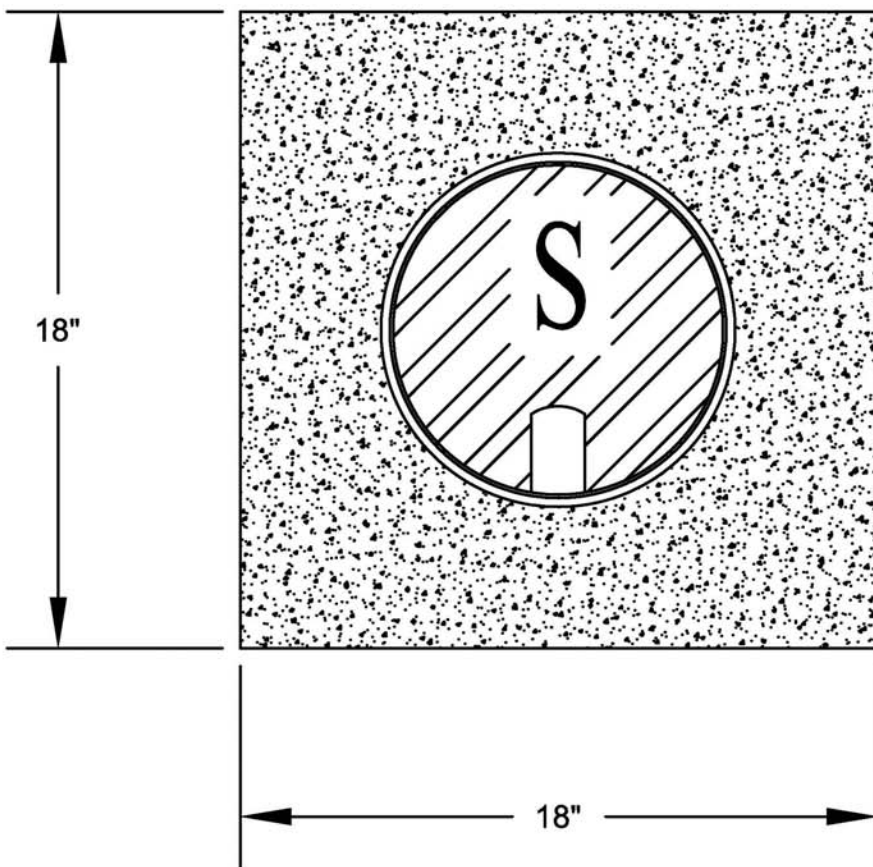
OVERALL UTILITY PLAN



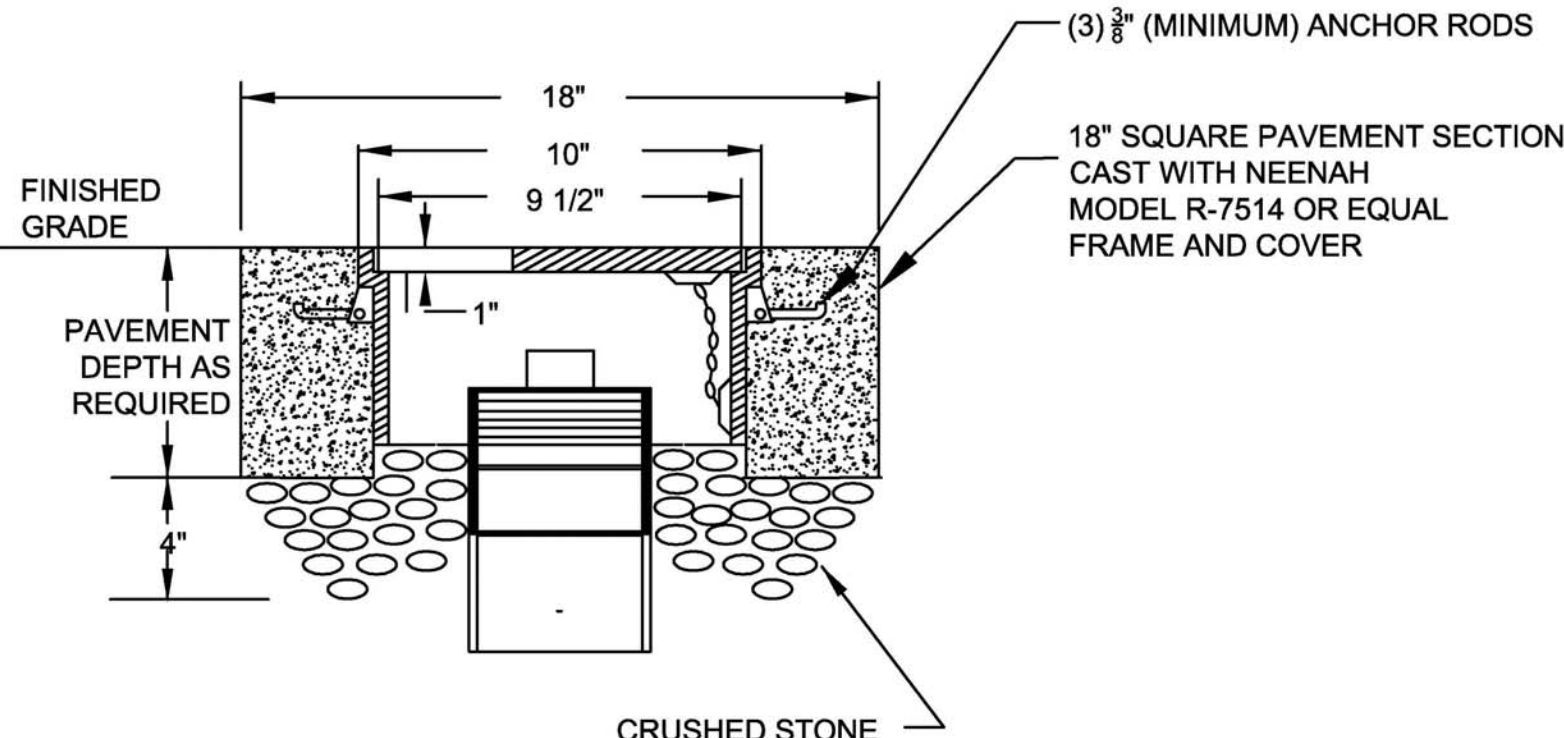


## EXTERIOR CLEANOUT

N.T.S.

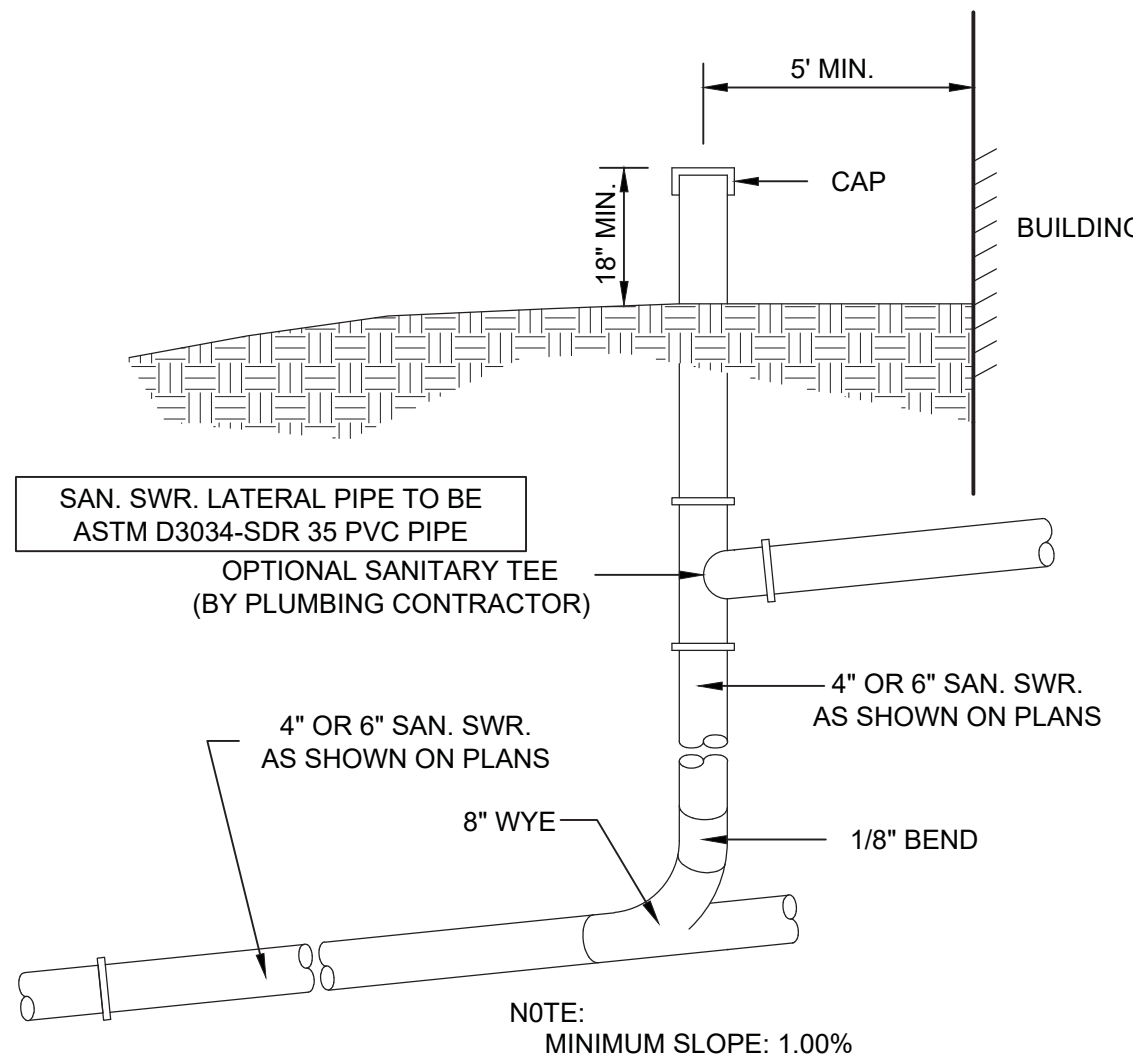


- NOTE:
- ASSEMBLY TO BE USED IN ALL PAVED OR CONCRETE AREAS.
  - CASTING SHALL BE NEENAH MODEL R-7514 OR EQUAL.
  - CONTRACTOR SHALL VERIFY THAT THE CASTING AND INSTALLATION IS RATED FOR TRAFFIC LOADING.
  - EXPANSION JOINT MATERIAL TO BE PLACED AT JOINTS WHEN LOCATED IN CONCRETE SURFACES.
  - A MINIMUM CLEARANCE OF 4 INCHES IS REQUIRED BETWEEN CLEANOUT CAP AND TOP OF COVER.



## PAVEMENT CLEANOUT

N.T.S.



## SANITARY SEWER LATERAL

N.T.S.

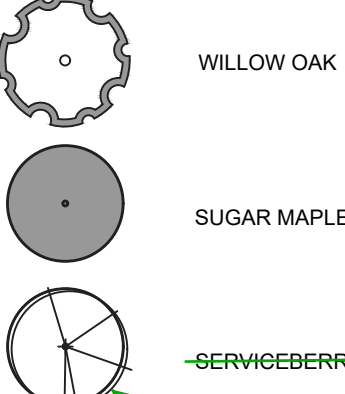
- NOTE:
- STUB-UP TO BE CUT-OFF □ CLEAN-OUT PLUG INSTALLED FLUSH WITH GRADE AFTER LANDSCAPING STUB-UP INSTALLED BY UTILITY CONTRACTOR TO ALLOW LOCATION OF LATERAL BY PLUMBER.
  - LATERAL INSTALLATION SHALL BE IN ACCORDANCE TO CMUD STANDARDS AND NC PLUMBING CODE AS APPLICABLE.
  - CONTRACTOR SHALL COORDINATE LATERAL INSTALLATION WITH PLUMBING CONTRACTOR AND MEP PLANS.
  - CONTRACTOR SHALL INSTALL PRECAST CONCRETE COLLAR AROUND ALL LATERAL CLEANOUTS IN GRASSED AND LANDSCAPED AREAS.



NOTES:  
REFER TO SHEET C-7.1 FOR TREE PLANTING AND PRESERVATION REQUIREMENTS

LEGEND

\* TREES MUST BE 6' CLEAR OF BRANCHES ON THE TRUNK



Match already approved street tree species

INTERNAL PLANTING REQUIREMENTS

IMPERVIOUS AREA	28,661.68 SF
INTERNAL TREES	
INTERNAL TREES REQUIRED	1/10,000 SF IMPERVIOUS AREA: 3 TREES
INTERNAL TREES PROVIDED	3 TREES

**APPROVED**  
By Vince Condon at 8:06 am, Feb 08, 2017

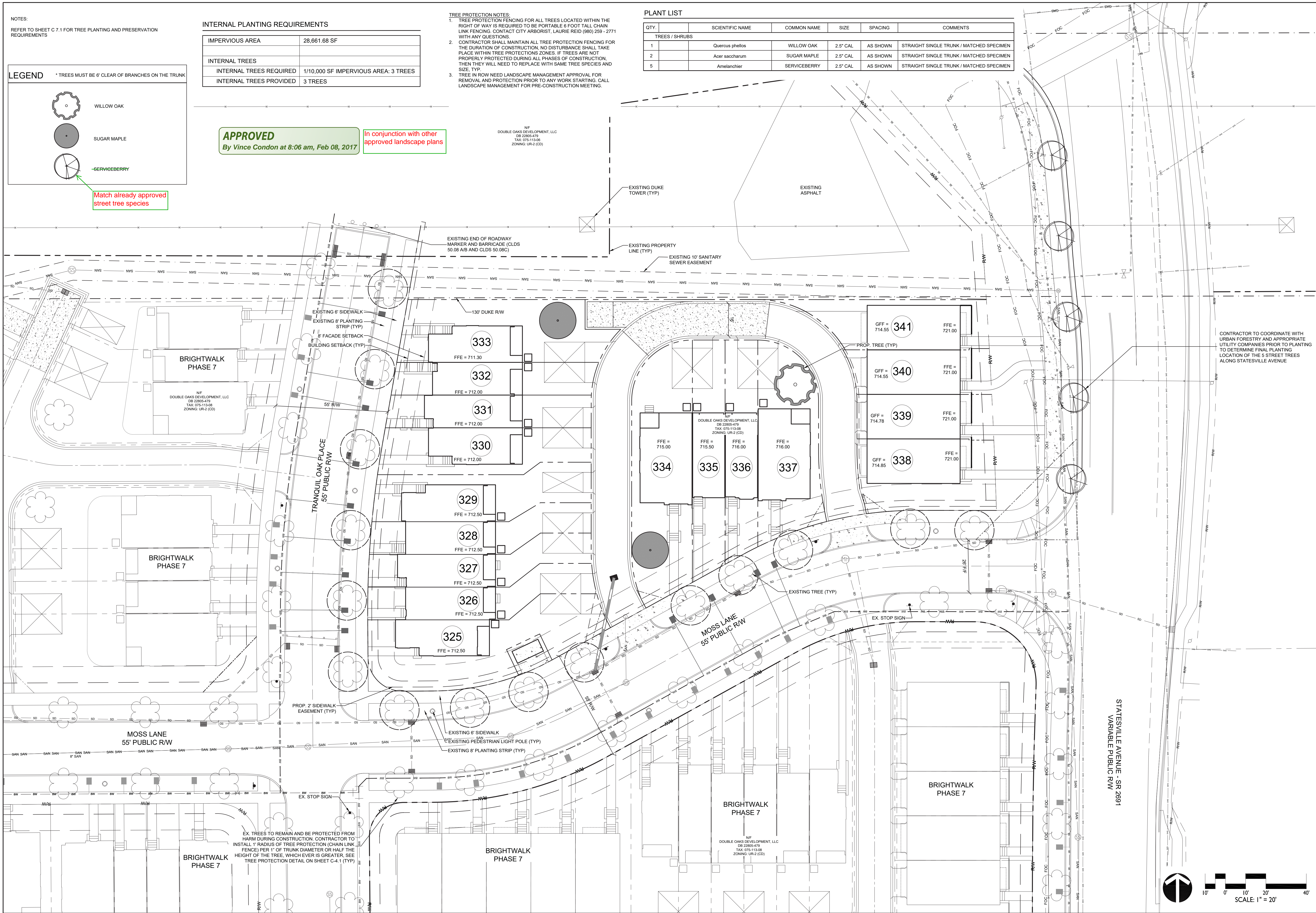
In conjunction with other approved landscape plans

TREE PROTECTION NOTES:

1. TREE PROTECTION FENCING FOR ALL TREES LOCATED WITHIN THE RIGHT OF WAY IS REQUIRED TO BE PORTABLE 6 FOOT TALL CHAIN LINK FENCING. CONTACT CITY ARBORIST, LAURIE REID (980) 259-2771 WITH ANY QUESTIONS.
2. CONTRACTOR SHALL MAINTAIN ALL TREE PROTECTION FENCING FOR THE DURATION OF CONSTRUCTION. NO DISTURBANCE SHALL TAKE PLACE WITHIN TREE PROTECTIONS ZONES. IF TREES ARE NOT PROPERLY PROTECTED DURING ALL PHASES OF CONSTRUCTION, THEN THEY WILL NEED TO REPLACE WITH SAME TREE SPECIES AND SIZE. TYP.
3. TREE IN ROW NEED LANDSCAPE MANAGEMENT APPROVAL FOR REMOVAL AND PROTECTION PRIOR TO ANY WORK STARTING. CALL LANDSCAPE MANAGEMENT FOR PRE-CONSTRUCTION MEETING.

PLANT LIST

QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	COMMENTS
TREES / SHRUBS					
1	Quercus phellos	WILLOW OAK	2.5" CAL	AS SHOWN	STRAIGHT SINGLE TRUNK / MATCHED SPECIMEN
2	Acer saccharum	SUGAR MAPLE	2.5" CAL	AS SHOWN	STRAIGHT SINGLE TRUNK / MATCHED SPECIMEN
5	Amelanchier	SERVICEBERRY	2.5" CAL	AS SHOWN	STRAIGHT SINGLE TRUNK / MATCHED SPECIMEN



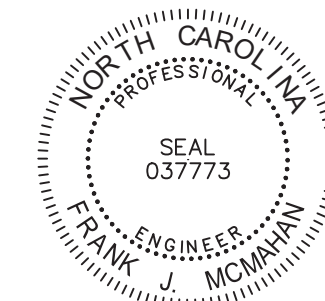
CONTRACTOR TO COORDINATE WITH URBAN FORESTRY AND APPROPRIATE UTILITY COMPANIES PRIOR TO PLANTING TO DETERMINE FINAL PLANTING LOCATION OF THE 5 STREET TREES ALONG STATESVILLE AVENUE

REVISIONS:  
09.10.15 REVISED PER CITY COMMENTS  
12.13.16 RTAP FOR 4 ADDITIONAL LOTS ALONG STATESVILLE AVE

DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FJM  
SCALE: 1" = 20'  
PROJECT #: 1015225  
SHEET #:

**C-7.0**

**Brightwalk Phase 7B - Multi-Family**  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC  
**REQUIRED PLANTING PLAN**

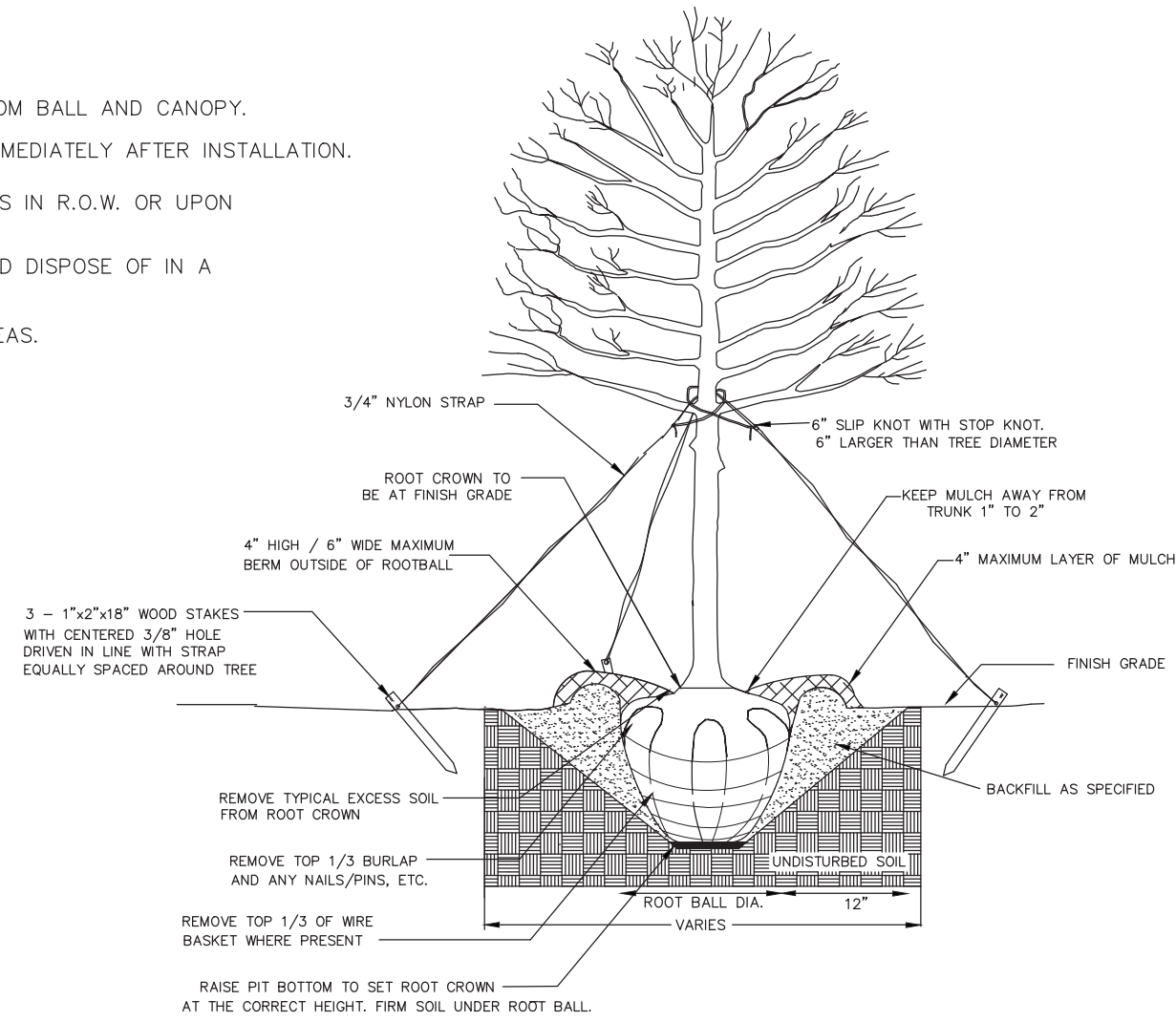


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NOTES:

1. REMOVE WIRE AND NYLON TWINE FROM BALL AND CANOPY.
2. SOAK ROOT BALL AND PLANT PIT IMMEDIATELY AFTER INSTALLATION.
3. STAKING IS REQUIRED FOR ALL TREES IN R.O.W. OR UPON REQUEST OF ARBORIST.
4. REMOVE EXCESS SOIL FROM SITE AND DISPOSE OF IN A LEGAL MANNER.
5. RESEED UNMULCHED, DISTURBED AREAS.

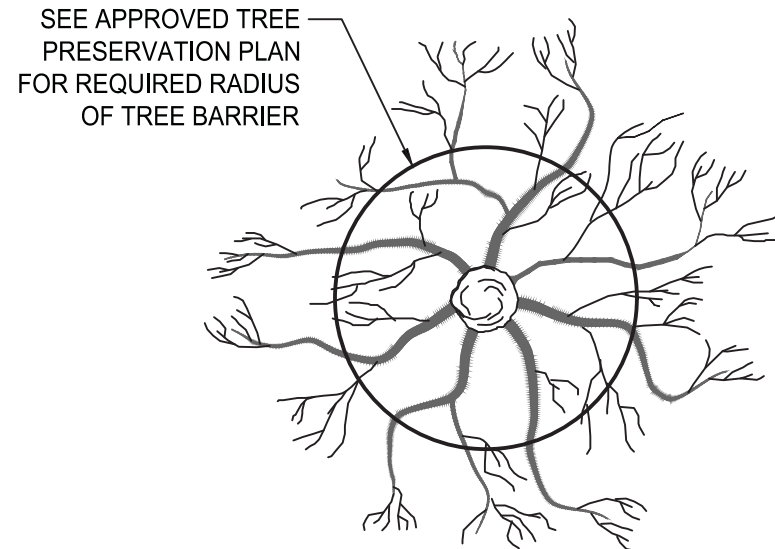


ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004)  
FOR EXAMPLE:

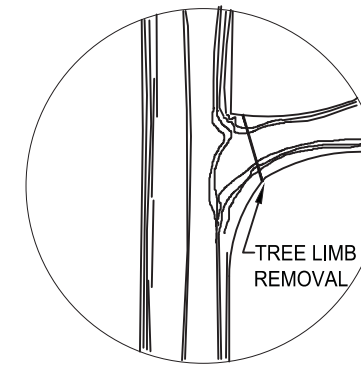
CALIPER	HEIGHT (RANGE)	MAX. HEIGHT	MIN. ROOT BALL DIA.	MIN. ROOT BALL DEPTH
2"	12-14'	16'	24"	16"
3"	14-16'	18'	32"	21"

TREE PLANTING

CLDSM #40.01  
NOT TO SCALE



PLAN VIEW OF ROOT ZONE

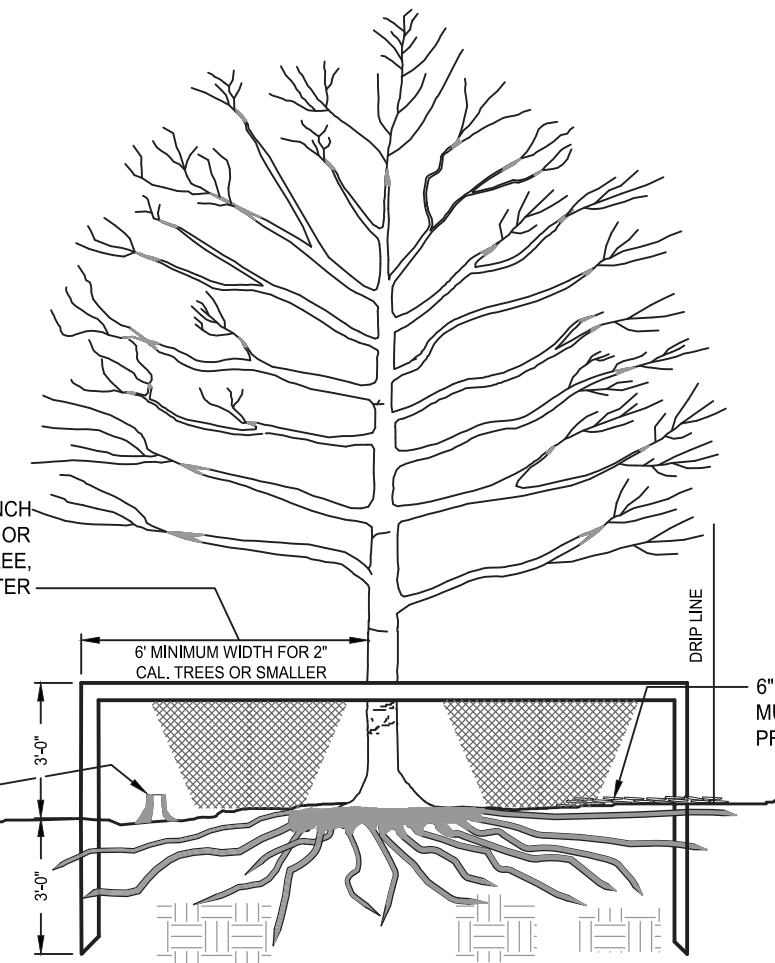


FOR PRUNING SEE NATIONAL ARBORIST ASSOCIATION SPECS.

ONE FOOT FOR EACH INCH OF TRUNK DIAMETER OR 1/2 HEIGHT OF TREE, WHICHEVER IS GREATER.

DEAD TREES AND SCRUB OR UNDER GROWTH SHALL BE CUT FLUSH WITH ADJACENT GRADE. NO GRUBBING ALLOWED UNDER DRIP LINE.

2"x4" STANDARDS + 1"x4" RAILS ORANGE SAFETY FENCING MAY BE USED.



TREE PROTECTION DETAIL

SECTION AND PLAN

CITY STD #40.02  
NOT TO SCALE

Charlotte Urban Forestry - Tree Planting and Preservation Requirements (updated 5/27/16)

Plant Material

1. Minimum tree size at planting is 2" caliper and 8' tall for single-stem trees. All multi-stem plants must be tree form, 13. Minimum tree size at planting is 2-inch caliper (for single stem trees). All multi-stem plants must be tree form, maximum 3 to 5 trunks, and minimum 10' tall. Where 3" single-stem caliper trees are specified/required the minimum height shall be 10' tall, if multi-stem trees are specified then they shall be a minimum of 12' tall.
2. All new trees must have **straight trunks with strong central leaders intact to the top of the crown** unless multi-stem trees are specified. All required trees shall be typical of their species and variety, have normal growth habits, have well-developed branches, be vigorous and have fibrous root systems. Trees with major girdling roots will NOT be accepted. Trees with co-dominant branching will NOT be accepted. Trees that have been sheared, topped or cut back to multiply the branching structure will NOT be accepted. Trees shall be free of abrasions, damage, disease, pests and cracks. All pruning cuts greater than 1/2 inch diameter shall have callus tissue formed prior to planting. No pruning cut on the trunk shall be more than one-half the diameter of the central leader at the height where the cut was made. Root flares shall be located at grade. Trees with more than 2" of soil covering the root ball/flare from will NOT be accepted (CLDS.40.09).
3. Size of required plants, spread of roots and size of balls shall be in accordance with ANSI Z60.1 (latest edition) as published by the American Nursery & Landscape Association, except where specified/authorized by Urban Forestry.
4. All required trees of a particular species and variety shall be uniform in size and configuration.
5. Perimeter trees in urban zones shall be 3" in caliper and be free of branches up to 6' from the top of root crown (ball).
6. A minimum of 50% of new trees must be native species, and sites with more than 20 trees required will have to install multiple (3 or more) species pursuant to the Tree Ordinance Guidelines.
7. 75% of required trees must be large mature species except in situations with overhead power line conflicts.

Planting Requirements

8. See CLDS 40.01 & 40.09 (on plan) for detailed tree planting requirements.
9. Plastic hose parts will NOT be accepted for tree staking. See CLDS-40.01 for approved staking method/materials.
10. All strapping, and top 1/3 of wire basket and burlap must be cut away and removed from root ball when planting.
11. For new planting areas, remove all pavement, gravel sub-base and construction debris; remove compacted soil and add 18" new topsoil, or till and amend the top 18" of existing soil to meet topsoil/planting mix standards for trees (within entire minimum area of 274 square feet).
12. Trees planted on public property will need approval from the City Arborist and/or NCDOT.
13. Review soil requirements in the Tree Ordinance Guidelines at: <http://landpermits.charmeck.org> then click *Trees*.

Utility Issues

14. If any utility is being installed in or near any required tree(s) or Tree Save Area(s), call Urban Forester to resolve prior to utility installation.
15. Large maturing trees may not be planted within 25' of overhead power distribution or transmission lines.
16. If trees conflict with any utilities or signs; call Urban Forester to resolve **BEFORE** planting.
17. Adjust tree planting locations to avoid existing underground utilities. Plant 15' from all underground utilities.
18. **No light poles, utilities or transformers can be installed in tree islands.**
19. Commercial scale lighting (> 15' in height) must be a minimum distance of 30' from a tree. Pedestrian scale lighting (≤ 15' in height) must be a minimum distance of 15' from a tree. **Show site lighting on landscape plan.**
20. Note and delineate all above/below ground impacts, including excavation, compaction and tree trimming, to all trees and areas within the driplines of all trees located in street right of way and other Charlotte Tree Ordinance protect trees related to erecting and dismantling of construction cranes. Show crane footprint throughout scope of project and erection/dismantling sequencing.

Tree Save and Preservation

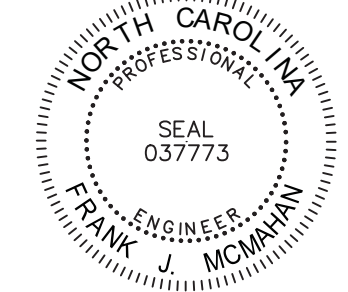
21. Tree protection must be installed and verified by Urban Forestry prior to starting **ANY** construction activity.
22. Show tree protection and tree save areas on erosion control, grading and landscape plan sheets.
23. Commercial tree save areas must be recorded on a final plat with the Mecklenburg County Register of Deeds before Urban Forestry holds can be released. A 10' no build zone around tree save areas must be referenced on the plat.
24. Tree Save Areas shall be free of invasive plant species. If an area proposed for tree save contains invasive plant species at time of proposal, such invasive plant species shall be removed prior to final CO.
25. The area of any easements (water, sewer, utility, etc.) can NOT be counted toward the tree save requirement.
26. Any alterations to tree save areas must be accomplished without mechanized equipment.
27. No structure will be allowed within 10' of tree save areas unless approved by Urban Forestry.
28. All trees on public property are protected and removal must be permitted by the city arborist (704)336-4262.

General

29. Call for an inspection of tree protection/planting areas, a minimum of 5 days before a CO is needed.
30. Visit City of Charlotte's Land Development website for additional information and urban forestry requirements: <http://landpermits.charmeck.org> then click *Trees*.

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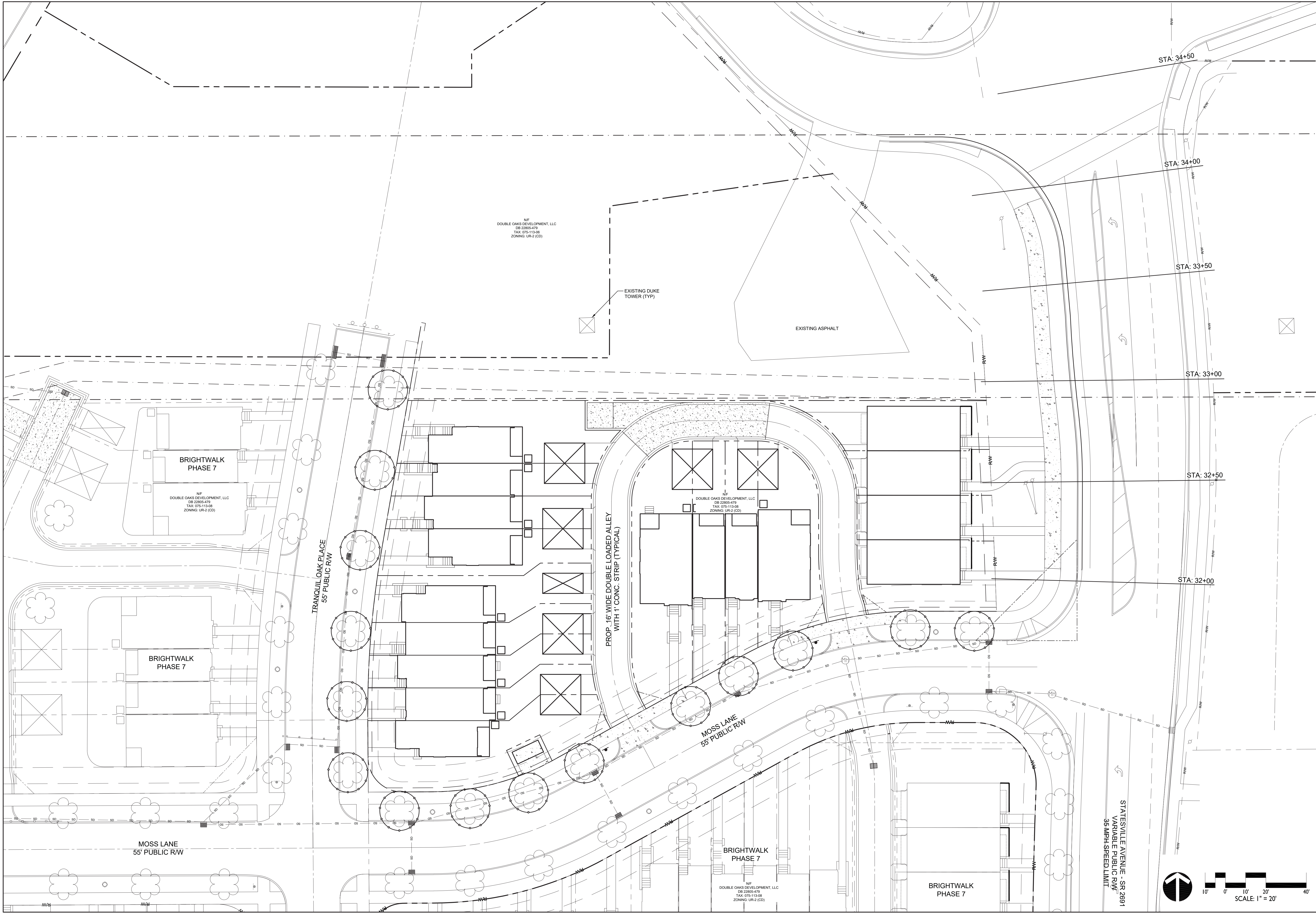
Brightwalk Phase 7B - Multi-Family  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC  
PLANTING DETAILS

REVISIONS:  
09-10-15 REVISED PER CITY COMMENTS  
12-13-16 RTAP FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE

DATE: JULY 9, 2015  
DESIGNED BY: ARW  
DRAWN BY: ARW  
CHECKED BY: FJM  
SCALE: NTS  
PROJECT #: 1015225  
SHEET #:

C-7.1

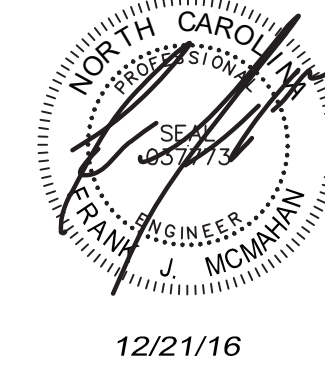




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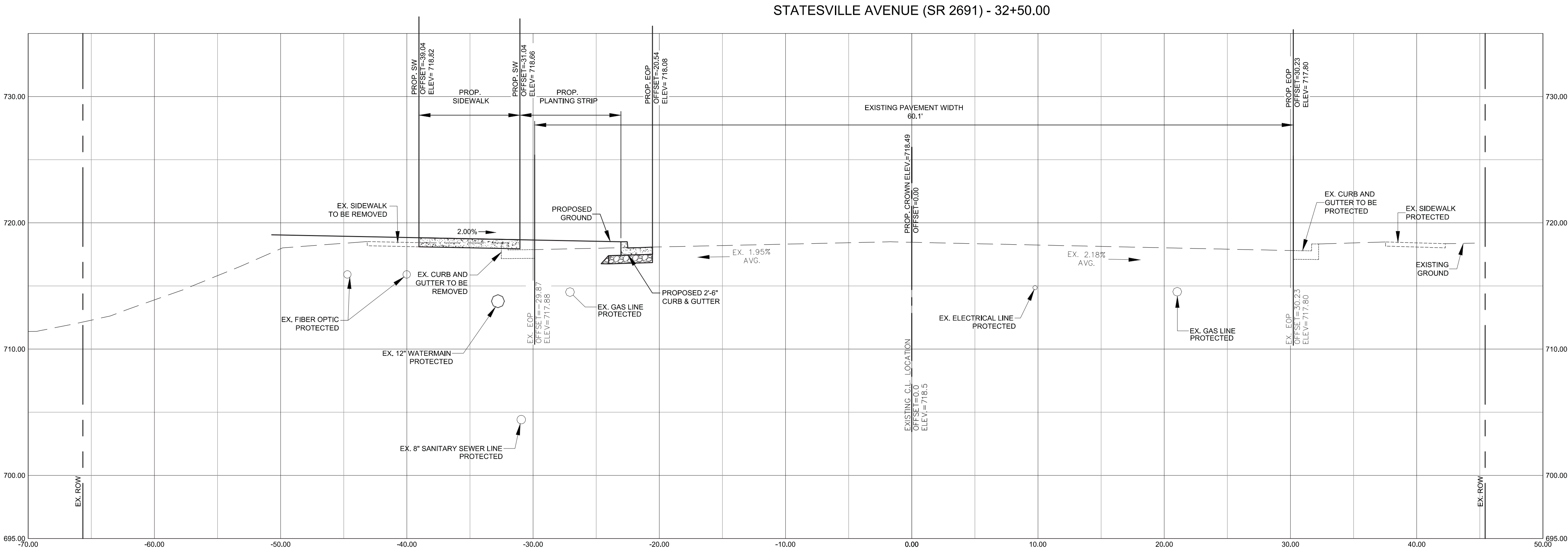
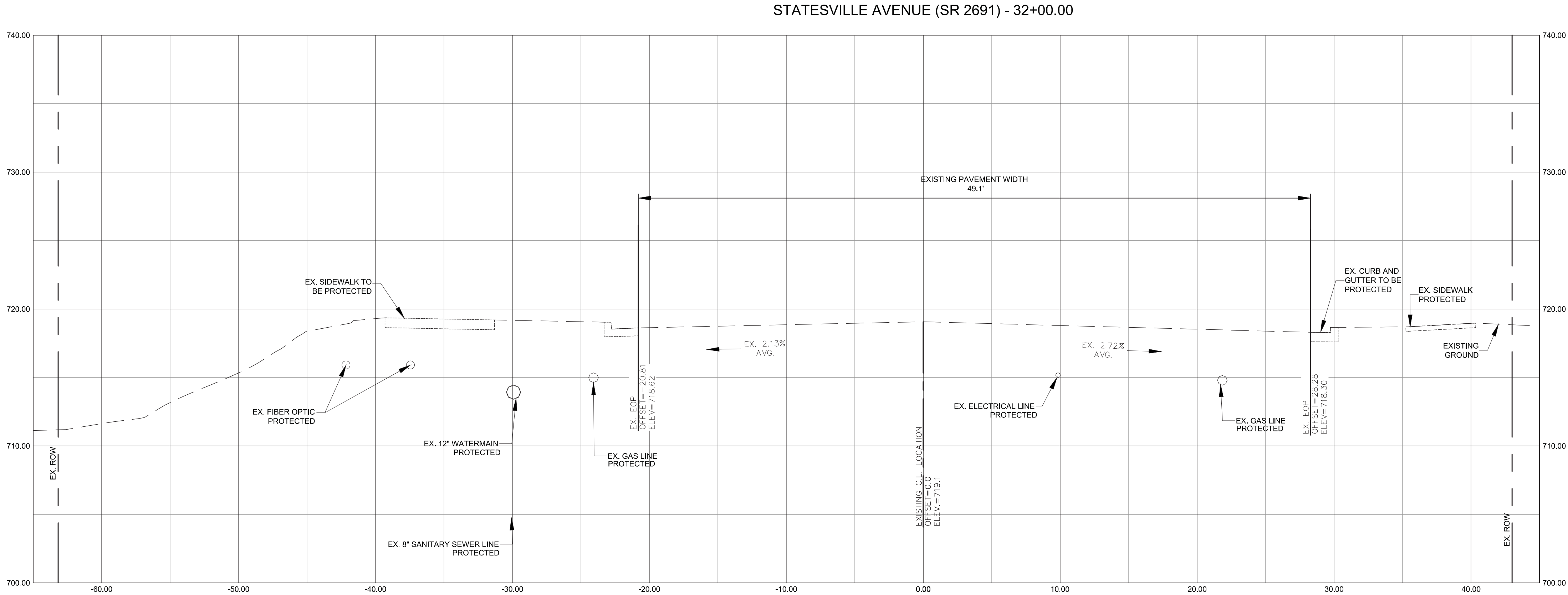
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**Brightwalk Phase 7B - Multi-Family**  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC  
**OVERALL CROSS SECTION PLAN VIEW**



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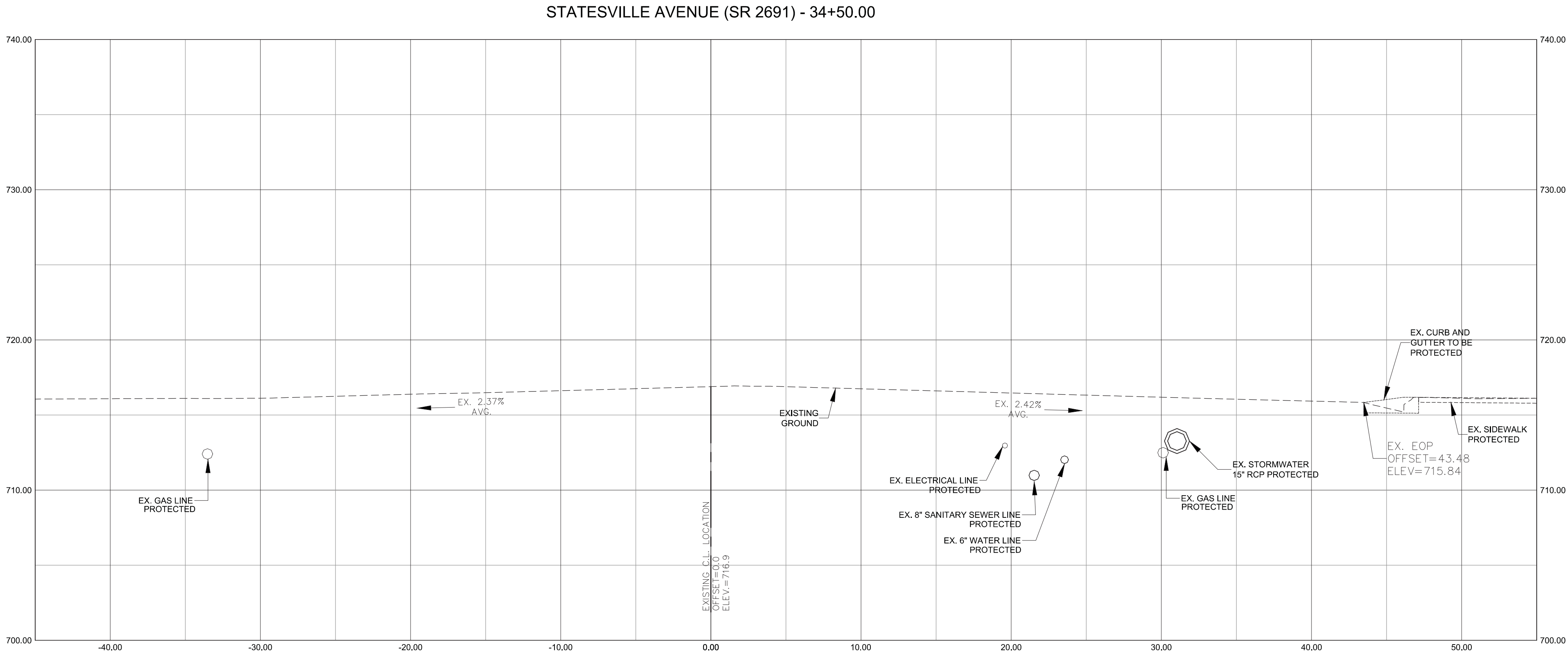
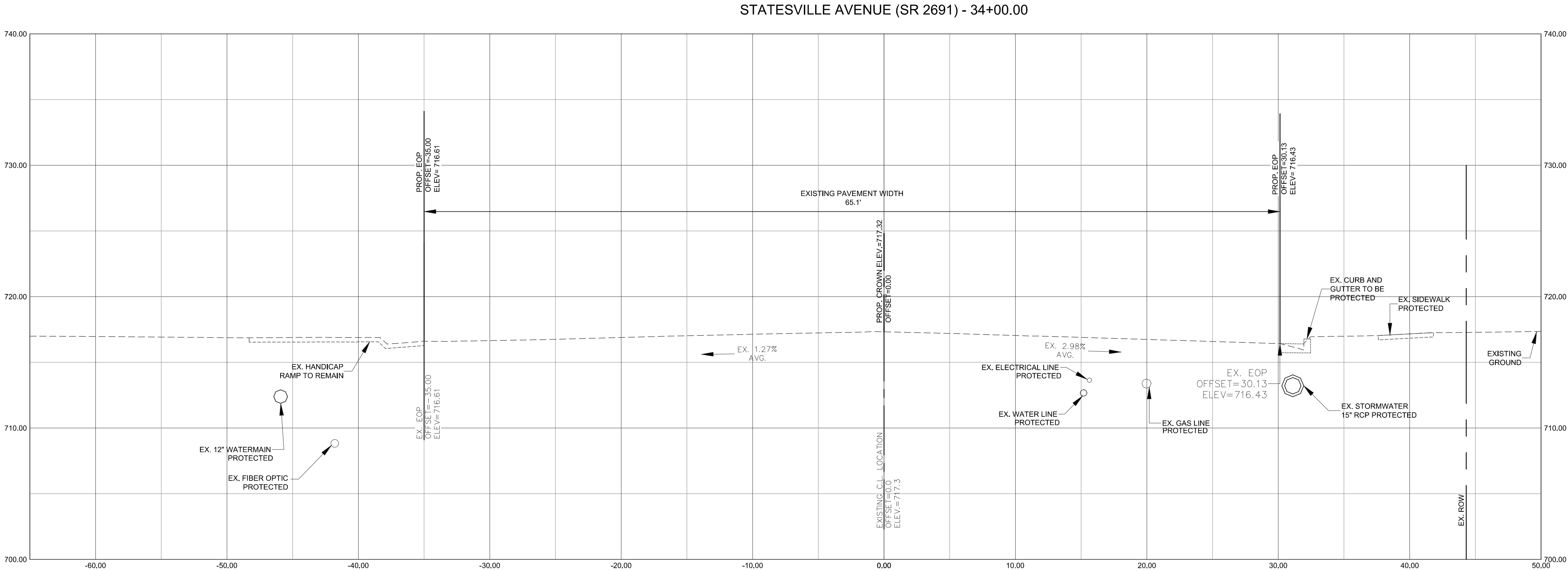


- NOTES:
1. THE CONTRACTOR IS CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, PREVIOUS DESIGN DOCUMENTS, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF EXISTING UTILITIES MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
  2. SHOULD UNCHARTED, OR INCORRECTLY CHARTED PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING DEMOLITION, CONSULT PROJECT ENGINEER AND UTILITY OWNER FOR IMMEDIATE ACTION.
  3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH ALL UTILITY COMPANIES SERVING THIS AREA. THE CONTRACTOR IS TO COORDINATE FULLY WITH THE UTILITY COMPANIES ON THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DEMOLITION, CONSTRUCTION, AND EXCAVATION.
  4. CONTRACTOR SHALL VERIFY AND PROTECT ALL PUBLIC UTILITIES. ANY WORK ASSOCIATED WITH SAID UTILITIES TO BE COORDINATED WITH APPROPRIATE UTILITY COMPANY
  5. GAS, WATER, AND TELECOM UTILITY DEPTHS ARE BASED ON TYPICAL DESIGNS STANDARD ELEVATIONS AND SHOULD NOT BE CONSIDERED FIELD VERIFIED.
  6. EXISTING PAVEMENT TO BE SAW CUT PER NCDOT / CDOT STANDARDS AND SPECIFICATIONS AND PER ON-SITE INSPECTOR REQUIREMENTS.









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SCALE: 1"=5'  
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**C-8.3**

REVISIONS:  
09.10.15 REVISED PER CITY COMMENTS  
12.13.16 RTAP FOR 4 ADDITIONAL LOTS  
ALONG STATESVILLE AVE

**Brightwalk Phase 7B - Multi-Family**  
City of Charlotte, Mecklenburg County, North Carolina  
Double Oaks Development, LLC  
**STATESVILLE CROSS SECTIONS SHEET 3 OF 3**



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