LOCATION MAP NOT TO SCALE

CONSTRUCTION DRAWINGS for

STUDIO 17 APARTMENTS

LOCATED IN CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA

CASTLE ST

WATER (PUBLIC)							
SIZE	6"	4"	3"				
TYPE	C-900	C-900	SDR-21				
LF	8	5	3				
WATER (PRIVATE)							
SIZE	6"	3"	2"				
TYPE	C-900	SDR-21	SDR-21				
_LF	135	132	235				
SEWER (PRIVATE)							
SIZE	6"	6"					
TYPE	C-900	DIP					

154 20

SCALE IN FEET: 1"= 200'

	INDEX TO DRAWINGS	
SHEET No.	DESCRIPTION	DRAWING No.
1 OF 12	COVER SHEET	CD_COVER
2 OF 12	EXISTING BOUNDARY AND TOPOGRAPHY, ADJACENT TRAFFIC	CD_EX-COND
3 OF 12	SITE PLAN	SITE_PLAN
4 OF 12	CITY OF WILMINGTON CONSTRUCTION DETAILS	SP_DET-1
5 OF 12	CITY OF WILMINGTON CONSTRUCTION DETAILS	SP_DET-2
6 OF 12	UTILITY PLAN	UP
7 OF 12	GRADING PLAN	GRADING
8 OF 12	CFPUA INSTALLATION DETAILS	CFPUA_WAT_SEW_1
9 OF 12	CFPUA INSTALLATION DETAILS	CFPUA_WAT_SEW_2
10 OF 12	CFPUA WATER DETAILS	CFPUA_WATER
11 OF 12	CFPUA SEWER DETAILS	CFPUA_SEWER_1
12 OF 12	CFPUA SEWER DETAILS	CFPUA_SEWER_2
LP1 OF LP1	LANDSCAPING PLAN	LP
1 OF 3	NCDOT ENCROACHMENT PLAN	DOT_ENCR
2 OF 3	NCDOT TRAFFIC CONTROL PLAN	DOT_TCP
3 OF 3	NCDOT STANDARD DETAILS	DOT_DET

7. EXISTING IMPERVIOUS ONSITE = 11,180 SF 8. ASBUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY CAPE FEAR SURVEYING; 9. STORMWATER DRAINS TO BURNT MILL CREEK, C; SW 18-74-63-2

WATER & SEWER USAGE NOTES:

GENERAL NOTES:

5. THIS SITE IS LOCATED WITHIN ZONE "X" ACCORDING TO FEMA

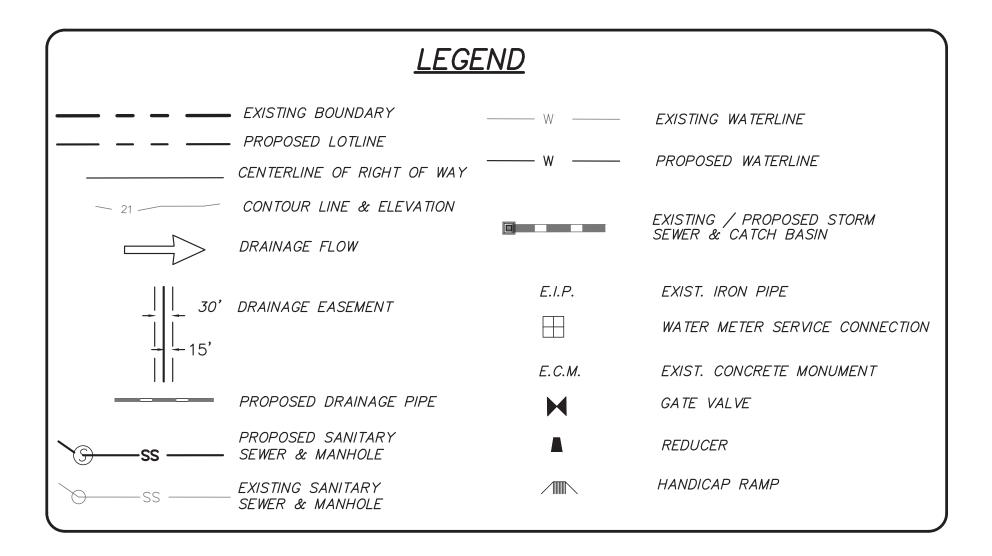
FIRM COMMUNITY PANEL NUMBER 3720312700J, EFFECTIVE

1. NEW HANOVER COUNTY PARCEL NUMBERS.: PID = R05407-029-012-000

6. SITE ADDRESS: 514 S. 17TH STREET

2. TOTAL PROJECT AREA: 28,125 SF (0.65 AC.)
3. EXISTING ZONING DISTRICT: UMX

CURRENT WATER USAGE 50 GPD PROPOSED WATER USAGE 7,730 GPD CURRENT SEWER USAGE 50 GPD PROPOSED SEWER USAGE 7,730 GPD WATER - (32) - 1 BEDROOM X 240 GPD = 7,680 GPDRETAIL - 2 EMPLOYEES = 50 GPDSEWER - (32) - 1 BEDROOM X 240 GPD = 7,680 GPDRETAIL - 2 EMPLOYEES = 50 GPD



OWNER: MOSLEY PARK, LLC 1319 MILITARY CUTOFF SUITE CC PMB 172 WILMINGTON, NC 28405 For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan	CITY OF
e Date	Public Services
ning	APPROVED DE
ïc	Date:P
	Signed:

NGTON RAINAGE PLAN

Engineering Division

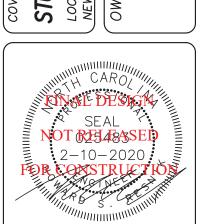
- 1. ASBUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY CAPE FEAR SURVEYING: 1 NORTH 6TH STREET WILMINGTON, NC 28401, 910-762-9496 FIRM #C-3199
- 2. THIS MAP IS NOT FOR CONVEYANCE, RECORDATION, OR SALES. 3. THIS PROPERTY IS LOCATED WITHIN ZONE "X"
- ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP, 3720312700J, EFFECTIVE DATE 4/3/06
- 4. THIS PROPERTY IS ZONED UMX
- 5. CFPUA WATER
- 7. ALL CONSTRUCTION TO CONFORM TO NEW HANOVER COUNTY STANDARDS AND APPLICABLE STATE & LOCAL CODES.
- 8. CONTRACTOR TO COORDINATE ANY REQUIRED TRAFFIC CONTROL WITH
- CITY OF WILMINGTON AND OR NCDOT. 9. CARE SHALL BE TAKEN DURING FINAL GRADING TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND TO RECEIVING STRUCTURES.
- ROOF DRAIN DOWNSPOUTS TO BE CONNECTED TO STORM DRAINAGE STUBOUTS OR DIRECTED TO STREET/PARKING AREAS. 10. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ANY RELOCATIONS, RE-ALIGNMENTS, DISCONNECTIONS OR CONNECTIONS OF EXISTING
- UTILITIES WITH APPLICABLE AUTHORITIES. 11. CLEARING AND GRUBBING OF SITE TO INCLUDE REMOVAL OF EXISTING CURB, ASPHALT, INLETS, AND ANY OTHER STRUCTURES INCLUDING TREES, STUMPS AND DEBRIS EXISTING ON SITE. TREES NOT REQUIRED TO BE
- CLEARED FOR CONSTRUCTION SHALL REMAIN UNLESS OTHERWISE DIRECTED 12. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT ELEVATIONS AND LOCATIONS OF ALL EXISTING UTILITIES AT ALL CROSSINGS PRIOR TO COMMENCING TRENCH EXCAVATION. IF ACTUAL CLEARANCES ARE LESS THAN INDICATED ON PLAN. THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. ANY CONDITION DISCOVERED OR EXISTING THAT WOULD NECESSITATE A MODIFICATION OF THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER BEFORE PROCEEDING
- 13. NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NC ONE—CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.
- 14. CONTRACTOR SHALL ADJUST ALL MANHOLES, VALVE & CURB BOXES TO FINAL GRADE UPON COMPLETION OF ALL CONSTRUCTION. ANY BOXES DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
- 15. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST AND EROSION DURING CONSTRUCTION AT HIS EXPENSE. PARKING AREAS SHALL BE WATERED TO CONTROL DUST WHEN ORDERED BY THE ENGINEER.
- 16. NO GEOTECHNICAL TESTING HAS BEEN PERFORMED ON SITE. NO WARRANTY IS MADE FOR SUITABILITY OF SUBGRADE, AND UNDERCUT AND ANY REQUIRED REPLACEMENT WITH SUITABLE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 17. CONTRACTOR TO ENSURE THAT PAVEMENT IS PLACED SO AS TO DRAIN POSITIVELY TO THE STREET INLETS AND CATCH BASINS. ALL FUTURE ROOF DRAIN DOWNSPOUTS TO BE DIRECTED TO THE STORM DRAINAGE STUBOUTS.
- 18. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS. 19. THIS PLAN IS FOR SITE GRADING, UTILITIES, SITING, AND DRAINAGE ONLY.
- SEE BUILDING PLANS FOR DETAILED HOOKUPS TO BUILDINGS, ETC. 20. CONTRACTOR AND BUILDER ARE RESPONSIBLE FOR COORDINATING FINISHED FLOOR ELEVATION OF ALL BUILDINGS WITH THE OWNER. ELEVATIONS
- GIVEN ARE MINIMUM GROUND ELEVATIONS AT THE BUILDING SITE AND DO NOT PURPORT TO BE FINISHED FLOOR. MINIMUM RECOMMENDED FF ELEVATIONS SHOWN ON PLANS. 21. AFFECTED NON-MUNICIPAL UTILITIES SHALL BE CONTACTED AND PROVIDED
- WITH PLANS AND OTHER PERTINENT INFORMATION, WHEN FEASIBLE, TO COORDINATE APPROPRIATE SCHEDULING AND PLACEMENT.
- 22. EXTREME CARE SHALL BE TAKEN TO ENSURE MINIMUM SEPARATIONS AT ALL UTILITY CROSSINGS. 23. MINIMUM SEPARATION SHALL BE MAINTAINED AS FOLLOWS:
- a. HORIZONTAL SEPARATION OF 10 FEET BETWEEN SANITARY SEWER AND WATER MAINS AND STORM SEWER.
- b. WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND WATER OR WHERE SEWER LINE CROSSES ABOVE WATER MAIN, BOTH PIPES SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING.
- c. WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10 FEET EITHER SIDE OF CROSSING.
- d. WHERE VERTICAL CLEARANCE IS LESS THAN 12" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING. AND BRIDGING SHALL BE INSTALLED PER APPLICABLE UTILITY AUTHORITY'S DETAILS.
- e. IN NO CASE SHALL THERE BE LESS THAN 18" OF SEPARATION BETWEEN OUTSIDE OF WATER MAIN AND OUTSIDE OF SEWER OR STORM DRAINAGE.
- f. MINIMUM COVER OF 36" SHALL BE PROVIDED FOR ALL BURIED WATER MAINS AND SANITARY SEWER MAINS.
- 24. SEE DETAIL SHEETS FOR TYPICAL UTILITIES HOOKUPS.
- 25. ALL SANITARY SEWER MAINS TO BE 8" UNLESS OTHERWISE INDICATED.
- 26. ALL WATER MAINS TO BE 8" UNLESS OTHERWISE INDICATED.
- 27. TWO VALVES ARE REQUIRED AT "T" INTERSECTIONS AND ONE VALVE ON THE WATER LINE TO FIRE HYDRANTS.
- 28. A BLOW-OFF VALVE IS REQUIRED AT THE TERMINUS OF ALL "DEAD END" WATER LINES.

ENGINEERING

LICENSE # C-2710 **ENGINEERING** LAND PLANNING COMMERCIAL / RESIDENTIAL

P.O. BOX 4041 WILMINGTON, NC 28406

(910) 791–4441

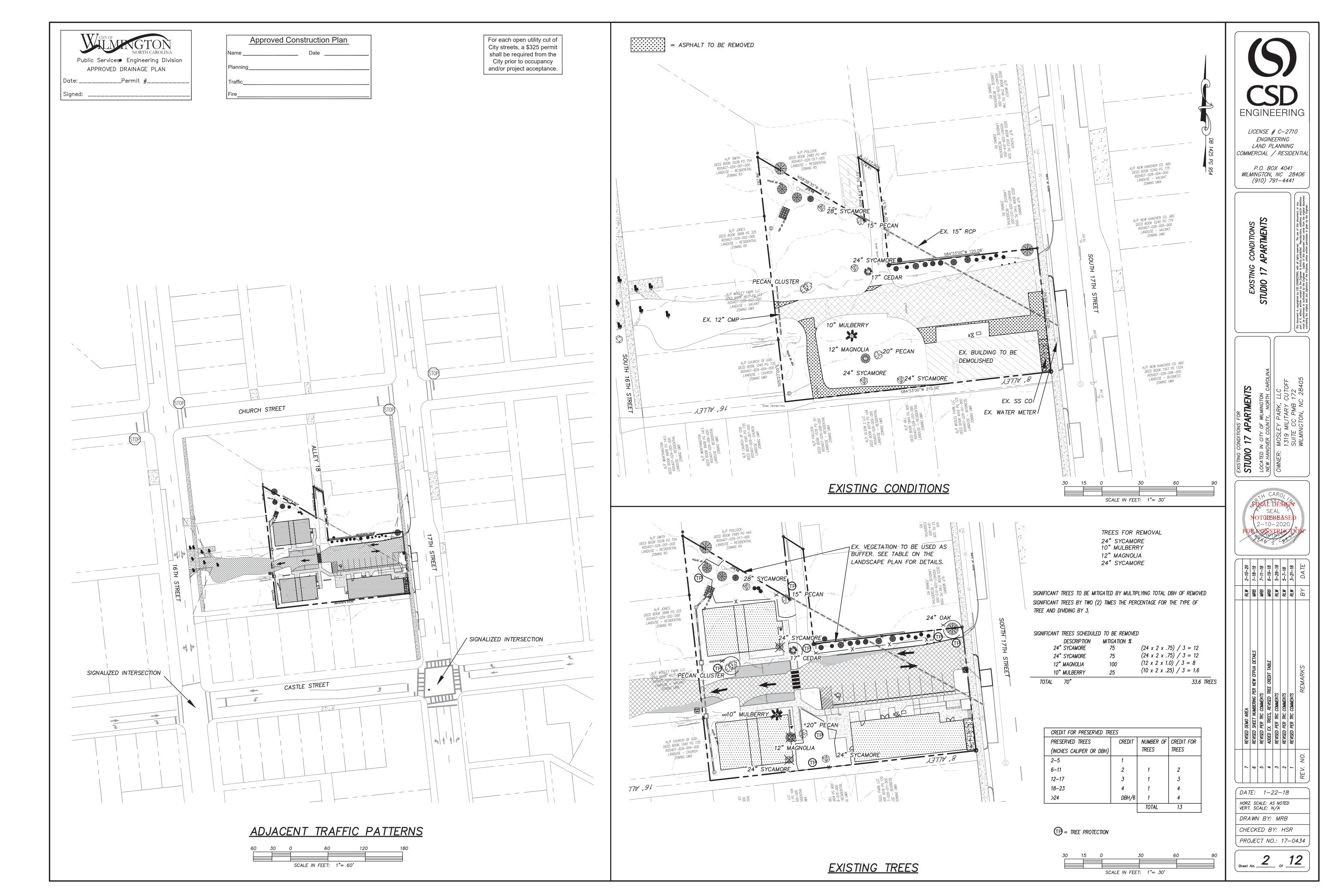


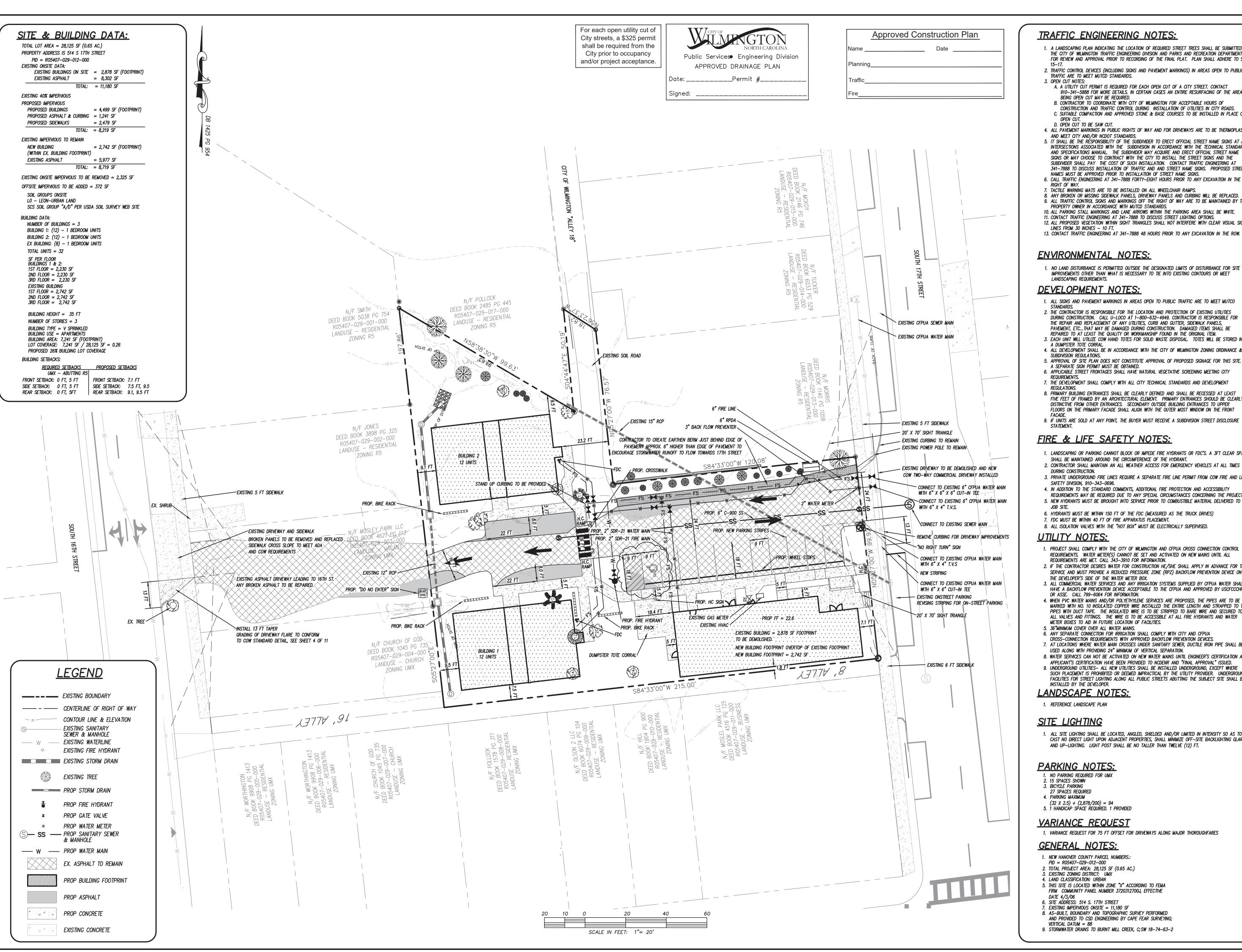
7	REVISED BUILDING 3 AND SIDEWALK	RLW	2-10-
9	REVISED WATER/FIRE MAIN LOCATION & WATER MAIN SIZE	MRB	2-26-
5	REVISED SHEET NUMBERING PER NEW CFPUA DETAILS	MRB	1–18–
4	REVISED SEWER MAIN TABLES	MRB	7-11-
3	REVISED WATER MAIN TABLES	MRB	5-29-
2	REVISED PER TRC COMMENTS	RLW	5-7-1
1	REVISED PER TRC COMMENTS	RLW	3-21-
REV. NO.	REMARKS	ВУ	DA

(DATE: 1-22-18

HORZ. SCALE: 1" = 200' VERT. SCALE: N/A DRAWN BY: MRB

> CHECKED BY: HSR PROJECT NO.: 17-0434





TRAFFIC ENGINEERING NOTES:

- 1. A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO RECORDING OF THE FINAL PLAT. PLAN SHALL ADHERE TO SD
- 2. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
- A. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 910-341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
- B. CONTRACTOR TO COORDINATE WITH CITY OF WILMINGTON FOR ACCEPTABLE HOURS OF CONSTRUCTION AND TRAFFIC CONTROL DURING INSTALLATION OF UTILITIES IN CITY ROADS.
- C. SUITABLE COMPACTION AND APPROVED STONE & BASE COURSES TO BE INSTALLED IN PLACE OF D. OPEN CUT TO BE SAW CUT.
- 4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS. 5. IT SHALL BE THE RÉSPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS
- SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341–7888 TO DISCUSS INSTALLATION OF TRAFFIC AND AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- 6. CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY 7. TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
- 8. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED. 9. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE
- PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS. 10. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREA SHALL BE WHITE. 11. CONTACT TRAFFIC ENGINEERING AT 341–7888 TO DISCUSS STREET LIGHTING OPTIONS.
- 12. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30 INCHES - 10 FT.
- 13. CONTACT TRAFFIC ENGINEERING AT 341-7888 48 HOURS PRIOR TO ANY EXCAVATION IN THE ROW.

ENVIRONMENTAL NOTES:

1. NO LAND DISTURBANCE IS PERMITTED OUTSIDE THE DESIGNATED LIMITS OF DISTURBANCE FOR SITE IMPROVEMENTS OTHER THAN WHAT IS NECESSARY TO TIE INTO EXISTING CONTOURS OR MEET LANDSCAPING REQUIREMENTS.

DEVELOPMENT NOTES:

- 1. ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCO 2. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. CALL U-LOCO AT 1-800-632-4949. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY UTILITIES. CURB AND GUTTER. SIDEWALK PANELS. PAVEMENT, ETC...THAT MAY BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE
- REPAIRED TO AT LEAST THE QUALITY OR WORKMANSHIP FOUND IN THE ORIGINAL ITEM. 3. EACH UNIT WILL UTILIZE COW HAND TOTES FOR SOLID WASTE DISPOSAL. TOTES WILL BE STORED IN
- 4. ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON ZONING ORDINANCE & SURDIVISION REGULATIONS. 5. APPROVAL OF SITE PLAN DOES NOT CONSTITUTE APPROVAL OF PROPOSED SIGNAGE FOR THIS SITE. A SEPARATE SIGN PERMIT MUST BE OBTAINED.
- 7. THE DEVELOPMENT SHALL COMPLY WITH ALL CITY TECHNICAL STANDARDS AND DEVELOPMENT
- 8. PRIMARY BUILDING ENTRANCES SHALL BE CLEARLY DEFINED AND SHALL BE RECESSED AT LEAST FIVE FEET OF FRAMED BY AN ARCHITECTURAL ELEMENT. PRIMARY ENTRANCES SHOULD BE CLEARLY DISTINCTIVE FROM OTHER ENTRANCES. SECONDARY OUTSIDE BUILDING ENTRANCES TO UPPER FLOORS ON THE PRIMARY FACADE SHALL ALIGN WITH THE OUTER MOST WINDOW ON THE FRONT
- 9. IF UNITS ARE SOLD AT ANY POINT, THE BUYER MUST RECEIVE A SUBDIVISION STREET DISCLOSURE

FIRE & LIFE SAFETY NOTES:

- 1. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FIRE HYDRANTS OR FDC'S. A 3FT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT. 2. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES
- 3. PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE FIRE LINE PERMIT FROM COW FIRE AND LIFE SAFETY DIVISION, 910-343-0696.
- 4. IN ADDITION TO THE STANDARD COMMENTS, ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- 5. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIAL DELIVERED TO THE
- 6. HYDRANTS MUST BE WITHIN 150 FT OF THE FDC (MEASURED AS THE TRUCK DRIVES)
- 7. FDC MUST BE WITHIN 40 FT OF FIRE APPARATUS PLACEMENT. 8. ALL ISOLATION VALVES WITH THE "HOT BOX" MUST BE ELECTRICALLY SUPERVISED.

UTILITY NOTES:

- 1. PROJECT SHALL COMPLY WITH THE CITY OF WILMINGTON AND CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE SET AND ACTIVATED ON NEW MAINS UNTIL ALL
- REQUIREMENTS ARE MET. CALL 343-3910 FOR INFORMATION. 2. IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE/SHE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON
- 3. ALL COMMERCIAL WATER SERVICES AND ANY IRRIGATION SYSTEMS SUPPLIED BY CFPUA WATER SHALL HAVE A BACKFLOW PREVENTION DEVICE ACCEPTABLE TO THE CFPUA AND APPROVED BY USCFCCCHR
- OR ASSE. CALL 799-6064 FOR INFORMATION. 4. WHEN PVC WATER MAINS AND/OR POLYETHYLENE SERVICES ARE PROPOSED. THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STRAPPED TO THE
- PIPES WITH DUCT TAPE. THE INSULATED WIRE IS TO BE STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES AND FITTINGS. THE WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES. 5. 36"MINIMUM COVER OVER ALL WATER MAINS.
- 6. ANY SEPARATE CONNECTION FOR IRRIGATION SHALL COMPLY WITH CITY AND CFPUA CROSS-CONNECTION REQUIREMENTS WITH APPROVED BACKFLOW PREVENTION DEVICES.
- 7. AT LOCATIONS WHERE WATER MAIN CROSSES UNDER SANITARY SEWER, DUCTILE IRON PIPE SHALL BE USED ALONG WITH PROVIDING 24" MINIMUM OF VERTICAL SEPARATION.
- 8. WATER SERVICES CAN NOT BE ACTIVATED ON NEW WATER MAINS UNTIL ENGINEER'S CERTIFICATION AND APPLICANT'S CERTIFICATION HAVE BEEN PROVIDED TO NCDENR AND "FINAL APPROVAL" ISSUED.
- 9. UNDERGROUND UTILITIES— ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND, EXCEPT WHERE SUCH PLACEMENT IS PROHIBITED OR DEEMED IMPRACTICAL BY THE UTILITY PROVIDER. UNDERGROUND FACILITIES FOR STREET LIGHTING ALONG ALL PUBLIC STREETS ABUTTING THE SUBJECT SITE SHALL BE INSTALLED BY THE DEVELOPER.

LANDSCAPE NOTES:

1. REFERENCE LANDSCAPE PLAN

SITE LIGHTING

1. ALL SITE LIGHTING SHALL BE LOCATED, ANGLED, SHIELDED AND/OR LIMITED IN INTENSITY SO AS TO CAST NO DIRECT LIGHT UPON ADJACENT PROPERTIES, SHALL MINIMIZE OFF-SITE BACKLIGHTING GLARE, AND UP-LIGHTING. LIGHT POST SHALL BE NO TALLER THAN TWELVE (12) FT.

PARKING NOTES:

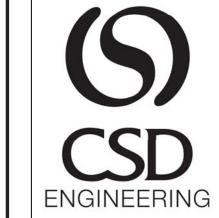
- 1. NO PARKING REQUIRED FOR UMX
- 2. 15 SPACES SHOWN 3. BICYCLE PARKING
- 27 SPACES REQUIRED
- $(32 \times 2.5) + (2,878/200) = 94$ 5. 1 HANDICÁP SPACE REQUÍRED. 1 PROVIDED

<u>VARIANCE REQUEST</u>

1. VARIANCE REQUEST FOR 75 FT OFFSET FOR DRIVEWAYS ALONG MAJOR THOROUGHFARES

GENERAL NOTES:

- 1. NEW HANOVER COUNTY PARCEL NUMBERS.:
- PID = R05407 029 012 0002. TOTAL PROJECT AREA: 28,125 SF (0.65 AC.)
- 3. EXISTING ZONING DISTRICT: UMX 4. LAND CLASSIFICATION: URBAN
- 5. THIS SITE IS LOCATED WITHIN ZONE "X" ACCORDING TO FEMA FIRM COMMUNITY PANEL NUMBER 3720312700J, EFFECTIVE
- 6. SITE ADDRESS: 514 S. 17TH STREET 7. EXISTING IMPERVIOUS ONSITE = 11,180 SF
- 8. AS-BUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY CAPE FEAR SURVEYING;
- VERTICAL DATUM = 88 9. STORMWATER DRAINS TO BURNT MILL CREEK, C; SW 18-74-63-2

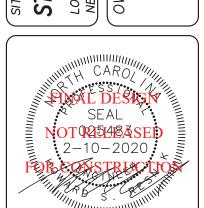


LICENSE # C-2710 **ENGINEERING** LAND PLANNING COMMERCIAL / RESIDENTIAL

P.O. BOX 4041 WILMINGTON, NC 28406

(910) 791–4441

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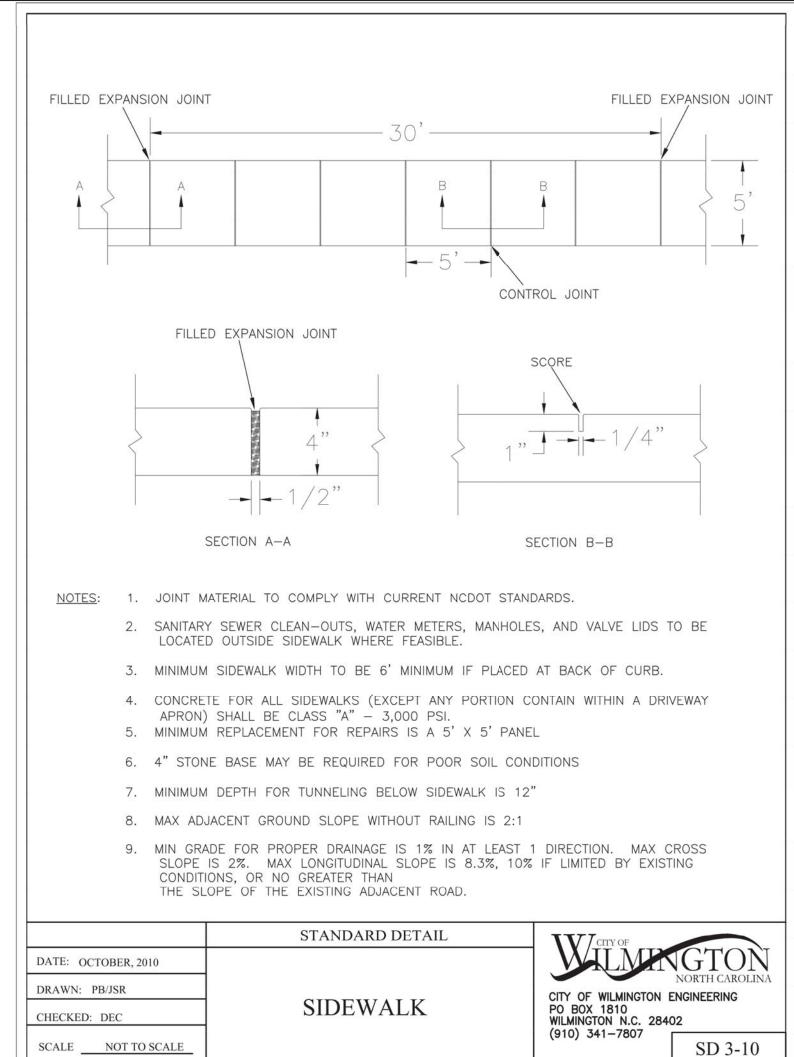
REVISED SIDEWALK, BUILDING AND NOTES	ILDING AND NOTES	RLW	2-10-20
REVISED UTILITIES		RLW	5-13-19
REVISED SHEET NUMBE	REVISED SHEET NUMBERING PER NEW CFPUA DETAILS	MRB	1-18-19
ADDED DIMENSION TO I	ADDED DIMENSION TO HC STALL PER NHC BUILDING REVIEW COMMENT	RLW	11-1-18
CORRECTED DOMESTIC	CORRECTED DOMESTIC & FIRE WATER MAIN LINETYPES	MRB	10-9-18
REVISED PER CFPUA & TRC COMMENTS	: TRC COMMENTS	MRB	7-11-18
REVISED PER TRC COMMENTS	MENTS	RLW	5-29-18
REVISED PER TRC COMMENTS	MENTS	RLW	5-7-18
	REMARKS	ВУ	BY DATE

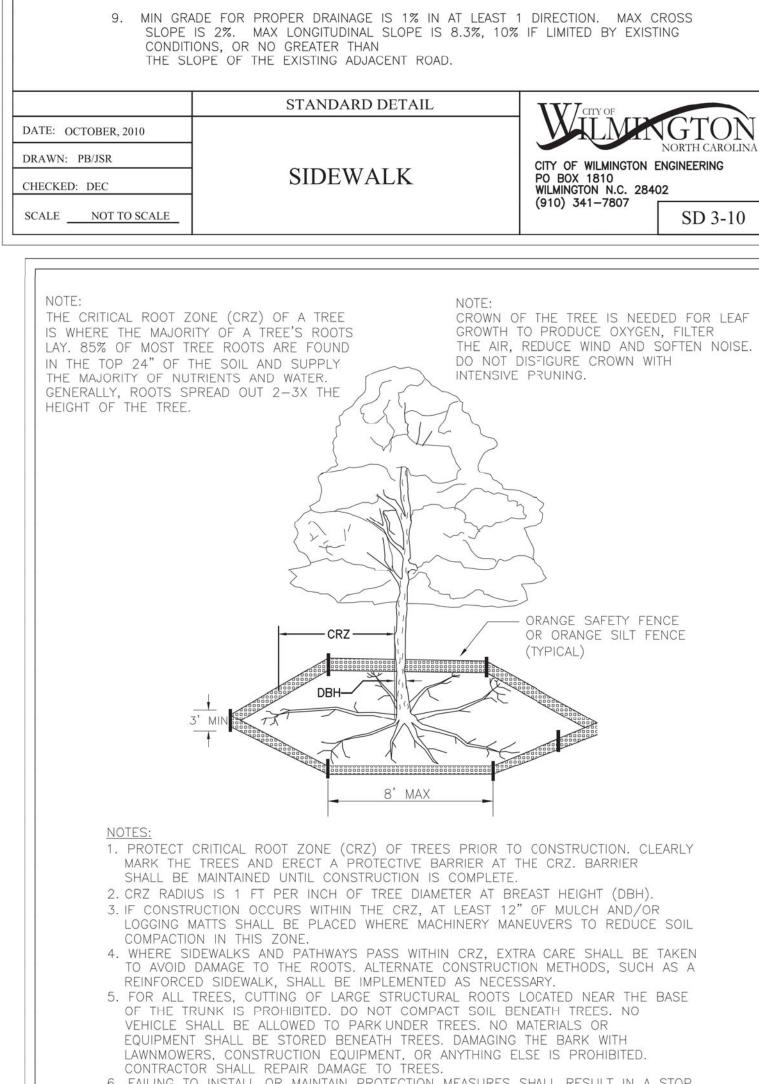
DATE: 1-22-18

HORZ. SCALE: 1" = 20'VERT. SCALE: N/A DRAWN BY: RLW

CHECKED BY: HSR PROJECT NO.: 17-0434

Sheet No. _____ Of _____





2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH). 3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATTS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL 4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A 5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED, DO NOT COMPACT SOIL BENEATH TREES. NO EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. 6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

DATE: JAN,	2015
DRAWN BY	JSR
CHECKED BY	RDG, P.E.
SCALE NO	OT TO SCALE

STANDARD DETAIL

COMMERCIAL DRIVEWAY

PLAN

CITY OF WILMINGTON ENGINEERING

SD 3-03.3

PO BOX 1810 WILMINGTON N.C. 28402

(910) 341-7807

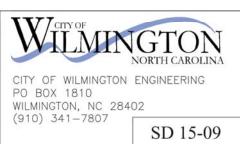
DATE: JUNE 1, 2015

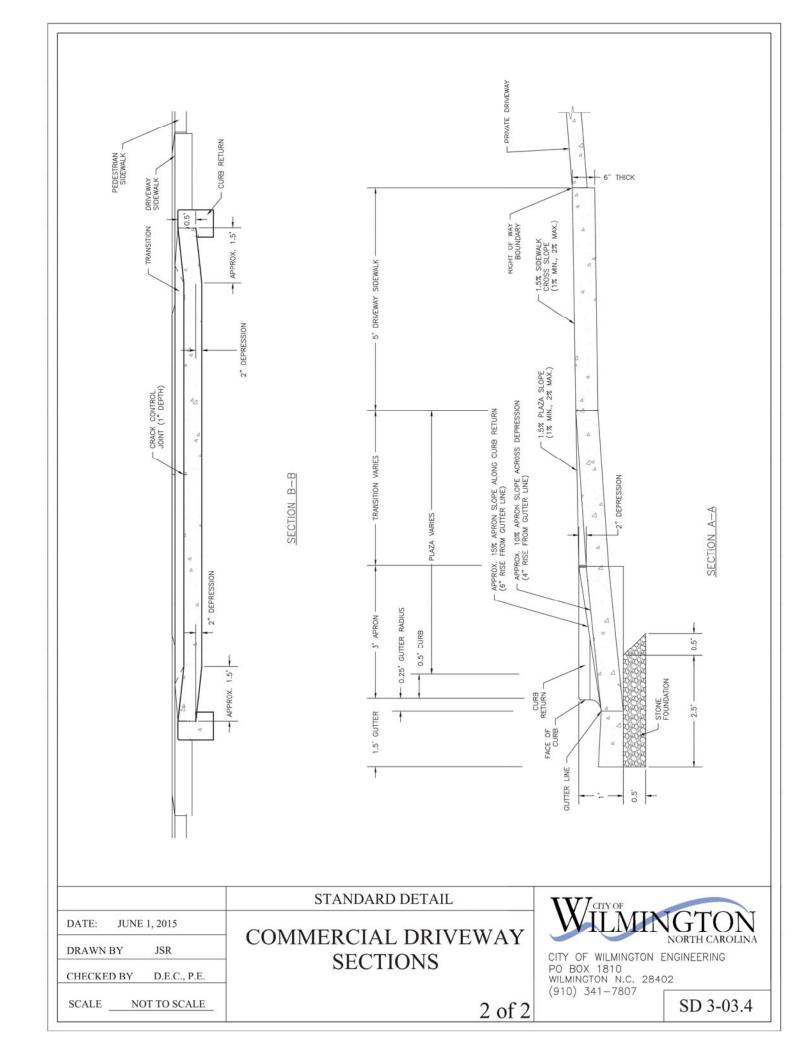
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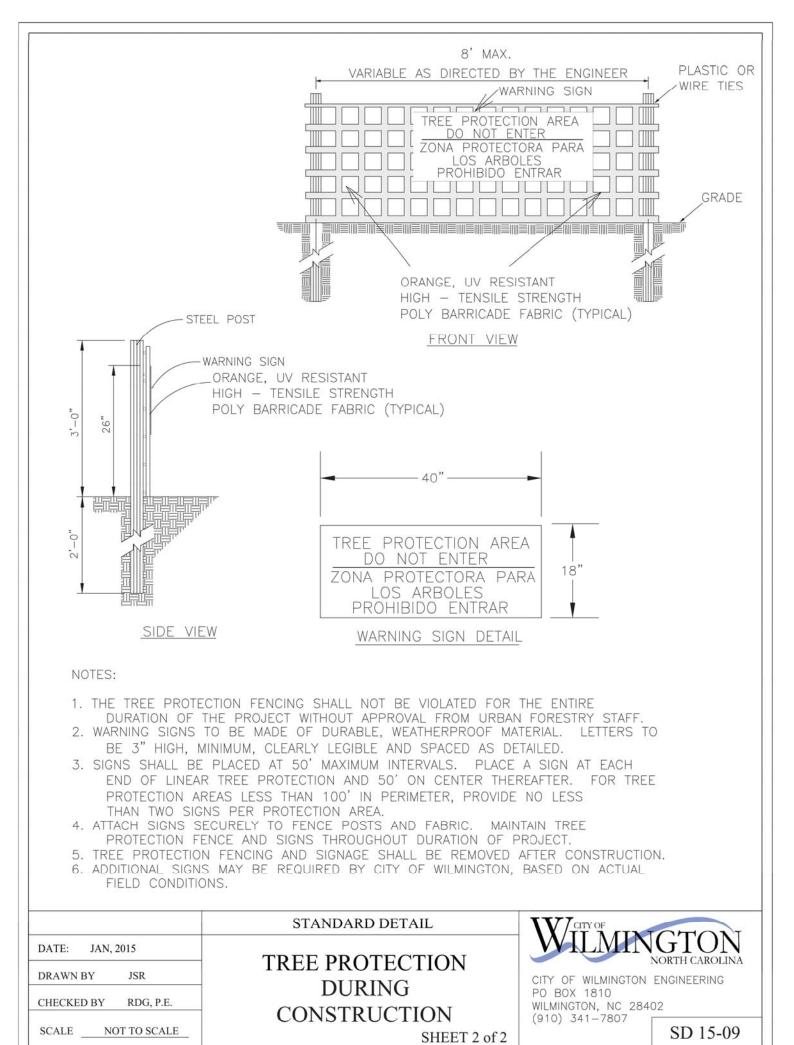
CHECKED BY D.E.C., P.E.

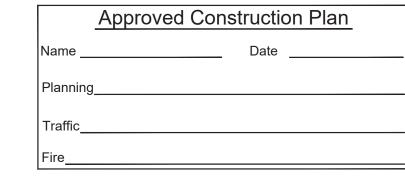
SCALE NOT TO SCALE

STANDARD DETAIL TREE PROTECTION **DURING** CONSTRUCTION SHEET 1 of 2









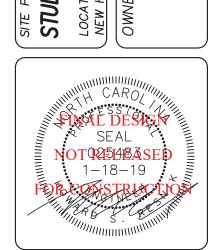


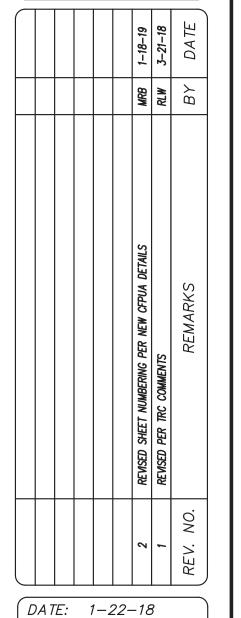
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



LICENSE # C-2710 ENGINEERING LAND PLANNING | COMMERCIAL / RESIDENTIAL

> P.O. BOX 4041 WILMINGTON, NC 28406 (910) 791–4441





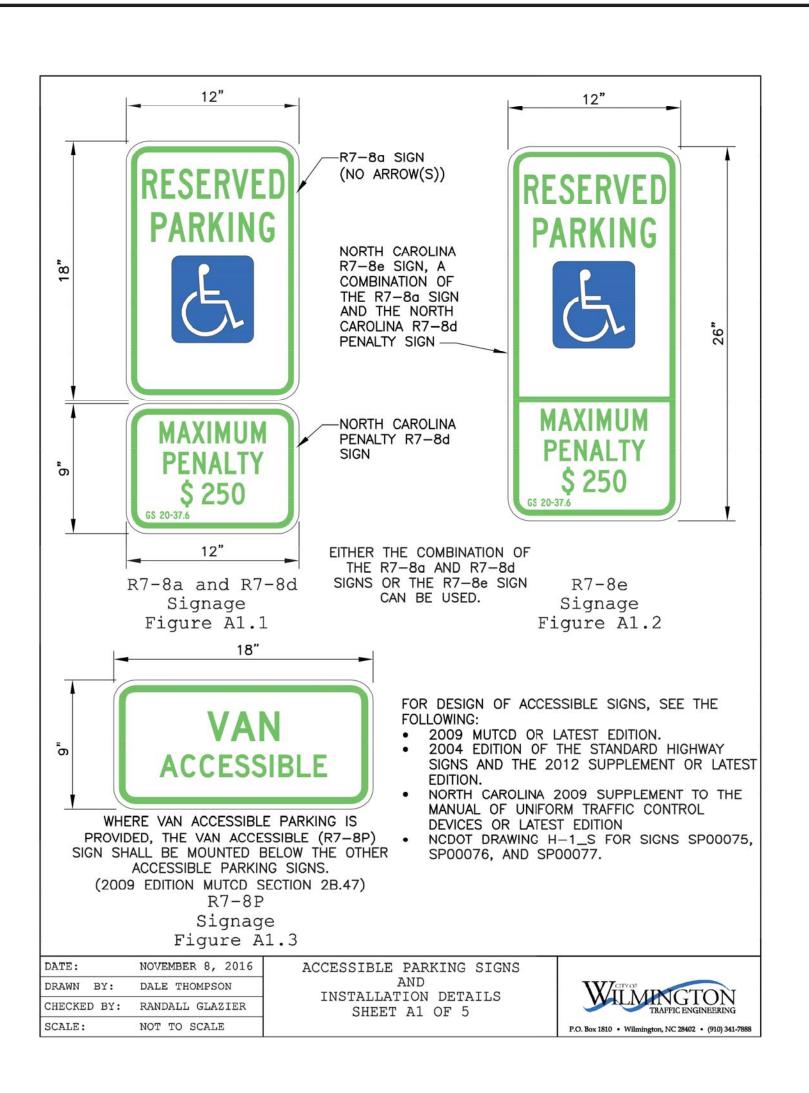
PROJECT NO.: 17-0434

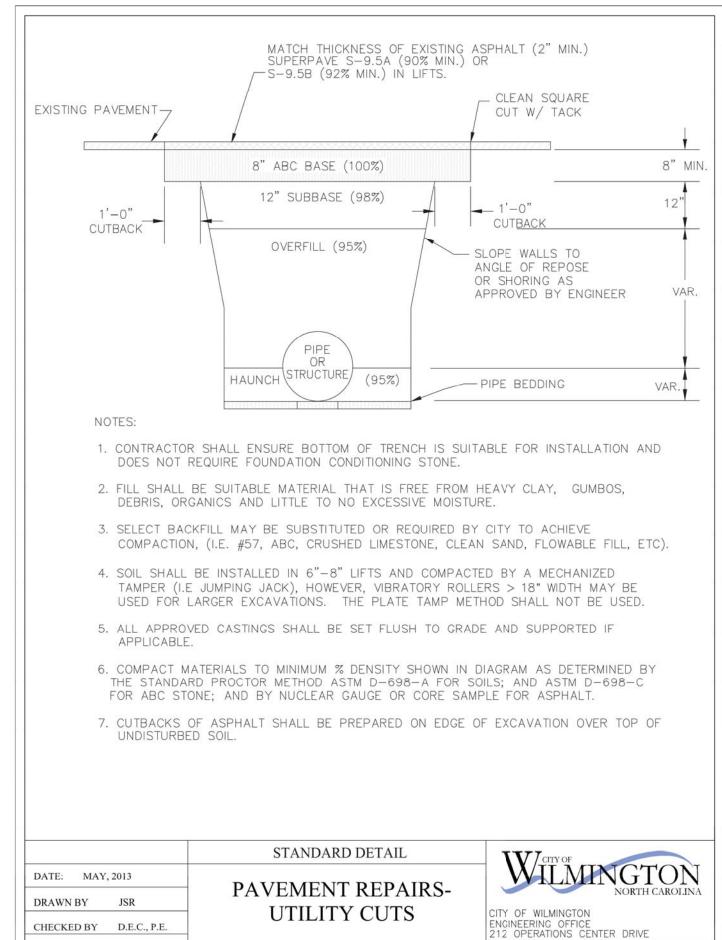
HORZ. SCALE: AS NOTED

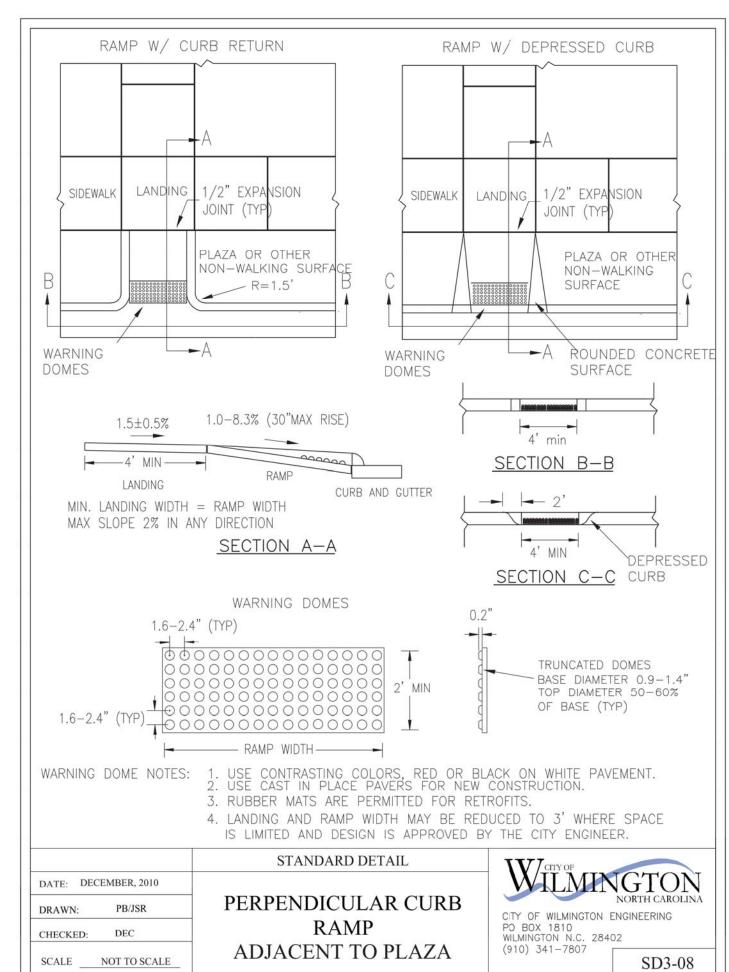
VERT. SCALE: N/A

DRAWN BY: RLW

CHECKED BY: HSR



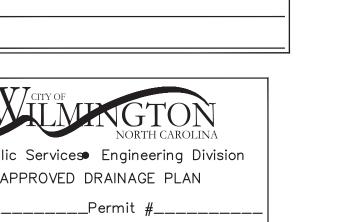








For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



PL 17

ENGINEERING

LICENSE # C-2710

ENGINEERING

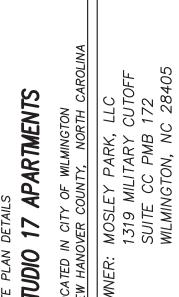
LAND PLANNING

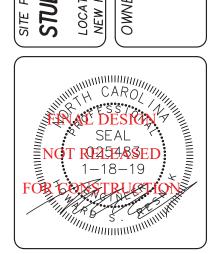
| COMMERCIAL / RESIDENTIAL

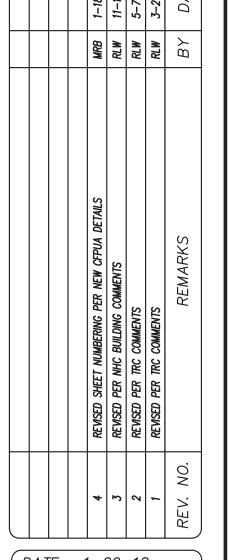
P.O. BOX 4041

WILMINGTON, NC 28406

(910) 791–4441



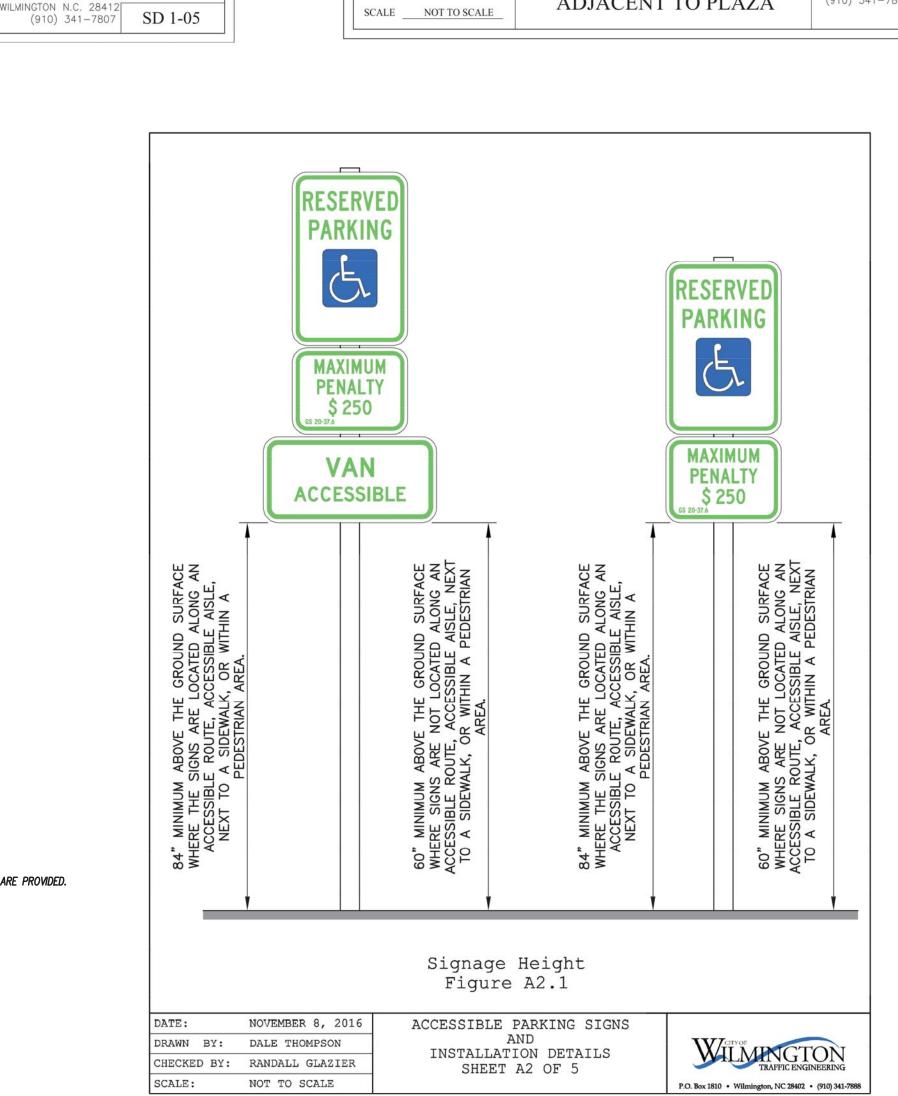


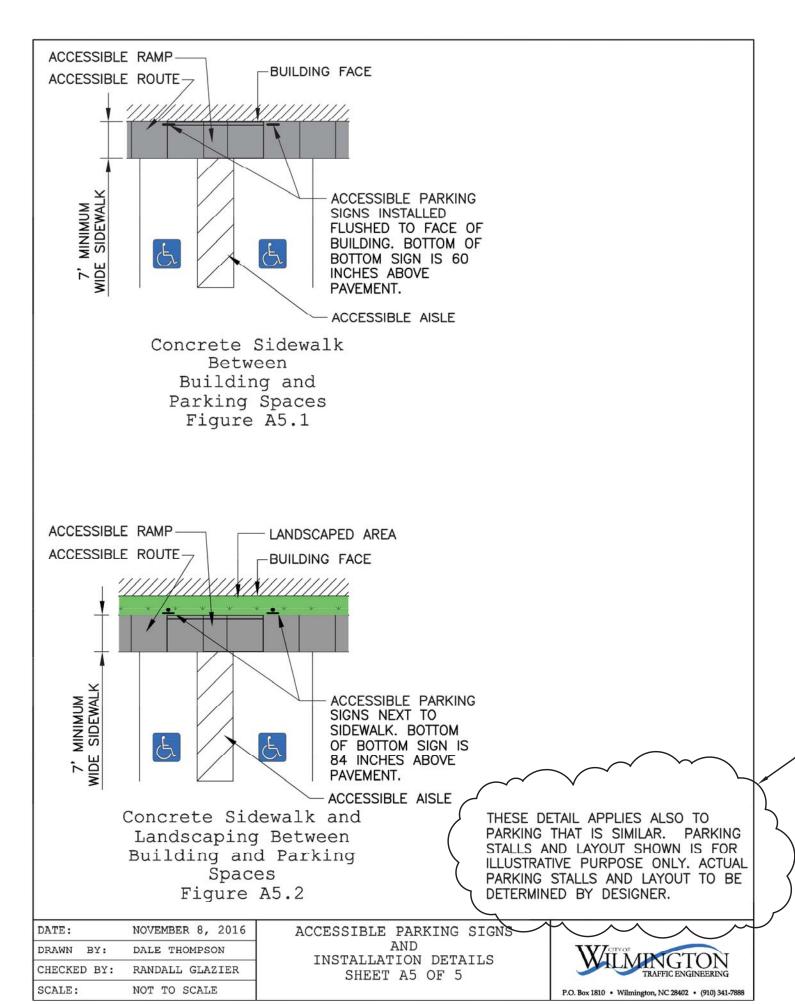


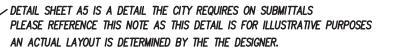
(DATE: 1-22-18 HORZ. SCALE: AS NOTED VERT. SCALE: N/A

DRAWN BY: RLW CHECKED BY: HSR

PROJECT NO.: 17-0434

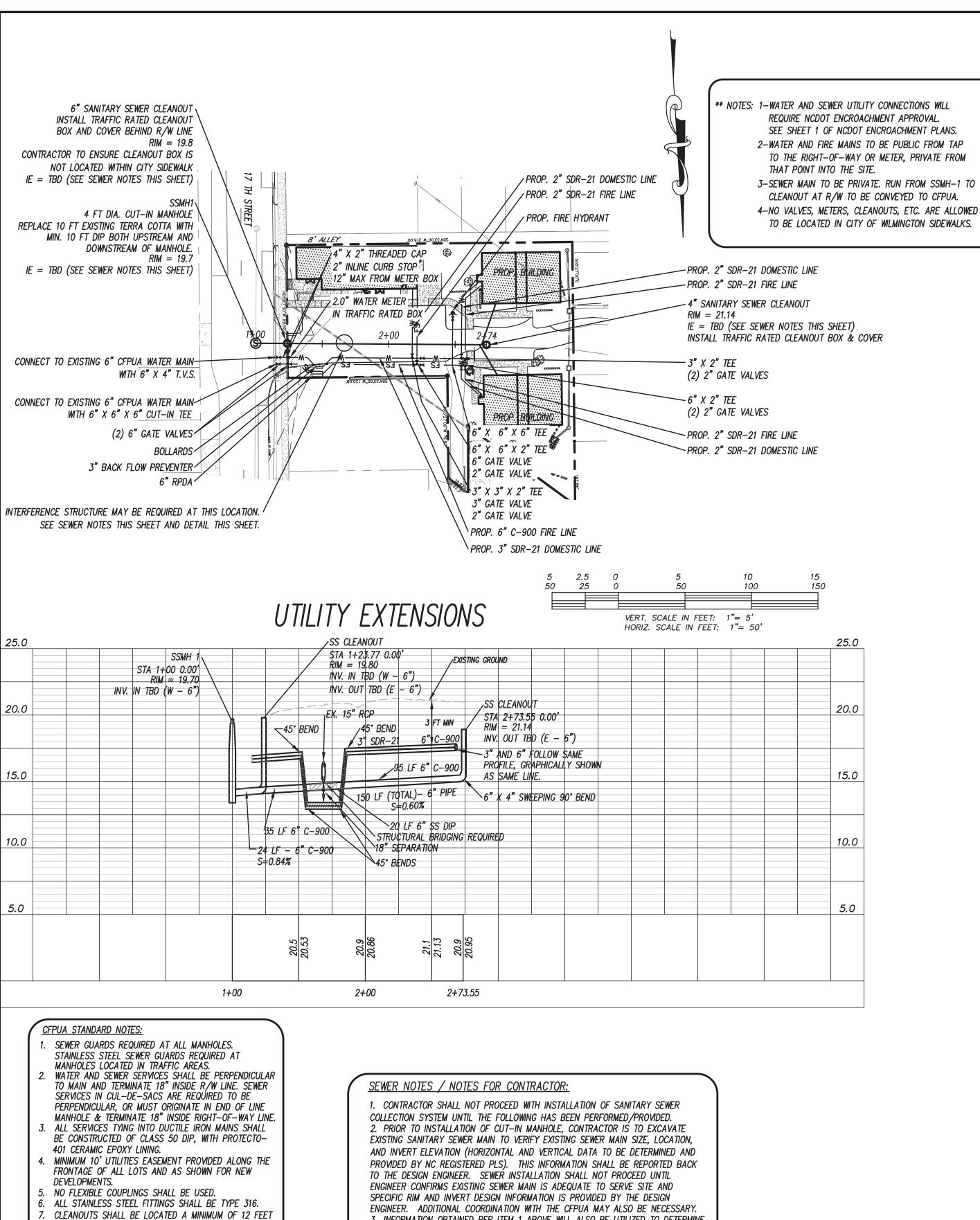






SCALE NOT TO SCALE

PER ADA ACCESSIBILITY GUIDE SECTION 4.1.2(5)(A) ONLY 1 SPACE IS REQUIRED WHEN 1-25 PARKING STALLS ARE PROVIDED.



3. INFORMATION OBTAINED PER ITEM 1 ABOVE WILL ALSO BE UTILIZED TO DETERMINE IF PROPOSED 6" SEWER MAIN WILL BE IN CONFLICT WITH THE EXISTING 15" STORM DRAIN CROSSING THE SITE. IF A CONFLICT EXISTS, AN INTERFERENCE STRUCTURE WILL BE REQUIRED AND THE DESIGN ENGINEER WILL PROVIDE PRECISE INVERT AND SEPARATION INFORMATION FOR THE INSTALLATION. 4. ALL NEW 6" SEWER MAIN TO HAVE A MINIMUM OF 0.6% SLOPE.

/ PROPOSED FINISHED SURFACE CENTERLINE EXISTING GROUND ELEVATION ALONG CENTERLINE ELEVATION 1+00 2+00 PROPOSED CENTERLINE ALIGNMENT STATION

PROFILE LEGEND

. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET

. UNUSED SERVICES SHALL BE ABANDONED. ABANDONED

WATER SERVICES SHALL BE DISCONNECTED FROM MAIN.

10. A MINIMUM OF 10 FT OF MAIN LINE SHALL BE REPLACED FOR NEW CONNECTIONS TO EXISTING CLAY GRAVITY

FROM ALL PROPERTY CORNERS.

FROM THE PROPERTY CORNER.

SEWER MAINS.

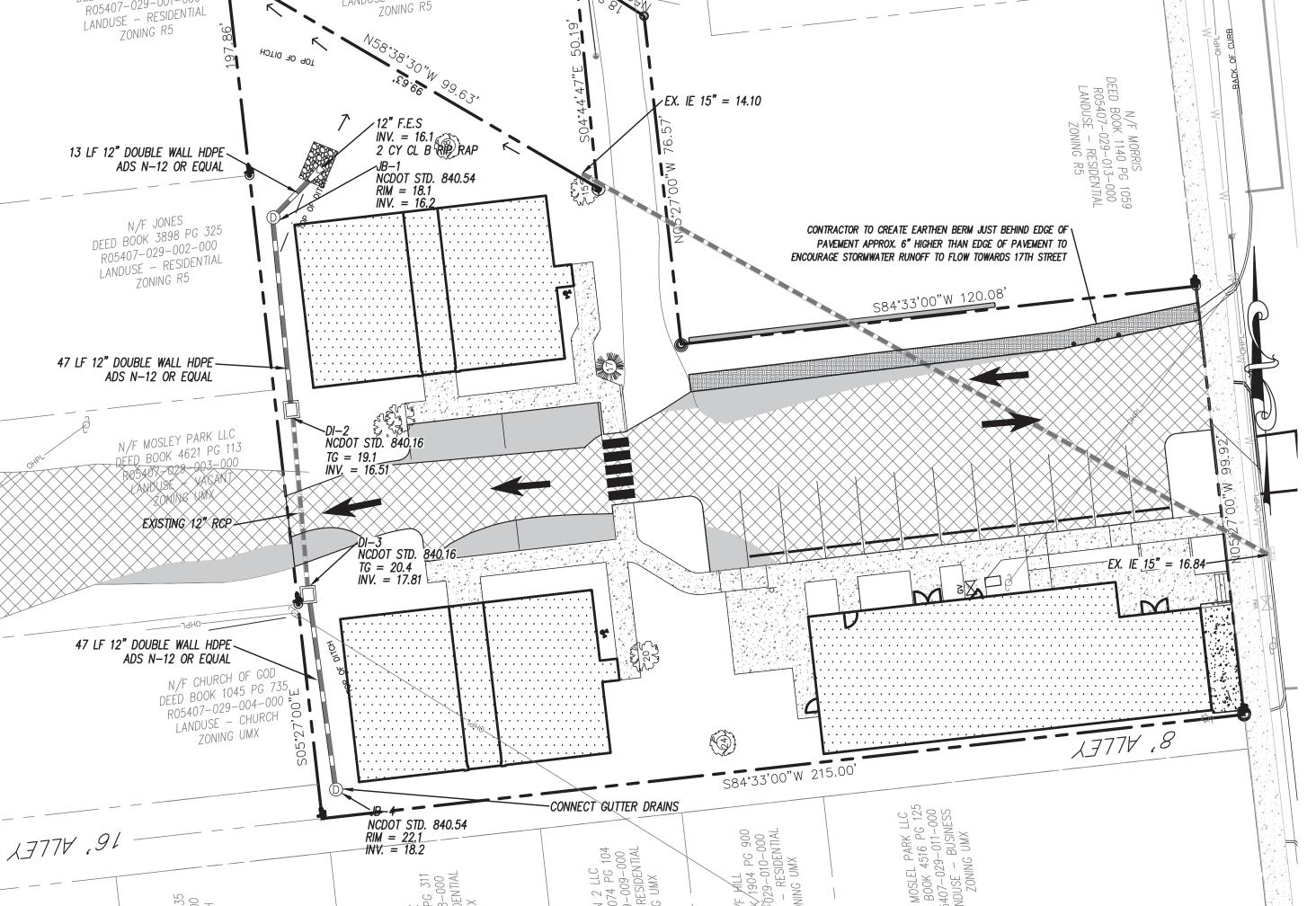
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

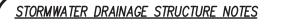
WILWIGTON NORTH CAROLINA	Approved Construction Plan Name Date
Public Services Engineering Division APPROVED DRAINAGE PLAN	Planning
Date:Permit #	Traffic
Signed:	Fire

NCDOT STD. 840.16 TG = 20.4 INV. = 17.81 47 LF 12" DOUBLE WALL HDPE \ ADS N-12 OR EQUAL N/F CHURCH OF DEED BOOK 1045 Pc R05407-029-004-0 LANDUSE - CHURCH ZONING UMX -CONNECT GUTTER DRAINS NCDOT STD. 840.54 RIM = 22.1 INV. = 18.2 | 국경기교의 | STORM DRAINAGE IMPROVEMENTS ACCESS TOP 12" MIN. STEEL 12" MIN. STEEL COMPACTED-CASING PIPE CASING PIPE PROP. 6" PROP 6" PROP. 6" SEWER LATERAL PROP 6" SEWER LATERAL SEWER LATERAL 18" MIN-►EXISTING 15" SEAL EACH END OF CASING STORM PIPE PIPE WITH BRICK BULKHEAD 6" CONCRETE BASE (POURED IN PLACE, IF SITE BUILT) FRONT VIEW PLAN VIEW ACCESS TOP COMPACTED-

LANDUSE - RESIDENTIAL

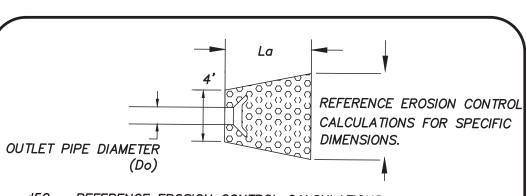
DEED BUUK 5000 . R05407-029-001-000





- 1. CONTRACTOR AND PRECASTER TO DETERMINE STORM STRUCTURE SIZES.
- 2. FRAME AND GRATES TO BE NCDOT 840.16
- 3. RING AND COVERS TO BE NCDOT STD. 840.54 3. STORM STRUCTURES TO BE NCDOT STD. 840.14
- 5. CONTRACTOR TO INSTALL ACCESS COVERS SO THEY ARE NOT LOCATED WITHIN THE CURB AND GUTTER

4. PRECAST STORM STRUCTURES TO MEET HS-20-44



d50 = REFERENCE EROSION CONTROL CALCULATIONS dmax = reference erosion control calculations La = REFERENCE EROSION CONTROL CALCULATIONS MIN. APRON THICKNESS = 4.5"

NOTE: GEOTEX NONWOVEN FILTER FABRIC (TERRATEX NO4 OR EQUAL) TO BE PLACED UNDER ALL STONE OUTLET PROTECTION.

RIP RAP DIMENSIONS							
STRUCTURE L X W X D CLASS QUANTITY							
OUTFALL FROM JB1 9' X 6' X 1' B 2 CY							

OP OUTLET PROTECTION DETAIL

NOT TO SCALE

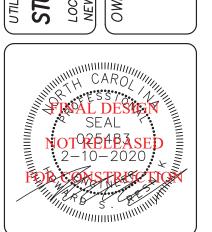


LICENSE # C-2710 ENGINEERING LAND PLANNING COMMERCIAL / RESIDENTIAL

P.O. BOX 4041 WILMINGTON, NC 28406 (910) 791–4441

THITY PLAN

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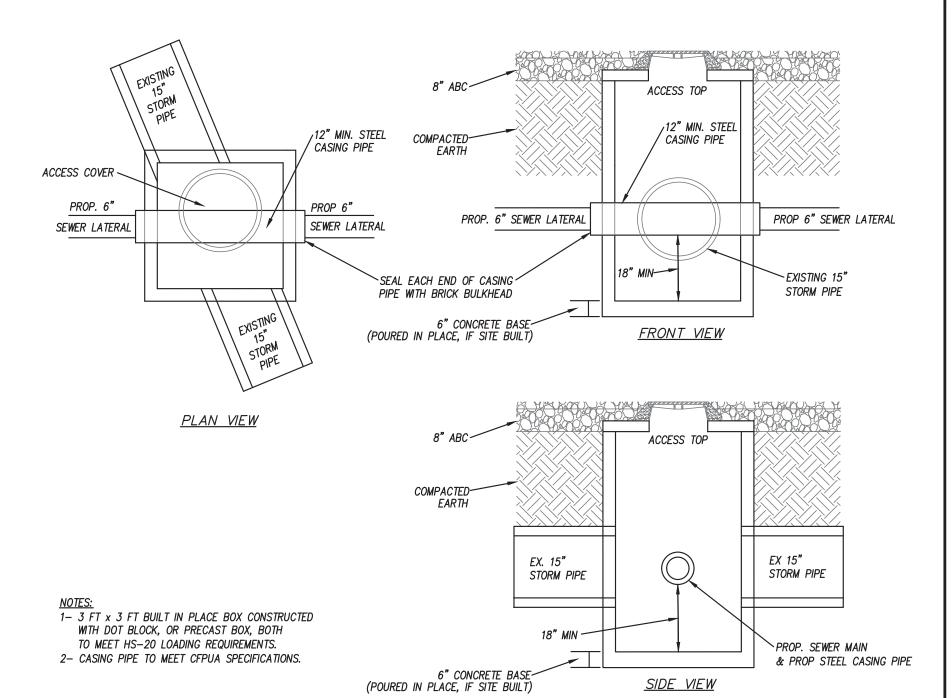
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	RLW	MRB	MRB	MRB	MRB	MRB	RLW	RLW	ВУ
	REVISED BUILDING 3 AND SIDEWALK	REVISED PER CFPUA COMMENTS	REVISED WATER/FIRE MAIN LOCATION & WATER MAIN SIZE	REVISED SHEET NUMBERING PER NEW CFPUA DETAILS	CORRECTED DOMESTIC & FIRE WATER MAIN LINETYPES	REVISED PER CFPUA COMMENTS	revsed water system	revised water system	REMARKS
	10	6	8	7	9	5	4	3	REV. NO.
	$\overline{}$								
	D) A 7	E:	٠	3— :	1-1	18		

HORZ. SCALE: 1" = 10' VERT. SCALE: N/A

DRAWN BY: RLW CHECKED BY: HSR

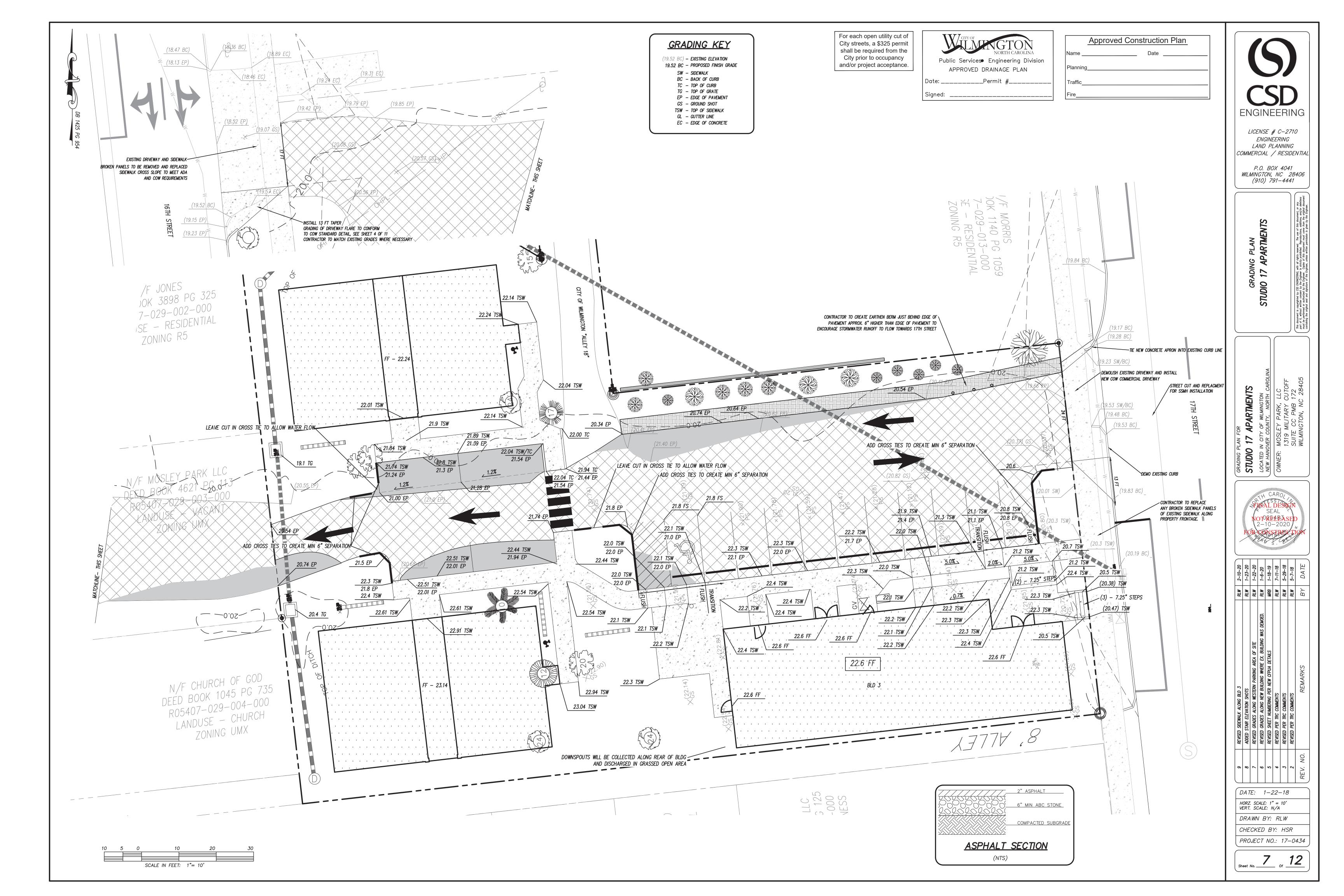
PROJECT NO.: 17-0434

Sheet No. 6 of 12

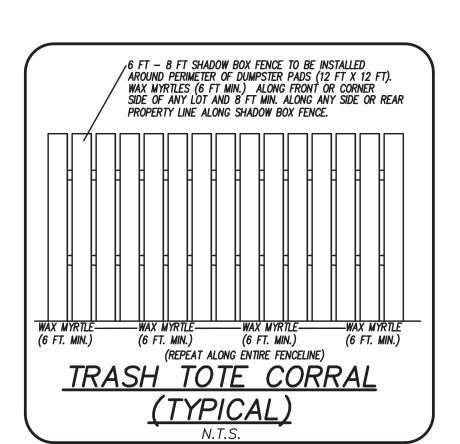


INTERFERENCE STRUCTURE DETAIL

NOT TO SCALE







LANDSCAPING NOTES:

FOUNDATION PLANTINGS

NORTH SIDE BUILDING 1 BUILDING FACE = 1,800 SF 1,800 X 0.12 = 216 SF REQ'D, 216 SF PROVIDED. SOUTH SIDE BUILDING 1

BUILDING FACE = 1,800 SF 1,800 X 0.12 = 216 SF REQ'D, 216 SF PROVIDED. NORTH SIDE BUILDING 3

BUILDING FACE = 2,715 SF 2,715 X 0.12 = 326 SF REQ'D, 336 SF PROVIDED.

STREET TREES 100 - 24 = 76 FT

76 / 30 = 2.5 STREET TREES REQUIRED REQUESTING PAYMENT IN LIEU FOR STREET TREES DUE TO SITE CONSTRAINTS. LESS THAN 3 FT FROM BACK OF CURB TO EXISTING

PARKING LOT SHADING

20% Shading req'd for parking areas. 7,218 PARKING AREA X 20%; 7,218 X .2 = 1,444 SF REQ'D CANOPY - 707 SF FOR CANOPY TREE

1,444 / 707 = 2.0 OR 2 CANOPY TREES; 2 CANOPY TREES PROVIDED. TREE MITIGATION

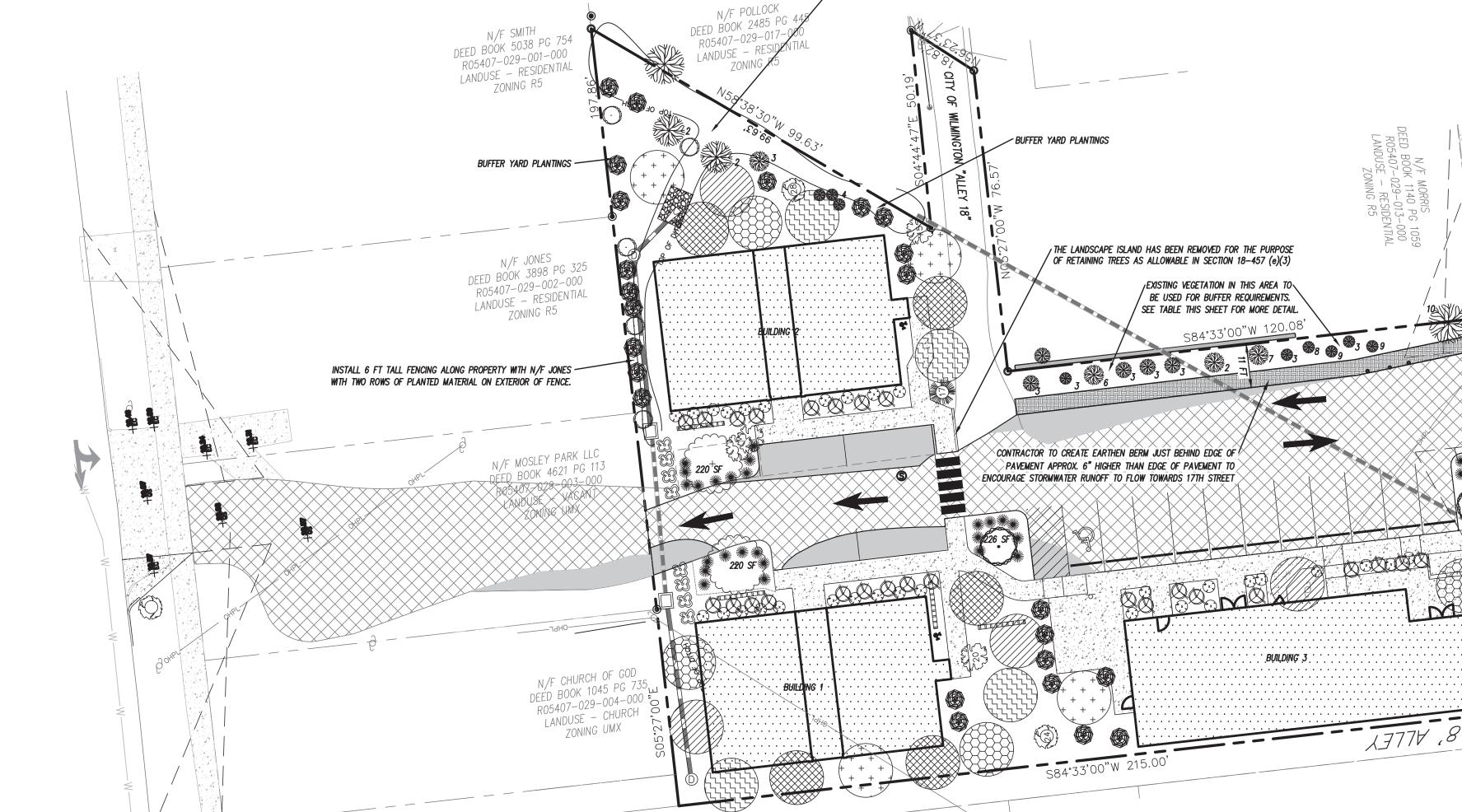
SEE EXISTING CONDITIONS SHEET 33.6 - 13 = 20.6 MITIGATION TREES REQUIRED. 21 MITIGATION TREES SHOWN



1. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30 INCHES - 10 FT. 2. STREET YARD SHRUBS SHALL BE AT LEAST 3 FEET IN HEIGHT

- AT TIME OF PLANTING. 3. UNDERSTORY STREET YARD TREES MUST BE 8 - 10 FEET IN HEIGHT
- AT TIME OF PLANTING. 4. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED
- 5. ALL LANDSCAPE ISLANDS TO INCLUDE GROUND COVER PLANTINGS.

TREES OR GROVES OF TREES.



ID #	DESCRIPTION
2	OLEANDER
3	LIGUSTRUM
4	POPLAR SHRUBS
6	PECAN TREE
7	14" OAK
8	CRAPE MYRTLE
9	PALM
10	24" LIVE OAK

EXISTING BUFFER VEGETATION

NOTE: APPROXIMATE LOCATION AND DESCRIPTION OF EXISTING VEGETATION PROVIDED TO CSD ENGINEERING BY OWNERS.

Proposed Plant Table

HRUBS		
uantity	Symbol	[

Quantity	Symbol	Scientific Name	Common Name	Planting Size	Planting Remarks
16	Œ	llex crenata	STEEDS HOLLY	MIN. 3 FT IN HEIGHT	PARKING AREA SCREENING

EXISTING VEGETATION ALONG WITH ADDITIONAL PLANTINGS

TO BE USED TO MEET BUFFER REQUIREMENTS. SEE TABLE THIS SHEET FOR MORE DETAIL.

INTERIOR PARKING TREE

Quantity Symbol		Scientific Name	Common Name	Planting Size	Planting Remarks	
2	0	Ulmus parvifolia	ALLEE ELM	3" DBH	INTERIOR TREE	

FOUNDATION PLANTING

Quantity	Symbol	Scientific Name Common Name		Planting Size	Planting Remarks	
27		llex vomitoria	DWARF YAUPON	3 GAL.	FOUNDATION	
34	×	Muhlenbergia capillaris	PINK MUHLY	3 GAL.	FOUNDATION	

SHADE TREES

Quantity	Symbol	Scientific Name	Common Name	Planting Size	Planting Remarks
2	+	Quercus virginiana	SOUTHERN LIVE OAK	3" DBH	PARKING SHADING

DUMPSTER CORRAL & HVAC SCREENING

Quantity	uantity Symbol Scientific Name		Common Name	Planting Size	Planting Remarks	
11		Myrica cerifera	WAX MYRTLE	7 Gal.	SCREENING	

O.C. — "ON CENTER" CAL. — "CALIPER AT 6" ABOVE GRADE" GAL. — "GALLON CONTAINER" STREET YARD SHRUBS SHALL BE AT LEAST 12" HEIGHT AT PLANTING.

MITIGATION TREES

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City streets, a \$325 permit shall be required from the City prior to occupancy

and/or project acceptance.

Public Services Engineering Division

APPROVED DRAINAGE PLAN

Date: _____Permit #_

Quantity	Symbol	Scientific Name	Common Name	Planting Size	Planting Remarks
5		Lagerstroemia indica	CRAPE MYRTLE	3" DBH	MITIGATION
4	Carpinus caroliniana		AMERICAN HORNBEAM	3" DBH	MITIGATION
4	+ + + + + + + + + + + + + + + + + + + +	Ulmus americana 'Princeton'	PRINCETON ELM	3" DBH	MITIGATION
4		Ulmus propinqua	EMERALD SUNSHINE ELM	3" DBH	MITIGATION
4		Ginkgo biloba (male only)	GINKGO	3" DBH	MITIGATION

EXISTING 24" OAK TO SERVE AS STREET TREE

MIN 3 FT HEDGE HEIGHT AT PLANTING MUST MAINTAIN 3-5 FT AT ALL TIMES.

BUFFER YARD

antity	Symbol	Scientific Name	Common Name	Planting Size	Planting Remarks	
5	0	Nyssa sylvatica	BLACK GUM	3" DBH	BUFFER YARD	
13		Myrica cerifera	WAX MYRTLE	7 Gal.	BUFFER YARD	

ENGINEERING

Approved Construction Plan

LICENSE # C-2710 ENGINEERING LAND PLANNING COMMERCIAL / RESIDENTIAL

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LANDSCAPE PLAN
STUDIO 17 APARTMENTS



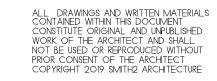
	2-10-20	8-2-18	7-23-18	7-11-18	6-19-18	5-29-18	5-7-18	DATE
	RLW	MRB	MRB	RLW	MRB	RLW	RLW	ВУ
	REVISED PER SIDEWALK AND BUILDING CHANGES AROUND BLD 3	REVISED PER CITY ARBORIST COMMENTS	REVISED PER TRC COMMENTS	REVISED TREE MITIGATION CALCS & ADDED TABLE	REVISED EXISTING TREES & PROPOSED PLANTINGS	REVISED PER TRC COMMENTS	REVISED PER TRC COMMENTS	REMARKS
	7	9	5	4	3	2	1	REV. NO.

DATE: 3-1-18

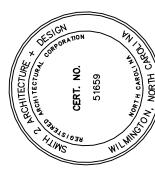
HORZ. SCALE: 1" = 20' VERT. SCALE: N/A DRAWN BY: RLW CHECKED BY: HSR

PROJECT NO.: 17-0434











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ISSUED FOR PRICING & PERMITTING

01-08-20

MARK DATE REVISION 1-22-20 SIDING

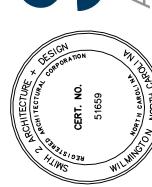
A2.0 **EXTERIOR ELEVATIONS**

19-101 A201



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STUDIO 17 PHASE 2

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1-22-20 SIDING

A2.1
EXTERIOR
ELEVATIONS

19-101 A201