

LOCATION MAP NTS

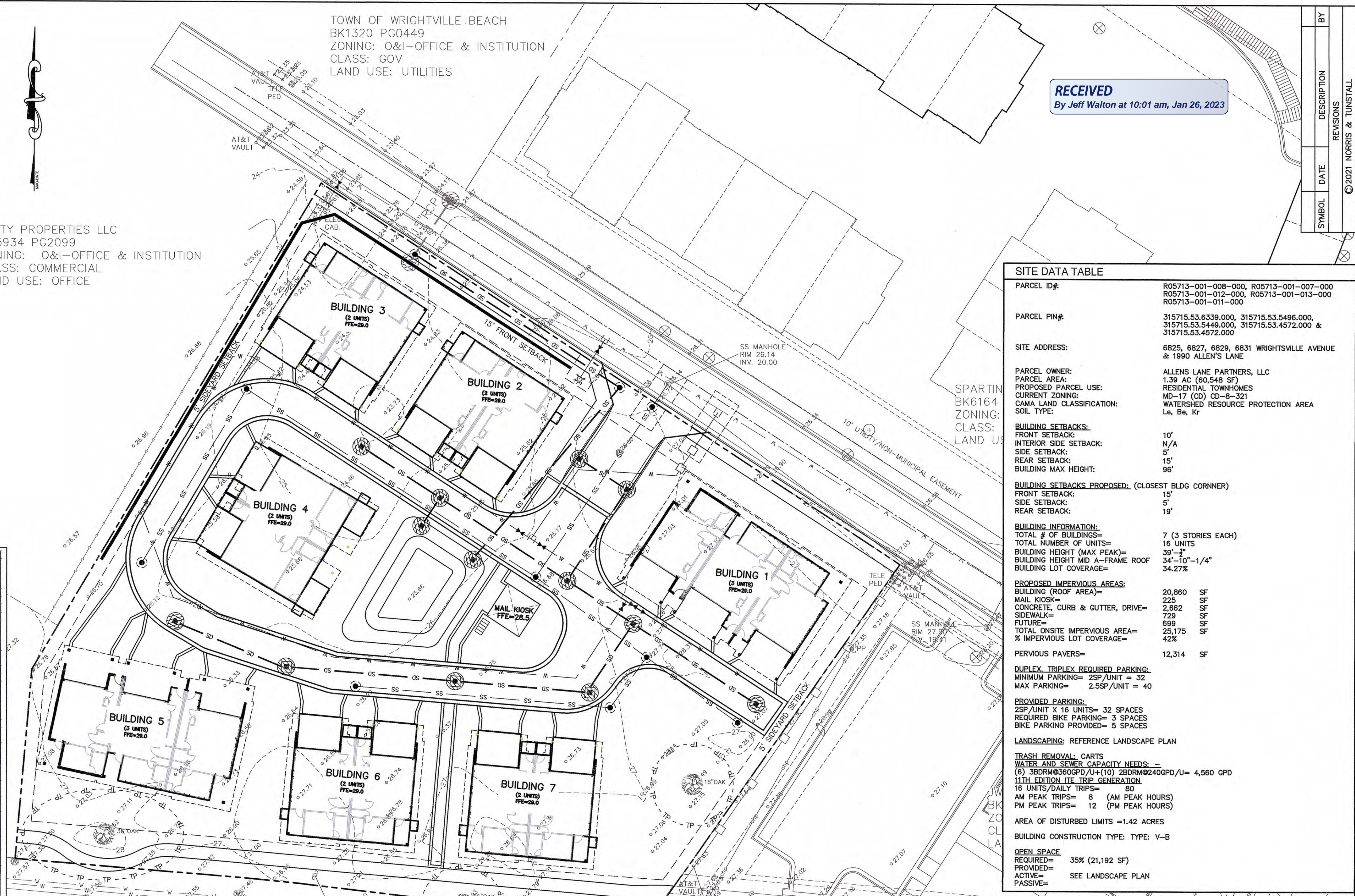
	PROPERTY LINE
	DISTURBED AREA LIMITS
	PROPOSED CONTOUR
	TEMPORARY SILT FENCE
	PROPOSED STORMDRAIN PIPE
	PROPOSED WATERLINE
	PROPOSED SANITARY SEWER
	PROPOSED SPOT ELEVATION FLOW LINE
	PROPOSED SPOT ELEVATION TOP OF CURB
	PROPOSED SPOT ELEVATION FINISH GRADE
	FLARED END SECTION WITH RIP-RAP ENERGY DISSIPATOR
	DROP INLET WITH INLET PROTECTION (DI)
	CURB INLET WITH INLET PROTECTION (CI)
	JUNCTION BOX WITH INLET PROTECTION (JB)
	PROPOSED FIRE HYDRANT
	EXISTING CONTOUR
	EXISTING TREE TO BE SAVED
	EXISTING TREE TO BE REMOVED
	TREE PROTECTION FENCING
	CONCRETE
	PERVIOUS PAVERS

LETTY PROPERTIES LLC  
BK5934 PG2099  
ZONING: O&I-OFFICE & INSTITUTION  
CLASS: COMMERCIAL  
LAND USE: OFFICE

TOWN OF WRIGHTSVILLE BEACH  
BK1320 PG0449  
ZONING: O&I-OFFICE & INSTITUTION  
CLASS: GOV  
LAND USE: UTILITIES

RECEIVED  
By Jeff Walton at 10:01 am, Jan 26, 2023

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	
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SITE DATA TABLE	
PARCEL ID#:	R05713-001-008-000, R05713-001-007-000 R05713-001-012-000, R05713-001-013-000 R05713-001-011-000
PARCEL PIN#:	315715.53.6339.000, 315715.53.5496.000, 315715.53.5449.000, 315715.53.4572.000 & 315715.53.4572.000
SITE ADDRESS:	6825, 6827, 6829, 6831 WRIGHTSVILLE AVENUE & 1990 ALLEN'S LANE
PARCEL OWNER:	ALLENS LANE PARTNERS, LLC
PROPOSED PARCEL USE:	1.39 AC (60,548 SF) RESIDENTIAL TOWNHOMES
CURRENT ZONING:	MD-17 (CD) CD-8-321
CAMA LAND CLASSIFICATION:	WATERSHED RESOURCE PROTECTION AREA
SOIL TYPE:	Ls, Be, Ir
<b>BUILDING SETBACKS:</b>	
FRONT SETBACK:	10'
INTERIOR SIDE SETBACK:	N/A
SIDE SETBACK:	5'
REAR SETBACK:	15'
BUILDING MAX HEIGHT:	96'
<b>BUILDING SETBACKS PROPOSED: (CLOSEST BLDG CORNER)</b>	
FRONT SETBACK:	15'
SIDE SETBACK:	5'
REAR SETBACK:	19'
<b>BUILDING INFORMATION:</b>	
TOTAL # OF BUILDINGS=	7 (3 STORIES EACH)
TOTAL NUMBER OF UNITS=	16 UNITS
BUILDING HEIGHT (MAX PEAK)=	39'-2"
BUILDING HEIGHT MID A-FRAME ROOF	34'-10"-1/4"
BUILDING LOT COVERAGE=	34.27%
<b>PROPOSED IMPERVIOUS AREAS:</b>	
BUILDING (ROOF AREA)=	20,860 SF
MAIL KIOSK=	225 SF
CONCRETE, CURB & GUTTER, DRIVE=	2,662 SF
SIDEWALK=	729 SF
FUTURE=	699 SF
TOTAL ONSITE IMPERVIOUS AREA=	25,175 SF
% IMPERVIOUS LOT COVERAGE=	42%
PERVIOUS PAVERS=	12,314 SF
<b>DUPLEX, TRIPLEX REQUIRED PARKING:</b>	
MINIMUM PARKING= 2.5SP/UNIT = 32	
MAX PARKING= 2.5SP/UNIT = 40	
<b>PROVIDED PARKING:</b>	
2SP/UNIT X 16 UNITS= 32 SPACES	
REQUIRED BIKE PARKING= 3 SPACES	
BIKE PARKING PROVIDED= 5 SPACES	
<b>LANDSCAPING: REFERENCE LANDSCAPE PLAN</b>	
<b>TRASH REMOVAL: CARTS</b>	
<b>WATER AND SEWER CAPACITY NEEDS: --</b>	
(6) 36DRM@36GPD/U+(10) 26DRM@240GPD/U= 4,560 GPD	
<b>11th EDITION ITE TRIP GENERATION</b>	
16 UNITS/DAILY TRIPS= 80	
AM PEAK TRIPS= 8 (AM PEAK HOURS)	
PM PEAK TRIPS= 12 (PM PEAK HOURS)	
<b>AREA OF DISTURBED LIMITS = 1.42 ACRES</b>	
<b>BUILDING CONSTRUCTION TYPE: TYPE: V-B</b>	
<b>OPEN SPACE</b>	
REQUIRED= 35% (21,192 SF)	
PROVIDED=	
ACTIVE=	
PASSIVE=	SEE LANDSCAPE PLAN

BUILDING	GROUND		FIRST		SECOND		TOTALS	
	HEATED	UNHEATED	HEATED	UNHEATED	HEATED	UNHEATED	HEATED	UNHEATED
<b>BUILDING 1</b>								
Unit 1 (w/ ramp out)	257	553	821	150	866	0	1977	703
Unit 2	297	553	821	150	866	0	1946	703
Overall Building SQ. FT.							3923	1406
<b>BUILDING 2</b>								
Unit 1	257	553	821	150	866	0	1977	703
Unit 2 (w/ ramp out)	257	553	827	150	883	0	1977	703
Overall Building SQ. FT.							3923	1406
<b>BUILDING 3</b>								
Unit 1	325	585	872	130	883	0	2000	715
Unit 2	325	585	872	130	883	0	2000	715
Overall Building SQ. FT.							4190	1430
<b>BUILDING 4</b>								
Unit 1	259	545	818	150	866	0	1943	695
Unit 2	321	569	857	154	910	0	2088	723
Unit 3	259	545	818	150	866	0	1943	695
Overall Building SQ. FT.							5974	2113
<b>BUILDING 5</b>								
Unit 1	257	553	821	150	866	0	1946	703
Unit 2	257	553	821	150	866	0	1946	703
Overall Building SQ. FT.							3892	1406
<b>BUILDING 6</b>								
Unit 1	257	553	821	150	866	0	1977	703
Unit 2 (w/ ramp out)	257	553	837	150	883	0	1977	703
Overall Building SQ. FT.							3923	1406
<b>BUILDING 7</b>								
Unit 1 (w/ ramp out)	259	545	834	150	882	0	1975	695
Unit 2	321	569	857	154	910	0	2088	723
Unit 3 (w/ ramp out)	259	545	834	150	882	0	1975	695
Overall Building SQ. FT.							6036	2113

INDEX OF SHEETS

- C1 OVERALL PLAN
- C2 SITE INVENTORY PLAN
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- C6 LAYOUT PLAN
- C7 AUTO TURNS
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- C9 NOTES & DETAILS
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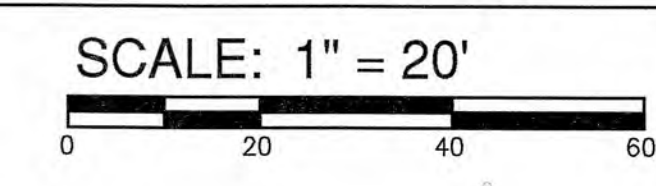
HAVEN AT GALLERIA LLC  
BK6586 PG1948  
ZONING: UMX  
CLASS: COMMERCIAL  
LAND USE: NEIGHBORHOOD RETAIL

Watershed Resource Protection IMPERVIOUS Calculation

Site Total Area:	60548 SF
Maximum Impervious Allowed in Land Class:	25%
	15137 SF
<b>Onsite Impervious Area:</b>	
Building (Roof Area):	20860 SF
Mail Kiosk:	225 SF
Concrete Curb, and Drive:	2662 SF
**Sidewalk:	729 SF
Future:	699 SF
<b>TOTAL:</b>	25175 SF
<b>*TOTAL % IMP:</b>	42%

\*EXCEPTIONAL DESIGN CRITERIA TO ACCOUNT FOR ADDITIONAL 17% OF IMPERVIOUS.  
\*\*DOES NOT INCLUDE CITY REQUIRED SIDEWALKS ALONG ALLENS LANE AND WRIGHTSVILLE AVE.

- NOTES:
- 1) NO TREES PROPOSED TO BE REMOVED IN PROJECT AREA.
  - 2) THE USE AND DEVELOPMENT OF PROPERTY MUST BE IN ACCORDANCE WITH THE REZONING ORDER (CD-8-321) BY CITY COUNCIL.
- MAY 4TH 2021



OVERALL PLAN  
THE TOWNHOMES AT ALLEN'S LANE  
6825, 6827, 6829, 6831 WRIGHTSVILLE AVENUE  
& 1990 ALLEN'S LANE  
WILMINGTON, NC 28403

OWNER/DEVELOPER  
JAMES E. WALLACE, JR.  
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PHONE (910) 345-9653

Licence #C-3641  
22054  
DES. JUST  
CHKD. JPN  
DRWN. TOM  
DATE 1/24/23

NORTH CAROLINA  
REGISTERED PROFESSIONAL ENGINEER  
JAMES S. TUNSTALL  
15851

C1



TOWN OF WRIGHTVILLE BEACH  
 BK1320 PG0449  
 ZONING: O&I-OFFICE & INSTITUTION  
 CLASS: GOV  
 LAND USE: UTILITIES

LETTY PROPERTIES LLC  
 BK5934 PG2099  
 ZONING: O&I-OFFICE & INSTITUTION  
 CLASS: COMMERCIAL  
 LAND USE: OFFICE

NOW OR FORMERLY  
 KING  
 BOOK 2379 PAGE 453

CHARLES A TRUSTEE ETAL  
 1290  
 15  
 SIDENTIAL  
 UNUSED LAND  
 NOW OR FORMERLY  
 BORDEAUX  
 BOOK 1307 PAGE 566

HAVEN AT GALLERIA LLC  
 BK6586 PG1948  
 ZONING: UMX  
 CLASS: COMMERCIAL  
 LAND USE: NEIGHBORHOOD RETAIL

JW LIMITED, LLC  
 BK6105 PG797  
 ZONING: O&I-OFFICE & INSTITUTION  
 CLASS: COMMERCIAL  
 LAND USE: OFFICE

SPARTINA TOWNHOME DA  
 BK6164 PG2135  
 ZONING: O&I-OFFICE & INSTITUTION  
 CLASS: HOA  
 LAND USE: OAC

ON-SITE REGULATED TREE TABLE

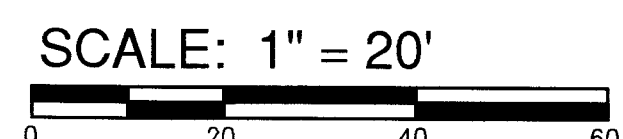
REGULATED OAK  
 16" (1)

SIGNIFICANT TREE TABLE

SIGNIFICANT OAK  
 26" (1)  
 36" (1)

(NO TREES TO BE REMOVED)

- NOTE:
- 1) NO WETLANDS EXIST ON SITE.
  - 2) SITE IS NOT WITHIN A FLOOD ZONE.
  - 3) A RECOMBINATION OF EXISTING PARCELS TO BE RECORDED PRIOR TO RELEASE.



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SITE INVENTORY PLAN  
 THE TOWNHOMES AT ALLEN'S LANE  
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 & 1990 ALLEN'S LANE  
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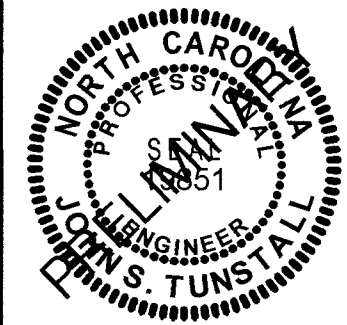
OWNER/DEVELOPER  
 JAMES E. WALLACE, JR.  
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22054

DES. JUST  
 CDR. JPN  
 DRWN. TOM  
 DATE 1/24/23



C2



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LAND USE: OFFICE

BORDEAUX CHARLES A TRUSTEE ETAL  
BK6148 PG1290  
ZONING: R-15  
CLASS: RESIDENTIAL  
LAND USE: UNUSED LAND

SPARTINA TOWNHOME DA  
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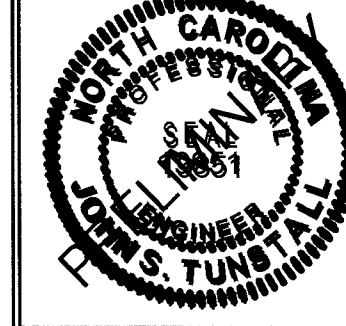
HAVEN AT GALLERIA LLC  
BK6586 PG1948  
ZONING: UMX  
CLASS: COMMERCIAL  
LAND USE: NEIGHBORHOOD RETAIL

GRADING, DRAINAGE AND EROSION CONTROL PLAN  
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DRW. TOM  
DATE 1/24/23



**C3**

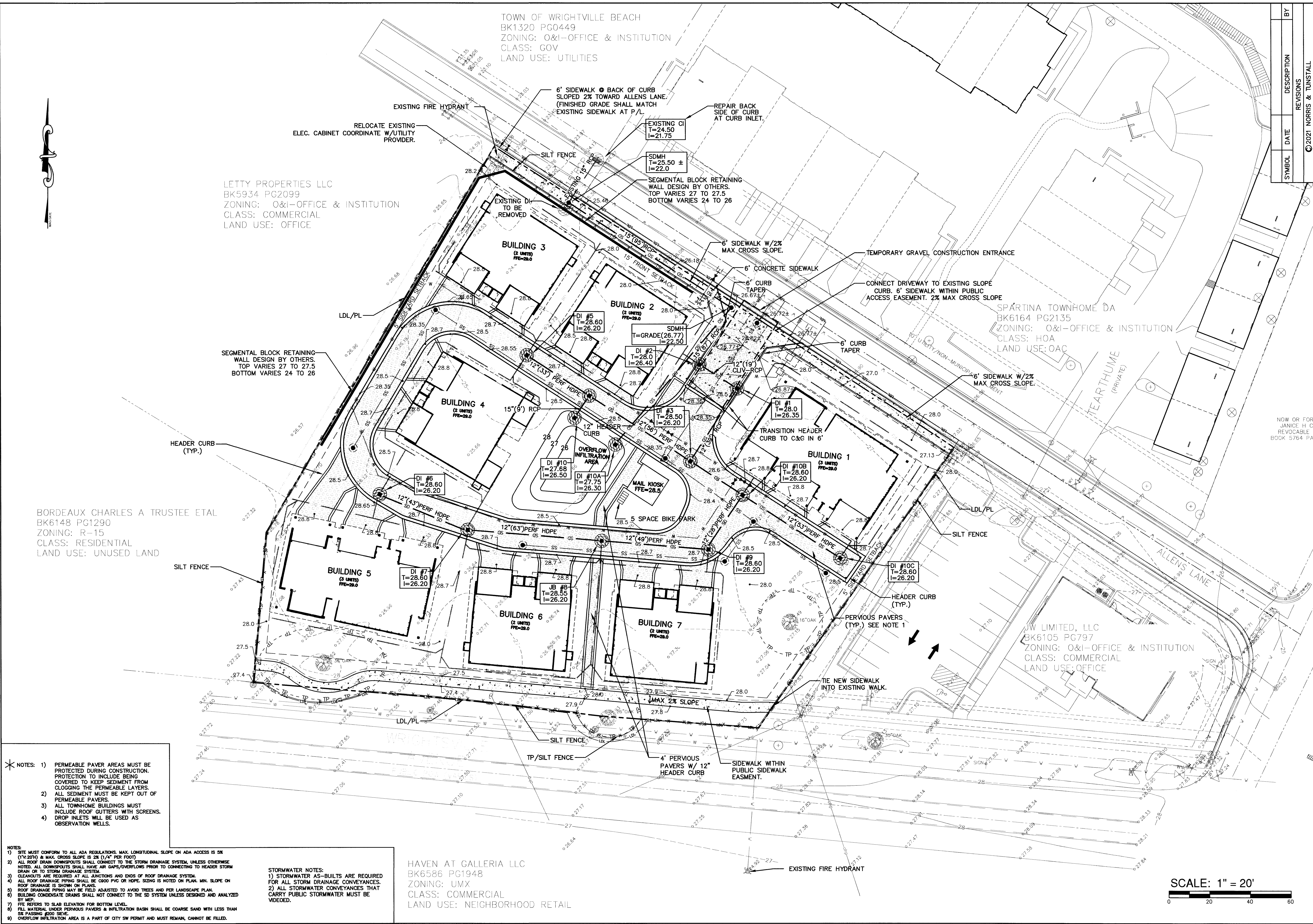
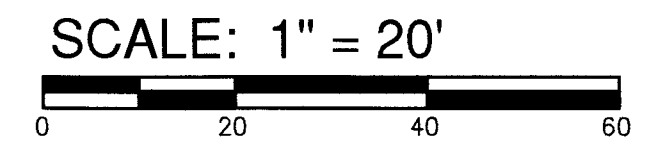
BY	REVISIONS	DESCRIPTION	DATE	SYMBOL

NOW OR FOR  
JANICE H. O.  
REVOCABLE  
BOOK 5764 PA

- \* NOTES:
- PERMEABLE PAVER AREAS MUST BE PROTECTED DURING CONSTRUCTION. PROTECTION TO INCLUDE BEING COVERED TO KEEP SEDIMENT FROM CLOGGING THE PERMEABLE LAYERS.
  - ALL SEDIMENT MUST BE KEPT OUT OF PERMEABLE PAVERS.
  - ALL TOWNHOME BUILDINGS MUST INCLUDE ROOF GUTTERS WITH SCREENS. DROP INLETS WILL BE USED AS OBSERVATION WELLS.
  -

- NOTES:
- SITE MUST CONFORM TO ALL ADA REGULATIONS. MAX. LONGITUDINAL SLOPE ON ADA ACCESS IS 5% (1/4" PER FOOT) & MAX. CROSS SLOPE IS 2% (1/4" PER FOOT).
  - ALL ROOF DRAIN DOWNSPOUTS SHALL CONNECT TO THE STORM DRAINAGE SYSTEM, UNLESS OTHERWISE NOTED. ALL DOWNSPOUTS SHALL HAVE AIR GAPS/OVERFLOWS PRIOR TO CONNECTING TO HEADER STORM DRAIN OR TO STORM DRAINAGE SYSTEM.
  - CLEANOUTS ARE REQUIRED AT ALL JUNCTIONS AND ENDS OF ROOF DRAINAGE SYSTEM.
  - ALL ROOF DRAINAGE PIPING SHALL BE 4" DIA. PVC OR HDPE. SIZING IS NOTED ON PLANS. MIN. SLOPE ON ROOF DRAINAGE IS SHOWN ON PLANS.
  - ROOF DRAINAGE PIPING MAY BE FIELD ADJUSTED TO AVOID TREES AND PER LANDSCAPE PLAN.
  - BUILDING CONDENSATE DRAINS SHALL NOT CONNECT TO THE SD SYSTEM UNLESS DESIGNED AND ANALYZED BY MEP.
  - FTE REFERS TO SLAB ELEVATION FOR BOTTOM LEVEL.
  - FILL MATERIAL UNDER PERVIOUS PAVERS & INFILTRATION BASIN SHALL BE COARSE SAND WITH LESS THAN 5% PASSING #200 SIEVE.
  - OVERFLOW INFILTRATION AREA IS A PART OF CITY SW PERMIT AND MUST REMAIN, CANNOT BE FILLED.

- STORMWATER NOTES:
- STORMWATER AS-BUILTS ARE REQUIRED FOR ALL STORM DRAINAGE CONVEYANCES.
  - ALL STORMWATER CONVEYANCES THAT CARRY PUBLIC STORMWATER MUST BE VIDEOED.







TOWN OF WRIGHTVILLE BEACH  
 BK1320 PG0449  
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LETTY PROPERTIES LLC  
 BK5934 PG2099  
 ZONING: O&I-OFFICE & INSTITUTION  
 CLASS: COMMERCIAL  
 LAND USE: OFFICE

OVERFLOW INFILTRATION AREA

ELV	SA
26	443
27	957
28	1,732

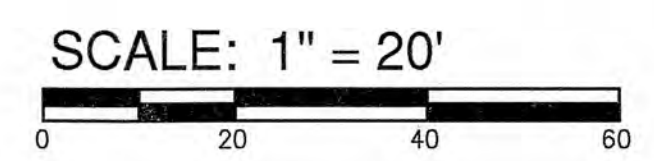
BORDEAUX CHARLES A TRUSTEE ETAL  
 BK6148 PG1290  
 ZONING: R-15  
 CLASS: RESIDENTIAL  
 LAND USE: UNUSED LAND



- NOTES:
- 1) SITE MUST CONFORM TO ALL ADA REGULATIONS. MAX. LONGITUDINAL SLOPE ON ADA ACCESS IS 5% (1/4"=20") & MAX. CROSS SLOPE IS 2% (1/4" PER FOOT)
  - 2) ALL ROOF DRAIN DOWNSPOUTS SHALL CONNECT TO THE STORM DRAINAGE SYSTEM, UNLESS OTHERWISE NOTED. ALL DOWNSPOUTS SHALL HAVE AIR GAPS/OVERFLOWS PRIOR TO CONNECTING TO HEADER STORM DRAIN OR TO STORM DRAINAGE SYSTEM.
  - 3) CLEANOUTS ARE REQUIRED AT ALL JUNCTIONS AND ENDS OF ROOF DRAINAGE SYSTEM.
  - 4) ALL ROOF DRAINAGE PIPING SHALL BE C900 PVC OR HDPE. SIZING IS NOTED ON PLAN. MIN. SLOPE ON ROOF DRAINAGE IS SHOWN ON PLANS.
  - 5) ROOF DRAINAGE PIPING MAY BE FIELD ADJUSTED TO AVOID TREES AND PER LANDSCAPE PLAN.
  - 6) BUILDING CONDENSATE DRAINS SHALL NOT CONNECT TO THE SD SYSTEM UNLESS DESIGNED AND ANALYZED BY MEP.
  - 7) FFE REFERS TO SLAB ELEVATION FOR BOTTOM LEVEL.
  - 8) FILL MATERIAL UNDER PERVIOUS PAVERS & INFILTRATION BASIN SHALL BE COARSE SAND WITH LESS THAN 5% PASSING #200 SIEVE.

STORMWATER NOTES:  
 1) STORMWATER AS-BUILTS ARE REQUIRED FOR ALL STORM DRAINAGE CONVEYANCES.  
 2) ALL STORMWATER CONVEYANCES THAT CARRY PUBLIC STORMWATER MUST BE VIDEOED.

LLERIA LLC  
 48  
 ERICIAL  
 EIGHBORHOOD RETAIL



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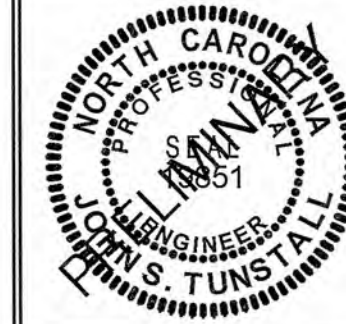
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 JAMES E. WALLACE, JR.  
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 910-509-1921  
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NOW OR FOR  
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License #C-3641

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CHK.	JPN
DRWN.	TOM
DATE	1/24/23



**C3.1**





TOWN OF WRIGHTVILLE BEACH  
 BK1320 PG0449  
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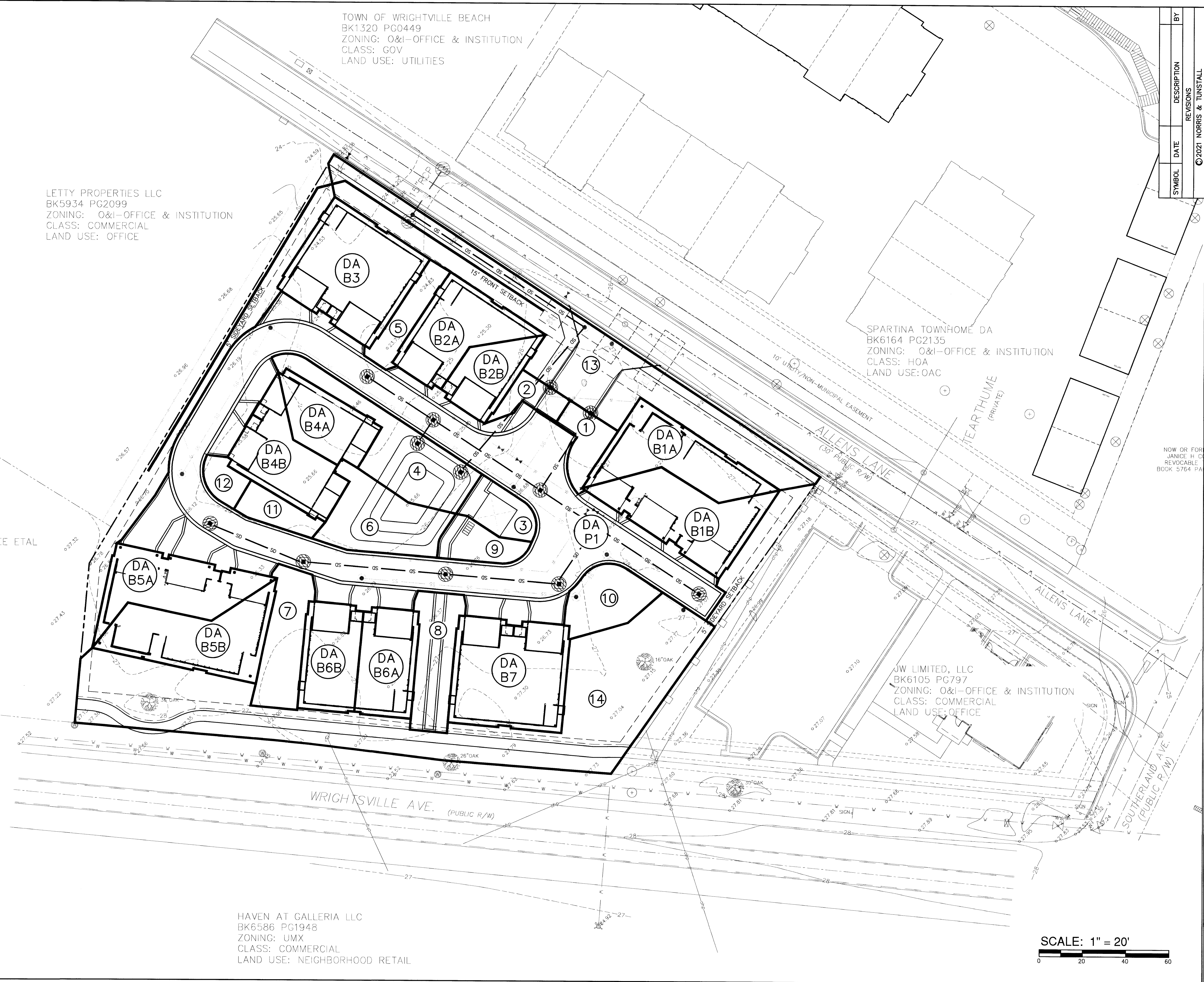
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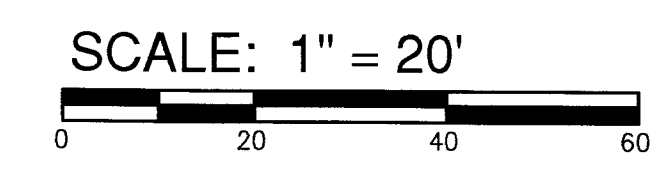
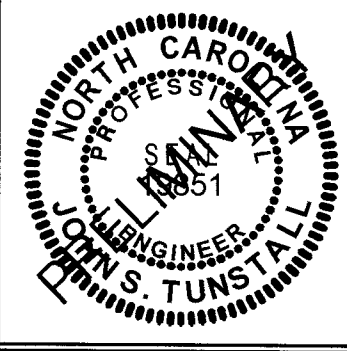
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**DRAINAGE PLAN**  
 THE TOWNHOMES AT ALLEN'S LANE  
 6825, 6827, 6829, 6831 WRIGHTSVILLE AVENUE  
 & 1990 ALLEN'S LANE  
 WILMINGTON, NC 28403

**OWNER/DEVELOPER**  
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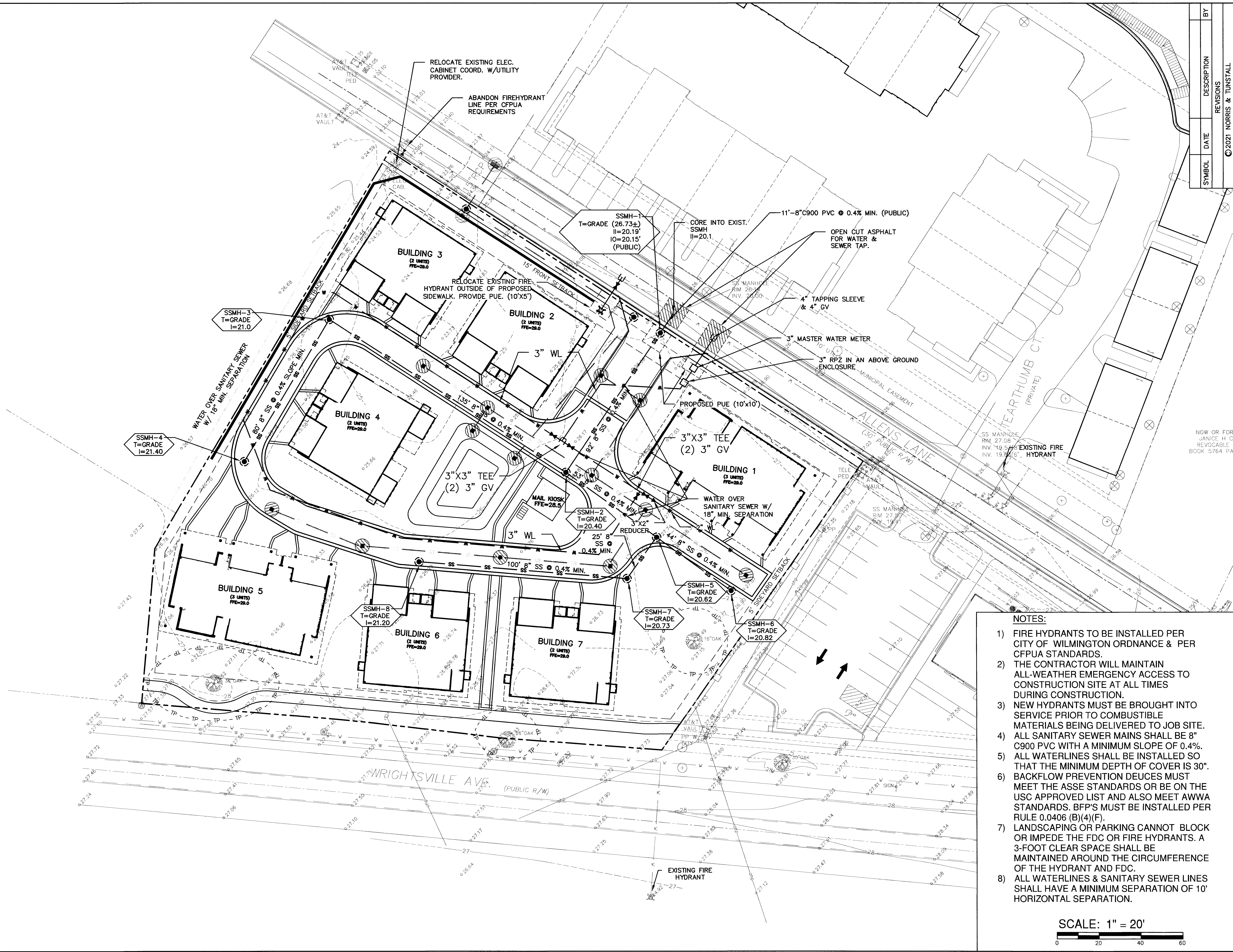
**NORRIS & TUNSTALL**  
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Licence #C-3641  
**22054**  
 DES: JST  
 CDR: JPN  
 DRWL: TOM  
 DATE: 1/24/23



**C4**





SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

UTILITY PLAN  
 THE TOWNHOMES AT ALLEN'S LANE  
 6825, 6827, 6829, 6831 WRIGHTSVILLE AVENUE  
 & 1990 ALLEN'S LANE  
 WILMINGTON, NC 28403

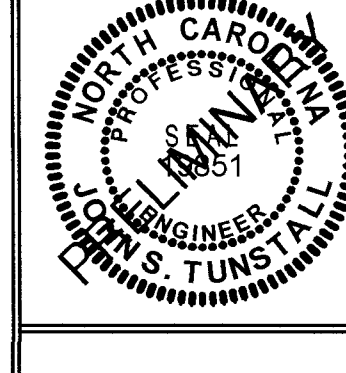
OWNER/DEVELOPER  
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 ALLEN'S LANE PARTNERS, LLC  
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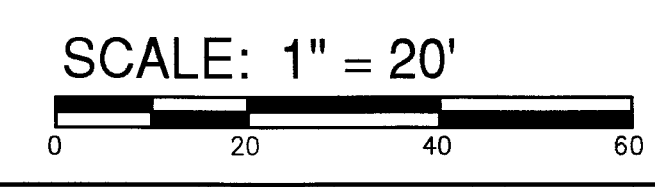
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CHKD.	JPN
DRWN.	TOM
DATE	1/24/23



**C5**

- NOTES:**
- 1) FIRE HYDRANTS TO BE INSTALLED PER CITY OF WILMINGTON ORDINANCE & PER CFPUA STANDARDS.
  - 2) THE CONTRACTOR WILL MAINTAIN ALL-WEATHER EMERGENCY ACCESS TO CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION.
  - 3) NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO JOB SITE.
  - 4) ALL SANITARY SEWER MAINS SHALL BE 8" C900 PVC WITH A MINIMUM SLOPE OF 0.4%.
  - 5) ALL WATERLINES SHALL BE INSTALLED SO THAT THE MINIMUM DEPTH OF COVER IS 30".
  - 6) BACKFLOW PREVENTION DEVICES MUST MEET THE ASSE STANDARDS OR BE ON THE USC APPROVED LIST AND ALSO MEET AWWA STANDARDS. BFP'S MUST BE INSTALLED PER RULE 0.0406 (B)(4)(F).
  - 7) LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC.
  - 8) ALL WATERLINES & SANITARY SEWER LINES SHALL HAVE A MINIMUM SEPARATION OF 10' HORIZONTAL SEPARATION.



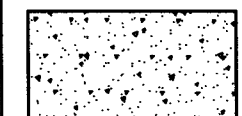
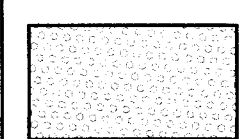


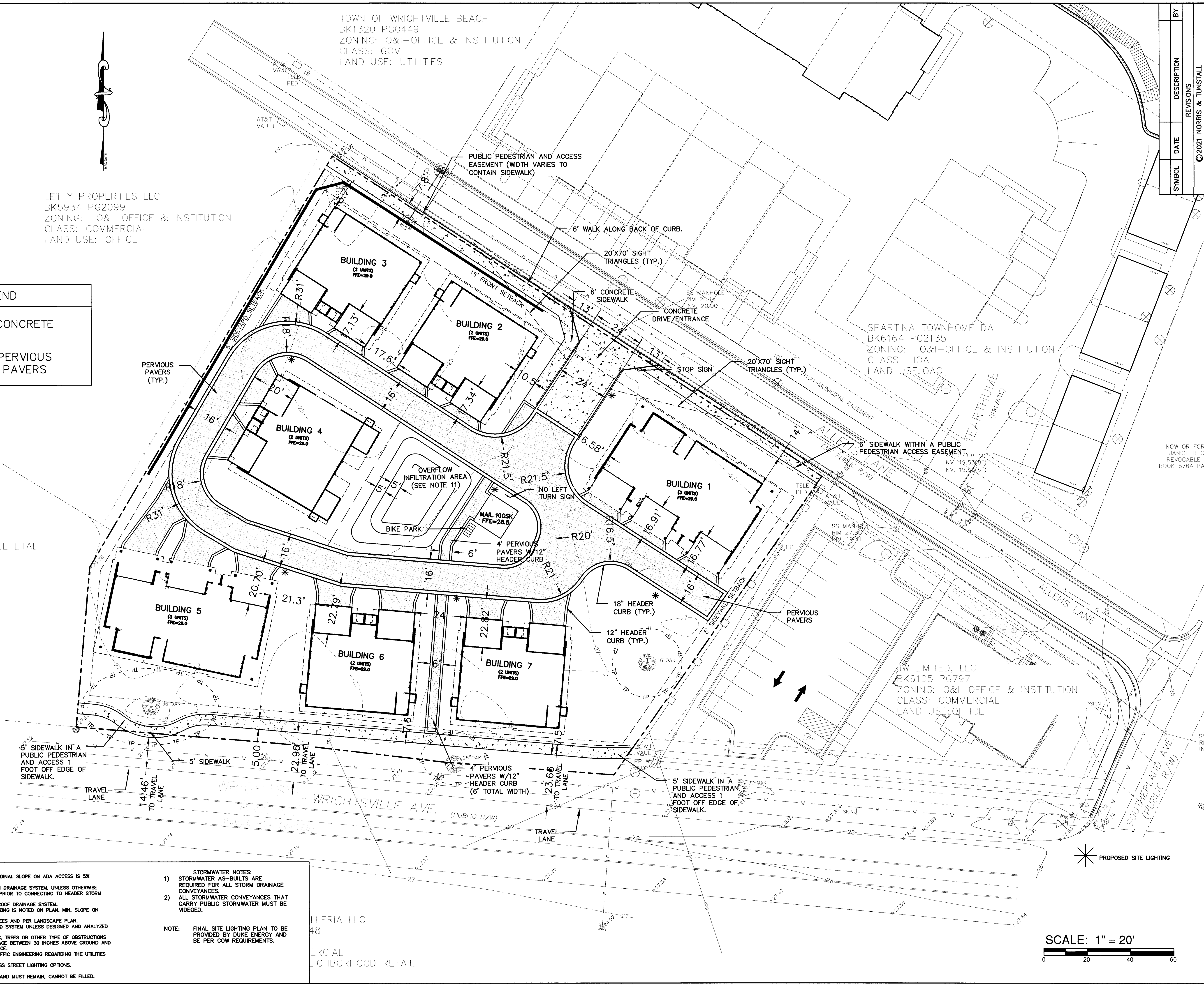
TOWN OF WRIGHTVILLE BEACH  
 BK1320 PG0449  
 ZONING: O&I-OFFICE & INSTITUTION  
 CLASS: GOV  
 LAND USE: UTILITIES

LETTY PROPERTIES LLC  
 BK5934 PG2099  
 ZONING: O&I-OFFICE & INSTITUTION  
 CLASS: COMMERCIAL  
 LAND USE: OFFICE

BORDEAUX CHARLES A TRUSTEE ETAL  
 BK6148 PG1290  
 ZONING: R-15  
 CLASS: RESIDENTIAL  
 LAND USE: UNUSED LAND

**LEGEND**

	CONCRETE
	PERVIOUS PAVERS



SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

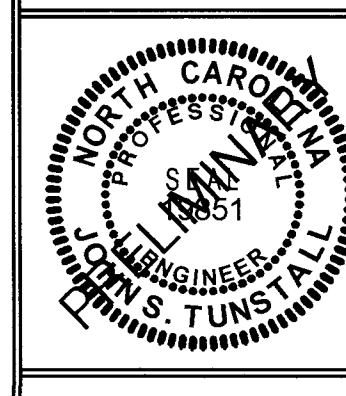
**LAYOUT PLAN**  
 THE TOWNHOMES AT ALLEN'S LANE  
 6825, 6827, 6829, 6831 WRIGHTSVILLE AVENUE  
 & 1990 ALLEN'S LANE  
 WILMINGTON, NC 28403

**OWNER/DEVELOPER**  
 JAMES E. WALLACE, JR.  
 ALLEN'S LANE PARTNERS, LLC  
 1902 EASTWOOD ROAD  
 WILMINGTON, NC 28403  
 910-508-1921  
 JW@INTRACOASTALREALTY.COM

NOW OR FOR  
 JANICE H. O.  
 REVOCABLE  
 BOOK 5764 PA

**NORRIS & TUNSTALL**  
 CONSULTING ENGINEERS P.C.  
 2602 IRON GATE DR., SUITE 102 1429 ASHLITTLE RIVER RD. NW  
 WILMINGTON, NC 28412 ASH, NC 28420  
 PHONE (910) 343-9653 PHONE (910) 287-5900

License #C-3641  
**22054**  
 DES. JST  
 CRD. JPN  
 DRW. TOM  
 DATE 1/24/23

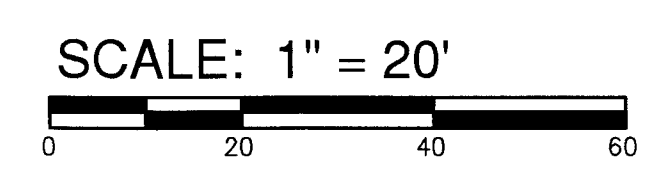


**C6**

- NOTES:**
- SITE MUST CONFORM TO ALL ADA REGULATIONS. MAX. LONGITUDINAL SLOPE ON ADA ACCESS IS 5% (1"=20") & MAX. CROSS SLOPE IS 2% (1/4" PER FOOT)
  - ALL ROOF DRAIN DOWNSPOUTS SHALL CONNECT TO THE STORM DRAINAGE SYSTEM, UNLESS OTHERWISE NOTED. ALL DOWNSPOUTS SHALL HAVE AIR GAPS/OVERFLOWS PRIOR TO CONNECTING TO HEADER STORM DRAIN OR TO STORM DRAINAGE SYSTEM.
  - CLEANOUTS ARE REQUIRED AT ALL JUNCTIONS AND ENDS OF ROOF DRAINAGE SYSTEM.
  - ALL ROOF DRAINAGE PIPING SHALL BE C900 PVC OR HDPE. SIZING IS NOTED ON PLAN. MIN. SLOPE ON ROOF DRAINAGE IS SHOWN ON PLANS.
  - ROOF DRAINAGE PIPING MAY BE FIELD ADJUSTED TO AVOID TREES AND PER LANDSCAPE PLAN.
  - BUILDING CONDENSATE DRAINS SHALL NOT CONNECT TO THE SD SYSTEM UNLESS DESIGNED AND ANALYZED BY MEP.
  - NO PARKING SPACES, FENCES, WALKS, POSTS, LIGHTS, SHRUBS, TREES OR OTHER TYPE OF OBSTRUCTIONS NOT SPECIFICALLY EXEMPTED SHALL BE PERMITTED IN THE SPACE BETWEEN 30 INCHES ABOVE GROUND AND 10' ABOVE GROUND LEVEL WITHIN A TRIANGULAR SIGHT DISTANCE.
  - CONTACT 811 PRIOR TO CONTACTING CITY OF WILMINGTON, TRAFFIC ENGINEERING REGARDING THE UTILITIES IN ROW.
  - CONTACT TRAFFIC ENGINEERING AT (910-341-7888) TO DISCUSS STREET LIGHTING OPTIONS.
  - GARAGES ARE PROVIDED UNDER UNITS
  - OVERFLOW INFILTRATION AREA IS A PART OF CITY SW PERMIT AND MUST REMAIN, CANNOT BE FILLED.

- STORMWATER NOTES:**
- STORMWATER AS-BUILTS ARE REQUIRED FOR ALL STORM DRAINAGE CONVEYANCES.
  - ALL STORMWATER CONVEYANCES THAT CARRY PUBLIC STORMWATER MUST BE VIDEOED.
- NOTE:** FINAL SITE LIGHTING PLAN TO BE PROVIDED BY DUKE ENERGY AND BE PER COW REQUIREMENTS.

LLERIA LLC  
 48  
 ERCHIAL  
 EIGHBORHOOD RETAIL







TOWN OF WRIGHTVILLE BEACH  
 BK1320 PG0449  
 ZONING: O&I-OFFICE & INSTITUTION  
 CLASS: GOV  
 LAND USE: UTILITIES

LETTY PROPERTIES LLC  
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 ZONING: O&I-OFFICE & INSTITUTION  
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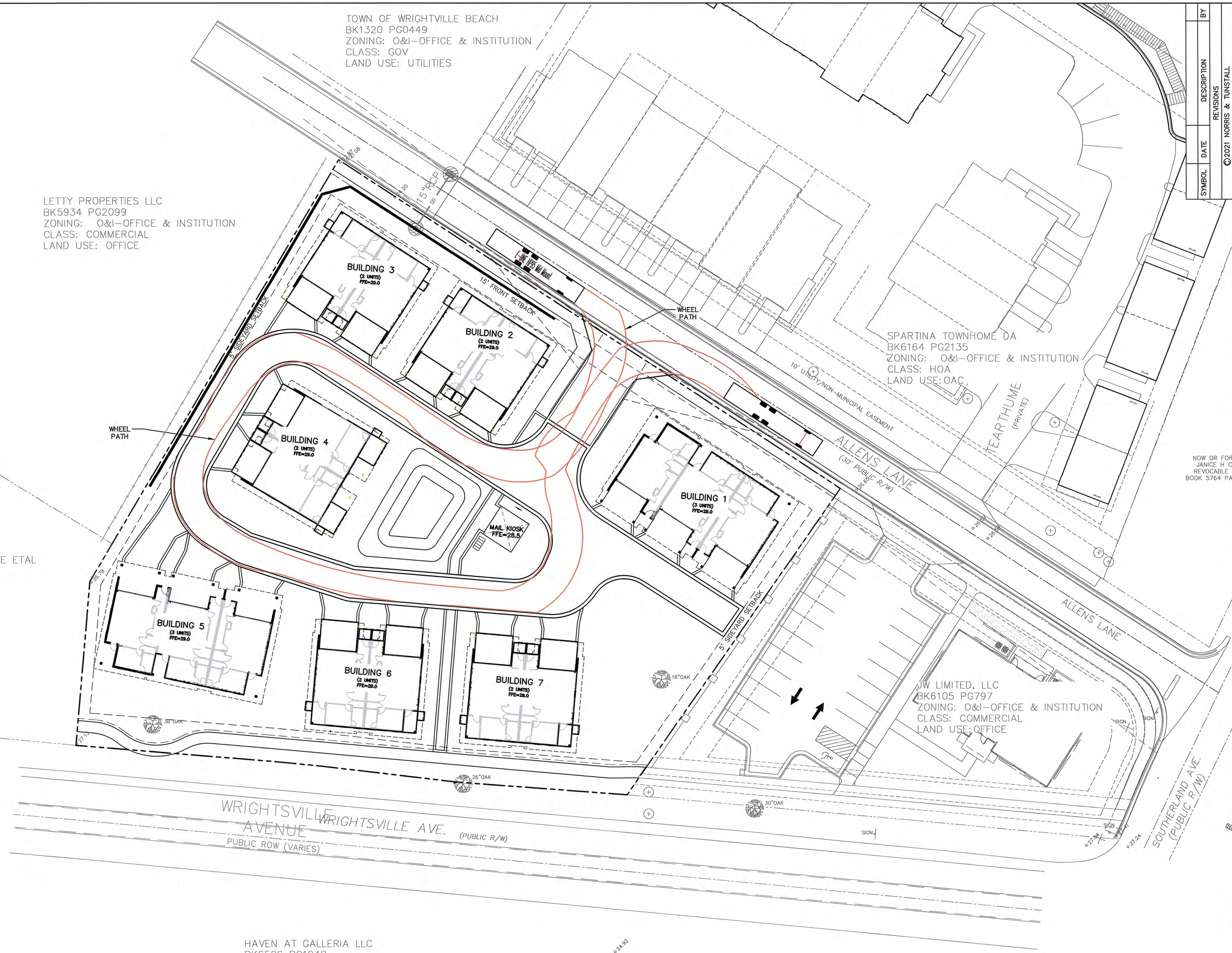
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 ZONING: R-15  
 CLASS: RESIDENTIAL  
 LAND USE: UNUSED LAND

HAVEN AT GALLERIA LLC  
 BK6586 PG1948  
 ZONING: UMX  
 CLASS: COMMERCIAL  
 LAND USE: NEIGHBORHOOD RETAIL

SPARTINA TOWNHOME DA  
 BK6164 PG2135  
 ZONING: O&I-OFFICE & INSTITUTION  
 CLASS: HOA  
 LAND USE: OAC

JW LIMITED, LLC  
 BK6105 PG797  
 ZONING: O&I-OFFICE & INSTITUTION  
 CLASS: COMMERCIAL  
 LAND USE: OFFICE

NOW OR FOR  
 JANICE H. C.  
 REVOCABLE  
 BOOK 5764 PA



SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

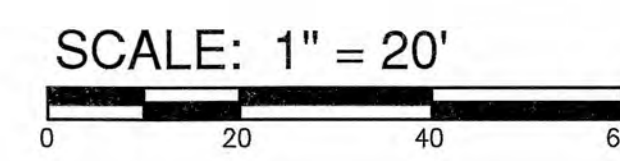
**FIRE TRUCK EXHIBIT**  
 THE TOWNHOMES AT ALLENS LANE  
 6825, 6827, 6829, 6831 WRIGHTSVILLE AVENUE  
 & 1990 ALLENS LANE  
 WILMINGTON, NC 28403

OWNER/DEVELOPER  
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 JW@INTRACOASTALREALTY.COM

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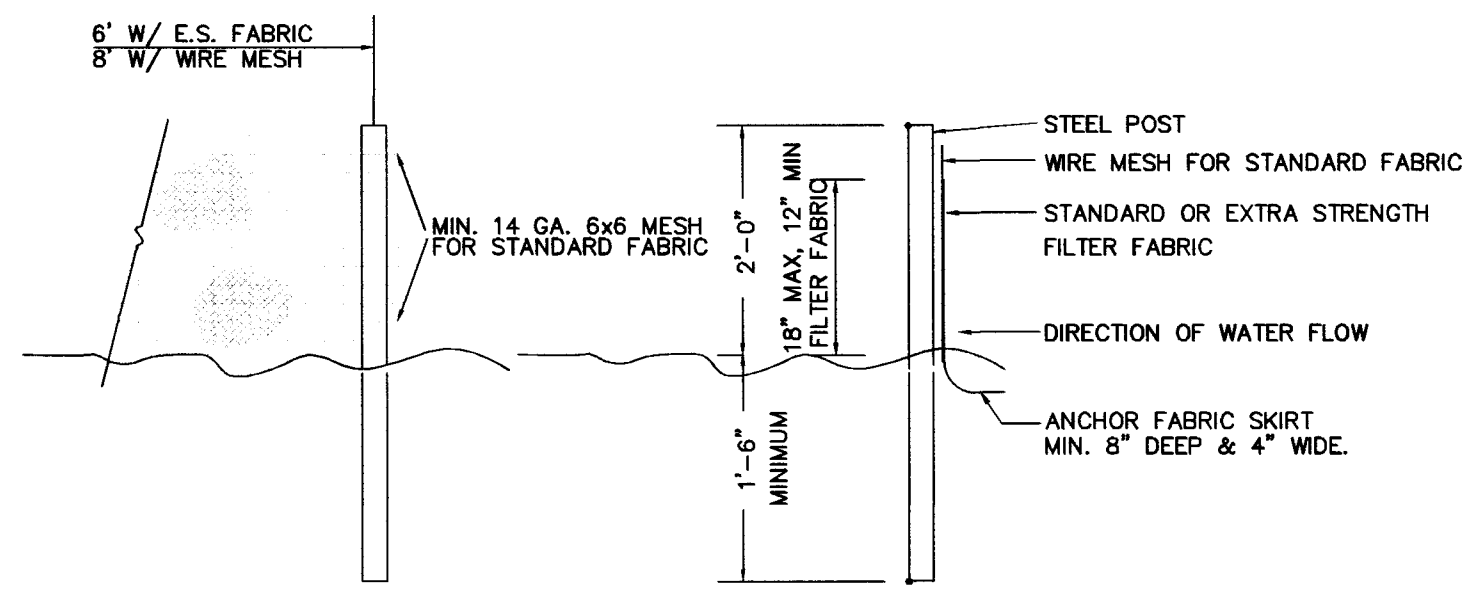
License #C-3641

DES.	JST
CHK.	JPN
DRWN.	TOM
DATE	1/24/23



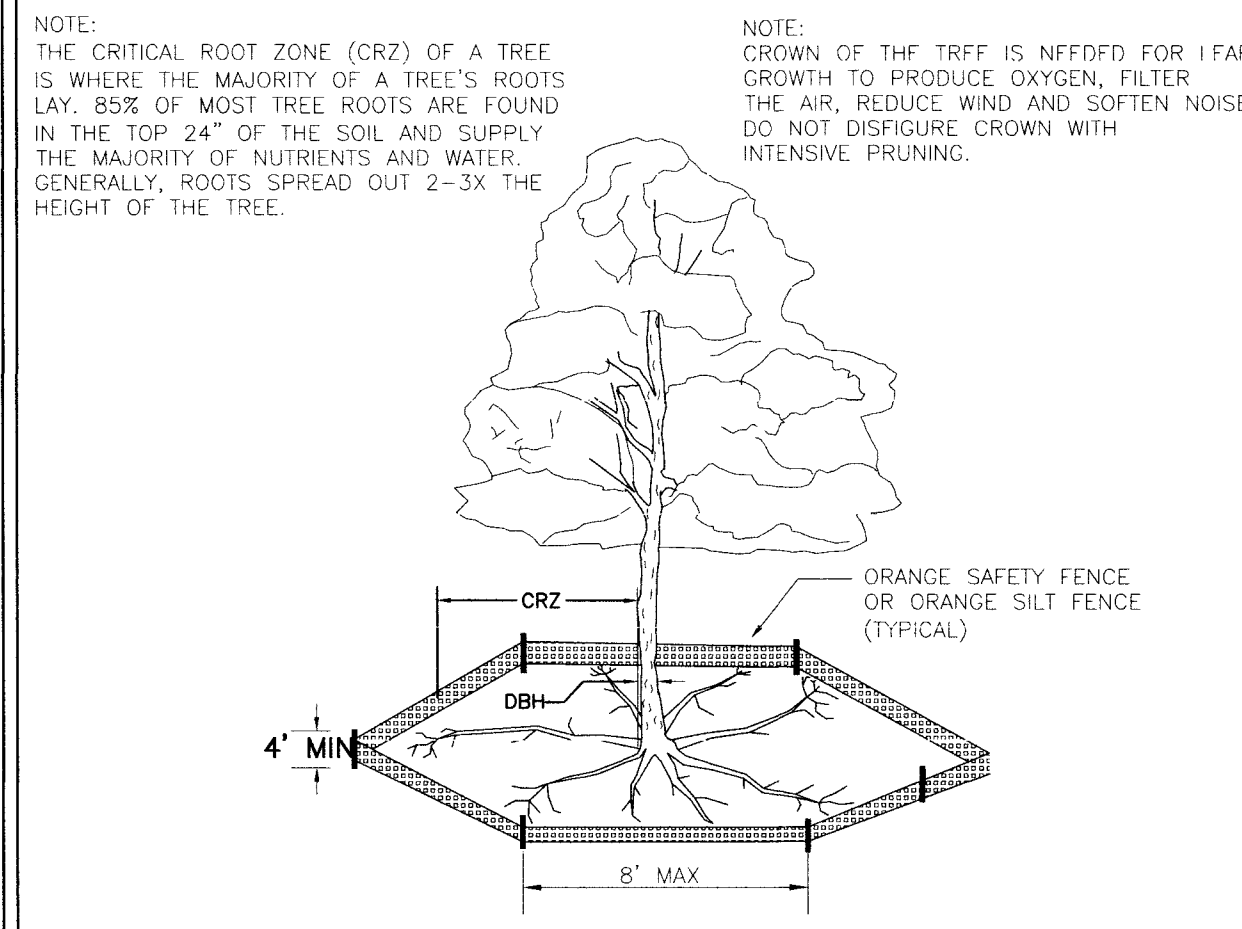
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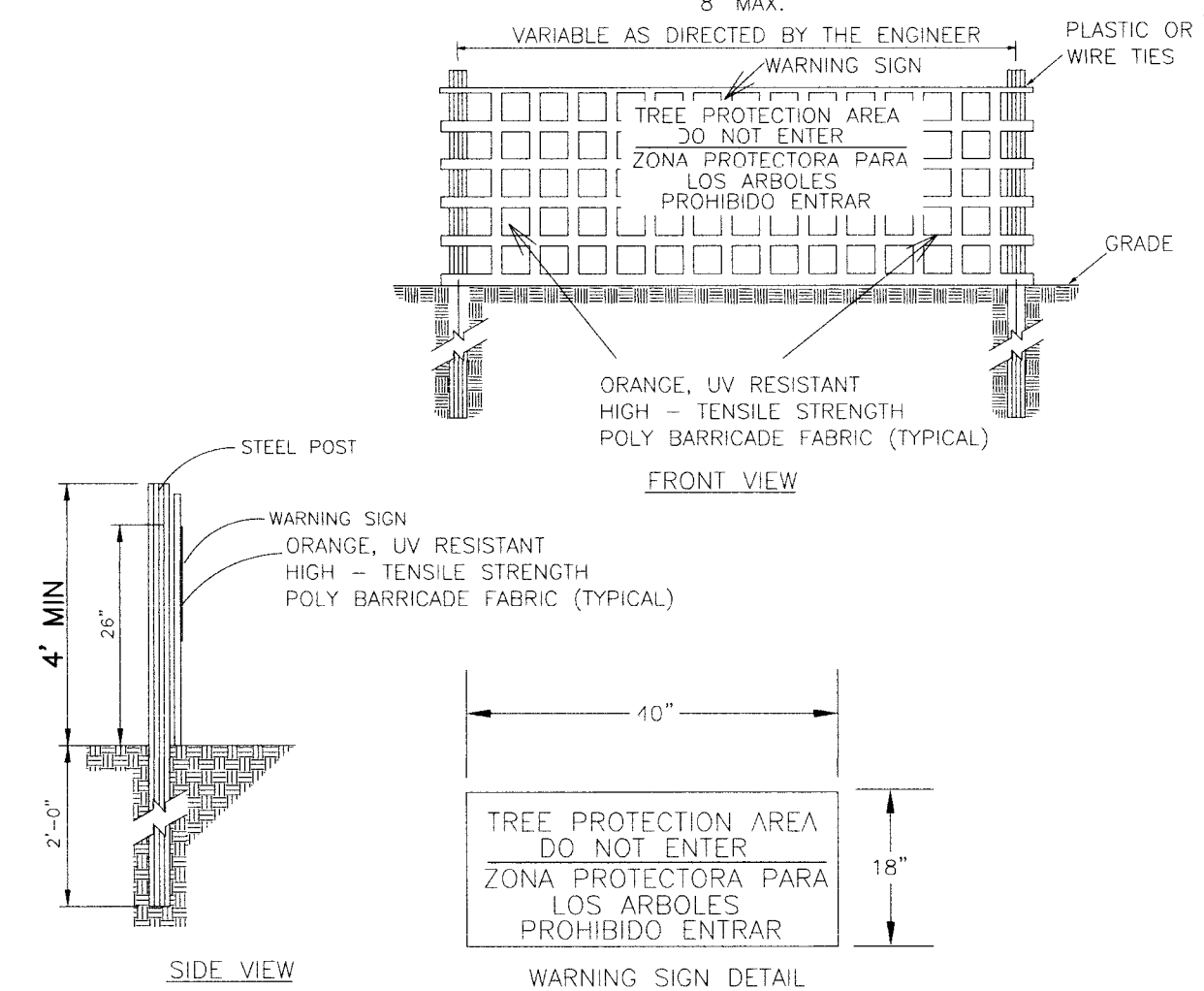
- NOTES:
1. SYN. FENCE FABRIC SHALL BE MIN. OF 30" IN WIDTH WITH 30 LB/IN TENSILE STRENGTH FOR STANDARD FABRIC AND 50 LB/IN FOR EXTRA STRENGTH.
  2. FABRIC SHALL BE CONTINUOUS LENGTH. IF JOINTS ARE NECESSARY, LAP FABRIC POST TO POST.
  3. STEEL POST SHALL BE MIN. 4" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

NOT TO SCALE

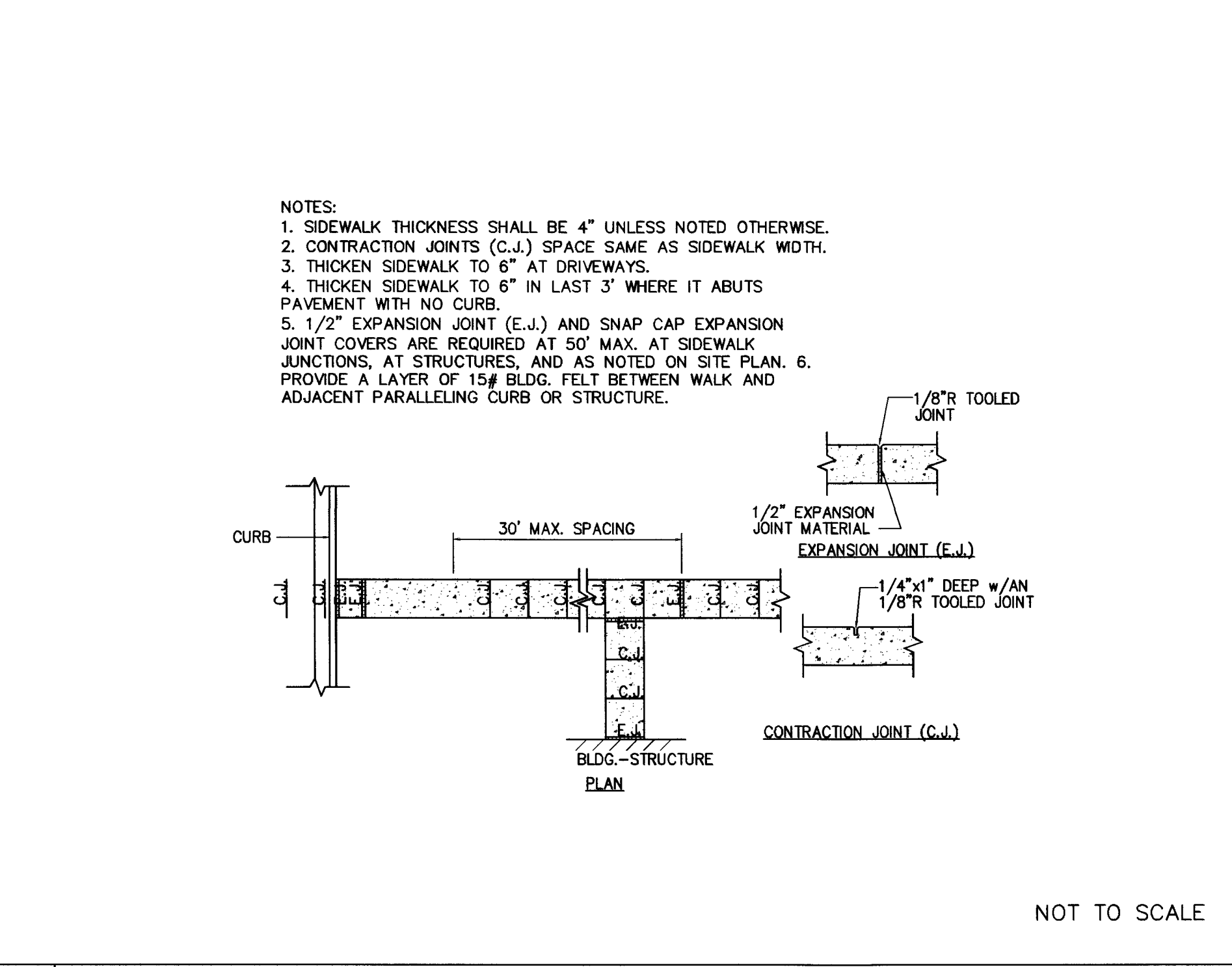


- NOTES:
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
  2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
  3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
  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 REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
  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 VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
  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.

NOT TO SCALE



- NOTES:
1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
  2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
  3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
  4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
  5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
  6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.



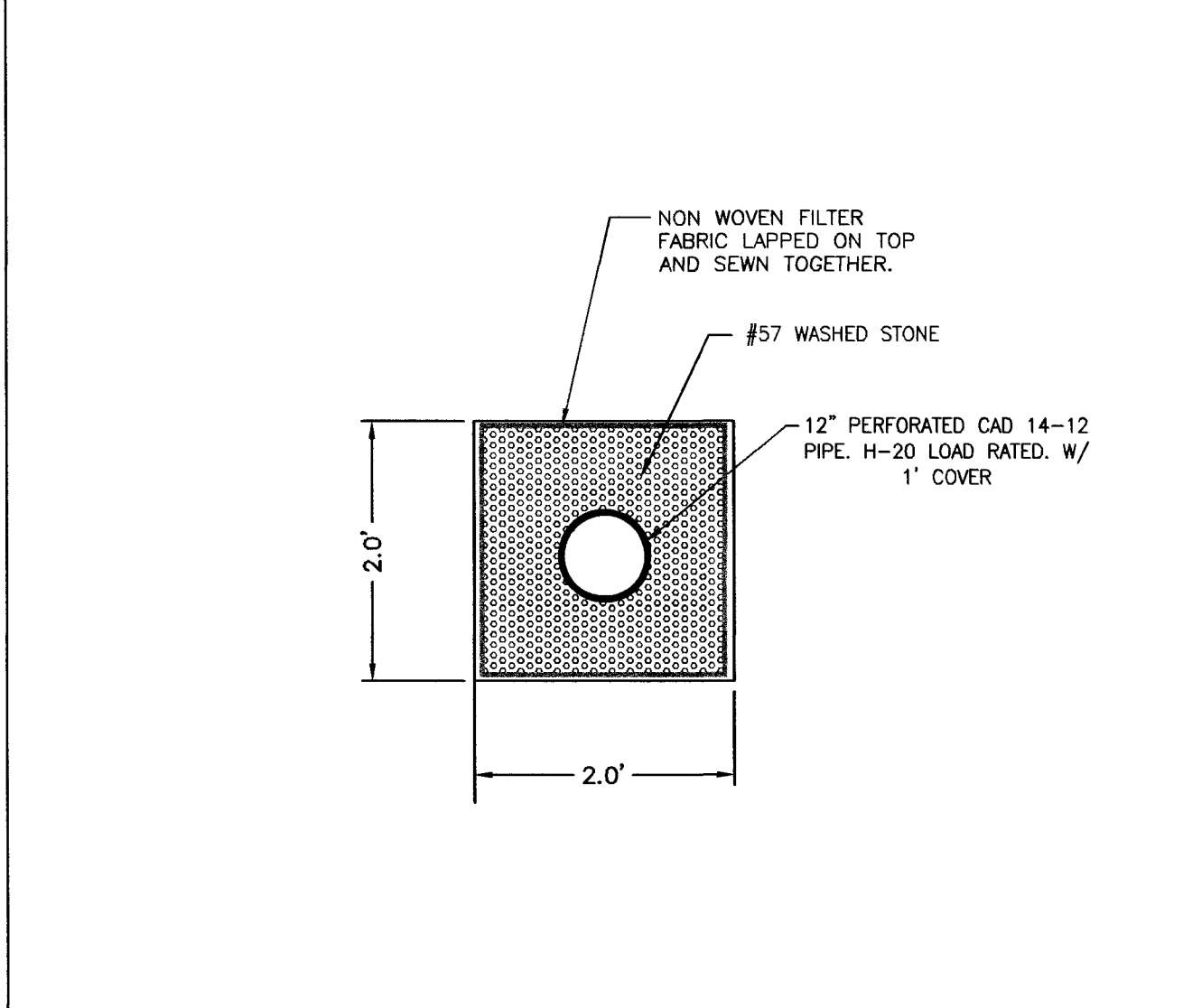
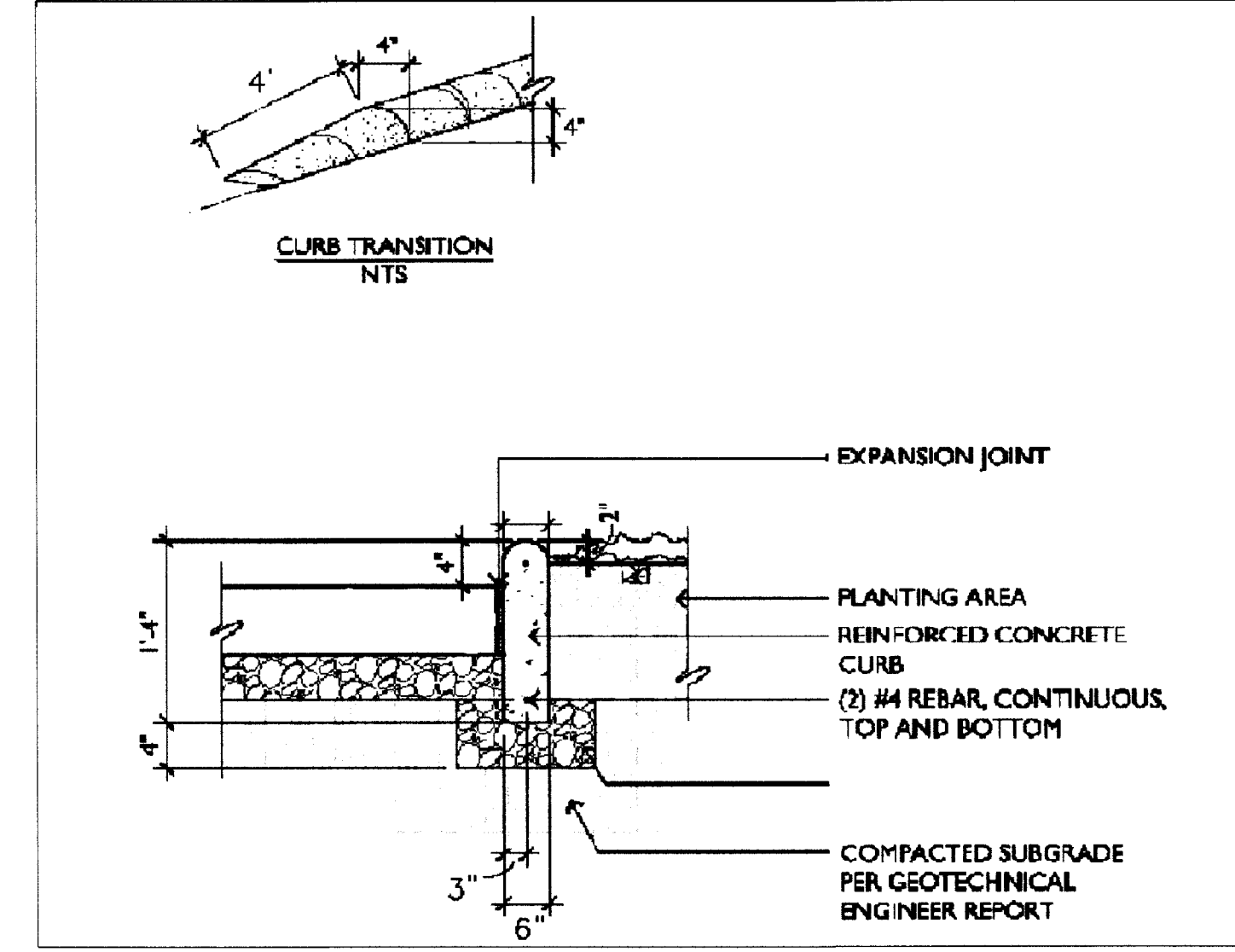
- NOTES:
1. SIDEWALK THICKNESS SHALL BE 4" UNLESS NOTED OTHERWISE.
  2. CONTRACTION JOINTS (C.J.) SPACE SAME AS SIDEWALK WIDTH.
  3. THICKEN SIDEWALK TO 6" AT DRIVEWAYS.
  4. THICKEN SIDEWALK TO 6" IN LAST 3' WHERE IT ABUTS PAVEMENT WITH NO CURB.
  5. 1/2" EXPANSION JOINT (E.J.) AND SNAP CAP EXPANSION JOINT COVERS ARE REQUIRED AT 50' MAX. AT SIDEWALK JUNCTIONS, AT STRUCTURES, AND AS NOTED ON SITE PLAN. 6. PROVIDE A LAYER OF 15# BLDG. FELT BETWEEN WALK AND ADJACENT PARALLELING CURB OR STRUCTURE.

NOT TO SCALE

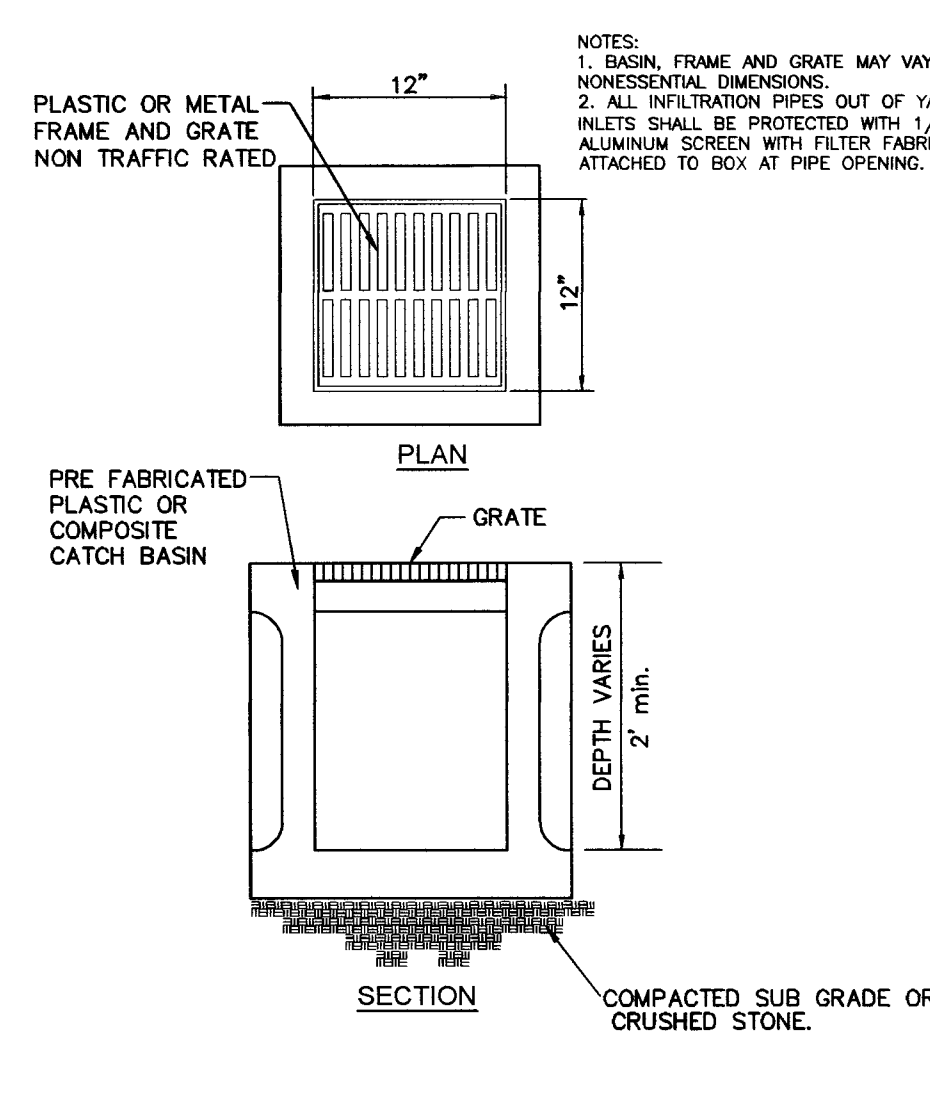
1 TEMPORARY SILT FENCE

2 TREE PROTECTION DETAIL

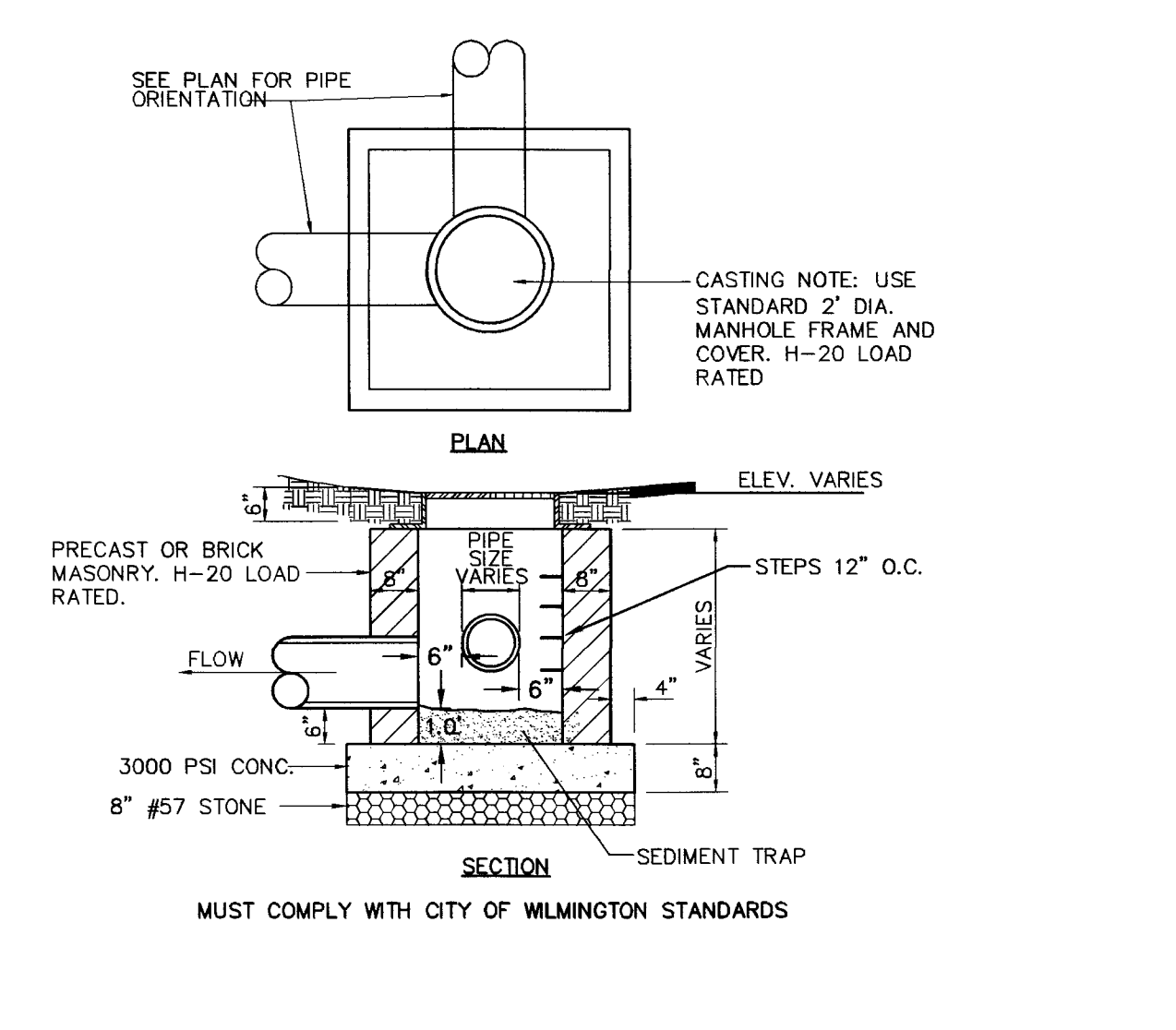
3 SIDEWALK JOINT DETAIL



NOT TO SCALE



NOT TO SCALE



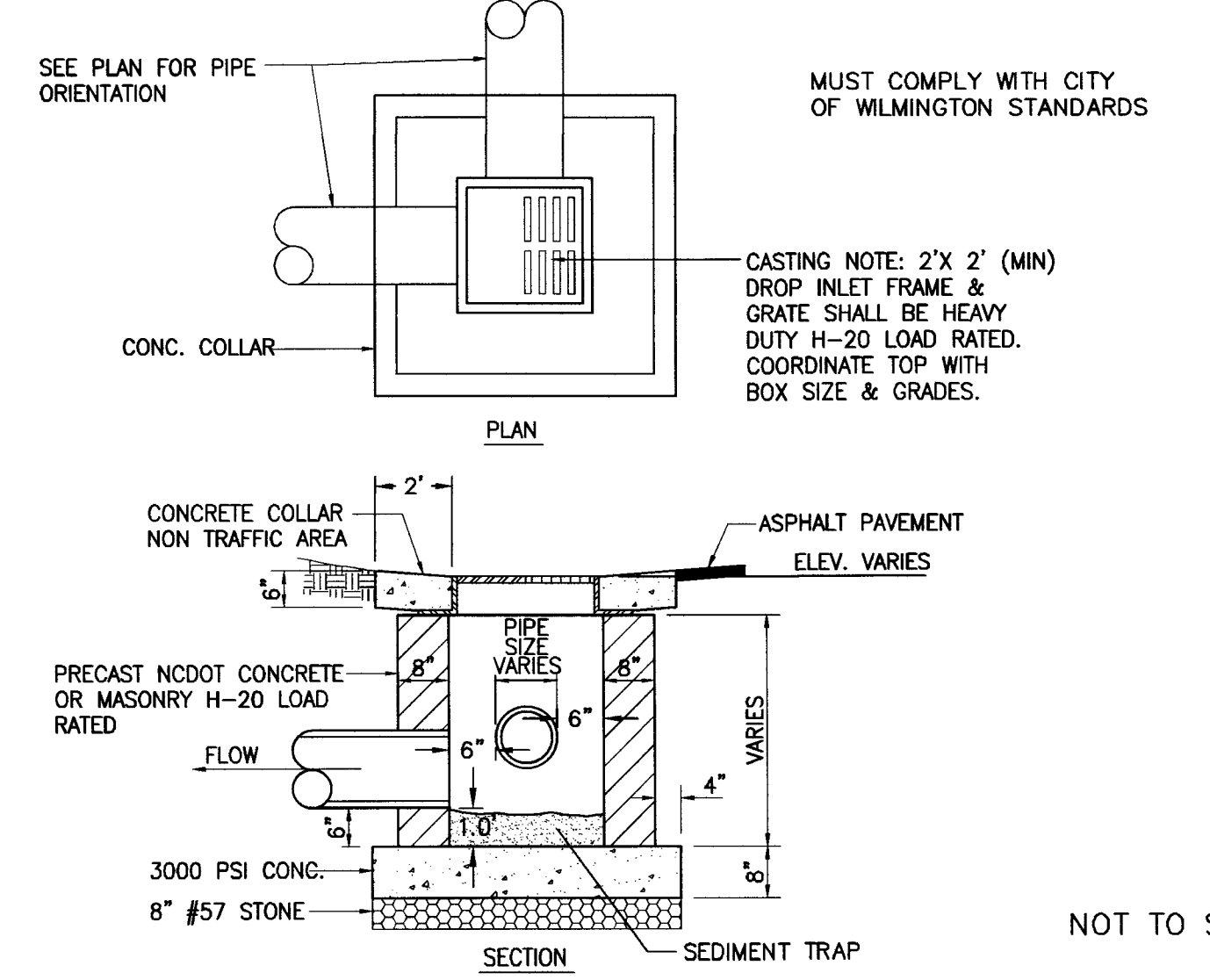
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4 CONCRETE CURB

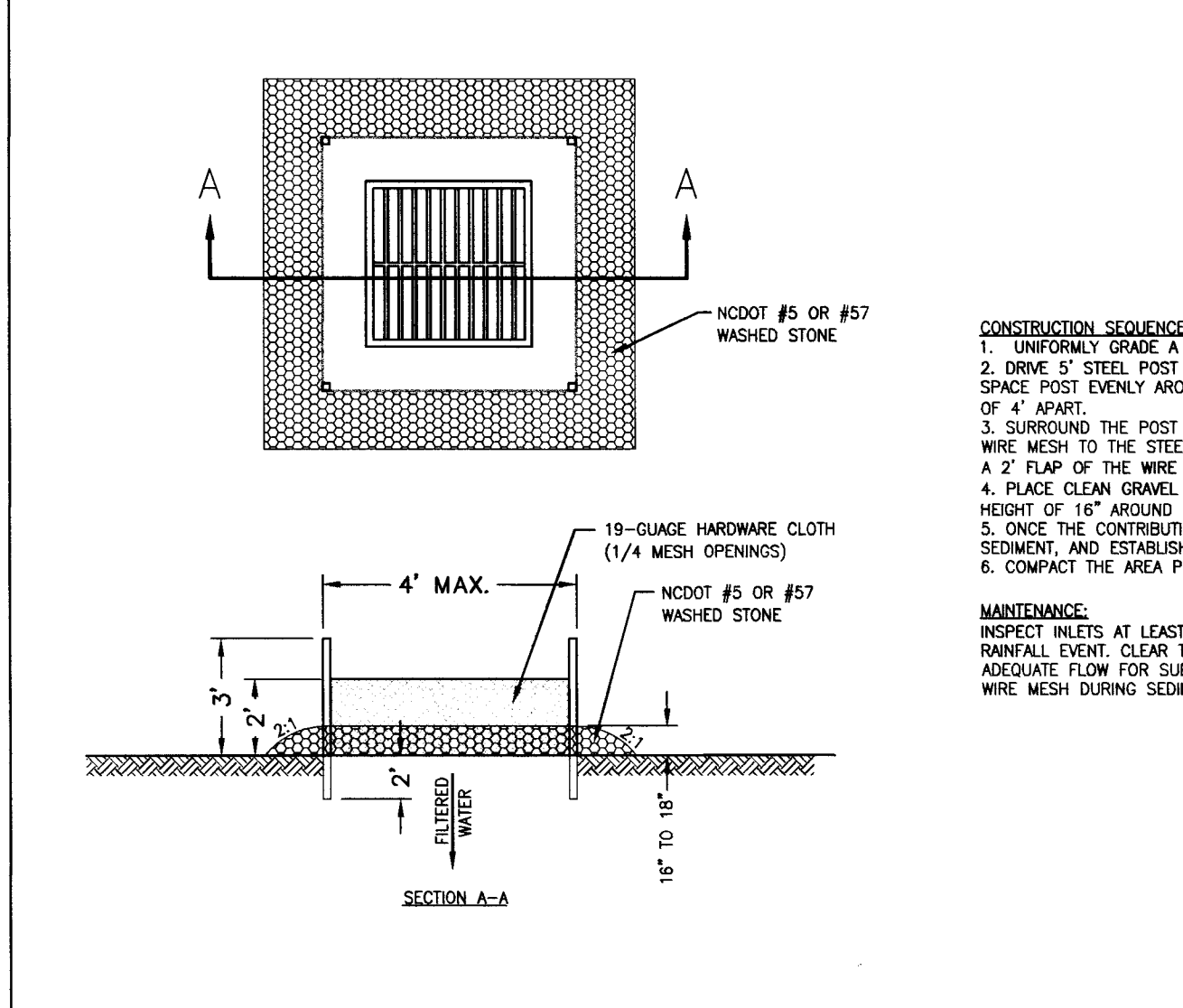
5 TYPICAL INFILTRATION TRENCH DETAIL

6 YARD INLET DETAIL

7 JUNCTION BOX DETAIL

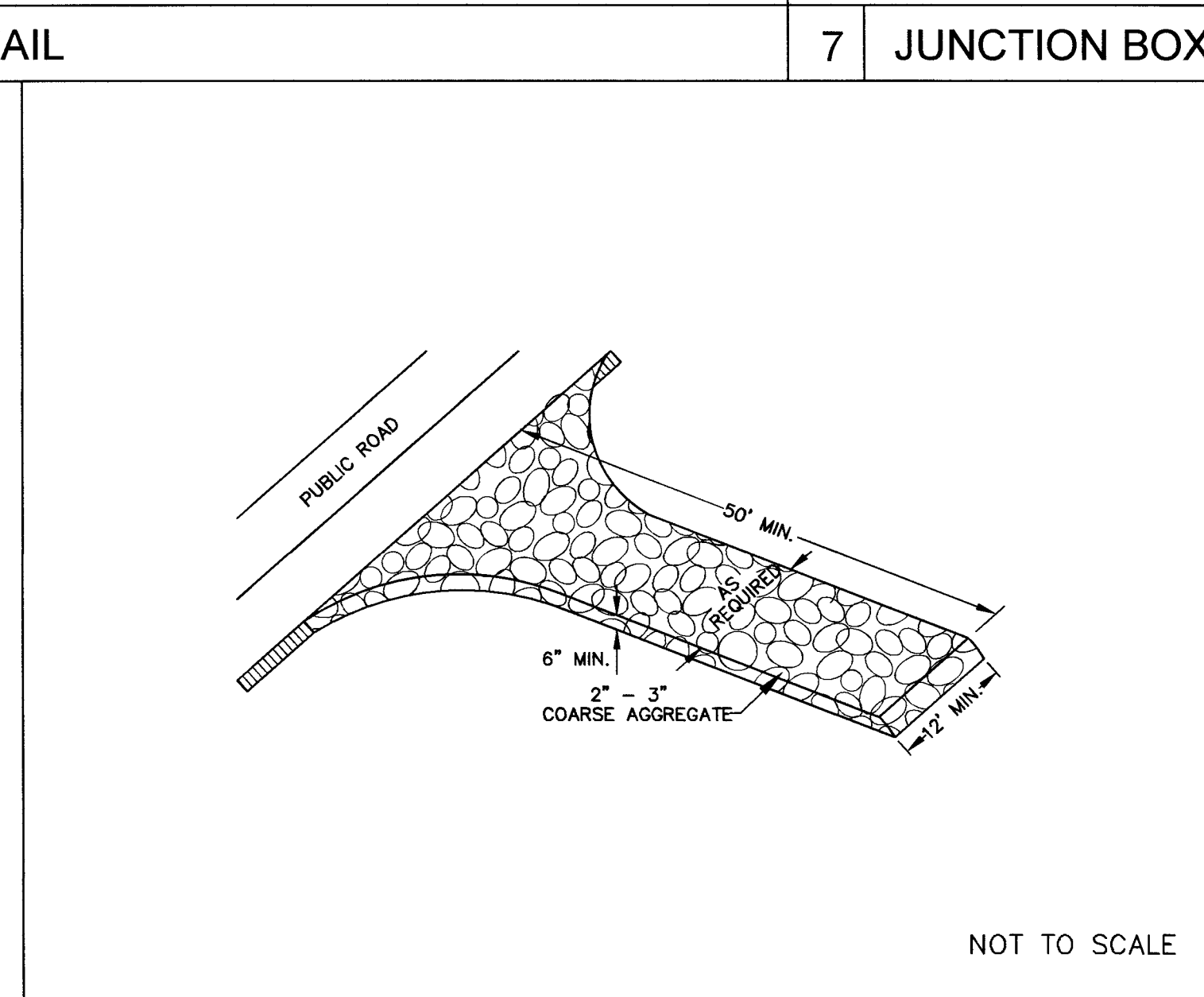


NOT TO SCALE



NOT TO SCALE

- CONSTRUCTION SEQUENCE:
1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
  2. DRIVE 5\"/>
- MAINTENANCE:
- INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

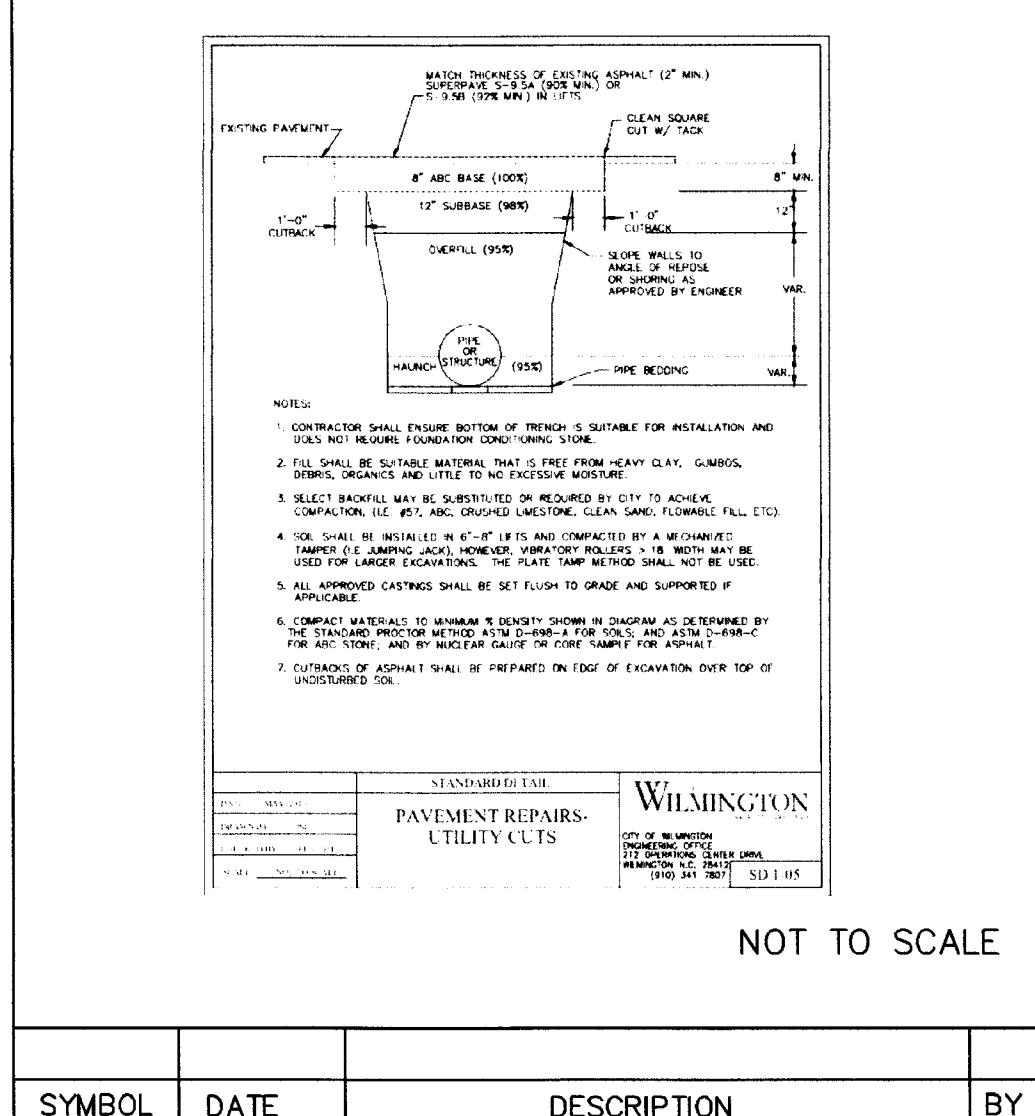


NOT TO SCALE

8 DROP INLET DETAIL

9 HARDWARE CLOTH & GRAVEL INLET PROTECTION

10 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



NOT TO SCALE

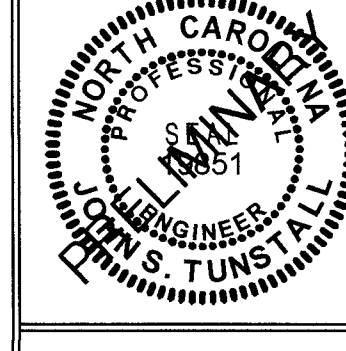
SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
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NOTES & DETAILS  
 THE TOWNHOMES AT ALLEN'S LANE  
 6825, 6827, 6829, 6831 WRIGHTSVILLE AVENUE  
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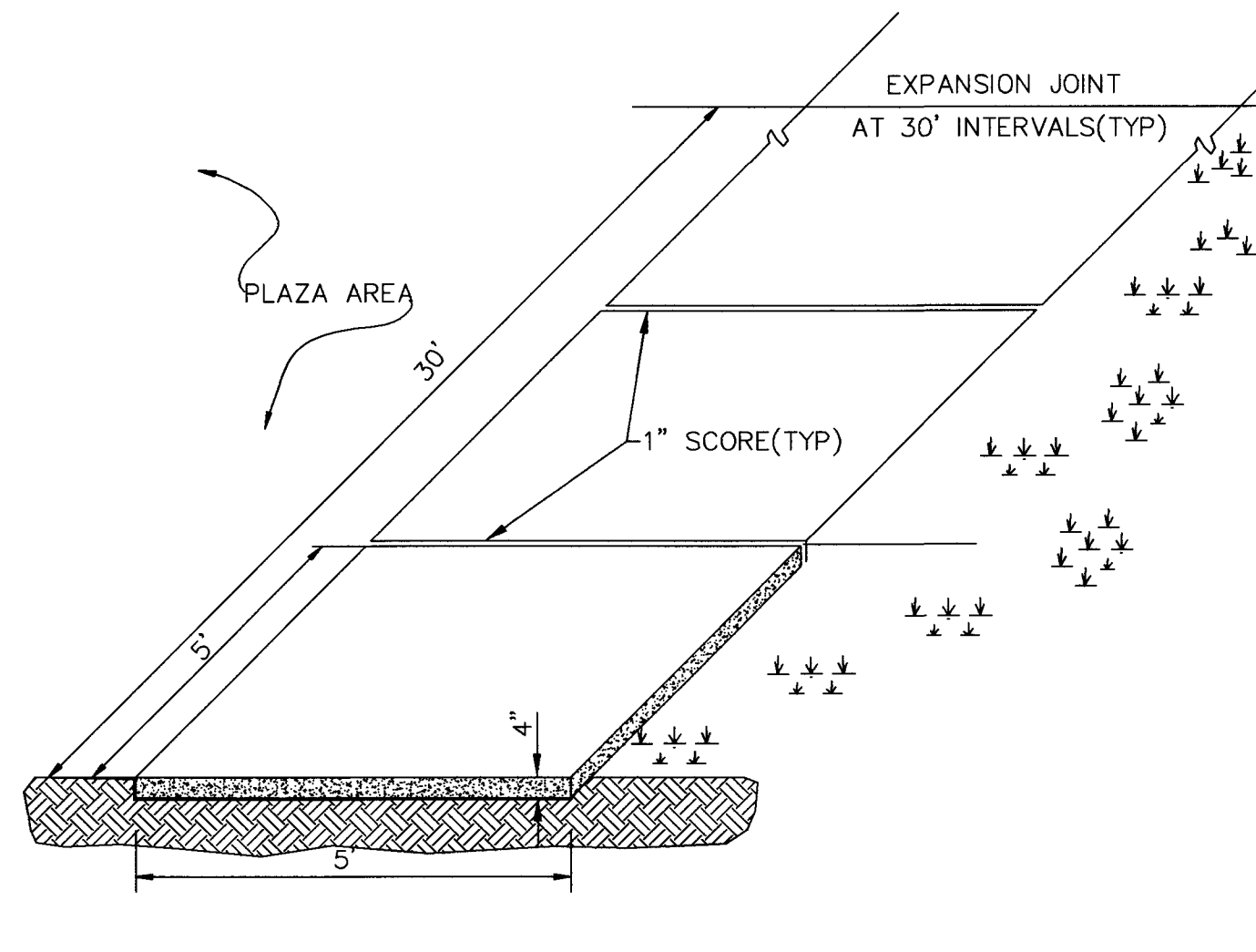
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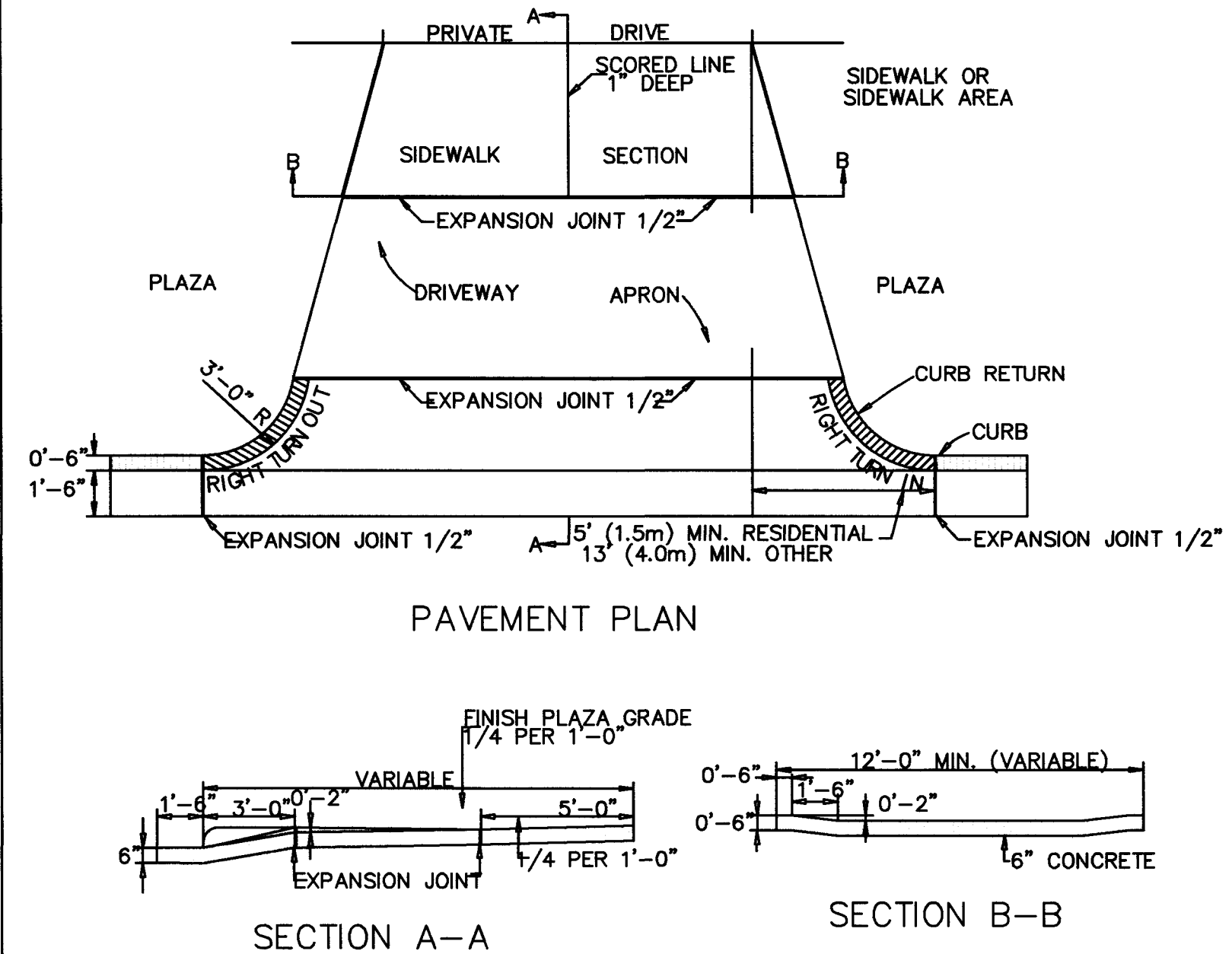


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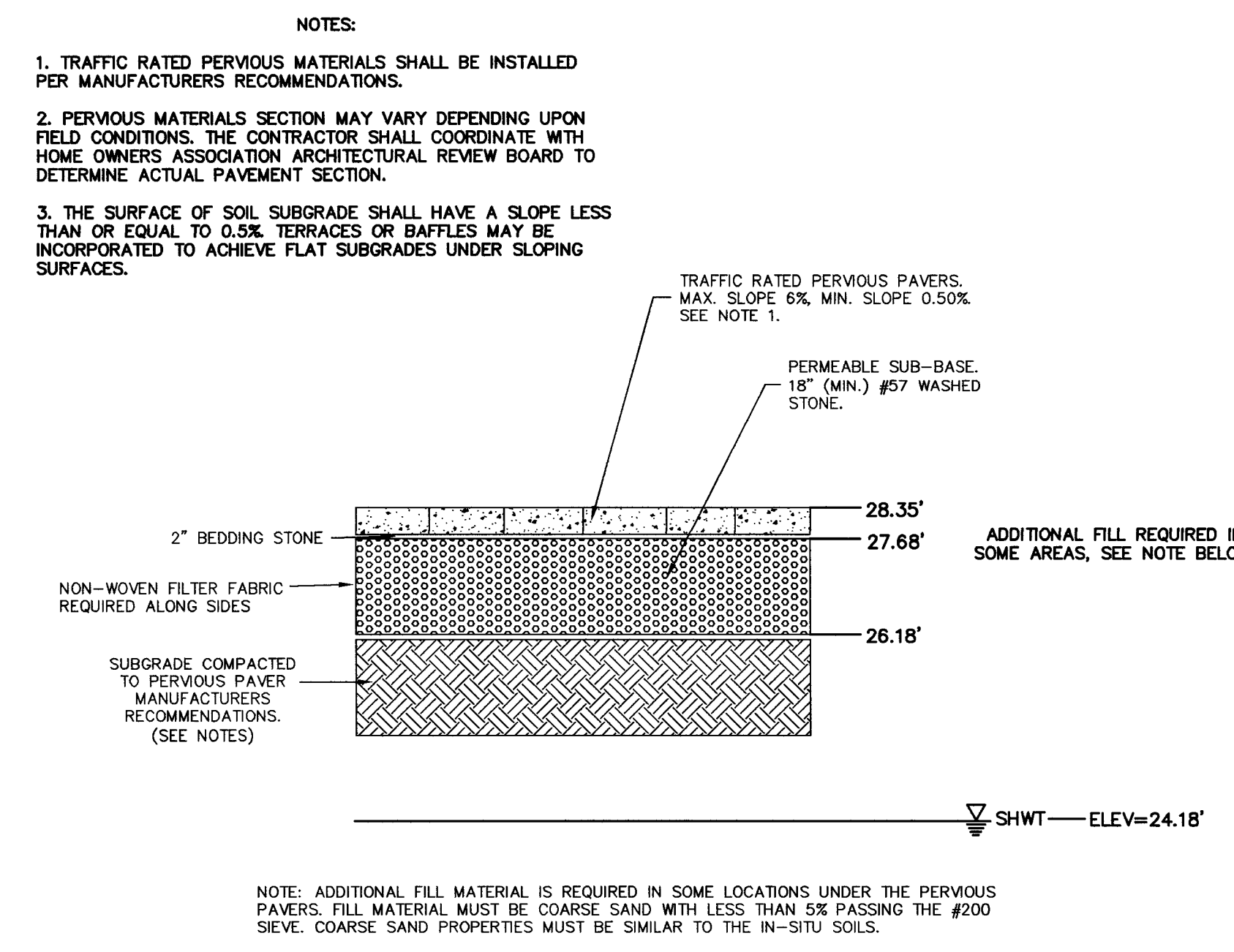




NOT TO SCALE



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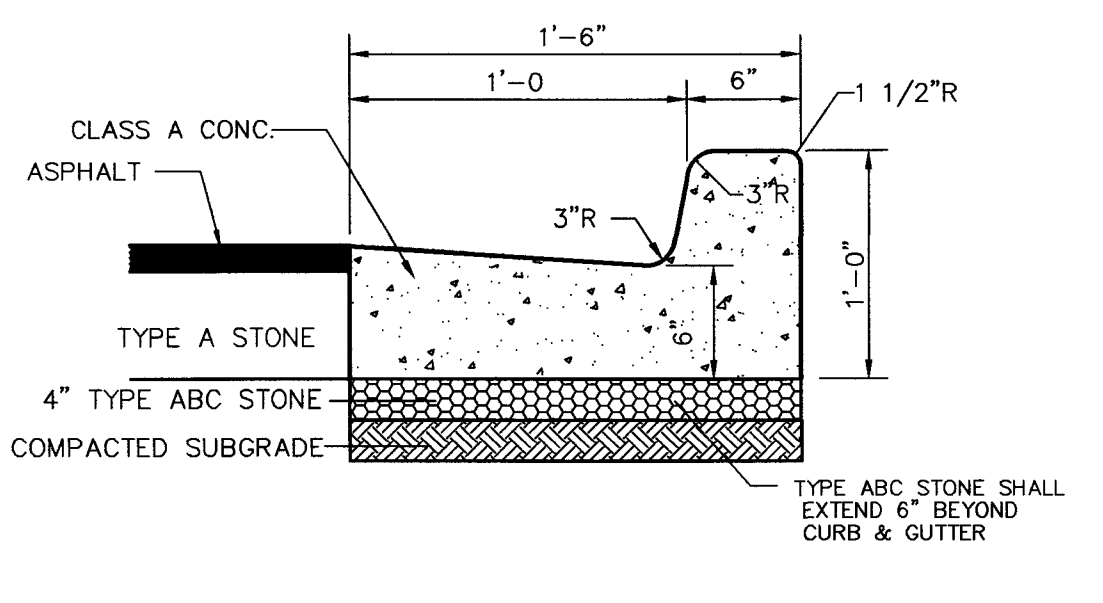


NOT TO SCALE

1 STANDARD SIDEWALK DETAIL

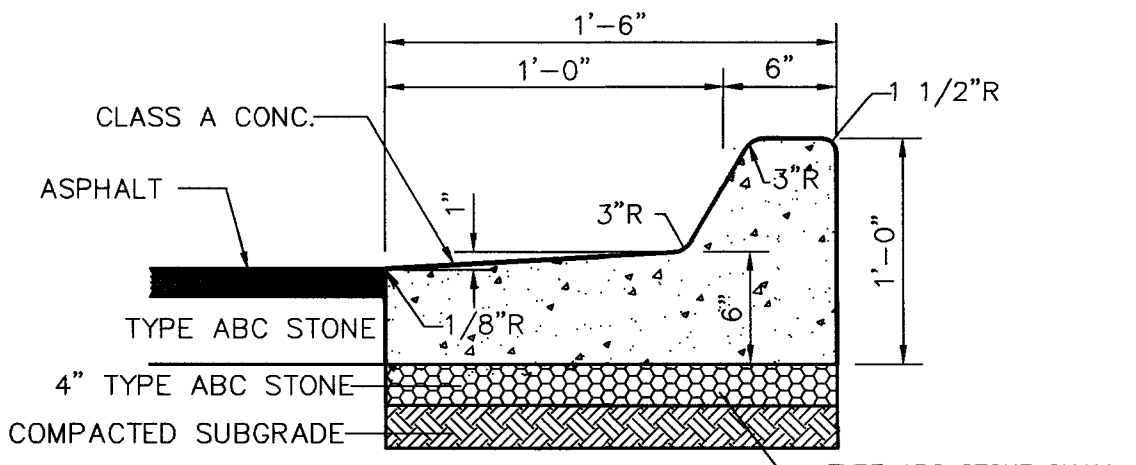
2 STANDARD DRIVEWAY DETAIL

3 PERVIOUS PAVER CROSS SECTION WITH ELEVATIONS



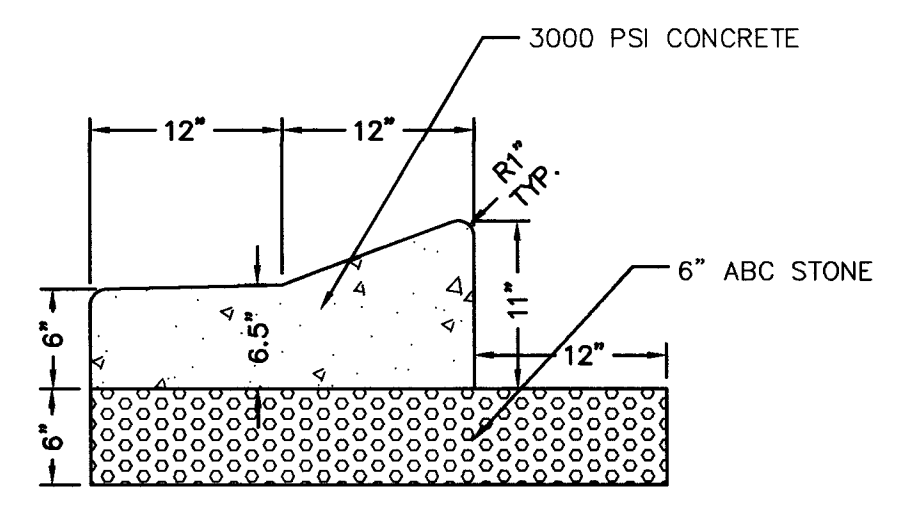
NOTE: CURB TYPE DEPENDS ON GRADES SHOWN ON GRADING PLAN. GRADES INDICATING FALL AWAY FROM CURB SHALL BE SPILL OFF TYPE CURB. GRADES INDICATING CURB ACCEPTING FLOW SHALL BE FLOW LINE TYPE.

NOT TO SCALE

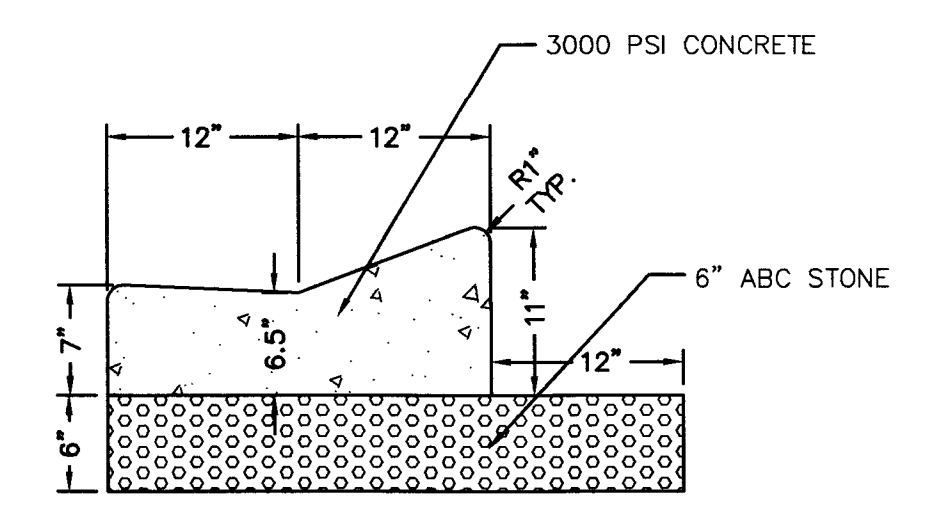


NOTE: CURB TYPE DEPENDS ON GRADES SHOWN ON GRADING PLAN. GRADES INDICATING FALL AWAY FROM CURB SHALL BE SPILL OFF TYPE CURB. GRADES INDICATING CURB ACCEPTING FLOW SHALL BE FLOW LINE TYPE.

NOT TO SCALE



NOT TO SCALE



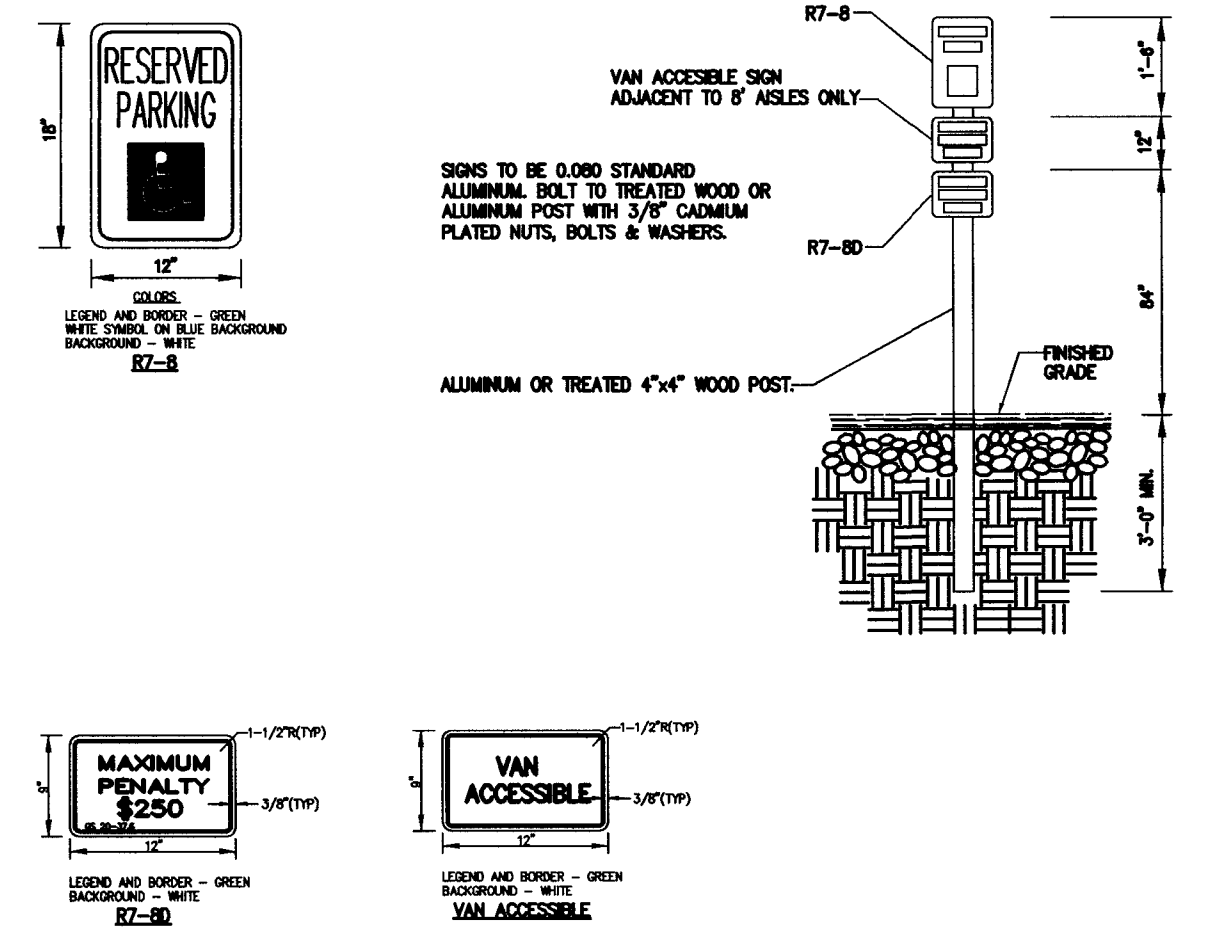
NOT TO SCALE

4 CURB SECTION ON SITE (FLOW LINE)

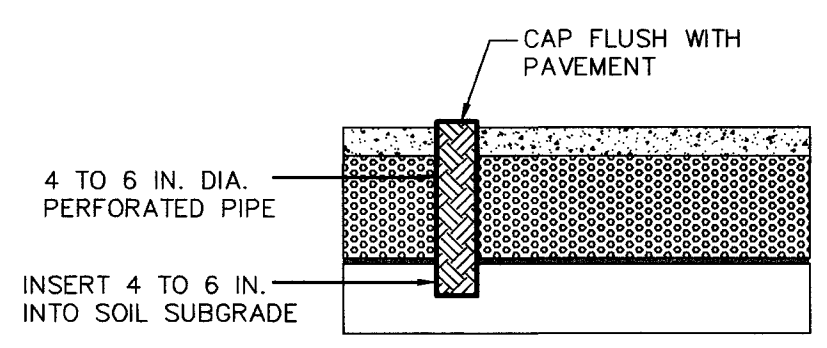
5 CURB SECTION ON SITE (SPILL-OFF)

6 24" VALLEY CURB (SPILL OFF)

7 24" VALLEY CURB



NOT TO SCALE

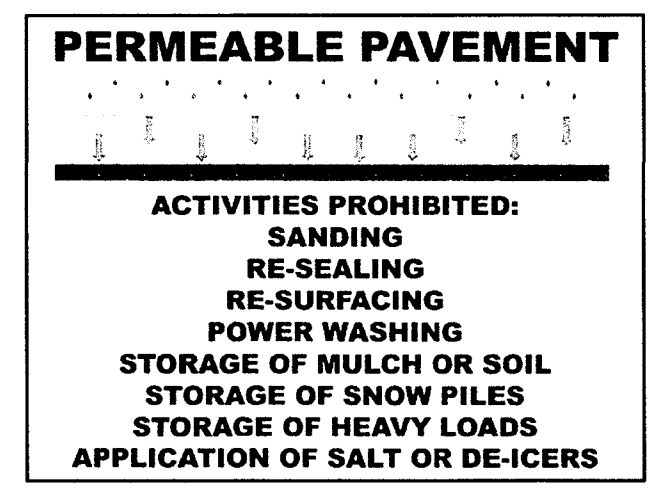


PERVIOUS PAVEMENT OBSERVATION WELL NOTES:

1. THE OBSERVATION WELL SHALL BE PLACED AT THE LOW END OF THE SUBGRADE SLOPE.
2. OBSERVATION WELLS SHALL BE FITTED WITH A LOCKABLE CAP INSTALLED PLACED EVEN WITH THE PAVEMENT SURFACE TO FACILITATE QUARTERLY INSPECTION AND MAINTENANCE.
3. THE OBSERVATION WELL SHALL CONSIST OF A RIGID 4 TO 6 IN. DIAMETER PERFORATED PVC PIPE.

NOT TO SCALE

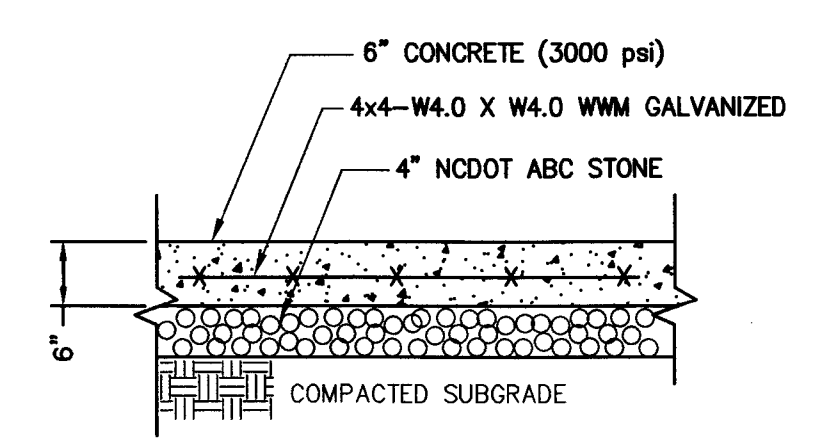
4 PERVIOUS PAVEMENT OBSERVATION WELL



NOTES:  
1. THE PERMEABLE PAVEMENT SIGN IS BASED ON AN 18" X 24" STANDARD SIZE FOR SIGN PRODUCTION.  
2. A HIGH-RESOLUTION IMAGE FILE CAN BE PROVIDED BY THE DWO FOR USE IN FABRICATING THE SIGN. THE GRAPHIC IS IN COLOR BUT COLOR SIGNS ARE NOT REQUIRED.

NOT TO SCALE

4 PERMEABLE PAVEMENT SIGNAGE



NOTES:  
1. CONTROL JOINTS SHALL BE EVERY 15 FT. (MAX.) AND EXPANSION JOINTS SHALL BE EVERY 50 FT. (MAX).  
2. PAVEMENT SECTIONS SHALL BE DETERMINED WITH CONSULTATION FROM THE GEOTECHNICAL ENGINEER AND ONLY PER THEIR RECOMMENDATIONS. PAVEMENT DETAIL SECTIONS SHOWN ARE MINIMUMS AND MAY BE STRENGTHENED PER GEOTECHNICAL ENGINEERS RECOMMENDATIONS.  
3. REFERENCE GEOTECHNICAL REPORT FOR UNDERCUTTING IN AREAS OF PROPOSED PARKING AND DRIVE AREAS. CONSULT WITH GEOTECHNICAL ENGINEER TO DETERMINE REQUIRED SUBGRADE UNDERCUTTING AND REPLACEMENT.

NOT TO SCALE

4 CONCRETE PAVEMENT SECTION

SYMBOL	DATE	DESCRIPTION	BY
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4 TYPICAL HANDICAP SIGN

4 PERVIOUS PAVEMENT OBSERVATION WELL

4 PERMEABLE PAVEMENT SIGNAGE

4 CONCRETE PAVEMENT SECTION

NOTES & DETAILS  
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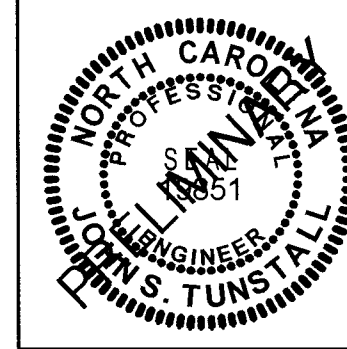
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DES. JST  
CHK. JPN  
DRWN. TOM

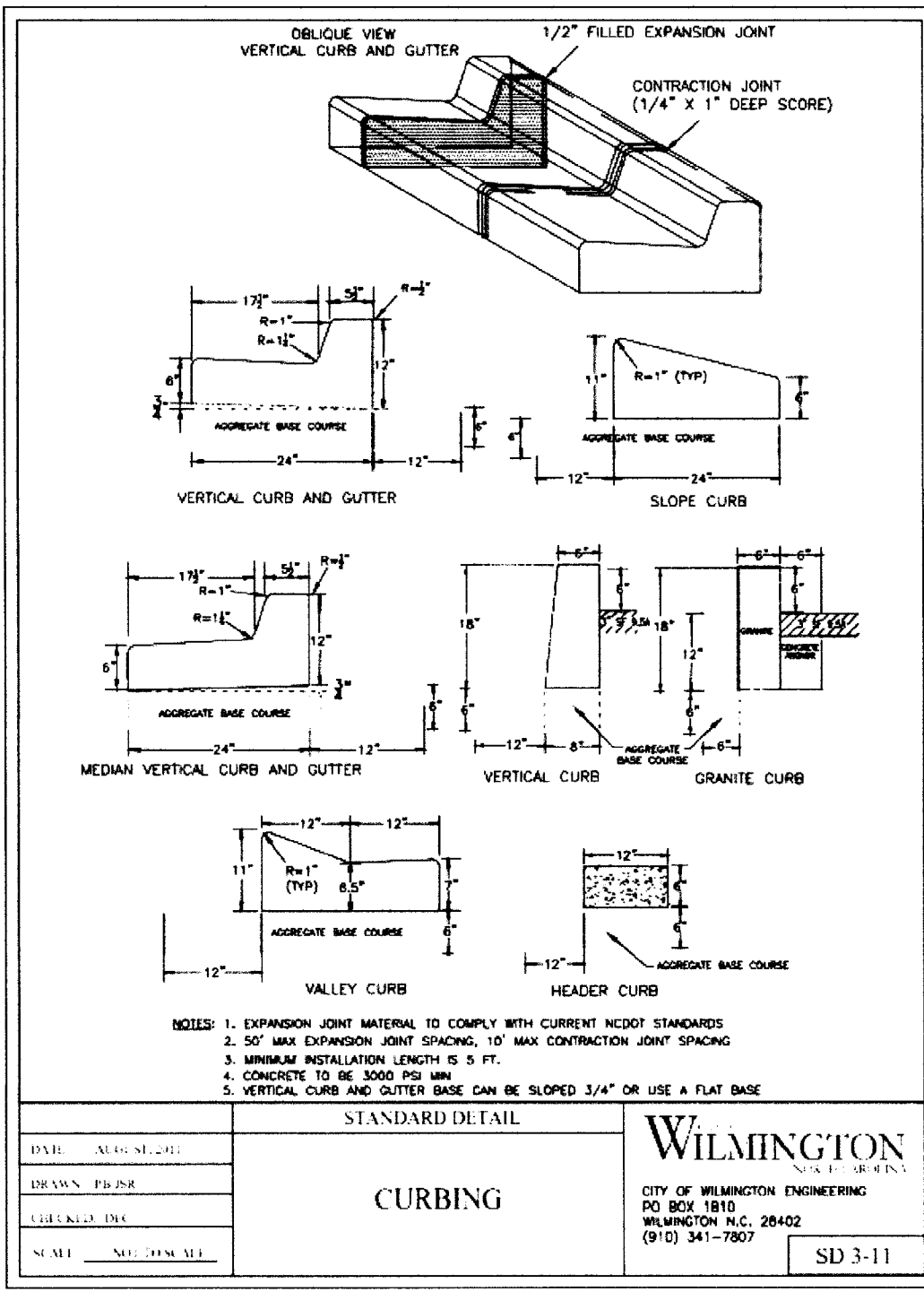
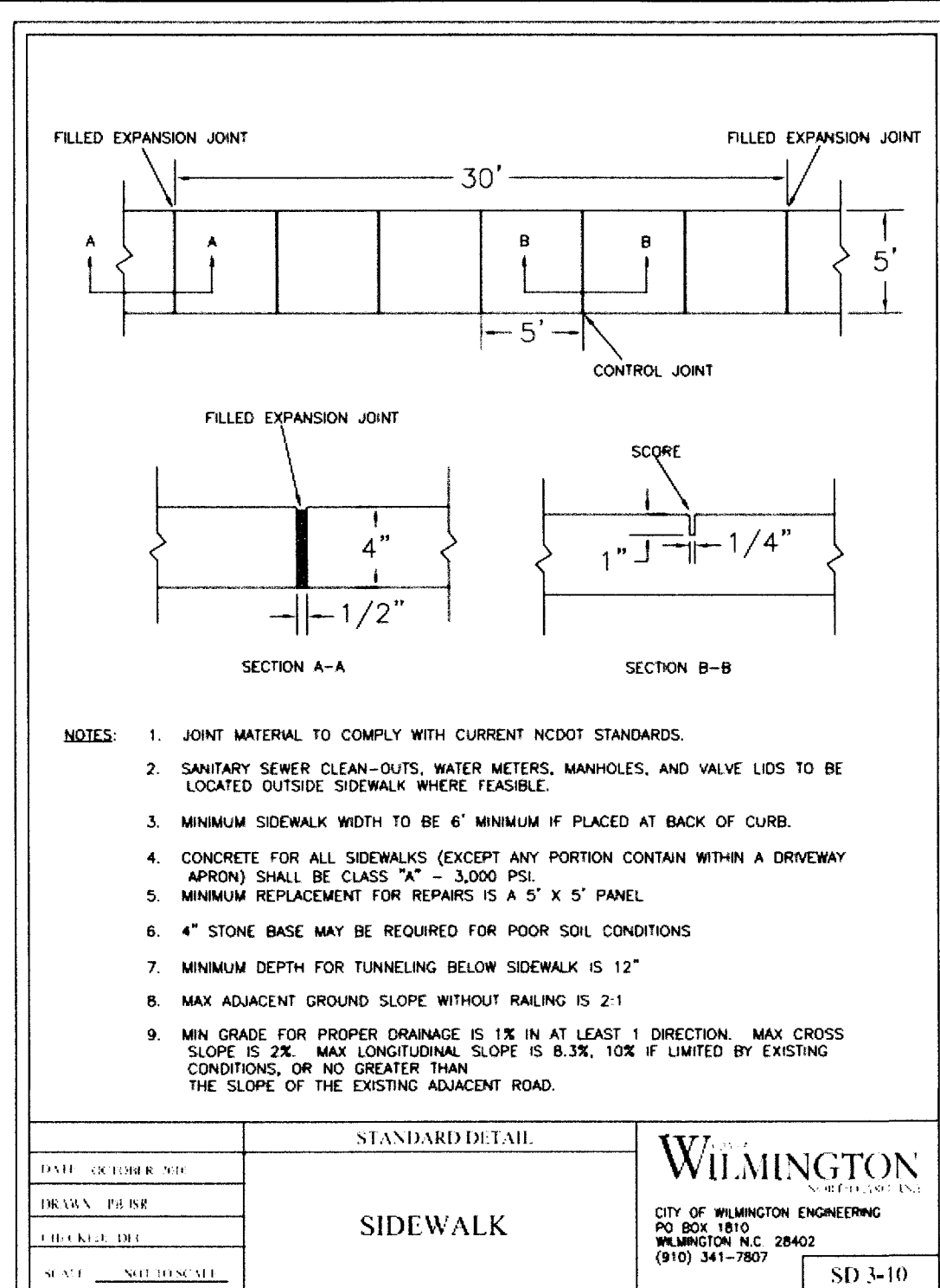
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C9



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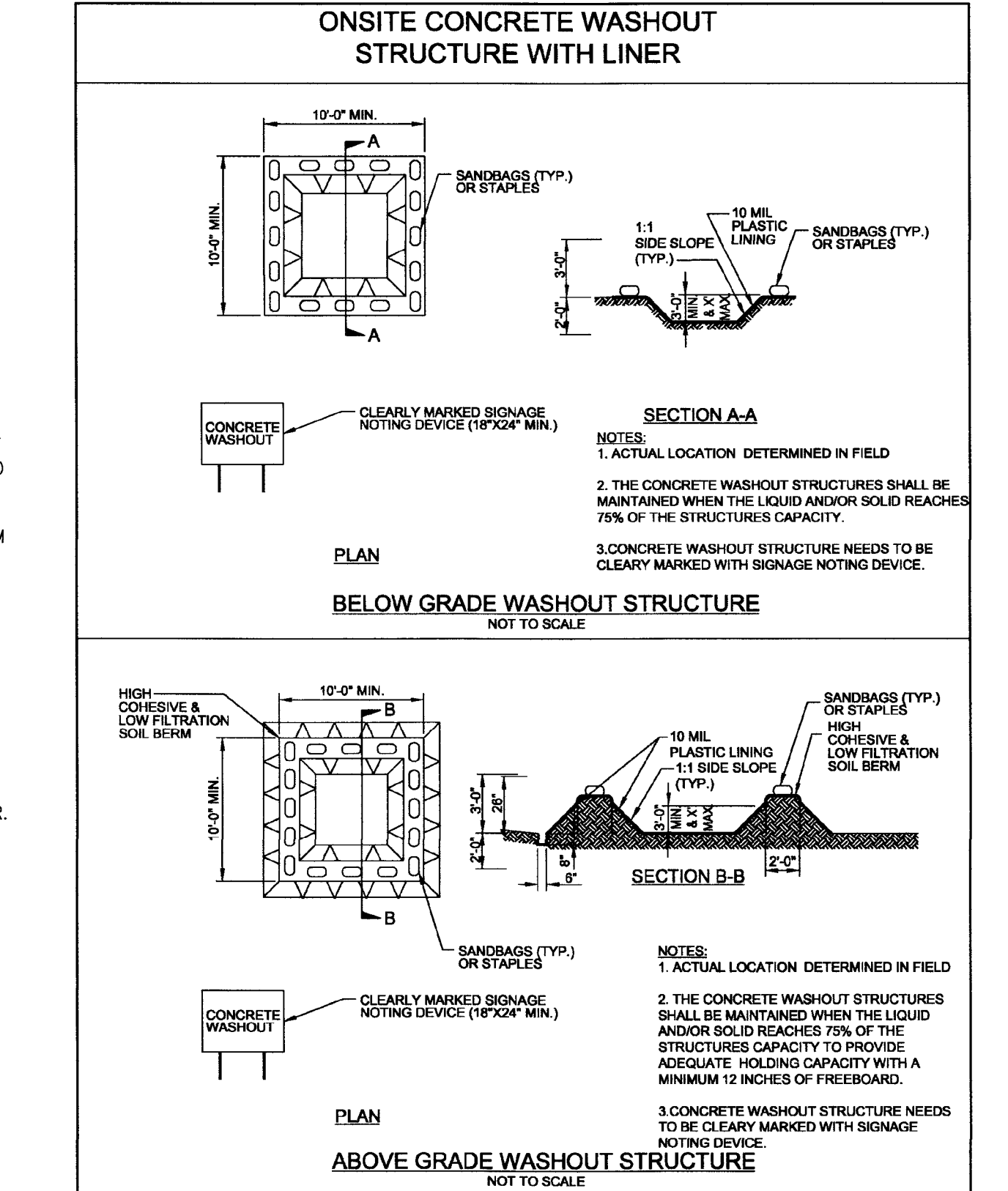
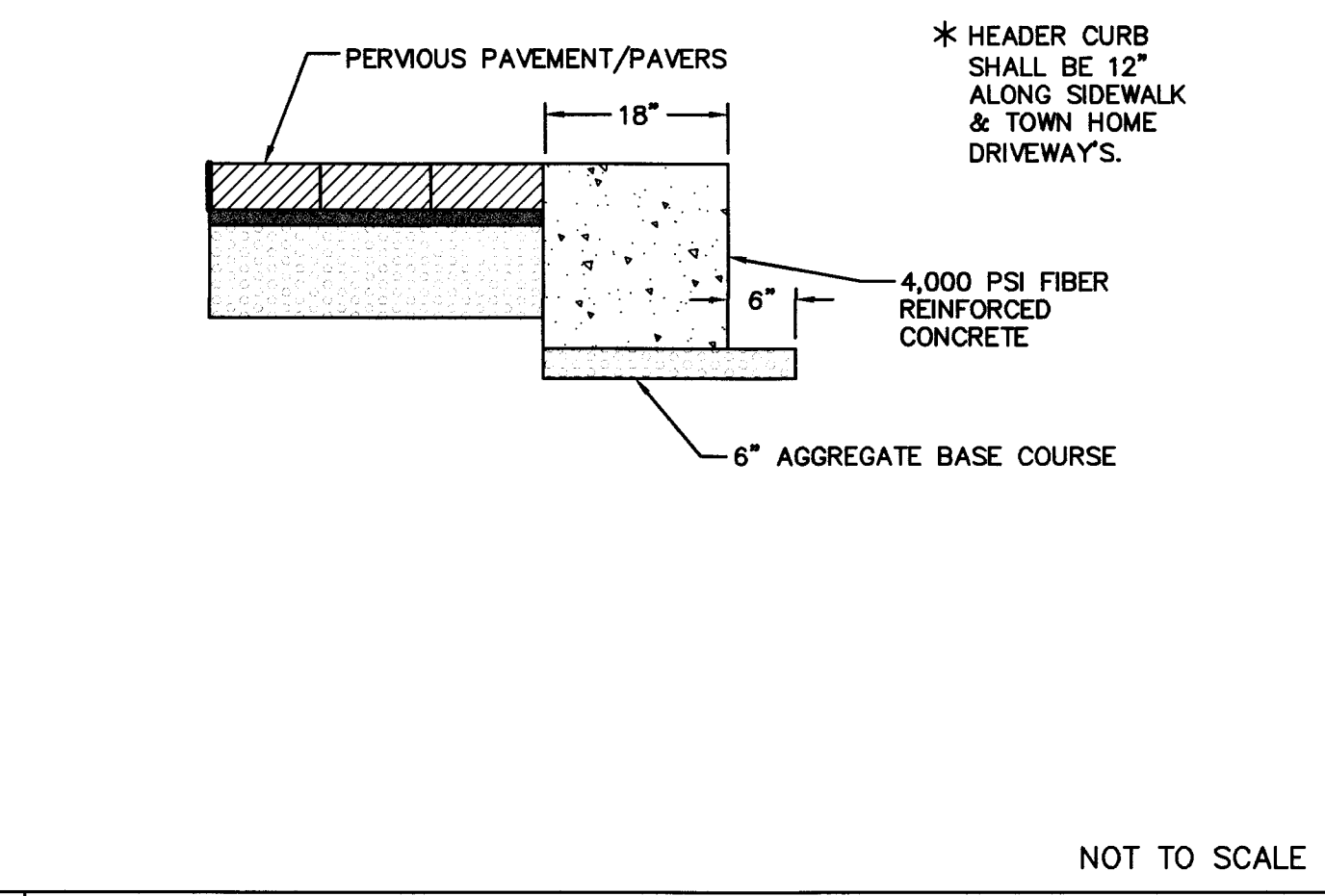
2

**SITE WORK NOTES:**

1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH FIELD CONSTRUCTION CONDITIONS.
2. CONTRACTOR SHALL COORDINATE WORK WITHIN NCDOT AND LOCAL RIGHT OF WAYS WITH PROPER AUTHORITIES AND SHALL MEET ANY REQUIREMENTS AS TO TRAFFIC CONTROL AND CONNECTION TO EXISTING STREETS.
3. CLEARING AND GRUBBING: REMOVE ALL TREES AS REQUIRED UNLESS OTHERWISE NOTED TO REMAIN, STUMPS, ROOTS, SHRUBBERY, ASPHALT, CONCRETE, STRUCTURES, BURIED UTILITIES, STORAGE TANKS, ETC. WITHIN LIMITS OF CONSTRUCTION.
4. STRIPPING: BEFORE EXCAVATING OR FILLING, REMOVE ALL TOPSOIL, WOOD, LEAVES, AND ANY OTHER UNSUITABLE MATERIAL.
5. MUCKING: REMOVE ANY SOFT, ORGANIC SILT MATERIALS AND EXISTING BURIED CONSTRUCTION DEBRIS AS REQUIRED AND FILL TO SUBGRADE ELEVATIONS WITH A CLEAN SELECT-FILL COMPACTED AS SPECIFIED.
6. DISPOSAL: CLEARED, GRUBBED, STRIPPED OR EXCAVATED SPOIL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES.
7. BORROW MATERIAL: THE CONTRACTOR SHALL FURNISH BORROW MATERIAL REQUIRED FROM OFF SITE AND OBTAIN ALL REQUIRED PERMITS ASSOCIATED WITH BORROW OPERATIONS.
8. FILL AND COMPACTION: AFTER STRIPPING THOSE AREAS DESIGNATED TO RECEIVE FILL SHOULD BE PROOFROLLED. THE TOP 8" OF SUBGRADE SHALL BE COMPACTED TO AT LEAST 98% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT. ANY AREA WHICH PUMPS OR RUTS EXCESSIVELY SHOULD BE UNDERCUT AND REPLACED WITH A CLEAN, SILTY OR CLAYEY SAND HAVING A UNIFIED SOIL CLASSIFICATION OF SP, SM, OR SC. FILL MATERIAL 5" OUTSIDE OF BUILDING AREAS SHALL THEN BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED TO 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. FILL MATERIALS WITHIN BUILDING AREAS TO A LINE OUTSIDE THE BUILDING AREAS SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED IN 6 INCH LAYERS TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. IN AREAS WHERE NO STRUCTURAL FILL IS TO BE PLACED THE UPPER 12 INCHES OF IN-PLACE SUBGRADE SHOULD BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. IF THE MATERIAL IS TOO DRY TO COMPACT TO THE REQUIRED DENSITY EACH LAYER SHALL BE WETTED IN ACCORDANCE WITH COMPACTION REQUIREMENTS. IF THE MATERIAL IS TOO WET TO SECURE PROPER COMPACTION, IT SHALL BE HARROWED REPEATEDLY OR OTHERWISE AERATED WITH SUITABLE EQUIPMENT UNTIL OPTIMUM MOISTURE CONTENT IS OBTAINED. FILL SHALL BE PLACED IN SUCH A MANNER THAT THE SURFACE WILL DRAIN READILY AT ALL TIMES. SEE STRUCTURAL NOTES AND SOILS REPORT FOR ADDITIONAL REQUIREMENTS.
9. LAYOUT: THE CONTRACTOR SHALL PROVIDE ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION.
11. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION FROM SURVEY BY MICHAEL UNDERWOOD & ASSOCIATES, AND PROVIDED BY OWNER.
12. THE CONTRACTOR SHALL VERIFY DIMENSIONS AT JOBSITE.
13. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF RELOCATION OR DISCONNECTION OF ALL EXISTING UTILITIES WITH APPLICABLE AGENCIES AND AUTHORITIES.
14. ALL PAVEMENT AND BASE MATERIALS AND WORKMANSHIP SHALL CONFORM TO NCDOT STANDARDS.
15. WATER AND SEWER SERVICES SHALL BE INSTALLED TO MEET LOCAL AND STATE PLUMBING CODES. METER AND TAPS SHALL MEET ALL LOCAL REQUIREMENTS.
16. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE.
17. SEE SOILS REPORT FOR ADDITIONAL REQUIREMENTS.
18. CONTRACTOR SHALL NOTE THAT EARTHWORK QUANTITIES ARE HIS RESPONSIBILITY. PLANS DO NOT REPRESENT A BALANCED EARTHWORK CONDITION.
19. REINF. CONC. PIPE SHALL BE CLASS III W/RUBBER GASKETED JOINT OR "RAM NECK". INSTALL PER MANUFACTURER'S REQUIREMENTS.
20. USE WHITE LANE MARKING PAINT FOR ALL PAVEMENT MARKINGS. PAINT SHALL BE A CHLORINATED RUBBER ALKYD, FS TT-P-115, TYPE III, FACTORY MIXED, QUICK DRYING, NON-BLEEDING.
21. REFER TO THE PLUMBING DRAWINGS FOR LOCATION AND INVERTS OF NEW WASTE, WATER AND ROOF DRAIN LINES.
22. PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
23. ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
24. CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
25. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE.
26. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC.

3

**HEADER CURB DETAIL**



**NOTES & DETAILS**

THE TOWNHOMES AT ALLEN'S LANE  
 6825, 6827, 6829, 6831 WRIGHTSVILLE AVENUE  
 & 1990 ALLEN'S LANE  
 WILMINGTON, NC 28403

**OWNER/DEVELOPER**  
 JAMES E. WALLACE, JR.  
 ALLEN'S LANE PARTNERS, LLC  
 1902 EASTWOOD ROAD  
 WILMINGTON, NC 28403  
 910-509-1921  
 JW@INTRACOSTALREALTY.COM

**NORRIS & TUNSTALL**

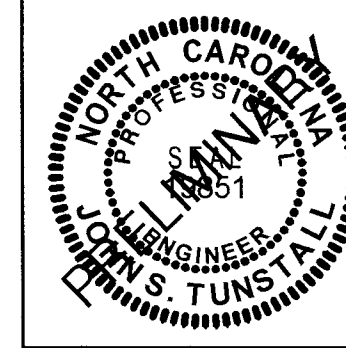
2602 IRON GATE DR., SUITE 102  
 WILMINGTON, NC 28412  
 PHONE (910) 343-9653

License #C-3641

**22054**

DES. JST  
 CRD. JPN  
 DRWN. TOM

DATE 1/24/23



**C10**

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
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**GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCGO1 CONSTRUCTION GENERAL PERMIT**

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCGO1 Construction General Permits (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

**SECTION E: GROUND STABILIZATION**

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

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

**GROUND STABILIZATION SPECIFICATION**

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

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

**POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**

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

**EQUIPMENT AND VEHICLE MAINTENANCE**

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

**LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**

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

**PAINT AND OTHER LIQUID WASTE**

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

**PORTABLE TOILETS**

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

**EARTHEN STOCKPILE MANAGEMENT**

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



**EROSION CONTROL NOTES AND MAINTENANCE PLAN:**

- ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RAINFALL-OR-RAIN EVENT. RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF-INCH RAINFALL.
- ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
- SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SOCKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND WATTLES, BEAVER DAMS, SANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
- DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
- SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDING WIRE FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE, THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF-FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
- SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLOADED. BARRILES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BATTLE. FLOATING SKIMMERS WILL BE INSPECTED AND KEPT CLEAN WEEKLY.
- SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLOADED. BARRILES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM BARRILES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BATTLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
- LAND QUALITY REQUIREMENTS: ALL SEEDING AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED, ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 14 WORKING DAYS. WATER QUALITY REQUIREMENTS: ALL SEEDING AREAS WILL BE FERTILIZED, RESEED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL PERIMETER DIKES, SWALES, PERIMETER SLOPES, ALL SLOPES STEEPER THAN 3:1 HORIZONTAL TO 1:1 VERTICAL (3:1) AND ALL HIGH QUALITY WATER (HOW) ZONES SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN SEVEN (7) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
- FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECT SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.
- CONCRETE WASHOUTS SHOULD BE INSPECTED DAILY AND AFTER HEAVY RAINS. DAMAGES SHOULD BE REPAIRED PROMPTLY. IF FILLED TO OVER 75% CAPACITY WITH RAIN WATER IT SHOULD BE VACUUMED OR ALLOWED TO EVAPORATE TO AVOID OVERFLOWS. BEFORE HEAVY RAINS THE CONTAINERS LIQUID LEVEL SHOULD BE LOWERED OR THE CONTAINER COVERED TO AVOID OVER FLOW DURING RAIN. WHEN SOLIDS HAVE HARDENED THEY SHOULD BE REMOVED AND RECYCLED.

**CONCRETE WASHOUTS**

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

**HERBICIDES, PESTICIDES AND RODENTICIDES**

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

**HAZARDOUS AND TOXIC WASTE**

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

**NCGO1 GROUND STABILIZATION AND MATERIALS HANDLING EFFECTIVE: 04/01/19**

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

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

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

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

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

**SECTION B: RECORDKEEPING**

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

Item to Document	Documentation Requirements
(a) Each E&S Measure has been installed	Initial and date each E&S Measure on a copy of the approved E&S Plan or complete, date and sign an inspection report that lists each E&S Measure shown on the approved E&S Plan. This documentation is required upon the initial installation of the E&S Measures or if the E&S Measures are modified after initial installation.
(b) A phase of grading has been completed	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&S Plan.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&S Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&S Measures.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

**2. Additional Documentation**

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

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

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

**SECTION C: REPORTING**

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

- Visible sediment deposition in a stream or wetland.
- Oil spills if:
  - They are 25 gallons or more,
  - They are less than 25 gallons but cannot be cleaned up within 24 hours,
  - They cause sheen on surface waters (regardless of volume), or
  - They are within 100 feet of surface waters (regardless of volume).

- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 113.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

**2. Reporting Timeframes and Other Requirements**

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

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

**FIRE AND LIFE SAFETY NOTES:**

- FIRE HYDRANTS MUST BE WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION.
- THE FIRE DEPARTMENT CONNECTION MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- LANDSCAPING AND PARKING CANNOT BLOCK OR IMPEDE THE FIRE DEPARTMENT CONNECTIONS OR FIRE HYDRANTS. A 3' CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE FIRE HYDRANT CONNECTION AND THE FIRE HYDRANT.
- FIRE HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
- NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDINGS.
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
- THE CONTRACTOR WILL MAINTAIN ALL WEATHER EMERGENCY ACCESS TO CONSTRUCTION SITE AT ALL TIMES.
- TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
- UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
- A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
- HYDRANTS SHALL BE OF SUFFICIENT NUMBERS TO ACCOMMODATE BASE FIRE FLOW REQUIREMENTS OF THE STRUCTURE.
- ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- THE CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SEC. 510 OF THE 2018 FIRE CODE.
- BUILDING CONSTRUCTION TYPE:
- PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0696
- ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM MUST BE ELECTRICALLY SUPERVISED.

**TEMPORARY SEEDING RECOMMENDATIONS FOR FALL**

SEEDING MIXTURE SPECIES	RATE (lb/acre)	(lb/1000 sf)
RYE (GRAIN)	120	2.75

**SEEDING DATES:**  
MOUNTAINS – AUG. 15 – DEC. 15  
COASTAL PLAIN AND PIEDMONT – AUG. 15 – DEC. 15

**SOIL AMENDMENTS:**  
FOLLOW SOIL TEST OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 1,000 lb/acre 10–10–10 FERTILIZER.

**MULCH:**  
APPLY 4,000 lb/acre STRAW, ANCHOR STRAW BY TACKLING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
REPAIR AND REFERTILIZE DAMAGE AREAS IMMEDIATELY. TOP DRESS WITH 50 lb/acre OF NITROGEN IN MARCH, IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 lb/acre KOBE (PIEDMONT AND COASTAL PLAIN) OR KOREAN (MOUNTAINS) LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

**TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER**

SEEDING MIXTURE SPECIES	RATE (lb/acre)	(lb/1000 sf)
GERMAN MILLET	40	0.92

**IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUDANGRASS MAY BE SUBSTITUTED AT A RATE OF 50 lb/acre.**

**SEEDING DATES:**  
MOUNTAINS – MAY 15 – AUG. 15  
PIEDMONT – MAY 1 – AUG. 15  
COASTAL PLAIN – APR. 15 – AUG. 15

**SOIL AMENDMENTS:**  
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10–10–10 FERTILIZER.

**MULCH:**  
APPLY 4,000 lb/acre STRAW, ANCHOR STRAW BY TACKLING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

**TEMPORARY SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING**

SEEDING MIXTURE SPECIES	RATE (lb/acre)	(lb/1000 sf)
RYE (GRAIN)	120	2.75
ANNUAL LESPEDEZA	50	1.15

**(KOBE IN PIEDMONT AND COASTAL PLAIN, KOREAN IN MOUNTAINS)**

OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.

**SEEDING DATES:**

SEEDING DATES	ABOVE 2,500 FEET:	FEB. 15 – MAY 15
MOUNTAINS –	BELOW 2,500 FEET:	FEB. 1 – MAY 1
PIEDMONT –		JUN. 1 – MAY 1
COASTAL PLAIN –		DEC. 1 – APRIL 15

**SOIL AMENDMENTS:**  
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10–10–10 FERTILIZER.

**MULCH:**  
APPLY 4,000 lb/acre STRAW, ANCHOR STRAW BY TACKLING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

**PERMANENT SEEDING RECOMMENDATIONS FOR FALL AND EARLY SPRING**

SEEDING MIXTURE SPECIES	RATE (lb/acre)	(lb/1000 sf)
TALL FESCUE	80	1.84
PENSACOLA BAHIAGRASS	50	1.15
SERICEA LESPEDEZA	30	0.69
KOBE LESPEDEZA	10	0.23

**SEEDING NOTES:**  
1. FROM SEPT. 1 THRU MAR. 1, USE UNSCARIFIED SERICEA SEED.  
2. ON POORLY DRAINED SITES OMIT SERICEA AND INCREASE KOBE TO 30 lbs/acre.  
3. WHERE A NEAT APPEARANCE IS DESIRED, OMIT SERICEA AND INCREASE KOBE TO 40 lbs/acre.

**NURSE PLANTS:** BETWEEN APR. 15 AND AUG. 15, ADD 10 lbs/acre GERMAN MILLET OR 15 lbs/acre SUDANGRASS. PRIOR TO MAY 1 OR AFTER AUG. 15 ADD 25 lbs/acre RYE (GRAIN).

SEEDING DATES:	BEST	POSSIBLE
EARLY SPRING:	FEB 15–MAR. 20	FEB.15–APR. 30
FALL:	SEPT. 1–SEPT. 30	SEPT. 1–OCT. 31

**SOIL AMENDMENTS:**  
APPLY LIME AND FERTILIZE ACCORDING TO SOIL TESTS, OR APPLY 3,000–5,000 lbs/acre (68.9–114.8 lbs/1,000 sf) GROUND AGRICULTURAL LIMESTONE (USE THE LOWER RATE ON SANDY SOILS) AND 1,000 lbs/acre (22.9 lbs/1,000 sf) 10–10–10 FERTILIZER.

**MULCH:**  
APPLY 4,000 lb/acre (91.8 lbs/1,000 sf) GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH, ANCHOR STRAW BY TACKLING WITH ASPHALT, NETTING, OR ROVING OR BY GRIPPING WITH A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
IF GROWTH IS LESS THAN FULLY ADEQUATE, REFERTILIZE IN THE SECOND YEAR, ACCORDING TO SOIL TESTS OR TOPDRESS WITH 500 lbs/acre (11.5 lbs/1,000 sf) 10–10–10 FERTILIZER. MOW AS NEEDED WHEN SERICEA IS OMITTED FROM THE MIXTURE. RESEED, FERTILIZE, AND MULCH DAMAGED AREAS IMMEDIATELY.

**PERMANENT**



PLANT SCHEDULE				
BUFFER TREES	BOTANICAL / COMMON NAME	CONT	MIN. REQ. SIZE	QTY
	Juniperus virginiana / Eastern Red Cedar	B & B	2" CAL	20
STREET TREES	BOTANICAL / COMMON NAME	CONT	MIN. REQ. SIZE	QTY
	Quercus virginiana / Southern Live Oak	B & B	2" CAL	3
STREETYARD TREES	BOTANICAL / COMMON NAME	CONT	MIN. REQ. SIZE	QTY
	Cercis c. 'Forest Pansy'™ / Forest Pansy Redbud	B & B	8' HT	4
	Cryptomeria japonica / Japanese Cedar	B & B	2" CAL	3
	Quercus virginiana / Southern Live Oak	B & B	2" CAL	7
SHRUBS	BOTANICAL / COMMON NAME	CONT	MIN. REQ. SIZE	QTY
	Myrica cerifera / Wax Myrtle	B & B	3' HT	14
	Podocarpus macrophyllus 'Dwarf Pringles' / Dwarf Podocarpus	--	24" HT	102
	Viburnum odoratissimum / Sweet Viburnum	--	24" HT	65

VICINITY MAP



**SITE DATA**

ADDRESS: 6831, 6829, 6827 & 6825 WRIGHTSVILLE AVENUE, 1900 ALLENS LANE  
 OWNER: ALLENS LANE PARTNERS, LLC  
 PARCEL ID: 1902 EASTWOOD ROAD, WILMINGTON, NC 28403  
 R05713-001-008-000, R05713-001-007-000, R05713-001-012-000, R05713-001-013-000, R05713-001-011-000  
 TOTAL PROJECT AREA: 60,548 SF (1.39 AC.)  
 EXISTING ZONING: MD-17  
 CAMA LAND CLASSIFICATION: WATERSHED RESOURCE PROTECTION AREA

**BUILDING REQUIREMENTS**

	REQUIRED	PROVIDED
MIN. FRONT SETBACK	15'	15'
MIN. SIDE INTERIOR SETBACK	5'	5'
MIN. SIDE CORNER SETBACK	10'	N/A
MIN. REAR SETBACK	15'	N/A

**LANDSCAPE REQUIREMENTS**

**OPEN SPACE REQUIREMENTS**

	REQUIRED	PROVIDED
35% OF TRACT (ACTIVE OR PASSIVE RECREATION AREAS)	48 AC. (21,192 SF)	.49 (21,214 SF)

**LANDSCAPE REQUIREMENTS**

	REQUIRED	PROVIDED
PRIMARY STREET YARD (WRIGHTSVILLE AVE)	4,482 SF (249 LF X 18)	4,510 SF
CANOPY TREES	8 (1/600 SF)	6 PROPOSED TREES 2 EXISTING TREES
SHRUBS	45 (6/600 SF)	55 SHRUBS
SECONDARY STREET YARD (ALLENS LANE)	2,214 SF (246 LF X 9)	2,217 SF
CANOPY TREES	4 (1/600 SF)	7 PROPOSED CANOPY TREES
SHRUBS	22 (6/600 SF)	102 PROPOSED SHRUBS

**TREE REQUIREMENT PER DISTURBED ACRE**

TREE REQUIREMENTS PER DISTURBED ACRE  
 15 TREES PER DISTURBED ACRE MUST BE RETAINED OR PLANTED ON SITE.

	REQUIRED	PROVIDED
1.39 ACRES DISTURBED x 15 TREES = 21 TREES REQUIRED	21	21
37 PROPOSED TREES - SEE PLANTING LEGEND	37	37
3 EXISTING TREES RETAINED	3	3
TOTAL:	40 TREES	40 TREES

**GENERAL NOTES**

**STREETYARD NOTES:**

- ALL SHRUBS TO BE A MINIMUM OF 12" HEIGHT AT TIME OF PLANTING

**SIGHT TRIANGLE NOTES:**

- ALL PROPOSED VEGETATION WITHIN SIGHT DISTANCES TRIANGLES SHALL NOT INTERFERE WITH CLEAR SIGHT LINES FROM 30' - 10'.

**TREE PROTECTION NOTES:**

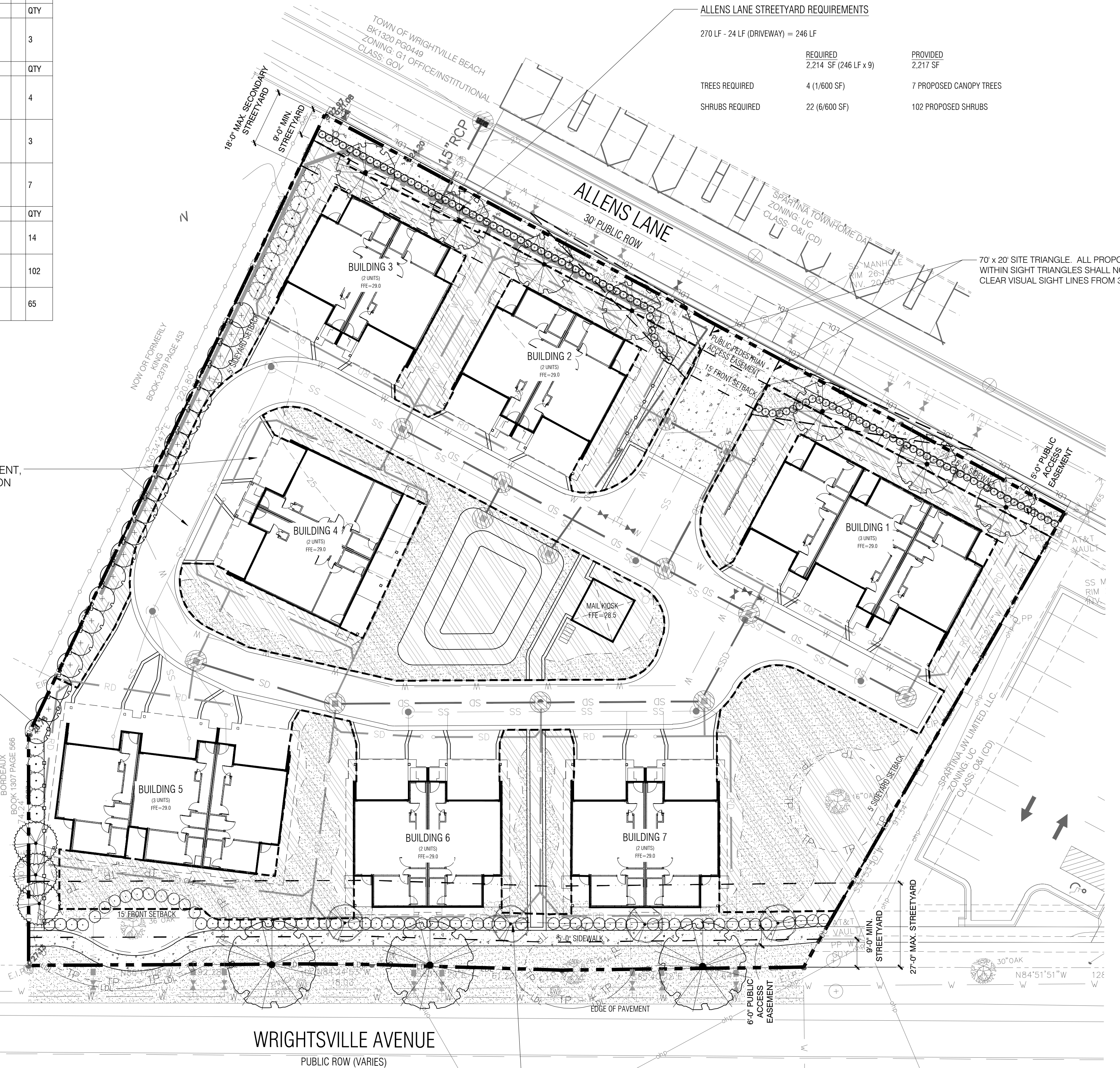
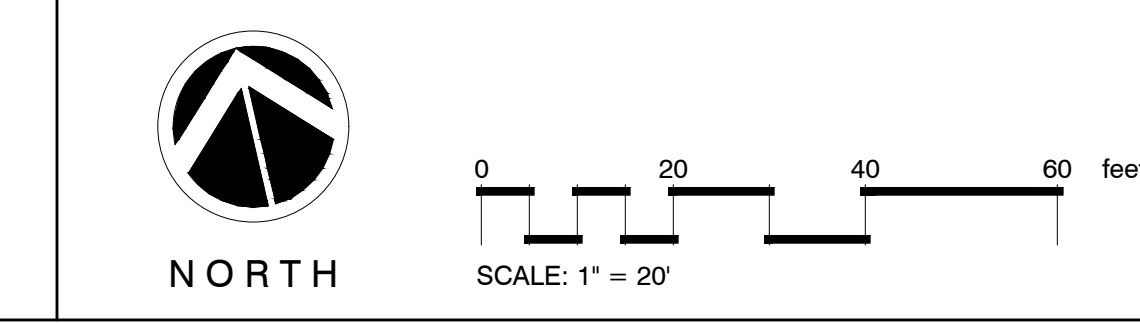
- PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING

**TRASH RECEPTACLES:**

- TRASH WILL BE ROLL OUT CONTAINERS KEPT WITHIN THE GARAGE OF EACH UNIT. EACH RECEPTACLE WILL BE KEPT WITHIN EACH UNIT.

**SYMBOL LEGEND**

	PROPERTY LINE
	STREETYARD
	SETBACK
	EASEMENT
	LIMIT OF DISTURBANCE
	TREE PROTECTION
	OPEN SPACE AREA
	SIGHT TRIANGLE



**ALLENS LANE STREETYARD REQUIREMENTS**

270 LF - 24 LF (DRIVEWAY) = 246 LF

	REQUIRED	PROVIDED
2,214 SF (246 LF x 9)	2,214 SF	2,217 SF
TREES REQUIRED: 4 (1/600 SF)	4	7 PROPOSED CANOPY TREES
SHRUBS REQUIRED: 22 (6/600 SF)	22	102 PROPOSED SHRUBS

70' x 20' SITE TRIANGLE. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10', TYPICAL.

**WRIGHTSVILLE AVENUE STREETYARD REQUIREMENTS**

249 LF

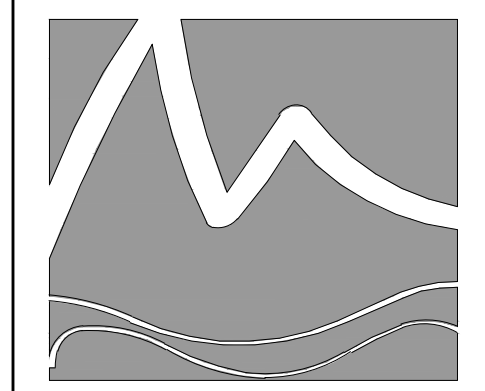
	REQUIRED	PROVIDED
4,482 SF (249 LF x 18)	4,482 SF	4,510 SF
TREES REQUIRED: 8 (1/600 SF)	8	7 PROPOSED CANOPY TREES 2 EXISTING TREES
SHRUBS REQUIRED: 45 (6/600 SF)	45	55 PROPOSED SHRUBS

DRIVE ISLE AND DRIVEWAYS TO BE PERVIOUS PAVEMENT, REFER TO CIVIL ENGINEERS DRAWINGS FOR LOCATION

10' PLANTED BUFFERYARD WITH 6' FENCE REQUIREMENTS  
 93 LF / 30 = 3 TREES

PLANTED BUFFERYARD PROVIDED  
 3 PROPOSED TREES

ALL SHRUBS SHALL BE A MINIMUM OF 3' HEIGHT AT TIME OF PLANTING AND WILL ACHIEVE 100% OPACITY AT LEAST 6' HIGH WITHIN 3 YEARS OF PLANTING



**MIHALY**  
 LAND DESIGN  
 PLANNING + LANDSCAPE ARCHITECTURE  
 330 MILITARY CUTOFF RD., Suite A3  
 WILMINGTON, NC 28405 910.392.4355



**Revisions**  
 2023-01-19: REVISE PER TRC COMMENTS

**CLIENT**  
**ALLEN'S LANE PARTNERS, LLC**  
 1902 EASTWOOD RD  
 WILMINGTON, NC

**PROJECT**  
**ALLEN'S LANE TOWNHOMES**  
 6831, 6829, 6827, & 6825 WRIGHTSVILLE AVE.,  
 WILMINGTON, NC  
 LANDSCAPE PLAN

**PERMIT PLAN SET**

Date: 11-9-2022  
 Phase:  
 Job Number: 101-720  
 Designed by: MLD  
 Drawn by: MAS  
 Checked by: JWM

Sheet Title: PLANTING PLAN

Sheet Number:  
**L3.0**  
 of 1 sheets