

# **GENERAL NOTES:**

- 1. NEW HANOVER COUNTY PARCEL NUMBERS:
- PID R05409-028-022-000, 2. TOTAL PROJECT AREA: 74,900 SF (1.72 AC)
- 3. EXISTING ZONING DISTRICT: UMX 4. CAMA LAND CLASSIFICATION: URBAN
- 5. THIS SITE IS LOCATED WITHIN ZONE "X" ACCORDING TO FEMA FIRM COMMUNITY PANEL NUMBER 3720311700L, EFFECTIVE DATE
- 6. SITE ADDRESS: 418 WOOSTER ST
- 7. BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY GARY KEYES, PLS; VERTICAL DATUM = 8
- 8. NO WETLANDS LOCATED ONSITE
- 9. STORMWATER DRAINS TO CAPE FEAR RIVER, SC 18-(71) 10. LAND OWNER - ENVOY OPPORTUNITY FUND QOZB, LLC
  - 5103 LANCOME COURT
  - WILMINGTON, NC 28409 (910) - 279 - 6359

**LEGEND** EXISTING BOUNDARY EXISTING WATERLINE — PROPOSED LOTLINE PROPOSED WATERLINE CENTERLINE OF RIGHT OF WAY CONTOUR LINE & ELEVATION EXISTING / PROPOSED STORM SEWER & CATCH BASIN DRAINAGE FLOW EXIST. IRON PIPE 30' DRAINAGE EASEMENT WATER METER SERVICE CONNECTION EXIST. CONCRETE MONUMENT PROPOSED DRAINAGE PIPE GATE VALVE PROPOSED SANITARY REDUCER (S)——SS ——— SEWER & MANHOLE HANDICAP RAMP EXISTING SANITARY SEWER & MANHOLE

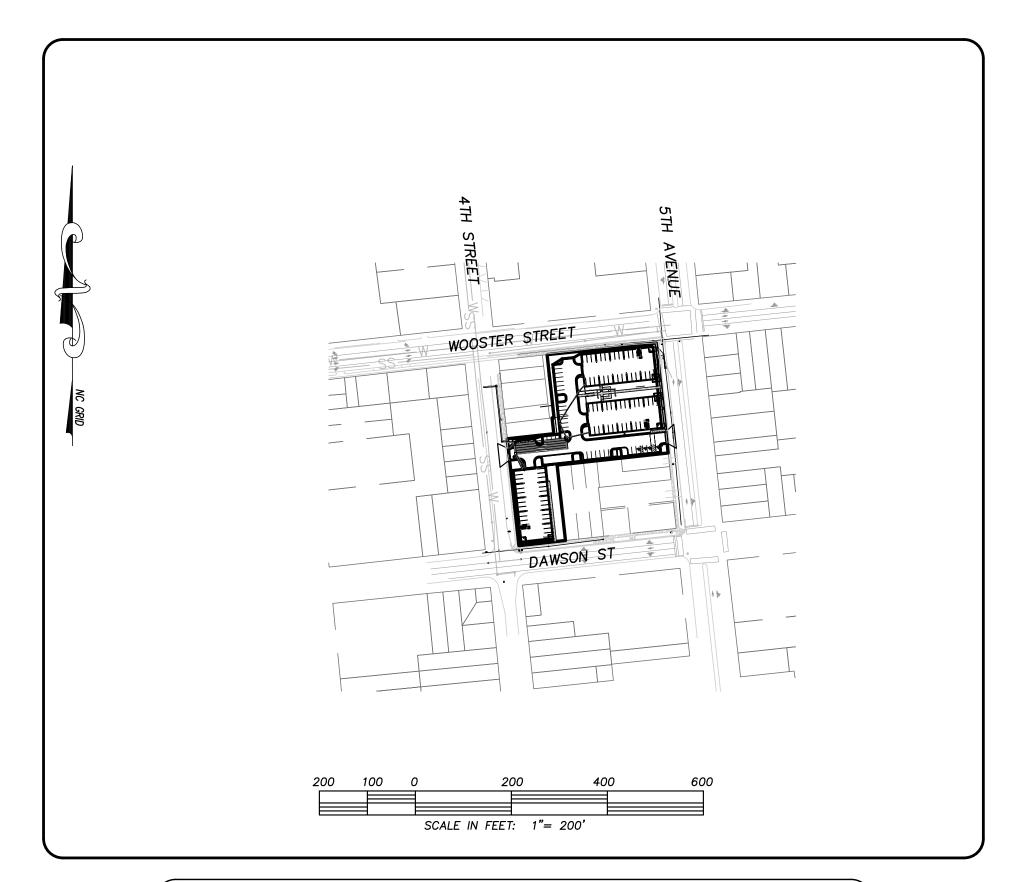
## OWNER:

ENVOY OPPORTUNITY FUND QOZB, LLC 5103 LANCOME COURT WILMINGTON, NC 28409

CONSTRUCTION DRAWINGS for

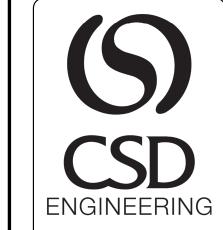
# SAPPHIRE ON 5TH

LOCATED IN CITY OF WILMINGTON NEW HANOVER COUNTY, NORTH CAROLINA



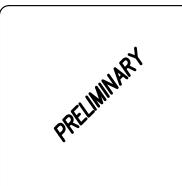
SHEET No.	DESCRIPTION	DRAWING No.			
1 OF 13	COVER SHEET	CD_COVER			
2 OF 13	EXISTING CONDITIONS	EX-COND			
3 OF 13	TREE_INVENTORY	TI1			
4 OF 13	TREE_INVENTORY	TI2			
5 OF 13	SITE PLAN	SITE_PLAN			
6 OF 13	LANDSCAPING PLAN	LP			
7 OF 13	GRADING PLAN	GP			
8 OF 13	UTILITY PROFILES	UP			
9 OF 13	SITE DETAILS	SITE_DETAILS_1			
10 OF 13	SITE DETAILS	SITE_DETAILS_2			
11 OF 13	CFPUA DETAILS	WATER			
12 OF 13	CFPUA DETAILS	WAT_SEWER			
13 OF 13	13 OF 13 CFPUA DETAILS				
C1 OF EC6	STORMWATER AND EROSION CONTROL PLAN	EC1			
C2 OF EC6	STORMWATER AND EROSION CONTROL PLAN	EC2			
C3 OF EC6	STORMWATER AND EROSION CONTROL PLAN	EC3			
C4 OF EC6	STORMWATER AND EROSION CONTROL PLAN	EC4			
C5 OF EC6	STORMWATER AND EROSION CONTROL PLAN	EC5			
C6 OF EC6	STORMWATER AND EROSION CONTROL PLAN	EC6			

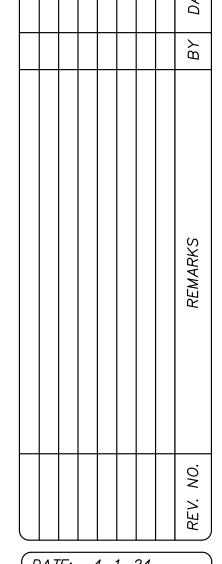
- 1. ASBUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY TO CSD ENGINEERING BY GARY KEYES, PLS VERTICAL DATUM = 88
- 2. THIS MAP IS NOT FOR CONVEYANCE, RECORDATION, OR SALES. 3. THIS PROPERTY IS LOCATED WITHIN ZONE "X"
- ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP, 3720311800L, EFFECTIVE DATE 8/28/18
- 4. EXISTING ZONING: UMX
- 5. CFPUA WATER
- 6. CFPUA SEWER
- 7. ALL CONSTRUCTION TO CONFORM TO CITY OF WILMINGTON 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 WITH CONSTRUCTION.
- 13. NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NC ONE—CALL" AT LEAST 72 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.



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

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



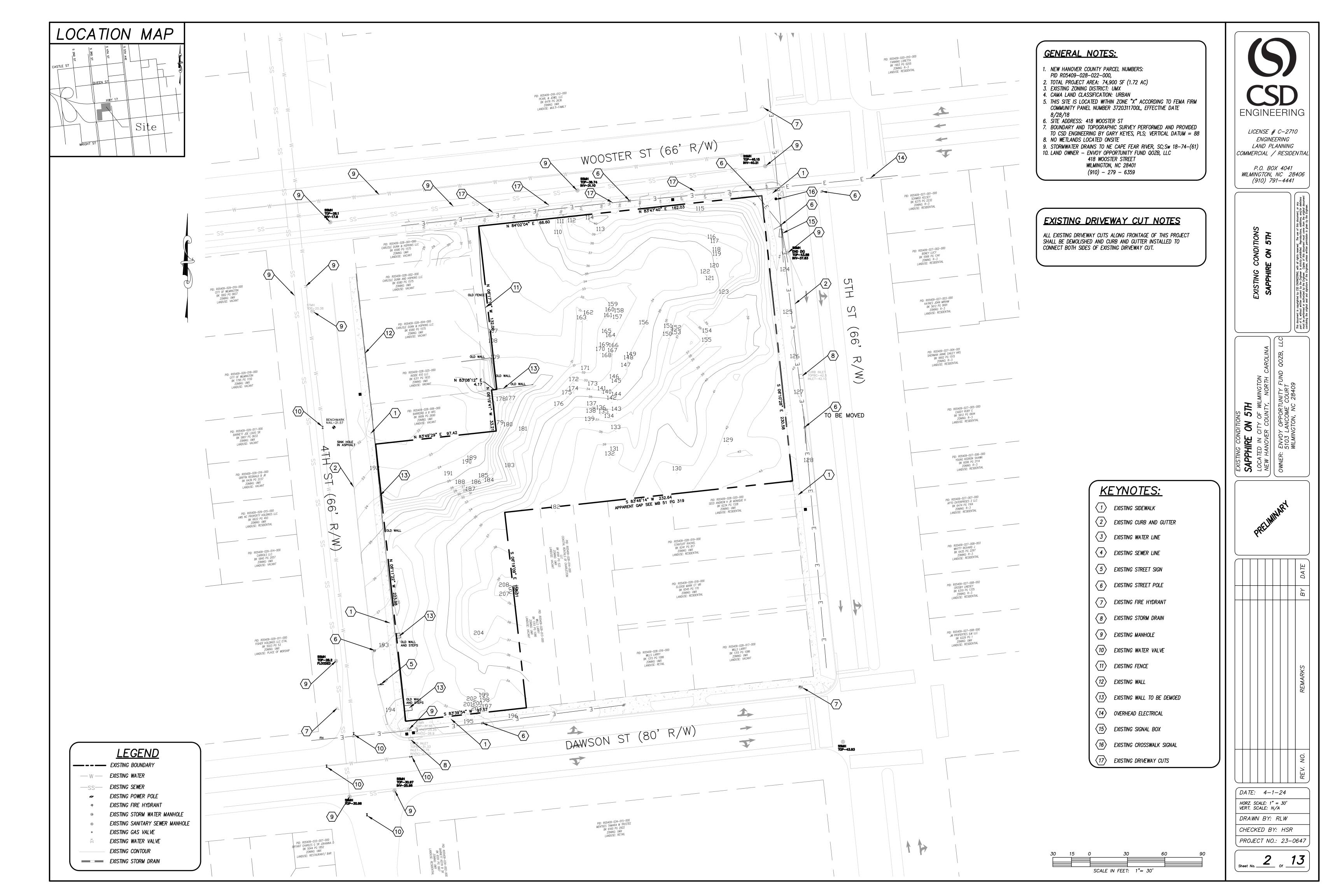


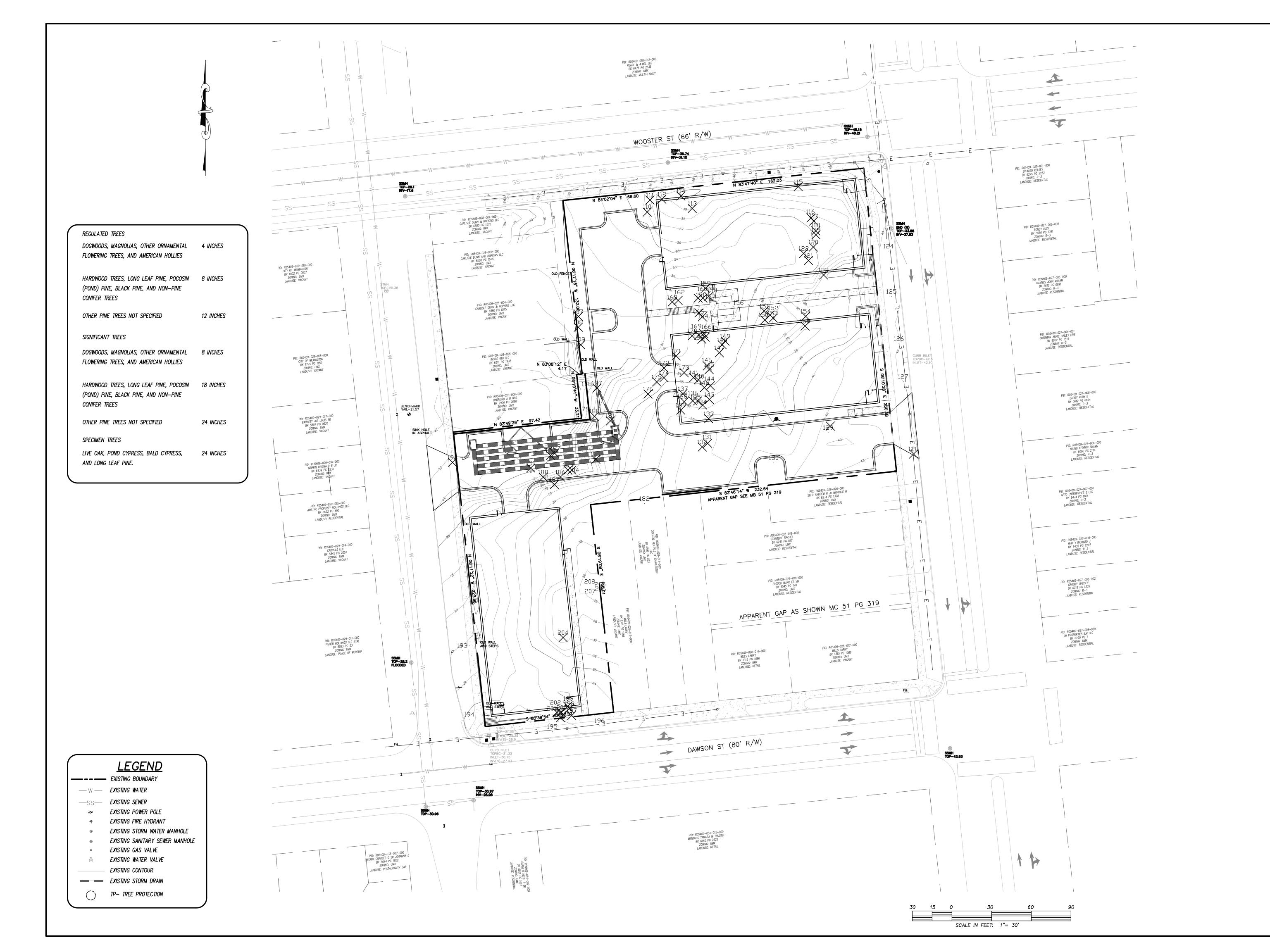
| DATE: 4-1-24

VERT. SCALE: N/A DRAWN BY: RLW

HORZ. SCALE: 1" = 200'

CHECKED BY: HSR PROJECT NO.: 23-0647





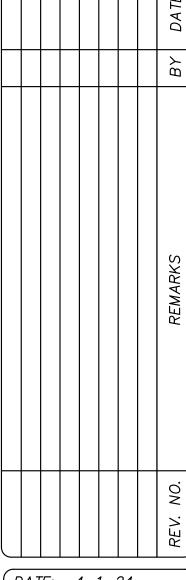
**ENGINEERING** 

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R S O S S





 $\int DATE: 4-1-24$ 

HORZ. SCALE: 1" = 30' VERT. SCALE: N/A DRAWN BY: RLW

CHECKED BY: HSR PROJECT NO.: 23-0647

# TREES TO BE SAVED

POINT	SIZE	SPECIES	REMARKS	CLASSIFICATION
124	11.9	Live Oak	STREET TREE	R
125	7.6	Live Oak	STREET TREE	-
126	5.3	Live Oak	STREET TREE	ı
127	34	Darlington Oak		S
130	29.7	Sycamore		S
182	0	Tree of heaven	INVASIVE	ı
193	22.9	Willow Oak		S
194	<i>3</i> 5	Laurel Oak	STREET TREE	S
195	9.1	Willow Oak	STREET TREE	R

## MITIGATION CALCULATION

377.4 INCHES TO BE MITIGATED

IF NO ADDITIONAL PLANTING ARE PROVIDED, MITIGATION FEE WILL BE 377.4  $\times$  2 = 755 755  $\times$  \$175 = \$132,125

REGULATED TREES REMOVED FOR ESSENTIAL SITE IMPROVEMENTS DO NOT REQUIRE MITIGATION.

SIGNIFICANT AND SPECIMEN TREES REMOVED FOR ESSENTIAL SITE IMPROVEMENTS MUST BE

MITIGATED AT 200% DBH. MITIGATION TO BE BY PLANTING OR PAYMENT—IN—LIEU AT \$175/INCH.

REGULATED TREES (R) DOGWOODS, MAGNOLIAS, OTHER ORNAMENTAL 4 INCHES FLOWERING TREES, AND AMERICAN HOLLIES HARDWOOD TREES, LONG LEAF PINE, POCOSIN 8 INCHES (POND) PINE, BLACK PINE, AND NON—PINE CONIFER TREES OTHER PINE TREES NOT SPECIFIED 12 INCHES SIGNIFICANT TREES (S) DOGWOODS, MAGNOLIAS, OTHER ORNAMENTAL 8 INCHES FLOWERING TREES, AND AMERICAN HOLLIES HARDWOOD TREES, LONG LEAF PINE, POCOSIN 18 INCHES (POND) PINE, BLACK PINE, AND NON—PINE CONIFER TREES OTHER PINE TREES NOT SPECIFIED 24 INCHES SPECIMEN TREES (SP) LIVE OAK, POND CYPRESS, BALD CYPRESS, 24 INCHES AND LONG LEAF PINE.

# TREES TO BE REMOVED

POINT	SIZE	SPECIES	REMARKS	CLASSIFICATION
107	5.5	Darlington Oak	DEFORMED TOD	_
108 109	6.5 5.2	Darlington Oak Car. Cherry Laurel	DEFORMED TOP	
110	<u>25.7</u>	Water Oak		S
111	23.7	Water Oak		S
112	8.1	Water Oak		R
113	22.4	Water Oak		S
114	16.5 0	Darlington Oak	INVASIVE	R
115 116	0 	Paper Mulberry Elm	INVASIVE	
117	0	Glossy Privet	INVASIVE	_
118	8.5	Laurel Oak	WWW.	R
119	0	Glossy Privet	INVASIVE	_
120	7	Elm		-
121	13.2	Laurel Oak		R
122	7.5	Magnolia	14.11.44.CU.#F	R
123	0	Glossy Privet	INVASIVE	_
128 129	41.7 35	Darlington Oak Darlington Oak		S S
131	6.5	Car Cherry Laurel		
132	9.2	Car. Cherry Laurel Car. Cherry Laurel		_
133	5.6	Car. Cherry Laurel		_
134	5.5	Car. Cherry Laurel		
135	0	China Berry	INVASIVE	-
136	7.3	Laurel Oak		_
137	0	China Berry	INVASIVE	<del>-</del>
138	0	China Berry	INVASIVE INVASIVE	<del>-</del>
139 140	7.2	China Berry Car. Cherry Laurel	IIV VAOI VE	<del>-</del>
141	0	Dead	DEAD	_
142	4.5	Car. Cherry Laurel	SEI IB	_
143	0	China Berry	INVASIVE	_
144	6.4	Car. Cherry Laurel		-
145	7.2	Car. Cherry Laurel		-
146	7	Car. Cherry Laurel		-
147 148	18.8 8	Sycamore Car. Cherry Laurel		S -
149	<u> </u>	Sycamore		
150	15.7	Sycamore		R
151	31	Sycamore		S
152	20	Sycamore		S
153	7.9	Car. Cherry Laurel		
154	0	Mimosa	INVASIVE	-
155 156	<u>0</u> 20	Mimosa Svoamore	INVASIVE	
156 157	<u>20</u> 0	Sycamore Glossy Privet	INVASIVE	S
158	0	Glossy Privet	INVASIVE	_
159	12.3	Sycamore		R
160	4.2	Car. Cherry Laurel		-
161	20.5	Sycamore		S
162	18.1	Sycamore Car Charry Laural		S
163 164	<u>4.1</u> 8	Car. Cherry Laurel Sycamore		–   R
165	9	Car. Cherry Laurel		K   -
166	0	Glossy Privet	INVASIVE	_
167	11.7	Sycamore		R
168	6.5	Glossy Privet		-
169	22	Sycamore		S
170	5.2	Car. Cherry Laurel	/40.0 / 00.7	_
171	33.3 20.7	Sycamore	(12.8 / 20.5)	R, S S
172 173	20.7 4.5	Sycamore Car. Cherry Laurel		5 -
174	7.2	Car. Cherry Laurel		
175	0	Glossy Privet	INVASIVE	_
176	6.2	Car. Cherry Laurel		
177	0	Glossy Privet	INVASIVE	-
178	0	Glossy Privet	INVASIVE	
179	4	Car. Cherry Laurel		<del>-</del>
180 181	0	Car. Cherry Laurel Glossy Privet	INVASIVE	<u>-</u>
182	0	Tree of heaven	INVASIVE INVASIVE	<u>-</u>
183	5.6	Box elder		_
184	0	Tree of heaven	INVASIVE	_
185	4.8	Black Willow		_
186	4	Car. Cherry Laurel		-
187	4.3 5.1	Car. Cherry Laurel		_
188 189	5.1 4.2	Black Willow Black Willow		<del>-</del>
190	<del></del>	Black Willow		_
191	4	Black Willow		_
192	20.1	Sycamore	(7.3 / 7.8 / 5.0)	_
400	74	MPH O I		
196	7.1 0	Willow Oak Tree of heaven	INVASIVE	<u>-</u>
197 198	0	Glossy Privet	INVASIVE INVASIVE	
198	0	Tree of heaven	INVASIVE INVASIVE	_
200	0	China Berry	INVASIVE INVASIVE	
201	0	China Berry	INVASIVE	_
202	0	China Berry	INVASIVE	_
203	0	China Berry	INVASIVE	-
204	30.3	Laurel Oak		S
205	0	China Berry	INVASIVE	-
206	0	China Berry	INVASIVE INVASIVE	<u> </u>
207 208	0	China Berry China Berry	INVASIVE INVASIVE	<del>-</del>
200	U	Online Delly	HTVASIVE	377.4 MITIGATION INCHES
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LICENSE # C-2710
ENGINEERING
LAND PLANNING
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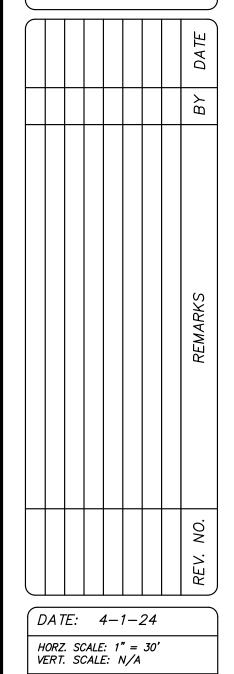
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> TREE INVENTORY SAPPHIRE ON 5TH

SAPPHIRE ON 51

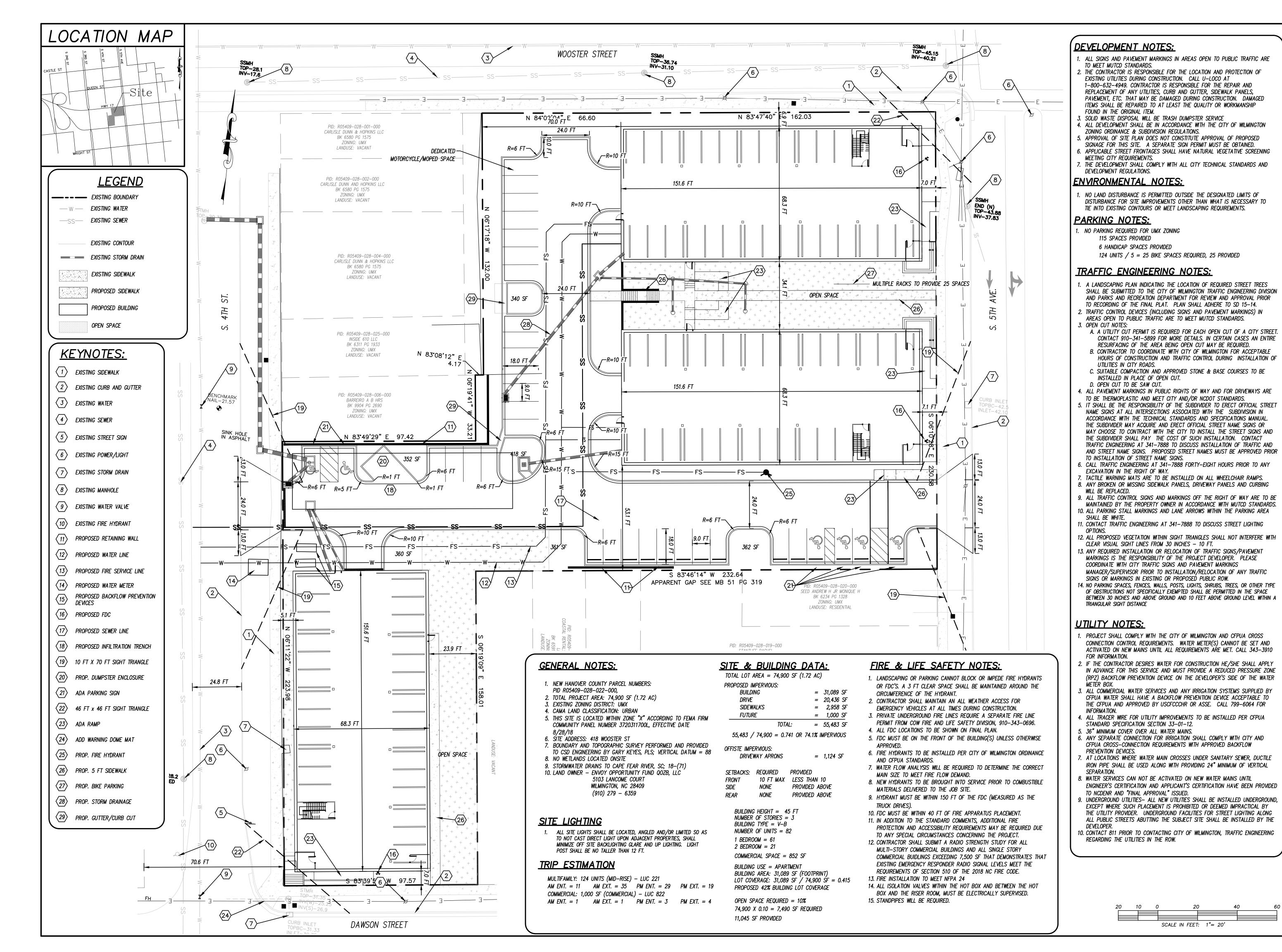
D IN CITY OF WILMINGTON
ANOVER COUNTY, NORTH CAROLIN
ENVOY OPPORTUNITY FUND QOZB,





DRAWN BY: RLW

CHECKED BY: HSR



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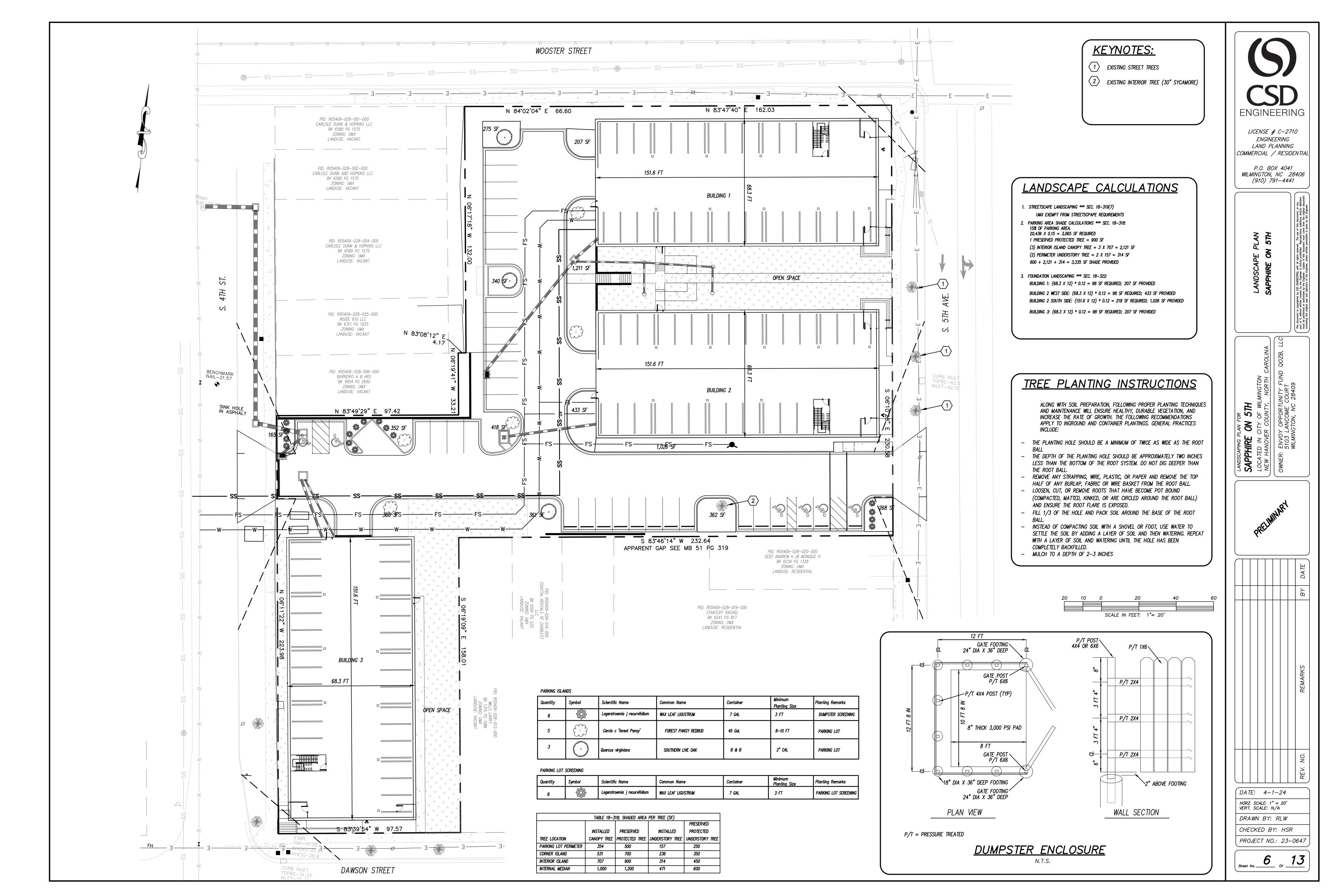


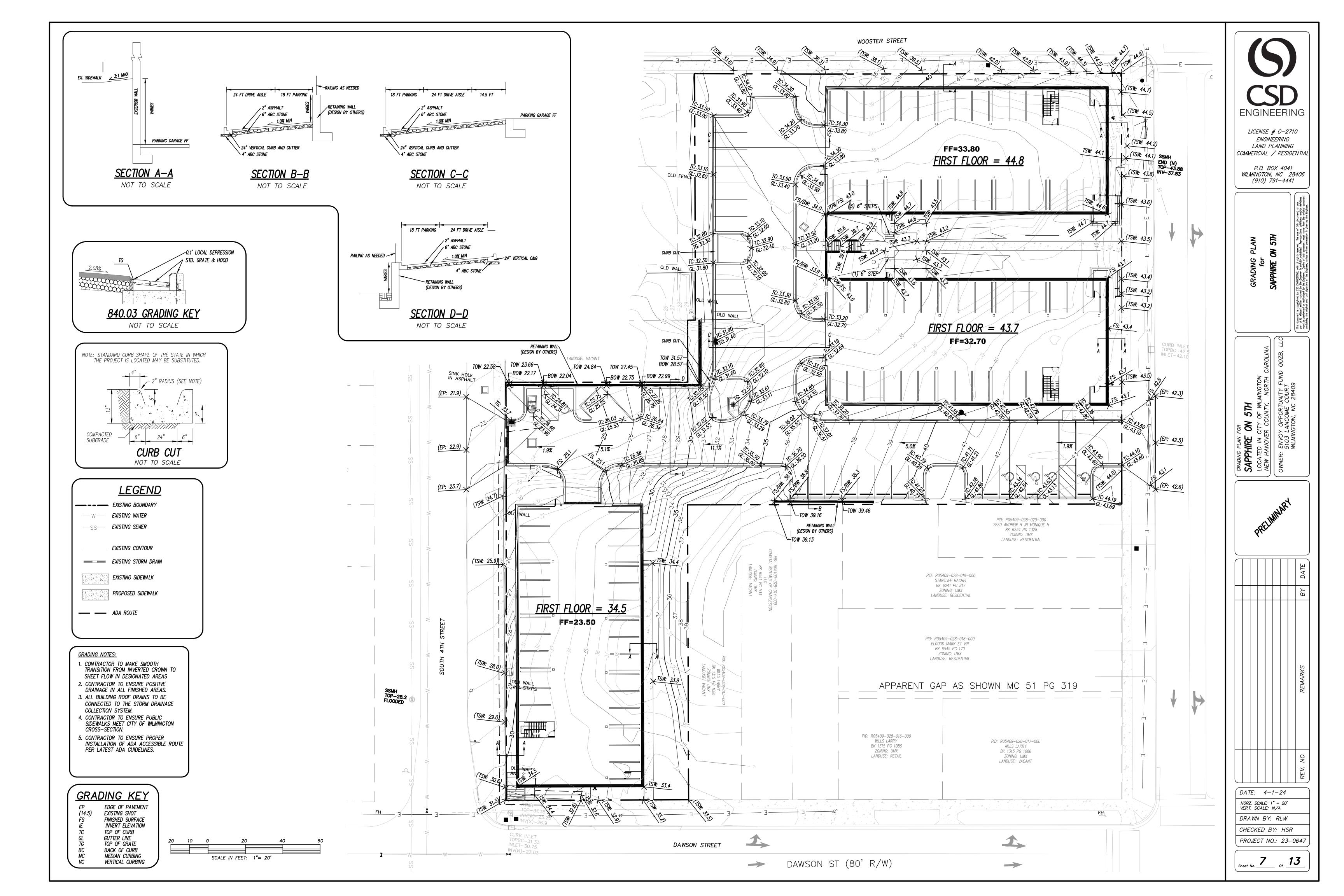
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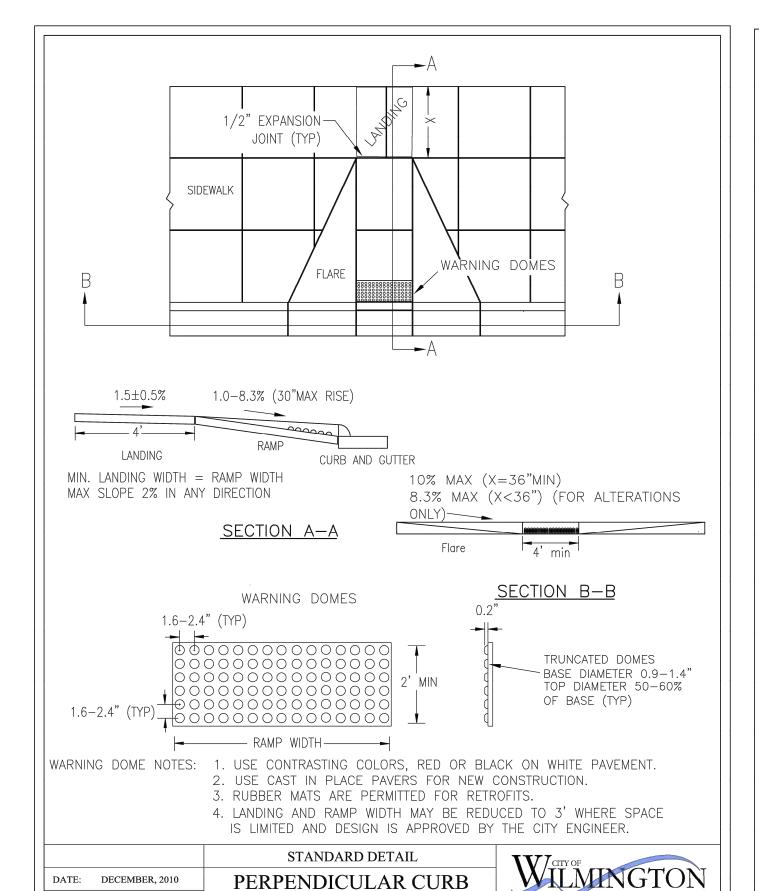
HORZ. SCALE: 1" = 20'VERT. SCALE: N/A DRAWN BY: RLW

CHECKED BY: HSR PROJECT NO.: 23-0647

Sheet No. \_\_\_







ADJACENT TO WALKING

SURFACE

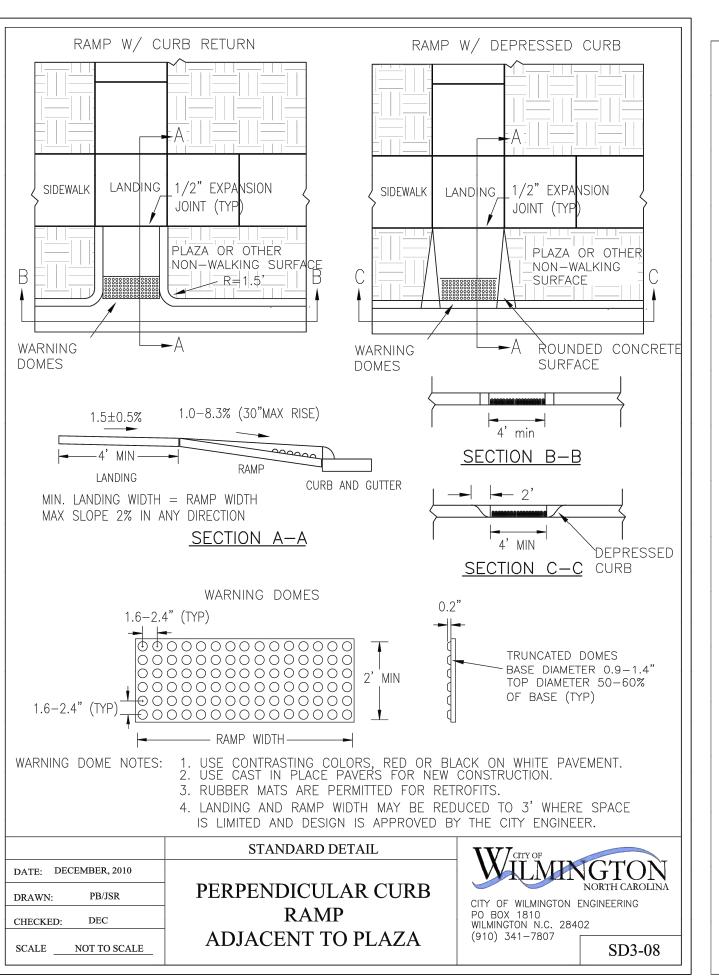
CITY OF WILMINGTON ENGINEERING

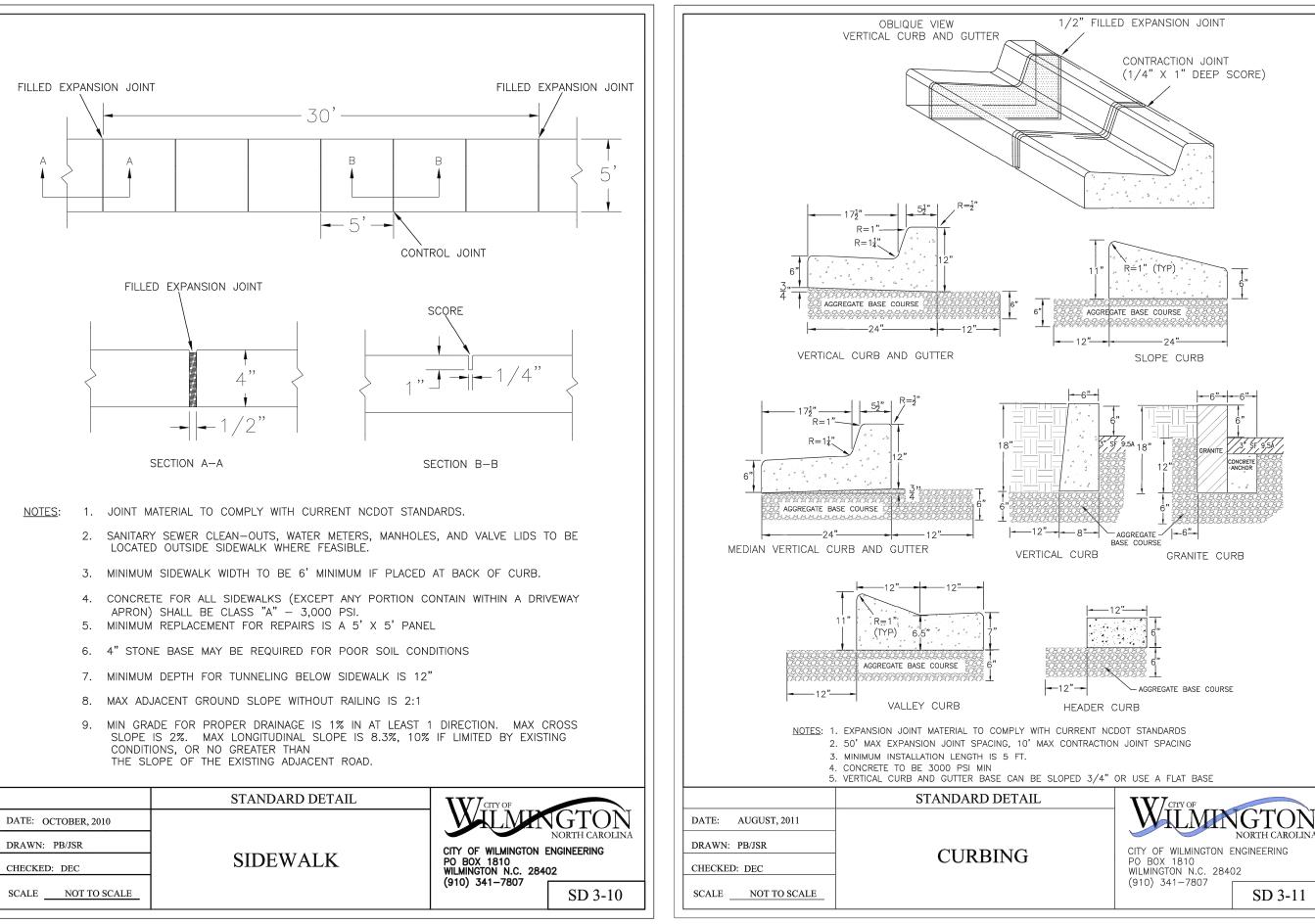
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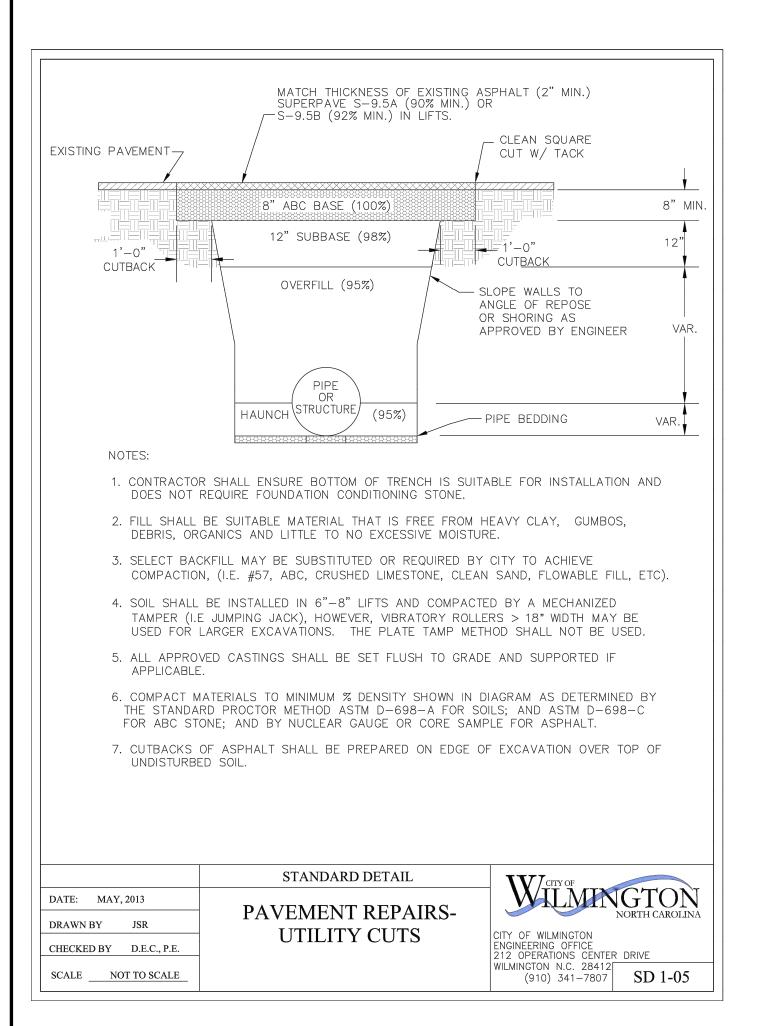
PO BOX 1810 WILMINGTON N.C. 28402

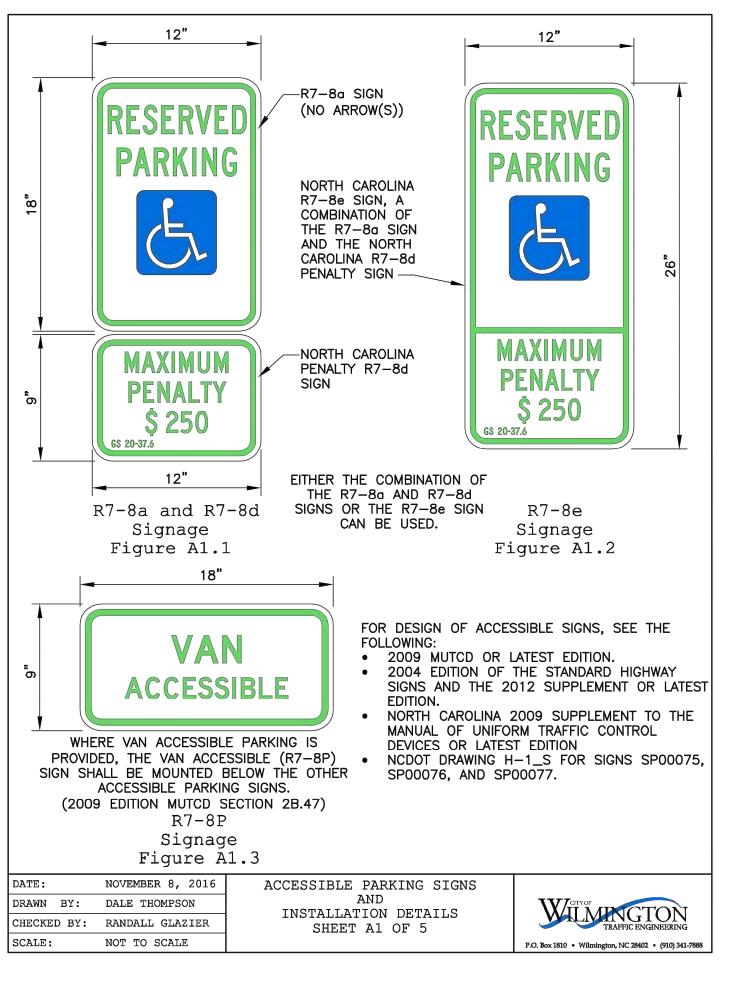
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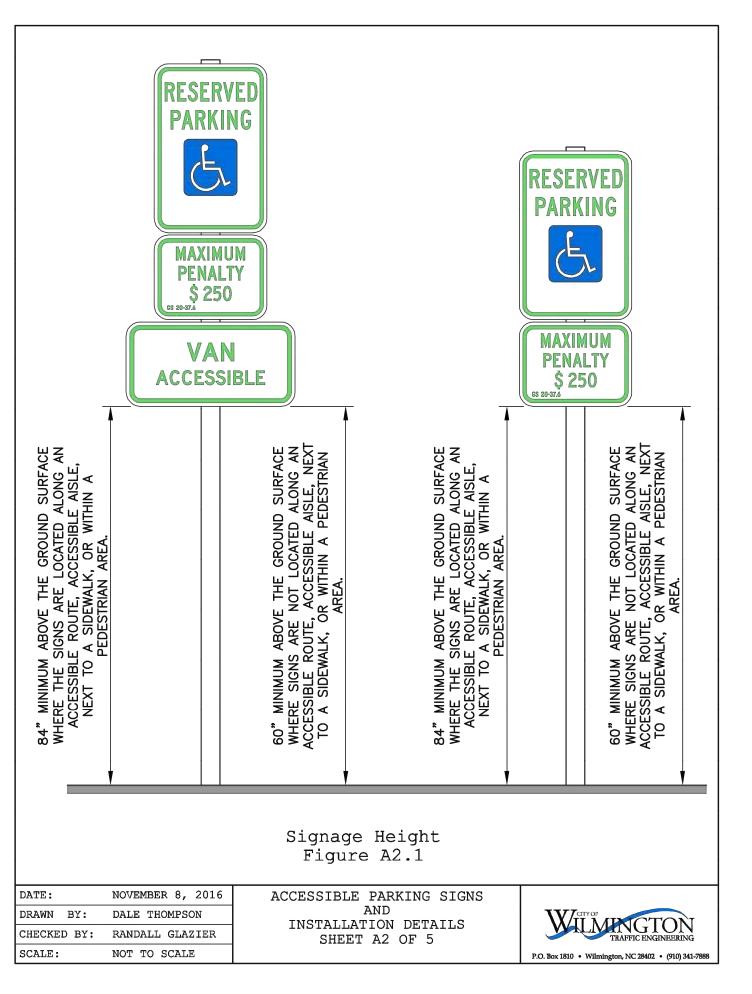
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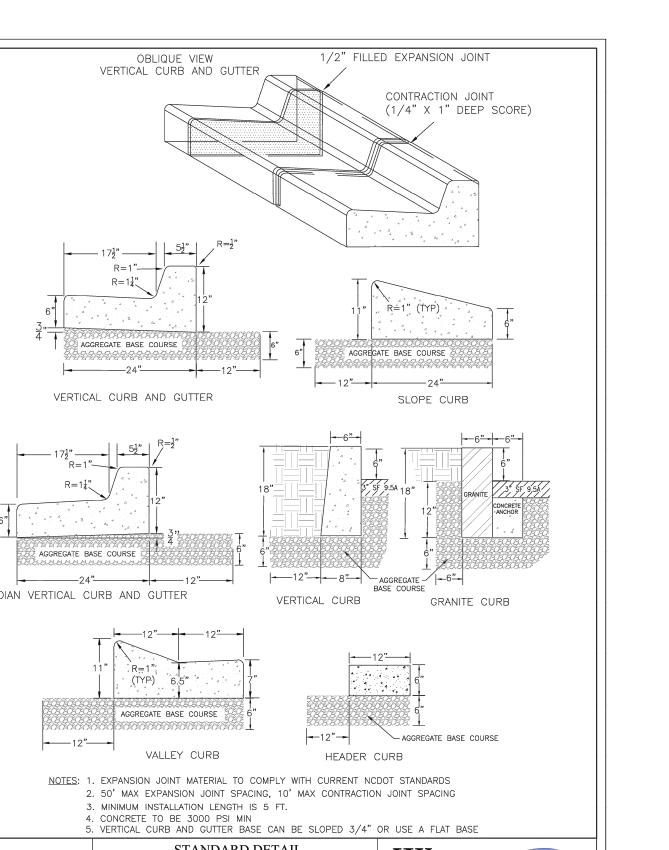










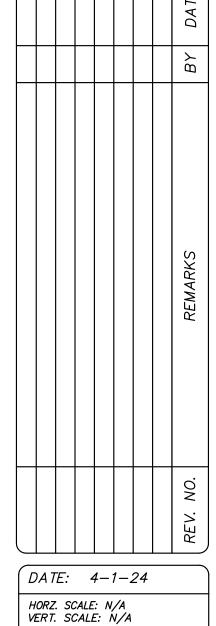




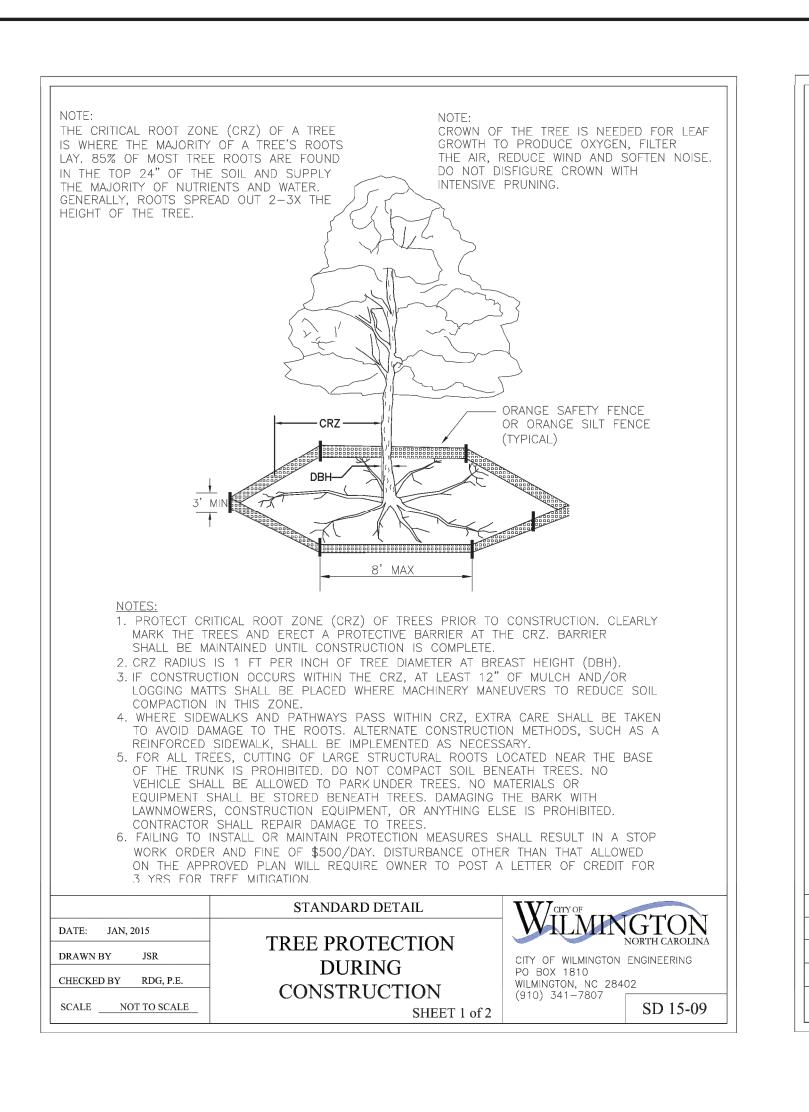
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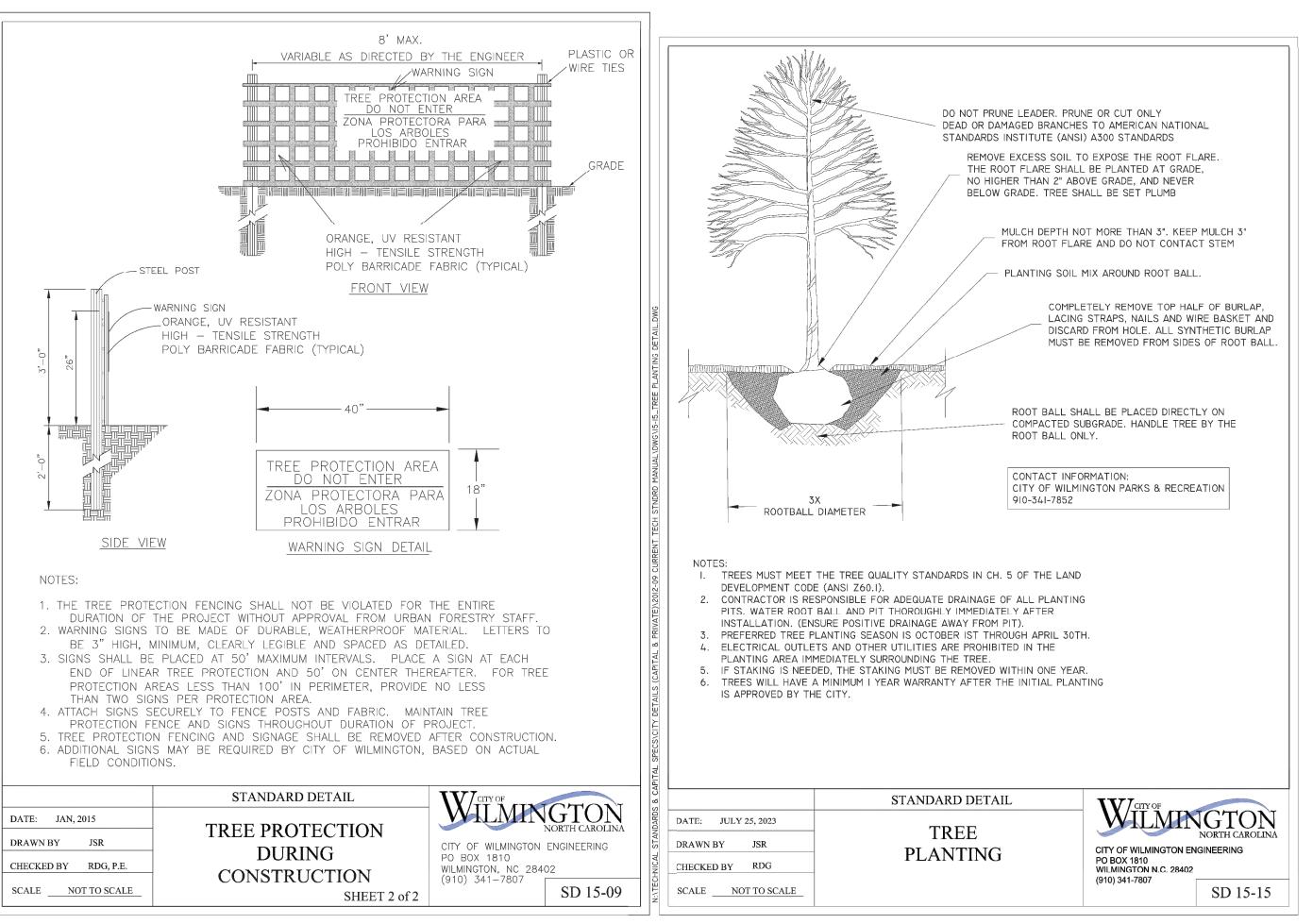
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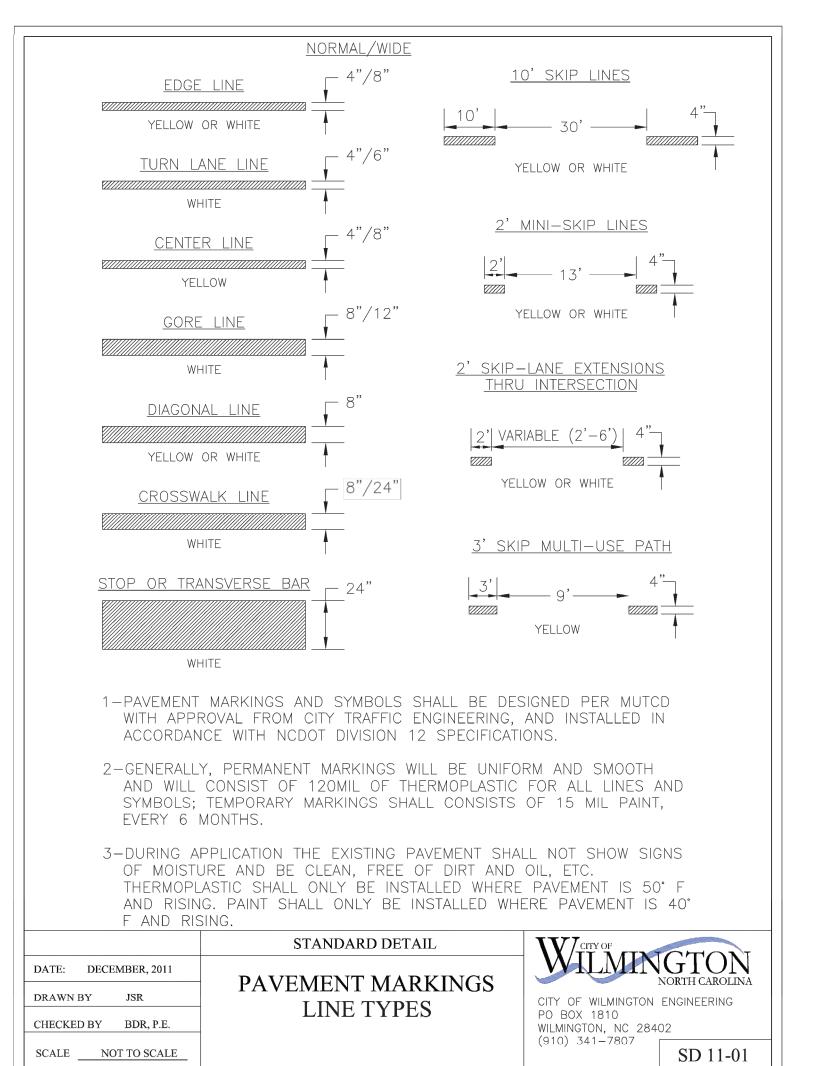


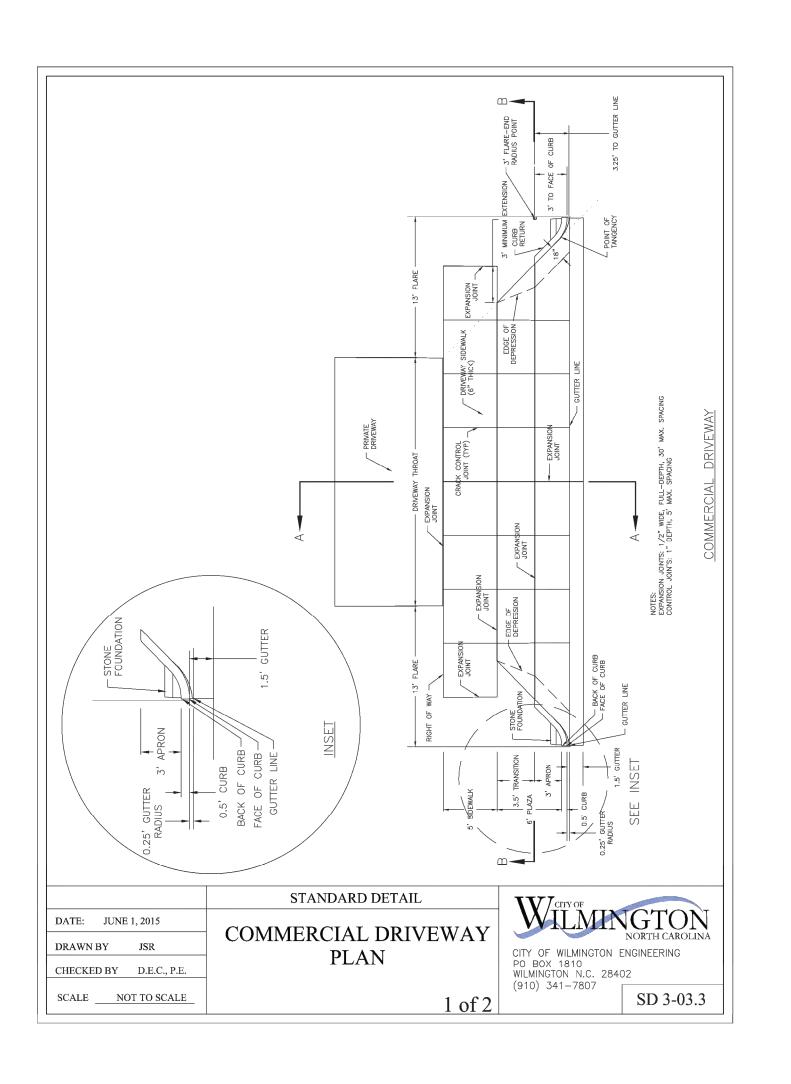


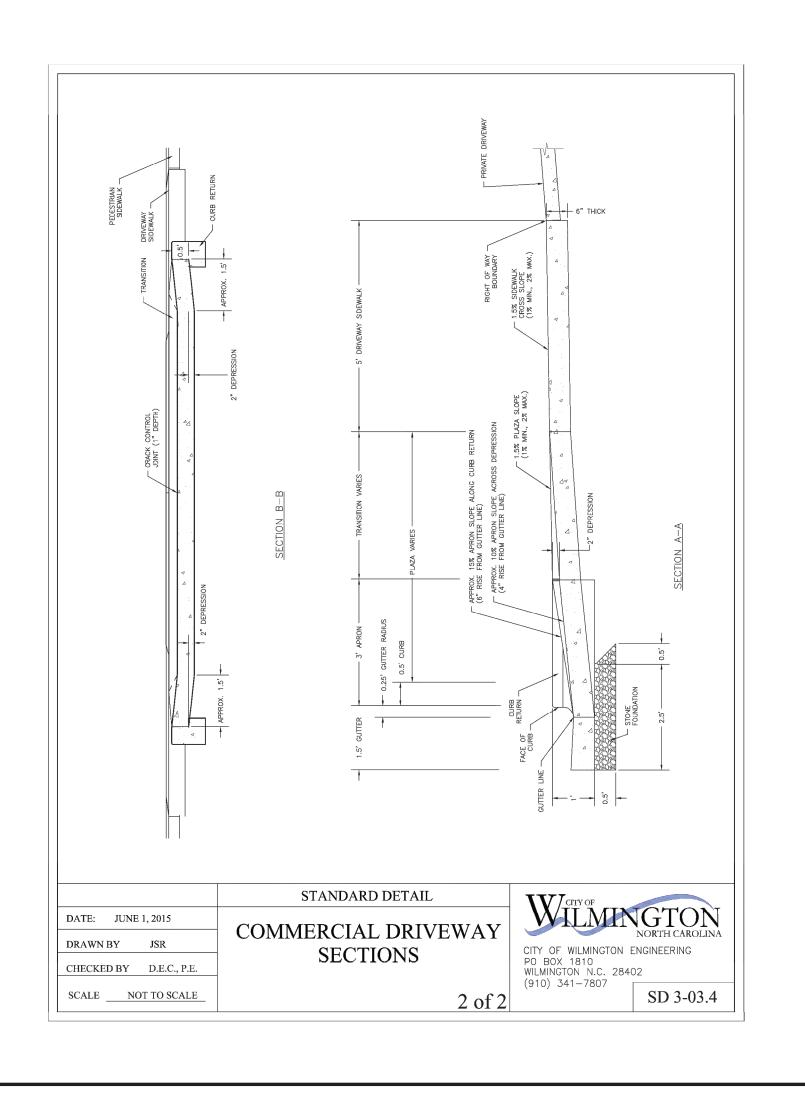
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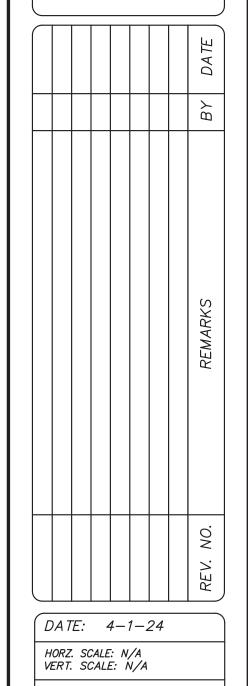


LICENSE # C-2710 **ENGINEERING** LAND PLANNING COMMERCIAL / RESIDENTIAL

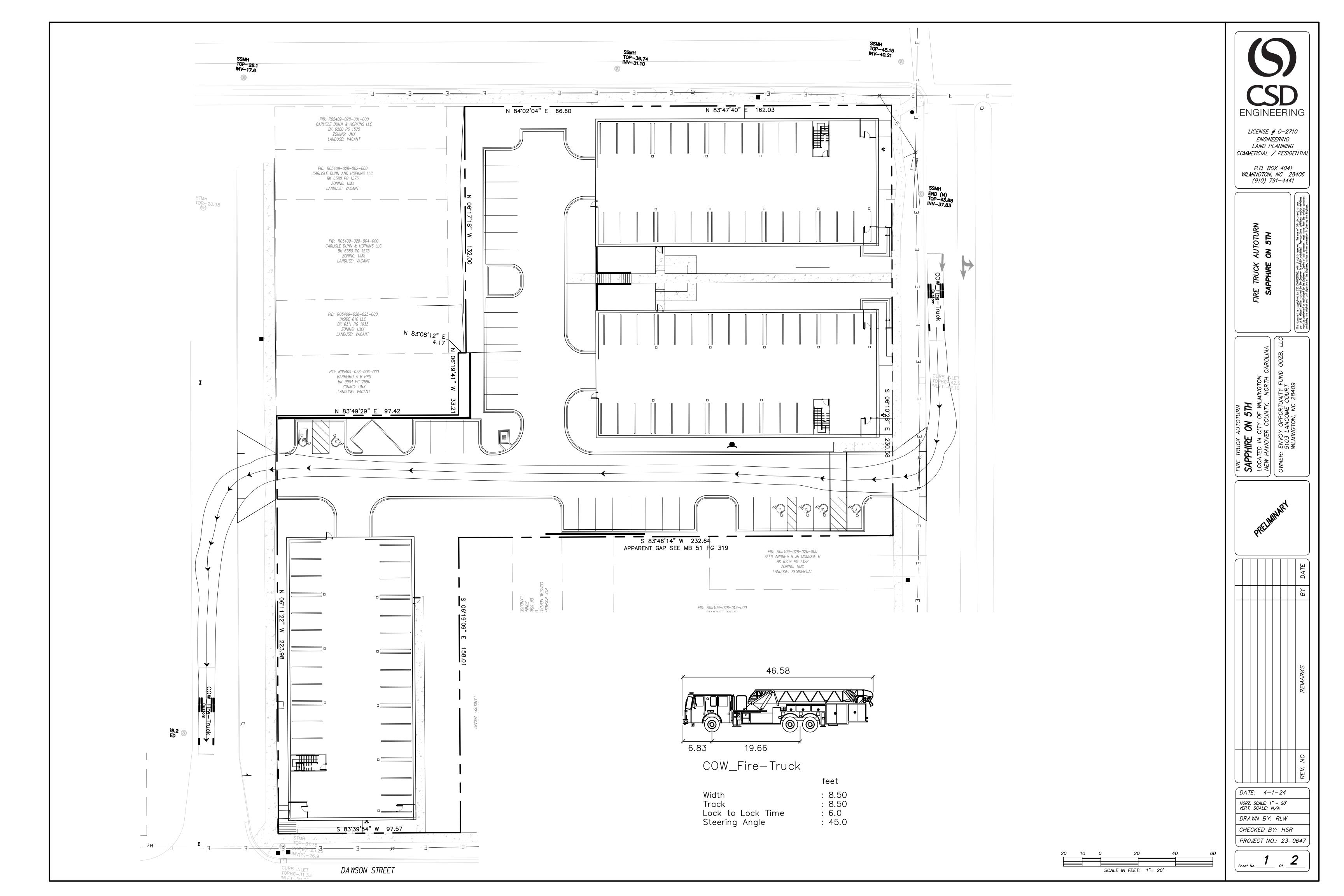
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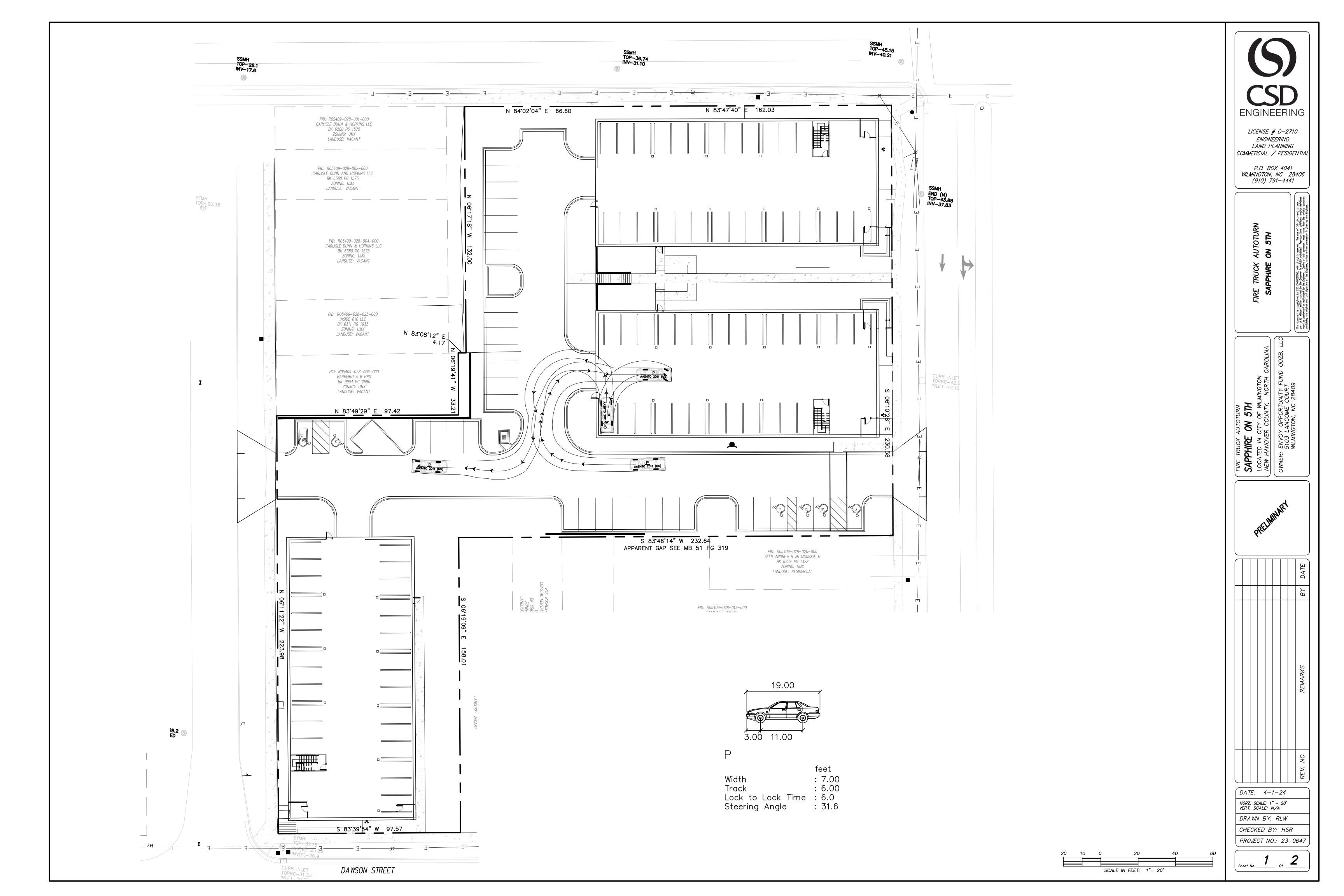
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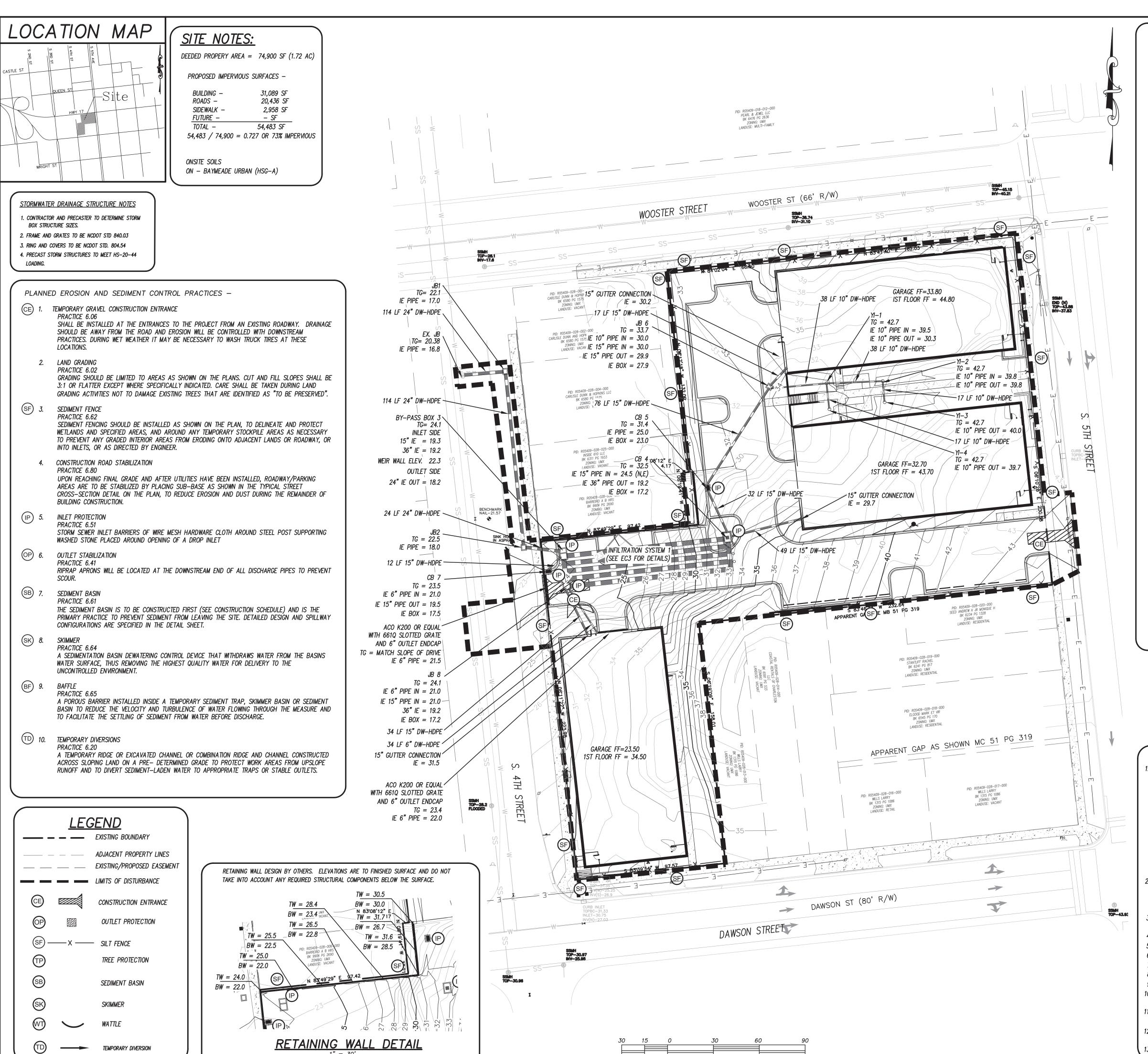




DRAWN BY: RLW CHECKED BY: HSR







SCALE IN FEET: 1"= 30"

#### CONSTRUCTION SEQUENCE

- OBTAIN APPROVAL OF PLAN AND ANY NECESSARY PERMITS, AND HOLD A PRE-CONSTRUCTION CONFERENCE PRIOR TO COMMENCING ANY WORK.
- 2. FLAG WORK LIMITS AND STAKE—OUT INLET LOCATIONS, SEDIMENT BASINS AND LIMITS OF GRADING FOR PRELIMINARY GRADING.
- 3. INSTALL GRAVEL CONSTRUCTION ENTRANCES.
- 4. INSTALL SILT FENCING PRIOR TO INSTALLING SEDIMENT BASIN CONSTRUCTION AND ANY STOCKPILING OF MATERIAL.
- 5. ONCE SEDIMENT BASIN, AND SILT FENCE ARE INSTALLED, ROUGH GRADING CAN COMMENCE
- 6. ONCE ROUGH GRADES ARE ESTABLISHED, BEGIN INSTALLATION OF ALL UTILITIES
- 7. FINAL GRADE SITE AND STABILIZE SITE.
- 8. ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSPECTED WEEKLY AND AFTER ANY RAINFALL, AND REPAIRED AS NECESSARY.
- 9. AFTER SITE STABILIZATION, TEMPORARY MEASURES ARE TO BE REMOVED.

#### MAINTENANCE PLAN -

- (GENERAL NOTES, NOT ALL ITEMS ARE APPLICABLE TO THIS PROJECT)
- . ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY 0.5" RAINFALL.
- 2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL PERIODICALLY TOP-DRESS WITH AND 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 THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND WATTLES, BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER RAIN EVENT.
- 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 STANDARD STRENGTH 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
- 5. 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 THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM BAFFLES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
- SEDIMENT WILL BE REMOVED FROM BEHIND THE WATTLE WHEN ACCUMULATION REACHES ONE THIRD OF THE HEIGHT OF THE ROLL ON THE UPSLOPE SIDE. WATTLE SHALL BE INSPECTED TO MAKE SURE WATTLES ARE FIRMLY ANCHORED IN PLACE AND CONSTRUCTION EQUIPMENT TRAFFIC DOES NOT CRUSH OR DAMAGE THEM. WATTLES SHALL BE REPLACED IF THEY ARE SPLIT, TORN, UNRAVELED OR SLUMPING FIBER ROLLS.
- 7. ALL SEEDED AREAS WILL BE FERTILIZED, RE—SEEDED AS NECESSARY AND MULCHED ACCORDING TO THE 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 WITH 15 WORKING DAYS.
- 8. FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECTION SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.

## 1. SOIL STABILIZATION TIMEFRAMES

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES	7 DAYS	NONE
DITCHES AND SLOPES		
HIGH QUALITY ZONES (HQW)	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10 FT OR LESS IN LENGTH
		AND ARE ARE NOT STEEPER THAN 2:1,
		14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN
		50 FT IN LENGTH
ALL OTHER AREAS WITH SLOPES	14 DAYS	NONE, EXCEPT FOR PERIMETER AND
FLATTER THAN 4:1		HQW ZONES

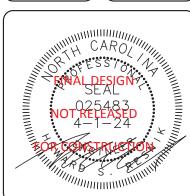
- 2. DENUDED AREAS MUST BE STABILIZED WITHIN FIFTEEN (15) WORKING DAYS OF CEASE OF ANY PHASE OF ACTIVITY. ALL SLOPES MUST BE STABILIZED WITHIN TWENTY-ONE (21) CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY. THIS INCLUDES SLOPES, SWALES, CHANNELS AND STOCKPILES.
- THIS PLAN TO BE UTILIZED AND REVIEWED ONLY IN CONJUNCTION WITH THE WRITTEN NARRATIVE,
- WHICH IS AN INTEGRAL PART OF THIS EROSION AND SEDIMENT CONTROL PLAN. 4. ALL SLOPES SHALL BE 3:1 OR FLATTER.
- 5. NO SURFACE WATERS SETBACKS ONSITE OR ON ADJACENT PROPERTY
- 6. NO WETLANDS ONSITE.
- 7. BOUNDARY, TOPOGRAPHIC AND AS-BUILT SURVEY PERFORMED BY GARY KEYES,PLS
- 8. ELEVATION DATUM: NAVD 88
- 9. LIMITS OF DISTURBANCE = 80,635 SF (1.85 ACRES) 10. STORM WATER DRAINS TO CAPE FEAR RIVER (SC: 18–(71))
- IN THE CAPE FEAR RIVER BASIN. SITE IS NOT WITHIN 0.5 MILES OF SA WATERS
- 11. NHC PARCEL NUMBERS: R05409-028-022-000
- 12. ALL STORMWATER PIPE TO BE ADS N-12 OR HP STORM AS CALLED OUT ON PLANS,
- OR APPROVED EQUAL. 13. TEMPORARY DIVERSIONS TO BE LINED WITH EXCELSIOR MATTING OR EQUAL.

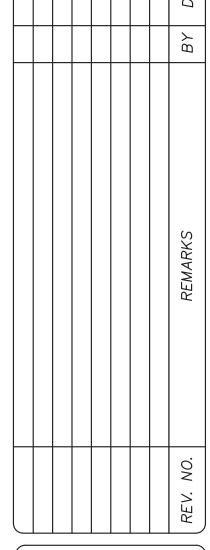
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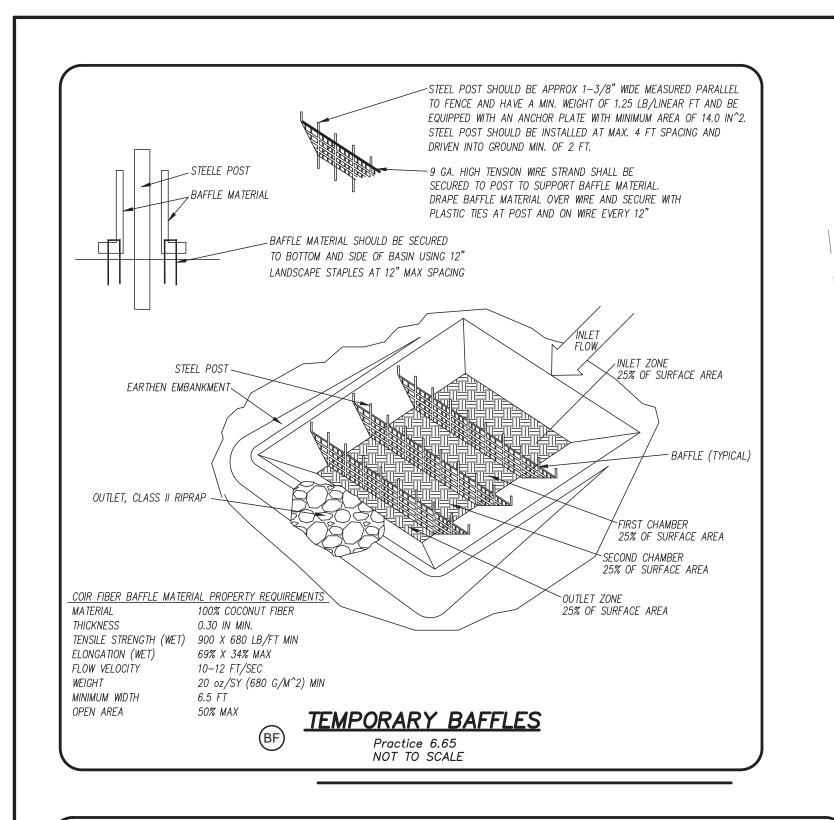
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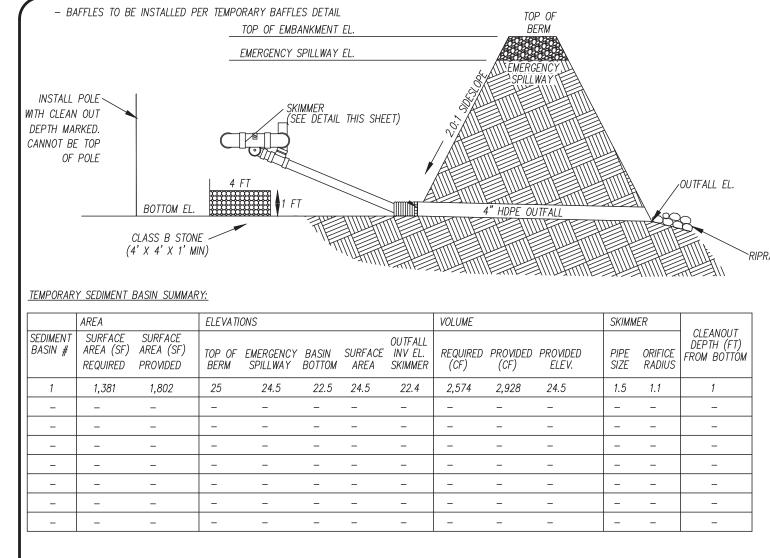
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CHECKED BY: HSR

PROJECT NO.: 23-0647

Sheet No. <u>EC1</u> of <u>EC6</u>

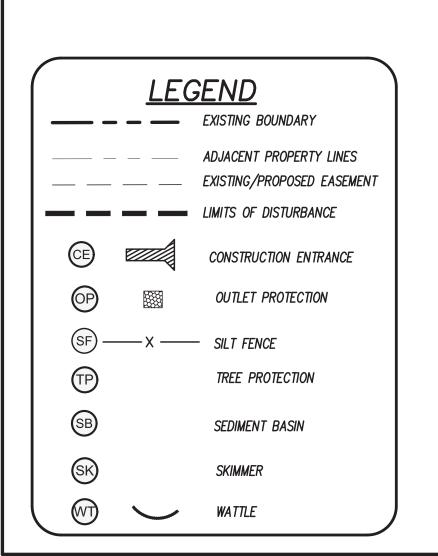


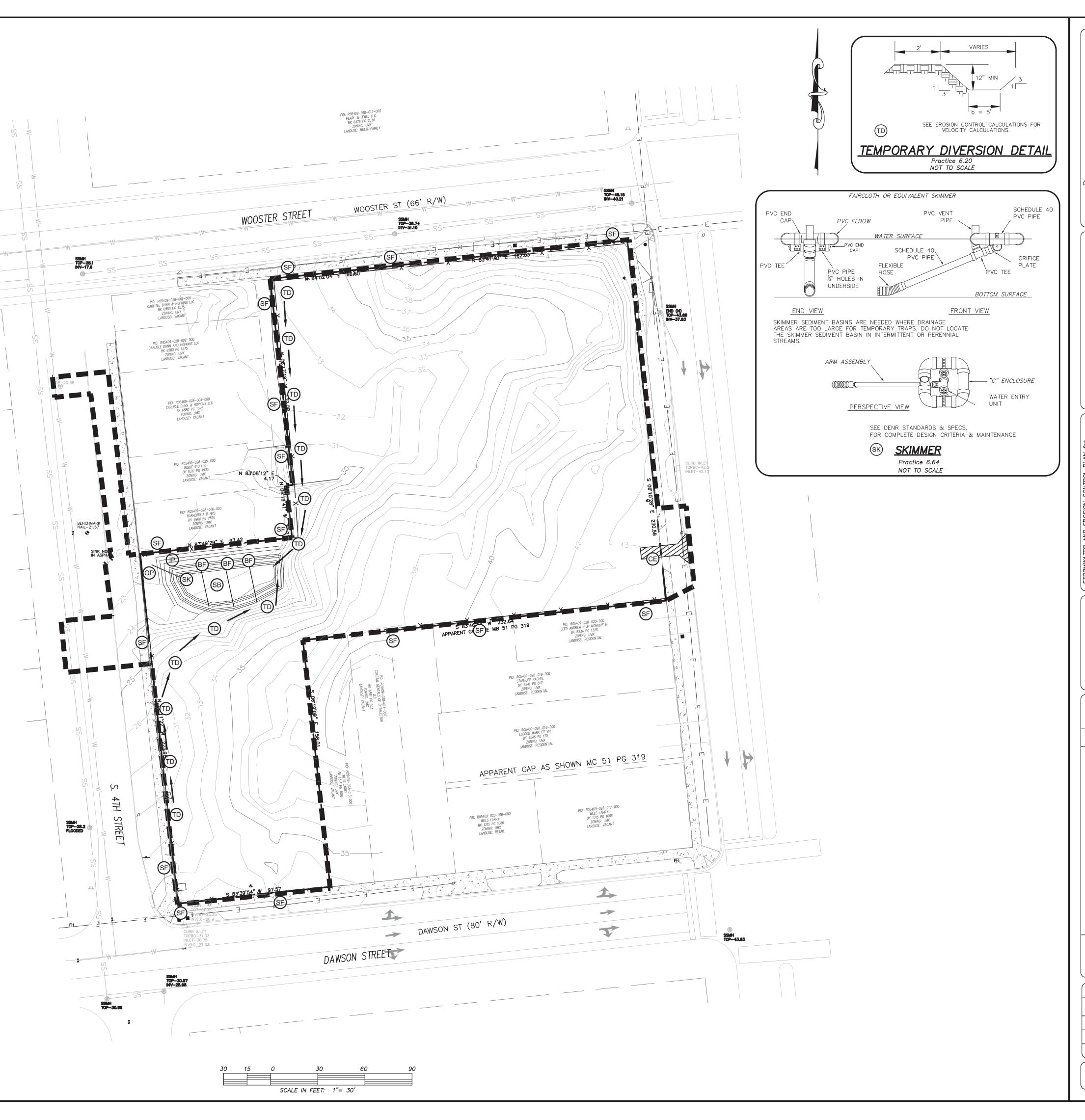


TEMPORARY SEDIMENT BASIN

EMBANKMENT CROSS SECTION

NOT TO SCALE







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STURMWATER AND ERUSION
CONTROL PLAN FOR
SAPHIRE ON 5TH

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STORMWATER AND EROSION CONTROL PLAN for

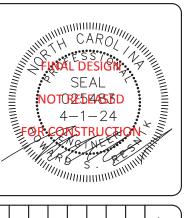
SAPHIRE ON 5TH

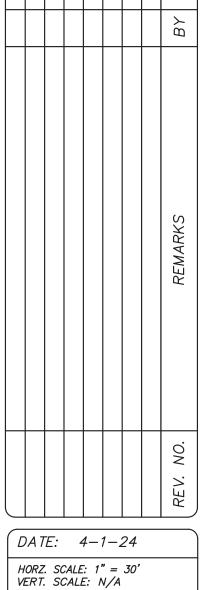
LOCATED IN CITY OF WILMINGTON

NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: ENVOY OPPORTUNITY FUND QOZB, L
5103 LANCOME COURT

WILMINGTON, NC 28409



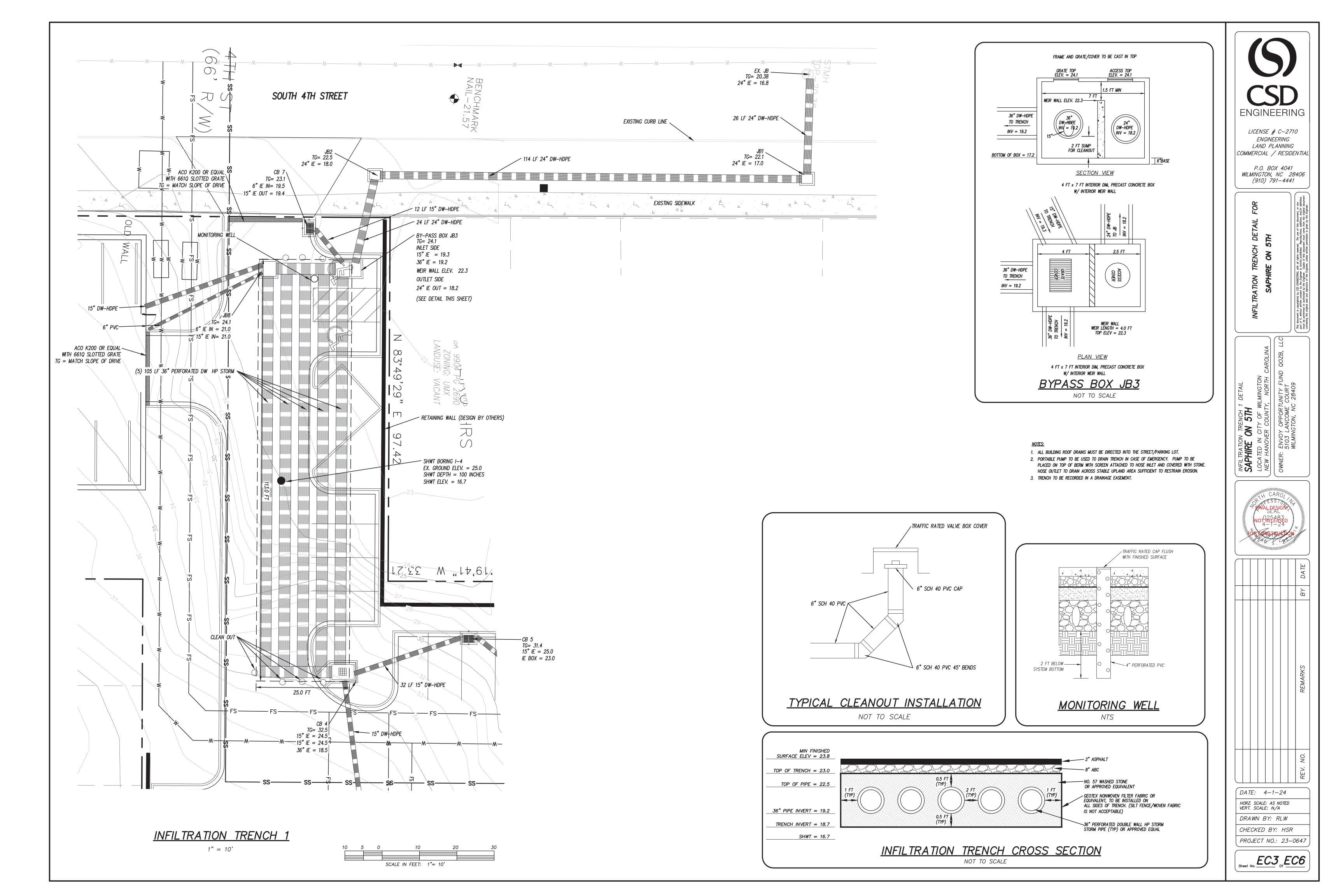


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PROJECT NO.: 23-0647

Sheet No. EC2 of EC6



TEMPORARY SEEDING SPECIFICATION # 6.10 - SPECIFICATIONS

COMPLETE GRADING BEFORE PREPARING SEEDBEDS AND INSTALL ALL NECESSARY EROSION CONTROL PRACTICES, SUCH AS DIKES, WATERWAYS AND BASINS. MINIMIZE STEEP SLOPES BECAUSE THEY MAKE SEEDBED PREPARATION DIFFICULT AND INCREASE THE EROSION HAZARD. IF SOILS BECOME COMPACTED DURING GRADING, LOOSEN THEM TO A DEPTH OF 6-8 INCHES USING A RIPPER, HARROW, OR CHISEL PLOW.

SEEDBED PREPARATION

GOOD SEEDBED PREPARATION IS ESSENTIAL TO SUCCESSFUL PLANT ESTABLISHMENT. A GOOD SEEDBED IS WELL-PULVERIZED, LOOSE AND UNIFORM. WHERE HYDROSEEDING METHODS ARE USED, THE SURFACE MAY BE LEFT WITH A MORE IRREGULAR SURFACE OF LARGE CLODS AND STONES.

APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF THE PH (ACIDITY) OF THE SOIL IS NOT KNOWN. AN APPLICATION OF GROUND AGRICULTURAL LIMESTONE AT THE RATE OF 1 TO 1 1/2 TONS/ACRE ON COARSE-TEXTURED SOILS AND 2-3 TONS/ACRES ON FINE-TEXTURED SOILS IS USUALLY SUFFICIENT. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL. SOILS WITH A PH OF 6 OR HIGHER NEED NOT BE LIMED.

BASE APPLICATION RATES ON SOIL TESTS. WHEN THESE ARE NOT POSSIBLE, APPLY A 10-10-10 GRADE FERTILIZER AT 700-L,000 LB./ACRE. BOTH FERTILIZER AND LIME SHOULD BE INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL. IF A HYDRAULIC SEEDER IS USED, DO NOT MIX SEED AND FERTILIZER MORE THAN 30 MINUTES BEFORE APPLICATION.

IF RECENT TILLAGE OPERATIONS HAVE RESULTED IN A LOOSE SURFACE, ADDITIONAL ROUGHENING MAY NOT BE REQUIRED EXCEPT TO BREAK UP LARGE CLODS. IF RAINFALL CAUSES THE SURFACE TO BECOME SEALED OR CRUSTED. LOOSEN IT JUST PRIOR TO SEEDING BY DISKING, RAKING, HARROWING, OR OTHER SUITABLE METHODS, GROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON THE CONTOUR BEFORE SEEDING (PRACTICE 6:03, SURFACE ROUGHENING).

SELECT AN APPROPRIATE SPECIES OR SPECIES MIXTURE FROM TABLE 6.10A, FOR SEEDING IN LATE WINTER AND EARLY SPRING, TABLE 6.10B FOR SUMMER, AND TABLE 6.10C FOR FALL.

EVENLY APPLY SEED USING A CYCLONE SEEDER (BROADCAST), DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. USE SEEDING RATES GIVEN IN TABLE 6.10A-6.10C. BROADCAST SEEDING AND HYROSEEDING ARE APPROPRIATE FOR STEEP SLOPES WHERE EQUIPMENT CANNOT BE DRIVEN. HAND BROADCASTING IS NOT RECOMMENDED BECAUSE OF THE DIFFICULTY IN ACHIEVING A UNIFORM DISTRIBUTION. SMALL GRAINS SHOULD BE PLANTED NO MORE THAN 1 INCH DEEP, AND GRASSES AND LEGUMES NO MORE THAN 1/2 INCH. BROADCAST SEED MUST BE COVERED BY RAKING OR CHAIN DRAGGING. AND THEN LIGHTLY FIRMED WITH A ROLLER OR CULTIPACKER. HYDROSEEDED MIXTURES SHOULD INCLUDE A WOOD FIBER (CELLULOSE)

THE USE OF APPROPRIATE MULCH WILL HELP ENSURE ESTABLISHMENT UNDER NORMAL CONDITIONS AND IS ESSENTIAL TO SEEDING SUCCESS UNDER HARSH SITE CONDITION (PRACTICE 6.14, MULCHING). HARSH SITE CONDITIONS INCLUDE: -SEEDING IN FALL FOR WINTER COVER (WOOD FIBER MULCHES ARE NOT CONSIDERED ADEQUATE FOR THIS USE), -SLOPES STEEPER THAN 3:1, -EXCESSIVELY HOT OR DRY WEATHER, -ADVERSE SOILS(SHALLOW, ROCKY, OR HIGH IN CLAY OR SAND), AND -AREAS RECEIVING CONCENTRATED FLOW. IF THE AREA TO BE MULCHED IS SUBJECT TO CONCENTRATED WATERFLOW, AS IN CHANNELS, ANCHOR MULCH WITH NETTING (PRACTICE 6.14,

SEEDING MIXTURE (LATER WINTER AND EARLY SPRING) SPECIES RATE (LB/ACRE) RYE (GRAIN) ANNUAL LESPEDEZA (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 NOUNTAINS—ABOVE 2500 FEET: FEB. 15 — MAY 15 BELOW 2500 FEET: FEB. 1- MAY 1 PIEDMONT-JAN, 1 - MAY 1 COASTAL PLAIN—DEC. 1 — APR. 15

MULCHING).

SOIL AMENDMENTS FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

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

SEEDING MIXTURE (SUMMER RECOMMENDATIONS) RATE (LB/ACRE)

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

<u>SEEDING DATES</u> MOUNTAINS—MAY 15 — 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. APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING,

OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL. REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

SEEDING MIXTURE (FALL RECOMMENDATIONS) SPECIES RATE (LB/ACRE) RYE (GRAIN)

MOUNTAINS—AUG. 15 — DEC. 15 COASTAL PLAIN AND PIEDMONT—AUG. 15 — DEC. 30

<u>SOIL AMENDMENTS</u> FOLLOW SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILIZER.

APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING 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 DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTENT TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBE (PIEDMONT AND COASTAL PLAIN) OR KOREAN (MOUNTAINS) LESPEDEZA IN LATE FEBRUARY OR

HARDWARE CLOTH & GRAVEL INLET PROTECTION

Specification # 6.51 - Construction Specifications Uniformly grade a shallow depression approaching the inlet.

under the gravel for anchoring is recommended.

2. Drive 5 FT steel post 2 FT into the ground surrounding the inlet..

Space post evenly around the perimeter of the inlet, a maximum of 4 FT apart. 3. Surround the posts wit wire mesh hardware cloth. Secure the wire mesh to steel posts at the top, middle, and bottom. Placing a 2 FT flap of the wire mesh.

4. Place clean gravel (NC DOT #5 or #57 stone) on a 2:1 slope with a height of 16 inches around the wire, and smooth to an even grade.

5. Once the contributing drainage area has been stabilized, remove accumulated sediment, and establish final grading elevations.

6. Compact the area properly and stabilized it with ground cover.

Inspect inlets at least weekly and after each significant (0.5 in 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.

<u>Permanent Seeding</u> SPECIFICATIONS # 6.11 - SPECIFICATIONS

INCHES WATER TO L INCH OF SOIL).

ESTABLISHMENT OF VEGETATION SHOULD NOT BE ATTEMPTED ON SITES THAT ARE UNSUITABLE DUE TO INAPPROPRIATE SOIL TEXTURE (TABLE 6.11A), POOR DRAINAGE, CONCENTRATED OVERLAND FLOW, OR STEEPNESS OF SLOPE UNTIL MEASURES HAVE BEEN TAKEN TO CORRECT

TO MAINTAIN A GOOD STAND OF VEGETATION, THE SOIL MUST MEET CERTAIN MINIMUM REQUIREMENTS AS A GROWTH MEDIUM. THE EXISTING SOIL SHOULD HAVE THESE CRITERIA:

- ENOUGH FINE-GRAINED (SILT AND CLAY) MATERIAL TO MAINTAIN ADEQUATE MOISTURE AND NUTRIENT SUPPLY (AVAILABLE WATER CAPACITY OF AT LEAST .05

- SUFFICIENT PORE SPACE TO PERMIT ROOT PENETRATION. - SUFFICIENT DEPTH OF SOIL TO PROVIDE AN ADEQUATE ROOT ZONE. THE DEPTH TO ROCK OR IMPERMEABLE LAYERS SUCH AS HARDPANS SHOULD BE 12 INCHES OR MORE, EXCEPT ON SLOPES STEEPER THAN 2:1 WHERE THE ADDITION OF SOIL IS NOT FEASIBLE.

- A FAVORABLE PH RANGE FOR PLANT GROWTH, USUALLY 6.0-6.5. - FREEDOM FROM LARGE ROOTS, BRANCHES, STONES, LARGE CLODS OF EARTH, OR TRASH OF ANY KIND. CLODS AND STONES MAY BE LEFT ON SLOPES STEEPER THAN 3:1 IF THEY ARE

IF ANY OF THE ABOVE CRITERIA ARE NOT MET-I.E., IF THE EXISTING SOIL IS TOO COARSE, DENSE, SHALLOW OR ACIDIC TO FOSTER VEGETATION—SPECIAL AMENDMENTS ARE REQUIRED. THE SOIL CONDITIONERS DESCRIBED BELOW MAY BE BENEFICIAL OR, PREFERABLY, TOPSOIL MAY BE APPLIED IN ACCORDANCE WITH PRACTICE 6.04, TOPSOILING.

SOIL CONDITIONERS IN ORDER TO IMPROVE THE STRUCTURE OR DRAINAGE CHARACTERISTICS OF A SOIL, THE FOLLOWING MATERIAL MAY BE ADDED. THESE AMENDMENTS SHOULD ONLY BE NECESSARY WHERE SOILS HAVE LIMITATIONS THAT MAKE THEM POOR FOR PLANT GROWTH OR FOR FINE TURF ESTABLISHMENT (SEE CHAPTER 3, VEGETATIVE CONSIDERATIONS).

PEAT-APPROPRIATE TYPES ARE SPHAGNUM MOSS PEAT, HYPNUM MOSS PEAT, REEDSEDGE PEAT, OR PEAT HUMUS, ALL FROM FRESH-WATER SOURCES. PEAT SHOULD BE SHREDDED AND CONDITIONED IN STORAGE PILES FOR AT LEAST 6 MONTHS AFTER EXCAVATION.

SAND-CLEAN AND FREE OF TOXIC MATERIALS VERMICULITE-HORTICULTURAL GRADE AND FREE OF TOXIC SUBSTANCES. ROTTED MANURE-STABLE OR CATTLE MANURE NOT CONTAINING UNDUE AMOUNTS OF STRAW OR

OTHER BEDDING MATERIALS. THOROUGHLY ROTTED SAWDUST- FREE OF STONES AND DEBRIS. ADD 6 LB. OF NITROGEN TO EACH CUBIC YARD. SLUDGE-TREATED SEWAGE AND INDUSTRIAL SLUDGES ARE AVAILABLE IN VARIOUS FORMS: THESE SHOULD BE USED ONLY IN ACCORDANCE WITH LOCAL. STATE AND FEDERAL

REGULATIONS. SPECIES SELECTION

USE THE KEY TO PERMANENT SEEDING MIXTURES (TABLE 6.11B) TO SELECT THE MOST APPROPRIATE SEEDING MIXTURE BASED ON THE GENERAL SITE AND MAINTENANCE FACTORS. A LISTING OF SPECIES, INCLUDING SCIENTIFIC NAMES AND CHARACTERISTICS, IS GIVEN IN APPENDIX 8.02.

SEEDBED PREPARATION INSTALL NECESSARY MECHANICAL EROSION AND SEDIMENTATION CONTROL PRACTICES BEFORE SEEDING, AND COMPLETE GRADING ACCORDING TO THE APPROVED PLAN. LIME AND FERTILIZER NEEDS SHOULD BE DETERMINED BY SOIL TESTS. SOIL TESTING IS PERFORMED FREE OF CHARGE BY THE NORTH CAROLINA DEPARTMENT OF AGRICULTURE SOIL TESTING LABORATORY. DIRECTIONS, SAMPLE CARTONS, AND INFORMATION SHEETS ARE AVAILABLE THROUGH COUNTY AGRICULTURAL EXTENSION OFFICES OR FROM NCDA. BECAUSE THE NCDA SOIL TESTING LAB REQUIRES 1-6 WEEKS FOR SAMPLE TURN-AROUND, SAMPLING MUST BE PLANNED WELL IN ADVANCE OF FINAL GRADING. TESTING IS ALSO DONE BY COMMERCIAL LABORATORIES.

WHEN SOIL TEST ARE NOT AVAILABLE, FOLLOW RATES SUGGESTED ON THE INDIVIDUAL SPECIFICATION SHEET FOR THE SEEDING MIX CHOSEN (TABLES 6.11C THROUGH 6.11V). APPLICATIONS RATES USUALLY FALL INTO THE FOLLOWING RANGES: - GROUND AGRICULTURAL LIMESTONE

LIGHT-TEXTURED, SANDY SOILS; 1-1 1/2 TONS/ACRE HEAVY TEXTURED, CLAYEY SOILS 2-3 TONS/ACRE

- FERTILIZER: GRASSES 800-1200 LB/ACRE OF 10-10-10 (OR THE EQUIVALENT) GRASS-LEGUME MIXTURES: 800-1200 LB/ACRE OF 5-10-10 (OR THE EQUIVALENT) APPLY LIME AND FERTILIZER EVENLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. OPERATE MACHINERY ON THE CONTOUR. WHEN USING A HYDROSEEDER. APPLY LIME AND FERTILIZER TO A ROUGH, LOOSE SURFACE.

ROUGHEN SURFACES ACCORDING TO PRACTICE 6.03, SURFACE ROUGHENING. COMPLETE SEEDBED PREPARATION BY BREAKING UP LARGE CLODS AND RAKING INTO A SMOOTH, UNIFORM SURFACE (SLOPE LESS THAN 3:1) FILL IN OR LEVEL DEPRESSIONS THAN CAN COLLECT WATER. BROADCAST SEED INTO A FRESHLY LOOSENED SEEDBED THAT HAS NOT BEEN SEALED BY RAINFALL.

TABLE 6.11S - SEEDING NO. 4CP FOR: WELL-DRAINED SANDY LOAMS TO DRY SANDS, COASTAL PLAIN; LOW TO MEDIUM-CARE LAWNS SEEDING MIXTURE

SPECIES - CENTIPEDEGRASS - RATE - 10-20 LB/ACRE (SEED) OR 33 BU/ACRE (SPRIGS) SEEDING DATES - MAR. - JUNE, (SPRIGGING CAN BE DONE THROUGH JULY WHERE WATER IS AVAILABLE FOR IRRIGATION.)

SOIL AMENDMENTS - APPLY LIME AND FERTILIZER ACCORDING TO SOIL TEST, OR APPLY 300 LB/ACRE 10-10-10. SPRIGGING - PLANT SPRIGS IN FURROWS WITH A TRACTOR-DROWN TRANSPLANTER, OR BROADCAST BY HAND.

FURROWS SHOULD BE 4-6 INCHES DEEP AND 2FT APART. PLACE SPRIGS ABOUT 2 FT. APART IN THE ROW WITH ONE END AT OR ABOVE GROUND LEVEL (FIGURE 6.11D). BROADCAST AT RATES SHOWN ABOVE, AND PRESS SPRIGS INTO THE TOP 1 1/2 INCHES OF SOIL WITH A DISK SET STRAIGHT SO THAT SPRIGS ARE NOT BROUGHT BACK TOWARD THE

MULCH - DO NOT MULCH MAINTENANCE - FERTILIZE VERY SPARINGLY- 20 LB/ACRE NITROGEN IN SPRING WITH NO PHOSPHORUS. CENTIPEDEGRASS CANNOT TOLERATE HIGH PH OR EXCESS FERTILIZER.

MAINTENANCE TABLE 6.11T - SEEDING NO. 5CP FOR: WELL-DRAINED SANDY LOAMS TO DRY SANDS; LOW

SEEDING MIXTURE SPECIES RATE PENSACOLA BAHIAGRASS 5 SERICEA LESPEDEZA COMMON BERMUDAGRASS GERMAN MILLET

SEEDING NOTES

DESIRED, OMIT SERICEA AND NOW AS OFTEN AS NEEDED.

1. WHERE A NEAT APPEARANCE IS DESIRED, OMIT SERICEA 2. USE COMMON BERMUDAGRASS ONLY ON ISOLATED SITES WHERE IT CANNOT BECOME A PEST. BERMUDAGRASS MAY BE REPLACED WITH 5 LB/ACRE CENTIPEDGRASS.

SEEDING DATES — APR. 1 — JULY 15 SOIL AMENDMENTS - APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 3,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 500 LB/ACRE 10-10-10 FERTILIZER. APPLY 4,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH.

ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL. MAINTENANCE - REFERTILIZE THE FOLLOWING APR. WITH 50 LB/ACRE NITROGEN. REPEAT AS GROWTH REQUIRES. MAY BE MOVED ONLY ONCE A YEAR. WHERE A NEAT APPEARANCE IS

ANCHOR BY TACKING WITH ASPHALT, ROVING AND NETTING OR BY CRIMPING WITH A MULCH

TABLE 6.11V - SEEDING NO. 7CP FOR: GRASS-LINED CHANNELS; COASTAL PLAIN SEEDING MIXTURE

SPECIES - COMMON BERMUDAGRASS - RATE - 40-80 (1/2 LB/L,000 FT ) SEEDING DATES - COASTAL PLAIN; APR - JULY SOIL AMENDMENTS - APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 3,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 500 LB/ACRE 10-10-10 FERTILIZER.

MULCH — USE JUTE, EXCELSIOR MATTING, OR OTHER EFFECTIVE CHANNEL LINING MATERIAL TO COVER THE BOTTOM OF CHANNELS AND DITCHES. THE LINING SHOULD EXTEND ABOVE THE HIGHEST CALCULATED DEPTH OF FLOW. ON CHANNEL SIDE SLOPES ABOVE THIS HEIGHT, AND IN DRAINAGES NOT REQUIRING TEMPORARY LININGS, APPLY 4,000 LB/ACRE GRAIN STRAW AND ANCHOR STRAW BY STAPLING NETTING OVER THE TOP. MULCH AND ANCHORING MATERIALS MUST BE ALLOWED TO WASH DOWN SLOPES WHERE THEY CAN

CLOG DRAINAGE DEVICES. MAINTENANCE -A MINIMUM OF 3 WEEKS IS REQUIRED FOR ESTABLISHMENT. INSPECT AND REPAIR MULCH FREQUENTLY. REFERTILIZE THE FOLLOWING APR. WITH 50 LB/ACRE

REFER TO APPENDIX 8.02 FOR BOTANICAL NAMES

TP <u>TREE PROTECTION</u> SPECIFICATION 6.05 - CONSTRUCTION SPECIFICATIONS

1. ERECT TPZ FENCES. RESTRICT ACCESS TO TPZS, WITH TALL, BRIGHT, PROTECTIVE FENCING. MOST FENCING IS INEXPENSIVE AND DURABLE ENOUGH TO LAST THROUGHOUT MOST CONSTRUCTION PROJECTS. TEMPORARY TREE PROTECTION FENCING SHOULD BE ERECTED BEFORE CLEARING, DELIVERIES AND OTHER CONSTRUCTION ACTIVITIES BEGIN ON

2. PROHIBIT OR RESTRICT ACCESS TO TPZS. ALL ON-SITE WORKERS SHOULD BE AWARE OF THE TPZS AND THE RESTRICTIONS ON ACTIVITIES WITHIN THE ZONES. USE THESE TPZ

 $\cdot$ POST "KEEP OUT" SIGNS ON ALL SIDES OF FENCING. DO NOT STORE CONSTRUCTION EQUIPMENT OR MATERIALS IN TPZS. PROHIBIT CONSTRUCTION ACTIVITIES NEAR THE MOST VALUABLE TREES, AND RESTRICT ACTIVITIES AROUND OTHERS. ·ASSESS CREW AND CONTRACTOR PENALTIES, IF NECESSARY, TO KEEP THE TPZS

3. MONITOR TREES. VIGILANCE IS REQUIRED TO PROTECT TREES ON CONSTRUCTION SITES. USE A TREE PROFESSIONAL OR TRAIN YOUR STAFF TO MONITOR TREE HEALTH DURING AND AFTER CONSTRUCTION ON A REGULAR, FREQUENT BASIS, WATCH FOR SIGNS OF TREE STRESS, SUCH AS DIEBACK, LEAF LOSS, OR GENERAL DECLINE IN TREE HEALTH OR APPEARANCE

4. MONITOR TPZ FENCES. ASSIGN A CREWMEMBER THE WEEKLY RESPONSIBILITY OF CHECKING THE INTEGRITY OF TPZ FENCES. REPAIR AND REPLACE TPZ FENCING AS

5. OPTIMIZE TREE HEALTH. ASSIGN A TRAINED CREWMEMBER OR HIRE A PROFESSIONALTO COMPLETE REGULAR TREE MAINTENANCE TASKS, INCLUDING WATERING, FERTILIZATION, AND MULCHING TO PROTECT TREE ROOTS. CONSULT A TREE PROFESSIONAL FOR ADVICE ON THESE PRACTICES IF NEEDED. SURVIVAL OF PROTECTED TREES WILL INCREASE IF THESE PRACTICES CONTINUE DURING CONSTRUCTION. HEALTHY TREES REQUIRE Undisturbed Healthy Soils. Do not cause injuries to trees and roots. Do not CHANGE THE SOIL, GRADE, DRAINAGE OR AERATION WITHOUT PROTECTING PRIORITY

CONTINUE TO CARE FOR THE SITE UNTIL THE NEW OWNER TAKES POSSESSION. TAKE THESE STEPS AFTER ALL MATERIALS AND EQUIPMENT HAVE BEEN REMOVED FROM THE

· REMOVE TREE PROTECTION ZONE FENCES. · PRUNE ANY DAMAGED TREES. IN SPITE OF PRECAUTIONS, SOME DAMAGE TO PROTECTED TREES MAY OCCUR. IN SUCH CASES, REPAIR ANY DAMAGE TO THE CROWN, TRUNK, OR

· REPAIR ROOTS BY CUTTING OFF THE DAMAGED AREAS AND PAINTING THEM WITH TREE PAINT. SPREAD PEAT MOSS OR MOIST TOPSOIL OVER EXPOSED ROOTS.

REPAIR DAMAGE TO BARK BY TRIMMING AROUND THE DAMAGED AREA AS SHOWN IN FIGURE 6.05D, TAPER THE CUT TO PROVIDE DRAINAGE, AND PAINT WITH TREE PAINT.

· CUT OFF ALL DAMAGED TREE LIMBS ABOVE THE TREE COLLAR AT THE TRUNK OR MAIN BRANCH. USE THREE SEPARATE CUTS AS SHOWN IN FIGURE 6.05D TO AVOID PEELING BARK FROM HEALTHY AREAS OF THE TREE.

CONTINUE MAINTENANCE CARE. PAY SPECIAL ATTENTION TO ANY STRESSED, DISEASED, OR INSECT-INFESTED TREES. REDUCE TREE STRESS CAUSED BY UNINTENDED CONSTRUCTION DAMAGE BY OPTIMIZING PLANT CARE WITH WATER, MULCH, AND FERTILIZER WHERE APPROPRIATE. CONSULT YOUR TREE EXPERT IF NEEDED .

INFORM THE PROPERTY OWNER ABOUT THE MEASURES EMPLOYED DURING CONSTRUCTION, WHY THOSE MEASURES WERE TAKEN, AND HOW THE EFFORT CAN BE CONTINUED.

SF) SEDIMENT FENCE (SILT FENCE)
SPECIFICATION 6.62 — CONSTRUCTION SPECIFICATIONS

1. USE A SYNTHETIC FILTER FABRIC OR A PERVIOUS SHEET OF POLYPROPYLENE, NYLON, POLYESTER. OR POLYETHYLENE YARN. WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS SHOWN IN TABLE 6.62B. SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120 F.

2. ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.33 LB/LINEAR FT STEEL WITH A MINIMUM LENGTH OF 4 FT. MAKE SURE THAT STEEL POST HAVE PROJECTS TO FACILITATE FASTENING THE FABRIC.

3. FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

SPECIFICATIONS FOR SEDIMENT FENCE FABRIC PHYSICAL PROPERTY REQUIREMENTS FILTERING EFFICIENCY - 85% (MM) TENSILE STRENGTH AT STANDARD STRENGTH- 30 LB/LIN IN (MIN) EXTRA STRENGTH- 50 LB/LIN IN (MM)

SLURRY FLOW RATE - 0.3 GAL/SQ FT/MIN (MIN)

TABLE 6.62B

1. CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH

SYNTHETIC FILTER FABRICS. 2. ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 18 INCHES ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.)

3. CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE

FILTER CLOTH ONLY AT A SUPPORT POST WITH OVERLAP TO THE NEXT POST. 4. SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UP SLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, OR TIE WIRES. EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM OF THE

5. WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE POSTS A MAXIMUM OF 8 FT

APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND TO A

6. EXTRA STRENGTH FILTER FABRIC WITH 6FT POST SPACING DOES NOT REQUIRE WIRE

MESH SUPPORT FENCE. STAPLE OR WIRE THE FILTER FABRIC DIRECTLY TO POSTS.

7. EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER (FIGURE 6.62A).

8. BACKFILL THE TRENCH WITH COMPACTED SOIL OR GRAVEL PLACED OVER THE FILTER

9. DO NOT ATTACH FILTER FABRIC TO EXISTING TREES. MAINTENANCE INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. REPLACE IT PROMPTLY. REPLACE BURLAP EVERY 60 Days. Remove sediment deposits as necessary to provide adequate storage VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STARII IZFD.

<u>Temporary Gravel Construction Entrance/Exit</u>

Specification # 6.06 - Construction Specifications

1. Clear the entrance and exit area of all vegetation, roots and other objectionable material and properly grade it.

3. Provide drainage to carry water to a sediment trap or other suitable outlet. 4. Use geotextile fabrics because they improve stability of the foundation in locations subject to seepage or high water table.

2. Place the gravel to the specific grade and dimensions shown on the plans and

Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2-inch stone. After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. Immediately remove all objectionable materials spilled, washed, or tracked onto public roadways.



3.64.7 - Construction Specifications

Clear, grub, and strip the grea under the embankment of all vegetation and root mat. Remove all surface soil containing high amounts of organic matter and stockpile or dispose of it properly. Haul all objectionable material to the designated disposal area. Place temporary sediment control measures below

Ensure that fill material for the embankment is free of roots, woody
vegetation, organic matter, and other objectionable material. Place the fill in
lifts not to exceed 9 inches, and machine compact it. Over fill the embankment
6 inches to allow for settlement.

Shape the basin to the specified dimensions. Prevent the skimming device from settling into the mud by excavating a shallow pit under the skimmer or providing a low support under the skimmer of stone or timber. 4. Place the barrel (typically 4-inch Schedule 40 PVC pipe) on a firm, smooth foundation of impervious soil. Do not use pervious material such as sand, gravel, or crushed stone as backfill around the pipe. Place the fill material around the pipe spillway in 4-inch layers and compact it under and around the pipe to at least the same density as the adjacent embankment. Care must be taken not to raise the pipe from the firm contact with its foundation when Place a minimum depth of 2 feet of compacted backfill over the pipe spillway before crossing it with construction equipment. In no case should the pipe conduit be installed by cutting a trench through the dam after the embankment is complete.

Assemble the skimmer following the manufacturers instructions, or as designed. 6. Lay the assembled skimmer on the bottom of the basin with the flexible joint at the inlet of the barrel pipe. Attach the flexible joint to the barrel pipe and position the skimmer over the excavated pit or support. Be sure to attach a robe to the skimmer and anchor it to the side of the basin. This will be used to pull the skimmer to the side for maintenance.

7. Earthen spillways—Install the spillway in undisturbed soil to the greatest extent possible. The achievement of planned elevations, grade, design width, and entrance and exit channel slopes are critical to the successful operation of the spillway. The spillway should be lined with laminated plastic or impermeable geotextile fabric. The fabric must be wide and long enough to cover the bottom and sides and extend onto the top of the dam for anchoring in a trench. The edges may be secured with 8-inch staples or pins. The fabric must be long enough to extend down the slope and exit onto stable ground. The width of the fabric must be one piece, not joined or spliced; otherwise water can get under the fabric. If the length of the fabric is insufficient for the entire length of the spillway, multiple sections, spanning the complete width, may be used. The upper section(s) should overlap the lower section(s) so that water cannot flow under the fabric. Secure the upper edge and sides of the fabric in a trench with staples or pins. (Adapted from "A Manual for Designing, Installing and Maintaining Skimmer Sediment Basins." February, 1999. J. W. Faircloth & Son.).

. Inlets—Discharge water into the basin in a manner to prevent erosion. Use temporary slope drains or diversions with outlet protection to divert sediment— laden water to the upper end of the pool area to improve basin trap efficiency

9. Erosion control—Construct the structure so that the disturbed area is minimized. Divert surface water away from bare areas. Complete the embankment before the area is cleared. Stabilize the emergency spillway embankment and all other disturbed areas above the crest of the principal control of the contr

10. After all the sediment-producing areas have been permanently stabilized, remove the structure and all the unstable sediment. Smooth the area to blend with the adjoining areas and stabilize properly (References: Surface Stabilization).

Inspect skimmer sediment basins at least weekly and after each significant (one—half inch or greater) rainfall event and repair immediately. Remove sediment and restore the basin to its original dimensions when sediment accumulates to one—half the height of the first baffle. Pull the skimmer to one side so that the sediment underneath it can be excavated. Excavate the sediment from the entire basin, not just around the skimmer or the first cell. Make sure vegetation growing in the bottom of the basin does not hold down the skimmer.

If the skimmer arm or barrel pipe is clogged, the orifice can be removed and the obstruction cleared with a plumber's snake or by flushing with water. Be sure and replace the orifice before repositioning the skimmer. Check the fabric lined spillway for damage and make any required repairs with fabric that spans the full width of the spillway. Check the embankment, spillways, and outlet for erosion damage, and inspect the embankment for piping and settlement. Make all necessary repairs immediately. Remove all trash and other debris from the skimmer and pool areas. Freezing weather can result in ice forming in the basin. Some special precautions should be taken in the winter to prevent the skimmer from plugging with ice.

POST SPACING: 6 FT MAX WITH EXTRA STRENGTH FABRIC WITHOUT WIRE.

COMPACTED FILL OR

Minimum 8'

OF GRAVEL

V-TRENCH

THICK LAYER

GRAVEL, EXTENSION

**OF FABRIC AND WIRE** NOTE:

INTO THE TRENCH SEE NARRATIVE

FOR MORE DETAIL.

SEDIMENT FENCE (SILT FENCE)

Practice 6.62 NTS

<u>ISOMETRIC VIEW</u>

8 FT MAX STANDARD STRENGTH FABRIC WITH 14 GA, 6 INCH MESH WIRE FENCE

/ STEEL POST

36" ABOVE

24" BELOW

FILTER .

FABRIC

4"MINIMUM

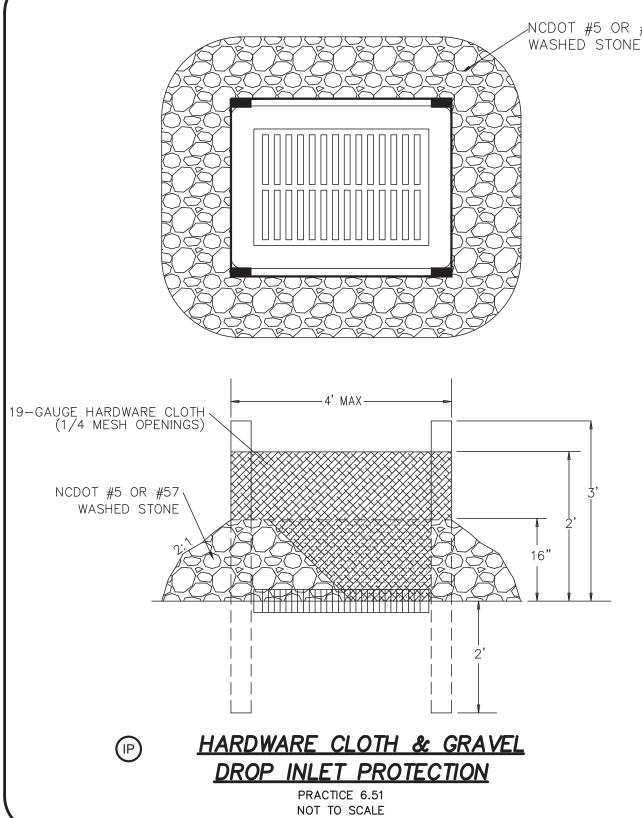
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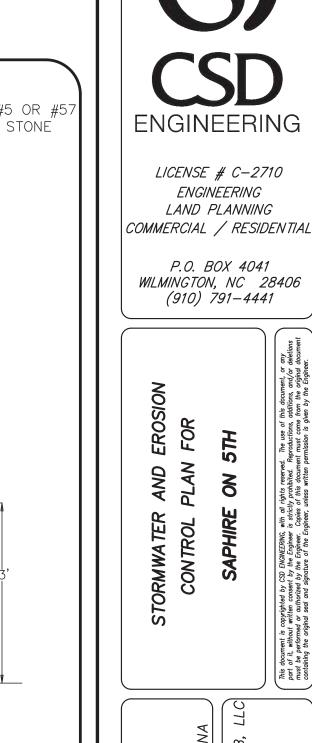
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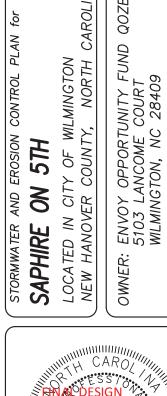
FILL 8" MIN.

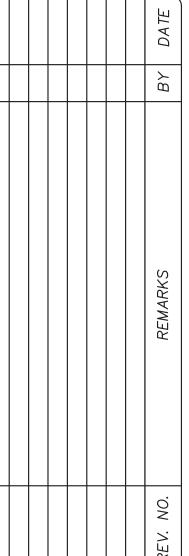
FABRIC AND WIRE

INTO THE TRENCH

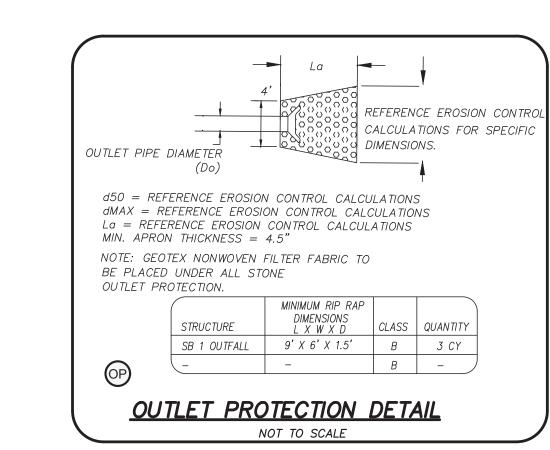


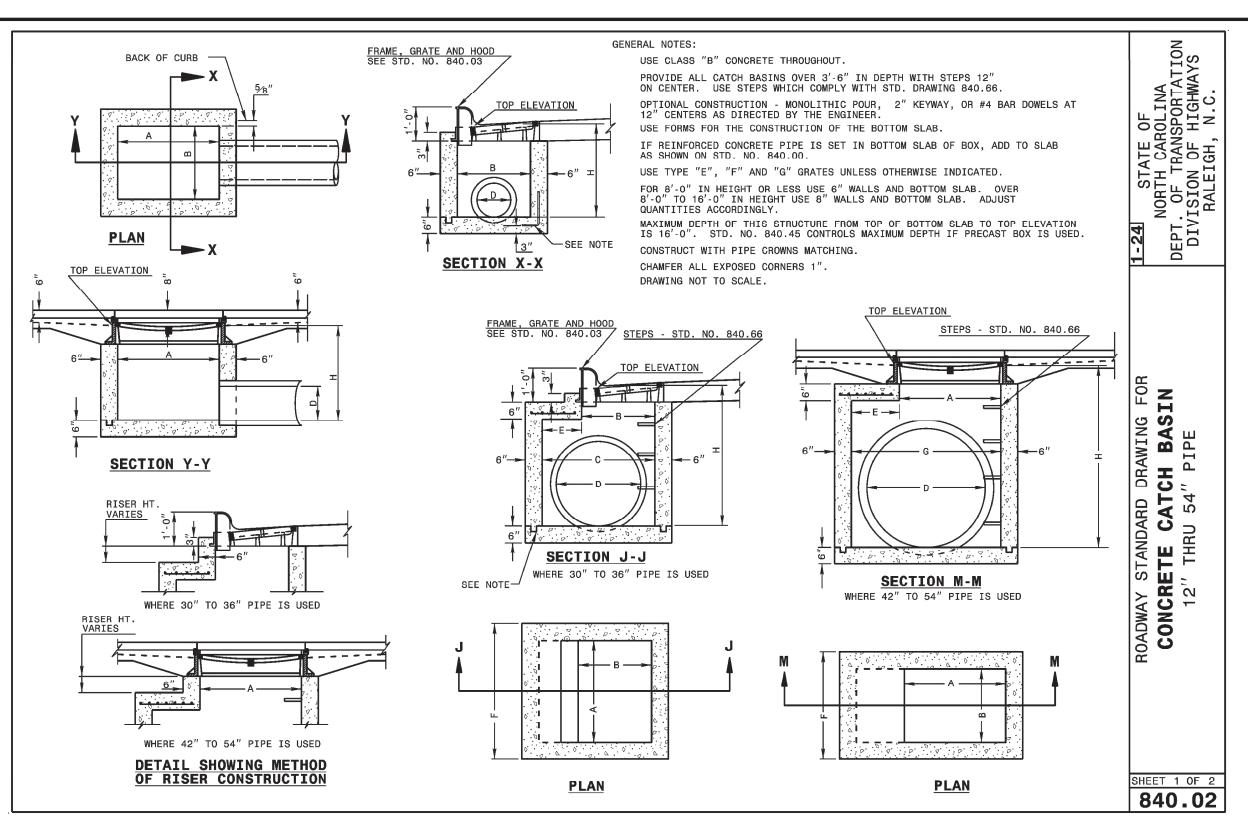


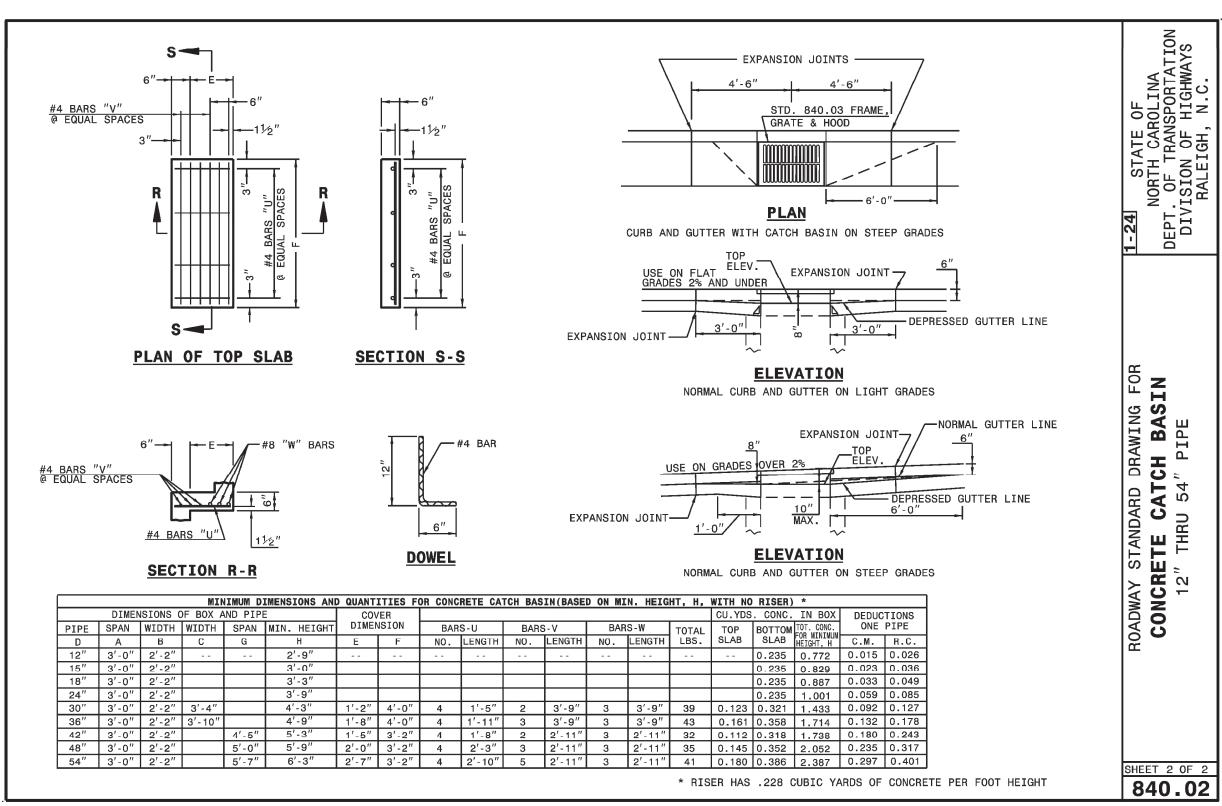


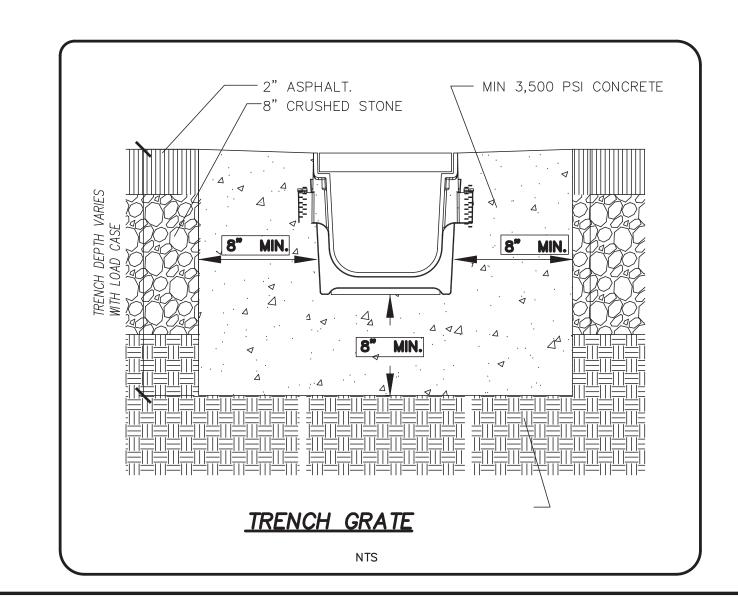


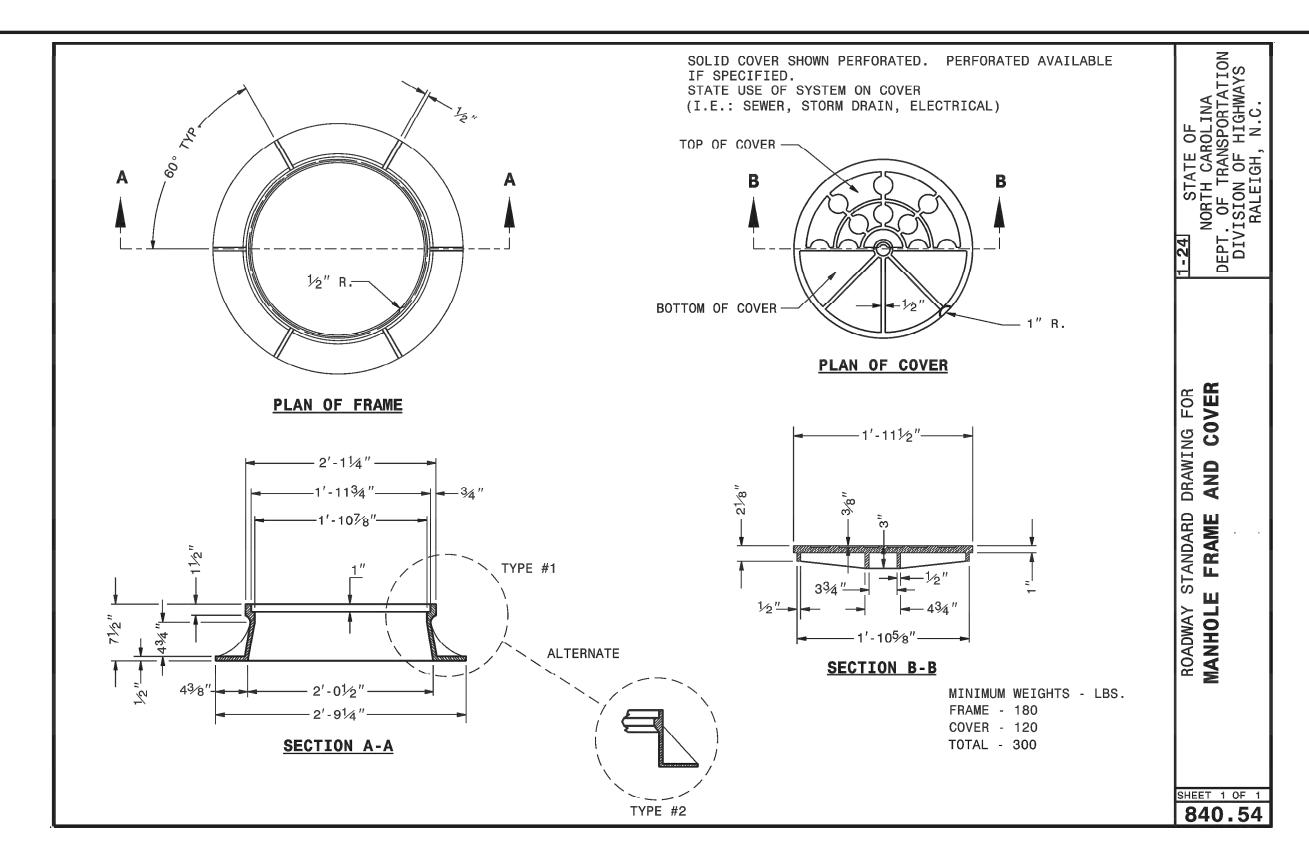
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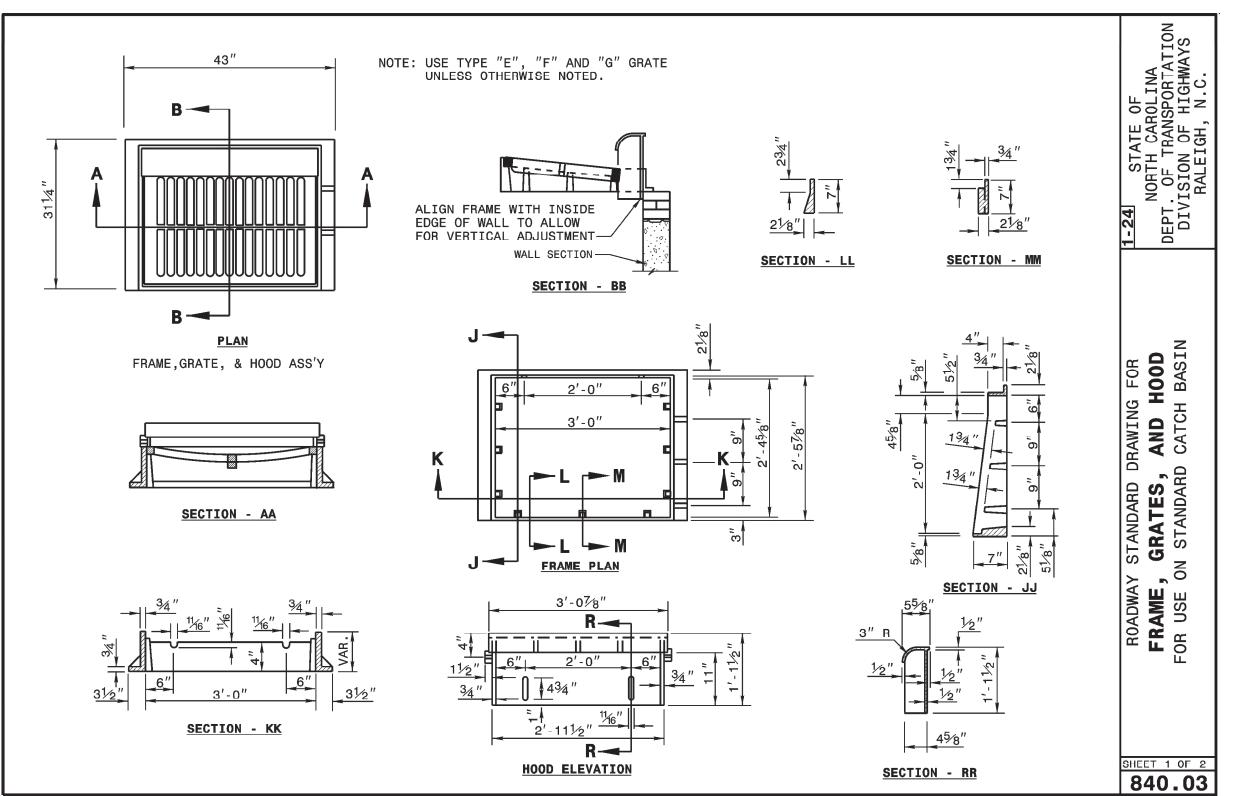


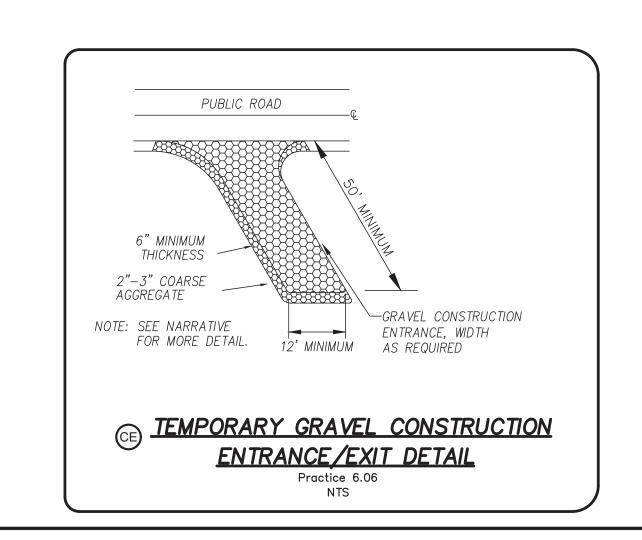














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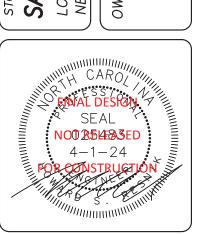
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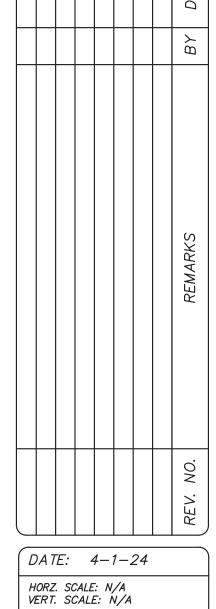
WILMINGTON, NC 28406 (910) 791–4441

EROS FOR

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DRAWN BY: RLW CHECKED BY: HSR

PROJECT NO.: 23-0647

Sheet No. EC5 of EC6

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION

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 PERMIT (SECTIONS E AND F, RESPECTIVELY). THE PERMITTEE SHALL COMPLY WITH THE EROSION AND SEDIMENT CONTROL PLAN APPROVED BY THE DELÉGATED 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

REQUIRED GROUND STABILIZATION TIMEFRAMES

REQUIRED GROUND STABILIZATION TIMEFRAMES							
SITE · AREA DESCRIPTION		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 HOW 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

## GROUND STABILIZATION SPECIFICATION

STABILIZE THE GROUND SUFFICIENTLY SO THAT RAIN WILL NOT DISLODGE THE SOIL LISE ONE OF THE TECHNIQUES IN THE TABLE RELOW

SOIL. USE ONE OF THE TECHNIQUES IN THE TABLE BELOW.						
TEMPORARY STABILIZATION	PERMANENT STABILIZATION					
TEMPORARY GRASS SEED COVERED WITH STRAW OR OTHER MULCHES AND TACKIFIERS HYDROSEEDING ROLLED EROSION CONTROL PRODUCTS WITH OR WITHOUT TEMPORARY GRASS SEED	PERMANENT GRASS SEED COVERED WITH STRAW OR OTHER MULCHES AND TACKIFIERS GEOTEXTILE FABRICS SUCH AS PERMANENT SOIL REINFORCEMENT MATTING HYDROSEEDING SHRUBS OR OTHER PERMANENT PLANTINGS COVERED WITH MULCH					
APPROPRIATELY APPLIED STRAW OR OTHER     MULCH     PLASTIC SHEETING	<ul> <li>UNIFORM AND EVENLY DISTRIBUTED GROUND COVER SUFFICIENT TO RESTRAIN EROSION</li> <li>STRUCTURAL METHODS SUCH AS CONCRETE, ASPHALT OR RETAINING</li> </ul>					

#### POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

SELECT FLOCCULANTS THAT ARE APPROPRIATE FOR THE SOILS BEING EXPOSED DURING CONSTRUCTION, SELECTING FROM THE NC DWR

ROLLED EROSION CONTROL PRODUCTS WITH GRASS SEED

- LIST OF APPROVED PAMS/FLOCCULANTS. 2. APPLY FLOCCULANTS AT OR BEFORE THE INLETS TO EROSION AND SEDIMENT CONTROL MEASURES.
- 3. APPLY FLOCCULANTS AT THE CONCENTRATIONS SPECIFIED IN THE NC DWR LIST OF APPROVED PAMS/FLOCCULANTS AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. 4. PROVIDE PONDING AREA FOR CONTAINMENT OF TREATED STORMWATER BEFORE DISCHARGING OFFSITE.
- 5. STORE FLOCCULANTS IN LEAK-PROOF CONTAINERS THAT ARE KEPT UNDER STORM-RESISTANT COVER OR SURROUNDED BY SECONDARY CONTAINMENT STRUCTURES.

## EARTHEN STOCKPILE MANAGEMENT

- 1. 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.
- 2. PROTECT STOCKPILE WITH SILT FENCE INSTALLED ALONG TOE OF SLOPE WITH A MINIMUM OFFSET OF FIVE FEET FROM THE TOE OF STOCKPILE.
- 3. PROVIDE STABLE STONE ACCESS POINT WHEN FEASIBLE. 4. 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

#### ONSITE CONCRETE WASHOUT -SANDBAGS (TYP.) STRUCTURE WITH LINER OR STAPLES COHESIVE & LOW FILTRATION \_ HIGH COHESIVE & LOW FILTRATION -SANDBAGS (TYP.) PLASTIC LINING OR STAPLES SIDE SLOPE -1:1 SIDE SLOPE / SOIL BERM SILT FENCE \\\\Lining / SANDBAGS (TYP.) SECTION A-A -CLEARLY MARKED SIGNAGE 1. ACTUAL LOCATION DETERMINED IN OR STAPLES CONCRETE I NOTING DEVICE (18"X24" MIN.) — CLEARLY MARKED SIGNAGE WASHOUT 1. ACTUAL LOCATION DETERMINED IN FIELD NOTING DEVICE (18"X24" MIN.) 2. THE CONCRETE WASHOUT STRUCTURES **IWASHOUT** SHALL BE MAINTAINED WHEN THE LIQUID 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE AND/OR SOLID REACHES 75% OF THE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES STRUCTURES CAPACITY TO PROVIDE 75% OF THE STRUCTURES CAPACITY. ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD. 3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE. ABOVE GRADE WASHOUT STRUCTURE 3.CONCRETE WASHOUT STRUCTURE NEEDS BELOW GRADE WASHOUT STRUCTURE NOT TO SCALE TO BE CLEARY MARKED WITH SIGNAGE NOT TO SCALE NOTING DEVICE.

#### EQUIPMENT AND VEHICLE MAINTENANCE

- MAINTAIN VEHICLES AND EQUIPMENT TO PREVENT DISCHARGE OF FLUIDS.
- 2. PROVIDE DRIP PANS UNDER ANY STORED EQUIPMENT. 3. IDENTIFY LEAKS AND REPAIR AS SOON AS FEASIBLE, OR REMOVE LEAKING EQUIPMENT FROM THE PROJECT. 4. COLLECT ALL SPENT FLUIDS, STORE IN SEPARATE CONTAINERS AND PROPERLY DISPOSE AS HAZARDOUS WASTE
- (RECYCLE WHEN POSSIBLE). 5. REMOVE LEAKING VEHICLES AND CONSTRUCTION EQUIPMENT FROM SERVICE UNTIL THE PROBLEM HAS BEEN
- 6. 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

- 1. NEVER BURY OR BURN WASTE. PLACE LITTER AND DEBRIS IN APPROVED WASTE CONTAINERS. 2. PROVIDE A SUFFICIENT NUMBER AND SIZE OF WASTE CONTAINERS (E.G DUMPSTER, TRASH RECEPTACLE) ON
- SITE TO CONTAIN CONSTRUCTION AND DOMESTIC WASTES. 3. LOCATE WASTE CONTAINERS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
- 4. 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.
- 5. COVER WASTE CONTAINERS AT THE END OF EACH WORKDAY AND BEFORE STORM EVENTS OR PROVIDE SECONDARY CONTAINMENT. REPAIR OR REPLACE DAMAGED WASTE CONTAINERS. 6. ANCHOR ALL LIGHTWEIGHT ITEMS IN WASTE CONTAINERS DURING TIMES OF HIGH WINDS.
- 7. EMPTY WASTE CONTAINERS AS NEEDED TO PREVENT OVERFLOW. CLEAN UP IMMEDIATELY IF CONTAINERS
- 8. DISPOSE WASTE OFF-SITE AT AN APPROVED DISPOSAL FACILITY. 9. ON BUSINESS DAYS, CLEAN UP AND DISPOSE OF WASTE IN DESIGNATED WASTE CONTAINERS.

- PAINT AND OTHER LIQUID WASTE 1. DO NOT DUMP PAINT AND OTHER LIQUID WASTE INTO STORM DRAINS, STREAMS OR WETLANDS.
- 2. LOCATE PAINT WASHOUTS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE. 3. CONTAIN LIQUID WASTES IN A CONTROLLED AREA.
- 4. CONTAINMENT MUST BE LABELED, SIZED AND PLACED APPROPRIATELY FOR THE NEEDS OF SITE.
- 5. PREVENT THE DISCHARGE OF SOAPS, SOLVENTS, DETERGENTS AND OTHER LIQUID WASTES FROM CONSTRUCTION SITES.

## PORTABLE TOILETS

- INSTALL PORTABLE TOILETS ON LEVEL GROUND, AT LEAST 50 FEET AWAY FROM STORM DRAINS, STREAMS OR WETLANDS UNLESS THERE IS NO ALTERNATIVE REASONABLY AVAILABLE. IF 50 FOOT OFFSET IS NOT ATTAINABLE, PROVIDE RELOCATION OF PORTABLE TOILET BEHIND SILT FENCE OR PLACE ON A GRAVEL PAD AND SURROUND WITH SAND BAGS.
- 2. PROVIDE STAKING OR ANCHORING OF PORTABLE TOILETS DURING PERIODS OF HIGH WINDS OR IN HIGH FOOT TRAFFIC AREAS.
- 3. 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.

- CONCRETE WASHOUTS 1. DO NOT DISCHARGE CONCRETE OR CEMENT SLURRY FROM THE SITE.
- 2. DISPOSE OF, OR RECYCLE SETTLED, HARDENED CONCRETE RESIDUE IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS AND AT AN APPROVED FACILITY. 3. 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. 4. 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. 5. 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. 6. LOCATE WASHOUTS AT LEAST 50 FEET FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE. AT A MINIMUM, INSTALL PROTECTION OF STORM DRAIN INLET(S) CLOSEST TO THE WASHOUT WHICH
- COULD RECEIVE SPILLS OR OVERFLOW. '. Locate Washouts in an easily accessible area, on level ground and install a stone ENTRANCE PAD IN FRONT OF THE WASHOUT. ADDITIONAL CONTROLS MAY BE REQUIRED BY THE APPROVING AUTHORITY.
- 8. 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.
- 9. REMOVE LEAVINGS FROM THE WASHOUT WHEN AT APPROXIMATELY 75% CAPACITY TO LIMIT OVERFLOW EVENTS. REPLACE THE TARP, SAND BAGS OR OTHER TEMPORARY STRUCTURAL COMPONENTS WHEN NO LONGER FUNCTIONAL. WHEN UTILIZING ALTERNATIVE OR PROPRIETARY PRODUCTS, FOLLOW MANUFACTURER'S INSTRUCTIONS.
- 10. 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 1. STORE AND APPLY HERBICIDES, PESTICIDES AND RODENTICIDES IN ACCORDANCE WITH LABEL

- RESTRICTIONS. 2. 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
- 3. 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. 4. DO NOT STOCKPILE THESE MATERIALS ONSITE.

## HAZARDOUS AND TOXIC WASTE

CREATE DESIGNATED HAZARDOUS WASTE COLLECTION AREAS ON—SITE.

PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

SEDIMENT BASINS AND TRAPS THAT RECEIVE RUNOFF FROM DRAINAGE AREAS OF ONE ACRE OR MORE SHALL USE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE

FEASIBLE TO WITHDRAW WATER FROM THE SURFACE SHALL BE RARE (FOR EXAMPLE, TIMES WITH EXTENDED COLD WEATHER). NON-SURFACE WITHDRAWALS FROM SEDIMENT

SURFACE WHEN THESE DEVICES NEED TO BE DRAWN DOWN FOR MAINTENANCE OR CLOSE OUT UNLESS THIS IS INFEASIBLE. THE CIRCUMSTANCES IN WHICH IT IS NOT

(A) THE E&SC PLAN AUTHORITY HAS BEEN PROVIDED WITH DOCUMENTATION OF THE NON-SURFACE WITHDRAWAL AND THE SPECIFIC TIME PERIODS OR CONDITIONS IN

(B) THE NON-SURFACE WITHDRAWAL HAS BEEN REPORTED AS AN ANTICIPATED BYPASS IN ACCORDANCE WITH PART III, SECTION C, ITEM (2)(C) AND (D) OF THIS PERMIT,

(C) DEWATERING DISCHARGES ARE TREATED WITH CONTROLS TO MINIMIZE DISCHARGES OF POLLUTANTS FROM STORMWATER THAT IS REMOVED FROM THE SEDIMENT BASIN.

(D) VEGETATED, UPLAND AREAS OF THE SITES OR A PROPERLY DESIGNED STONE PAD IS USED TO THE EXTENT FEASIBLE AT THE OUTLET OF THE DEWATERING TREATMENT

(E) VELOCITY DISSIPATION DEVICES SUCH AS CHECK DAMS, SEDIMENT TRAPS, AND RIPRAP ARE PROVIDED AT THE DISCHARGE POINTS OF ALL DEWATERING DEVICES, AND

(F) SEDIMENT REMOVED FROM THE DEWATERING TREATMENT DEVICES DESCRIBED IN ITEM (C) ABOVE IS DISPOSED OF IN A MANNER THAT DOES NOT CAUSE DEPOSITION OF

2. PLACE HAZARDOUS WASTE CONTAINERS UNDER COVER OR IN SECONDARY CONTAINMENT. 3. DO NOT STORE HAZARDOUS CHEMICALS, DRUMS OR BAGGED MATERIALS DIRECTLY ON THE GROUND.

WHICH IT WILL OCCUR. THE NON-SURFACE WITHDRAWAL

EXAMPLES OF APPROPRIATE CONTROLS INCLUDE

SEDIMENT INTO WATERS OF THE UNITED STATES.

DEVICES DESCRIBED IN ITEM (C) ABOVE,

BASINS SHALL BE ALLOWED ONLY WHEN ALL OF THE FOLLOWING CRITERIA HAVE BEEN MET:

SHALL NOT COMMENCE UNTIL THE E&SC PLAN AUTHORITY HAS APPROVED THESE ITEMS,

PROPERLY SITED, DESIGNED AND MAINTAINED DEWATERING TANKS, WEIR TANKS, AND FILTRATION SYSTEMS,

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING EFFECTIVE: 04/01/19

5

AND I

**ENGINEERING** 

*LICENSE # C-2710* 

ENGINEERING

LAND PLANNING

COMMERCIAL / RESIDENTIAL

P.O. BOX 4041

WILMINGTON, NC 28406

(910) 791–4441

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| DATE: 4-1-24

VERT. SCALE: N/A DRAWN BY: RLW CHECKED BY: HSR

HORZ. SCALE: N/A

PROJECT NO.: 23-0647

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING 1. E&SC PLAN DOCUMENTATION

SELF-INSPECTION, RECORD KEEPING AND REPORTING

SELF-INSPECTIONS ARE REQUIRED DURING NORMAL BUSINESS HOURS IN ACCORDANCE WITH THE TABLE

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.

INSPECTION RECORDS MUST INCLUDE:

MONITORING DEVICE APPROVED BY THE DIVISION.

DATE AND TIME OF THE INSPECTION

IDENTIFICATION OF THE MEASURES INSPECTED.

IDENTIFICATION OF THE MEASURES INSPECTED.

DATE AND TIME OF THE INSPECTION

FOLLOWING SHALL BE MADE:

OF THE FOLLOWING SHALL BE MADE.

SITE LIMITS.

NAME OF THE PERSON PERFORMING THE INSPECTION

NAME OF THE PERSON PERFORMING THE INSPECTION

AT LEAST ONCE PER | IF THE STREAM OR WETLANDS HAS INCREASED VISIBLE SEDIMENTATION OR A STREAM

REDEVELOPMENT, PERMANENT GROUND COVER).

THEY WILL BE PROVIDED AS SOON AS POSSIBLE.

7 CALENDAR DAYS HAS VISIBLE INCREASED TURBIDITY FROM THE CONSTRUCTION ACTIVITY, THEN A RECORD

. DESCRIPTION OF MAINTENANCE NEEDS FOR THE MEASURE

6. DESCRIPTION, EVIDENT AND DATE OF CORRECTIVE ACTIONS TAKEN.

DESCRIPTION OF MAINTENANCE NEEDS FOR THE MEASURE

6. DESCRIPTION, EVIDENT AND DATE OF CORRECTIVE ACTIONS TAKEN.

IF NO DAILY RAIN GAUGE OBSERVATION ARE MADE DURING WEEKEND OR HOLIDAY

CUMULATIVE RAIN MEASUREMENT FOR THOS UN-ATTENDED DAYS (AND THIS WILL

DETERMINE IF A SITE INSPECTION IS NEEDED). DAYS ON WHICH NO RAINFALL

INDICATION OF WHETHER THE MEASURES WERE OPERATING PROPERLY

INDICATION OF WHETHER THE MEASURES WERE OPERATING PROPERLY

IF VISIBLE SEDIMENTATION IS FOUND OUTSIDE SITE LIMITS, THEN A RECORD OF THE

DESCRIPTION, EVIDENCE AND DATE OF CORRECTIVE ACTIONS TAKEN, AND

DESCRIPTION, EVIDENCE AND DATE OF CORRECTIVE ACTIONS TAKEN, AND

2. RECORDS OF THE REQUIRED REPORTS TO THE APPROPRIATE DIVISION REGIONAL

THE PHASE OF GRADING (INSTALLATION OF PERIMETER E&SC MEASURES.

COMPLETION OF ALL LAND-DISTURBING ACTIVITY, CONSTRUCTION OR

CLEARING AND GRUBBING, INSTALLATION OF STORM DRAINAGE FACILITIES,

DOCUMENTATION THAT THE REQUIRED GROUND STABILIZATION MEASURES HAVE BEEN PROVIDED WITHIN THE REQUIRED TIME FRAME OR AN ASSURANCE THAT

OFFICER PER PART III, SECTION C, ITEM (2)(A) OF THIS PERMIT.

3. AN EXPLANATION AS TO THE ACTIONS TAKEN TO CONTROL FUTURE RELEASES.

ACTIONS TAKEN TO CLEAN UP OR STABILIZE THE SEDIMENT THAT HAS LEFT 1

PERIODS, AND NO INDIVIDUAL-DAY RAINFALL INFORMATION IS AVAILABLE, RECORD THE

OCCURED SHALL BE RECORDED AS 'ZERO'. THE PERMITTEE MAY USE ANOTHER RAIN

DAILY RAIN AMOUNTS

BELOW. WHEN ADVERSE WEATHER OR SITE CONDITIONS WOULD CAUSE THE SAFETY OF THE

ANY TIME WHEN INSPECTIONS WERE DELAYED SHALL BE NOTED IN THE INSPECTION RECORD.

SECTION A: SELF-INSPECTION

FREQUENCY

(DURING NORMAL

BUSINESS HOURS)

AT LEAST ONCE

PER 7 CALENDAR

DAYS AND WITHIN

24 HOURS OF A

RAIN EVENT >=

1.0 INCH IN 24

AT LEAST ONCE PER

7 CALENDAR DAYS AND WITHIN 24

HOURS OF A RAIN

EVENT >= 1.0 INCH

AT LEAST ONCE PER

7 CALENDAR DAYS

IN 24 HOURS

AND WITHIN 24

IN 24 HOURS

AND WITHIN 24

IN 24 HOURS

HOURS OF A RAIN

EVENT >= 1.0 INCH

AFTER EACH PHASE

NOTE: THE RAIN INSPECTION RESETS THE REQUIRED 7 CALENDAR DAY INSPECTION REQUIREMENT.

HOURS OF A RAIN

EVENT >= 1.0 INCH

INSPECT

MAINTAINFD

MEASURES

(3) STORMWATER

OUTFALLS

(SDOS)

(4) PERIMETER OF

(5) STREAMS OR

OFFSITE

(WHERE

(6) GROUND

WFTI ANDS

onsite or

ACCESSIBLE)

MEASURES

STABILIZATION OF GRADING

DISCHARGE

IN GOOD

(2) E&SC

THE APPROVED E&SC PLAN AS WELL AS ANY APPROVED DEVIATION SHALL BE KEPT ON THE SITE. THE APPROVED E&SC PLAN MUST BE KEPT UP-TO-DATE THROUGHOUT THE COVERAGE UNDER THIS PERMIT. THE FOLLOWING ITEMS PERTAINING TO THE E&SC PLAN SHALL BE KEPT ON SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES DURING NORMAL BUSINESS HOURS.

	ITEM TO DOCUMENT	DOCUMENTATION REQUIREMENTS
(A)	EACH E&SC MEASURE HAS BEEN INSTALLED AND DOES NOT SIGNIFICANTLY DEVIATE FROM THE LOCATIONS, DIMENSION AND RELATIVE ELEVATIONS SHOWN ONT HE APPROVED E&SC PLAN.	INITIAL AND DATE EACH E&SC MEASURE ON A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT THAT LIST EACH E&SC MEASURE SHOWN ON THE APPROVED E&SC PLAN. THIS DOCUMENTATION IS REQUIRED UPON THE INITIAL INSTALLATION OF THE E&SC MEASURES OR IF THE E&SC MEASURES ARE MODIFIED AFTER INITIAL INSTALLATION.
(B)	A PHASE OF GRADING HAS BEEN COMPLETED.	INITIAL AND DATE A COPY OF THE APPROVED E&SC 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&SC PLAN.	INITIAL AND DATE A COPY OF THE APPROVED E&SC 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&SC MEASURES HAVE BEEN PERFORMED.	COMPLETE, DATE AND SIGN AN INSPECTION FORM
(E)	CORRECTIVE ACTIONS HAVE BEEN TAKEN TO E&SC MEASURES.	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE THE COMPLETION OF THE CORRECTIVE ACTION.

- 2. ADDITIONAL DOCUMENTATION TO BE KEPT ON SITE IN ADDITION TO THE E&SC PLAN DOCUMENTS ABOVE, THE FOLLOWING ITEMS SHALL BE KEPT ON THE SITE AND AVAILABLE FOR INSPECTORS AT ALL TIMES DURING NORMAL BUSINESS HOURS, UNLESS THE DIVISION PROVIDES A SITE-SPECIFIC EXEMPTION BASED ON UNIQUE SITE CONDITIONS THAT MAKE
- (A) THIS GENERAL PERMIT AS WELL AS THE CERTIFICATE OF COVERAGE, AFTER IT IS RECEIVED.

THIS REQUIREMENT NOT PRACTICAL:

(B) RECORDS OF INSPECTIONS MADE DURING THE PREVIOUS TWELVE MONTHS. 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.

INSPECTION RECORDS SHALL BE MAINTAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION AND MADE AVAILABLE UPON REQUEST. [40 CFR 122.41]

SELF-INSPECTION, RECORD KEEPING AND REPORTING

- (B) OIL SPILLS IF:
- THEY ARE WITHIN 100 FEET OF SURFACE WATERS (REGARDLESS OF VOLUME).
- 311 OF THE CLEAN WATER ACT (REF: 40 CFR 110.3 AND 40 CFR 117.3) OR SECTION 102 OF CERCLA (REF: 40 CFR 302.4) OR G.S. 143-215.85.

## 2. <u>REPORTING TIMEFRAMES AND OTHER REQUIREMENTS</u>

APPROPRIATE DIVISION REGIONAL OFFICE WITHIN THE TIMEFRAMES AND IN ACCORDANCE WITH THE OTHER

THE DEPARTMENT'S ENVIRONMENTAL EMERI	THE DEPARTMENT'S ENVIRONMENTAL EMERGENCY CENTER PERSONNEL AT (800) 858-0368.						
OCCURANCE	REPORTING TIME FRAMES (AFTER DISCOVERY) AND OTHER REQUIREMENTS.						
(A) VISIBLE SEDIMENT DEPOSITION IN A STREAM OR WETLAND	WITHIN 24 HOURS, AN ORAL OR ELECTRONIC NOTIFICATION. 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. IF THE STREM IS NAMED ON THE NC 303(D) LIST AS IMPAIRED FOR SEDIMENT—RELATED CAUSES, THE PREMITTEE MAY BE REQUIRED TO PERFORM ADDITIONAL MONITORING, INSPECTIONS OR APPLY MORE STRINGENT PRACTICES IF STAFF DETERMINE THAT ADDITIONA REQUIREMENTS ARE NEEDED TO ASSURE COMPLIANCE WITH THE FEDERAL OR STATE IMPAIRED—WATERS CONDITIONS.						
(B) OIL SPILS AND RELEASE OF HAZARDOUS SUBSTANCES PER ITEM 1(B)-(C) ABOVE	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.						
(C) ANTICIPATED BYPASSES (40 CFR 122.41(M)(	3) WITHIN 24 HOURS, AN ORAL OR ELECTRONIC NOTIFICATION. WITHIN 7 CALENDAR DAYS, A REPORT THAT INCLUDES AND EVALUATION OF THE QUALITY AND EFFECT OF THE BYPASS.						
(E) NONCOMPLIANCE WITH THE CONDITIONS OF THIS PERMIT THAT MAY ENDANGER HEALTH OR THE ENVIRONMENT (40 CFR 122.41(I)(7)	WITHIN 24 HOURS, AN ORAL OR ELECTRONIC NOTIFICATION. WITHIN 7 CALENDAR DAYS, A REPORT THAT CONTAINS A DESCRIPTION OF THE NONCOMPLIANCE, AND ITS CAUSES, THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATE AND TIME, 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 REOCCURRENCE OF THE NONCOMPLIANCE. (40 CFR 122.10 (I)(6). DIVISION STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASE—BY—CASE BASIS.						

SECTION C: REPORTING 1. OCCURRENCES THAT MUST BE REPORTED PERMITTEES SHALL REPORT THE FOLLOWING OCCURRENCES: (A) VISIBLE SEDIMENT DEPOSITION IN A STREAM OR WETLAND.

- 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
- (C) RELEASES OF HAZARDOUS SUBSTANCES IN EXCESS OF REPORTABLE QUANTITIES UNDER SECTION
- (D) ANTICIPATED BYPASSES AND UNANTICIPATED BYPASSES.
- (E) NONCOMPLIANCE WITH THE CONDITIONS OF THIS PERMIT THAT MAY ENDANGER HEALTH OR THE ENVIRONMENT.

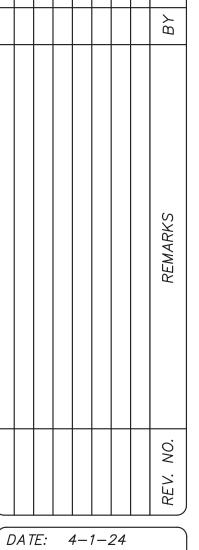
AFTER A PERMITTEE BECOMES AWARE OF AN OCCURRENCE THAT MUST BE REPORTED, HE SHALL CONTACT THE REQUIREMENTS LISTED BELOW. OCCURRENCES OUTSIDE NORMAL BUSINESS HOURS MAY ALSO BE REPORTED TO

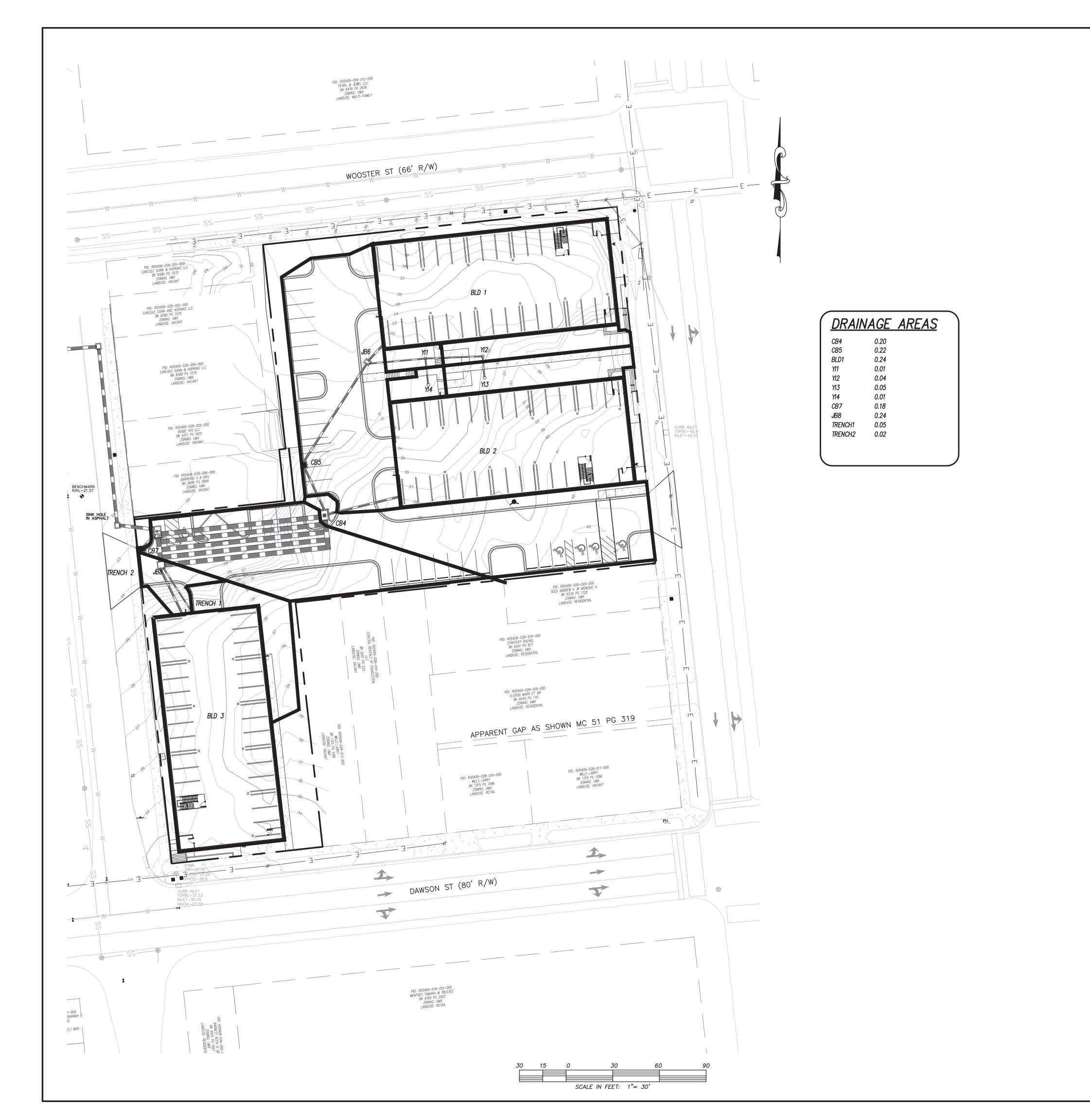
3. DOCUMENTATION TO BE RETAINED FOR THREE YEARS ALL DATA USED TO COMPLETE THE E-NOI AND ALL

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING EFFECTIVE: 04/01/19







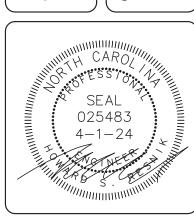


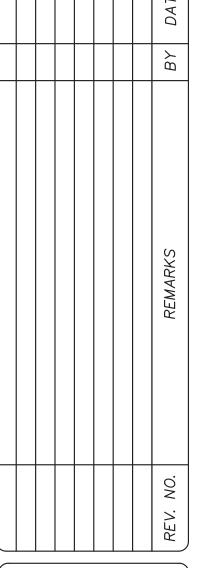


LICENSE # C-2710 ENGINEERING LAND PLANNING COMMERCIAL / RESIDENTIAL

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

SAPPHIRE ON 5TH
LOCATED IN CITY OF WILM
NEW HANOVER COUNTY,
OWNER: ENVOY OPPORTUNI
5103 LANCOME CO





*DATE:* 4−1−24

HORZ. SCALE: 1" = 30' VERT. SCALE: N/A DRAWN BY: RLW

CHECKED BY: HSR PROJECT NO.: 23-0647

Sheet No. DA2 of DA2





