

INVENTORY SITE DATA

TRACT E2B:
 PARCEL ID#: R05100-003-095-000
 PARCEL PIN#: 315818.41.6775.000
 PARCEL ADDRESS: 927 MILITARY CUTOFF RD.
 PARCEL OWNER: WESTFALL RESEARCH PARK 36 ACRE
 EXISTING PARCEL AREA: 6.46 AC (281,398 SF)
 ZONE: CB (CD) - COMMUNITY BUSINESS (CONDITIONAL DISTRICT)

TRACT E2C:
 PARCEL ID#: R05100-003-096-000
 PARCEL PIN#: 315818.41.9868.000
 PARCEL ADDRESS: 1809 SIR TYLER
 PARCEL OWNER: WESTFALL RESEARCH PARK 36 ACRE
 EXISTING PARCEL AREA: 2.59 AC (112,820 SF)
 ZONE: O&I - OFFICE & INSTITUTIONAL (GENERAL) EASEMENT

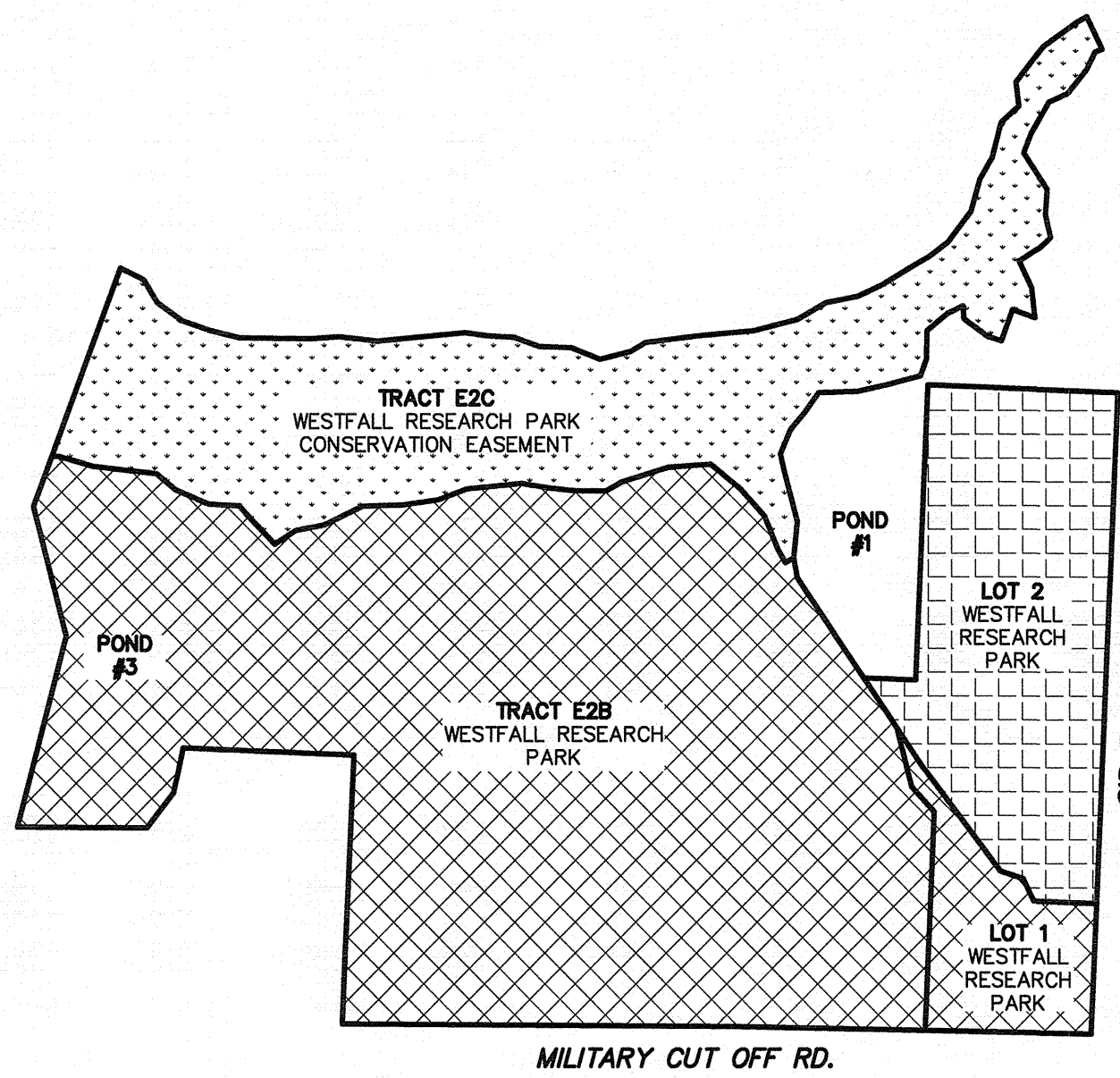
LOT 1 WESTFALL RESEARCH PARK:
 PARCEL ID#: R05100-003-104-000
 PARCEL PIN#: 315818.41.4373.000
 PARCEL ADDRESS: 0 SIR TYLER DR.
 PARCEL OWNER: WESTFALL RESEARCH PARK 36 ACRE
 EXISTING PARCEL AREA: 0.49 AC (21,344 SF)
 ZONE: CB (CD) - COMMUNITY BUSINESS (CONDITIONAL DISTRICT)

PROJECT AREA = 9.54 AC (415,562 SF)

SITE DATA:

PROPOSED USE: RETAIL
 CAMA LAND CLASSIFICATION: WATERSHED RESOURCE PROTECTION
 SOIL TYPE: JO, No, Wr
 SITE IS NOT LOCATED IN A FLOOD HAZARD AREA (FEMA MAP PANEL 3158)
 WETLANDS EXIST ON SITE AND ARE DELINEATED ON THE SITE PLAN.
 CONSERVATION OVERLAY DISTRICT: 25' OFFSET FROM WETLANDS
 NO ENCROACHMENT ALLOWED.
 CONSERVATION OVERLAY DISTRICT: 50' OFFSET FROM WETLANDS
 UP TO 25% ENCROACHMENT OF IMPERVIOUS IS ALLOWED.

HISTORICAL/ARCHAEOLOGICAL SITE: NONE
 CEMETERY: NONE
 FORESTED AREA: SEE PLAN FOR TREE SURVEY
 WETLANDS: NONE EXIST WITHIN SITE AREA
 ENDANGERED SPECIES/HABITAT: NONE REPORTED



PROJECT AREA KEY MAP
 SCALE: 1"=150'

- : TRACT E2B AND LOT 1 - PROJECT AREA
- : LOT 2 - OFFSITE IMPROVEMENTS AREA
- : TRACT E2C - CONSERVATION AREA (UNAFFECTED)

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

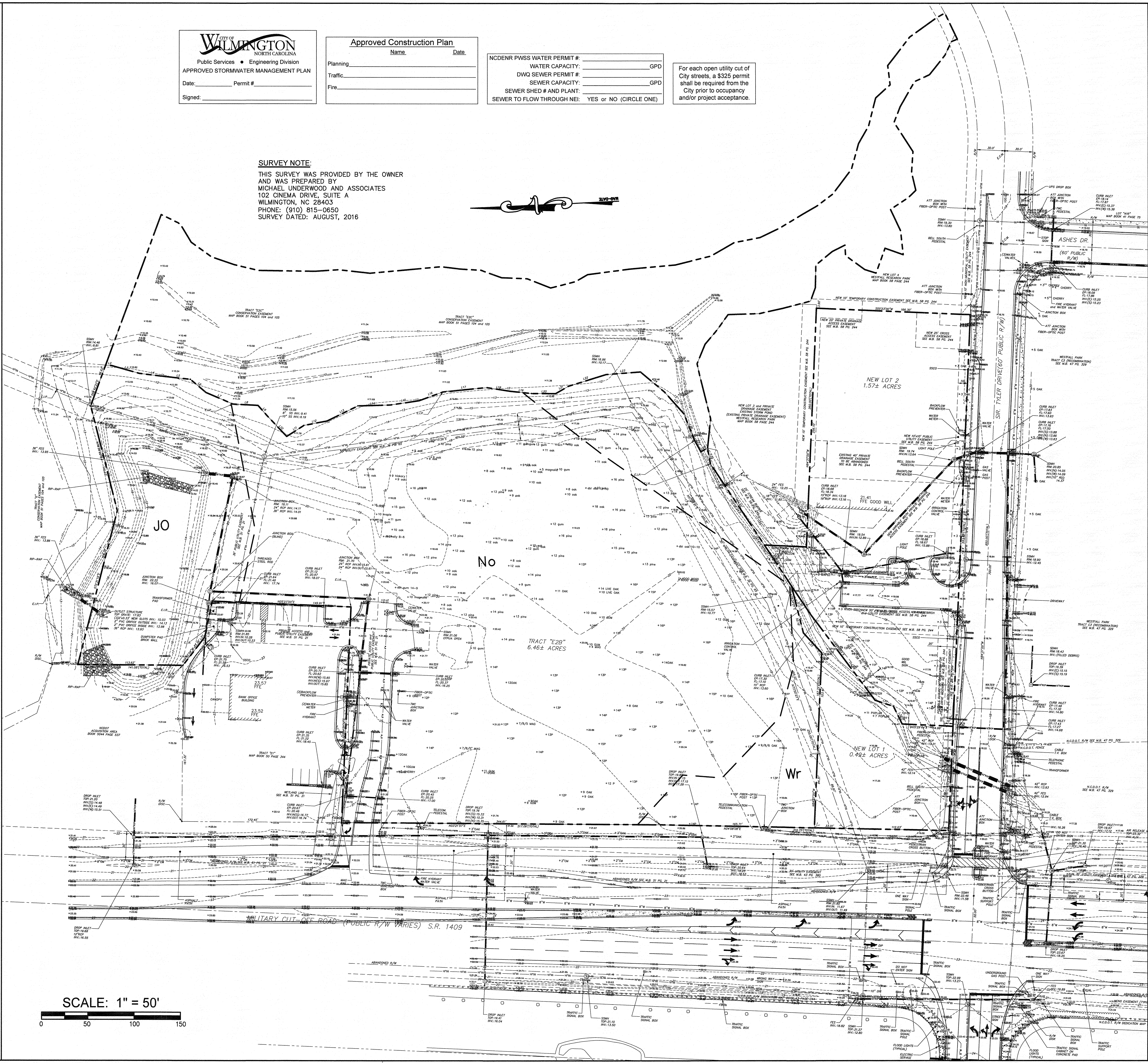
Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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

SURVEY NOTE:
 THIS SURVEY WAS PROVIDED BY THE OWNER AND WAS PREPARED BY MICHAEL UNDERWOOD AND ASSOCIATES
 102 CINEMA DRIVE, SUITE A
 WILMINGTON, NC 28403
 PHONE: (910) 815-0650
 SURVEY DATED: AUGUST, 2016



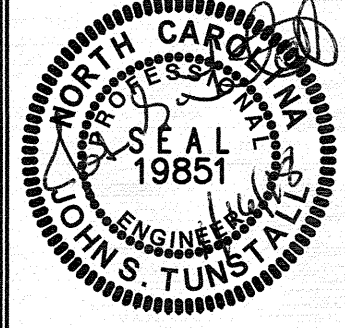
SCALE: 1" = 50'
 0 50 100 150

EXISTING CONDITIONS SURVEY
 RENAISSANCE MARKET
 927 MILITARY CUTOFF RD.
 WILMINGTON, N. C.

DEVELOPER
 HRP RENAISSANCE MARKET, LLC
 1202 EASTWOOD ROAD
 WILMINGTON, NC 28403
 (910) 799-8755

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 1429 ASHLITTLE RIVER RD, NW
 WILMINGTON, NC 28401
 PHONE (910) 343-3653

License #C-3641
 17120
 DES. JUST
 DED. JPN
 DRAWN. SLF
 DATE: 01/16/2018



CO

F:\Projects\2017\17120 - Renaissance Market\17120 - Plans\17120-master.dwg (CO-INVENTORY PLAN) Printed on: Jan 16, 2018 - 12:56pm by Colson

EROSION CONTROL AND LANDSCAPING NOTE:

PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, EROSION CONTROL MEASURES AND TREE PROTECTION FENCING WILL BE INSTALLED AS PER APPROVED PLANS. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.

TREE INVENTORY:

SIGNIFICANT TREES TO BE REMOVED:

- 1 - 8" HOLLY
- 2 - 10" MAGNOLIA
- 2 - 8" MAGNOLIA

TOTAL SIGNIFICANT TREES = 5

REGULATED TREES TO BE REMOVED:

- 1 - 11" POPLAR
- 25 - 12" PINE
- 36 - 13" PINE
- 24 - 14" PINE
- 11 - 15" PINE
- 12 - 16" PINE
- 2 - 18" PINE
- 2 - 4" DOGWOOD
- 1 - 6" DOGWOOD
- 8 - 8" OAK
- 13 - 9" OAK
- 18 - 10" OAK
- 5 - 11" OAK
- 11 - 12" OAK
- 4 - 14" OAK
- 1 - 16" OAK
- 1 - 18" OAK
- 4 - 9" GUM
- 6 - 10" GUM
- 5 - 11" GUM
- 4 - 12" GUM
- 1 - 13" GUM
- 1 - 14" GUM
- 2 - 15" GUM
- 1 - 16" GUM
- 1 - 4" MAGNOLIA
- 3 - 5" MAGNOLIA
- 2 - 7" MAGNOLIA
- 1 - 5" CHERRY

TOTAL REGULATED TREES = 103

TOTAL TREES TO BE REMOVED = 208

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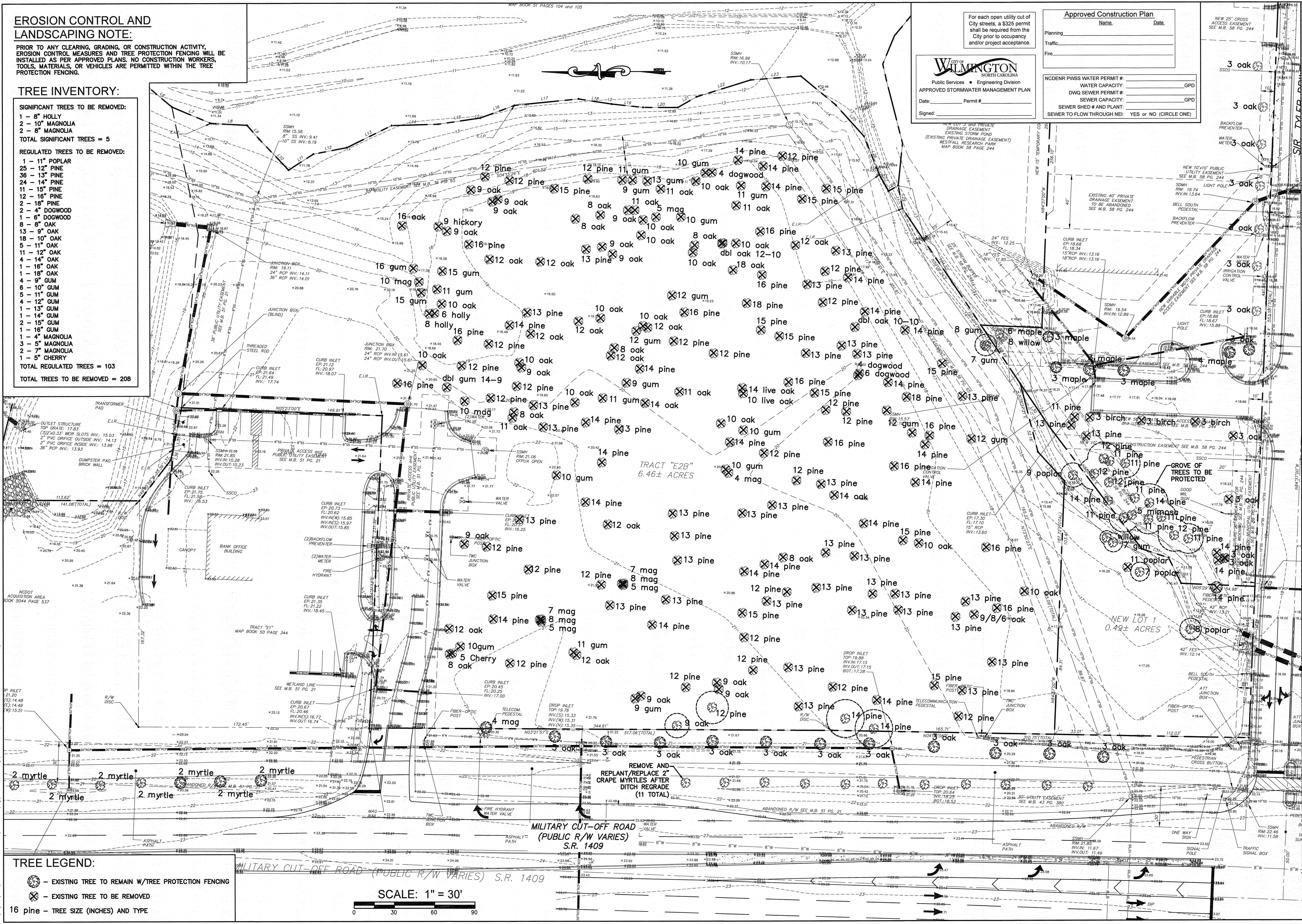
City of WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
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Approved Construction Plan

Name: _____ Date: _____

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NC DENR PWSS WATER PERMIT # _____
WATER CAPACITY: _____ GPD
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SEWER CAPACITY: _____ GPD
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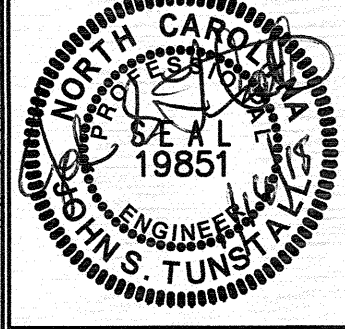


TREE INVENTORY PLAN
RENAISSANCE MARKET
927 MILITARY CUTOFF RD.
WILMINGTON, N. C.

DEVELOPER
HRP RENAISSANCE MARKET, LLC
1202 EASTWOOD ROAD
WILMINGTON, NC 28403
(910) 799-8755

NORRIS & TUNSTALL
CONSULTING ENGINEERS P.C.
1429 ASHLITTLE RIVER RD. NW
DUNEDON, NC 28401
PHONE: (910) 251-5900

License #C-3641
17120
DES. JST
ORD. JPN
DRAWN. SLF
DATE: 01/16/2018



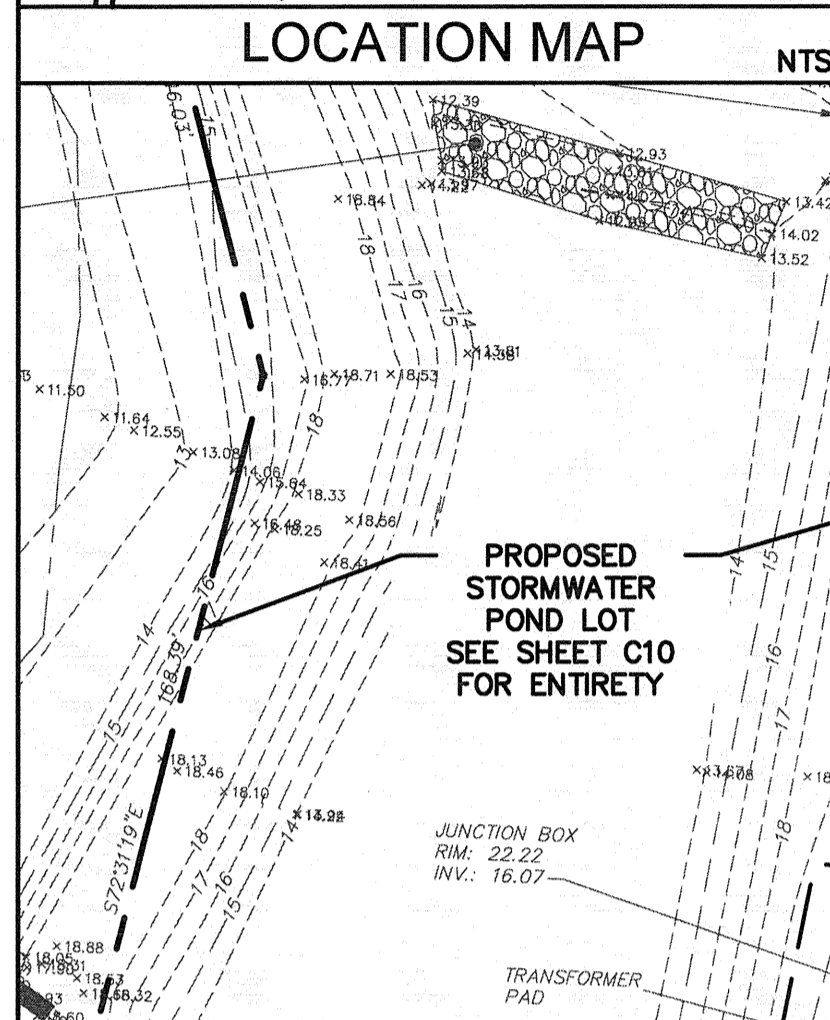
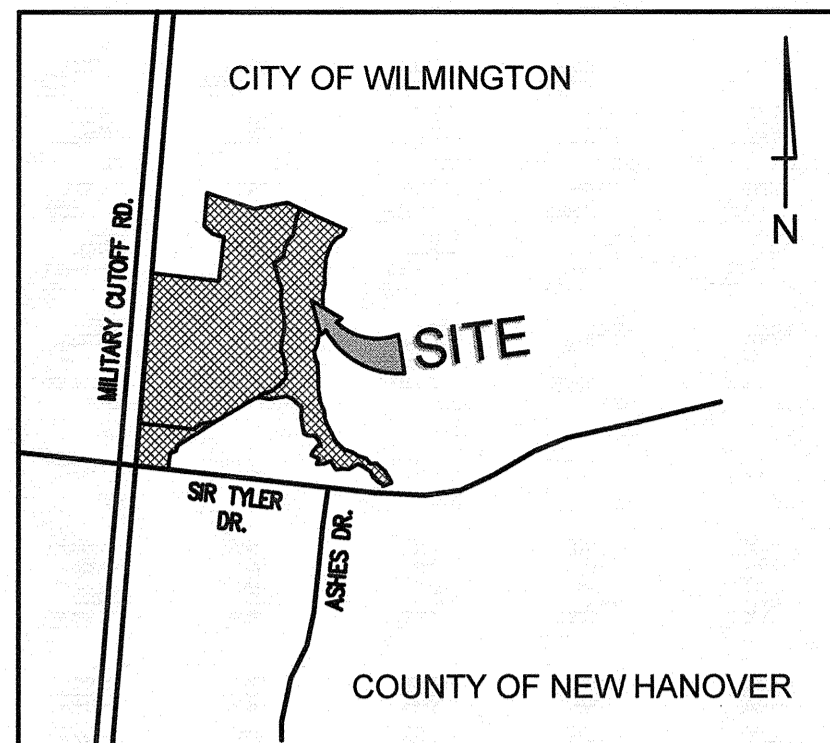
C1

TREE LEGEND:

- EXISTING TREE TO REMAIN W/TREE PROTECTION FENCING
- EXISTING TREE TO BE REMOVED
- 16 pine - TREE SIZE (INCHES) AND TYPE

SCALE: 1" = 30'

F:\Projects\017120 Renaisance Market\17120 Planting Plan.dwg (C)-TREE PLAN) Printed on: Jan 17, 2018 - 10:56am by Colson



SITE DATA TABLE

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 PARCEL AREA: 0.49 AC (21,344 SF)

PROJECT AREA = 9.54 AC (415,562 SF)

SITE DATA:
 PROPOSED USE: RETAIL
 ZONING: CB (CD) - COMMUNITY BUSINESS (CONDITIONAL DISTRICT)
 EXCEPTIONAL DESIGN
 O&I - OFFICE & INSTITUTIONAL
 (NO DEVELOPMENT PLANNED IN THIS ZONE)

ZONE CB:
 BUILDING SETBACKS: FRONT = 20'
 REAR = 10'
 SIDE = 0'
 CORNER LOT SIDE = 20'

MAX. BUILDING HEIGHT = 45' (MAX. 3 STORIES)
MAX. LOT COVERAGE = 30% (15% PROPOSED)
MAX. FLOOR AREA = 100,000 SF (44,836 SF PROPOSED)

CAMA LAND CLASSIFICATION: WATERSHED RESOURCE PROTECTION
 WETLANDS EXIST ON SITE AND ARE DELINEATED ON THE SITE PLAN.
 CONSERVATION OVERLAY DISTRICT: 25' OFFSET FROM WETLANDS
 NO ENCROACHMENT ALLOWED.
 CONSERVATION OVERLAY DISTRICT: 50' OFFSET FROM WETLANDS
 CONTAINS 59,883 SF. UP TO 25% ENCROACHMENT OF IMPERVIOUS IS ALLOWED. (14,971 SF)

PROPOSED ENCROACHMENT INTO 50' SETBACK: 14,129 SF IMPERVIOUS AREA

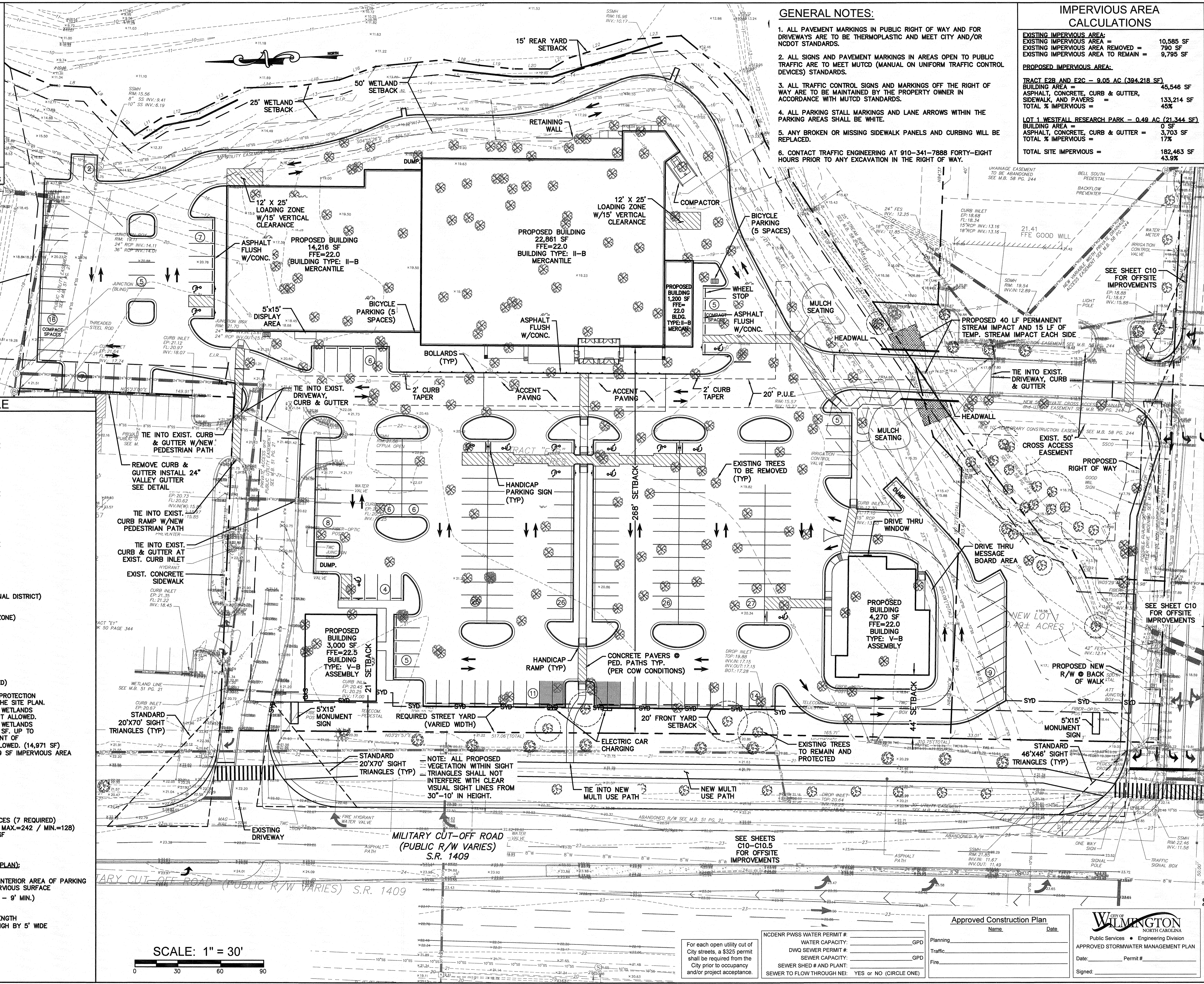
PARKING REQUIREMENT
 RETAIL: MAX. 1 PER 200 SF (191 SPACES)
 MIN. 1 PER 400 SF (96 SPACES)
 RESTAURANT: MAX. 1 PER 2.5 SEATS (51 SPACES)
 MIN 1 PER 4 SEATS (32 SPACES)
 PARKING PROPOSED: 187 REGULAR SPACES
 20 COMPACT SPACES
 13 HANDICAP ACCESSIBLE SPACES (7 REQUIRED)
 220 TOTAL SPACES (REQUIRED: MAX.=242 / MIN.=128)
 PARKING RATIO PROPOSED: 4.83 SPACES PER 1000 SF
 BICYCLE PARKING: 10 SPACES REQUIRED
 10 SPACES PROPOSED

LANDSCAPING REQUIREMENTS (REFER TO LANDSCAPE PLAN):
 15 TREES PER DISTURBED ACRE REQUIRED
 INTERIOR LANDSCAPING CB: 20% CANOPY COVER OF INTERIOR AREA OF PARKING FACILITY BASED ON AMOUNT OF PARKING AREA IMPERVIOUS SURFACE
 STREETYARD LANDSCAPING: 18 MULTIPLIER (27' MAX. - 9' MIN.)
 655-36 = 619 X 18 = 11,142 SF REQUIRED
 11,154 SF PROVIDED

FOUNDATION PLANTINGS: 12% FACE OF BUILDING X LENGTH
PARKING AREA SCREENING ALONG ROW: BUFFER 3' HIGH BY 5' WIDE

TRASH REMOVAL: DUMPSTER SERVICE

WATER AND SEWER CAPACITY NEEDS
 RETAIL: 100 GPD/1,000 SF
 GROCERY W/FOOD SERVICE: 130 GPD/1,000 SF
 FAST FOOD: 40 GPD/SEAT
 TOTAL = 9,625 GPD

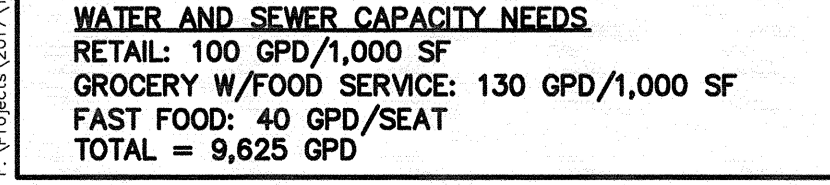


GENERAL NOTES:

1. ALL PAVEMENT MARKINGS IN PUBLIC RIGHT OF WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NDDOT STANDARDS.
2. ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
3. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
5. ANY BROKEN OR MISSING SIDEWALK PANELS AND CURBING WILL BE REPLACED.
6. CONTACT TRAFFIC ENGINEERING AT 910-341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.

IMPERVIOUS AREA CALCULATIONS

EXISTING IMPERVIOUS AREA:	
EXISTING IMPERVIOUS AREA	10,585 SF
EXISTING IMPERVIOUS AREA REMOVED	790 SF
EXISTING IMPERVIOUS AREA TO REMAIN	9,795 SF
PROPOSED IMPERVIOUS AREA:	
TRACT E2B AND E2C - 9.05 AC (394,218 SF)	
BUILDING AREA	45,546 SF
ASPHALT, CONCRETE, CURB & GUTTER, SIDEWALK, AND PAVERS	133,214 SF
TOTAL % IMPERVIOUS	45%
LOT 1 WESTFALL RESEARCH PARK - 0.49 AC (21,344 SF)	
BUILDING AREA	0 SF
ASPHALT, CONCRETE, CURB & GUTTER	3,703 SF
TOTAL % IMPERVIOUS	17%
TOTAL SITE IMPERVIOUS	182,463 SF
	43.9%

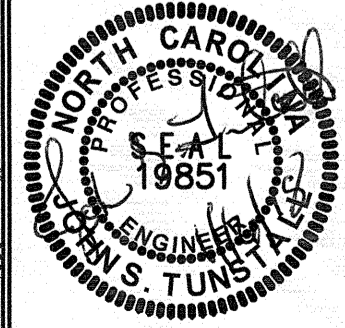


OVERALL SITE PLAN
 RENAISSANCE MARKET
 927 MILITARY CUTOFF RD.
 WILMINGTON, N. C.

DEVELOPER
 HRP RENAISSANCE MARKET, LLC
 1202 EASTWOOD ROAD
 WILMINGTON, NC 28403
 (910) 799-8755

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 1429 ASH-LITTLE RIVER RD. NW
 WILMINGTON, NC 28401
 PHONE (910) 345-9653

License #C-3641
 17120
 DES. JST
 CKD. JPN
 DRAWN. SLF
 DATE: 01/16/2018



C2

Approved Construction Plan

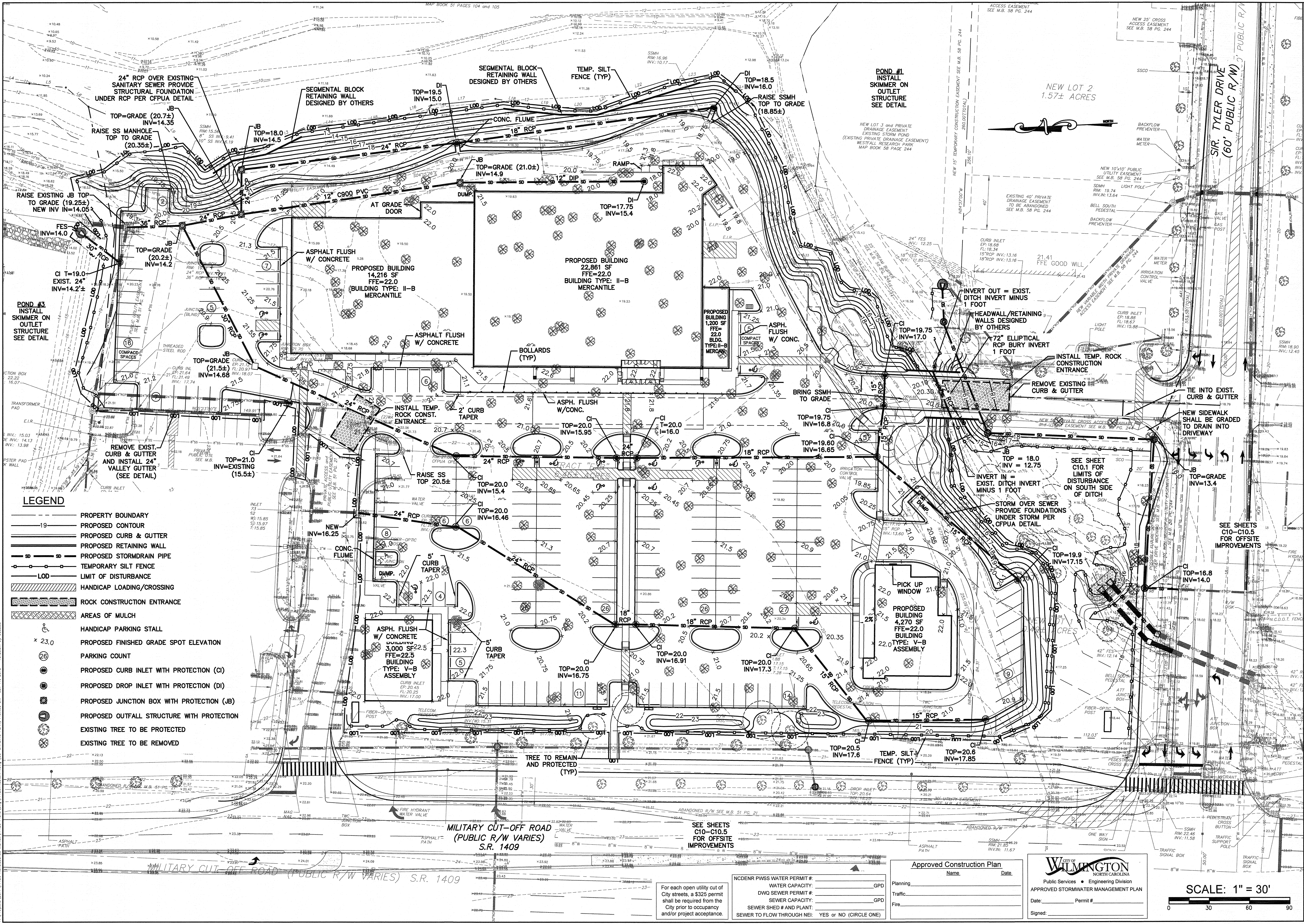
Name: _____ Date: _____

Planning: _____ GPD
 Traffic: _____ GPD
 Fire: _____ GPD

Permit # _____
 Signed: _____

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

NCDENR PWSS WATER PERMIT # _____ GPD
 WATER CAPACITY: _____ GPD
 DWG SEWER PERMIT # _____ GPD
 SEWER CAPACITY: _____ GPD
 SEWER SHED # AND PLANT: _____
 SEWER TO FLOW THROUGH NEI: YES OR NO (CIRCLE ONE)



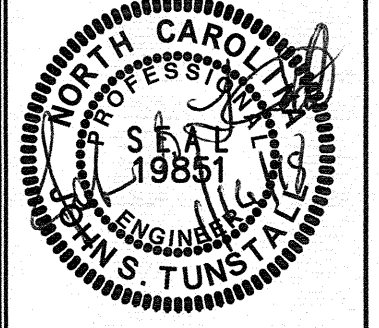
- LEGEND**
- 19 — PROPERTY BOUNDARY
 - PROPOSED CONTOUR
 - PROPOSED CURB & GUTTER
 - PROPOSED RETAINING WALL
 - PROPOSED STORM DRAIN PIPE
 - TEMPORARY SILT FENCE
 - LOD — LIMIT OF DISTURBANCE
 - HANDICAP LOADING/CROSSING
 - ROCK CONSTRUCTION ENTRANCE
 - AREAS OF MULCH
 - HANDICAP PARKING STALL
 - PROPOSED FINISHED GRADE SPOT ELEVATION
 - ⊙ 26 — PARKING COUNT
 - ⊙ — PROPOSED CURB INLET WITH PROTECTION (CI)
 - ⊙ — PROPOSED DROP INLET WITH PROTECTION (DI)
 - ⊙ — PROPOSED JUNCTION BOX WITH PROTECTION (JB)
 - ⊙ — PROPOSED OUTFALL STRUCTURE WITH PROTECTION
 - ⊙ — EXISTING TREE TO BE PROTECTED
 - ⊙ — EXISTING TREE TO BE REMOVED

GRADING, DRAINAGE, AND EROSION CONTROL PLAN
RENAISSANCE MARKET
 927 MILITARY CUTOFF RD.
 WILMINGTON, N. C.

DEVELOPER
 HRP RENAISSANCE MARKET, LLC
 1202 EASTWOOD ROAD
 WILMINGTON, NC 28403
 (910) 799-8765

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 1429 ASHLITTLE RIVER RD. NW
 WILMINGTON, NC 28403
 PHONE (910) 343-9653

License #C-3641
 17120
 DES. JUST
 CDR. JPN
 DRAWN. SLF
 DATE: 01/16/2018



C3

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

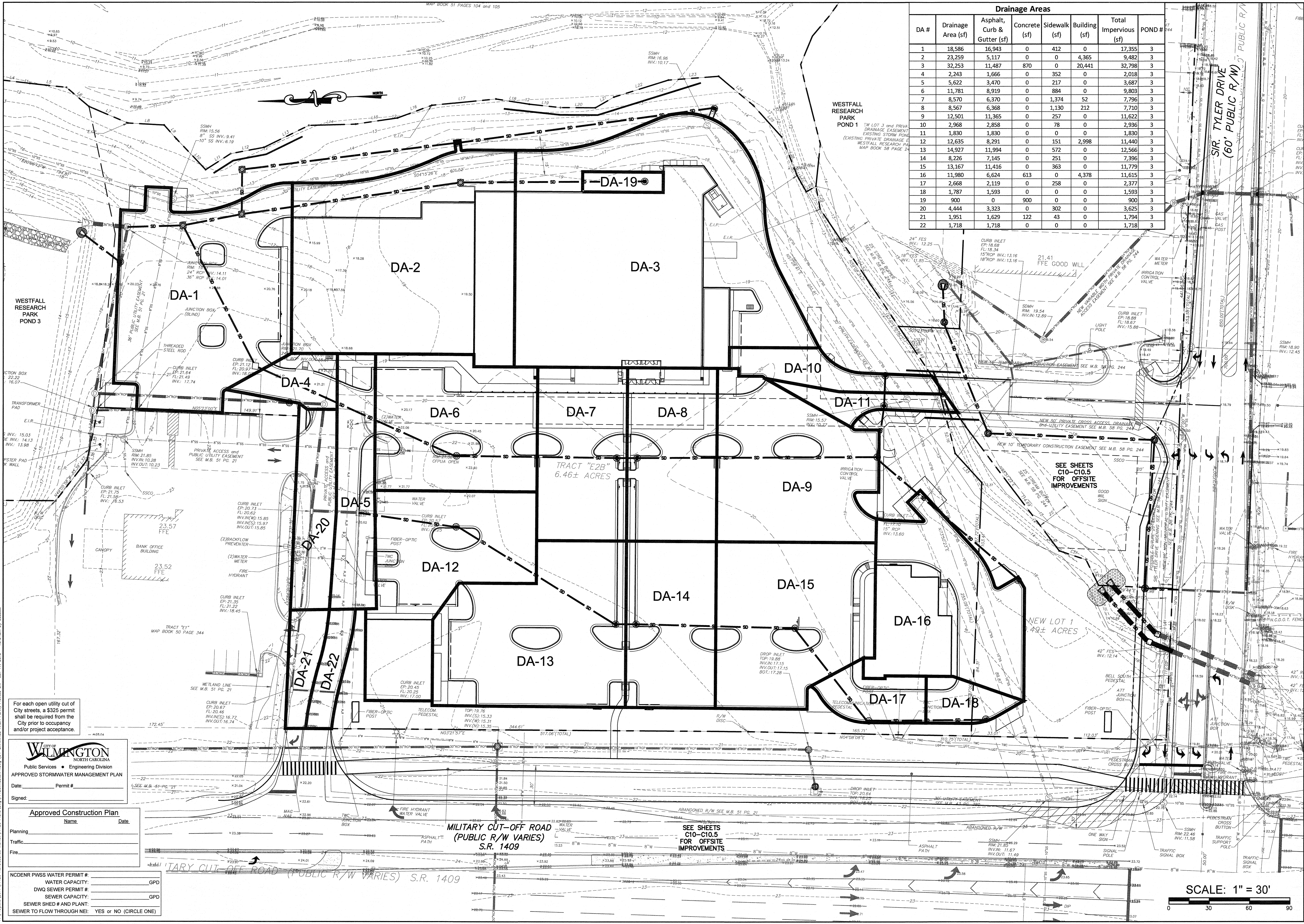
NON-DENR PWSS WATER PERMIT # _____ GPD
 DWQ SEWER PERMIT # _____ GPD
 SEWER CAPACITY: _____
 SEWER SHED # AND PLANT: _____
 SEWER TO FLOW THROUGH NEI: YES OR NO (CIRCLE ONE)

Approved Construction Plan
 Name _____ Date _____
 Planning _____
 Traffic _____
 Fire _____

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

SCALE: 1" = 30'
 0 30 60 90

F:\Projects\2017\17120 Renaissance Market\17120master.dwg (C3-GRADING PLAN) Printed on: Jan 17, 2018 - 10:23am by Colleen



Drainage Areas							
DA #	Drainage Area (sf)	Asphalt, Curb & Gutter (sf)	Concrete (sf)	Sidewalk (sf)	Building (sf)	Total Impervious (sf)	POND #
1	18,586	16,943	0	412	0	17,355	3
2	23,259	5,117	0	0	4,365	9,482	3
3	32,253	11,487	870	0	20,441	32,798	3
4	2,243	1,666	0	352	0	2,018	3
5	5,622	3,470	0	217	0	3,687	3
6	11,781	8,919	0	884	0	9,803	3
7	8,570	6,370	0	1,374	52	7,796	3
8	8,567	6,368	0	1,130	212	7,710	3
9	12,501	11,365	0	257	0	11,622	3
10	2,968	2,858	0	78	0	2,936	3
11	1,830	1,830	0	0	0	1,830	3
12	12,635	8,291	0	151	2,998	11,440	3
13	14,927	11,994	0	572	0	12,566	3
14	8,226	7,145	0	251	0	7,396	3
15	13,167	11,416	0	363	0	11,779	3
16	11,980	6,624	613	0	4,378	11,615	3
17	2,668	2,119	0	258	0	2,377	3
18	1,787	1,593	0	0	0	1,593	3
19	900	0	900	0	0	900	3
20	4,444	3,323	0	302	0	3,625	3
21	1,951	1,629	122	43	0	1,794	3
22	1,718	1,718	0	0	0	1,718	3

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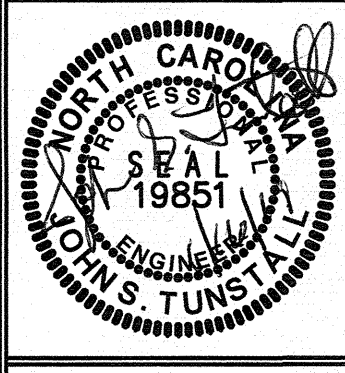
DRAINAGE AREA PLAN
 RENAISSANCE MARKET
 927 MILITARY CUTOFF RD.
 WILMINGTON, N. C.

DEVELOPER
 HRP RENAISSANCE MARKET, LLC
 1202 EASTWOOD ROAD
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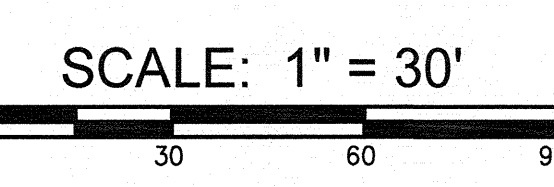
NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 902 MARKET STREET, 28401
 WILMINGTON, NC 28401
 PHONE (910) 343-9653

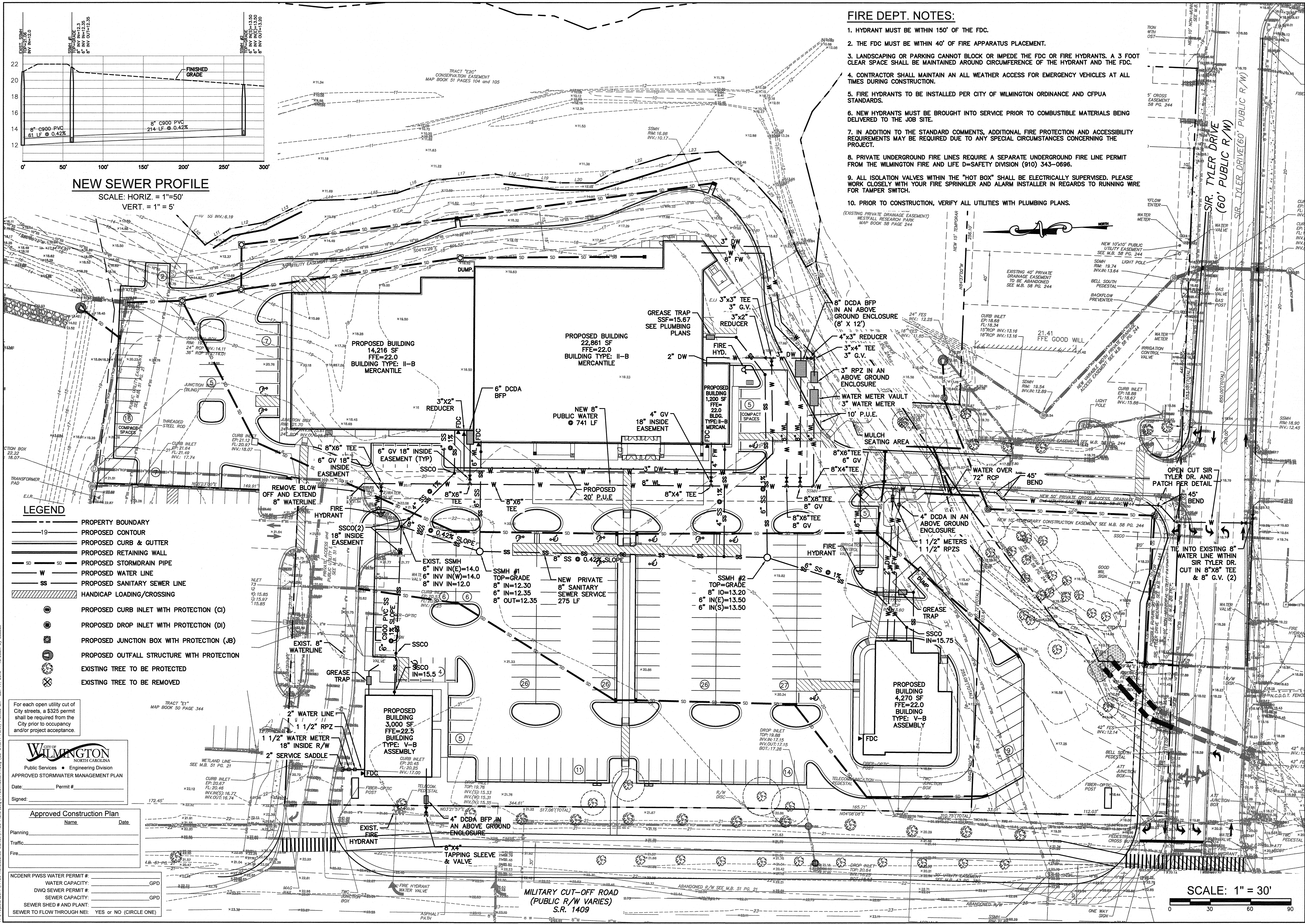
17120

DES. JST
 CDR. JPN
 DRAWN. SLF
 DATE: 01/16/2018



C4





- FIRE DEPT. NOTES:**
1. HYDRANT MUST BE WITHIN 150' OF THE FDC.
 2. THE FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
 3. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3 FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND CIRCUMFERENCE OF THE HYDRANT AND THE FDC.
 4. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
 5. FIRE HYDRANTS TO BE INSTALLED PER CITY OF WILMINGTON ORDINANCE AND CFPWA STANDARDS.
 6. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
 7. IN ADDITION TO THE STANDARD COMMENTS, ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
 8. PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE D-SAFETY DIVISION (910) 343-0896.
 9. ALL ISOLATION VALVES WITHIN THE "HOT BOX" SHALL BE ELECTRICALLY SUPERVISED. PLEASE WORK CLOSELY WITH YOUR FIRE SPRINKLER AND ALARM INSTALLER IN REGARDS TO RUNNING WIRE FOR TAMPER SWITCH.
 10. PRIOR TO CONSTRUCTION, VERIFY ALL UTILITIES WITH PLUMBING PLANS.

NEW SEWER PROFILE
SCALE: HORIZ. = 1"=50'
VERT. = 1"= 5'

- LEGEND**
- PROPERTY BOUNDARY
 - PROPOSED CONTOUR
 - PROPOSED CURB & GUTTER
 - PROPOSED RETAINING WALL
 - PROPOSED STORMDRAIN PIPE
 - PROPOSED WATER LINE
 - PROPOSED SANITARY SEWER LINE
 - HANDICAP LOADING/CROSSING
 - PROPOSED CURB INLET WITH PROTECTION (CI)
 - PROPOSED DROP INLET WITH PROTECTION (DI)
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 - PROPOSED OUTFALL STRUCTURE WITH PROTECTION
 - EXISTING TREE TO BE PROTECTED
 - EXISTING TREE TO BE REMOVED

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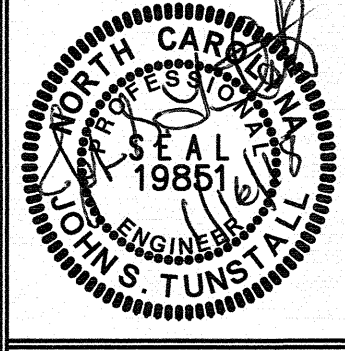
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UTILITY PLAN
RENAISSANCE MARKET
927 MILITARY CUTOFF RD.
WILMINGTON, N. C.

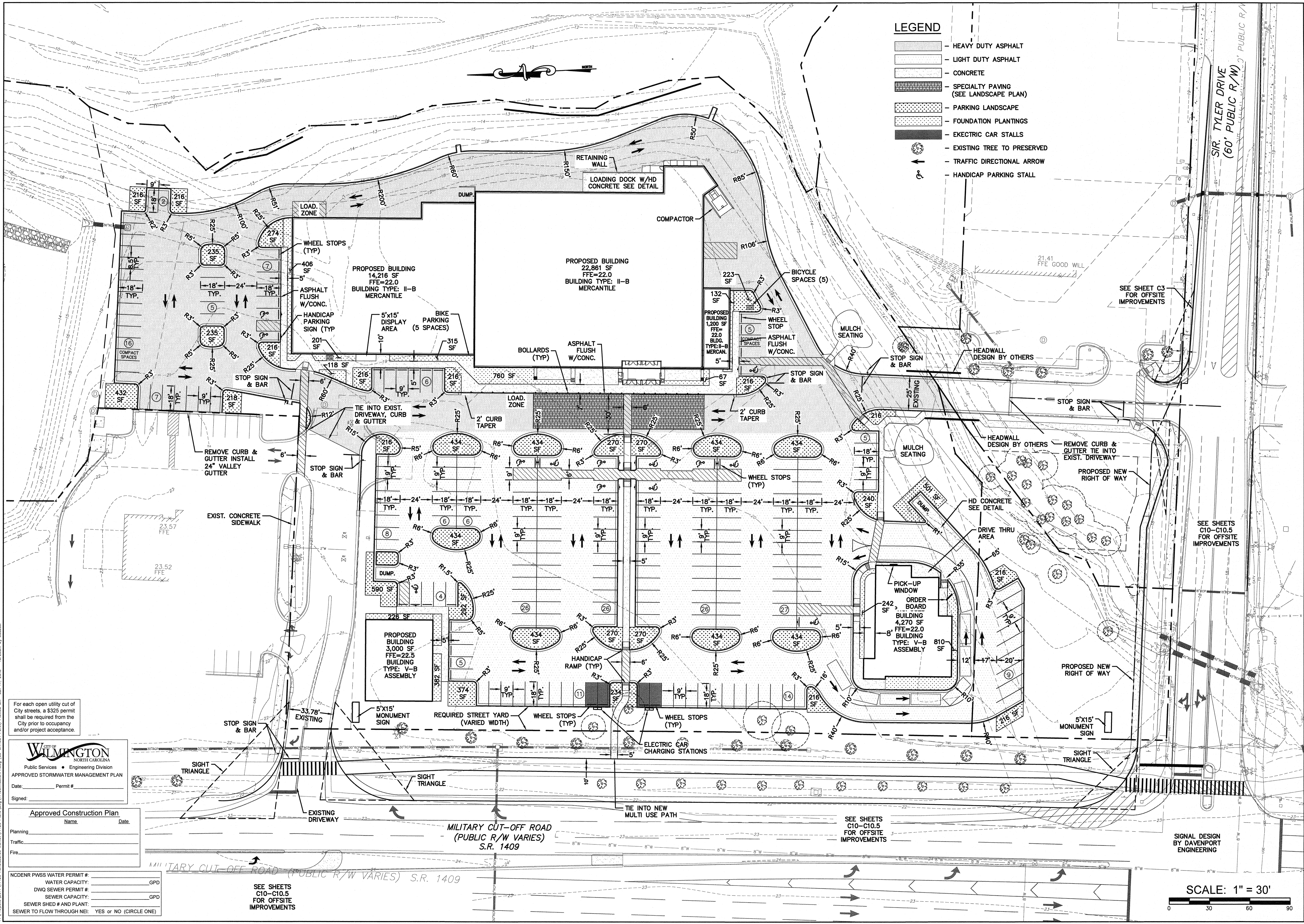
DEVELOPER
HRP RENAISSANCE MARKET, LLC
1202 EASTWOOD ROAD
WILMINGTON, NC 28403
(910) 799-8755

NORRIS & TUNSTALL
CONSULTING ENGINEERS P.C.
1429 ASH-LITTLE RIVER RD., NW
WILMINGTON, NC 28401
PHONE (910) 343-9653

License #C-3641
17120
DES. JST
CHK. JPN
DRAWN. SLF
DATE: 01/16/2018



C5



- LEGEND**
- HEAVY DUTY ASPHALT
 - LIGHT DUTY ASPHALT
 - CONCRETE
 - SPECIALTY PAVING (SEE LANDSCAPE PLAN)
 - PAVING LANDSCAPE
 - FOUNDATION PLANTINGS
 - ELECTRIC CAR STALLS
 - EXISTING TREE TO BE PRESERVED
 - TRAFFIC DIRECTIONAL ARROW
 - HANDICAP PARKING STALL

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

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

Date: _____ Permit # _____
Signed: _____

Approved Construction Plan
Name: _____ Date: _____

Planning: _____
Traffic: _____
Fire: _____

NC DENR PWSS WATER PERMIT #: _____ GPD
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____ GPD
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

LAYOUT PLAN
RENAISSANCE MARKET
927 MILITARY CUTOFF RD.
WILMINGTON, N. C.

DEVELOPER
HRP RENAISSANCE MARKET, LLC
1202 EASTWOOD ROAD
WILMINGTON, NC 28403
(910) 799-8755

NORRIS & TUNSTALL
CONSULTING ENGINEERS P.C.
902 MARKET STREET
WILMINGTON, NC 28401
PHONE (910) 343-9653
1429 ASHLITTLE RIVER RD. NW
ASH, NC 28620
PHONE (910) 281-5300

License #C-3641

17120

DES. JUST
CHK. JPN
DRAWN. SLF

DATE: 01/16/2018

C6

SCALE: 1" = 30'

0 30 60 90

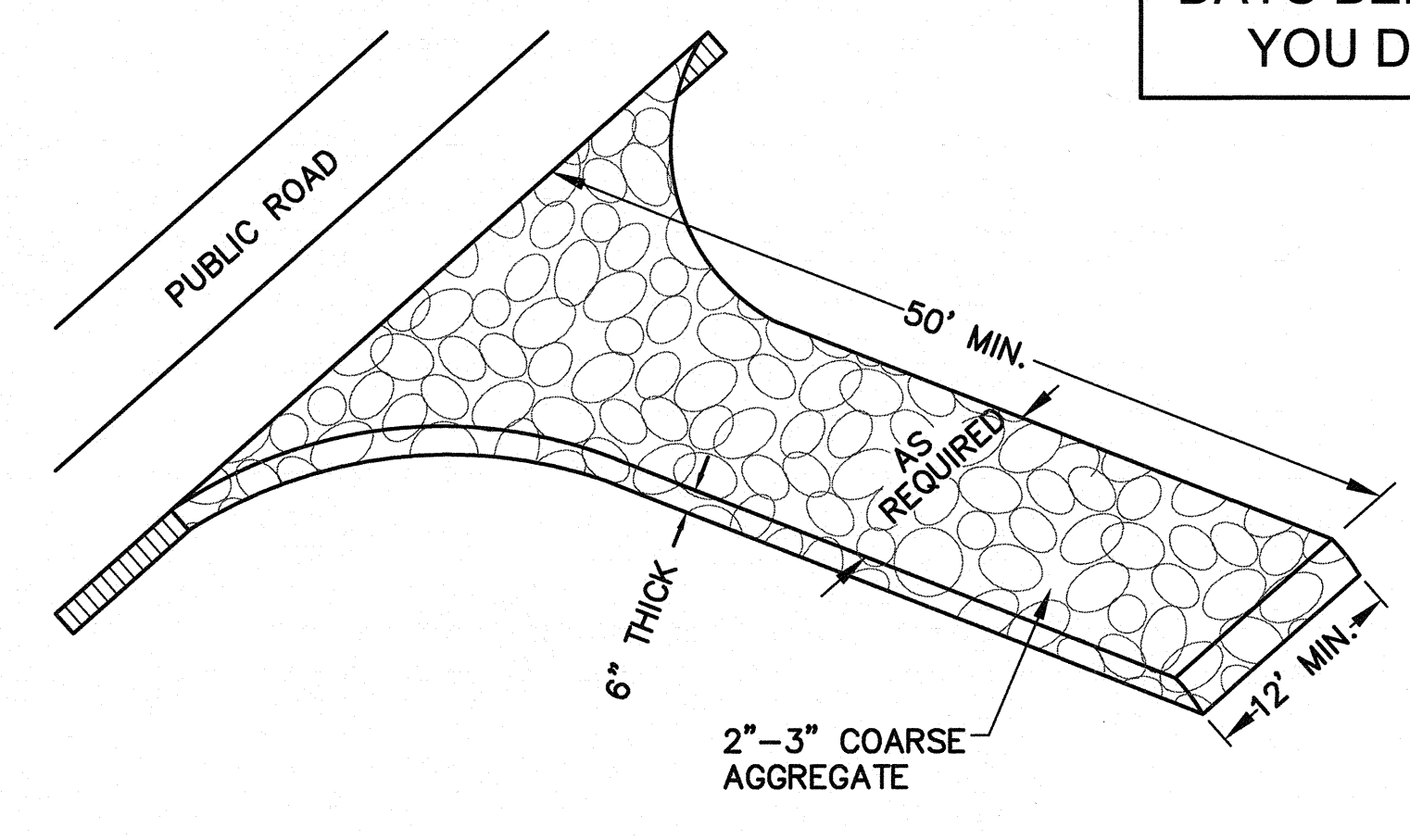
SIGNAL DESIGN BY DAVENPORT ENGINEERING

SEE SHEETS C10-C10.5 FOR OFFSITE IMPROVEMENTS

SEE SHEET C3 FOR OFFSITE IMPROVEMENTS

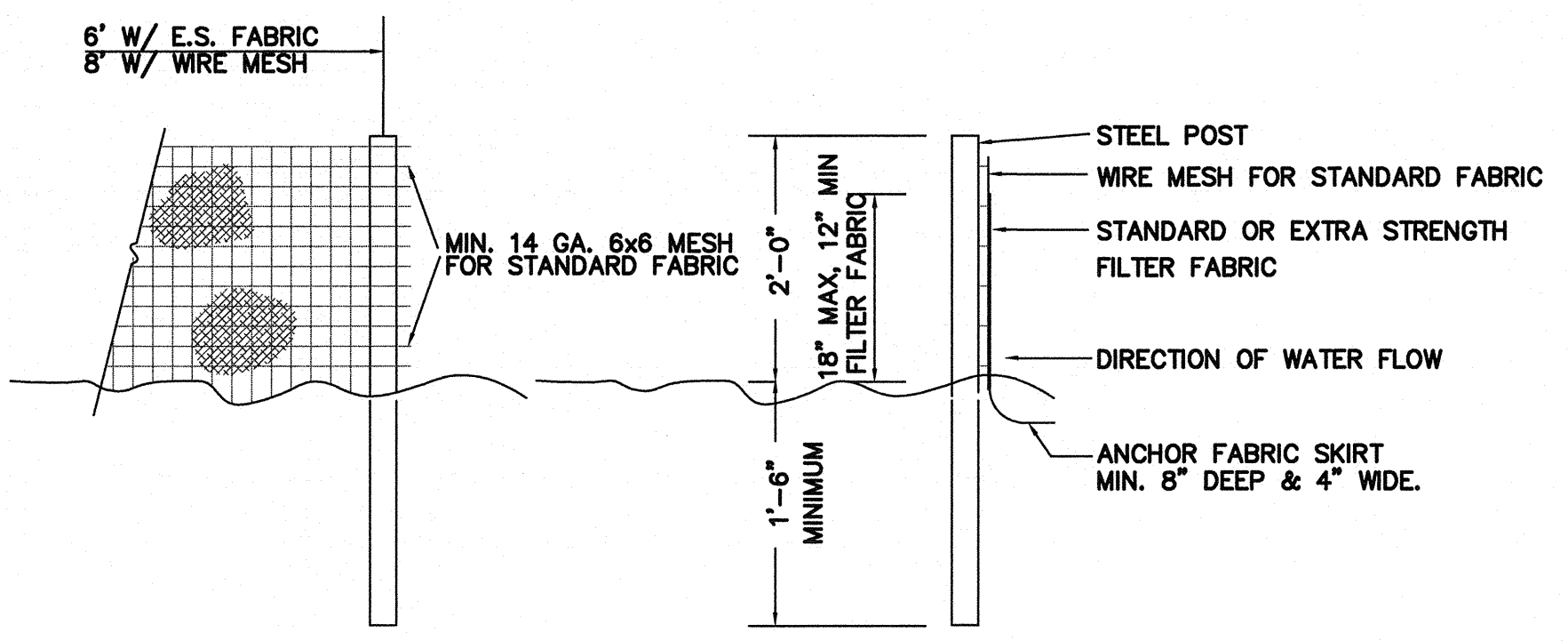
SEE SHEETS C10-C10.5 FOR OFFSITE IMPROVEMENTS

CALL 811
(3) WORKING
DAYS BEFORE
YOU DIG.



NOT TO SCALE

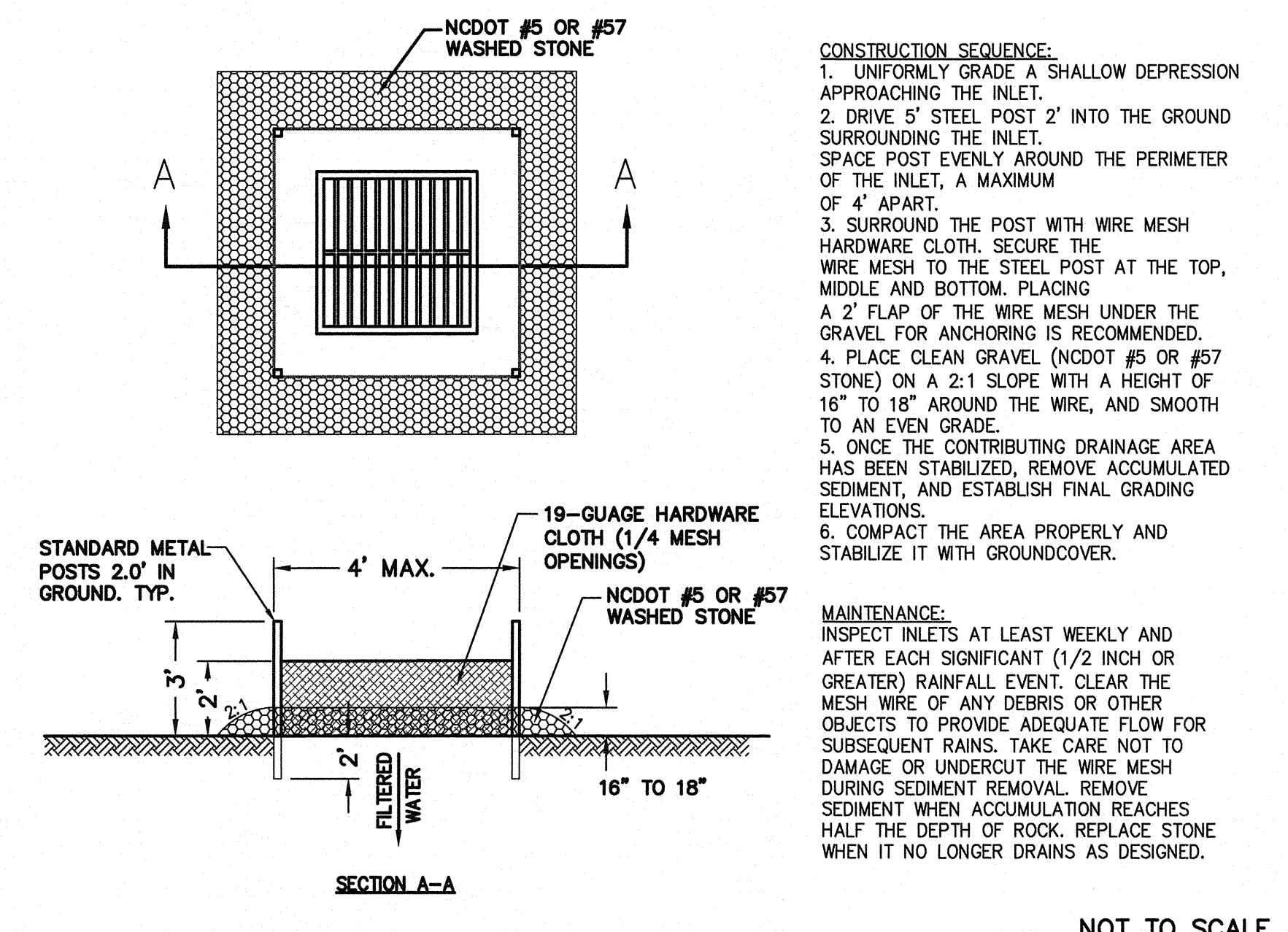
1 TEMPORARY GRAVELED CONSTRUCTION ENTRANCE



- 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.

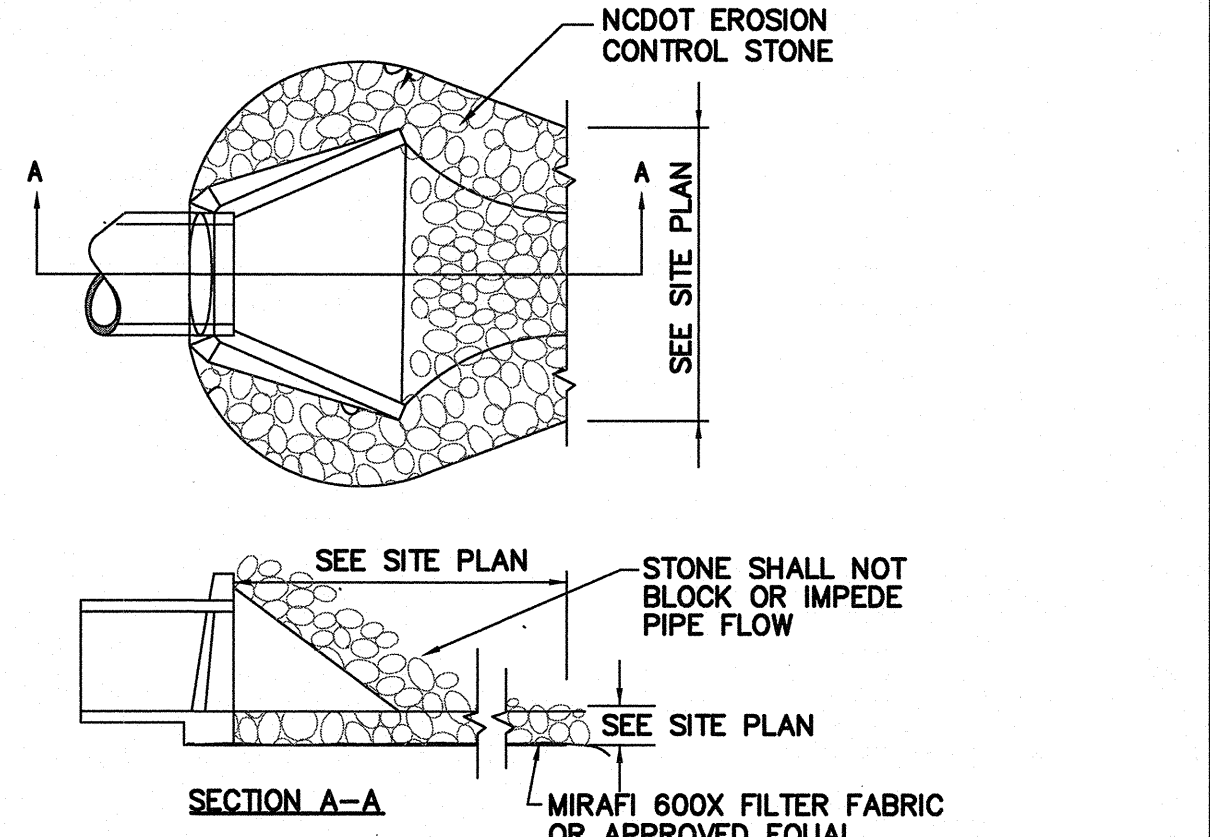
NOT TO SCALE

5 TEMPORARY SILT FENCE



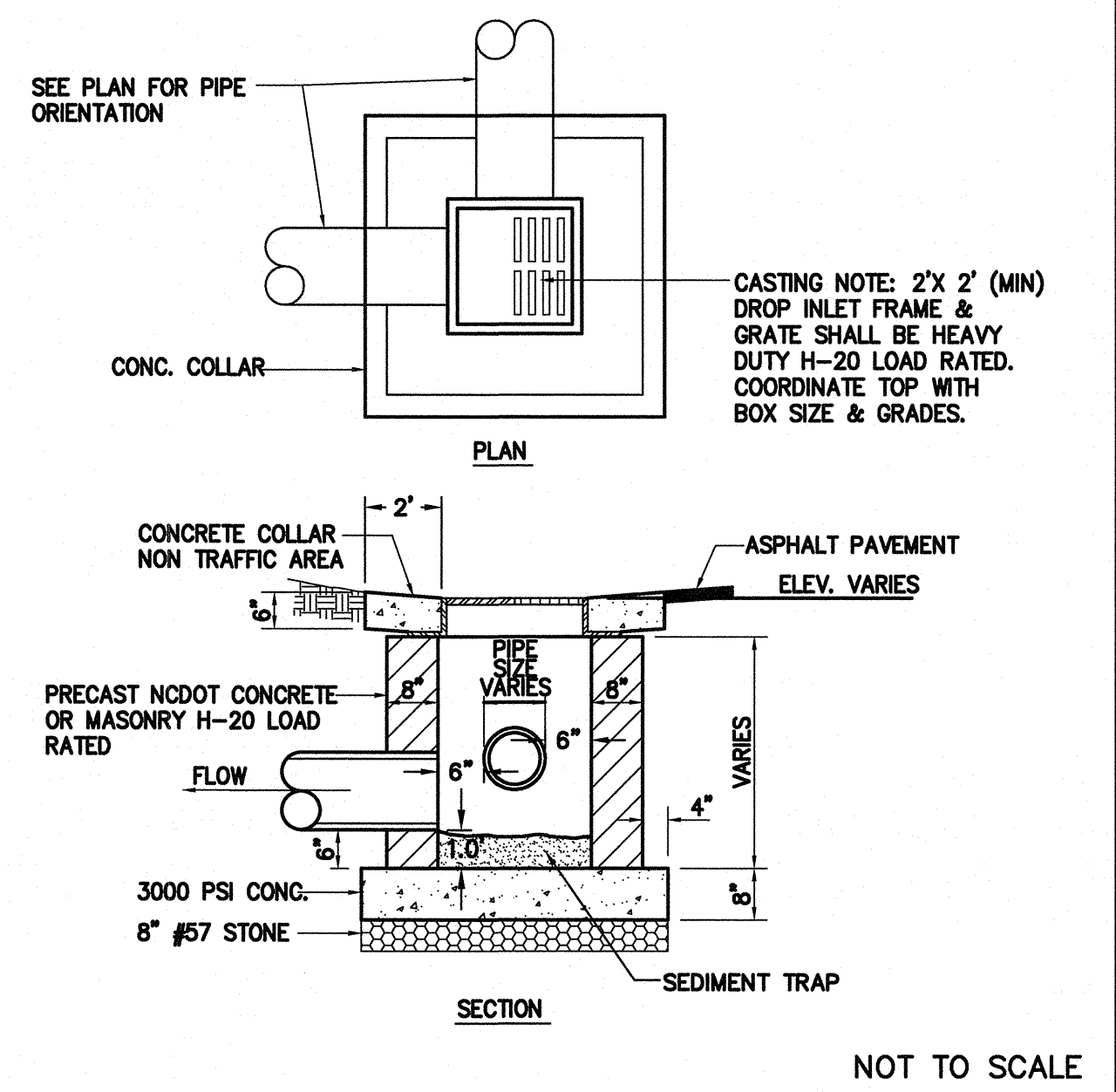
NOT TO SCALE

9 HARDWARE CLOTH AND GRAVEL INLET PROTECTION



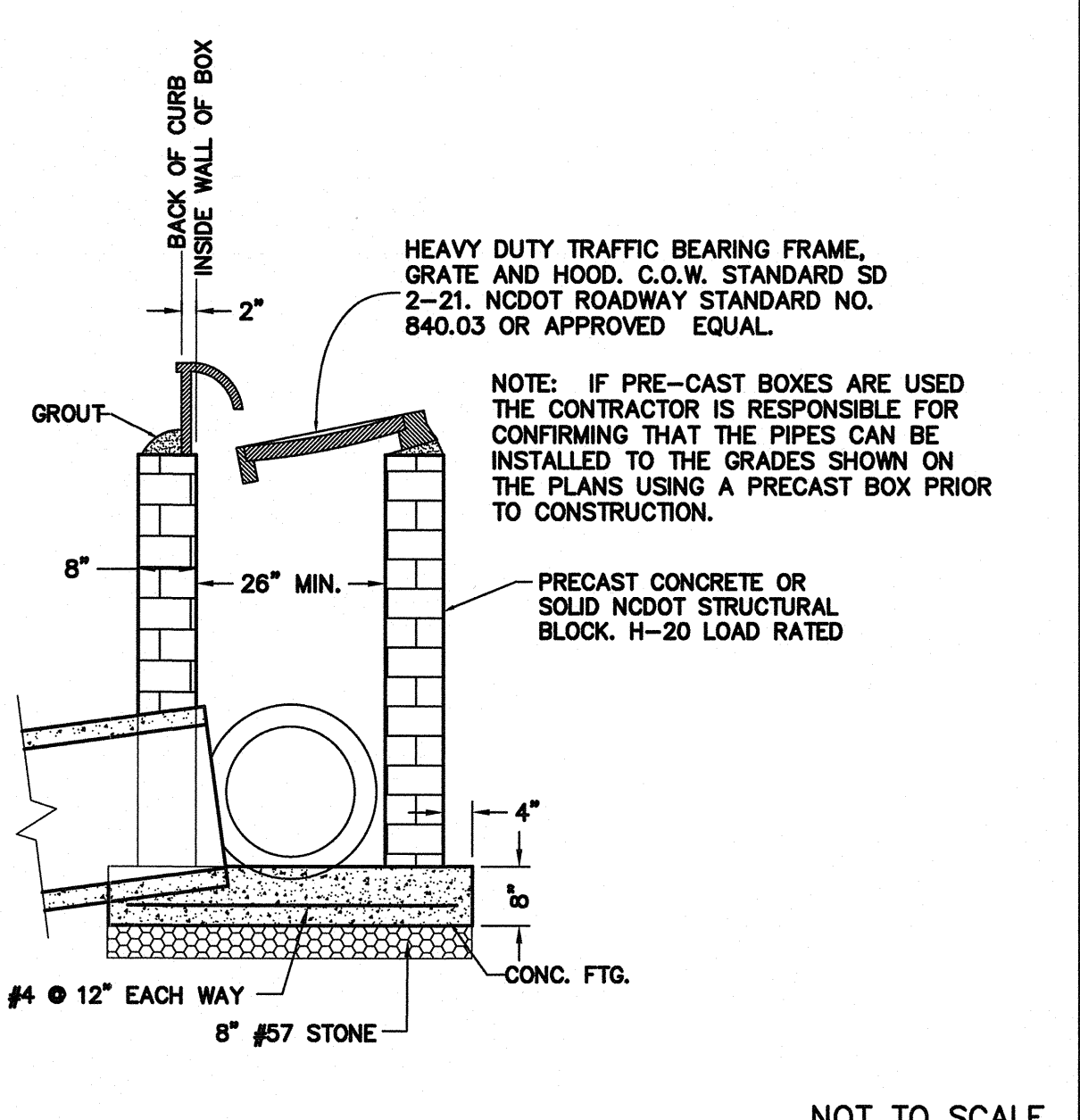
NOT TO SCALE

2 ENERGY DISSIPATER



NOT TO SCALE

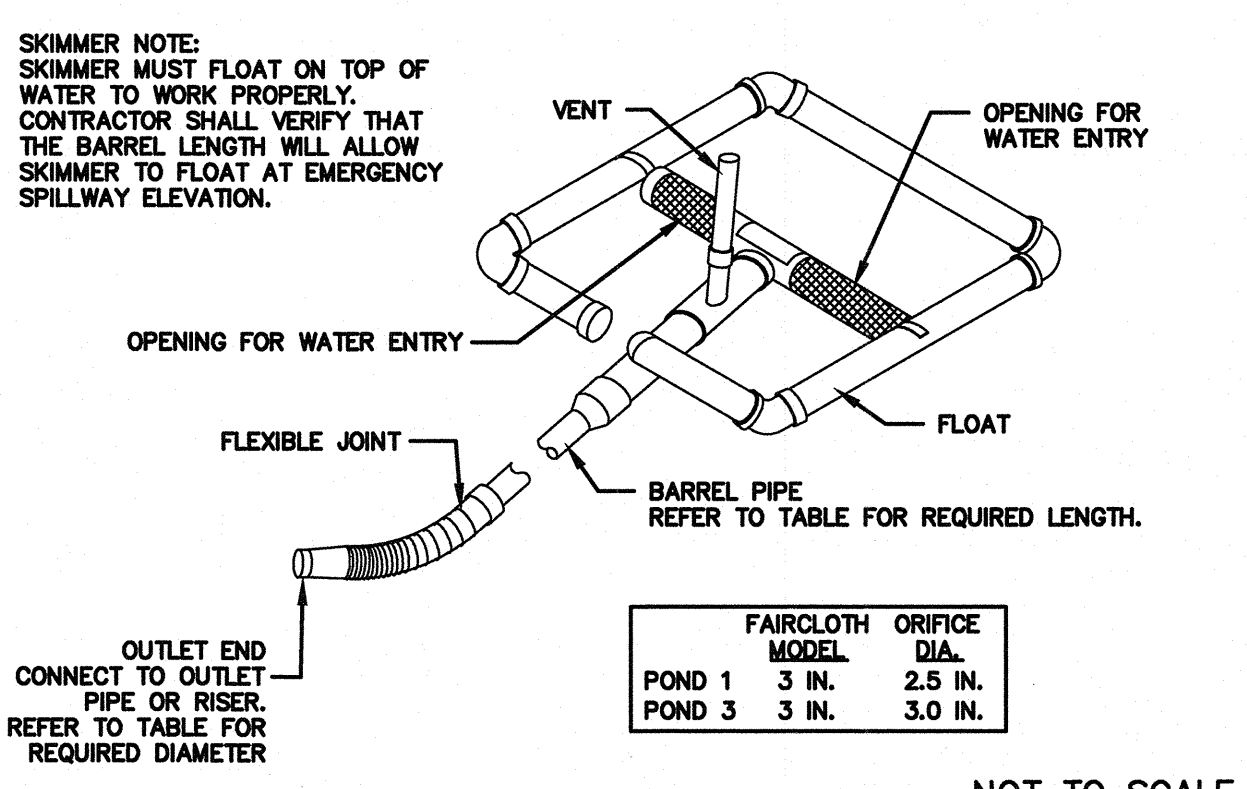
6 DROP INLET DETAIL



NOT TO SCALE

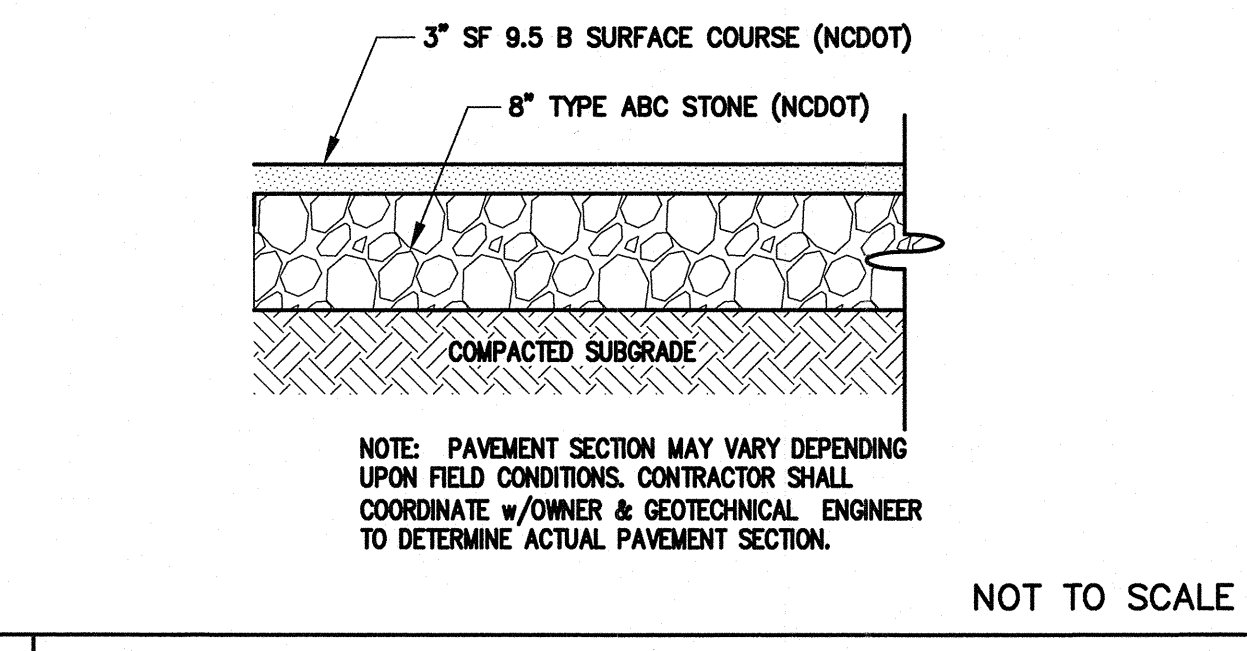
10 CATCH BASIN DETAIL

- SKIMMER MAINTENANCE NOTES:
1. INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ON-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY.
 2. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.
 3. 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.
 4. 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.



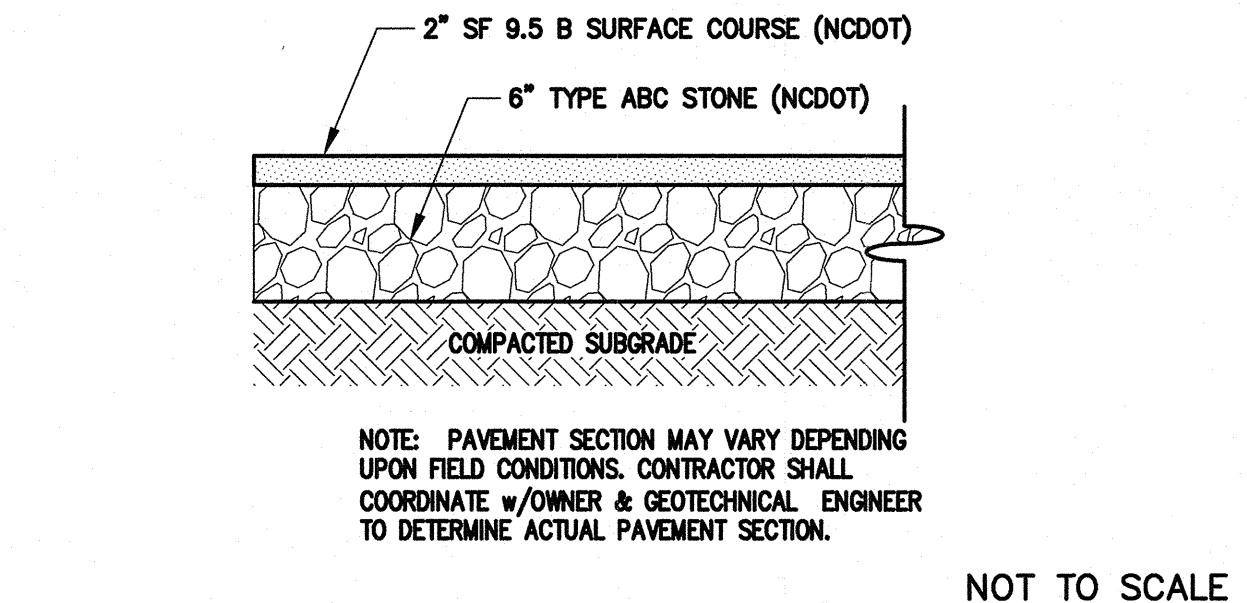
NOT TO SCALE

3 STANDARD SKIMMER DETAIL



NOT TO SCALE

7 HEAVY DUTY ASPHALT PAVEMENT SECTION



NOT TO SCALE

4 LIGHT DUTY ASPHALT PAVEMENT SECTION

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
© 2017 NORRIS & TUNSTALL			

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Approved Construction Plan
Name: _____ Date: _____

Planning: _____
Traffic: _____
Fire: _____

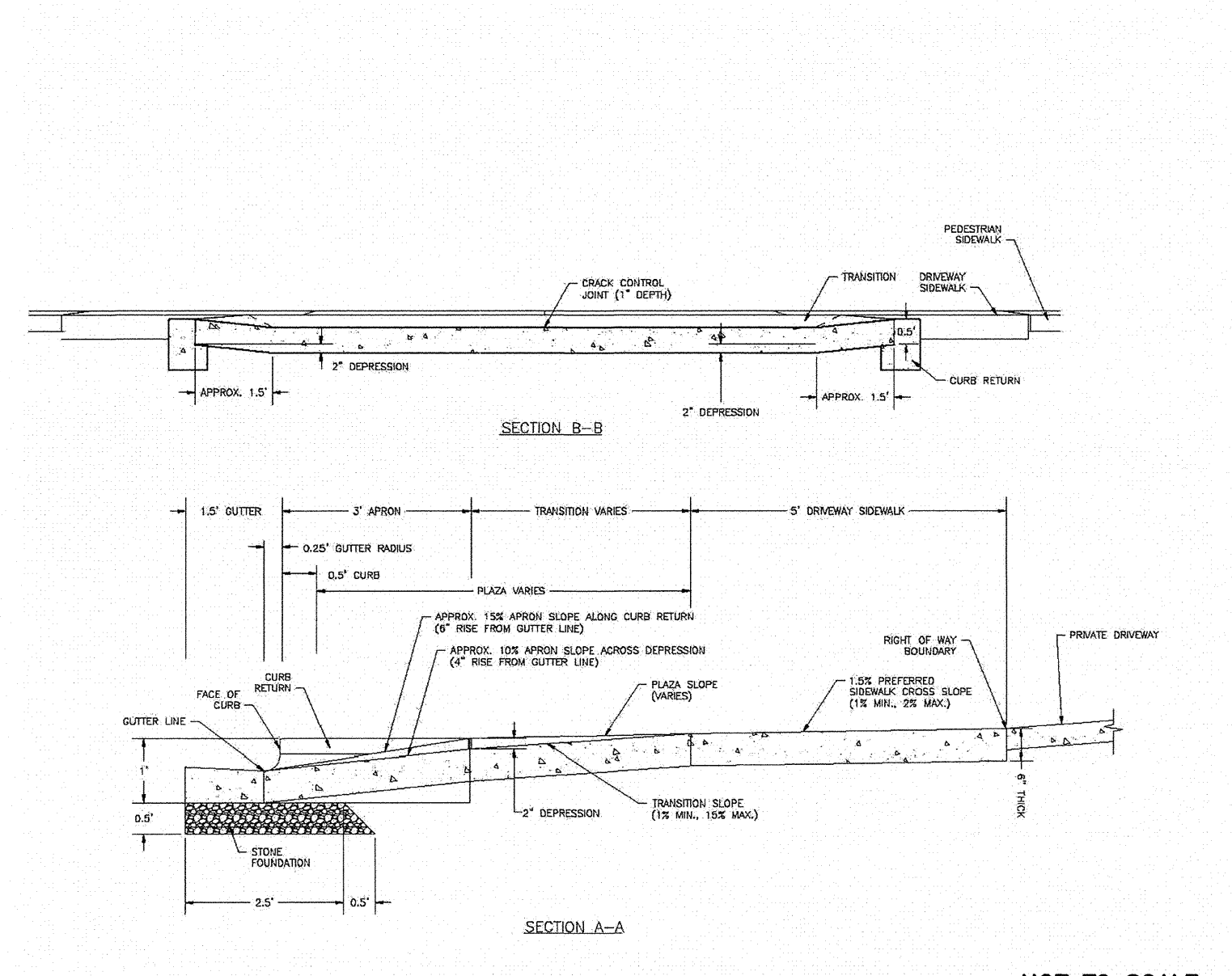
NCDENR PWSS WATER PERMIT #: _____
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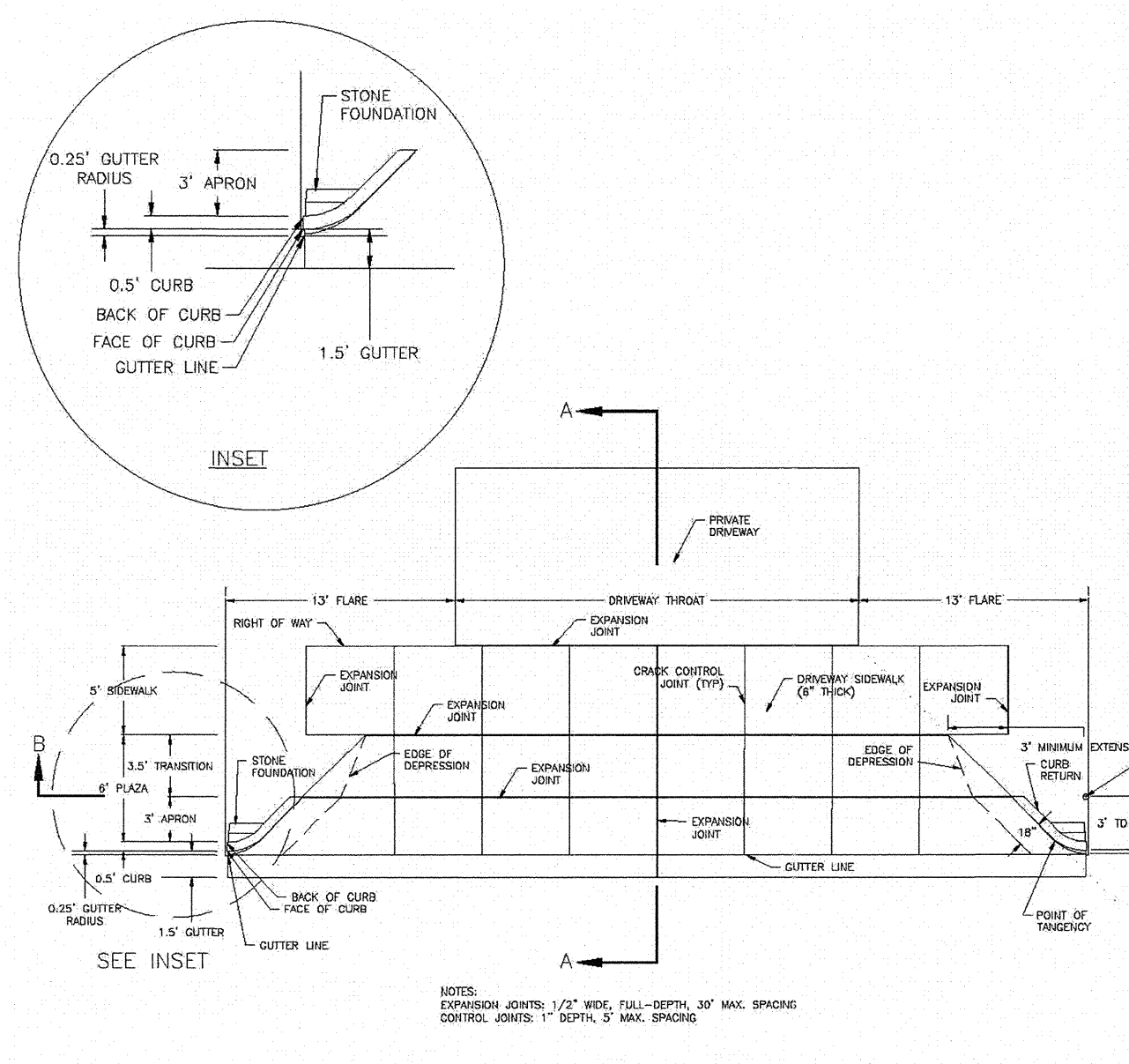
SITE WORK NOTES:

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: SEE SPECIFICATIONS
4. STRIPPING: SEE SPECIFICATIONS
5. MUCKING: SEE SPECIFICATIONS.
6. DISPOSAL: SEE SPECIFICATIONS
7. BORROW MATERIAL: SEE SPECIFICATIONS
8. FILL AND COMPACTION: SEE SPECIFICATIONS
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 AND ASSOCIATES, PA, 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.

4 LOADING DOCK HEAVY DUTY CONC. PAVEMENT SECTION



NOT TO SCALE



11 CITY OF WILMINGTON COMMERCIAL DRIVEWAY DETAIL

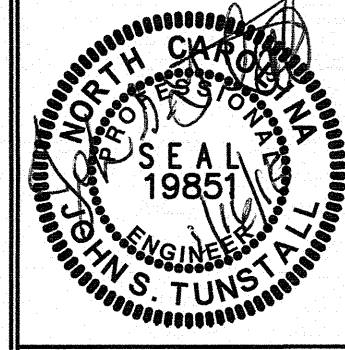
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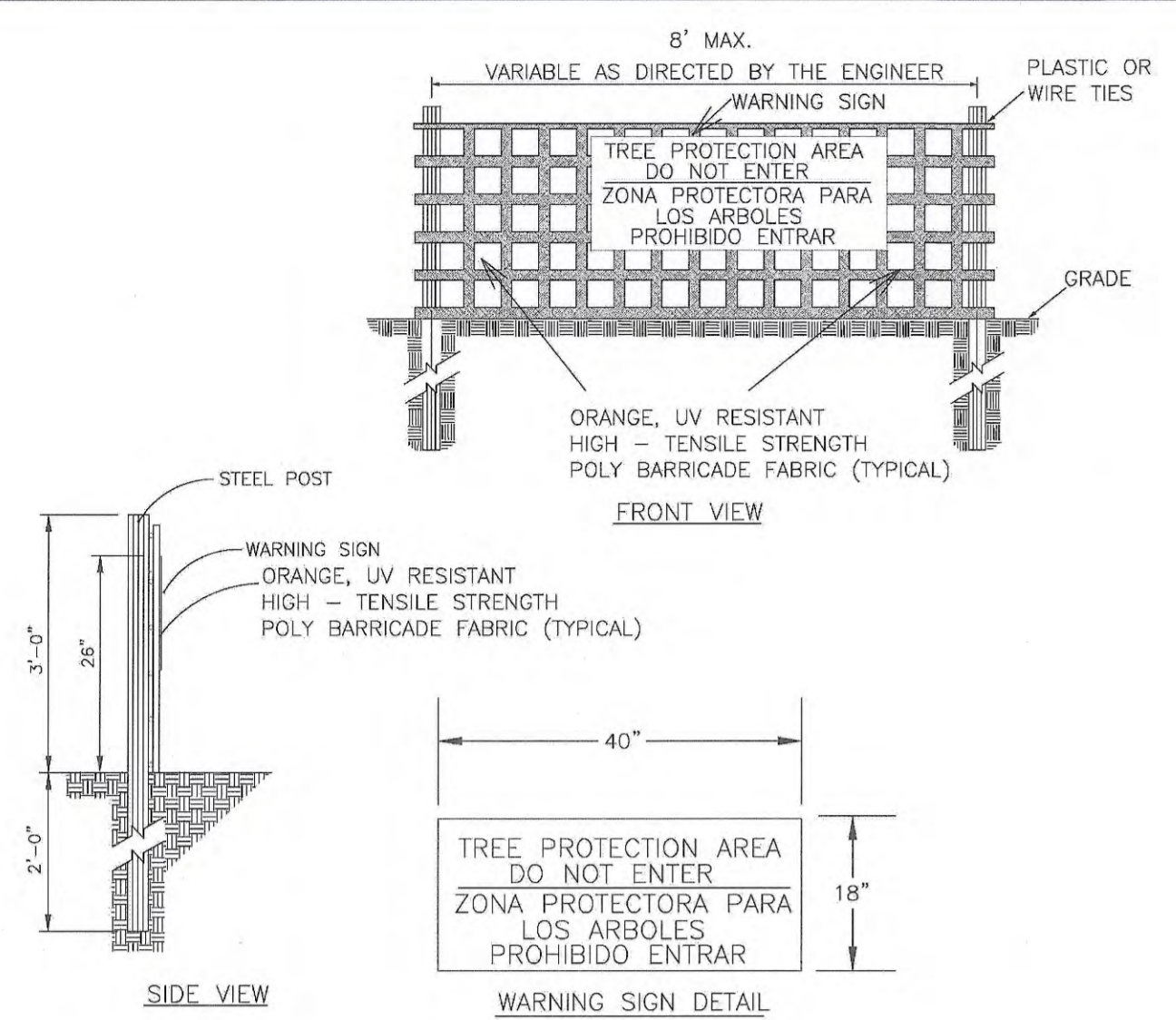
Licence #C-3641

17120
DES. JST
CHK. JPN
DRAWN. SLF
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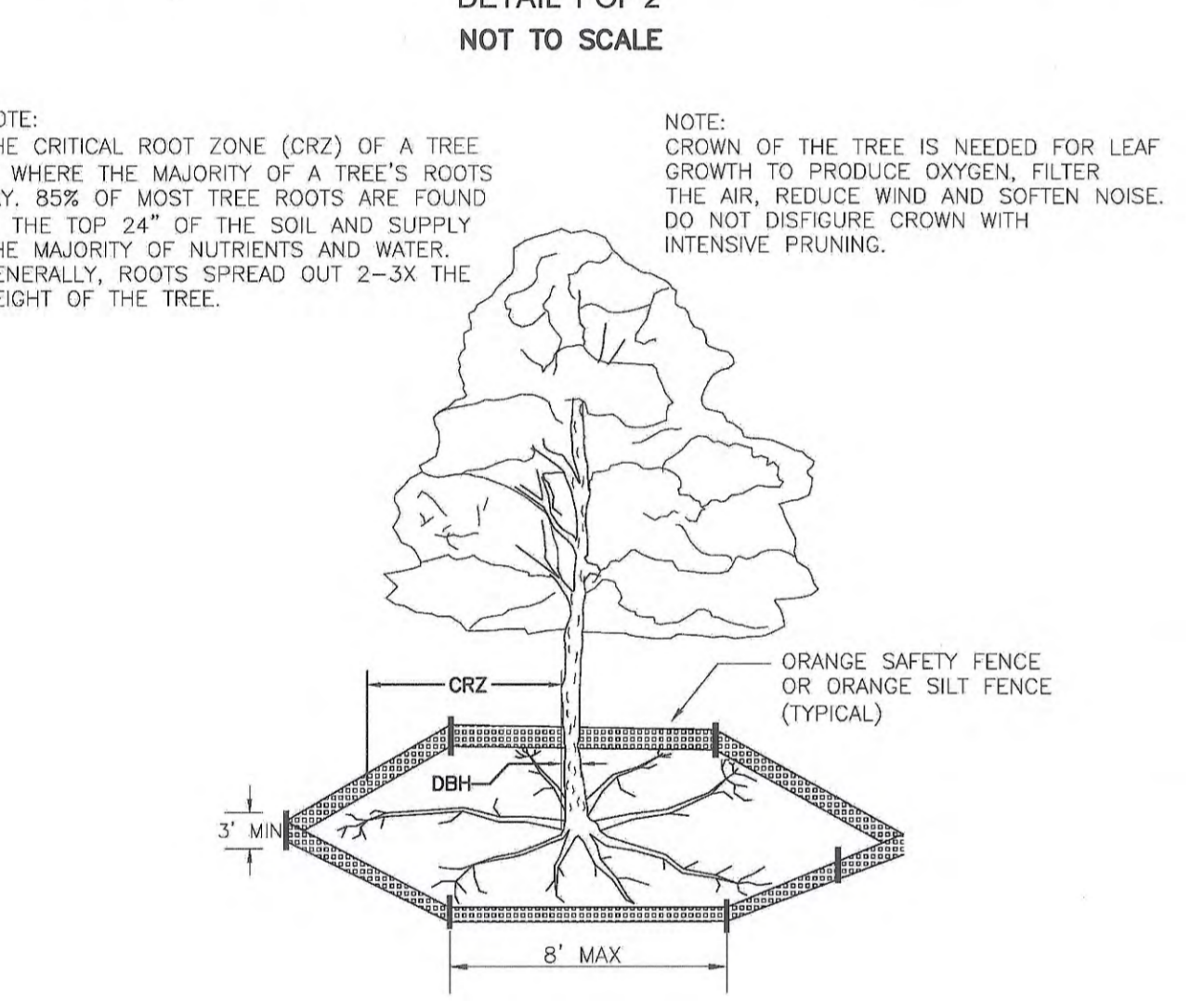
C7

F:\Project\2017\17120 Renaissance Market\17120-master.rvt.dwg (2-DETAILS) Plotted on: Jan 17, 2018 - 10:53am by Colasur



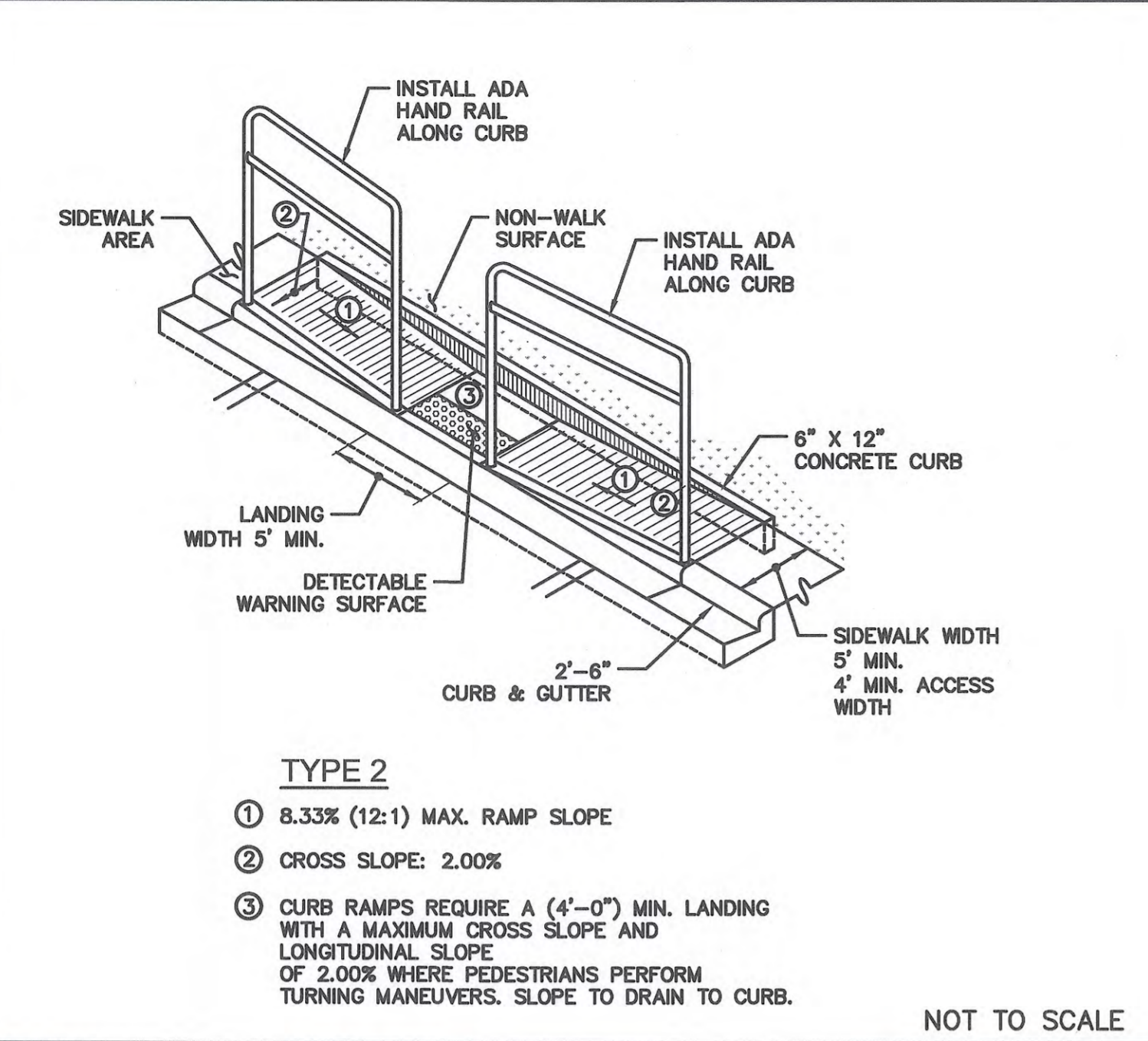
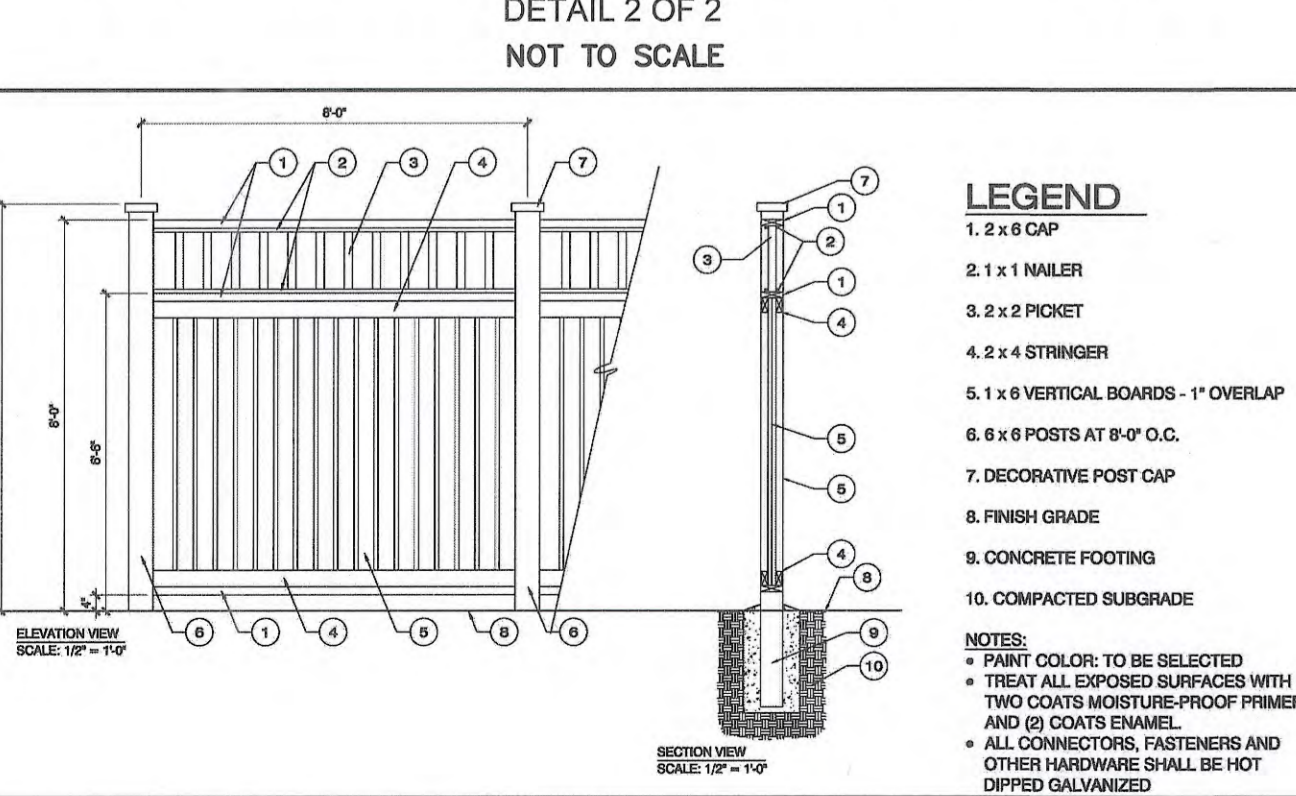
- NOTES:
1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
 2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
 3. SIGNS SHALL BE PLACED 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.

TREE PROTECTION DURING CONSTRUCTION

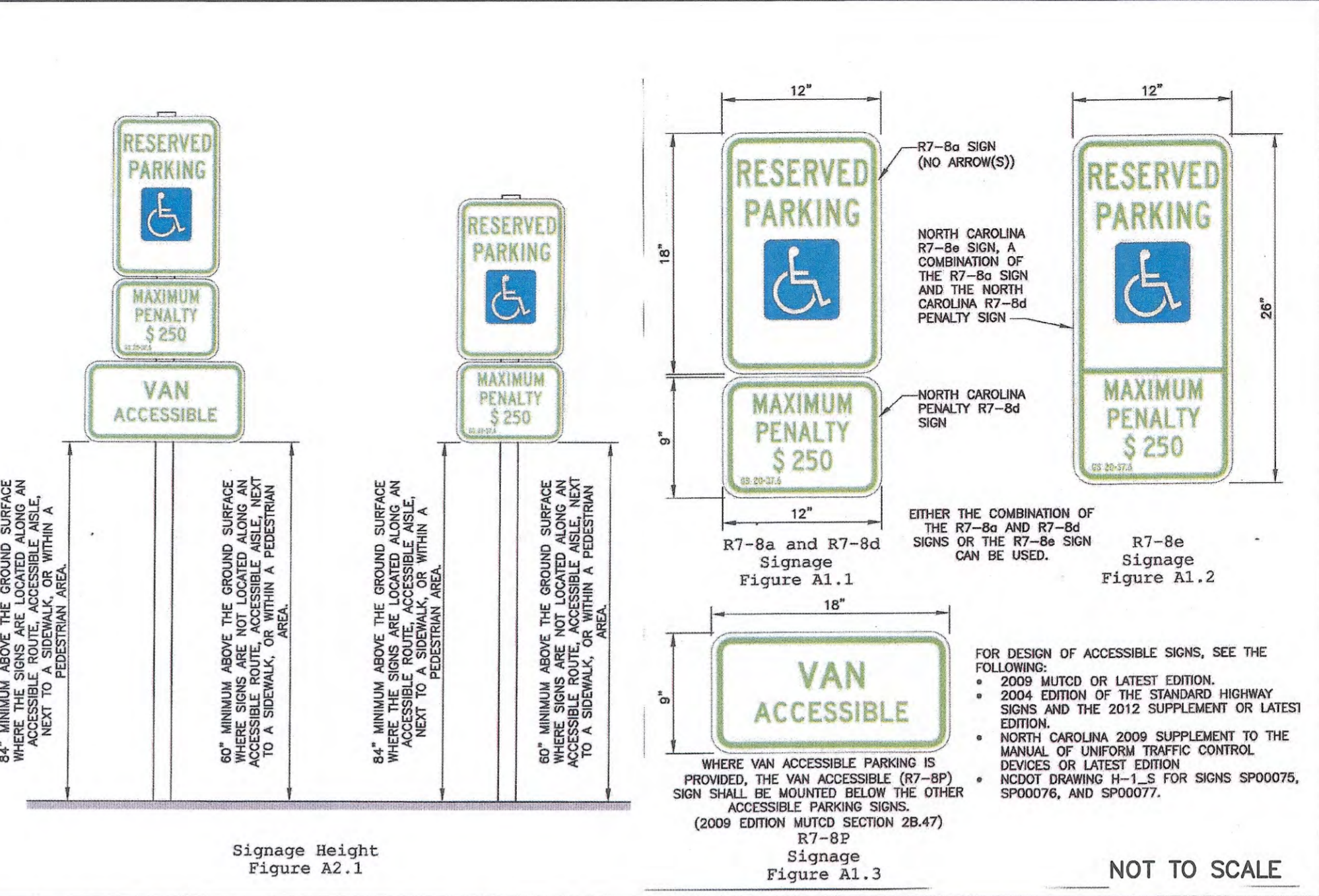


- NOTES:
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
 2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
 3. IF CONSTRUCTION OCCURS 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.

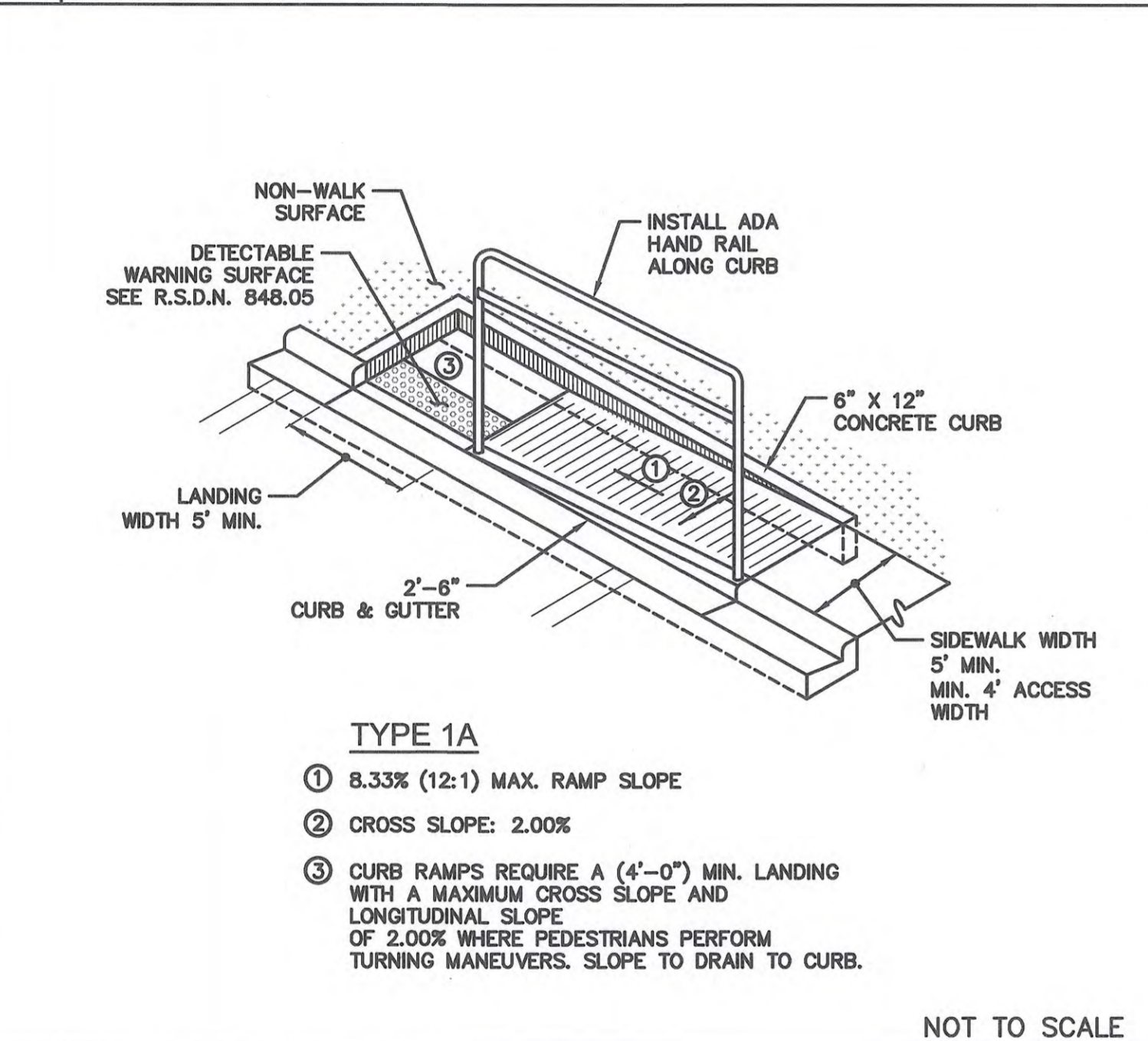
TREE PROTECTION DURING CONSTRUCTION



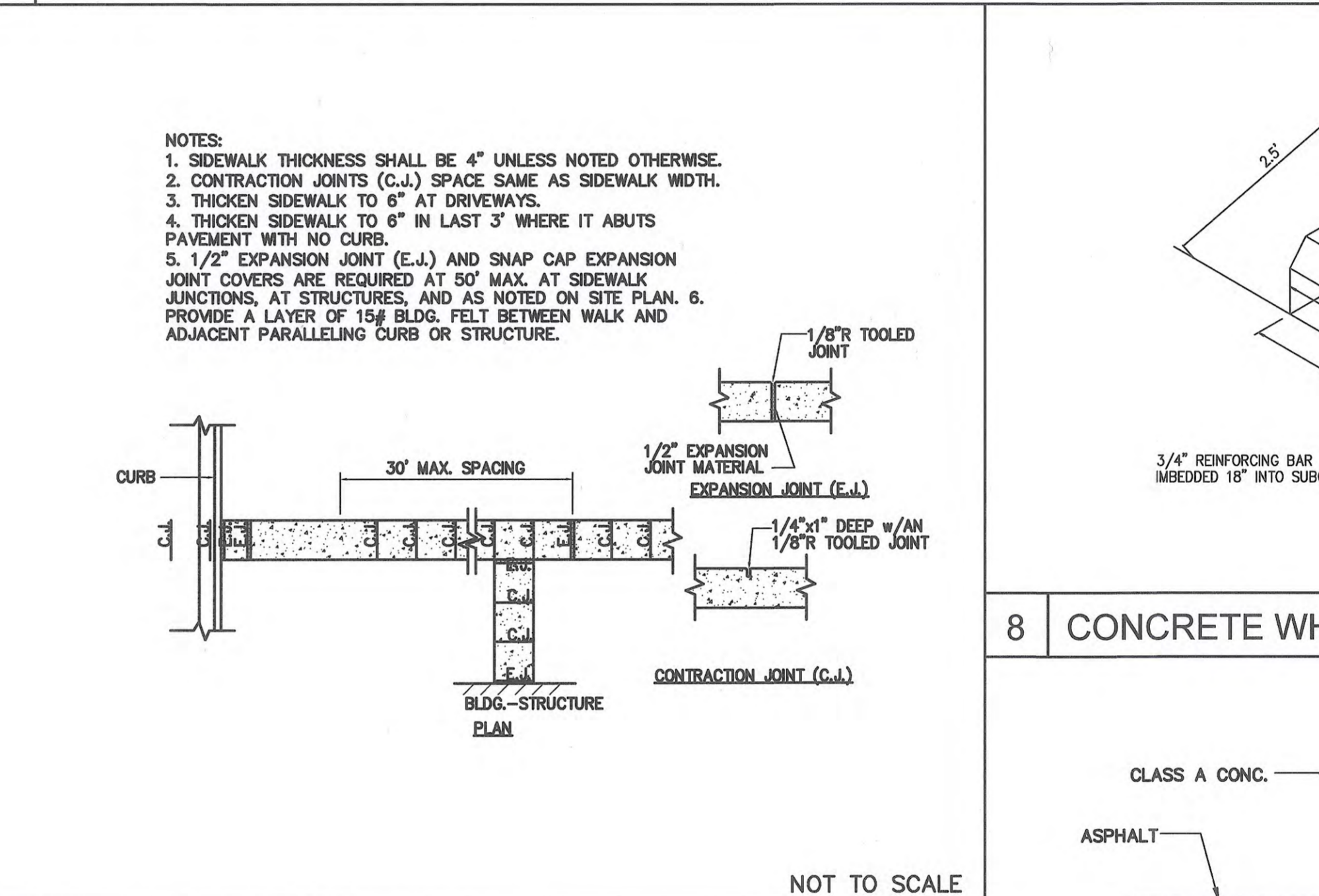
2 TYPE 2 CURB RAMP



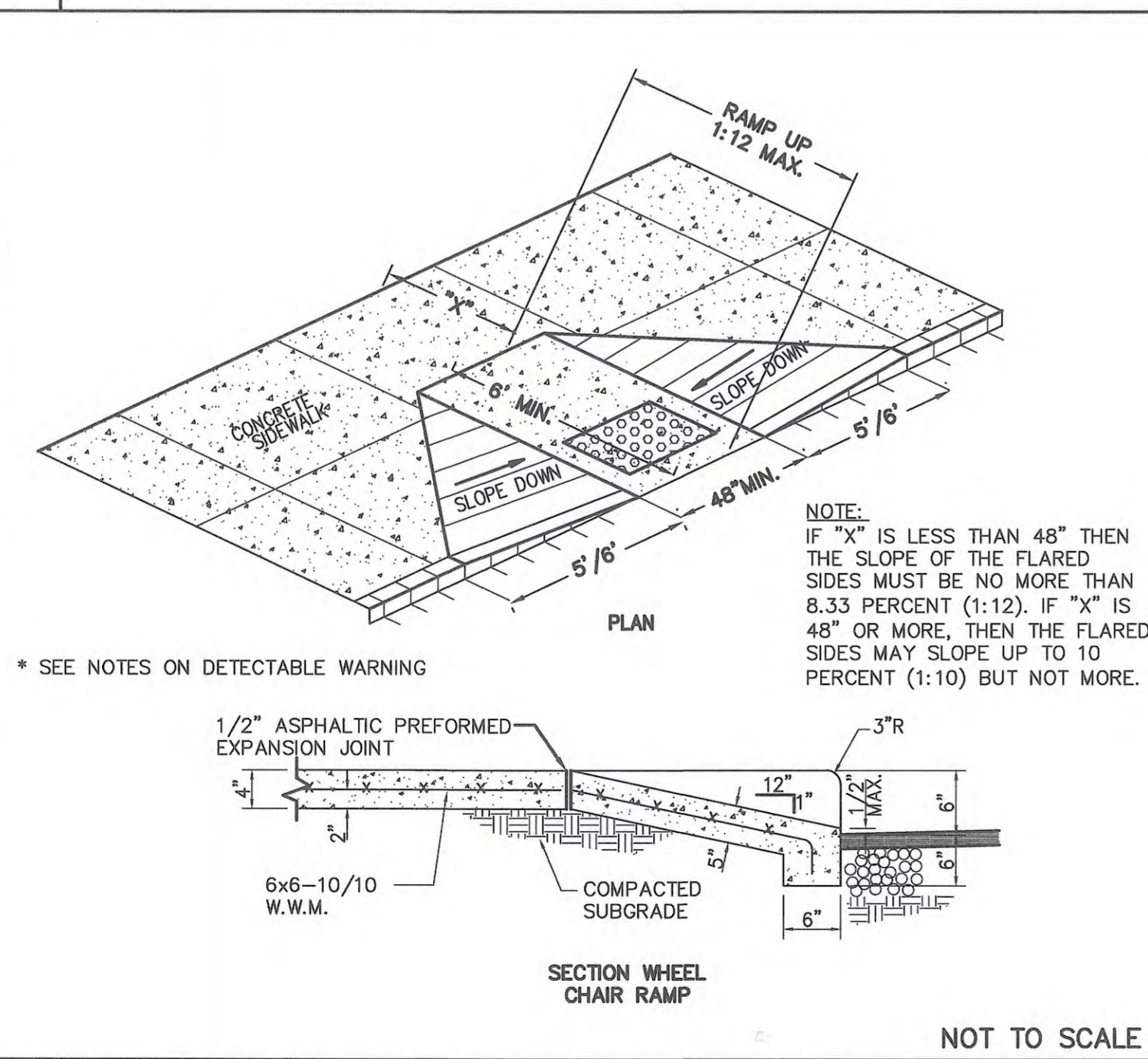
5 ACCESSIBLE SIGN DETAIL



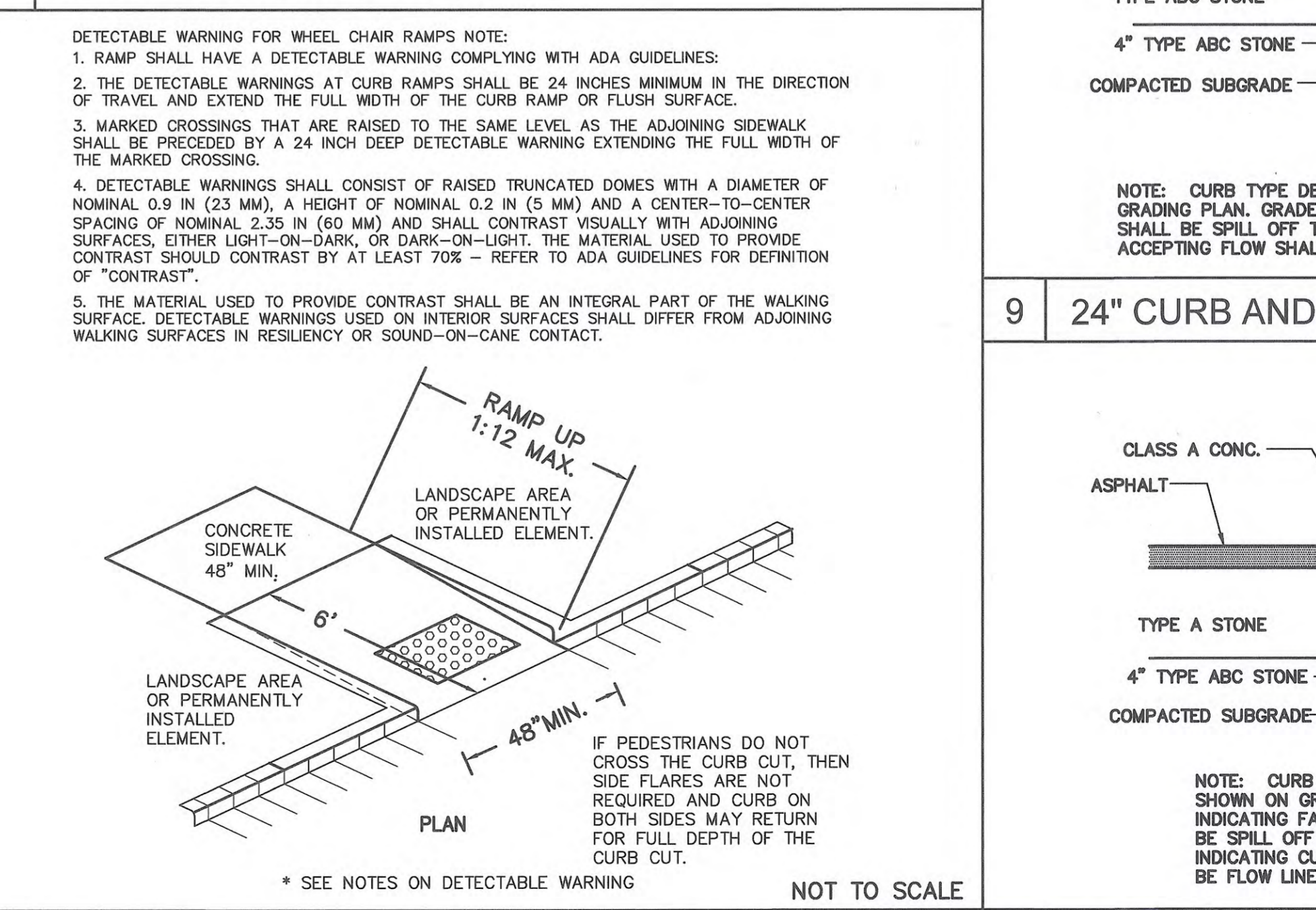
3 TYPE 1A CURB RAMP



6 SIDEWALK JOINT DETAIL



4 SIDEWALK, CURB CUT AND WHEEL CHAIR RAMP DETAIL



7 SIDEWALK, CURB CUT AND WHEEL CHAIR RAMP

CALL 811 (3) WORKING DAYS BEFORE YOU DIG.

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Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

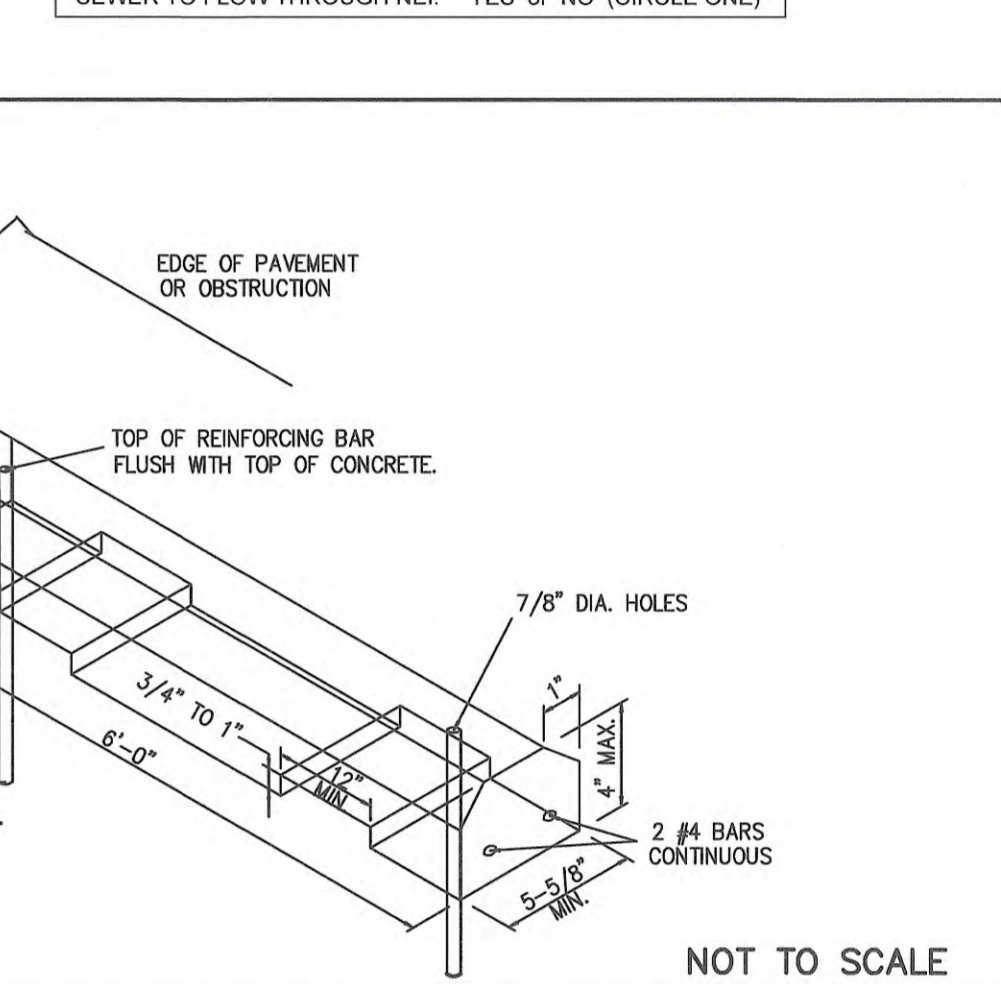
Signed: _____

Approved Construction Plan

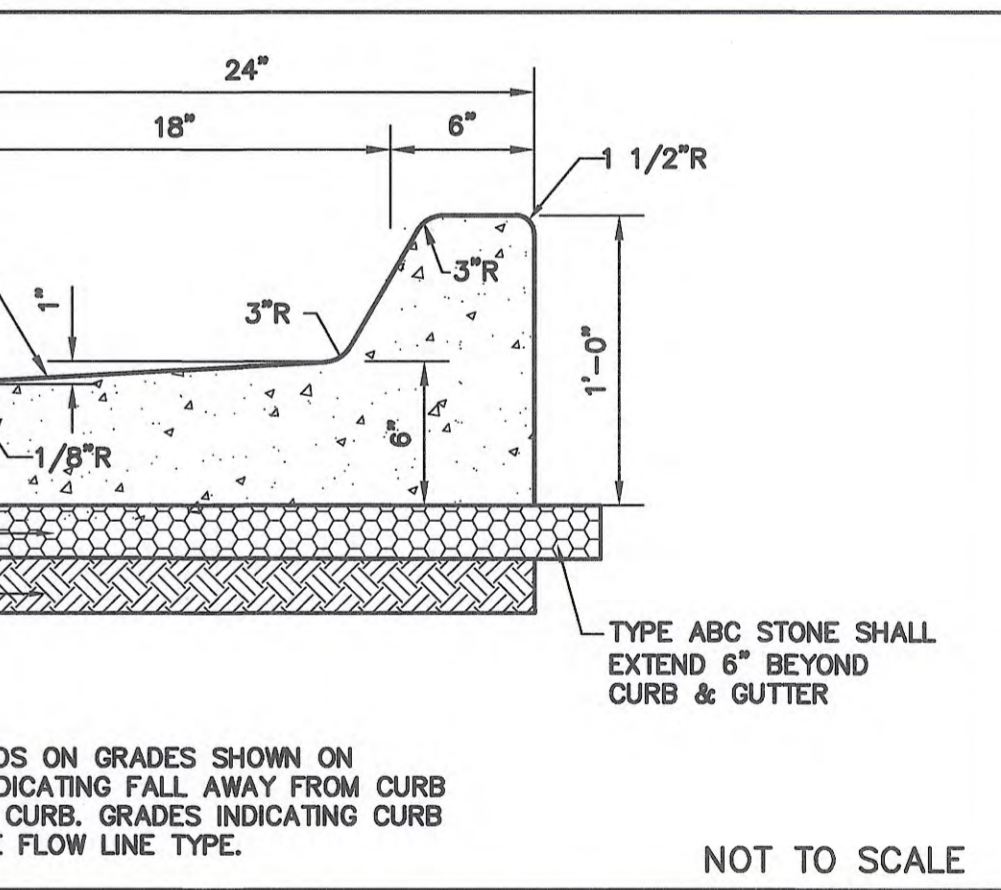
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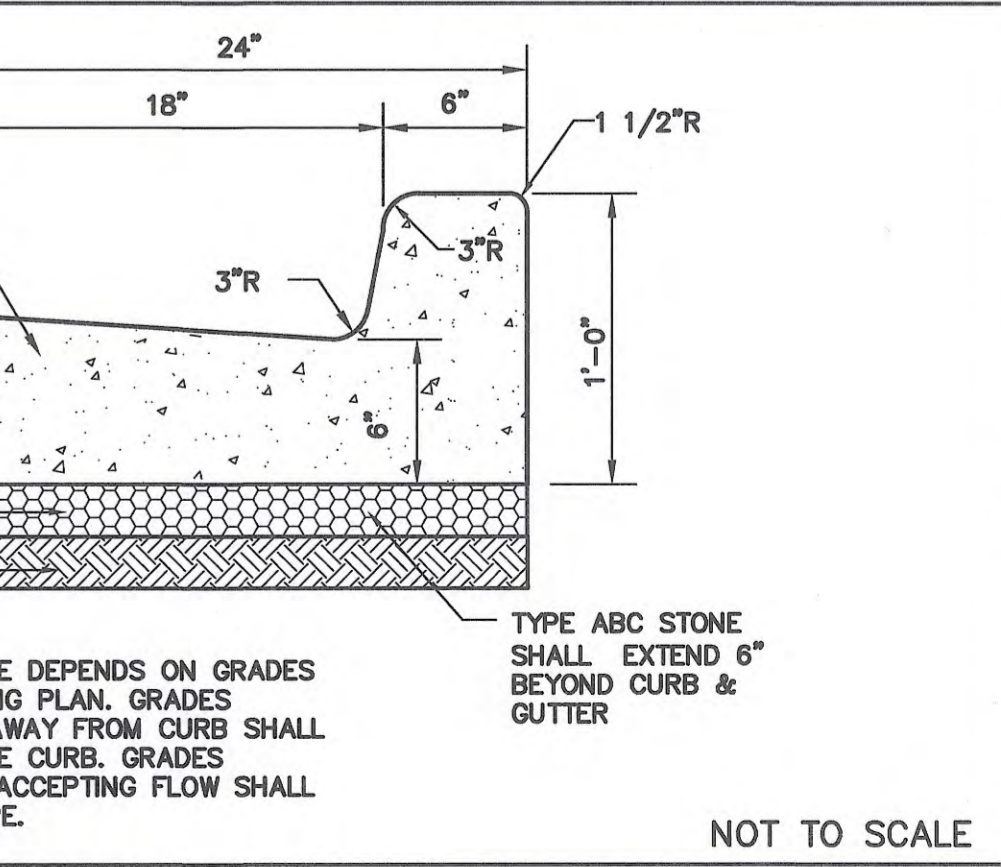
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SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES OR NO (CIRCLE ONE)



8 CONCRETE WHEELSTOP DETAIL



9 24" CURB AND GUTTER SECTION (SPILL OFF)



10 24" CURB AND GUTTER SECTION (FLOW-LINE)

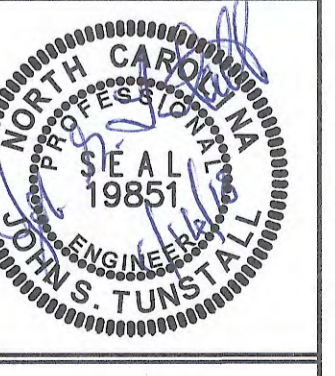
DETAILS AND NOTES
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DES. JST
CHK. JPN
DRAWN. SLF
DATE: 01/16/2018



C8

**REZONING CONDITIONAL USE REQUIREMENTS
SITE CONDITIONS (CD-16-517)**

1. THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHALL COMPLY WITH ALL REGULATIONS AND REQUIREMENTS IMPOSED BY THE LAND DEVELOPMENT CODE, THE CITY OF WILMINGTON TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL, AND ANY OTHER APPLICABLE FEDERAL, STATE OR LOCAL LAW, ORDINANCE OR REGULATION, AS WELL AS ANY CONDITION STATED BELOW. IN THE EVENT OF A CONFLICT, THE MORE STRINGENT REQUIREMENT OR HIGHER STANDARD SHALL APPLY.
2. APPROVAL OF THIS CONDITIONAL DISTRICT REZONING DOES NOT CONSTITUTE TECHNICAL APPROVAL OF THE SITE PLAN. FINAL APPROVAL BY THE TECHNICAL REVIEW COMMITTEE AND THE ISSUANCE OF ALL REQUIRED PERMITS MUST OCCUR PRIOR TO RELEASE OF THE PROJECT FOR CONSTRUCTION.
3. IF, FOR ANY REASON, ANY CONDITION FOR APPROVAL IS FOUND TO BE ILLEGAL OR INVALID OR IF THE APPLICANT SHOULD FAIL TO ACCEPT ANY CONDITION FOLLOWING APPROVAL, THE APPROVAL OF THE SITE PLAN FOR THE DISTRICT SHALL BE NULL AND VOID AND NO EFFECT AND PROCEEDINGS SHALL BE INSTITUTED TO REZONE THE PROPERTY TO ITS PREVIOUS ZONING CLASSIFICATION.
4. THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHALL BE IN ACCORDANCE WITH THE CONCEPTUAL LANDSCAPE PLAN (DATED DRAFT 7/7/17 REVIEW) PRESENTED AND APPROVED ON 7/18/17.
5. THE PROPOSED USES SHALL BE LIMITED TO A SPECIALTY GROCERY STORE, RETAIL, AND RESTAURANTS.
6. THE SIZE AND INTENSITY OF THE ALLOWABLE USES SHALL BE LIMITED BY THE MAXIMUM DAILY TRIPS (5,710), PM PEAK HOUR TRIPS (592), AND SATURDAY PEAK HOUR TRIPS (650) AS PRESCRIBED BY THE APPROVED TRAFFIC ANALYSIS.
7. THE SITE MUST MEET THE STANDARDS FOR EXCEPTIONAL DESIGN FOR THE PROPOSED IMPERVIOUS COVERAGE.
8. ALL EXISTING PROTECTED TREES NOT LOCATED WITHIN THE BUILDING FOOTPRINT OR IMPACTED BY ESSENTIAL SITE IMPROVEMENTS SHALL BE PRESERVED OR MITIGATED.
9. THE USE OF PINE STRAW AS GROUND COVER SHALL BE PROHIBITED WITHIN TEN (10) FEET OF ANY COMBUSTIBLE EXTERIOR CONSTRUCTION.
10. PEDESTRIAN CONNECTIONS SHALL BE MADE TO BOTH SIR TYLER DRIVE AND MILITARY COT OFF ROAD. PEDESTRIAN CIRCULATION SHALL BE CLEARLY DEFINED WITH PAVING MATERIALS AND/OR LANDSCAPING AND SHALL NOT CONNECT ALL USES.
11. ANY FREESTANDING SIGN(S) ON THE SITE SHALL BE MONUMENT STYLE WITH LANDSCAPING AROUND THE BASE OF THE SIGN; NO POLE SIGNS SHALL BE PERMITTED.
12. THE CREATIVE STANDARD SHALL NOT BE USED TO SATISFY THE STREETWARD LANDSCAPING REQUIREMENTS.
13. ALL REQUIREMENTS OF THE TRAFFIC IMPACT ANALYSIS (TIA) SHALL BE FOLLOWED.
14. THE APPLICANT SHOULD PARTICIPATE IN FUTURE DISCUSSIONS REGARDING A SIGNALIZED PEDESTRIAN CROSSING AT SIR TYLER DRIVE AND MILITARY CUTOFF ROAD.
15. ALL CITY, STATE AND FEDERAL REGULATIONS SHALL BE FOLLOWED.
16. THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHALL BE IN ACCORDANCE WITH THE BUILDING ELEVATIONS PRESENTED TO AND ACCEPTED BY COUNCIL ON 7/18/17.
17. THE PROJECT SHALL INCORPORATE ALL COMMON AREAS AND PEDESTRIAN CONNECTIONS AS SHOWN ON THE CONCEPTUAL LANDSCAPE PLAN (DATED DRAFT FOR 7/7/17 REVIEW) PRESENTED AND APPROVED ON 7/18/17.
18. THE PROJECT SHALL UTILIZE CONCRETE PAVERS AT ALL CROSSWALK LOCATIONS ON SITE AND CONSISTENT WITH THE CONCEPTUAL LANDSCAPE PLAN (DATED DRAFT FOR 7/7/17 REVIEW) PRESENTED AND APPROVED ON 7/18/17.
19. THE PROJECT SHALL INCORPORATE A "SPINE" LANDSCAPED ISLAND/ALLEE THROUGH THE CENTER OF THE PARKING LOT SEPARATING THE PARKING FIELD AND CONNECTING THE ANCHOR TENANT WITH THE MULTI-USE PATH ALONG MILITARY CUTOFF ROAD CONSISTENT WITH THE CONCEPTUAL LANDSCAPE PLAN (DATED DRAFT FOR 7/7/17 REVIEW) PRESENTED AND APPROVED ON 7/18/17.
20. THE STREETWARD ALONG MILITARY CUTOFF ROAD, EXCLUDING THE PEDESTRIAN CONNECTION, CONSISTENT WITH THE CONCEPTUAL LANDSCAPE PLAN (DATED DRAFT FOR 7/7/17 REVIEW) PRESENTED AND APPROVED ON 7/18/17 TO SCREEN THE PARKING AREA FROM THE PUBLIC RIGHT-OF-WAY.
21. THE PROJECT SHALL UTILIZE XERIC LANDSCAPING THROUGHOUT THE SITE CONSISTENT WITH THE CONCEPTUAL LANDSCAPE PLAN (DATED DRAFT FOR 7/7/17 REVIEW) PRESENTED AND APPROVED ON 7/18/17.
22. SEATING AREAS AND LANDSCAPE PLANTERS SHALL BE PROVIDED ALONG STORE FRONTS AS PRESENTED TO COUNCIL ON 7/18/17 AND CONSISTENT WITH THE CONCEPTUAL LANDSCAPE PLAN (DATED DRAFT FOR 7/7/17 REVIEW) PRESENTED AND APPROVED ON 7/18/17.
23. BUILDINGS SHALL INCORPORATE LIVING WALLS (GREEN WALLS) INTO THEIR DESIGNS IN ACCORDANCE WITH SIZE AND LOCATIONS SHOWN ON THE BUILDING ELEVATIONS PRESENTED TO AND ACCEPTED BY COUNCIL ON 7/18/17.
24. THE PROJECT SHALL INCLUDE A MINIMUM OF FOUR CAR CHARGING LOCATIONS (SPACES).

**CALL 811
(3) WORKING
DAYS BEFORE
YOU DIG.**

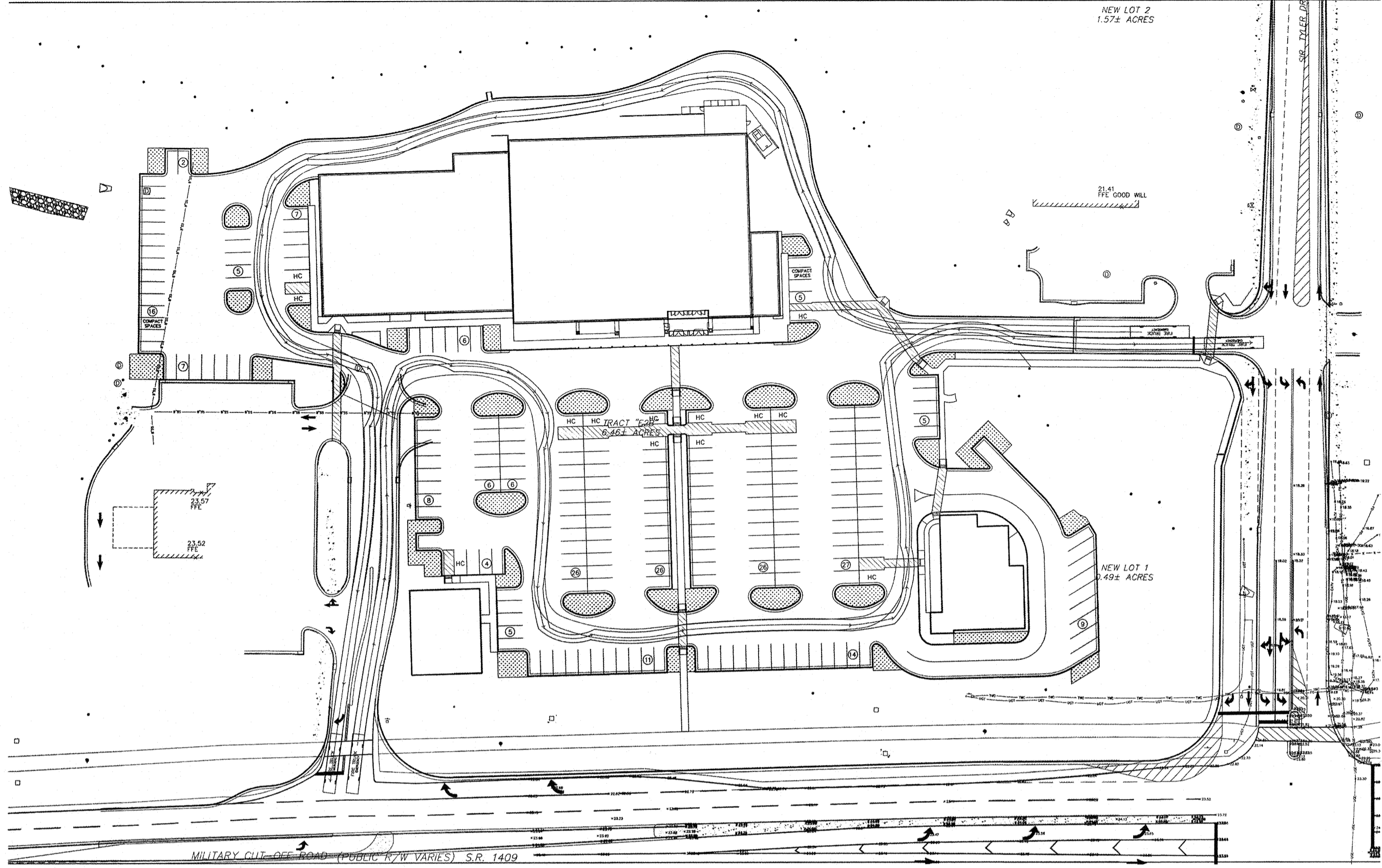
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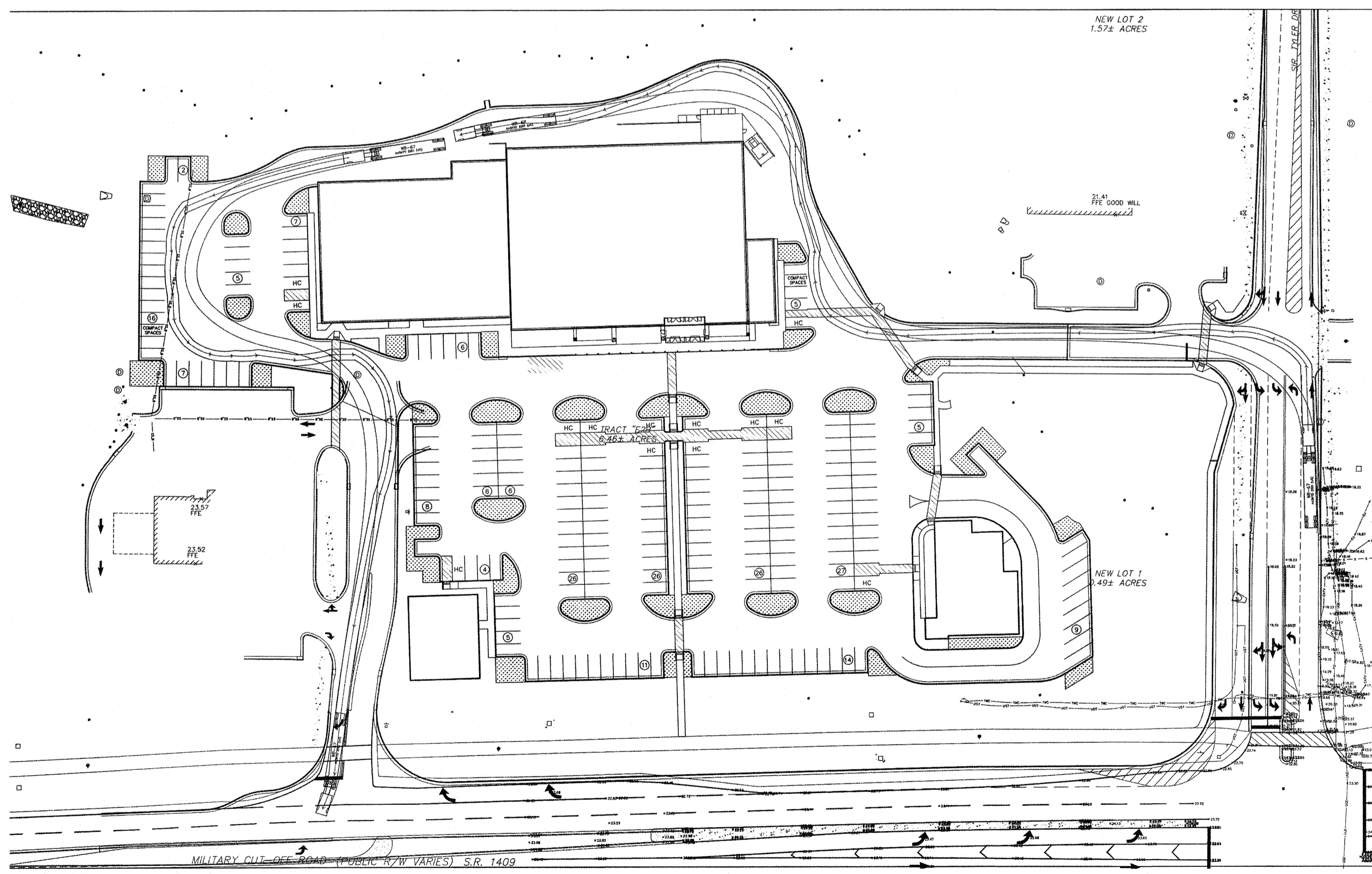
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SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES OR NO (CIRCLE ONE)

REVISIONS	DATE	DESCRIPTION	BY



FIRE TRUCK TURNING MOVEMENT
NOT TO SCALE



SERVICE TRUCK TURNING MOVEMENT
NOT TO SCALE

EROSION CONTROL NOTES AND MAINTENANCE PLAN:

1. 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 HALF-INCH RAINFALL.
 2. 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. STAKE SPACING MUST 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.
 3. 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 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 EVERY RAIN EVENT.
 4. 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.
 5. 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. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 6 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 DAMAGED.
 6. LAND QUALITY REQUIRES:
ALL SEEDED 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 15 WORKING DAYS.
- WATER QUALITY REQUIRES:**
ALL SEEDED 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, DITCHES, PERIMETER SLOPES, ALL SLOPES STEEPER THAN 3' HORIZONTAL TO 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 FOURTEEN (14) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

PERMANENT SEEDING RECOMMENDATIONS FOR FALL AND EARLY SPRING

SEEDING MIXTURE	SPECIES	RATE (lb./acre)	
TALL FESCUE	80	1.84	
	PENSACOLA BAHIAGRASS	50	1.15
	SERICA 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 SUDAGRASS. 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 (88.9-114.8 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 TACKING WITH ASPHALT, NETTING, OR ROVING OR BY CRIMPING 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 SEEDING RECOMMENDATIONS FOR LATE SPRING AND EARLY SUMMER

SEEDING MIXTURE	SPECIES	RATE (lb./acre)	
TALL FESCUE	50	1.15	
	SERICA LESPEDeza	30	0.69
	COMMON BERMUDA	10	0.23
	GERMAN MILLET	10	0.23

- SEEDING NOTES:**
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 lbs/acre CENTIPEDEGRASS.

SEEDING DATES:
APRIL 1-JULY 15
SOIL AMENDMENTS:
APPLY LIME AND FERTILIZE ACCORDING TO SOIL TESTS, OR APPLY 3,000 lbs/acre (88.9 lbs/1,000 sf) GROUND AGRICULTURAL LIMESTONE AND 500 lbs/acre (11.5 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 TACKING WITH ASPHALT, NETTING, OR ROVING OR BY CRIMPING WITH A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.
MAINTENANCE:
REFERTILIZE THE FOLLOWING APRIL WITH 50 lbs/acre (1.15 lbs/1,000 sf) NITROGEN. REPEAT AS GROWTH REQUIRES. MAY BE MOWED ONLY ONCE A YEAR. WHERE A NEAT APPEARANCE IS DESIRED, OMIT SERICEA AND MOW AS OFTEN AS NEEDED.

TEMPORARY SEEDING RECOMMENDATIONS FOR FALL

SEEDING MIXTURE	SPECIES	RATE (lb./acre)
RYE (GRAIN)	120	

SEEDING DATES:
MOUNTAINS - AUG. 15 - DEC. 15
COASTAL PLAIN AND MOUNTAIN - 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 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 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)
GERMAN MILLET	40	

IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUDAGRASS 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 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:
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)
RYE (GRAIN)	120	
	ANNUAL LESPEDeza	50

(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:
MOUNTAINS - ABOVE 2,500 FEET: FEB. 15 - MAY 15
MOUNTAINS - BELOW 2,500 FEET: FEB. 1 - MAY 1
PIEDMONT - JAN. 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 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:
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

DETAILS AND NOTES
RENAISSANCE MARKET
927 MILITARY CUTOFF RD.
WILMINGTON, N. C.

DEVELOPER
HRP RENAISSANCE MARKET, LLC
1202 EASTWOOD ROAD
WILMINGTON, NC 28403
(910) 799-8755

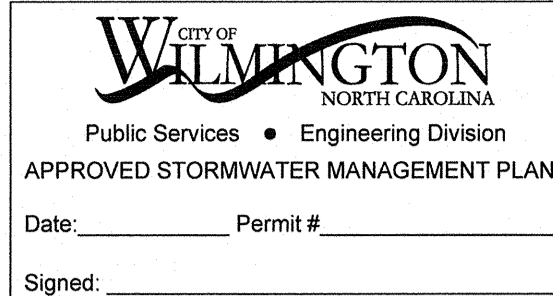
NORRIS & TUNSTALL
CONSULTING ENGINEERS P.C.
1429 ASH-LITTLE RIVER RD. NW
WILMINGTON, NC 28401
PHONE (910) 287-5900

Licence #C-3641
17120
DES. JST
CKD. JPN
DRAWN. SLF
DATE: 01/16/2018

Seal: NORTH CAROLINA PROFESSIONAL ENGINEERS ASSOCIATION, 1985, NORRIS & TUNSTALL

C9

F:\Project\10_17_2018\17120 Renaissance Market\17120.mxd (02-SET) Plotted on: Jan 17, 2018 - 10:58am by Colabar



Approved Construction Plan

Name: _____ Date: _____

Planning: _____

Traffic: _____

Fire: _____

NCDENR PWSS WATER PERMIT #: _____ GPD

WATER CAPACITY: _____ GPD

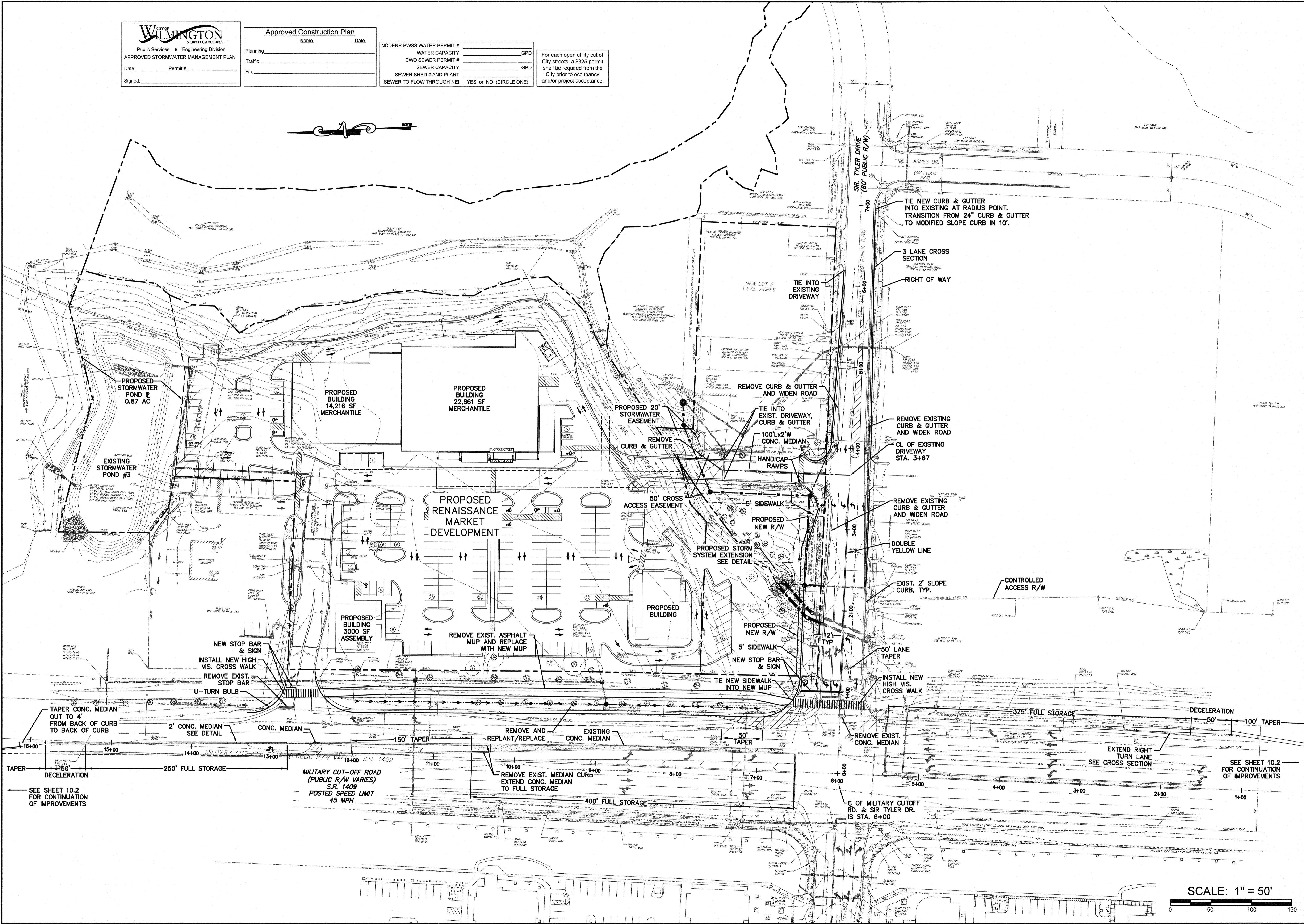
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SEWER CAPACITY: _____ GPD

SEWER SHED # AND PLANT: _____

SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

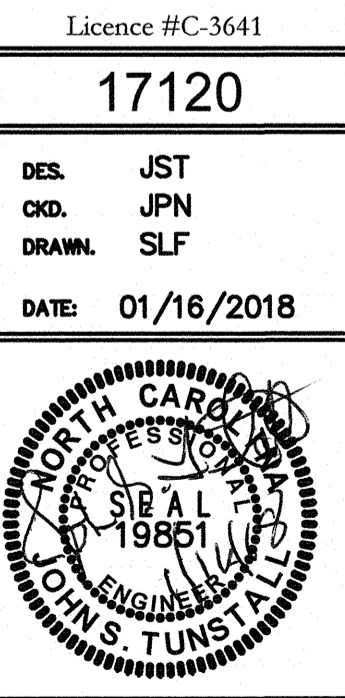
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



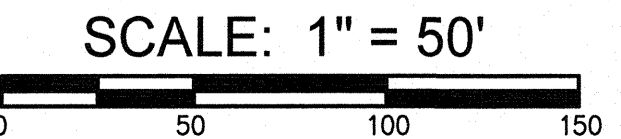
OVERALL SITE PLAN WITH OFFSITE IMPROVEMENTS
RENAISSANCE MARKET
927 MILITARY CUTOFF RD.
WILMINGTON, N. C.

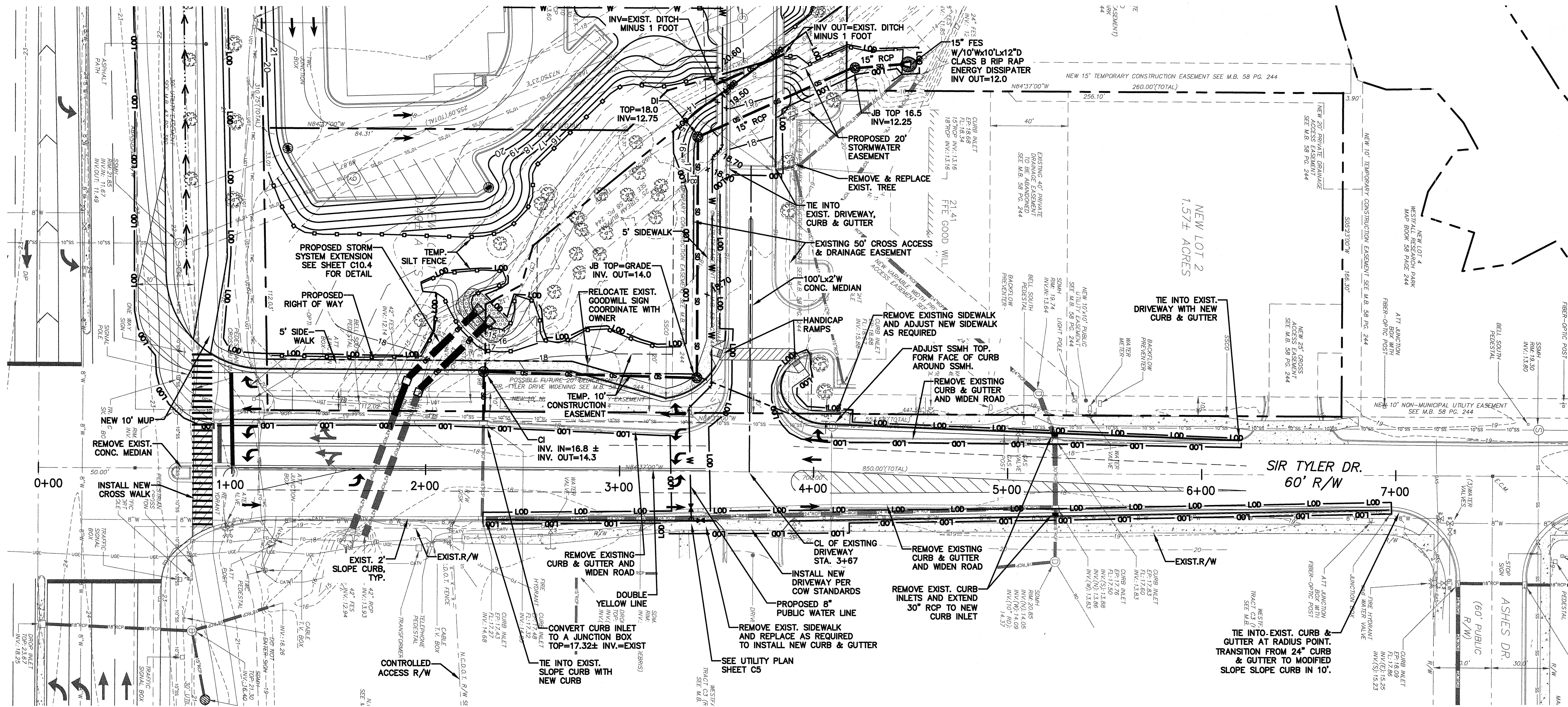
DEVELOPER
RAIFORD G. TRASK, III.
PRESIDENT
TRASK LAND COMPANY, INC.
1202 EASTWOOD RD.
WILMINGTON, NC 28403
910-799-8755 (PHONE)
910-799-8785 (FAX)

NORRIS & TUNSTALL
CONSULTING ENGINEERS P.C.
 Licence #C-3641
17120
DES. JST
CHK. JPN
DRAWN. SLF
DATE: 01/16/2018



C10



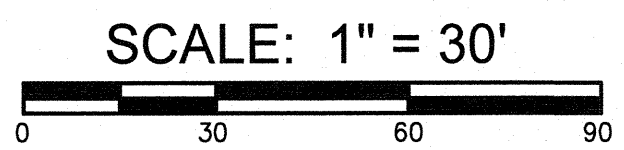


SIR TYLER DR. IMPROVEMENTS: STA. 0+00 - 7+00

SCALE 1"=30'

NOTE:
SIGNAL PLAN BY
DAVENPORT ENGINEERING

LEGEND	
	PROPERTY BOUNDARY
	PROPOSED CONTOUR
	PROPOSED CURB & GUTTER
	PROPOSED STORMDRAIN PIPE
	TEMPORARY SILT FENCE
	LIMIT OF DISTURBANCE
	PROPOSED FINISHED GRADE SPOT ELEVATION
	PROPOSED CURB INLET WITH PROTECTION (CI)
	PROPOSED DROP INLET WITH PROTECTION (DI)
	PROPOSED JUNCTION BOX WITH PROTECTION (JB)
	PROPOSED OUTFALL STRUCTURE WITH PROTECTION
	EXISTING TREE TO BE PROTECTED
	EXISTING TREE TO BE REMOVED



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

Date: _____ Permit #: _____
Signed: _____

Approved Construction Plan

Name: _____ Date: _____

Planning: _____
Traffic: _____
Fire: _____

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
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SEWER TO FLOW THROUGH NEI: YES OR NO (CIRCLE ONE)

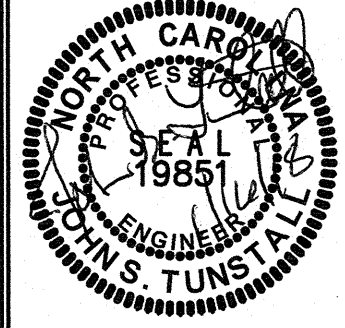
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OVERALL SITE PLAN WITH OFFSITE IMPROVEMENTS
RENAISSANCE MARKET
927 MILITARY CUTOFF RD.
WILMINGTON, N. C.

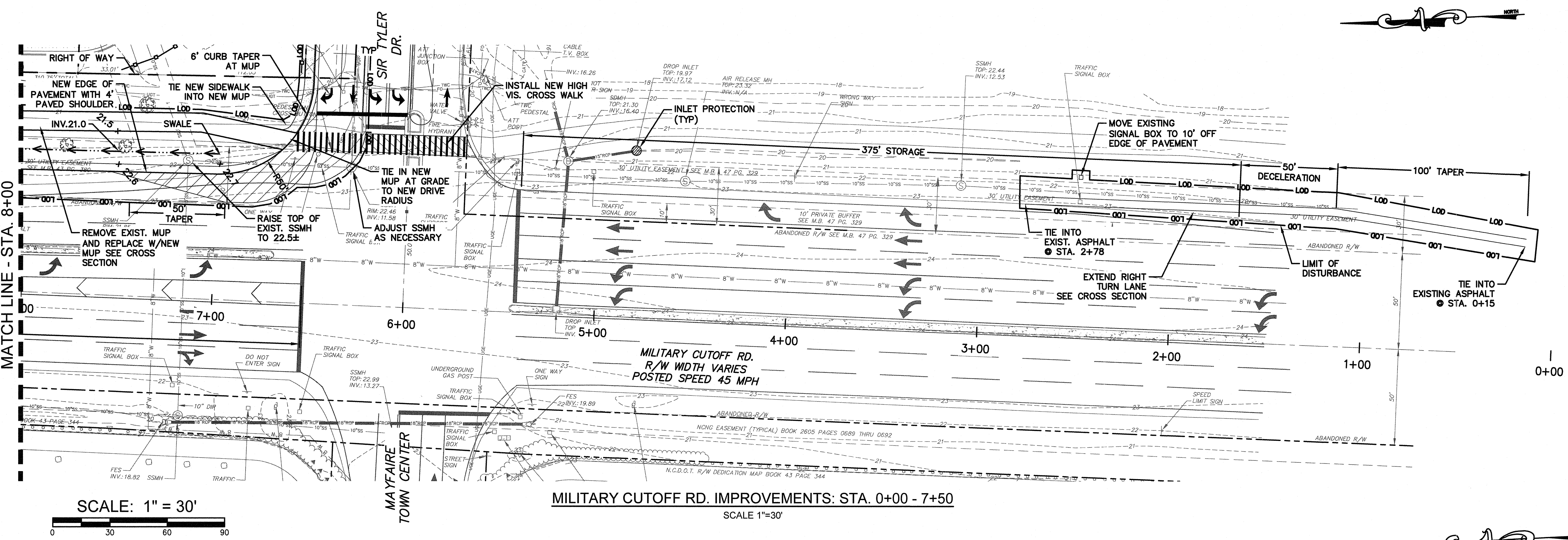
DEVELOPER
RAIFORD G. TRASK, III,
PRESIDENT
TRASK LAND COMPANY, INC.
1202 EASTWOOD RD.
WILMINGTON, NC 28403
910-799-8755 (PHONE)
910-799-8755 (FAX)

NORRIS & TUNSTALL
CONSULTING ENGINEERS P.C.
1429 ASH-LITTLE RIVER RD. NW
WILMINGTON, NC 28401
PHONE (910) 343-9655

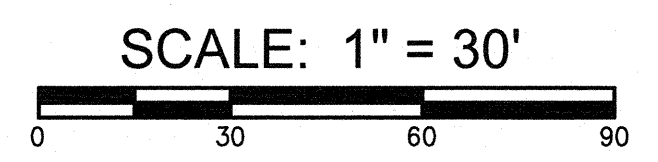
License #C-3641
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DES. JST
CHK. JPN
DRAWN. SLF
DATE: 01/16/2018



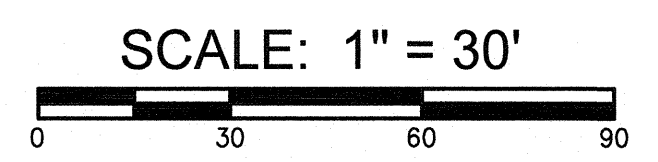
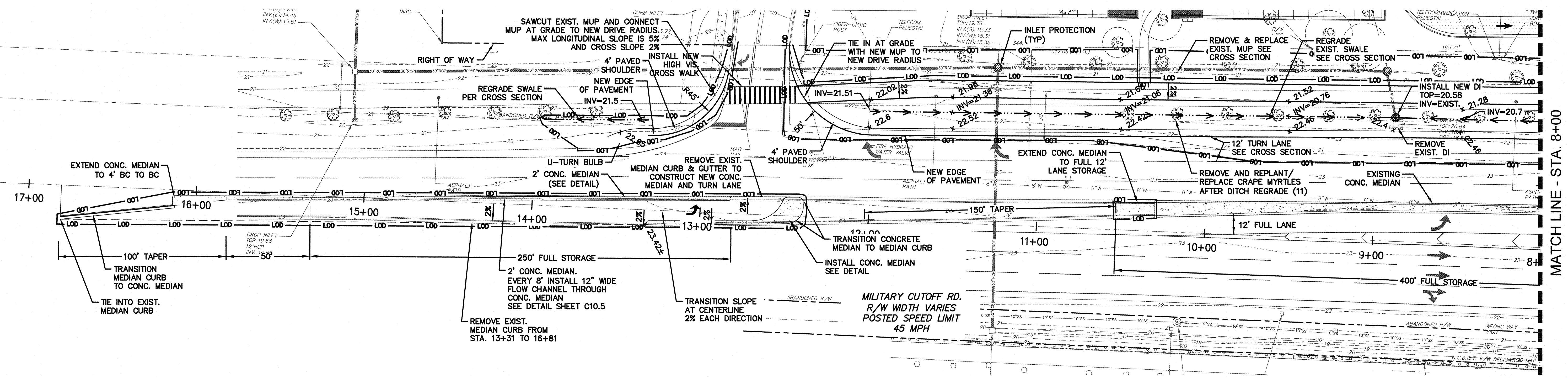
C10.1



NOTE:
SIGNAL PLAN BY
DAVENPORT ENGINEERING



MILITARY CUTOFF RD. IMPROVEMENTS: STA. 0+00 - 7+50
SCALE 1"=30'



MILITARY CUTOFF RD. IMPROVEMENTS: STA. 7+50 - 15+00
SCALE 1"=30'

LEGEND

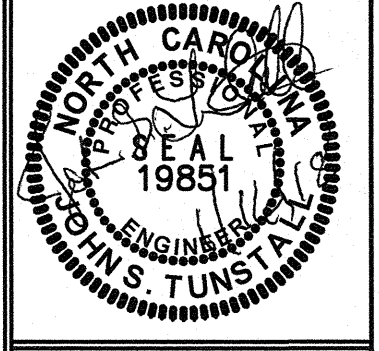
---	PROPERTY BOUNDARY
---	PROPOSED CONTOUR
---	PROPOSED CURB & GUTTER
---	PROPOSED STORMDRAIN PIPE
---	TEMPORARY SILT FENCE
---	LIMIT OF DISTURBANCE
x 23.0	PROPOSED FINISHED GRADE SPOT ELEVATION
⊙	PROPOSED CURB INLET WITH PROTECTION (CI)
⊙	PROPOSED DROP INLET WITH PROTECTION (DI)
⊙	PROPOSED JUNCTION BOX WITH PROTECTION (JB)
⊙	PROPOSED OUTFALL STRUCTURE WITH PROTECTION
⊙	EXISTING TREE TO BE PROTECTED
⊙	EXISTING TREE TO BE REMOVED

OFFSITE IMPROVEMENTS -
MILITARY CUTOFF RD.
RENAISSANCE MARKET
927 MILITARY CUTOFF RD.
WILMINGTON, N. C.

DEVELOPER
RAIFORD G. TRASK, III,
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CONSULTING ENGINEERS P.C.
1429 ASH-LITTLE RIVER RD. NW
ASH, NC 28420
PHONE (910) 345-9653

License #C-3641
17120
DES. JST
CRD. JPN
DRAWN. SLF
DATE: 01/16/2018



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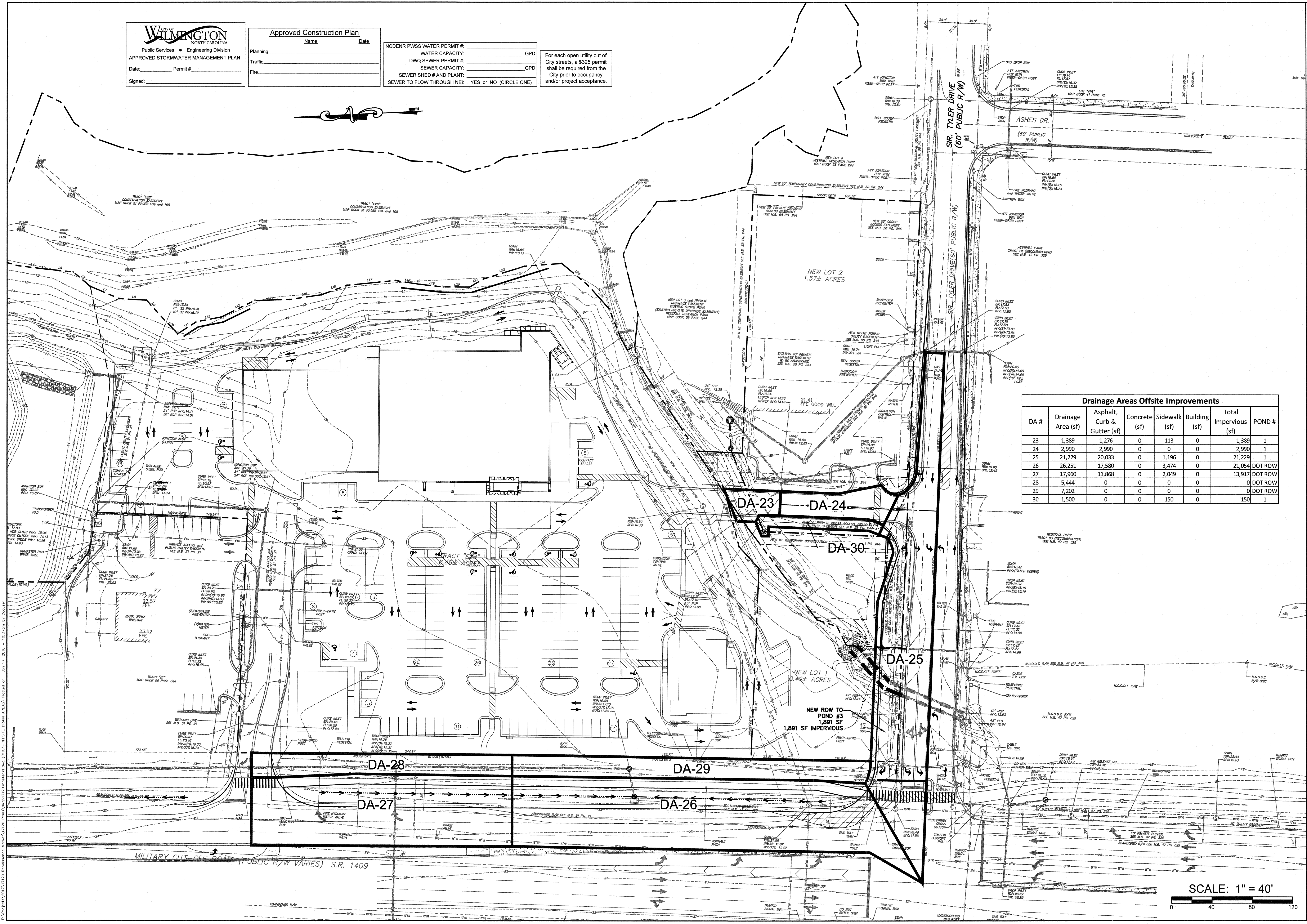
City of **WILMINGTON**
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____

Approved Construction Plan
Name: _____ Date: _____
Planning: _____
Traffic: _____
Fire: _____

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES OR NO (CIRCLE ONE)

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and/or project acceptance.

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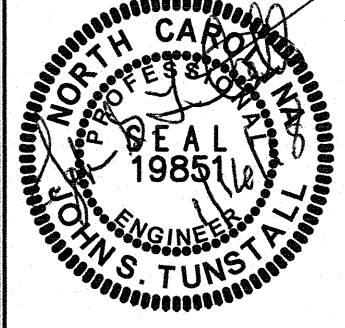
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23	1,389	1,276	0	113	0	1,389	1
24	2,990	2,990	0	0	0	2,990	1
25	21,229	20,033	0	1,196	0	21,229	1
26	26,251	17,580	0	3,474	0	21,054	DOT ROW
27	17,960	11,868	0	2,049	0	13,917	DOT ROW
28	5,444	0	0	0	0	0	DOT ROW
29	7,202	0	0	0	0	0	DOT ROW
30	1,500	0	0	150	0	150	1

**OFFSITE IMPROVEMENTS
 DRAINAGE AREA PLAN
 RENAISSANCE MARKET
 927 MILITARY CUTOFF RD.
 WILMINGTON, N. C.**

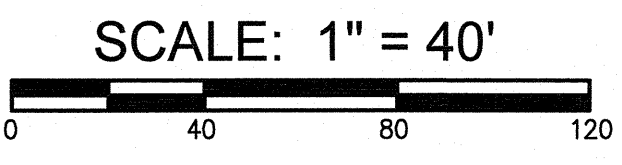
DEVELOPER
 RAIFORD G. TRASK, III,
 PRESIDENT
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 1202 EASTWOOD RD.
 WILMINGTON, NC 28403
 910-799-8755 (PHONE)
 910-799-8785 (FAX)

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 1429 ASHLITTLE RIVER RD. NW
 ASHEBORO, NC 28601
 PHONE (910) 343-9653

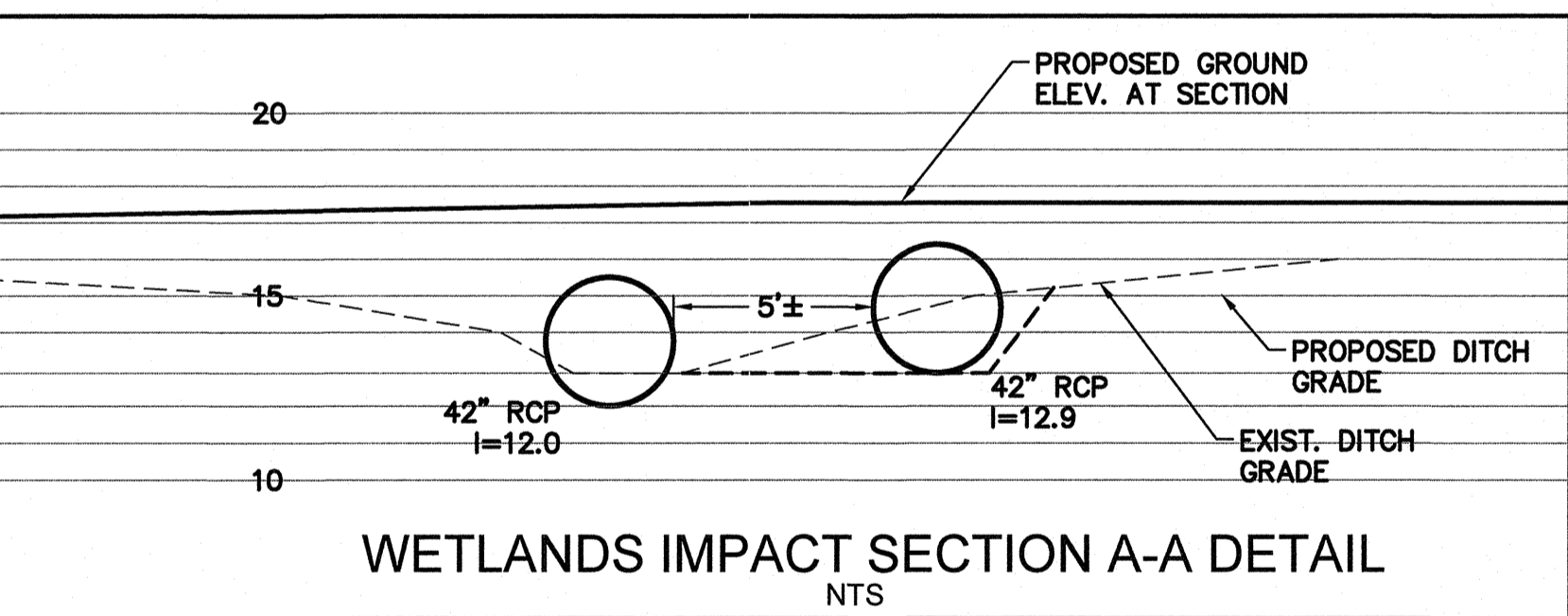
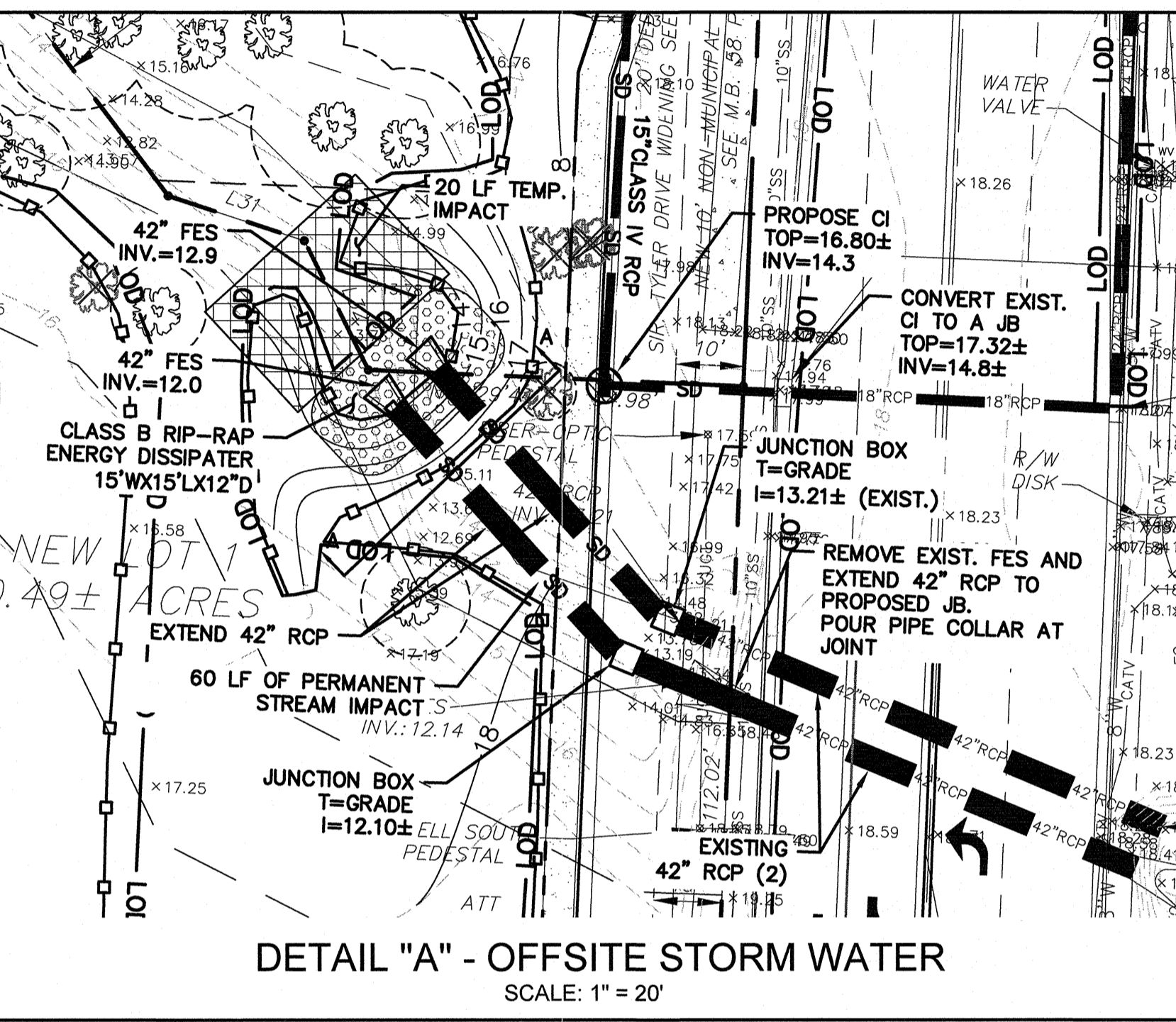
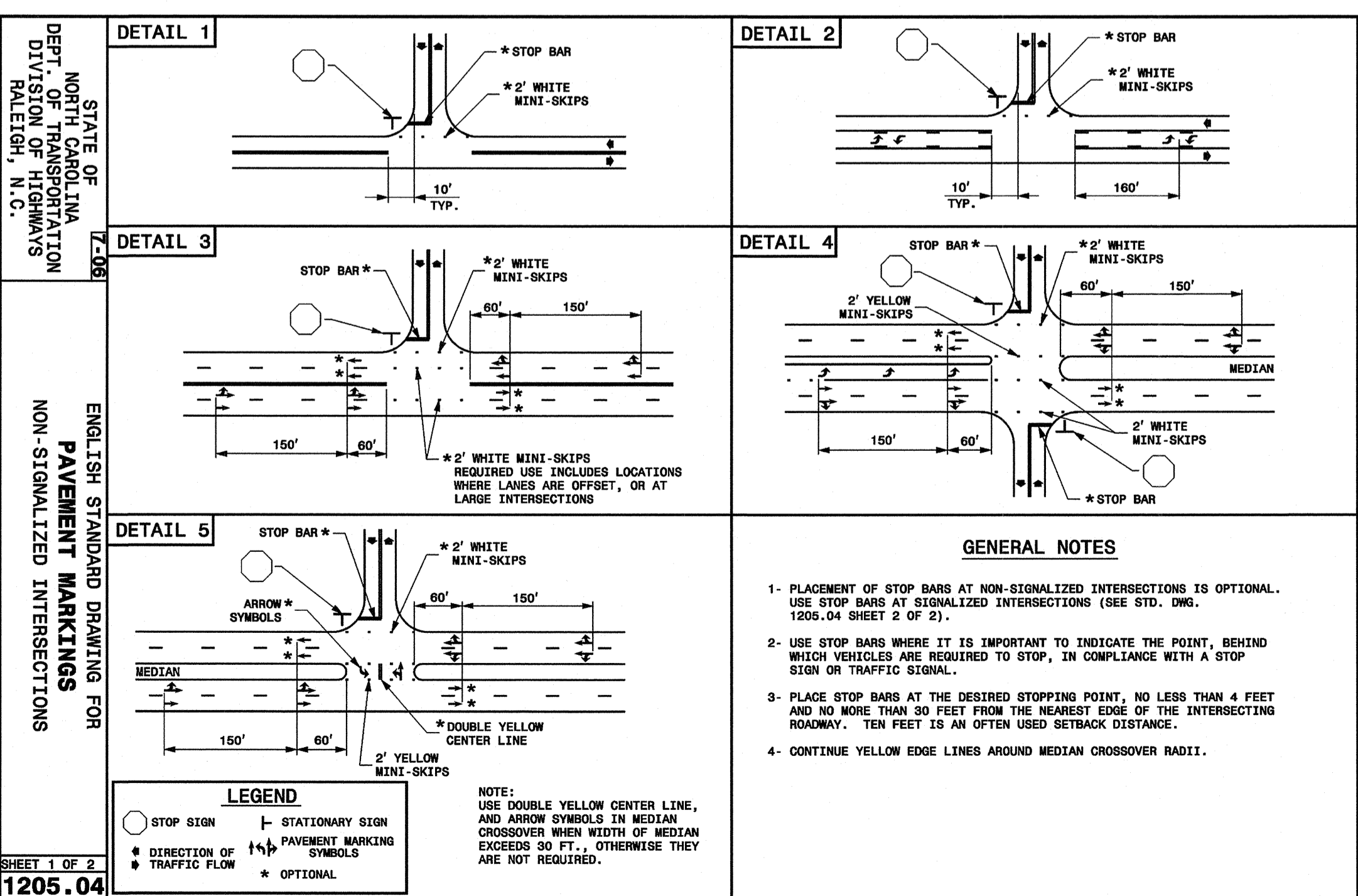
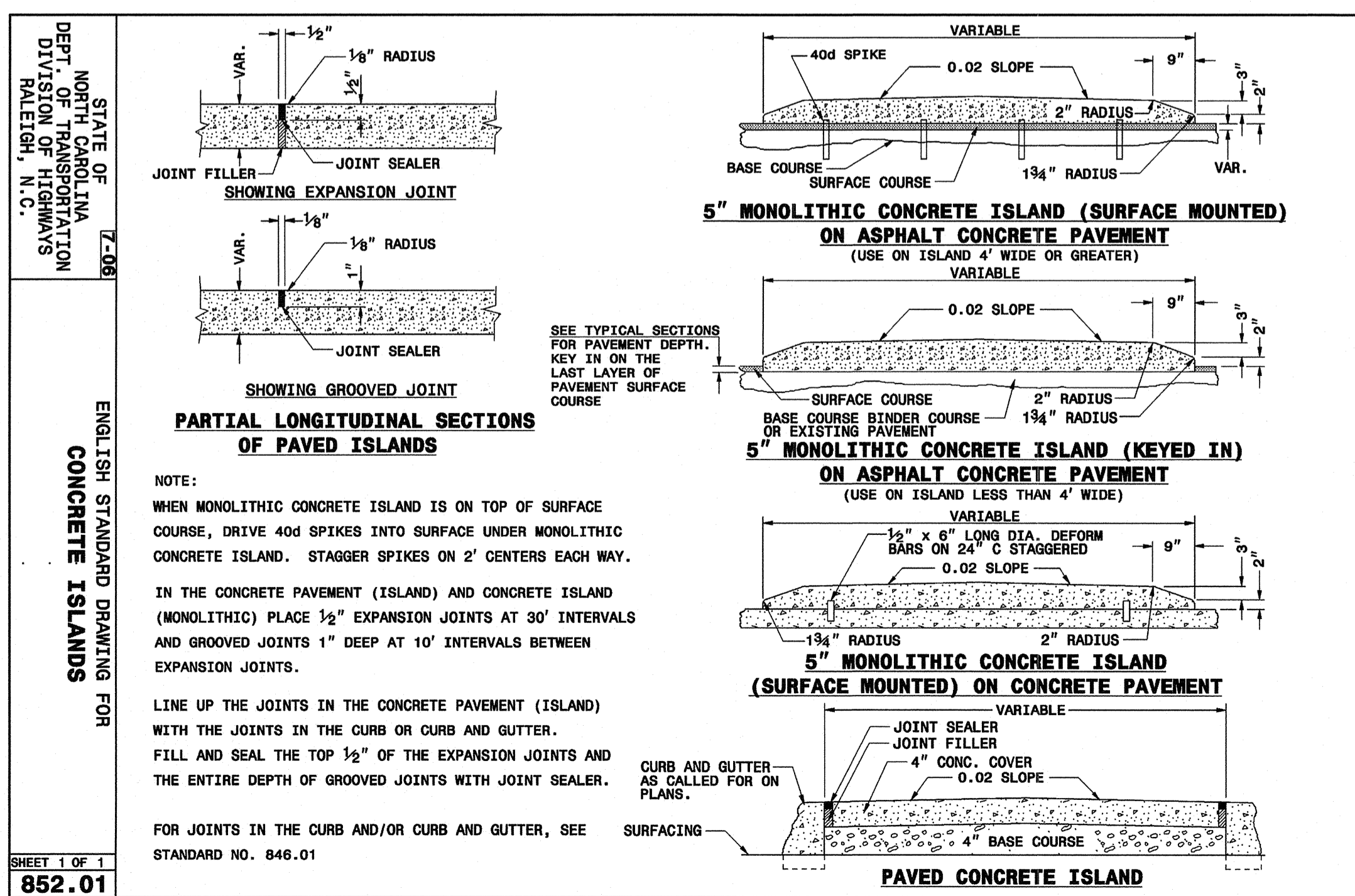
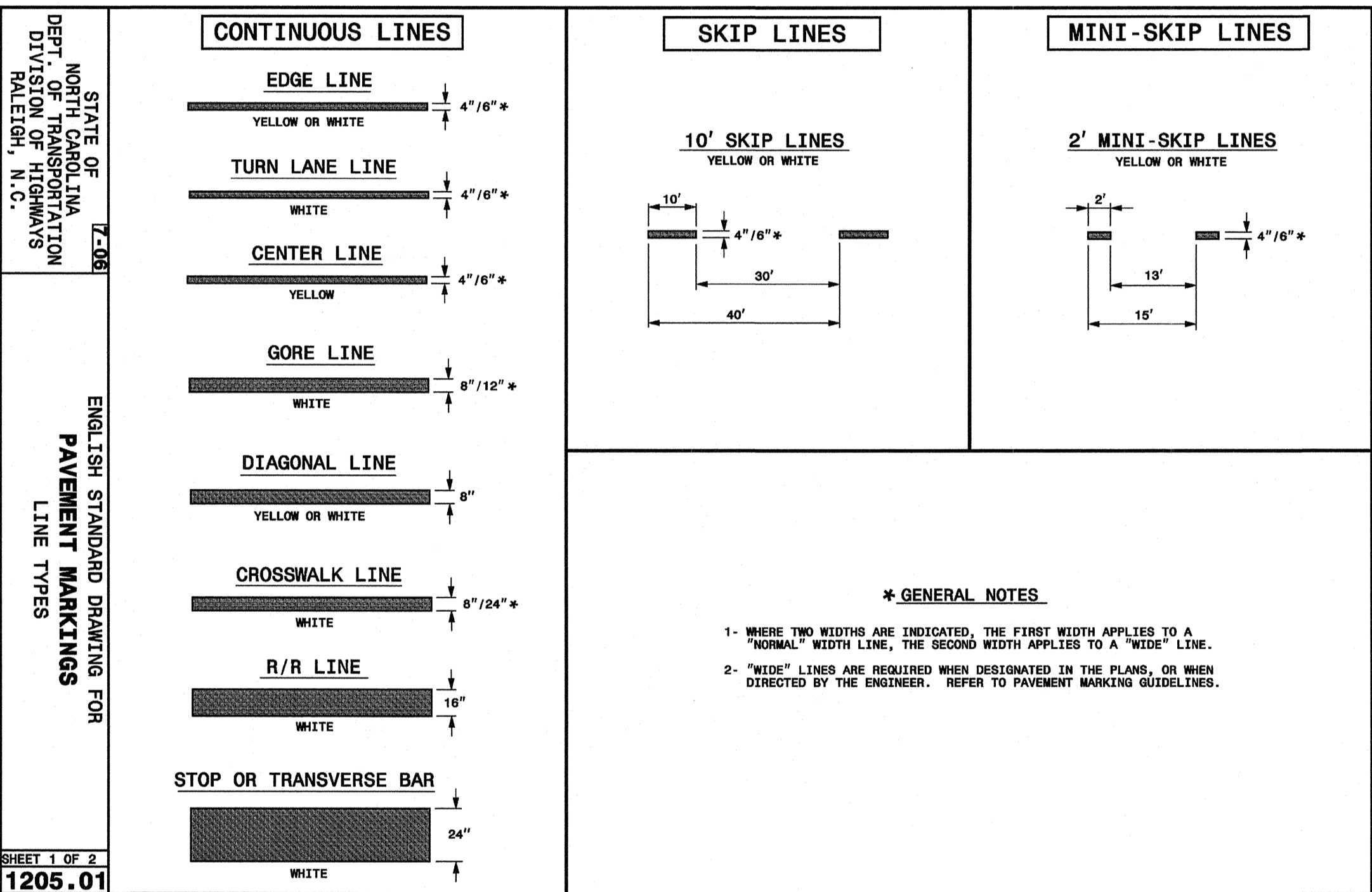
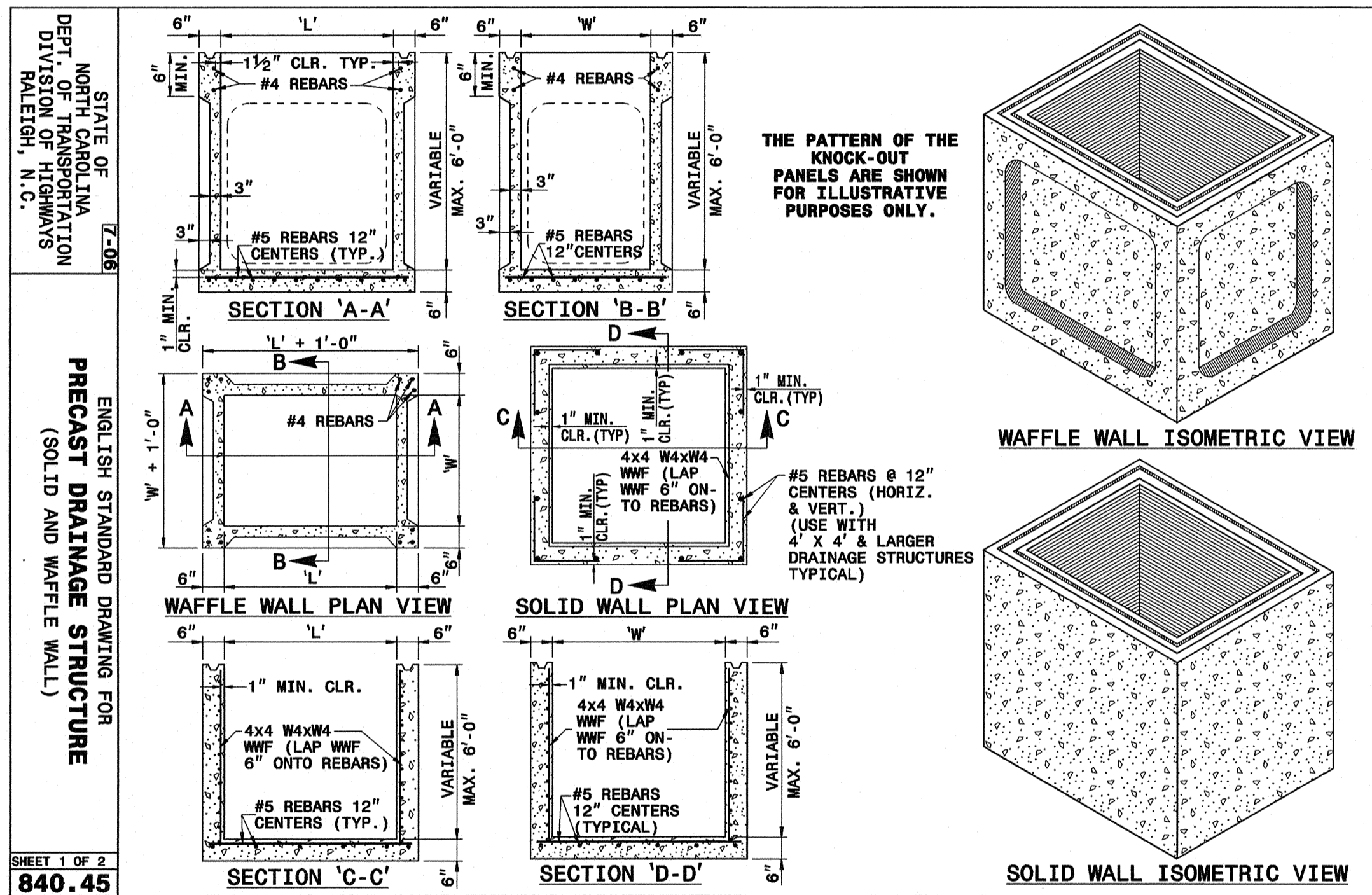
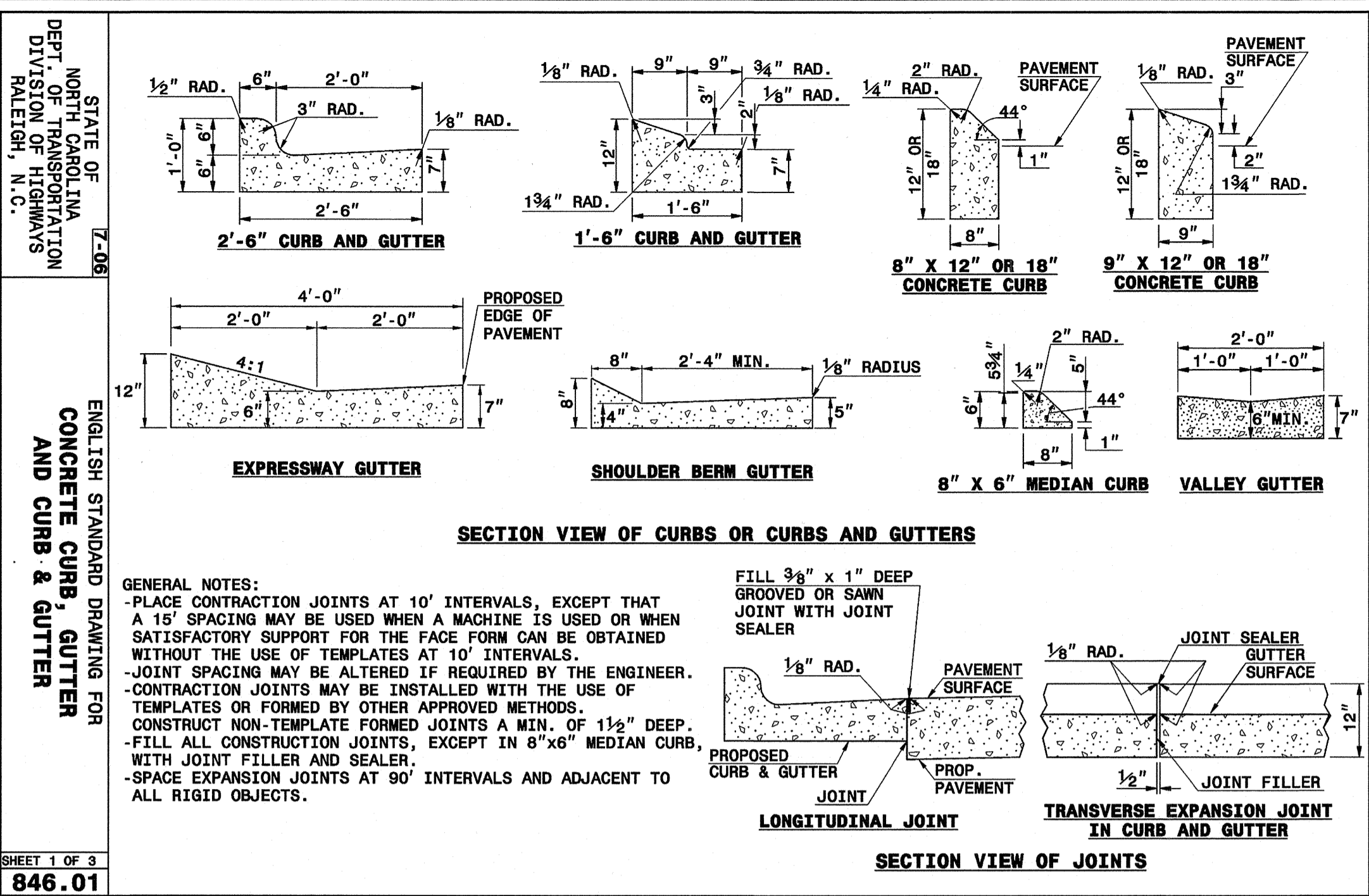
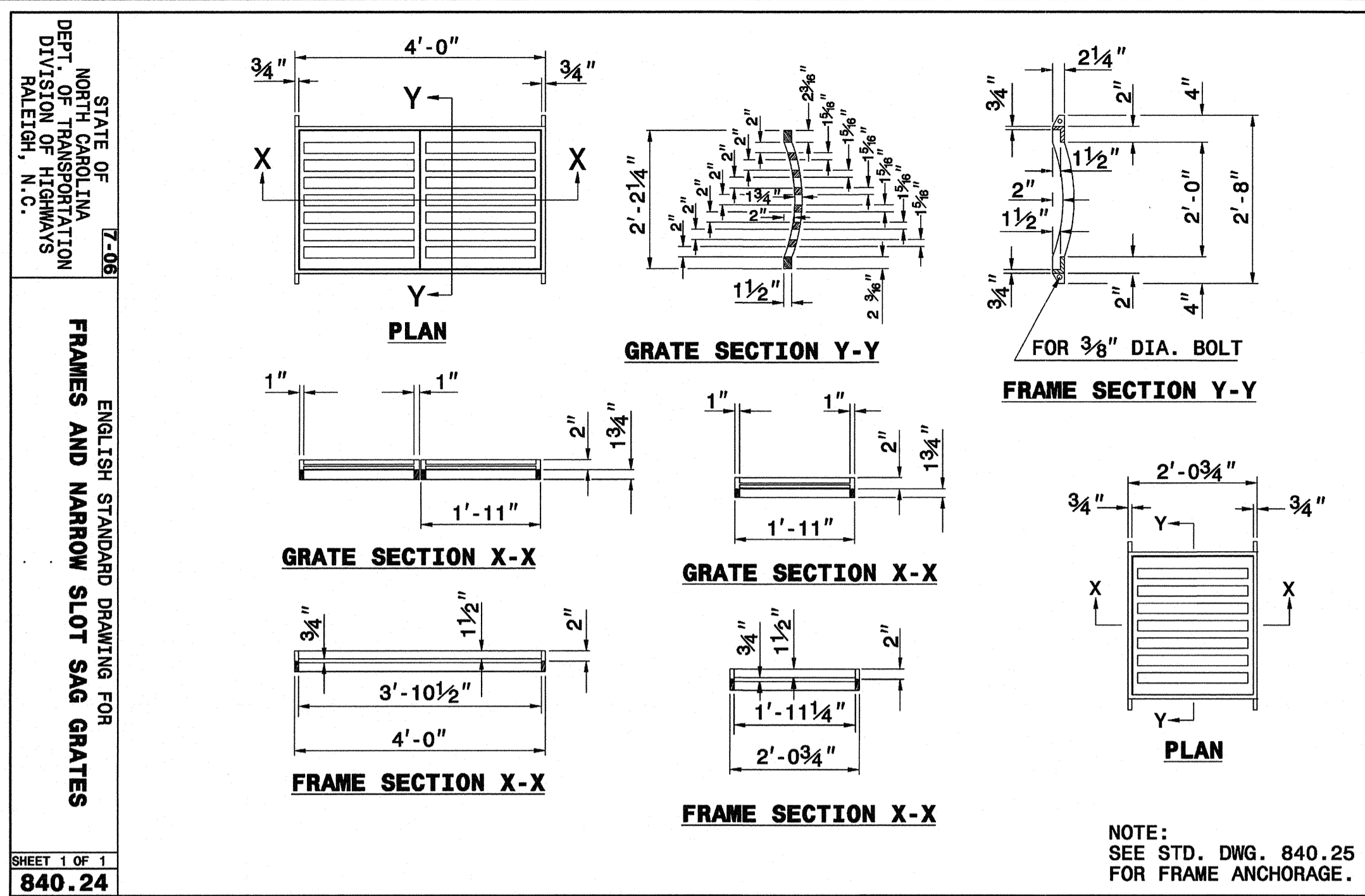
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 DES. JUST
 CDD. JPN
 DRAWN. SLF
 DATE: 01/16/2018



C10.3



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NC DENR PWSS WATER PERMIT # _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT # _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES OR NO (CIRCLE ONE)

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

Approved Construction Plan
Name: _____ Date: _____

Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____

Planning _____
Traffic _____
Fire _____

OFFSITE IMPROVEMENTS DETAILS
RENAISSANCE MARKET
927 MILITARY CUTOFF RD.
WILMINGTON, N. C.

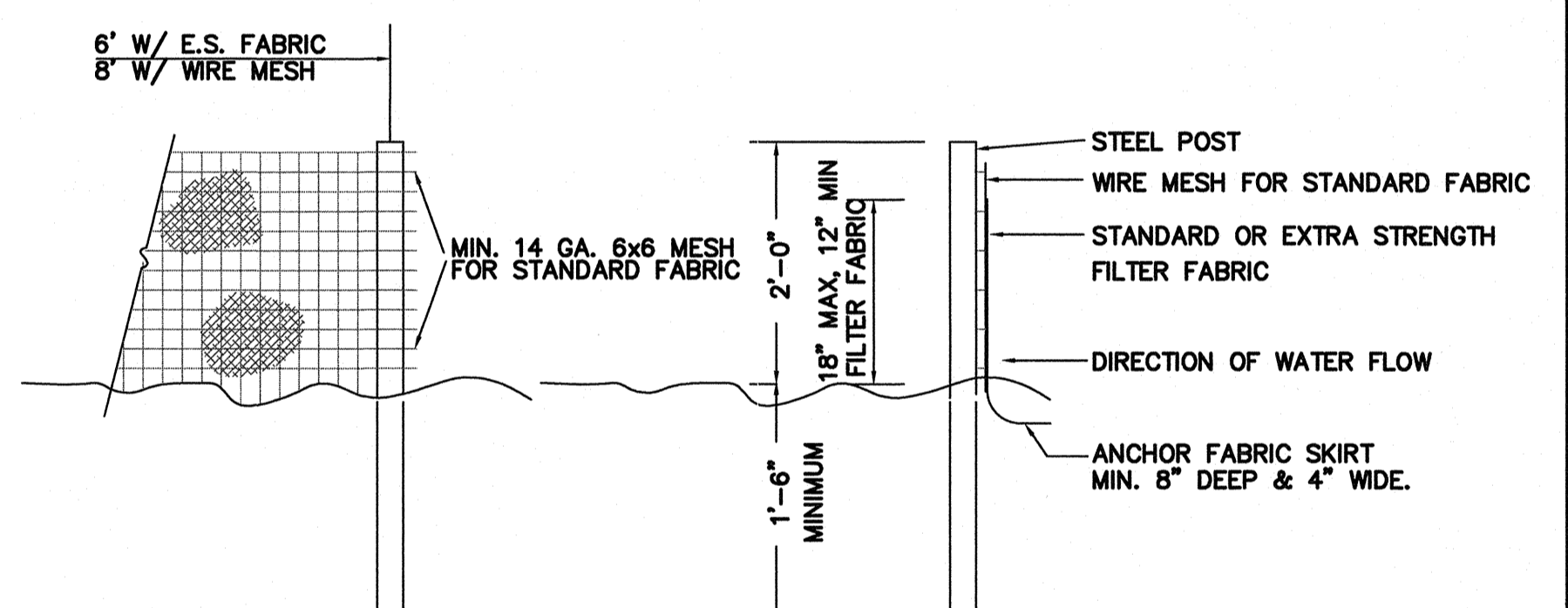
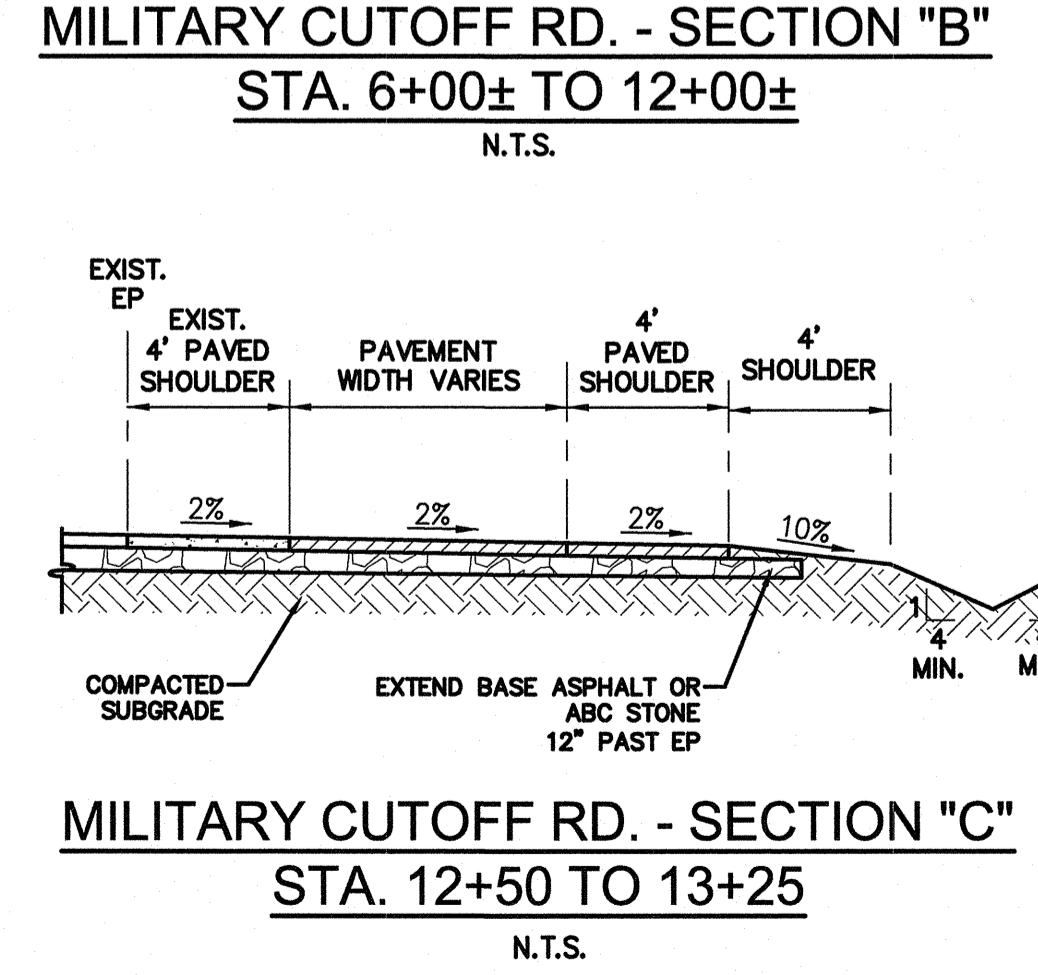
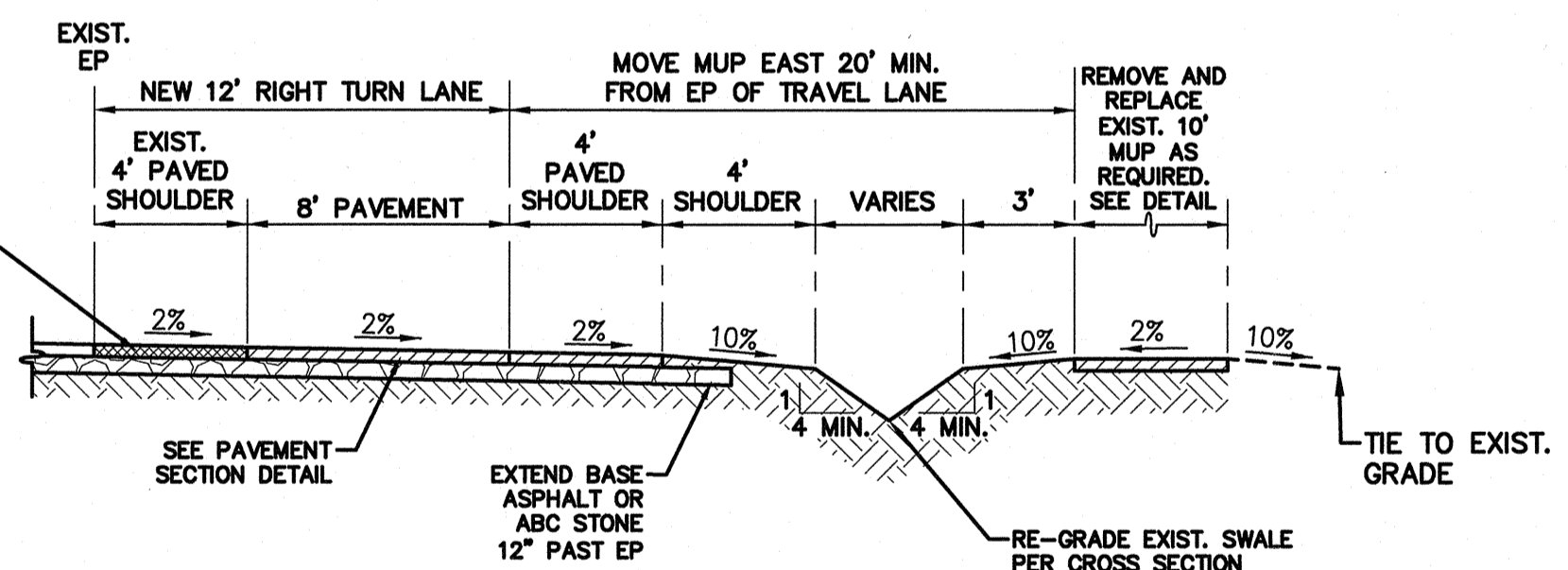
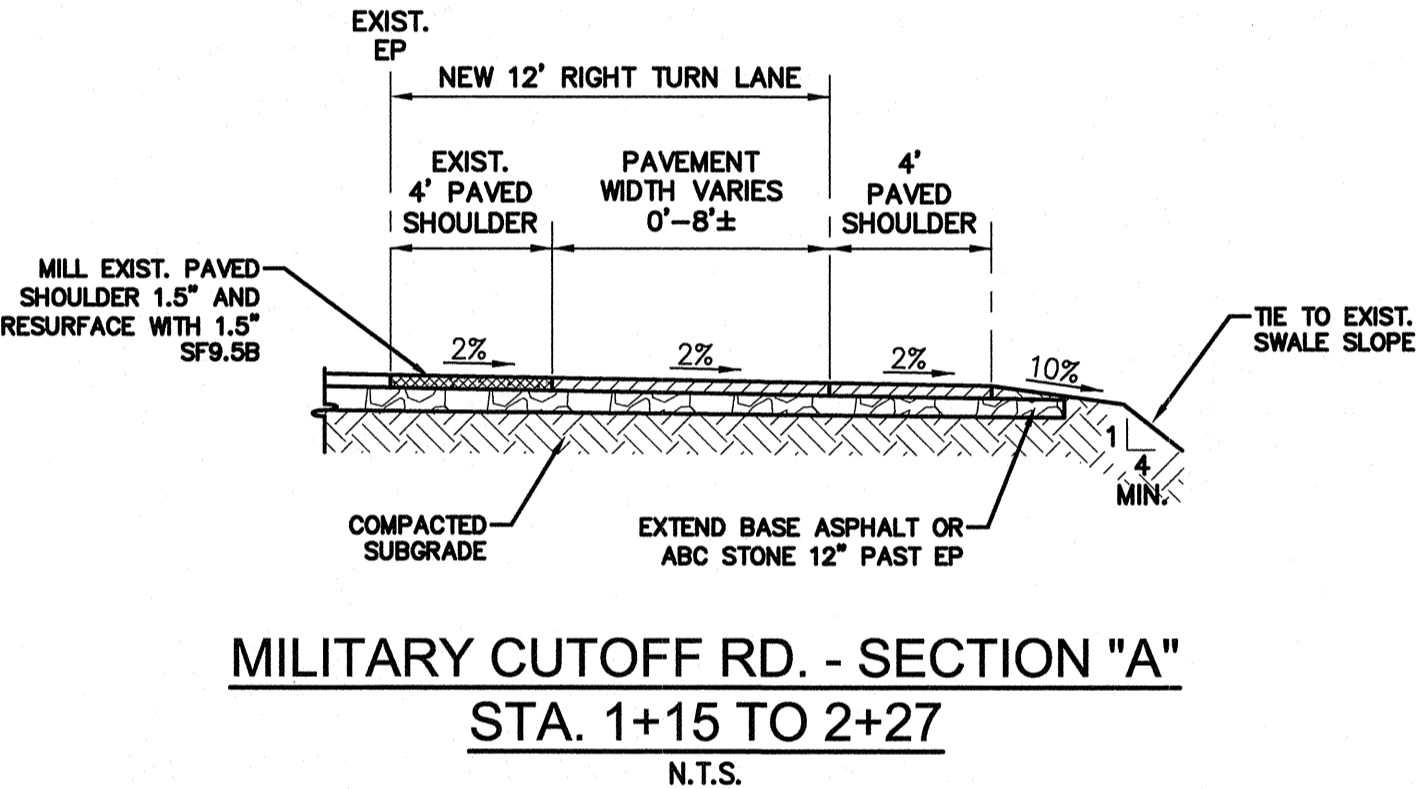
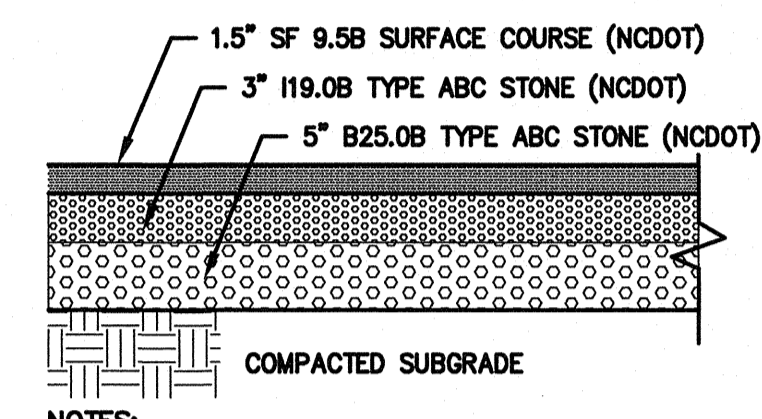
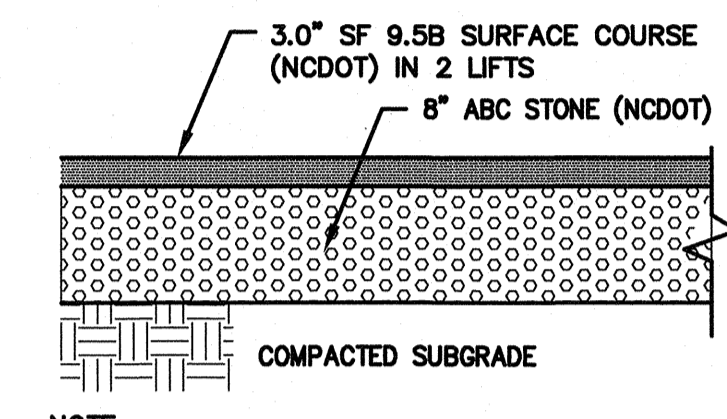
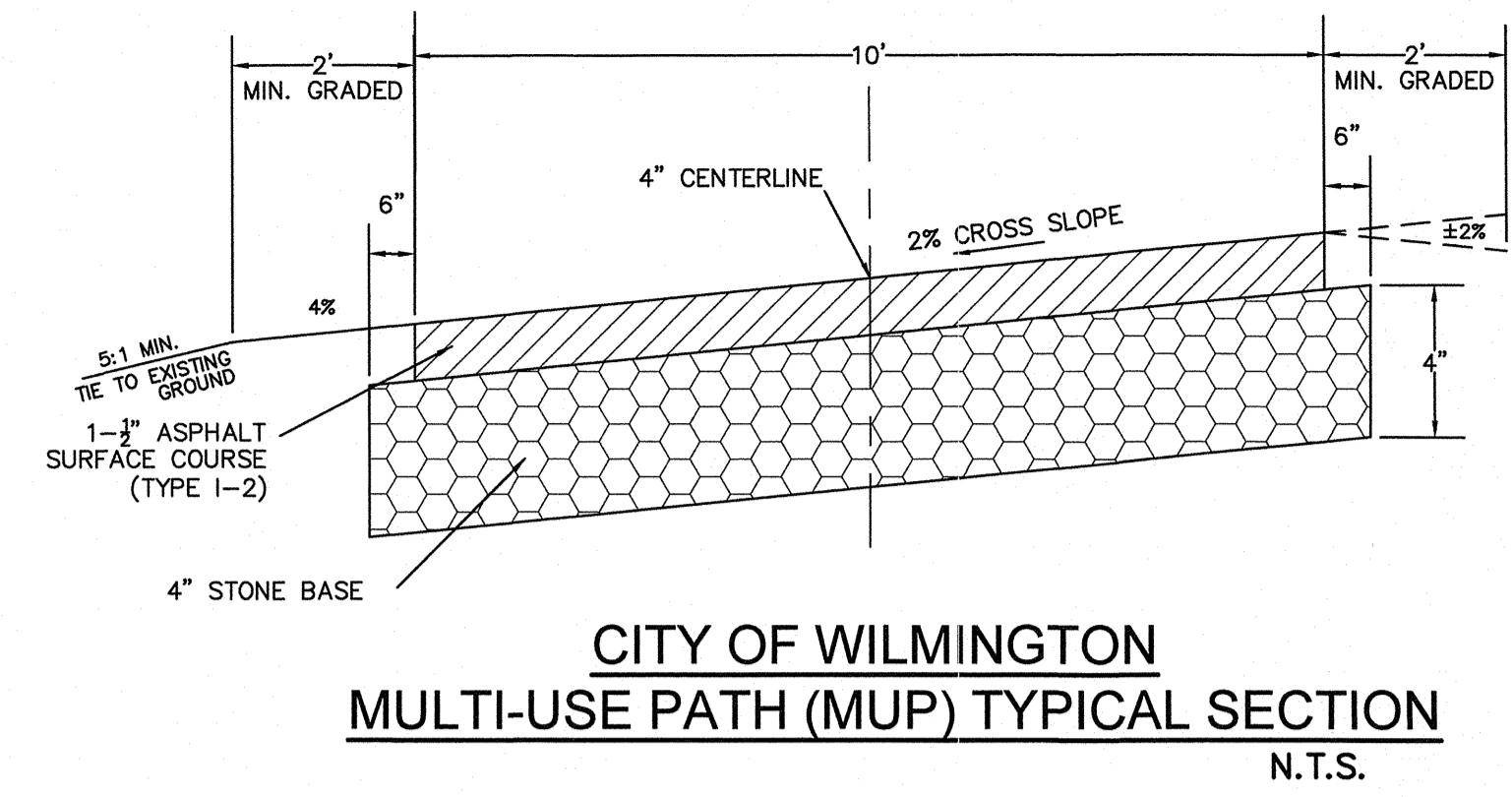
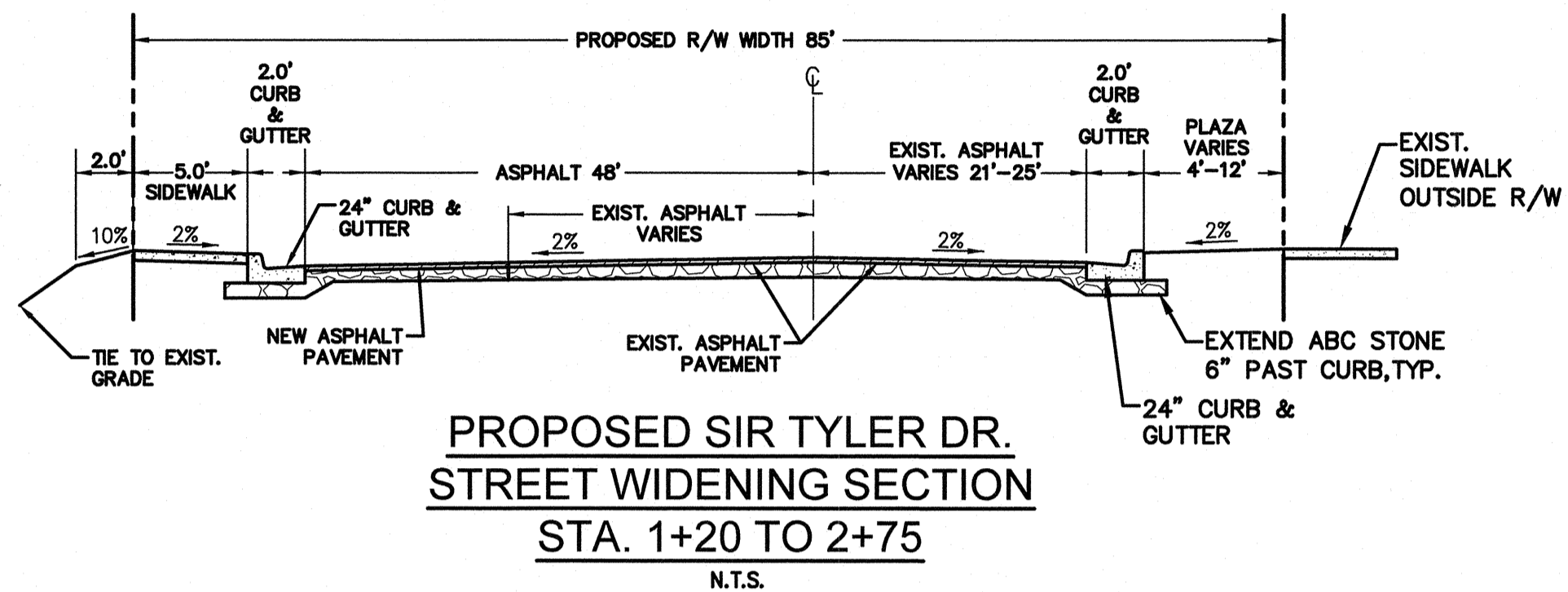
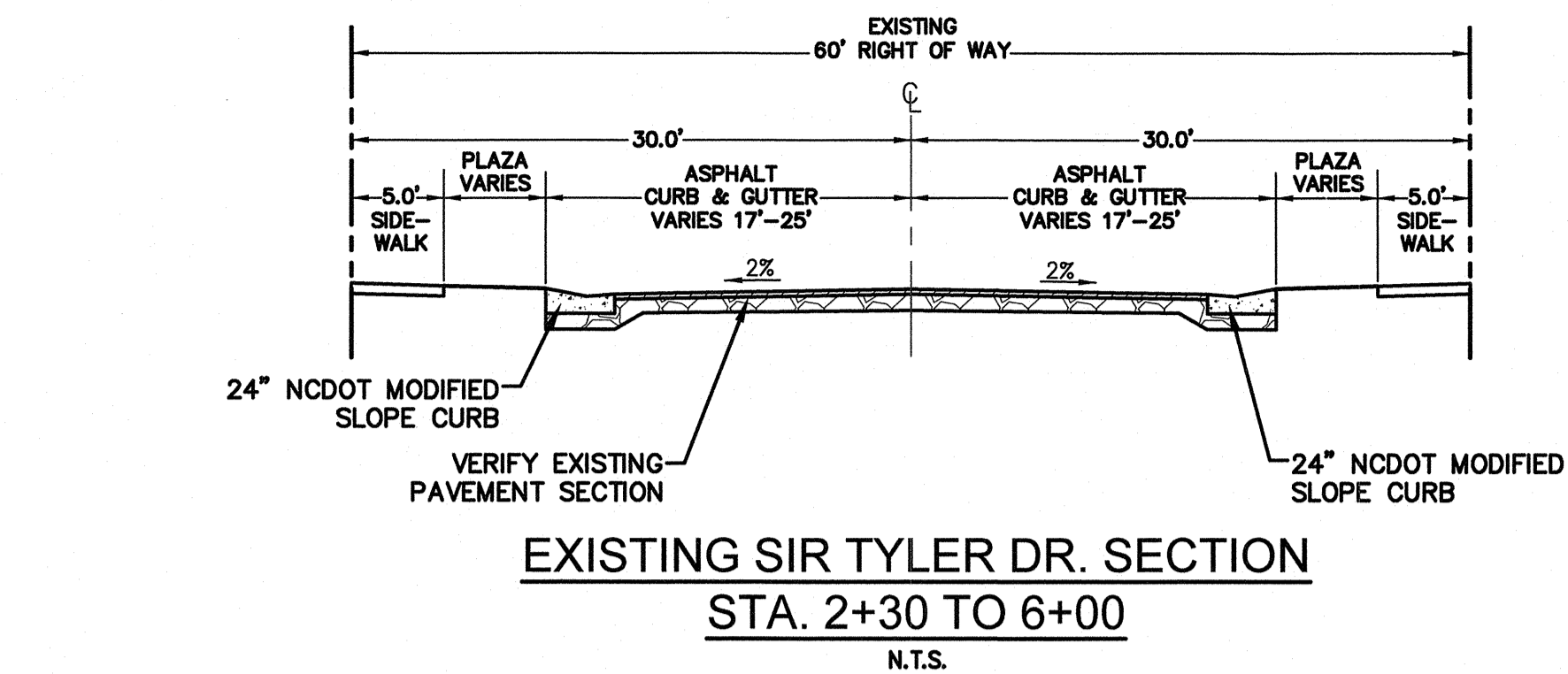
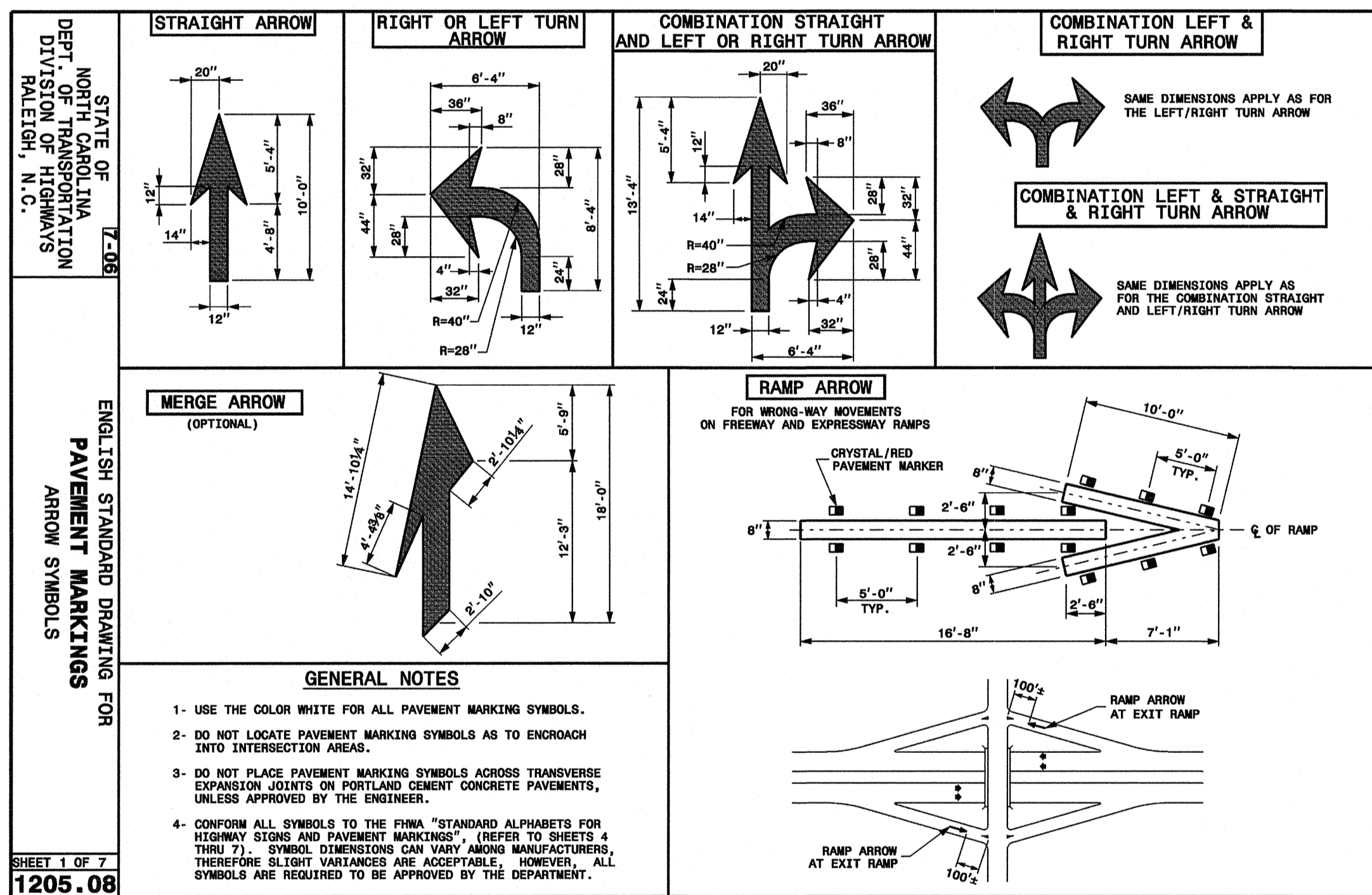
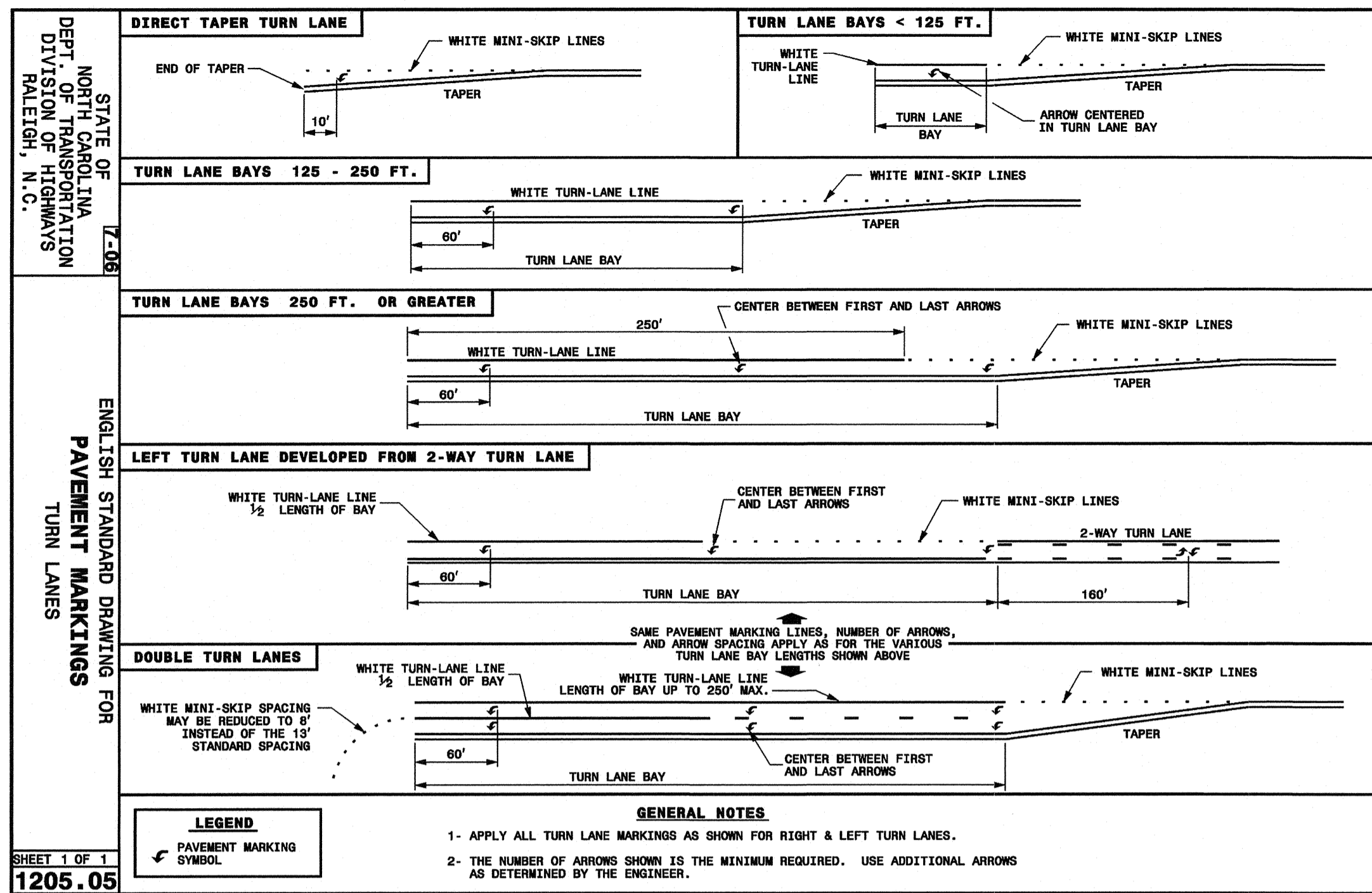
DEVELOPER
RAIFORD G. TRASK, III.
PRESIDENT
TRASK LAND COMPANY, INC.
1202 EASTWOOD RD.
WILMINGTON, NC 28403
910-799-8755 (PHONE)
910-799-8785 (FAX)

NORRIS & TUNSTALL
CONSULTING ENGINEERS P.C.
Licence #C-3641
1429 ASH-LITTLE RIVER RD. NW
WILMINGTON, NC 28401
PHONE (910) 345-9653

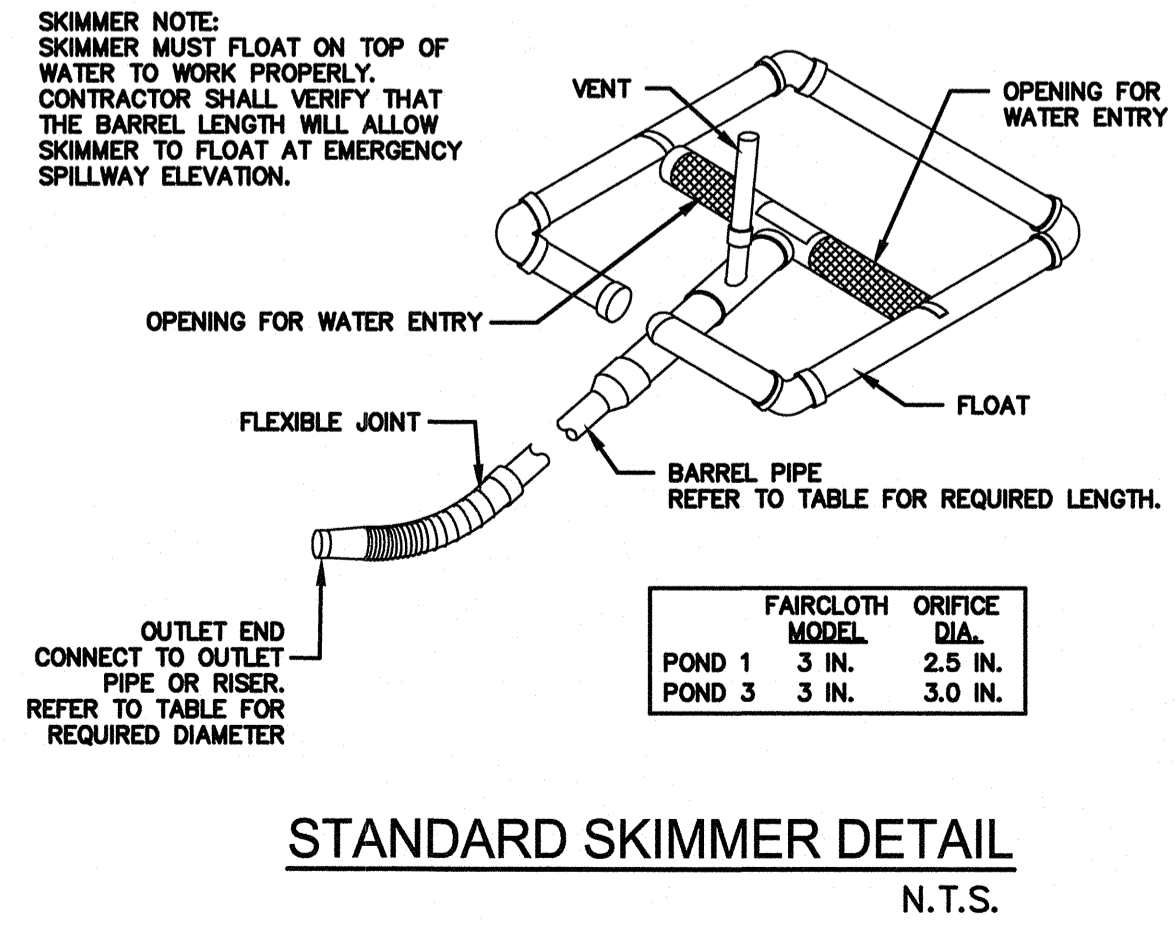
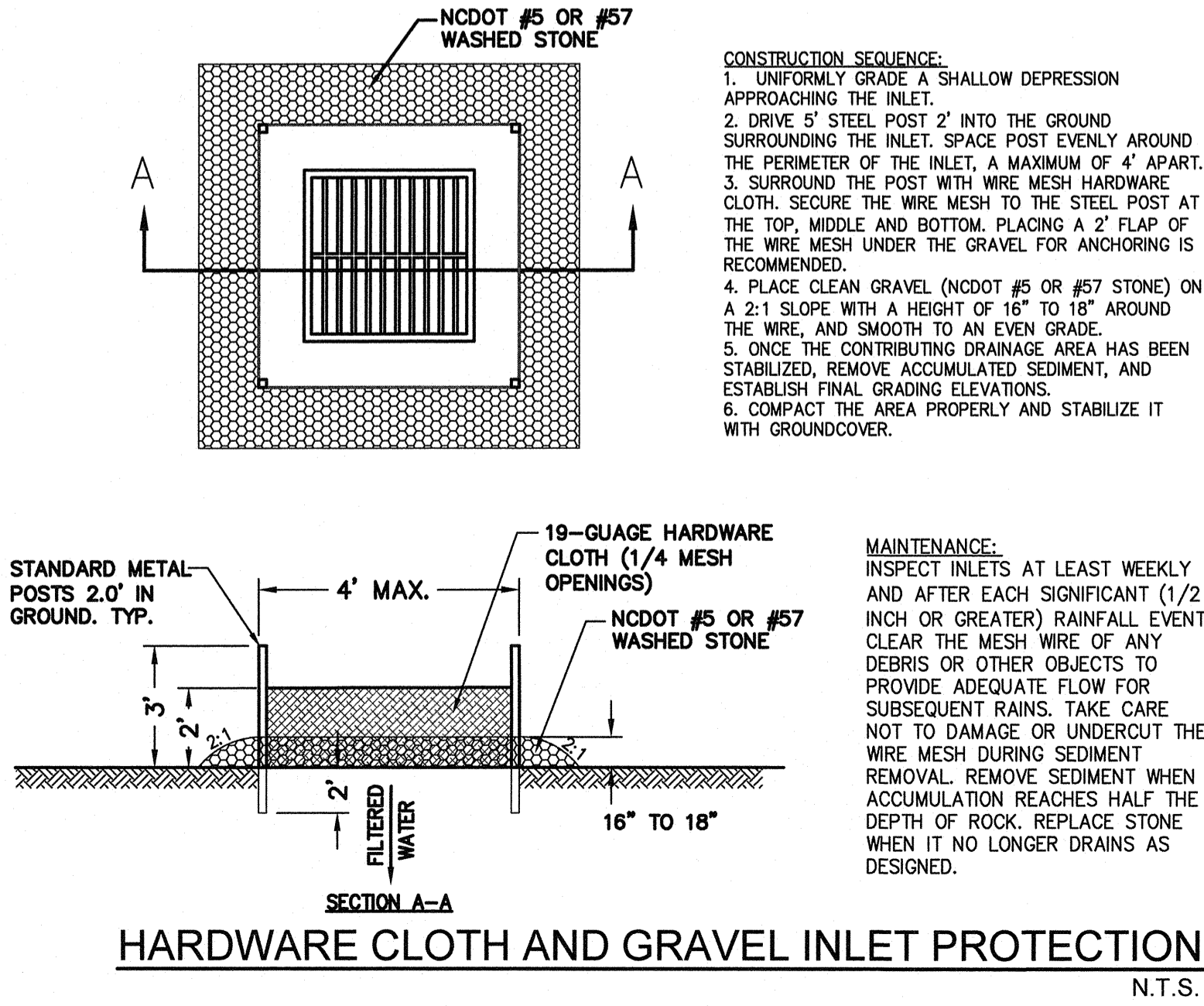
17120
DES. JST
CHK. JPN
DRAWN. SLF
DATE: 01/16/2018



C10.4



- NOTES:**
- 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.
 - FABRIC SHALL BE CONTINUOUS LENGTH. IF JOINTS ARE NECESSARY, LAP FABRIC POST TO POST.
 - STEEL POST SHALL BE MIN 4" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.



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

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

Approved Construction Plan
Name: _____ Date: _____
Planning: _____
Traffic: _____
Fire: _____

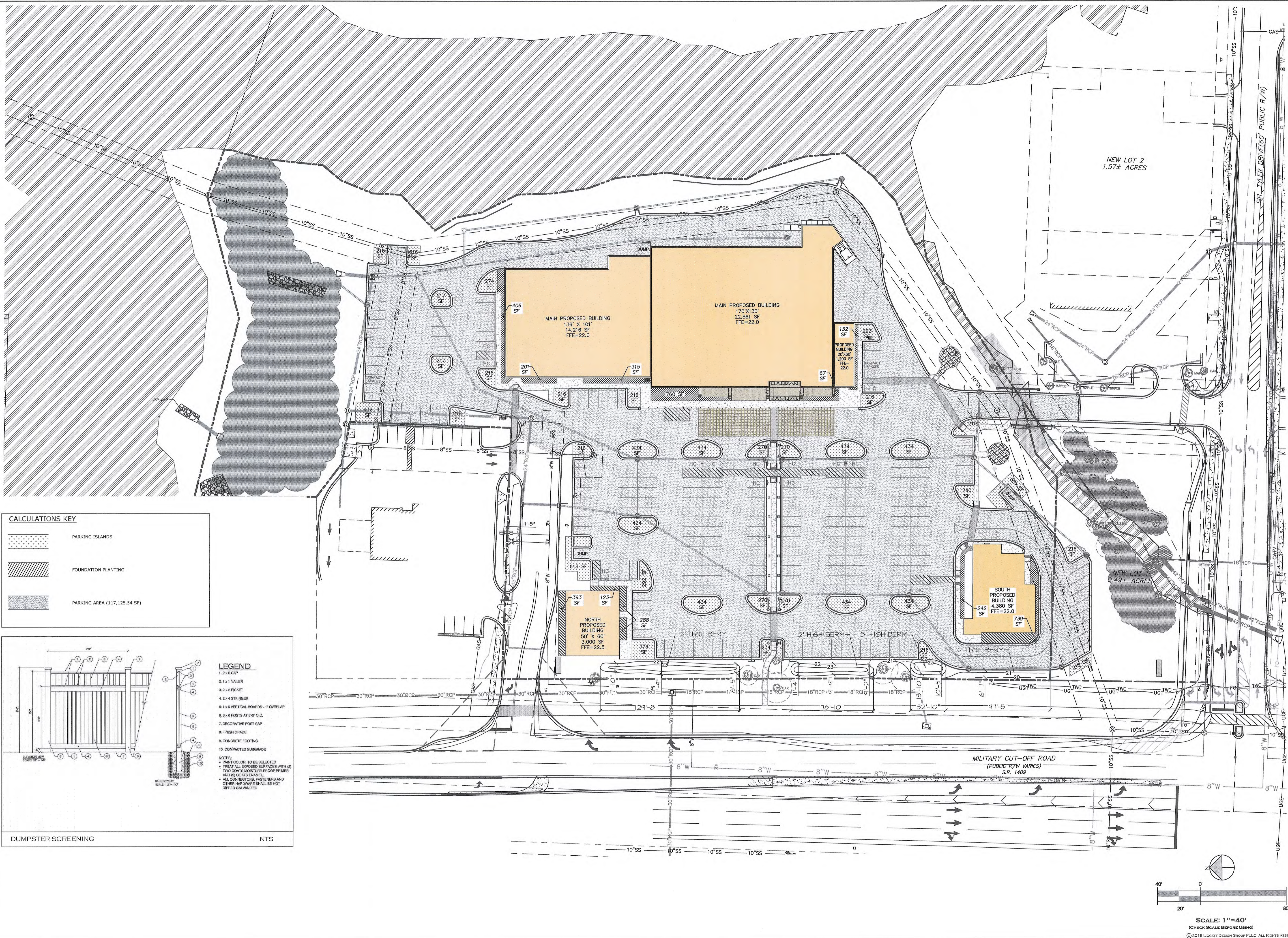
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NORRIS & TUNSTALL
CONSULTING ENGINEERS P.C.
1429 ASHLITTLE RIVER RD. NW
ATLANTA, GA 30328
PHONE: (404) 343-3633

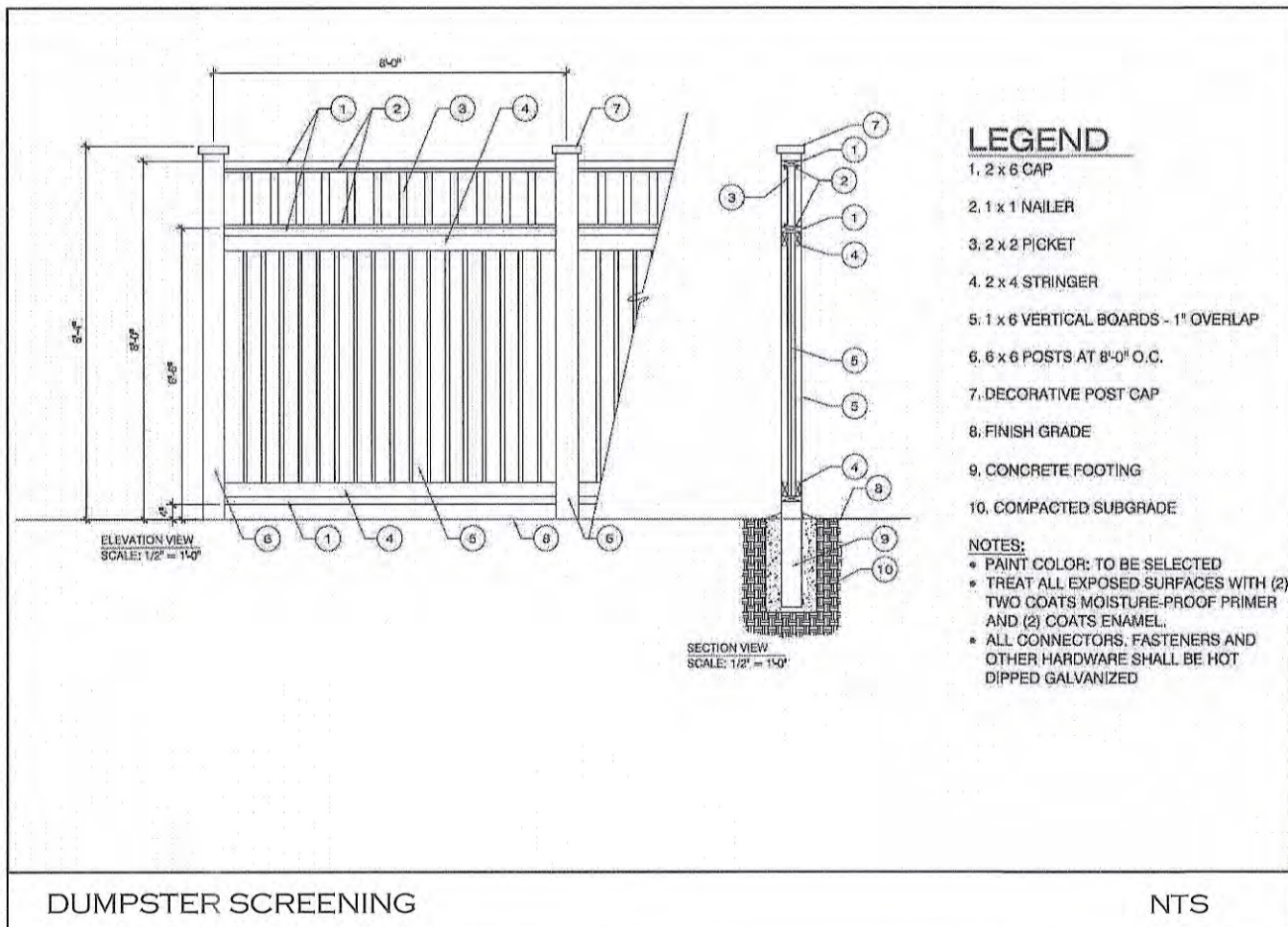
License #C-3641
17120
DES. JUST
CHK. JPN
DRAWN. SLF
DATE: 01/16/2018

C10.5



CALCULATIONS KEY

	PARKING ISLANDS
	FOUNDATION PLANTING
	PARKING AREA (117,125.54 SF)



LIGGETT DESIGN GROUP
 LANDSCAPE ARCHITECTURE
 SITE PLANNING & DESIGN

7254 PENDING ROAD RALEIGH, NC 27608
 PHONE 919.833.0203 FAX 919.833.1116
 WWW.LIGGETTDESIGNGROUP.COM

ENGINEER:
 NORRIS & TUNSTALL
 902 MARKET ST. WILMINGTON, NC
 (910) 343-9653

DEVELOPER:
 RAIFORD G. TRASK, III, PRESIDENT
 TRASK LAND COMPANY, INC.
 1203 EASTWOOD RD
 WILMINGTON, NC 28403
 (910) 799-8785



NOT APPROVED FOR
 CONSTRUCTION UNLESS SIGNED
 BY LANDSCAPE ARCHITECT

CLIENT

RENAISSANCE NORTH MARKET
 MILITARY CUTOFF ROAD
 WILMINGTON, NORTH CAROLINA

ISSUED FOR:
SUBMITTAL

ISSUED DATE:
11/3/2017

REVISIONS:

NO.	ITEM	DATE
1	ROUND 1 CITY COMMENTS	1/12/18

DRAWING TITLE:
LANDSCAPE CALCULATIONS PLAN

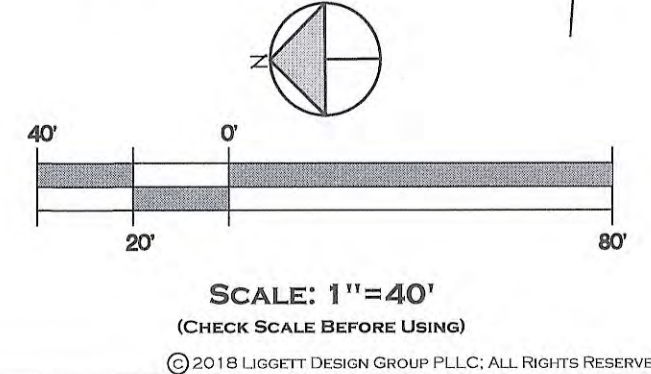
DRAWN BY: **RW/WAB**

CHECKED BY: **FL**

SCALE: **1"=40'**

SHEET NUMBER:

L-1
OF 3



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LIGGETT DESIGN GROUP

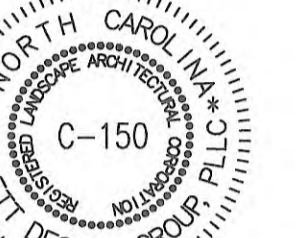
LANDSCAPE ARCHITECTURE
SITE PLANNING & DESIGN

725A PISHING ROAD, RALEIGH, NC 27608
Phone: 919.833.0303 Fax: 919.833.1116
MAIL@LIGGETTDESIGNGROUP.COM

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DEVELOPER:
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(910) 799-8785

SEALS/SIGNATURE



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BY LANDSCAPE ARCHITECT

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RENAISSANCE NORTH MARKET
MILITARY CUTOFF ROAD
WILMINGTON, NORTH CAROLINA

ISSUED FOR:
SUBMITTAL

ISSUED DATE:
11/3/2017

REVISIONS:

NO.	ITEM	DATE
1	ROUND 1 CITY COMMENTS	1/12/18

DRAWING TITLE:

LANDSCAPE PLAN

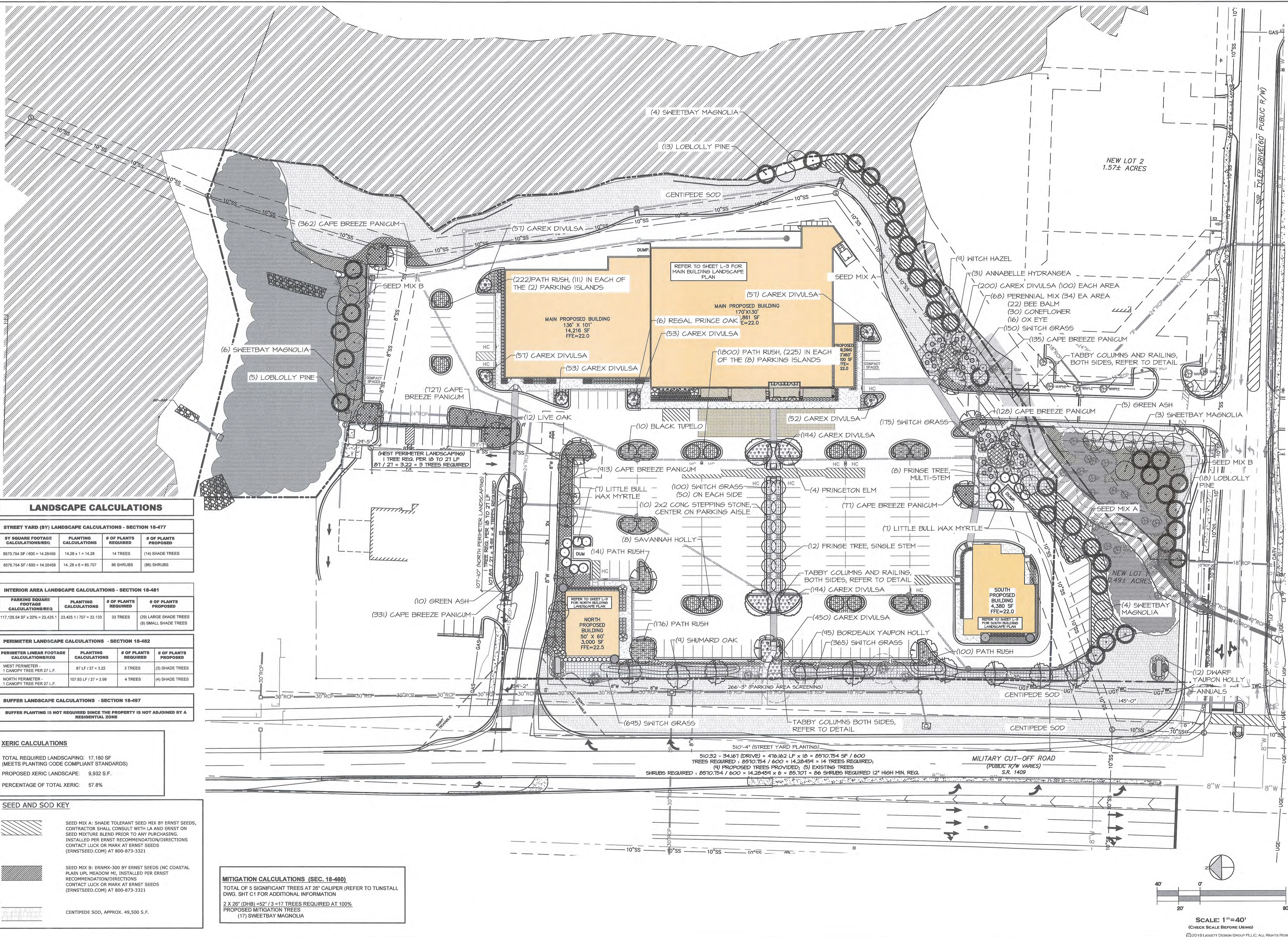
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CHECKED BY: FL

SCALE: 1"=40'

SHEET NUMBER:

L-2
OF 3



LANDSCAPE CALCULATIONS

STREET YARD (SY) LANDSCAPE CALCULATIONS - SECTION 18-477

BY SQUARE FOOTAGE CALCULATIONS/REQ	PLANTING CALCULATIONS	# OF PLANTS REQUIRED	# OF PLANTS PROPOSED
8570.754 SF / 600 = 14.28459	14.28 x 1 = 14.28	14 TREES	(14) SHADE TREES
8570.754 SF / 600 = 14.28459	14.28 x 6 = 85.707	86 SHRUBS	(86) SHRUBS

INTERIOR AREA LANDSCAPE CALCULATIONS - SECTION 18-481

PARKING SQUARE FOOTAGE CALCULATIONS/REQ	PLANTING CALCULATIONS	# OF PLANTS REQUIRED	# OF PLANTS PROPOSED
117,128.54 SF x 20% = 23,425.71	23,425.71 / 707 = 33.133	33 TREES	(29) LARGE SHADE TREES (8) SMALL SHADE TREES

PERIMETER LANDSCAPE CALCULATIONS - SECTION 18-482

PERIMETER LINEAR FOOTAGE CALCULATIONS/REQ	PLANTING CALCULATIONS	# OF PLANTS REQUIRED	# OF PLANTS PROPOSED
WEST PERIMETER - 1 CANOPY TREE PER 27 LF	87 LF / 27 = 3.22	3 TREES	(3) SHADE TREES
NORTH PERIMETER - 1 CANOPY TREE PER 27 LF	107.83 LF / 27 = 3.99	4 TREES	(4) SHADE TREES

BUFFER LANDSCAPE CALCULATIONS - SECTION 18-497

BUFFER PLANTING IS NOT REQUIRED SINCE THE PROPERTY IS NOT ADJOINED BY A RESIDENTIAL ZONE

XERIC CALCULATIONS

TOTAL REQUIRED LANDSCAPING: 17,180 SF
(MEETS PLANTING CODE COMPLIANT STANDARDS)

PROPOSED XERIC LANDSCAPE: 9,932 S.F.

PERCENTAGE OF TOTAL XERIC: 57.8%

SEED AND SOD KEY

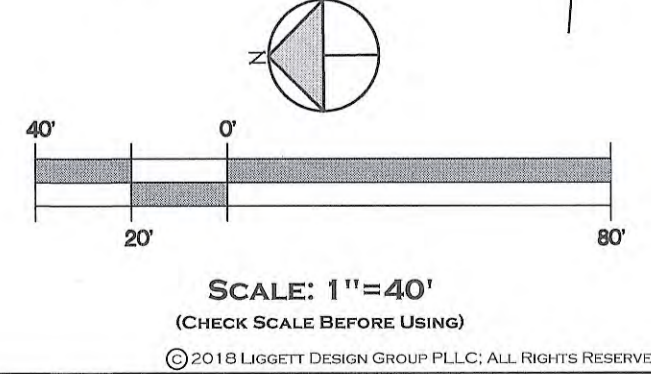
- SEED MIX A: SHADE TOLERANT SEED MIX BY ERNST SEEDS. CONTRACTOR SHALL CONSULT WITH LA AND ERNST ON SEED MIXTURE BLEND PRIOR TO ANY PURCHASING. INSTALLED PER ERNST RECOMMENDATION/DIRECTIONS CONTACT LICK OR MARK AT ERNST SEEDS (ERNSTSEED.COM) AT 800-873-3321
- SEED MIX B: ERNMX-300 BY ERNST SEEDS (NC COASTAL PLAIN UPL. MEADOW MI, INSTALLED PER ERNST RECOMMENDATION/DIRECTIONS CONTACT LICK OR MARK AT ERNST SEEDS (ERNSTSEED.COM) AT 800-873-3321
- CENTIPEDE SOD, APPROX. 49,500 S.F.

MITIGATION CALCULATIONS (SEC. 18-460)

TOTAL OF 5 SIGNIFICANT TREES AT 26" CALIPER (REFER TO TUNSTALL DWG. SHT C1 FOR ADDITIONAL INFORMATION)

2 X 26" (DHB) = 52" / 3 = 17 TREES REQUIRED AT 100% PROPOSED MITIGATION TREES

(17) SWEETBAY MAGNOLIA



SCALE: 1"=40'
(CHECK SCALE BEFORE USING)

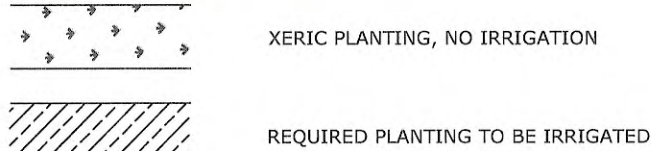
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PLANTING NOTES

- Prior to the start of any excavation for the project, the contractor shall notify NC One Call or equivalent to locate all existing utilities.
- Contractor shall maintain or provide positive drainage away from all building foundations, structures and within planting beds. Drainage tests by Landscape Contractor are required prior to installation.
- Contractor shall supply all plant materials in quantities sufficient to complete all plantings shown on this drawing. Clarify any discrepancies with the Landscape Architect prior to ordering plant material.
- All plants shall meet or exceed the minimum standards set by the U.S.D.A. for Nursery Stock, sponsored by the American Association of Nurserymen, Inc., Washington, D.C.
- All plants shall bear the same relationship to finished grade as to the original grades before digging. The Contractor shall revise grades at a minimum of 1/4" - 1/2" to ensure smooth transitions between planting beds and lawn areas.
- Mulch - refer to legend on sheet L-9
- All plant materials are subject to the approval of the Landscape Architect at the nursery and at the job site.
- Contractor shall provide the Landscape Architect with concerns and/or suggestions regarding proposed plant materials, prior to placing a purchase order for plants.
- Contractor is responsible for verifying all quantities. Drawings symbols shall rule over plant lists if there are discrepancies between the two.
- All trees located adjacent to walks and drives shall have 6' of clearance height to first branching.
- All trees shall be placed a minimum of 3' from sidewalks, curbs and hardscape, and a minimum of 6' from fire hydrants and other utilities, unless otherwise noted on plans. Structural soil (min. 3' depth) shall be used for all sidewalk planting wells for trees.
- All plants shall be installed as per generally accepted planting standards. Contractor shall provide a 1 year warranty for all plants and sod.
- All plants and stakes shall be set plumb unless otherwise specified.
- All planting bed edges to be smooth flowing arcs, unless otherwise specified. Bed edges shall be smooth, consistent, hand trenched 3 to 4 inches deep, and "V" shaped. All excavated material shall be removed from the bed edge and planting bed.
- If the landscape contractor observes any deficiencies in the site conditions or which could negatively affect plant establishment, survival, or guarantee, notify the Owner and Landscape Architect prior to procurement and/or installation.
- Any disturbed areas that are not planted or grassed as part of the landscape plan shall be restored to their previous existing condition (including raking uneven areas, seeding grassed areas and for natural areas spreading minimum 2" depth of leaf litter or hardwood bark mulch).

XERIC CALCULATIONS AND CODE COMPLIANT PLANTING

TOTAL REQUIRED LANDSCAPING: 17,180 SF (MEETS PLANTING CODE COMPLIANT STANDARDS)
 PROPOSED XERIC LANDSCAPE: 9,932 S.F.
 PERCENTAGE OF TOTAL XERIC: 57.8%



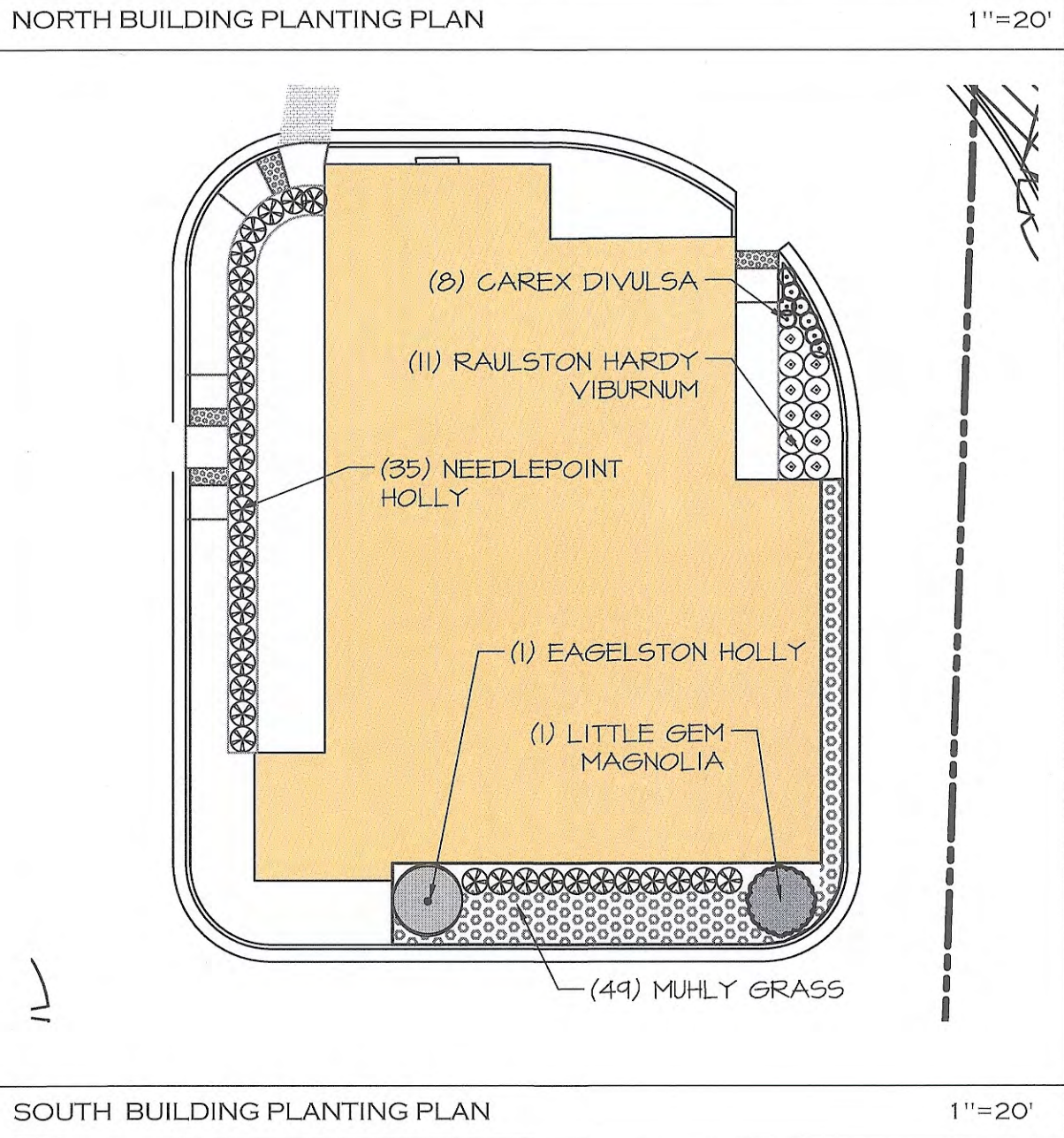
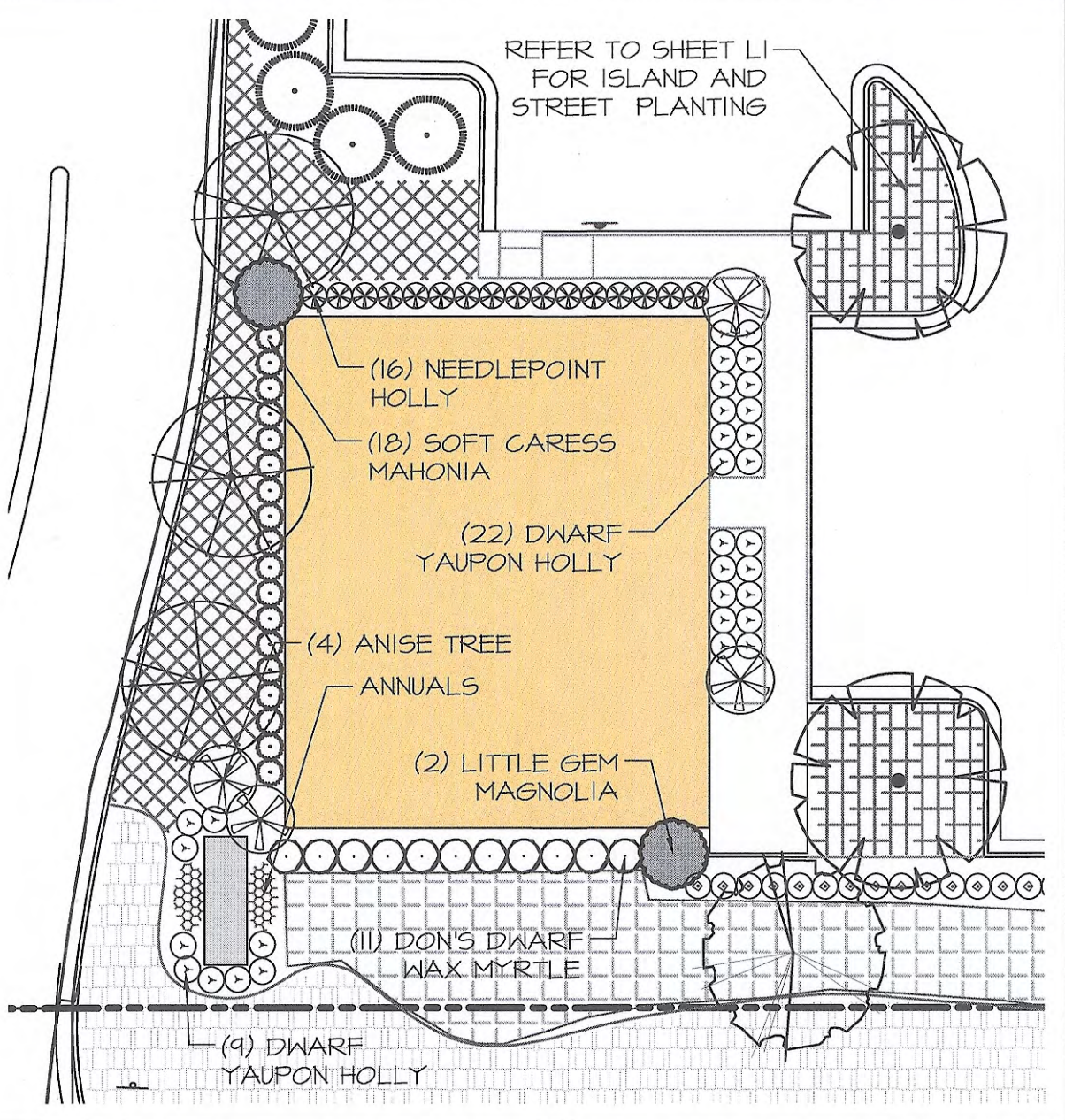
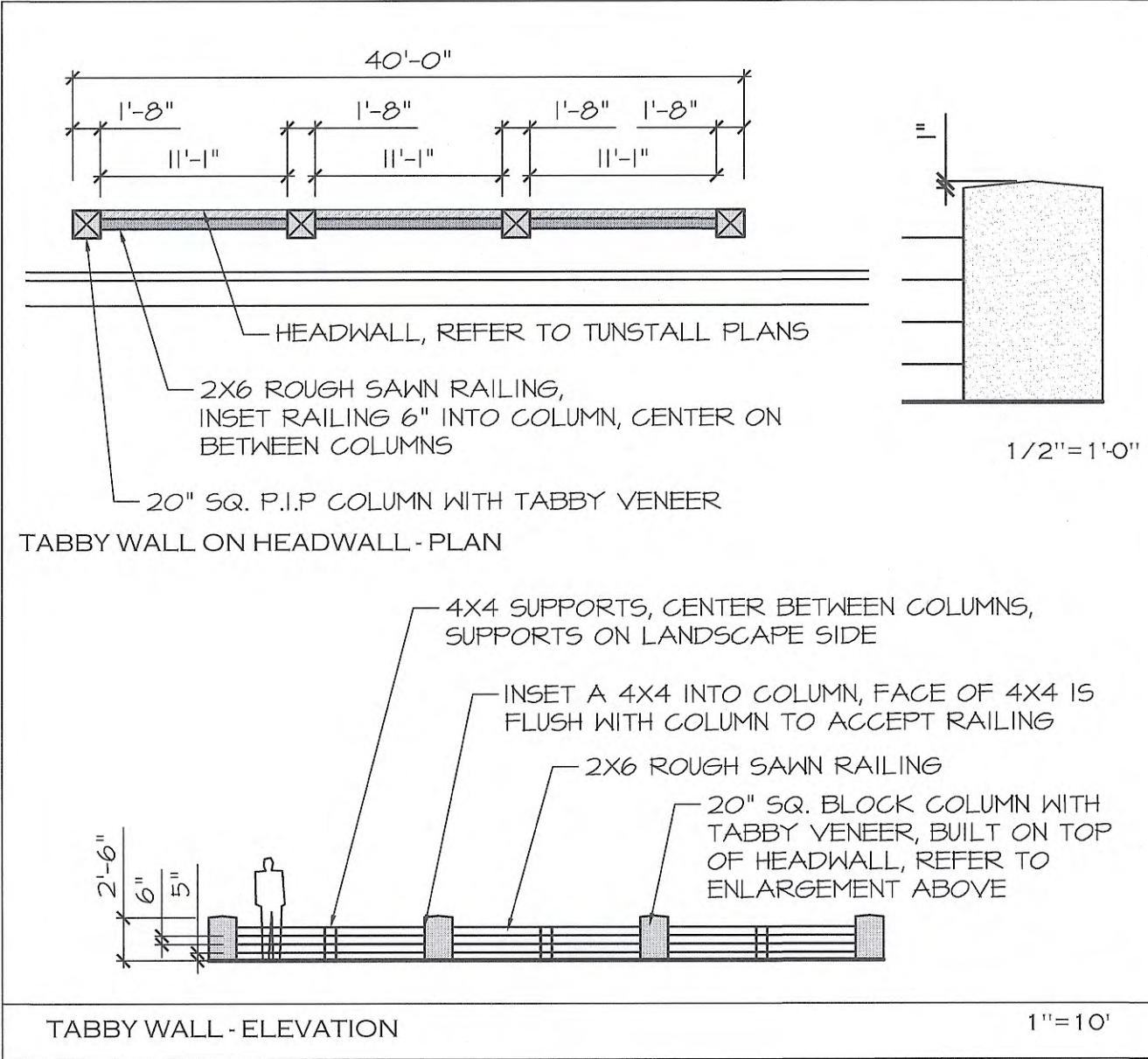
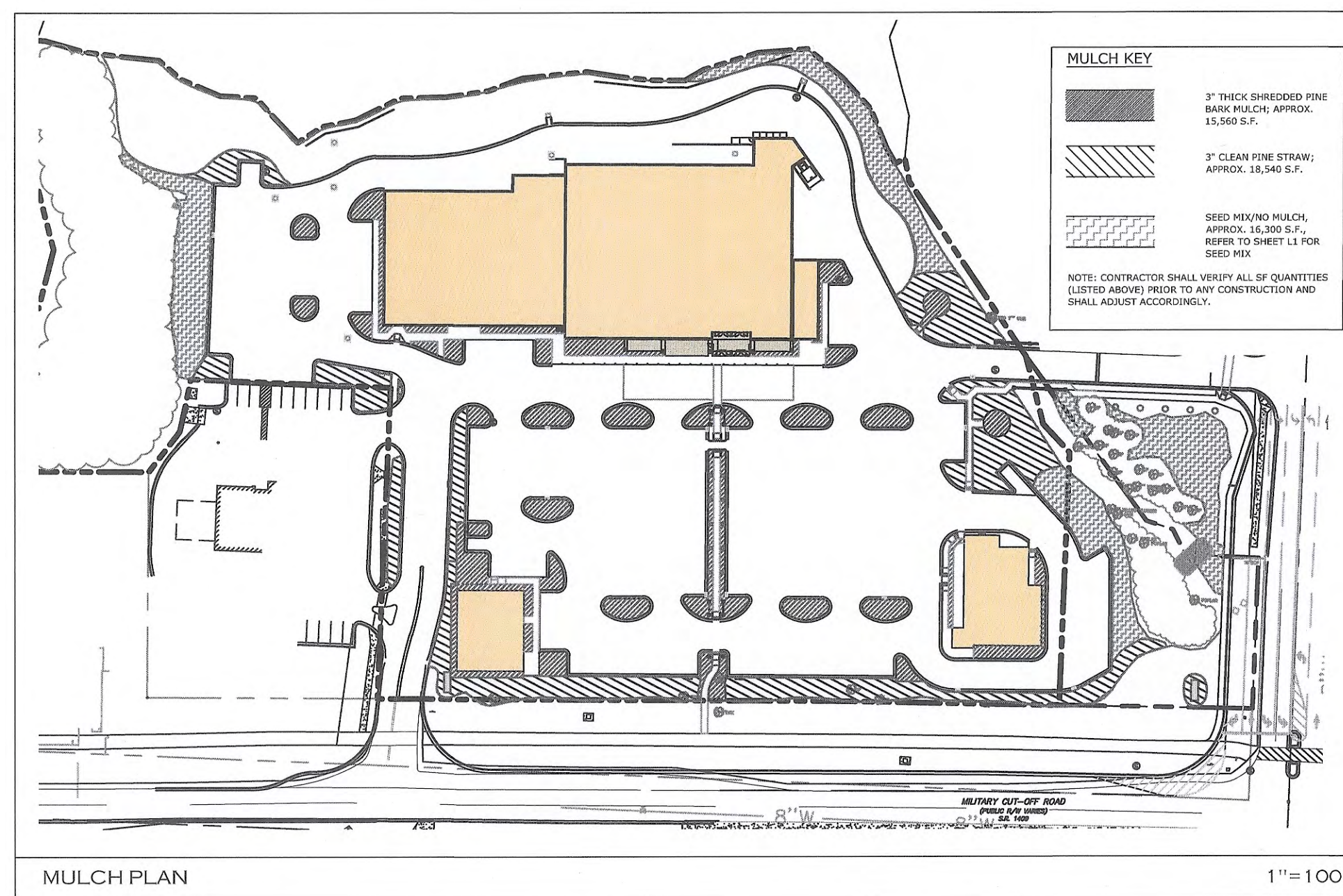
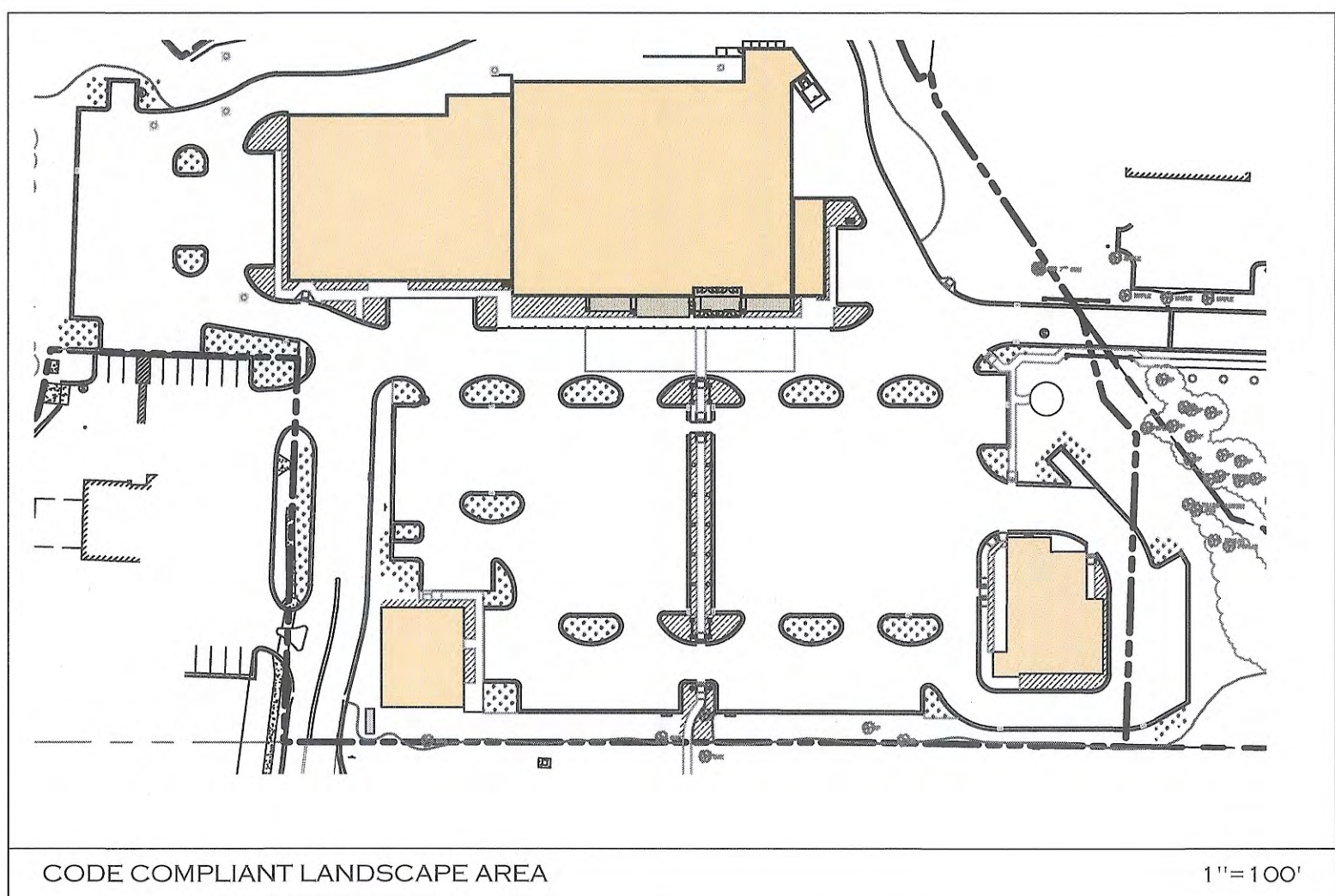
NOTE: CONTRACTOR SHALL VERIFY ALL SF QUANTITIES (LISTED ABOVE) PRIOR TO ANY CONSTRUCTION AND SHALL ADJUST ACCORDINGLY.

PREPARATION AND INSTALLATION FOR PLANTING SOD AREAS

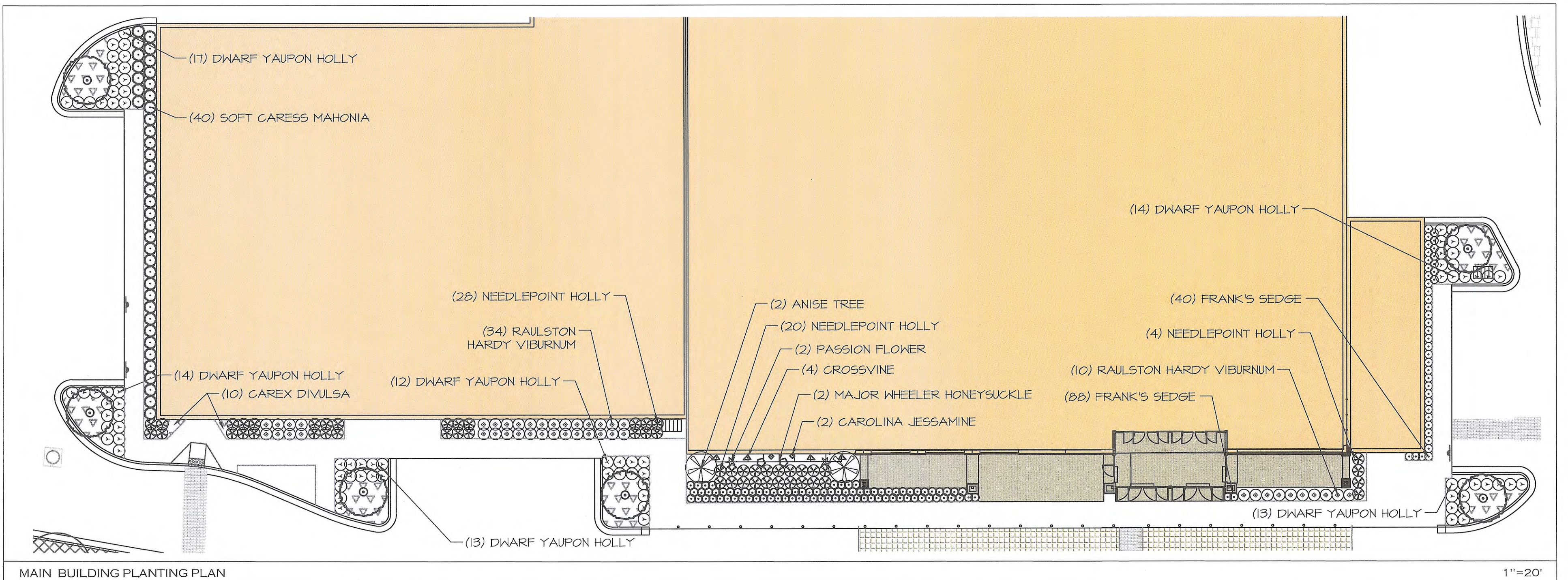
- Provide soil pH testing, adjust the pH range of soils that are unacceptable per local cooperative extension service standards. Incorporate agricultural lime, fertilizer, and superphosphate uniformly at the rate specified per soil pH testing results.
- Site to be fine graded before permanent planting and seeding or sodding is installed.
- Soil shall be loosened to a depth of 4-6 inches by disking, raking, roto-tilling or other acceptable means. Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is prepared 4 to 6 inches deep. Chisel compacted areas and spread topsoil 3 inches deep over adverse soil conditions.
- Rake and remove all loose rock (over 1" diameter), roots, and other obstructions leaving surface reasonably smooth. Contractor shall incorporate/till-in 4" deep 50/50 soil amendment in all plant beds.
- All sod and installation techniques shall adhere to turfgrass producers international guideline specifications, current edition.
- Sod areas to be sodded with workable size rolls that are not broken or stretched. Sod shall be free of thatch. Sod shall be installed within 24 hours of arrival at the site.
- Water 1 inch minimum within the first hour of sod or seed installation. Begin irrigation system during the following 3 days keeping the sodded or seeded area moist.
- Sod shall be laid parallel to the contours and shall have staggered joints on slopes greater than 3:1 or in drainage swales sod shall be staked.
- Apply starter fertilizer at time of sodding at rate recommended by manufacturer. Contractor is responsible for the initial watering.
- Inspect all sodded areas and make necessary repairs or re-sod within the planting season, if possible. If grass stand should be over 60% damaged, Contractor shall consult with a conservation inspector on maintenance treatment and fertilization to determine the best type of treatment necessary in order to establish and maintain an acceptable stand of grass.
- Contractor shall water and maintain all planting and NEWLY SOD areas until a maintenance contractor has been selected.
- Once an acceptable stand of grass has been established (of 95% or better), the Contractor shall repair all damaged areas and monitor the NEWLY SOD areas until the grass reaches a height of 4 inches tall.

IRRIGATION NOTES

- Contractor shall design/install irrigation in all planting areas to meet or exceed NCICL minimum standards. Contractor shall provide irrigation for all new plantings with pop-up spray heads in lawn areas, drip lines in plant beds, (1.5") fill-up and quick coupler connectors every 150'. Contractor is responsible for the system design and component selection, which shall be subject to approval by the Landscape Architect prior to installation. System shall be designed so that there is little or no spray over walkways & steps, no conflicts with pre-existing or new plant material, lighting or other trades, and that there is no building spray, etc. Contractor shall be responsible for adjustments that are needed because of irrigation conflicts with other landscape elements, at no charge to Owner.
- The location of controller shall be approved by Owner and Landscape Architect prior to installation.
- Contractor shall coordinate meter, backflow preventer, permits, electrical source, etc. with Owner prior to providing a cost estimate. These items are the Owner's responsibility and shall be included in the base bid unless otherwise noted.
- After installation, Contractor will conduct a full test and walk-through of the entire irrigation system to ensure that it is working properly and that there are no conflicts with other trades or elements.
- Contractor will schedule a post-installation walk-through & demonstration of the system with the Owner within 7 days of installation of the irrigation system. Contractor shall construction the Owner's Manual and future maintenance requirements of the system with the Owner at this meeting.
- Contractor will provide an As-Built Drawing of the Irrigation System that must meet or exceed NCICL standards to the Owner at the time of the Post-installation demonstration meeting, at no additional charge.
- ALL TRENCHING OPERATIONS (UTILITIES, IRRIGATION, DRAINAGE, SLEEVING, ETC) SHALL STAY OUT OF DRIP LINE ZONES OF EXISTING TREES TO REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPAIR OR REPLACEMENT OF DAMAGED TREES DUE TO ANY TRENCHING OPERATIONS. THIS MIGHT INCLUDE THE COST OF AN ARBORIST TO ASSESS THE DAMAGE, AS WELL AS THE COST FOR THE ARBORIST TO TREAT AND/OR REPAIR THE DAMAGE TO THE ROOT SYSTEM.
- ALL XERIC PLANTING SHALL NOT BE IRRIGATED, REFER TO KEY.



QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
TREES AND LARGE EVERGREENS				
17	CHAMAEPARIS VIRENS	FRENCH FICUS	6" CAL	TRIPLE STEM MATCHBDS
16	CHAMAEPARIS VIRENS	FRENCH FICUS	8" CAL	MULTI STEM
15	FRAXINUS TERRESTRIS	CORBICEA	12" CAL	
15	ATRIPLIX	GLAZED SNOW HOLLY	6" CAL	
15	ATRIPLIX	SAVANNAH HOLLY	6" CAL	
15	ATRIPLIX	LITTLE GEM MAGNOLIA	6" CAL	
15	ATRIPLIX	SWEETBAY MAGNOLIA	6" CAL	
15	ATRIPLIX	ISLAND FICUS	2" CAL	
15	ATRIPLIX	LOBLOLLY PINE	2" CAL	
15	ATRIPLIX	NEPAL PRINCE PALM	2" CAL	MATCHBDS
15	ATRIPLIX	SPRING PALM	2" CAL	MATCHBDS
15	ATRIPLIX	LEAVE PALM	2" CAL	MATCHBDS
15	ATRIPLIX	PARROT PALM	2" CAL	MATCHBDS
SHRUBS				
15	ATRIPLIX	ANANAS PALM	3" GAL	
15	ATRIPLIX	ANANAS PALM	3" GAL	
15	ATRIPLIX	NEEDLEPOINT HOLLY	18" TALL MRL. RED.	
15	ATRIPLIX	ROCKSPRAY YAUPON HOLLY	18" TALL MRL. RED.	
15	ATRIPLIX	DWARF YAUPON HOLLY	18" TALL MRL. RED.	
15	ATRIPLIX	FLORIDA PALM	18" TALL MRL. RED.	
15	ATRIPLIX	FLORIDA PALM	18" TALL MRL. RED.	
15	ATRIPLIX	FLORIDA PALM	18" TALL MRL. RED.	
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15	ATRIPLIX	FLORIDA PALM	18" TALL MRL. RED.	
15	ATRIPLIX	FLORIDA PALM	18" TALL MRL. RED.	
GRASSES				
15	ATRIPLIX	CAREX DIVULSA	3/8" POTS	18" OC
15	ATRIPLIX	FRANK'S SEDGE	3/8" POTS	18" OC
15	ATRIPLIX	FRANK'S SEDGE	3/8" POTS	18" OC
15	ATRIPLIX	FRANK'S SEDGE	3/8" POTS	18" OC
15	ATRIPLIX	FRANK'S SEDGE	3/8" POTS	18" OC
PERENNIALS, VINES & GROUNDCOVERS				
15	ATRIPLIX	CROCUS	1" GAL	
15	ATRIPLIX	CHINESE FLOWER	1" GAL	
15	ATRIPLIX	CHINESE FLOWER	1" GAL	
15	ATRIPLIX	MAJOR WHEELER HONEYSUCKLE	1" GAL	
15	ATRIPLIX	MAJOR WHEELER HONEYSUCKLE	1" GAL	
15	ATRIPLIX	MAJOR WHEELER HONEYSUCKLE	1" GAL	
15	ATRIPLIX	MAJOR WHEELER HONEYSUCKLE	1" GAL	
15	ATRIPLIX	MAJOR WHEELER HONEYSUCKLE	1" GAL	



LIGGETT DESIGN GROUP
 LANDSCAPE ARCHITECTURE
 SITE PLANNING & DESIGN

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SEALS/SIGNATURE

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 MILITARY CUTOFF ROAD
 WILMINGTON, NORTH CAROLINA

ISSUED FOR:
SUBMITTAL

ISSUED DATE:
11/3/2017

REVISIONS:

NO.	ITEM	DATE
1	ROUND 1 CITY COMMENTS	1/12/18

DRAWING TITLE:
MULCH PLAN, WALL DETAILS, PLANTING PLAN DETAILS, PLANT SCHEDULE & PLANTING NOTES

DRAWN BY: **RW/WAB**

CHECKED BY: **FL**

SCALE: **AS SHOWN**

SHEET NUMBER: