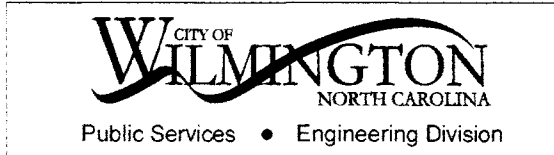


For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

Approved Construction Plan	
Name	Date
Planning	_____
Traffic	_____
Fire	_____

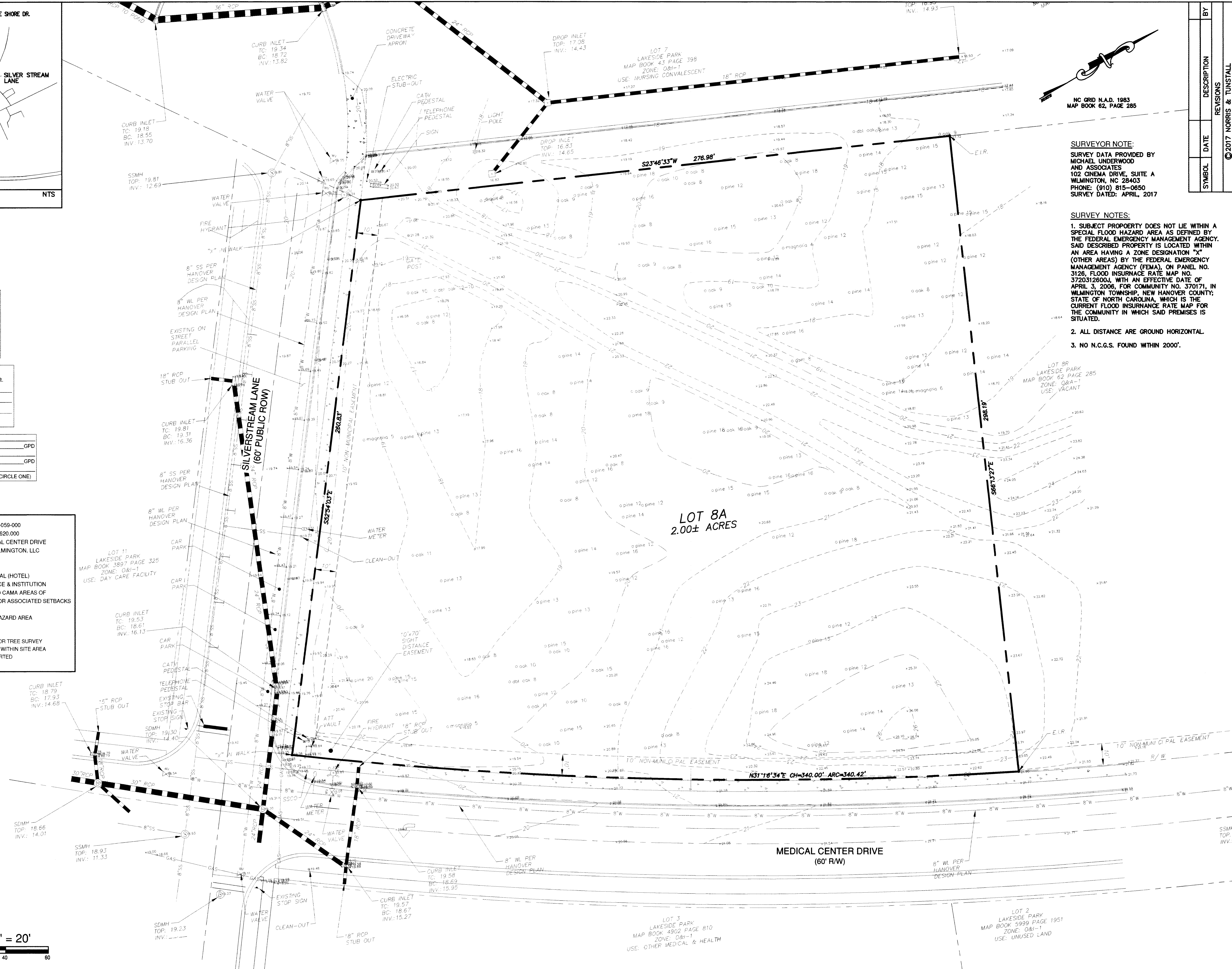
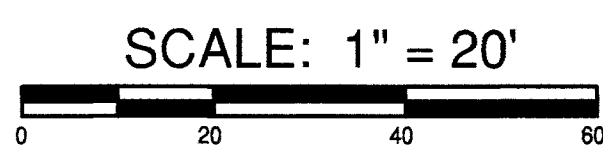
NCDENR PWSS WATER PERMIT # _____	_____	GPD
WATER CAPACITY _____	_____	GPD
DWO SEWER PERMIT # _____	_____	GPD
SEWER CAPACITY _____	_____	GPD
SEWER SHED # AND PLANT _____	_____	
SEWER TO FLOW THROUGH NEI _____	YES OR NO (CIRCLE ONE)	

**INVENTORY SITE DATA**

EXISTING PARCEL ID#: R06018-003-050-000  
 EXISTING PARCEL PIN#: 312614.24.7620.000  
 PARCEL ADDRESS: 839 MEDICAL CENTER DRIVE  
 PARCEL OWNER: KISMET WILMINGTON, LLC  
 EXISTING PARCEL AREA: 2.00 AC  
 EXISTING PARCEL USE: VACANT  
 PROPOSED PARCEL USE: COMMERCIAL (HOTEL)  
 CURRENT ZONING: O&I-1 OFFICE & INSTITUTION  
 CAMA LAND CLASSIFICATION: URBAN - NO CAMA AREAS OF CONCERN OR ASSOCIATED SETBACKS  
 SOIL TYPE: KE  
 SITE DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA  
 HISTORICAL/ARCHAEOLOGICAL SITE: NONE  
 CEMETERY: NONE  
 FORESTED AREA: SEE PLAN FOR TREE SURVEY  
 WETLANDS: NONE EXIST WITHIN SITE AREA  
 ENDANGERED SPECIES/HABITAT: NONE REPORTED

**SURVEY LEGEND**

- E.I.P. = EXISTING IRON PIPE
  - E.I.R. = EXISTING IRON REBAR
  - N.P.F. = NO POINT FOUND
  - N.P.S. = NO POINT SET
  - P.C. = PROPERTY CORNER
  - ▬ = PROPERTY LINE
  - ± = APPROXIMATE
  - OHP = OVERHEAD POWER
  - SSMH = SANITARY SEWER MANHOLE
  - SSCO = SANITARY SEWER CLEAN OUT
  - SDMH = STORM DRAIN MANHOLE
  - = SPOT ELEVATION
  - = EXISTING TREE (TYPE & SIZE)
- PROPERTY LINE**  
 STORM DRAIN  
 CENTERLINE  
 EASEMENT  
 CONCRETE



NO GRID N.A.D. 1983  
MAP BOOK 62, PAGE 285

**SURVEYOR NOTE:**  
 SURVEY DATA PROVIDED BY MICHAEL UNDERWOOD AND ASSOCIATES  
 102 CINEMA DRIVE, SUITE A  
 WILMINGTON, NC 28403  
 PHONE: (910) 815-0650  
 SURVEY DATED: APRIL, 2017

- SURVEY NOTES:**
1. SUBJECT PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. SAID DESCRIBED PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION "X" (OTHER AREAS) BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON PANEL NO. 3126, FLOOD INSURANCE RATE MAP NO. 3720312600J, WITH AN EFFECTIVE DATE OF APRIL 3, 2006, FOR COMMUNITY NO. 370171, IN WILMINGTON TOWNSHIP, NEW HANOVER COUNTY; STATE OF NORTH CAROLINA, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PREMISES IS SITUATED.
  2. ALL DISTANCE ARE GROUND HORIZONTAL.
  3. NO N.C.G.S. FOUND WITHIN 2000'.

BY	DESCRIPTION	DATE	REVISIONS

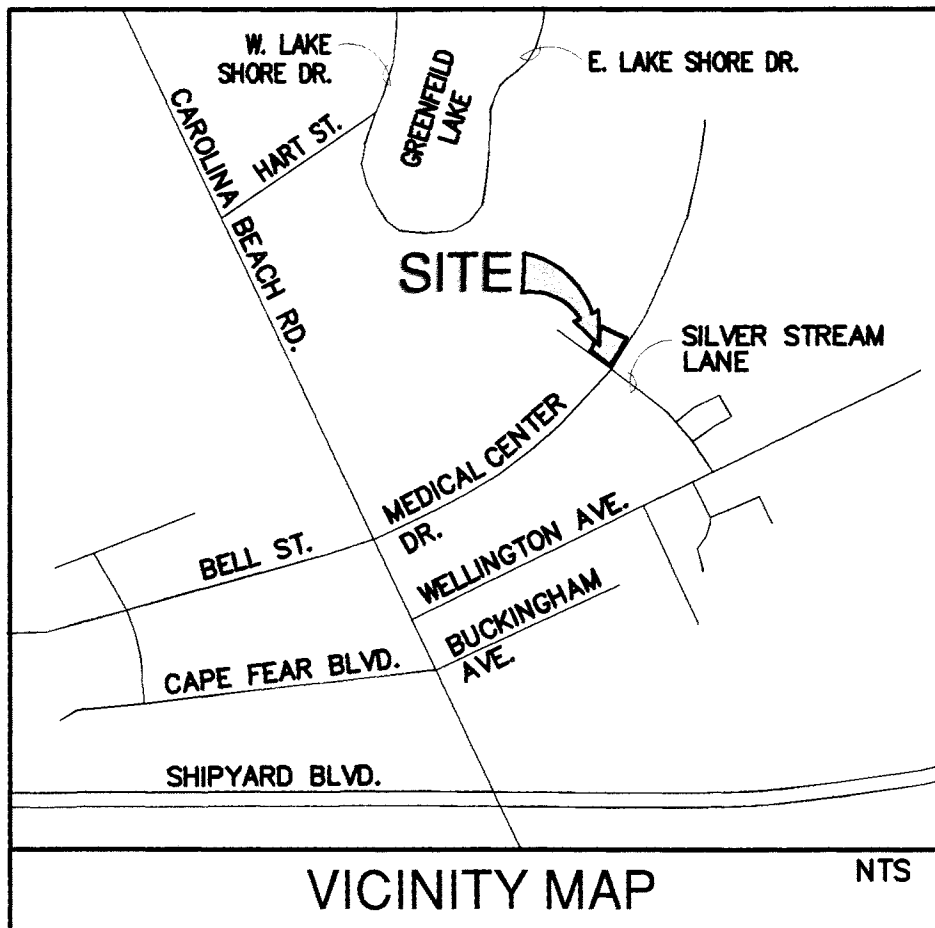
**INVENTORY SITE PLAN**  
**HOLIDAY INN EXPRESS AND SUITES**  
**839 MEDICAL CENTER DRIVE**  
**WILMINGTON, N. C.**

DEVELOPER  
 MANJULA AHLUWALIA, MANAGER  
 KISMET WILMINGTON, LLC  
 5518 SUNSTAR COURT  
 CHARLOTTE, NC 28226  
 (PHONE) 704-507-1814

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

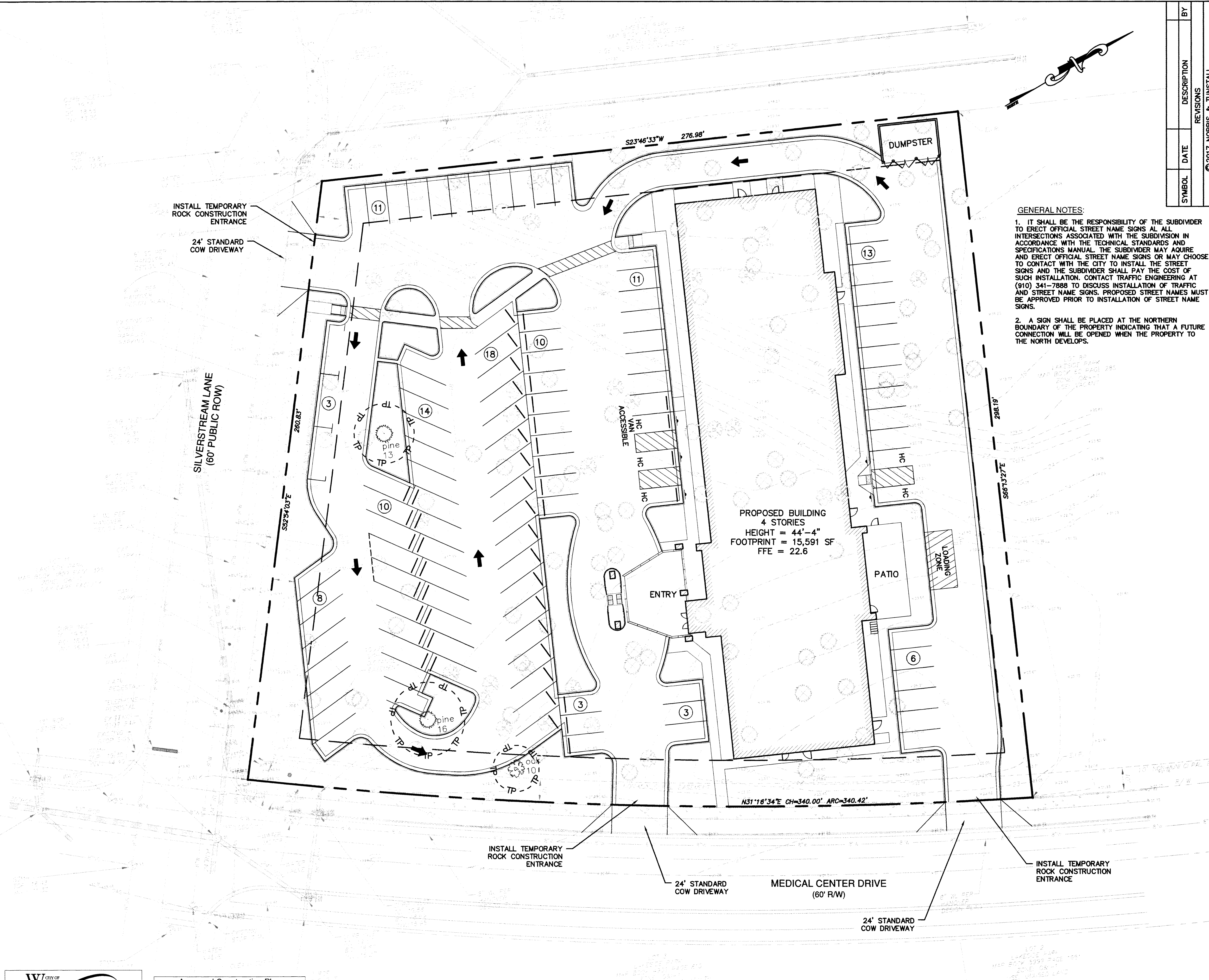
Licence #C-3641  
**17039**  
 DES. TJC  
 C.D. JST  
 DRWL. NSB  
 DATE: 09/12/2017





SITE DATA TABLE	
PARCEL ID#:	R09018-003-052-000
PARCEL PIN#:	312610.25.8227.000
SITE ADDRESS:	839 MEDICAL CENTER DRIVE
PARCEL OWNER:	KISMET WILMINGTON, LLC
PROPOSED PARCEL USE:	HOTEL
PARCEL AREA:	2.0 AC (87,074 SF)
CURRENT ZONING:	O&I-1 OFFICE & INSTITUTION
CAMA LAND CLASSIFICATION:	URBAN
SOIL TYPE:	KE
<b>BUILDING SETBACKS O&amp;I:</b>	
FRONT SETBACK:	20'
INTERIOR SIDE SETBACK:	10'
CORNER SIDE SETBACK:	20'
REAR SETBACKS:	20'
<b>BUILDING SETBACKS PROPOSED:</b>	
FRONT SETBACK:	21'±
STREET SIDE SETBACK:	157'±
INTERIOR SETBACK N:	26'±
INTERIOR SETBACK E:	61'±
<b>BUILDING AREA:</b>	
FIRST FLOOR =	15,592 SF
SECOND FLOOR =	15,265 SF
THIRD FLOOR =	15,265 SF
FOURTH FLOOR =	15,265 SF
DISTURBED AREA:	2.01 AC
MAX. LOT COVERAGE O&I:	40%
PROPOSED LOT COVERAGE:	18%
MAX. BUILDING HEIGHT:	45'
PROPOSED BUILDING HEIGHT:	44'-4"
BUILDING CONSTRUCTION TYPE:	VA
<b>PROPOSED IMPERVIOUS AREA:</b>	
BUILDING AREA:	15,592 SF
SIDEWALK AREA:	2,839 SF
ASPHALT, CONCRETE, CURB & GUTTER, APRON AREA:	49,812 SF
FUTURE IMPERVIOUS AREA:	5,757
TOTAL IMPERVIOUS AREA:	74,000 SF
PERCENT IMPERVIOUS AREA:	85%
<b>PARKING REQUIREMENT:</b>	
REGULAR PARKING REQ'D: HOTEL	110 PARKING STALLS
- 1 PER ROOM @ 109 ROOMS	5 SPACES FOR LOTS WITH 101 TO 150 REG. SPACES
HANDICAP PARKING REQ'D:	5 STALLS PROVIDED
REGULAR =	105 PARKING STALLS
TOTAL PARKING PROPOSED =	110 PARKING STALLS
<b>LANDSCAPING REQUIREMENTS (REFER TO LANDSCAPE PLAN):</b>	
15 TREES PER DISTURBED ACRE REQUIRED	
STREET YARD LANDSCAPING: 18 MULTIPLIER	
FRONT: 340' - 25' (18) =	5,670 SF REQUIRED
SIDE: 261' - 29' (9) =	2,088 SF REQUIRED
FOUNDATION PLANTINGS:	12% BUILDING HEIGHT X LENGTH
PARKING AREA SCREENING ALONG ROW:	BUFFER 3' HIGH 5' WIDE SEE LANDSCAPE PLAN
<b>TRASH REMOVAL:</b>	
	DUMPSTER SERVICE
<b>WATER AND SEWER CAPACITY NEEDS</b>	
SEWER: 109 BED @ 120 GPD / ROOM =	13,080 GPD
WATER: 109 BED @ 120 GPD / ROOM =	13,080 GPD

LEGEND	
	PROPOSED BUILDING FOOTPRINT
	PROPOSED CURB AND GUTTER
	PROPERTY BOUNDARY
	STREET YARD SETBACKS
	ZONE SETBACKS
	EXISTING CONTOUR
	DISTURBED LIMITS
	TEMPORARY SILT FENCE
	STORM PIPE
	ROOF DRAIN PIPE
	HANDICAP LOADING/CROSSING
	ROCK CONSTRUCTION ENTRANCE
	HANDICAP PARKING STALL



**GENERAL NOTES:**

- IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT (910) 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- A SIGN SHALL BE PLACED AT THE NORTHERN BOUNDARY OF THE PROPERTY INDICATING THAT A FUTURE CONNECTION WILL BE OPENED WHEN THE PROPERTY TO THE NORTH DEVELOPS.

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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**OVERALL SITE PLAN**  
**HOLIDAY INN EXPRESS AND SUITES**  
**839 MEDICAL CENTER DRIVE**  
**WILMINGTON, N. C.**

**DEVELOPER**  
 MANJULA ARLUWALIA, MANAGER  
 KISMET WILMINGTON, LLC  
 5518 SUNSTAR COURT  
 WILMINGTON, NC 28405  
 (PHONE) 704-607-1814

**NORRIS & TUNSTALL**  
 CONSULTING ENGINEERS P.C.  
 903 MARKET STREET  
 WILMINGTON, NC 28401  
 PHONE (910) 343-9633

1429 ASHLITTLE AVENUE, N.W.  
 WILMINGTON, NC 28405  
 PHONE (910) 387-5900

License #C-3641  
**17039**  
 DES. TJC  
 CB. JST  
 DRWL. NSB  
 DATE: 09/12/2017

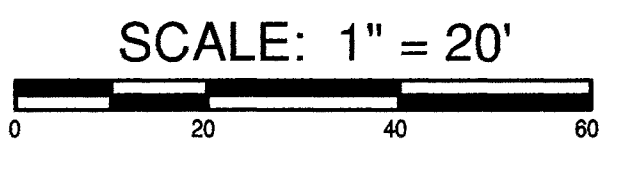
**CO**

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

**Approved Construction Plan**  
 Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Planning: \_\_\_\_\_  
 Traffic: \_\_\_\_\_  
 Fire: \_\_\_\_\_  
 Signed: \_\_\_\_\_

NC DENR PWSS WATER PERMIT # \_\_\_\_\_  
 WATER CAPACITY: \_\_\_\_\_ GPD  
 DWG 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.



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SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

**TREE REMOVAL PLAN**  
**HOLIDAY INN EXPRESS AND SUITES**  
**839 MEDICAL CENTER DRIVE**  
**WILMINGTON, N. C.**

**DEVELOPER**  
 MANILA ARJUNALIA, MANAGER  
 KISMET WILMINGTON, LLC  
 5518 SUNSTAR COURT  
 CHARLOTTE, NC 28226  
 (PHONE) 704-507-1814

**NORRIS & TUNSTALL**  
 CONSULTING ENGINEERS P.C.  
 902 MARKET STREET  
 WILMINGTON, NC 28401  
 PHONE (910) 343-9653

Licence #C-3641  
**17039**  
 DES: TJC  
 CDR: JST  
 DRWN: NSB  
 DATE: 09/12/2017

**C1**

**TREE LEGEND**

- : LOCATION OF A HARDWOOD TREE
- : LOCATION OF A CONIFER TREE
- : LOCATION OF A FLOWERING TREE
- : INDICATES A TREE TO BE REMOVED
- : INDICATES A TREE TO PROTECTED

**TREE REMOVAL TABLE**

NOTE: THERE ARE 138 REGULATED TREES AND NO SIGNIFICANT TREES ON THE SITE.

**REGULATED TREES TO BE REMOVED:**

**OAK**  
 8" = 19 TREES  
 9" = 9 TREES  
 10" = 7 TREES  
 11" = 1 TREE  
 15" = 1 TREE

**GUM TREE**  
 8" = 1 TREE

**PINE**  
 12" = 23 TREES  
 13" = 15 TREES  
 14" = 17 TREES  
 15" = 16 TREES  
 16" = 11 TREES  
 17" = 1 TREES  
 18" = 8 TREES  
 20" = 1 TREE

**FLOWERING**  
 4" MAGNOLIA = 1 TREE  
 5" MAGNOLIA = 2 TREE  
 6" MAGNOLIA = 1 TREE

TOTAL: = 135 TREES TO BE REMOVED

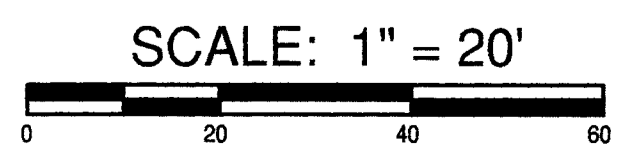
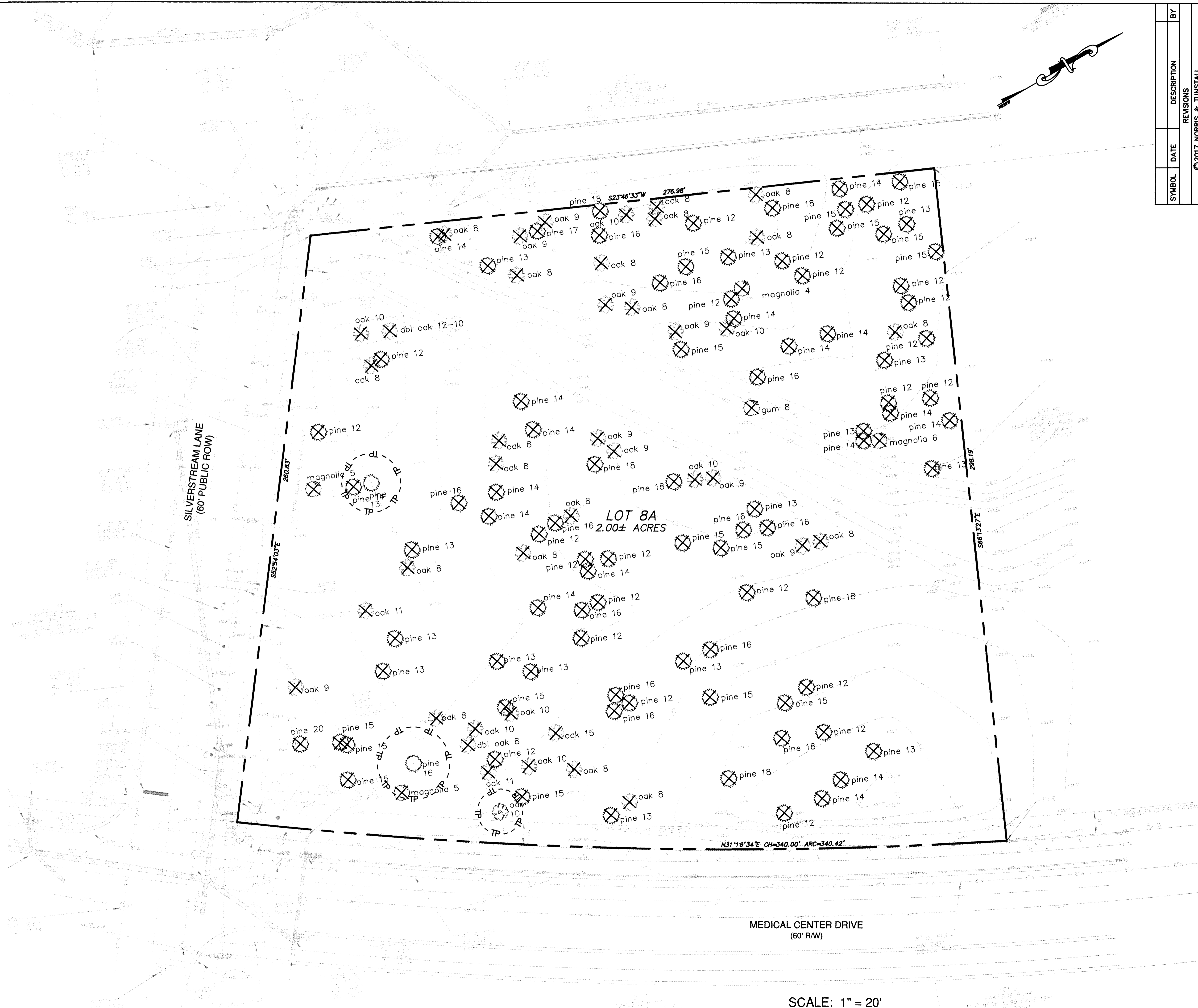
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**City of WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
**APPROVED STORMWATER MANAGEMENT PLAN**  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Traffic	
Fire	

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





**LEGEND**

- PROPOSED BUILDING FOOTPRINT
- PROPOSED CURB AND GUTTER
- PROPERTY BOUNDARY
- STREET YARD SETBACKS
- ZONE SETBACKS
- EXISTING CONTOUR
- DISTURBED LIMITS
- TSF - TEMPORARY SILT FENCE
- SD - STORM PIPE
- ROOF DRAIN PIPE
- HANDICAP LOADING/CROSSING
- ROCK CONSTRUCTION ENTRANCE
- HC - HANDICAP PARKING STALL
- (4) - PARKING COUNT
- PROPOSED HANDICAP RAMP
- ONE WAY
- \* 21.6 - SPOT ELEVATION
- \* 21.6 - SPOT ELEVATION TOP OF CURB
- \* 21.6 - SPOT ELEVATION GUTTER/EP

LEGEND	1. GROUND STABILIZATION		
	SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
	PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
	HIGH QUALITY WATER (HGW) ZONES.	7 DAYS	NONE
	SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
	SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
	ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HGW ZONES).

- 2. BUILDING WASTES HANDLING**
- NO PAINT OR LIQUID WASTES IN STREAM OR STORM DRAINS
  - DEDICATED AREA FOR DEMOLITION, CONSTRUCTION AND OTHER WASTES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO ALTERNATIVE IS AVAILABLE
  - EARTHEN MATERIALS STOCKPILES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVE IS AVAILABLE
  - CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS, OR BUFFERS.

- 3. INSPECTIONS**
- SAME WEEKLY INSPECTION REQUIREMENTS
  - SAME RAIN GAUGE AND INSPECTIONS AFTER 0.5" RAIN EVENT
  - INSPECTIONS ARE ONLY REQUIRED DURING "NORMAL BUSINESS HOURS"
  - RECORDS MUST BE KEPT FOR 3 YEARS AND AVAILABLE UPON REQUEST
  - ELECTRONICALLY AVAILABLE RECORDS MAY BE SUBSTITUTED UNDER CERTAIN CONDITIONS

- 4. SEDIMENT BASINS**
- OUTLET STRUCTURES MUST WITHDRAW FROM BASIN SURFACE UNLESS DRAINAGE AREA IS LESS THAN ONE ACRE
  - USE ONLY DWG APPROVED FLOCCULANTS

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**City of WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN

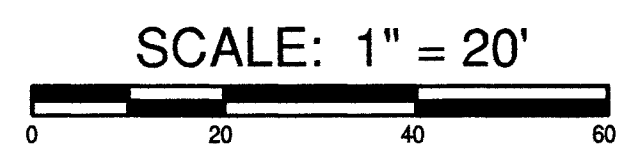
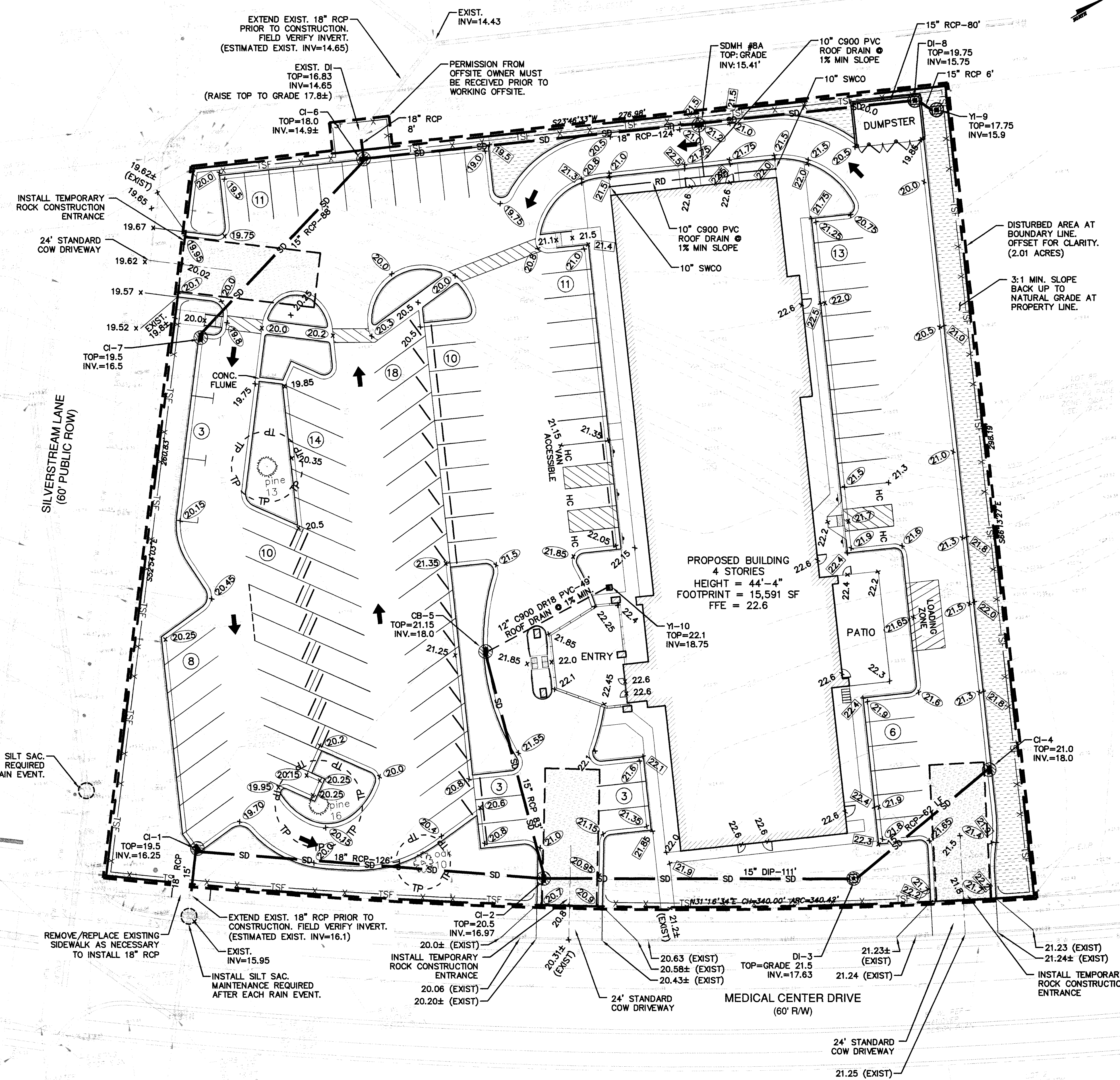
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

**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)



SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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**NORRIS & TUNSTALL**  
 GRADING, DRAINAGE, AND  
 EROSION CONTROL PLAN  
 HOLIDAY INN EXPRESS AND SUITES  
 839 MEDICAL CENTER DRIVE  
 WILMINGTON, N. C.

**DEVELOPER**  
 MANJULA AHLUWALIA, MANAGER  
 KISMET WILMINGTON, LLC  
 5518 SUNSTAR COURT  
 CHARLOTTE, NC 28226  
 (PHONE) 704-507-1814

**NORRIS & TUNSTALL**  
 CONSULTING ENGINEERS P.C.  
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 WILMINGTON, NC 28401  
 (PHONE) 343-9653  
 1429 ASHLITTLE RIVER RD., NW  
 WILMINGTON, NC 28403  
 (PHONE) 336-5906

License #C-3641  
**17039**  
 DES. TJC  
 ORD. JST  
 DRWL. NSB  
 DATE: 09/12/2017



**C2**



Drainage Areas (S.F)					
DA #	Imp. Conc.	Sidewalks	Bldg.	Asphalt And C&G	Total
1	0	0	0	11,002	12,233
2	0	224	0	1,464	2,444
3	0	352	0	0	2,348
4	901	285	0	3,131	5,652
5	1,118	419	0	2,545	4,521
6	0	236	0	7,843	9,173
7	0	369	0	13,260	14,980
8	753	732	0	7,925	11,388
8A	0	0	15,507	0	15,507
9	0	0	0	0	1,366
Totals	2,772	2,617	15,507	47,170	79,612

**LEGEND**

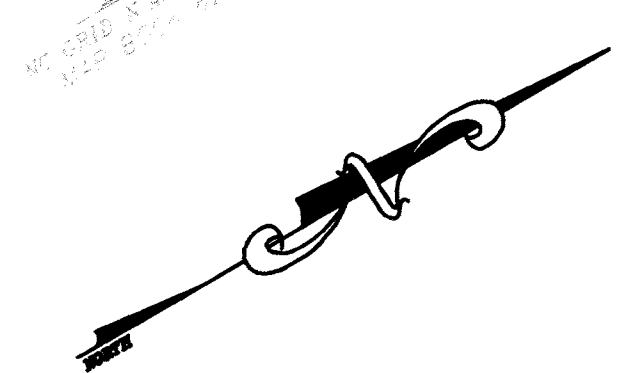
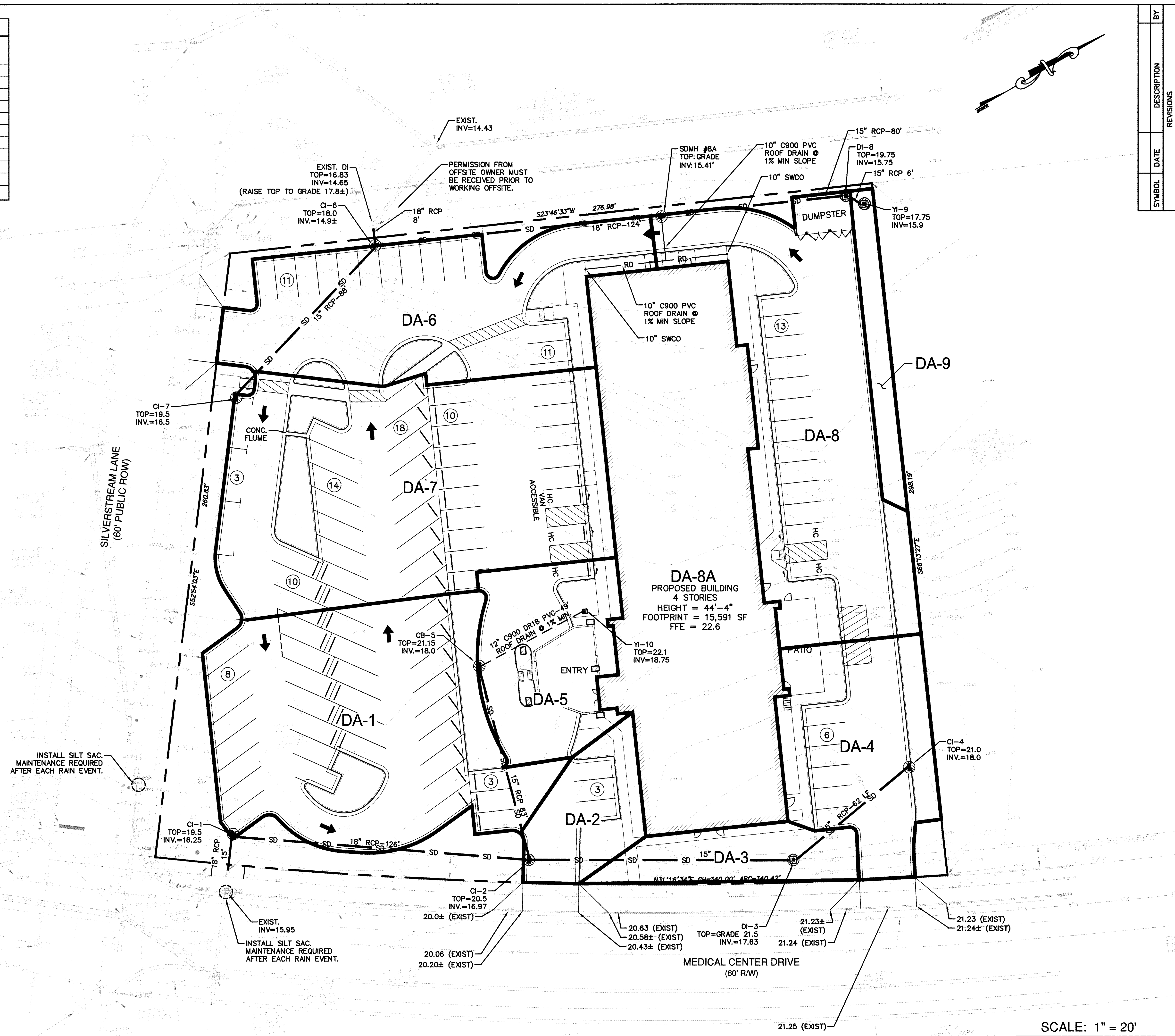
- PROPOSED BUILDING FOOTPRINT
- PROPOSED CURB AND GUTTER
- PROPERTY BOUNDARY
- STREET YARD SETBACKS
- ZONE SETBACKS
- EXISTING CONTOUR
- DISTURBED LIMITS
- TEMPORARY SILT FENCE
- STORM PIPE
- ROOF DRAIN PIPE
- HANDICAP LOADING/CROSSING
- ROCK CONSTRUCTION ENTRANCE
- HC HANDICAP PARKING STALL
- (4) PARKING COUNT
- PROPOSED HANDICAP RAMP
- ONE WAY

For each open utility out 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  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**Approved Construction Plan**  
 Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Planning: \_\_\_\_\_  
 Traffic: \_\_\_\_\_  
 Fire: \_\_\_\_\_

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



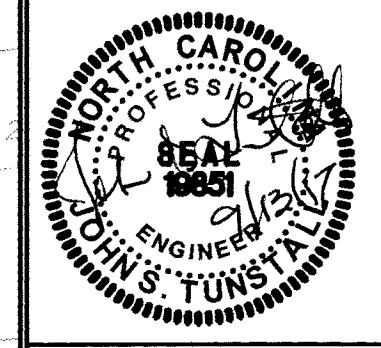
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		REVISIONS <td></td>	

**DRAINAGE AREA PLAN**  
**HOLIDAY INN EXPRESS AND SUITES**  
**839 MEDICAL CENTER DRIVE**  
**WILMINGTON, N. C.**

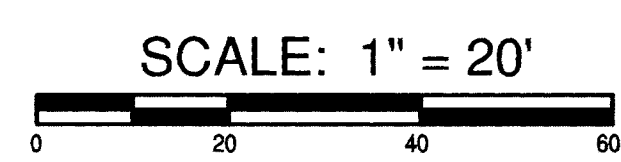
**DEVELOPER**  
 WENDY ARTHUR, MANAGER  
 WENDEL ARTHUR & ASSOCIATES, LLC  
 5518 SUNSTAR COURT  
 CHARLOTTE, NC 28226  
 (PHONE) 704-507-1814

**NORRIS & TUNSTALL**  
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License #C-3641  
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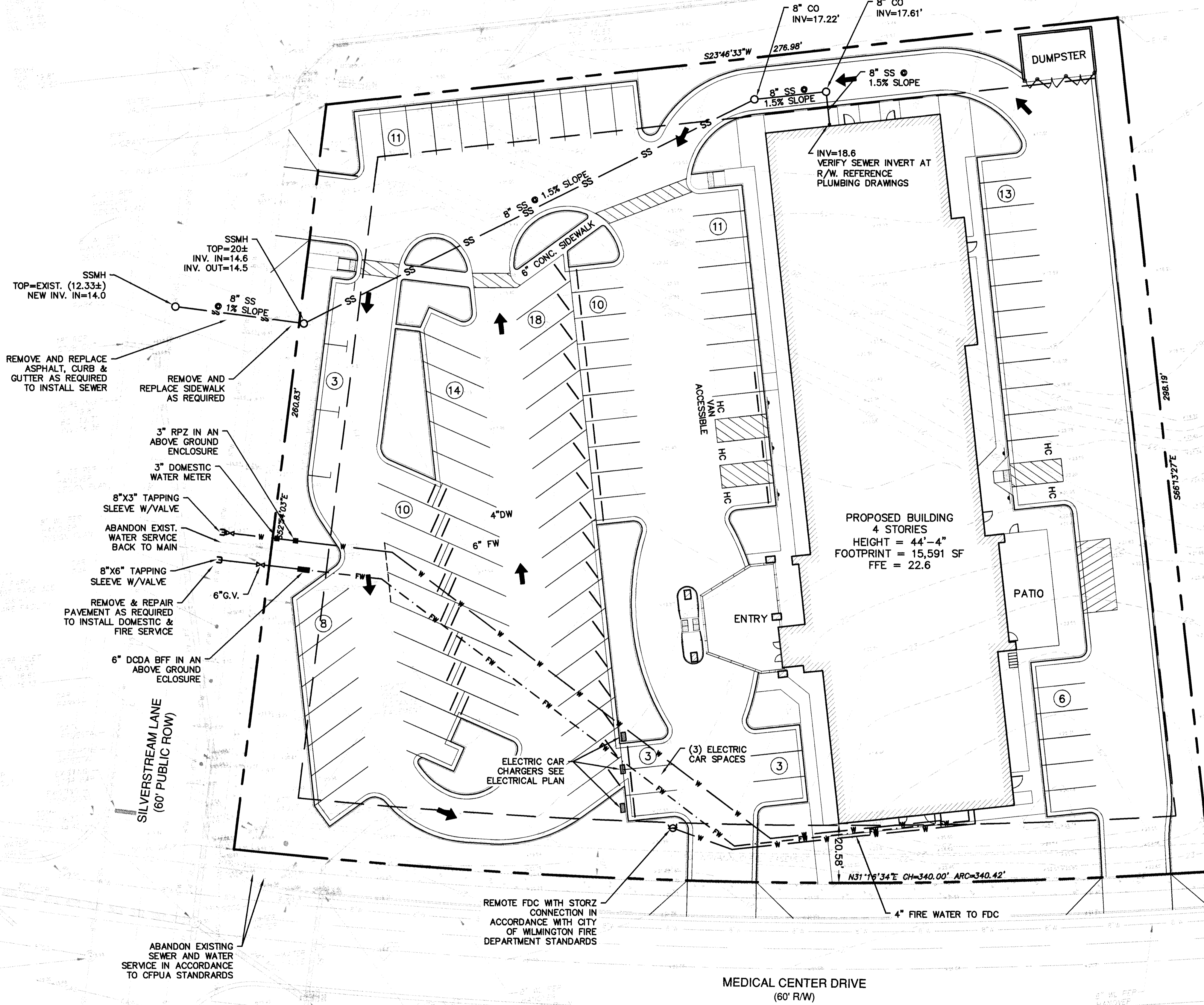


**C3**



**LEGEND**

- PROPOSED BUILDING FOOTPRINT
- PROPOSED CURB AND GUTTER
- PROPERTY BOUNDARY
- STREET YARD SETBACKS
- ZONE SETBACKS
- EXISTING CONTOUR
- DISTURBED LIMITS
- TSF TEMPORARY SILT FENCE
- SD STORM PIPE
- ROOF DRAIN PIPE
- HANDICAP LOADING/CROSSING
- ROCK CONSTRUCTION ENTRANCE
- HC 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: \_\_\_\_\_

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)



SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	
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**UTILITY PLAN**  
HOLIDAY INN EXPRESS AND SUITES  
839 MEDICAL CENTER DRIVE  
WILMINGTON, N. C.

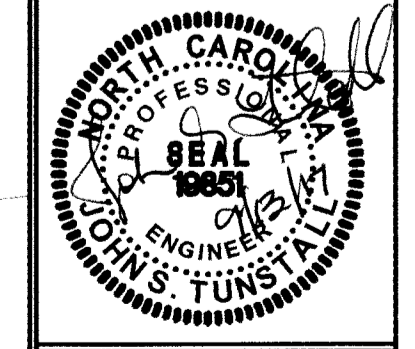
**DEVELOPER**  
MANJULA AHLUWALIA - MANAGER  
KISMET WILMINGTON, LLC  
5518 SUNSTAR COURT  
CHARLOTTE, NC 28226  
(PHONE) 704-567-6114

**NORRIS & TUNSTALL**  
CONSULTING ENGINEERS P.C.

903 MARKET STREET  
WILMINGTON, NC 28401  
PHONE: (910) 444-9653

1429 ASHLITTLE RIVER RD. NW  
CHARLOTTE, NC 28226  
PHONE: (910) 285-5900

Licence #C-3641  
**17039**  
DES. TJC  
O.D. JST  
DRWL. NSB  
DATE: 09/12/2017



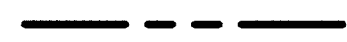

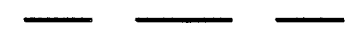

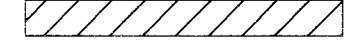
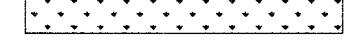

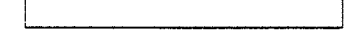
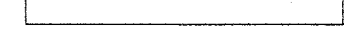
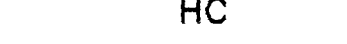

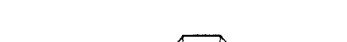



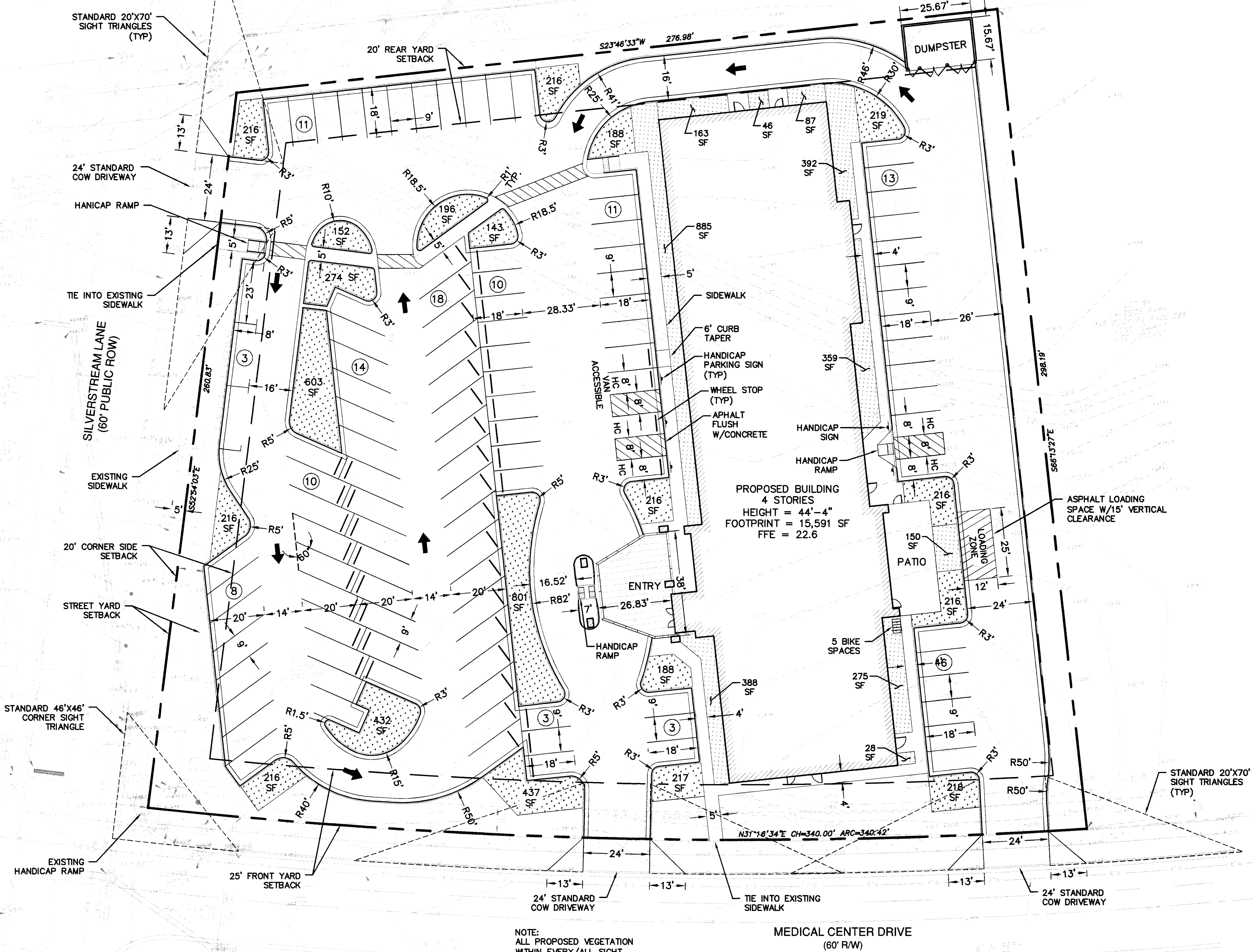
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F:\Projects\2017\17039 Holiday Inn Express\17039 Main\Utility\17039\_Mobile.mxd (14/09/2017 10:42:00 AM) Printed on: Sep 15, 2017, 4:42pm by Rick



LEGEND

-  PROPOSED BUILDING FOOTPRINT
-  PROPOSED CURB AND GUTTER
-  PROPERTY BOUNDARY
-  STREET YARD SETBACKS
-  ZONE SETBACKS
-  EXISTING CONTOUR
-  HANDICAP LOADING/CROSSING
-  PROPOSED INTERIOR LANDSCAPE
-  PROPOSED FOUNDATION PLANTINGS
-  CONCRETE SIDEWALK
-  ASPHALT
-  HC HANDICAP PARKING STALL
-  ④ PARKING COUNT
-  PROPOSED HANDICAP RAMP
-  → ONE WAY



PROPOSED BUILDING  
4 STORIES  
HEIGHT = 44'-4"  
FOOTPRINT = 15,591 SF  
FFE = 22.6

NOTE:  
ALL PROPOSED VEGETATION  
WITHIN EVERY/ALL SIGHT  
TRIANGLES SHALL NOT  
INTERFERE WITH CLEAR VISUAL  
SIGHT LINES FROM 30"-10'.

SCALE: 1" = 20'

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  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

**Approved Construction Plan**  
Name \_\_\_\_\_ Date \_\_\_\_\_  
Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_

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

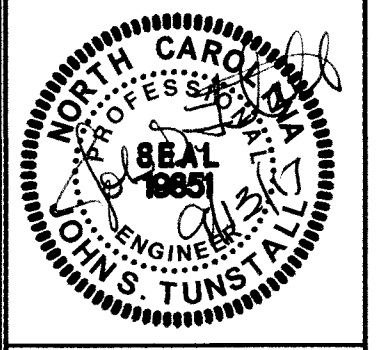
SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	
		©2017 NORRIS & TUNSTALL	

LAYOUT PLAN  
HOLIDAY INN EXPRESS AND SUITES  
839 MEDICAL CENTER DRIVE  
WILMINGTON, N. C.

DEVELOPER  
MANJULA AHLUWALIA, MANAGER  
KISMET WILMINGTON, LLC  
5518 SUNSTAR COURT  
CHARLOTTE, NC 28226  
(PHONE) 704-507-1614

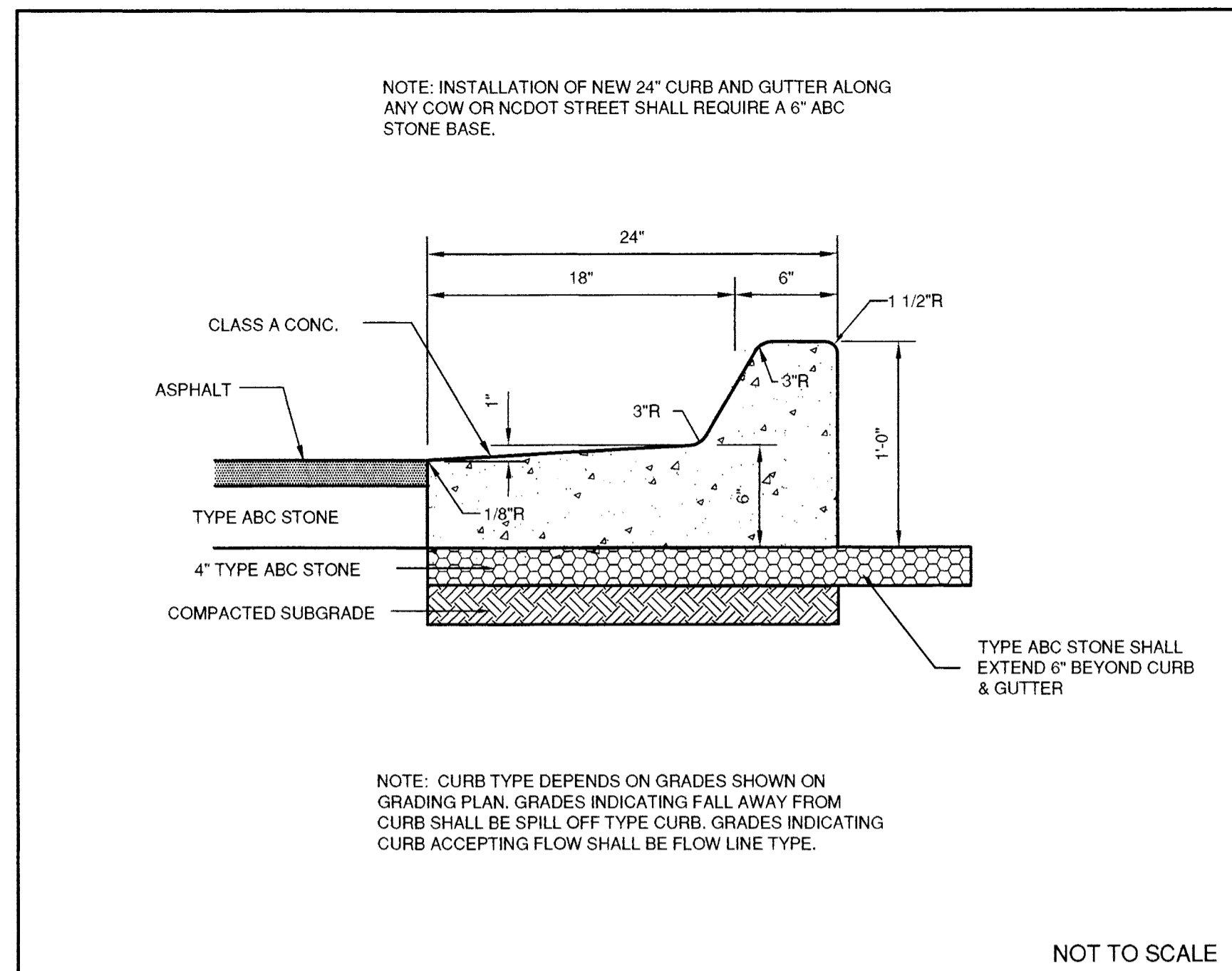
**NORRIS & TUNSTALL**  
CONSULTING ENGINEERS P.C.  
1429 ASHLITTLE RIVER RD., NW  
WILMINGTON, NC 28401  
PHONE: (910) 441-9625

Licence #C-3641  
**17039**  
DES. TJC  
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DATE: 09/12/2017

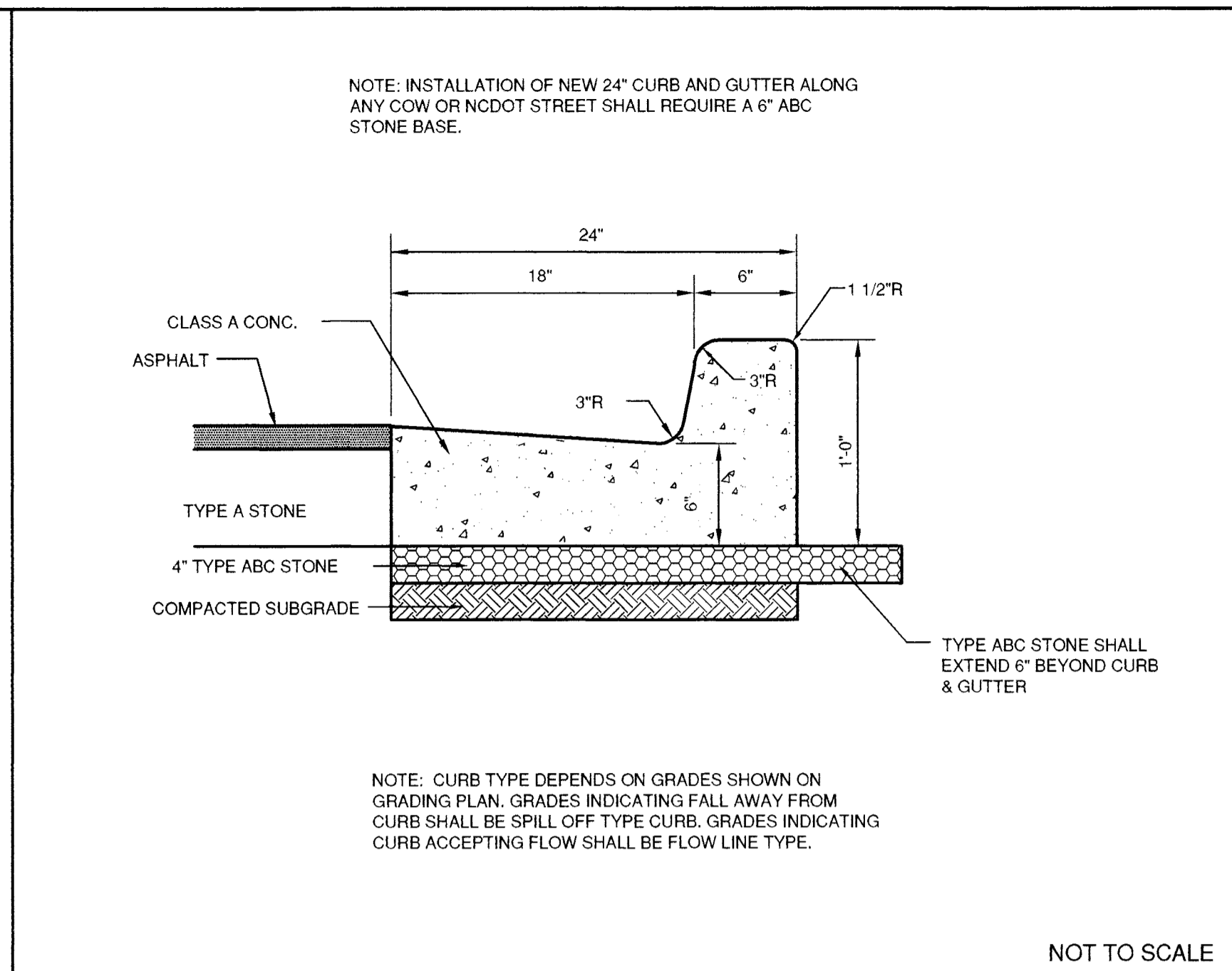


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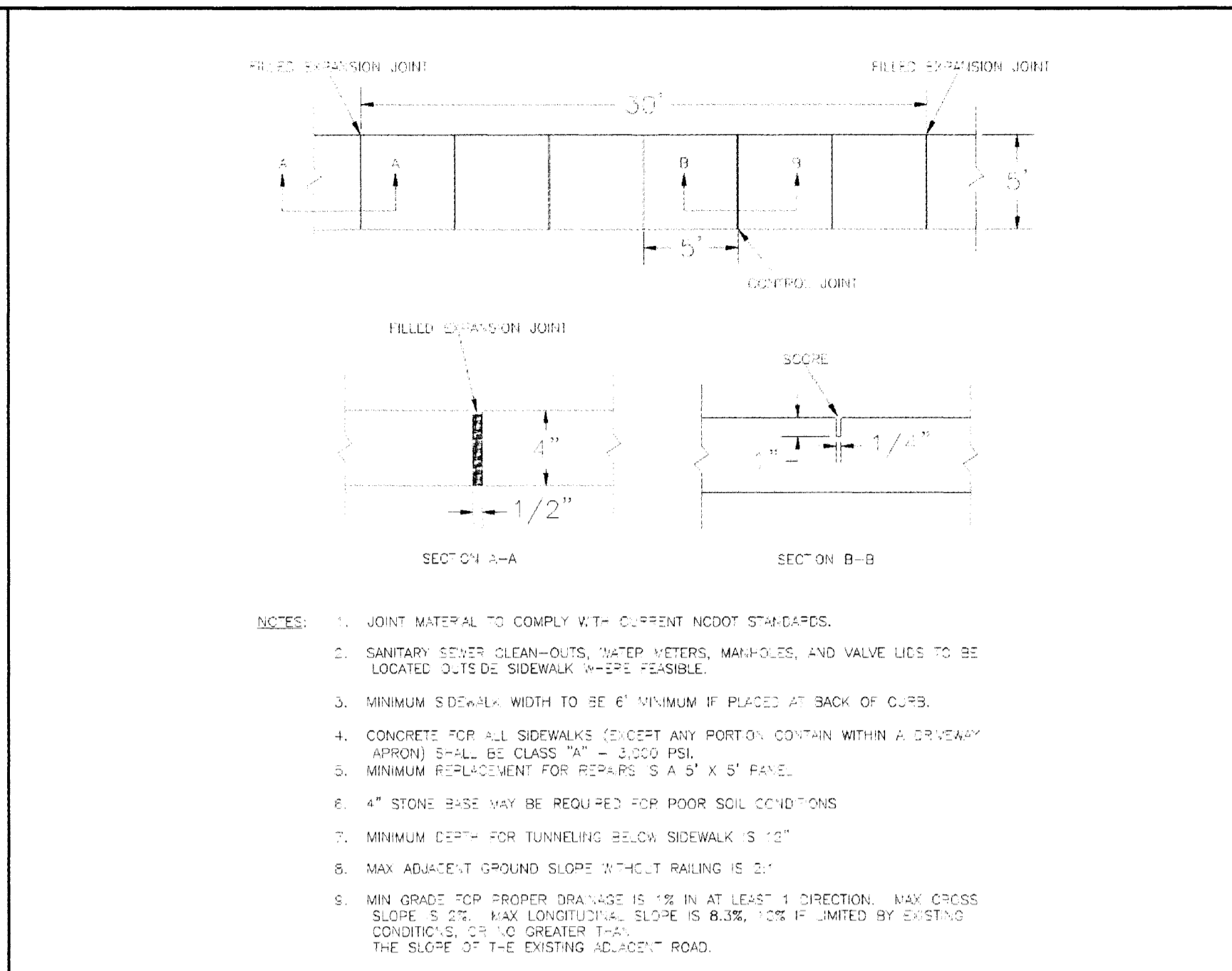




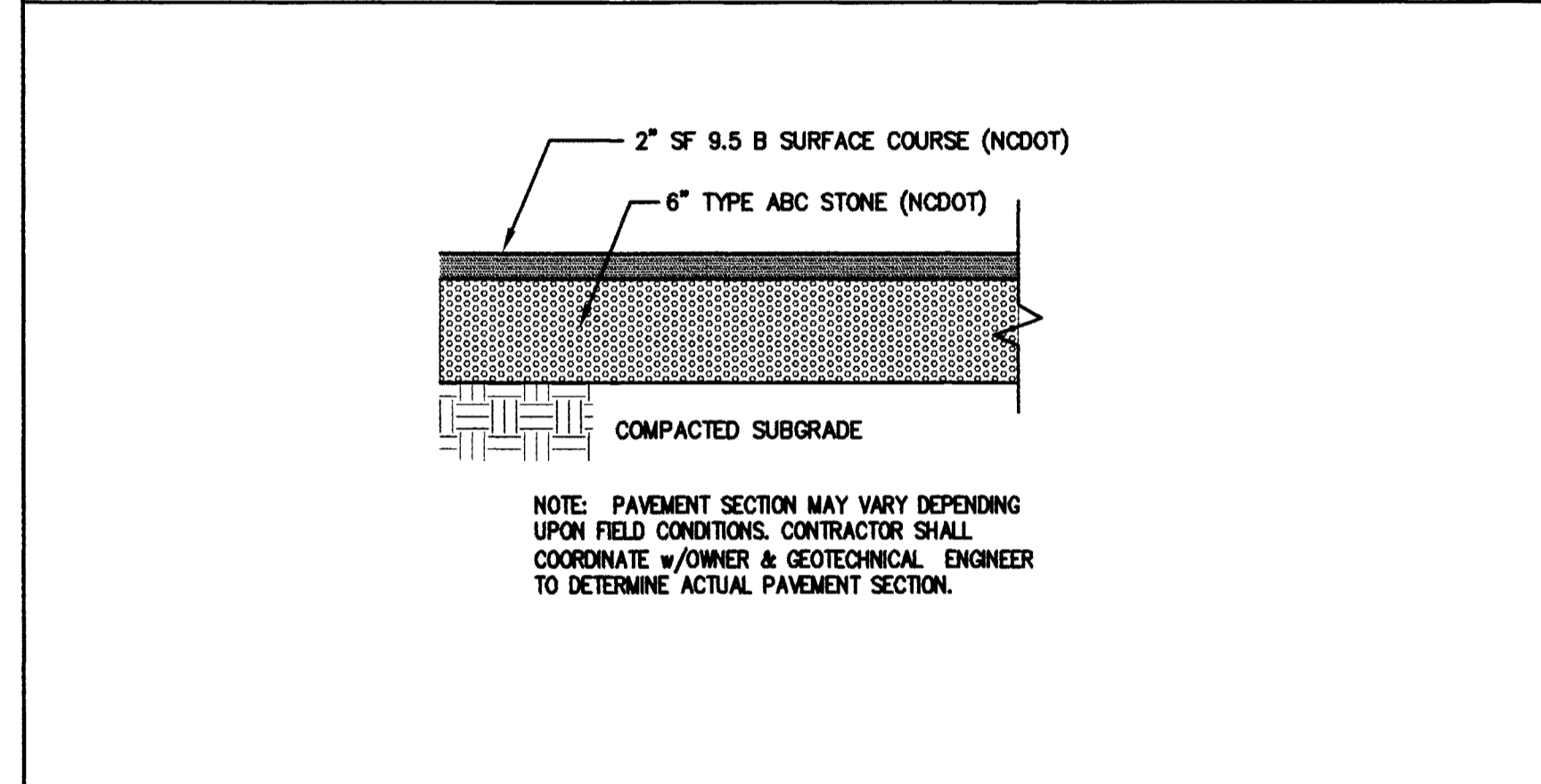
1 24" CURB AND GUTTER SECTION (SPILL-OFF) NOT TO SCALE



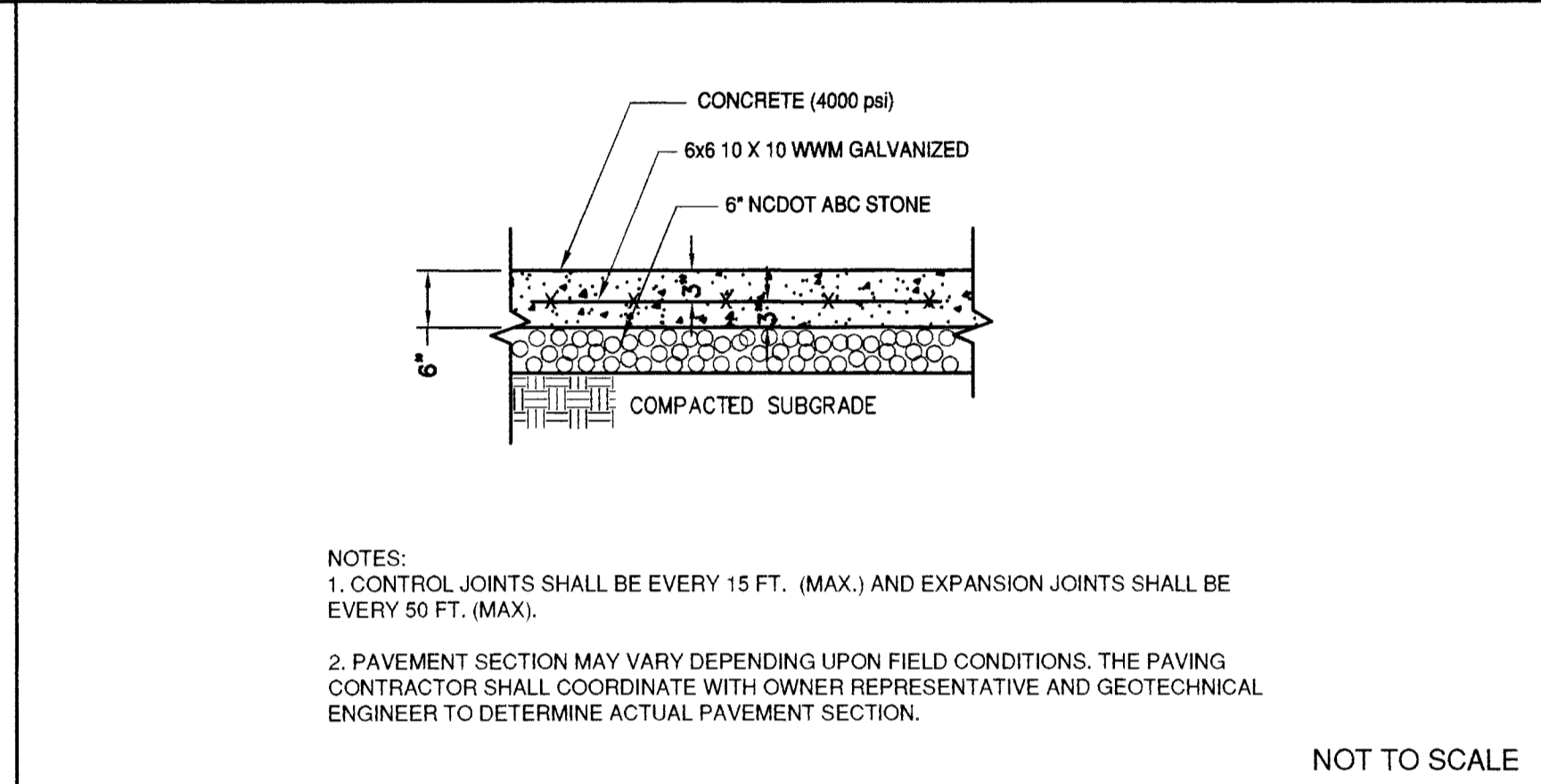
2 24" CURB AND GUTTER SECTION (FLOW-LINE) NOT TO SCALE



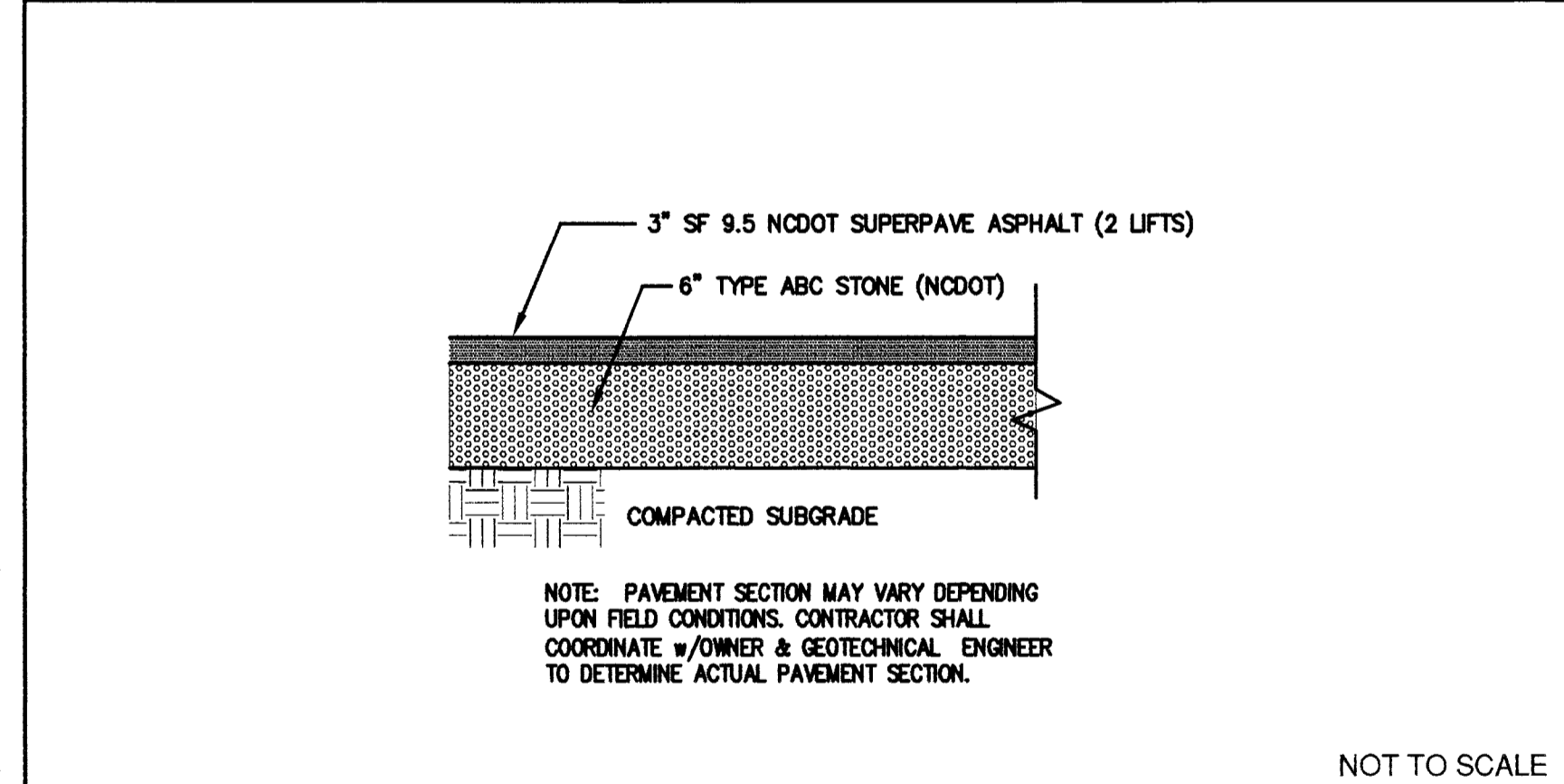
3 STANDARD SIDEWALK DETAIL NOT TO SCALE



4 LIGHT DUTY ASPHALT PAVEMENT SECTION NOT TO SCALE



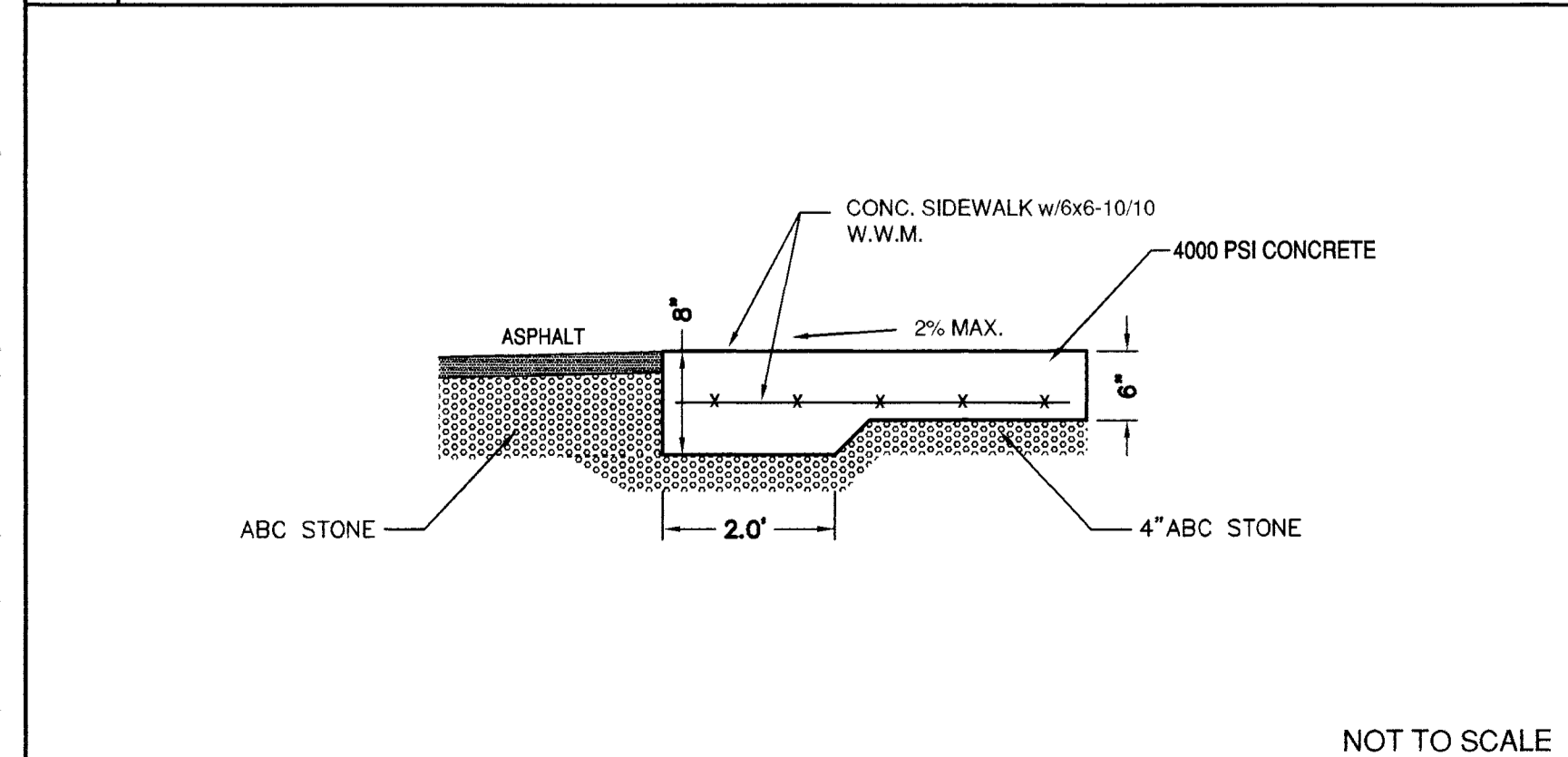
5 HEAVY DUTY CONCRETE PAVEMENT SECTION NOT TO SCALE



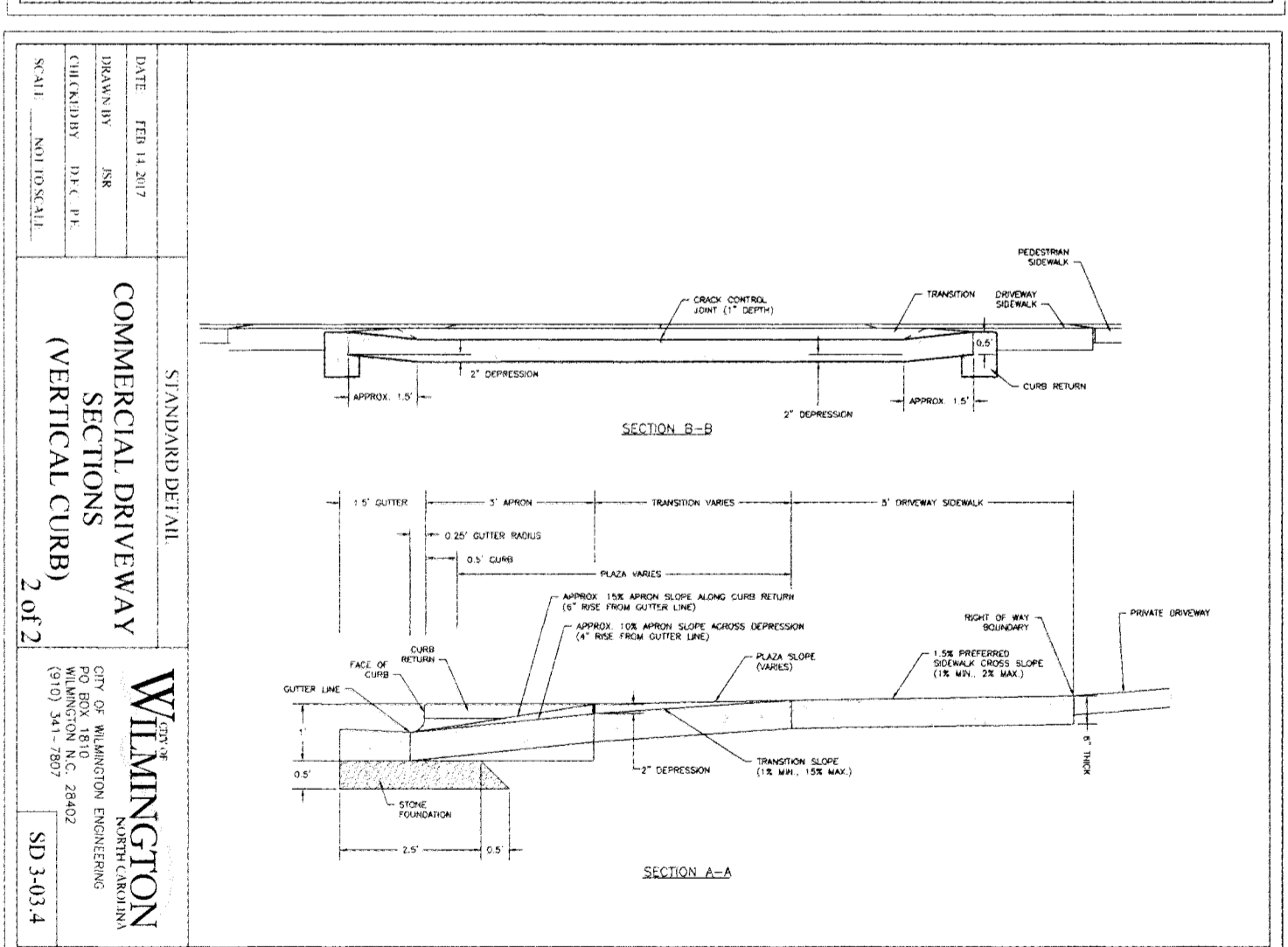
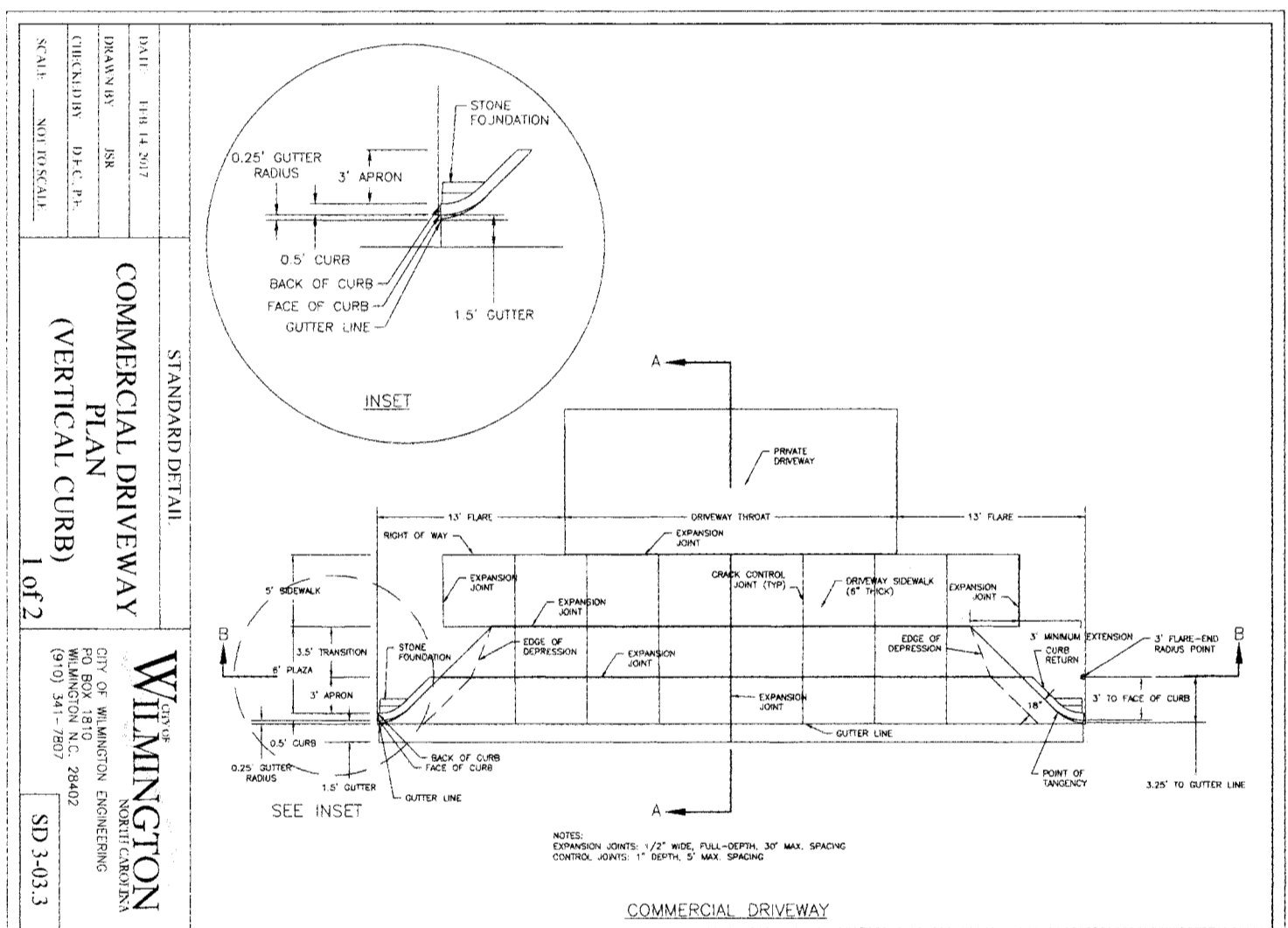
6 HEAVY DUTY ASPHALT PAVEMENT SECTION NOT TO SCALE

**EROSION CONTROL NOTES AND MAINTENANCE PLAN:**

- 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.
- ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
- SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT 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.
- DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
- SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 8 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 DAMAGED.
- SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLOADED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED AND KEPT CLEAN WEEKLY.
- SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLOADED. 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 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
- 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 14 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 VERTICAL (3:1) AND ALL HORIZONTAL TO 1' SLOPES, ALL SLOPES STEEPER THAN 3 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.
- FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECT SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.
- BASIN OUTLET STRUCTURES AND SKIMMERS SHALL WITHDRAW WATER FROM THE SURFACE.



7 CONCRETE WALK FLUSH WITH ASPHALT NOT TO SCALE



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: \_\_\_\_\_  
Planning: \_\_\_\_\_  
Traffic: \_\_\_\_\_  
Fire: \_\_\_\_\_

NCDNR PWSS WATER PERMIT # \_\_\_\_\_ GPD  
WATER CAPACITY: \_\_\_\_\_ GPD  
DWO SEWER PERMIT # \_\_\_\_\_ GPD  
SEWER CAPACITY: \_\_\_\_\_ GPD  
SEWER SHED # AND PLANT: \_\_\_\_\_  
SEWER TO FLOW THROUGH NET: YES OR NO (CIRCLE ONE)

City of Wilmington  
Public Services • Engineering Division  
APPROVED DRAINAGE PLAN  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

**CITY OF WILMINGTON**  
**STANDARD NOTES:**

- CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
- INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
- IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. POSTED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
- ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS, AND CURBING WILL BE REPLACED.
- CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- PROJECT SHALL COMPLY WITH CPFWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS(C) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 343-3910 FOR INFORMATION.
- IF THE CONTRACTOR DESIRES CPFWA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
- ANY IRRIGATION SYSTEM SUPPLIED BY CPFWA WATER SHALL COMPLY WITH CPFWA CROSS CONNECTION CONTROL REGULATIONS. CALL 332-6558 FOR INFORMATION.
- ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CPFWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USFCOCHR OR ASSE.
- WHEN PVC WATER MAINS AND/OR POLYETHYLENE SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED SINGLE STRAND COPPER WIRE INSTALLED THE ENTIRE LENGTH AND SECURED TO ALL VALVES. THIS WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
- THE NUMBER AND SPACING OF DRIVEWAYS FOR ALL INTERCONNECTED SITES WILL BE DETERMINED BY THE COMBINED FRONTAGE OF THE INTERCONNECTED PROPERTIES.
- UNDERGROUND FIRE LINE MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC ROW TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
- A LANDSCAPE PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEER DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT.
- IF AN IRRIGATION SYSTEM IS PLANNED FOR THE SITE, UTILIZE MOISTURE SENSORS.
- ALL PROPOSED VEGETATION WITHIN THE SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10'.
- PLEASE CONSIDER INCORPORATING XERIC LANDSCAPING FOR ALL NEW LANDSCAPING.
- THE CONTRACTOR WILL MAINTAIN ALL WEATHER EMERGENCY ACCESS TO CONSTRUCTION SITE AT ALL TIMES.

NOT TO SCALE

**UTILITY NOTES FOR FIRE HYDRANTS:**

- FIRE HYDRANTS MUST BE WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION.
- THE FIRE DEPARTMENT CONNECTION MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- LANDSCAPING AND PARKING CANNOT BLOCK OR IMPEDE THE FIRE DEPARTMENT CONNECTIONS OR FIRE HYDRANTS. A 3' CLEAR SPACE MUST BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE FIRE HYDRANT CONNECTION AND THE FIRE HYDRANT.
- FIRE HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
- NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDINGS.
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
- THE CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
- UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
- A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
- HYDRANTS SHALL BE OF SUFFICIENT NUMBERS TO ACCOMMODATE BASE FIRE FLOW REQUIREMENTS OF THE STRUCTURE.
- BUILDING CONSTRUCTION TYPE: VA

NOT TO SCALE

CALL 811 (3) WORKING DAYS BEFORE YOU DIG.

**D1**

**DETAILS AND NOTES**

**HOLIDAY INN EXPRESS AND SUITES**  
859 MEDICAL CENTER DRIVE  
WILMINGTON, N. C.

**DEVELOPER**  
MANULLA AKHUNJALIA, MANAGER  
KISMET WILMINGTON, LLC  
5516 SUNSTAR COURT  
CHARLOTTE, NC 28226  
(PHONE) 704-507-1814

**NORRIS & TUNSTALL**  
CONSULTING ENGINEERS P.C.

1429 ASHLITTLE RIVER RD. NW  
ASH, NC 28420  
PHONE (910) 287-5900

902 MARKET STREET  
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PHONE (910) 343-9653

License #C-3641

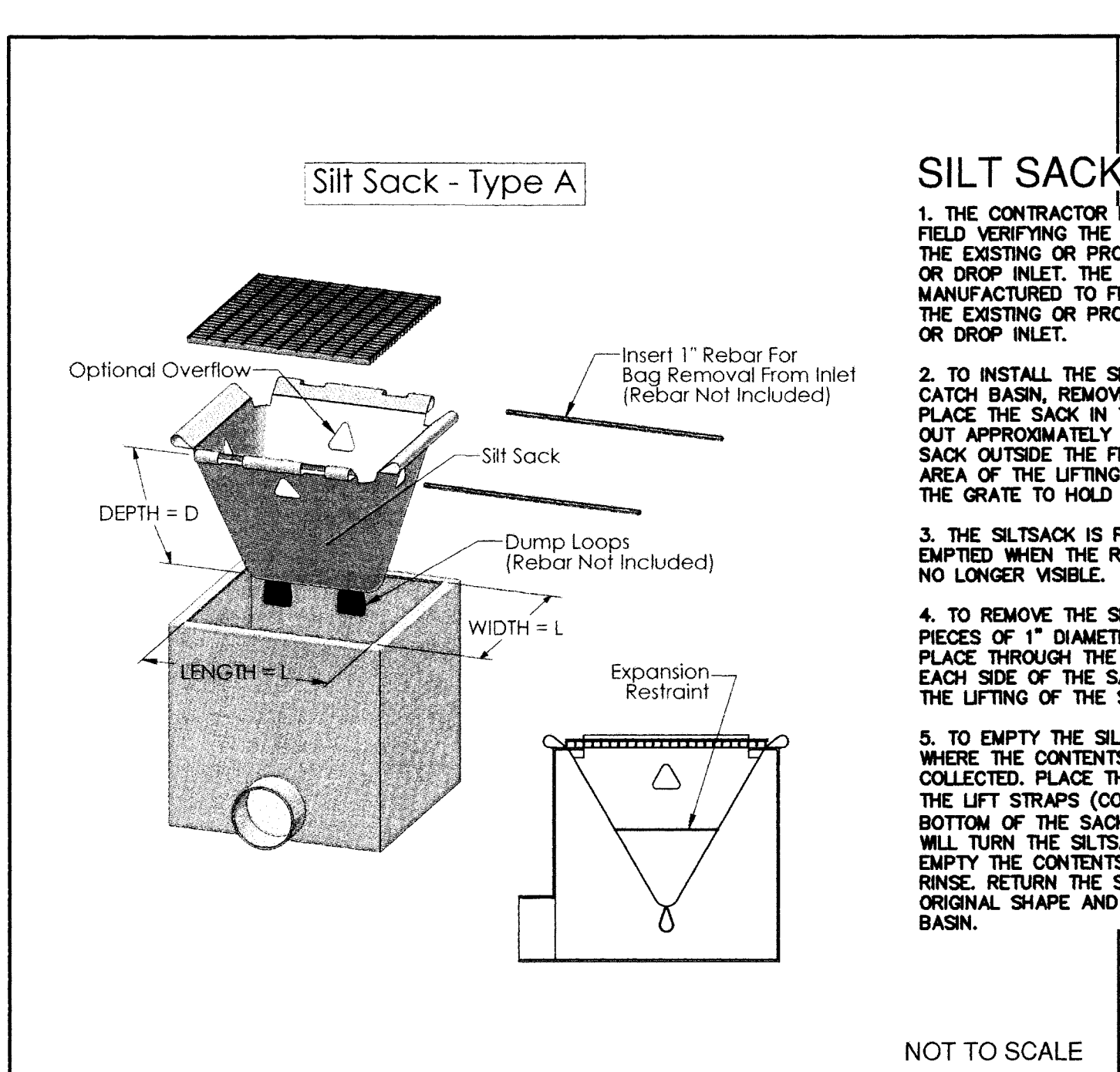
17039

DES. TJC  
ORD. JST  
DRWN. NSB

DATE: 09/12/2017

Seal of the North Carolina State Board of Professional Engineers, Architects, and Surveyors, No. 17039, dated 09/12/2017.

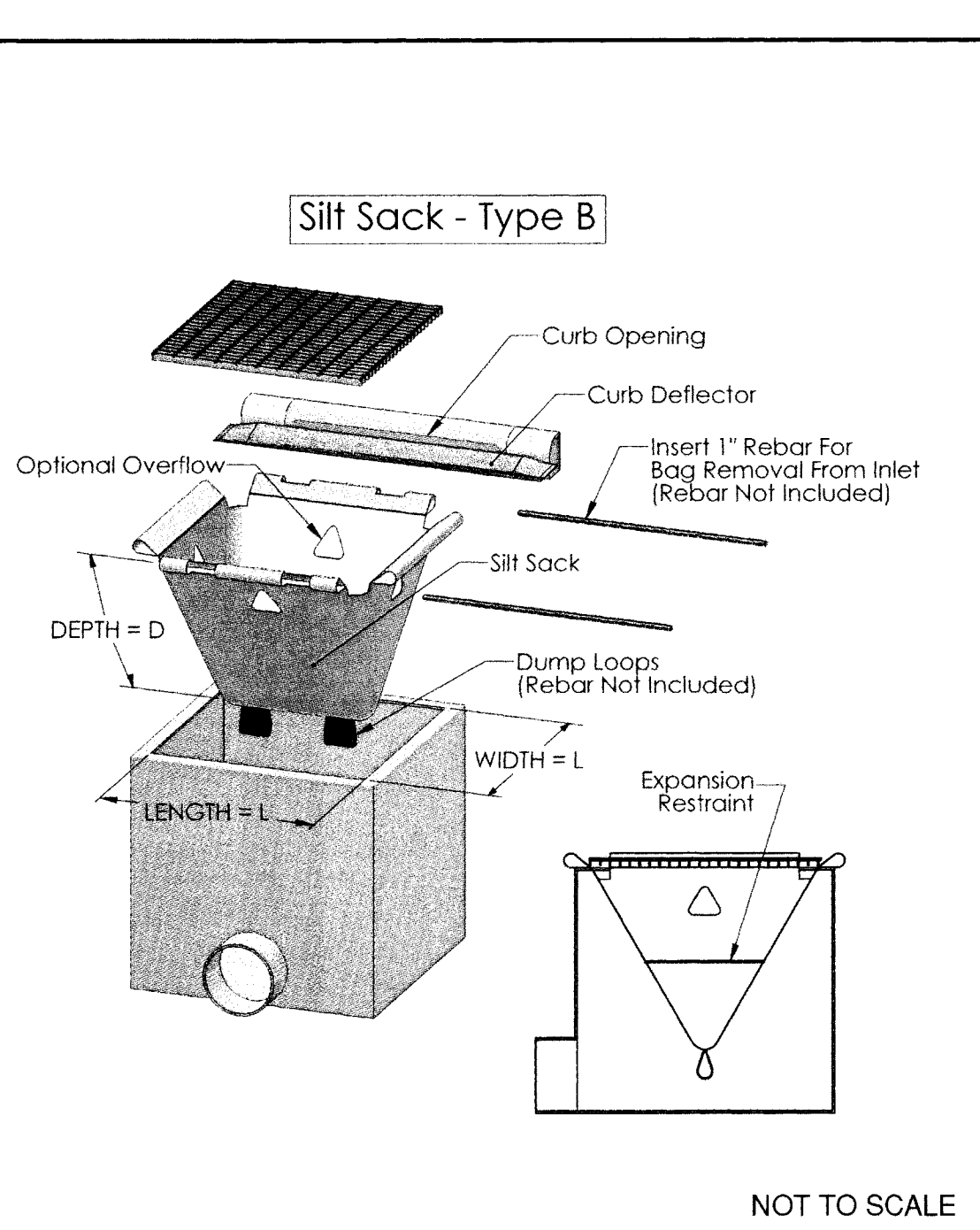




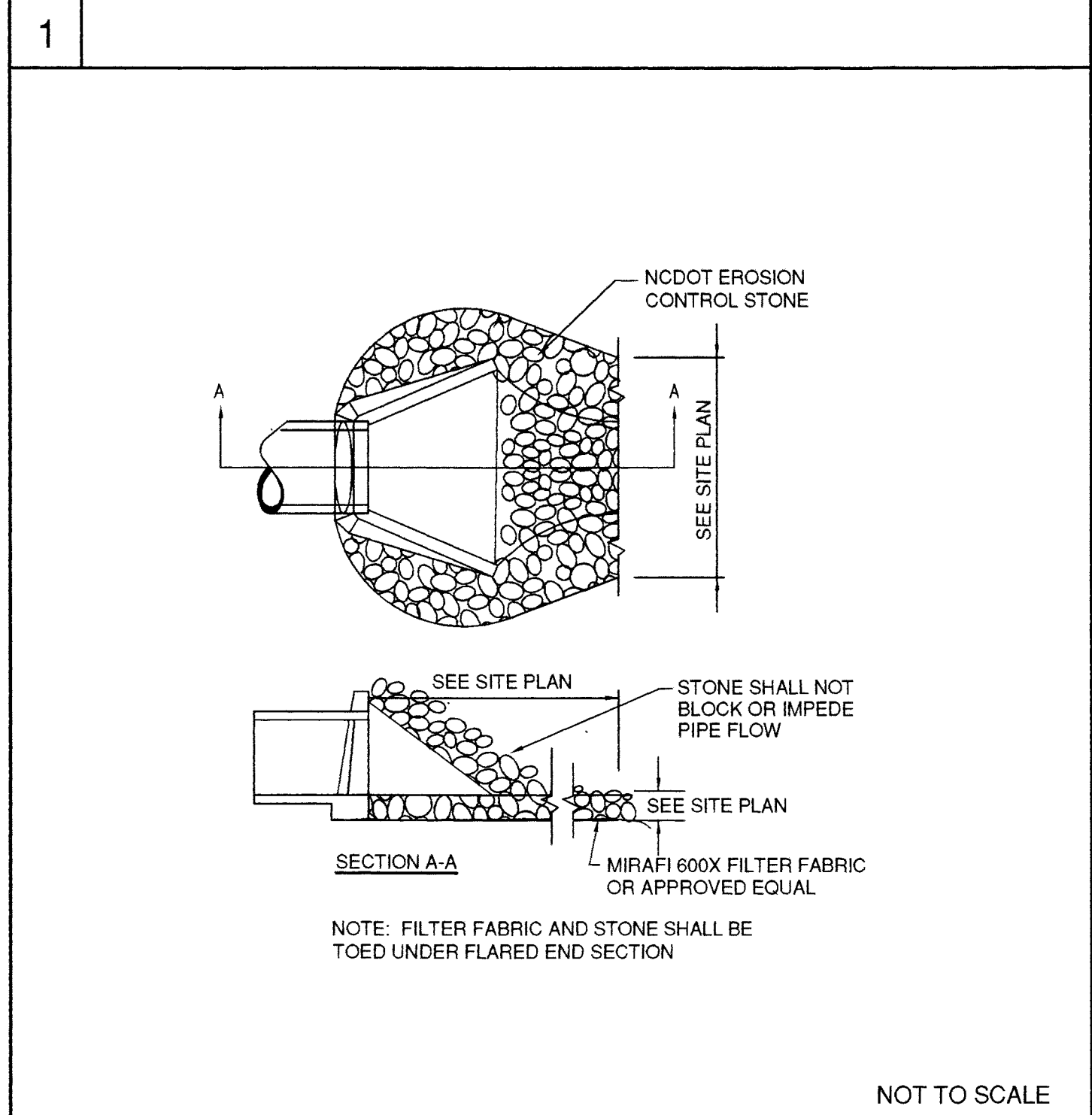
**SILT SACK NOTES**

1. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE OPENING SIZE OF THE EXISTING OR PROPOSED CATCH BASIN OR DROP INLET. THE SILTSACK WILL BE MANUFACTURED TO FIT THE OPENING OF THE EXISTING OR PROPOSED CATCH BASIN OR DROP INLET.
2. TO INSTALL THE SILTSACK IN THE CATCH BASIN, REMOVE THE GRATE AND PLACE THE SACK IN THE OPENING. HOLD OUT APPROXIMATELY SIX INCHES OF THE SACK OUTSIDE THE FRAME. THIS IS THE AREA OF THE LIFTING STRAPS. REPLACE THE GRATE TO HOLD THE SACK IN PLACE.
3. THE SILTSACK IS FULL AND SHOULD BE EMPTIED WHEN THE RESTRAINT CORD IS NO LONGER VISIBLE.
4. TO REMOVE THE SILTSACK, TAKE TWO PIECES OF 1" DIAMETER REBAR AND PLACE THROUGH THE LIFTING LOOPS ON EACH SIDE OF THE SACK TO FACILITATE THE LIFTING OF THE SILTSACK.
5. TO EMPTY THE SILTSACK, PLACE IT WHERE THE CONTENTS WILL BE COLLECTED. PLACE THE REBAR THROUGH THE LIFT STRAPS (CONNECTED TO THE BOTTOM OF THE SACK) AND LIFT. THIS WILL TURN THE SILTSACK INSIDE OUT AND EMPTY THE CONTENTS. CLEAN OUT AND RINSE. RETURN THE SILTSACK TO ITS ORIGINAL SHAPE AND PLACE BACK IN THE BASIN.

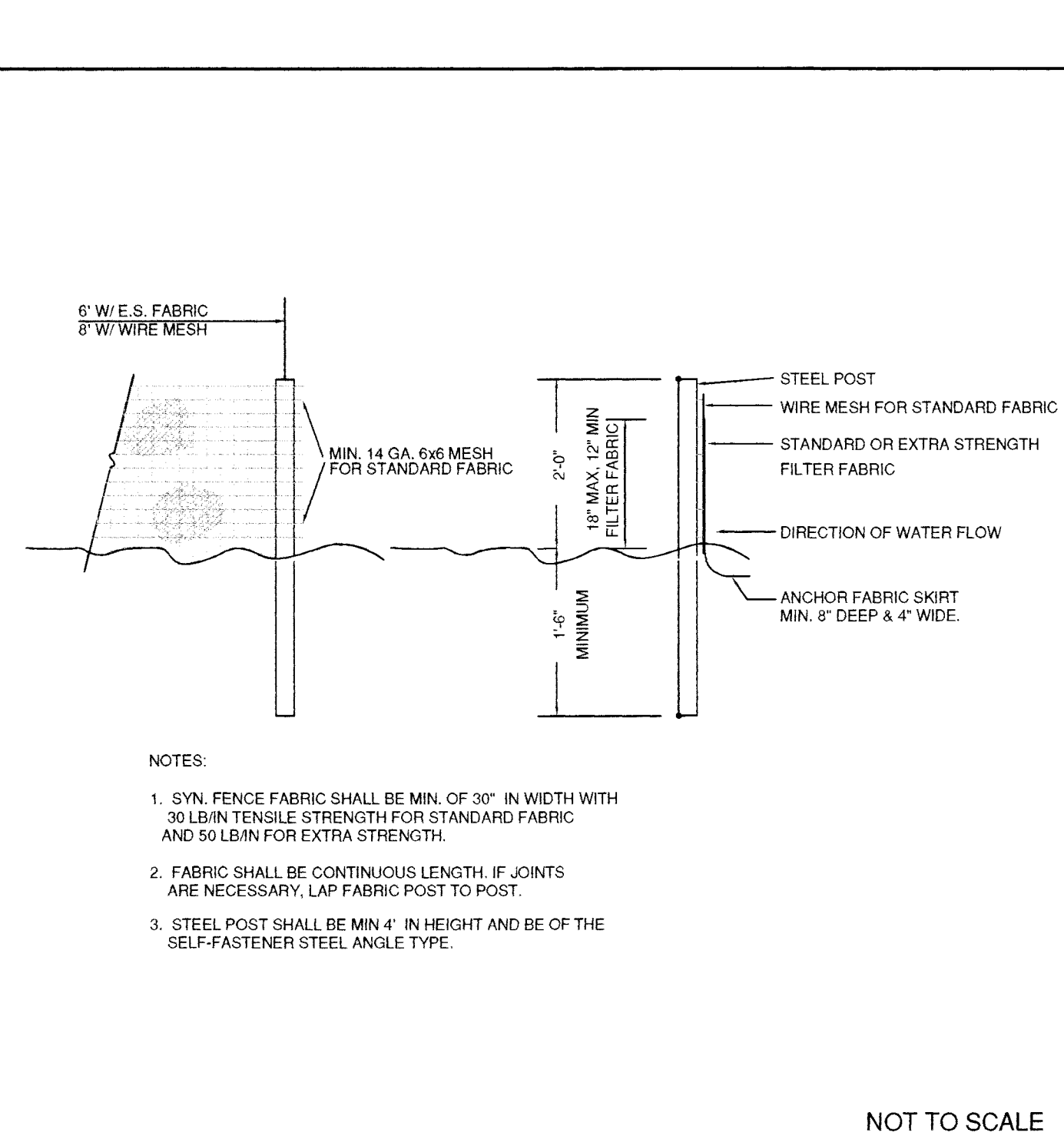
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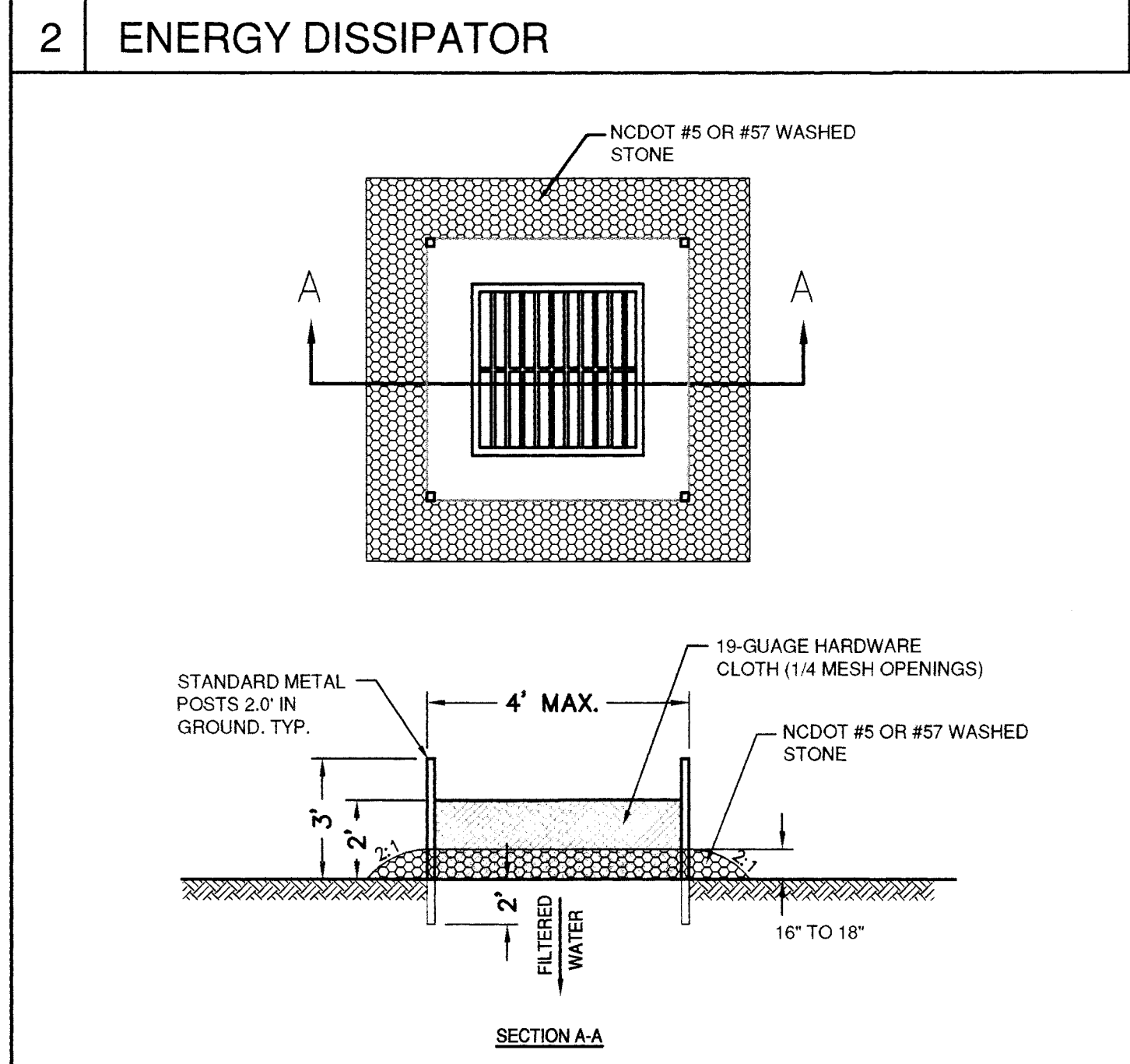
NOT TO SCALE



NOT TO SCALE



NOT TO SCALE



NOT TO SCALE

**CONSTRUCTION SEQUENCE:**

1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5" STEEL POST 2' INTO THE GROUND SURROUNDING THE INLET. SPACE POST EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4' APART.
3. SURROUND THE POST WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POST AT THE TOP, MIDDLE AND BOTTOM. PLACING A 2" FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NCDOT #5 OR #7 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16" TO 18" 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 STABILIZE IT WITH GROUND COVER.

**MAINTENANCE:**  
INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REMOVE SEDIMENT WHEN ACCUMULATION REACHES HALF THE DEPTH OF ROCK. REPLACE STONE WHEN IT NO LONGER DRAINS AS DESIGNED.

**TEMPORARY SEEDING RECOMMENDATIONS**

LATE WINTER & EARLY SPRING	
<b>SEEDING MIXTURE</b>	
SPECIES	RATE (lb/acre)
ANNUAL LESPEDEZA	120
KOBE IN PIEDMONT AND COASTAL PLAIN, KOREAN IN MOUNTAINS	50
OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.	
<b>SEEDING DATES:</b>	
MOUNTAINS - ABOVE 2,500 FEET:	FEB. 15 - MAY 15
PIEDMONT - COASTAL PLAIN - SOIL AMENDMENTS:	BELOW 2,500 FEET: FEB. 1 - MAY 1
	JAN. 1 - MAY 1
	DEC. 1 - APRIL 15
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER.	
<b>MULCH:</b>	
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.	
<b>MAINTENANCE:</b>	
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.	

SUMMER	
<b>SEEDING MIXTURE</b>	
SPECIES	RATE (lb/acre)
GERMAN MILLET	40
IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUDANGRASS MAY BE SUBSTITUTED AT A RATE OF 50 lb/acre.	
<b>SEEDING DATES:</b>	
MOUNTAINS - MAY 15 - AUG. 15	
PIEDMONT - MAY 1 - AUG. 15	
COASTAL PLAIN - APR. 15 - AUG. 15	
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER.	
<b>MULCH:</b>	
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.	
<b>MAINTENANCE:</b>	
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.	

FALL	
<b>SEEDING MIXTURE</b>	
SPECIES	RATE (lb/acre)
RYE (GRAIN)	120
<b>SEEDING DATES:</b>	
MOUNTAINS - AUG. 15 - DEC. 15	
COASTAL PLAIN AND PIEDMONT - AUG. 15 - DEC. 15	
FOLLOW SOIL TEST OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 1,000 lb/acre 10-10-10 FERTILIZER.	
<b>MULCH:</b>	
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.	
<b>MAINTENANCE:</b>	
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.	

**PERMANENT SEEDING RECOMMENDATIONS**

FALL & EARLY SPRING		
<b>SEEDING MIXTURE</b>		
SPECIES	RATE (lb/acre)	
TALL FESCUE	80	1.84
PENSACOLA BAHIAGRASS 50	30	1.15
SERICEA LESPEDEZA	30	0.69
KOBE LESPEDEZA	10	0.23
<b>SEEDING NOTES:</b>		
1. FROM SEPT. 1 THRU MAR. 1, USE UNSCARIFIED SERICEA SEED.		
2. ON POORLY DRAINED SITES OMIT SERICEA AND INCREASE KOBE TO 30 lb/acre.		
3. WHERE A NEAT APPEARANCE IS DESIRED, OMIT SERICEA AND INCREASE KOBE TO 40 lb/acre.		
<b>NURSE PLANTS:</b> BETWEEN APR. 15 AND AUG. 15, ADD 10 lb/acre GERMAN MILLET OR 15 lb/acre SUDANGRASS. PRIOR TO MAY 1 OR AFTER AUG. 15 ADD 25 lb/acre RYE (GRAIN).		
<b>SEEDING DATES:</b>	<b>BEST</b>	<b>POSSIBLE</b>
EARLY SPRING:	FEB 15-MAR 20	FEB 15-APR 30
FALL:	SEPT. 1-SEPT. 30	SEPT. 1-OCT. 31
<b>SOIL AMENDMENTS:</b>		
APPLY LIME AND FERTILIZE ACCORDING TO SOIL TESTS, OR APPLY 3,000-5,000 lb/acre (68.9-114.8 lbs/1,000 sf) GROUND AGRICULTURAL LIMESTONE (USE THE LOWER RATE ON SANDY SOILS) AND 1,000 lb/acre (22.9 lbs/1,000 sf) 10-10-10 FERTILIZER.		
<b>MULCH:</b>		
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.		
<b>MAINTENANCE:</b>		
IF GROWTH IS LESS THAN FULLY ADEQUATE, REFERTILIZE IN THE SECOND YEAR, ACCORDING TO SOIL TESTS OR TOPDRESS WITH 500 lb/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.		

LATE SPRING & EARLY SUMMER		
<b>SEEDING MIXTURE</b>		
SPECIES	RATE (lb/acre)	
PENSACOLA BAHIAGRASS 50	30	1.15
SERICEA LESPEDEZA	10	0.23
COMMON BERMUDA	10	0.23
GERMAN MILLET	10	0.23
<b>SEEDING NOTES:</b>		
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 CENTIPEDEGRASS.		
<b>SEEDING DATES:</b>	APRIL 1-JULY 15	
<b>SOIL AMENDMENTS:</b>		
APPLY LIME AND FERTILIZE ACCORDING TO SOIL TESTS, OR APPLY 3,000 lb/acre (68.9 lbs/1,000 sf) GROUND AGRICULTURAL LIMESTONE AND 500 lb/acre (11.5 lbs/1,000 sf) 10-10-10 FERTILIZER.		
<b>MULCH:</b>		
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.		
<b>MAINTENANCE:</b>		
REFERTILIZE THE FOLLOWING APRIL WITH 50 lb/acre (1.15 lbs/1,000 sf) NITROGEN. REPEAT AS GROWTH REQUIRES. MAY BE MOVED ONLY ONCE A YEAR, WHERE A NEAT APPEARANCE IS DESIRED, OMIT SERICEA AND MOW AS OFTEN AS NEEDED.		

CALL 811 (3) WORKING DAYS BEFORE YOU DIG.

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 DRAINAGE PLAN

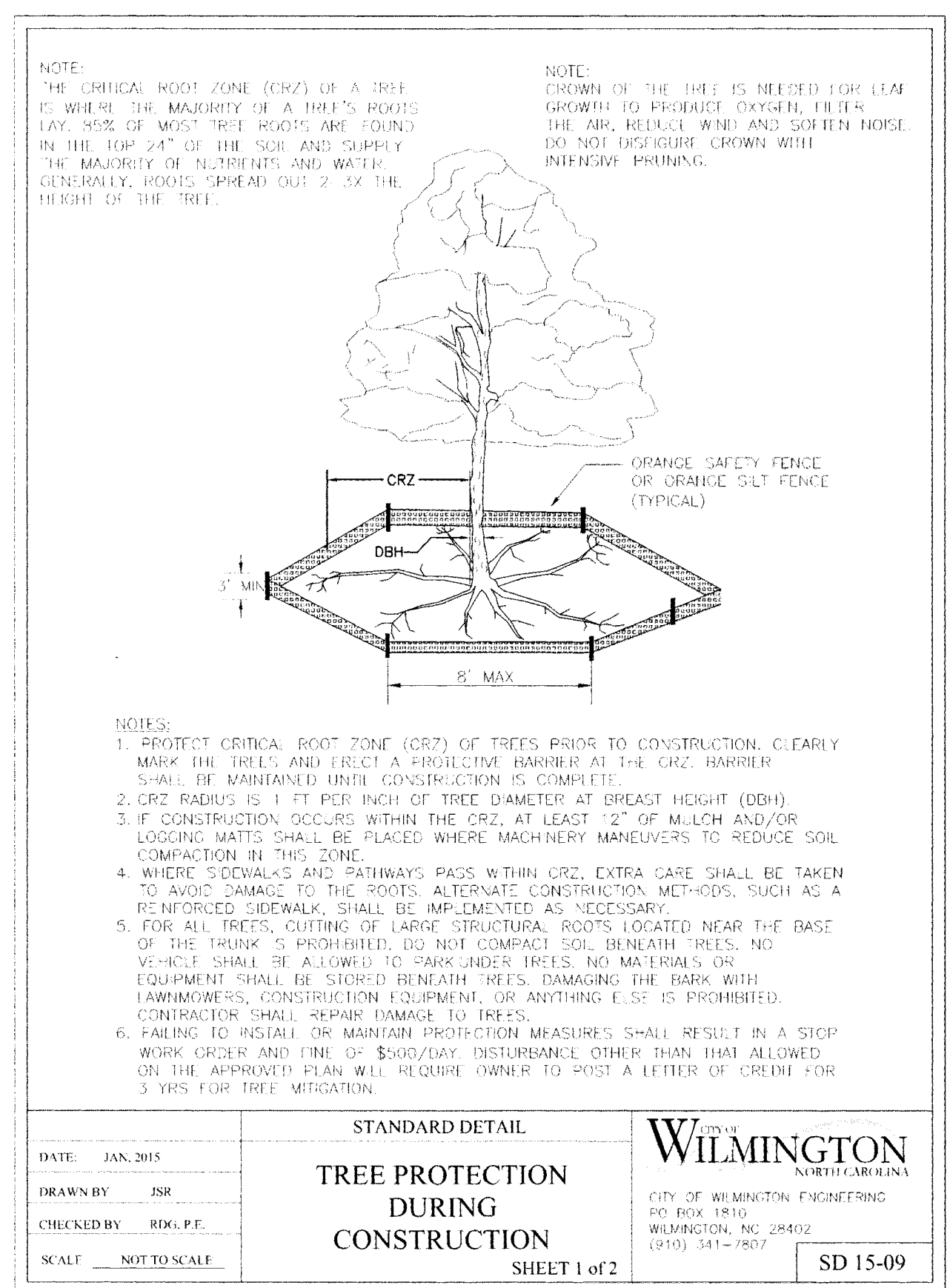
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Signed: \_\_\_\_\_

**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_  
Traffic: \_\_\_\_\_  
Fire: \_\_\_\_\_

NCDENR PWSS WATER PERMIT # \_\_\_\_\_  
WATER CAPACITY: \_\_\_\_\_ GPD  
DWG SEWER PERMIT # \_\_\_\_\_  
SEWER CAPACITY: \_\_\_\_\_ GPD  
SEWER SIZE # AND PLANT: \_\_\_\_\_  
SEWER TO FLOW THROUGH NET: YES or NO (CIRCLE ONE)



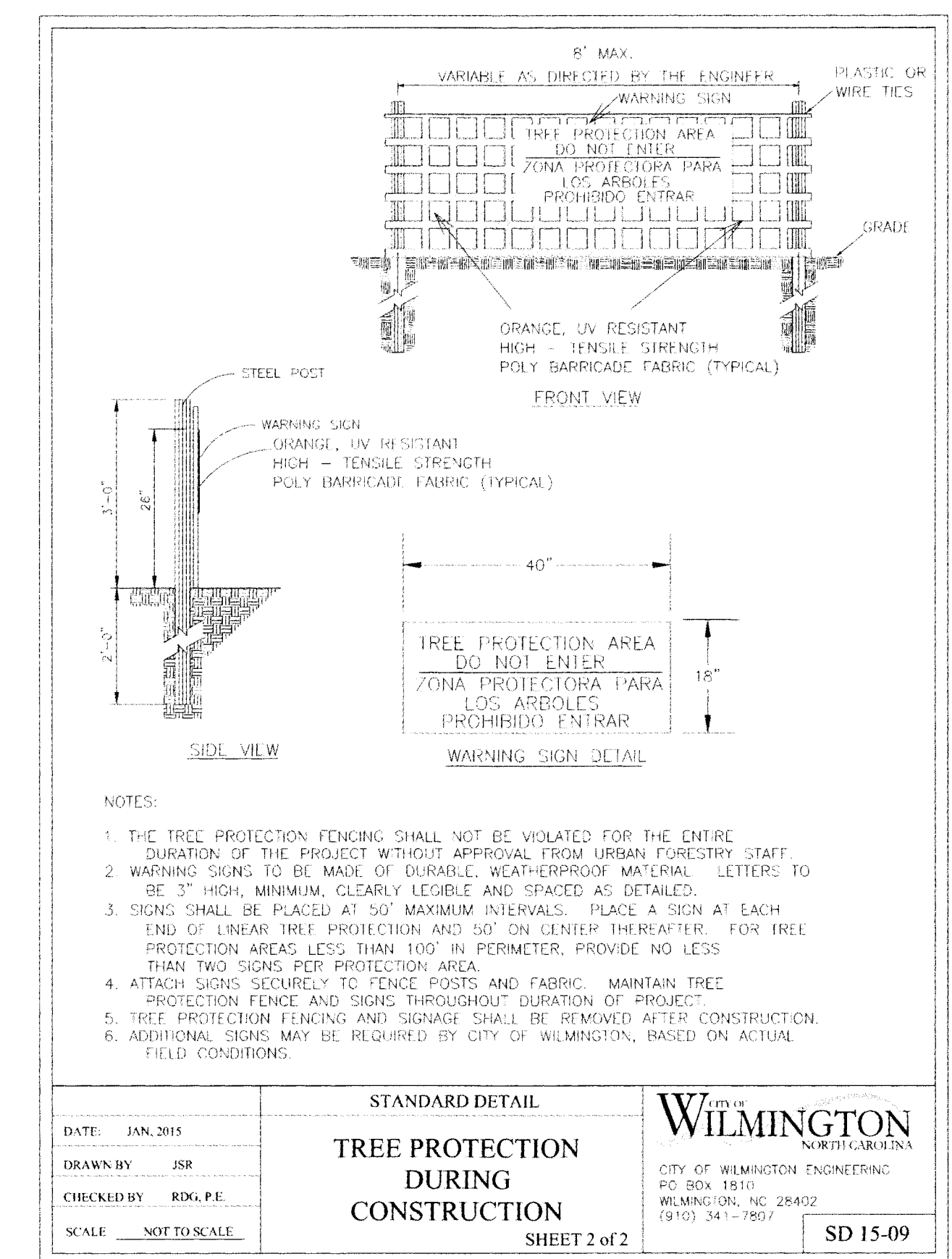
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DRAWN BY: JSR  
CHECKED BY: RKG, P.E.  
SCALE: NOT TO SCALE

**TREE PROTECTION DURING CONSTRUCTION**

SHEET 1 of 2

**WILMINGTON**  
CITY OF WILMINGTON ENGINEERING  
PO BOX 1810  
WILMINGTON, NC 28402  
(910) 344-7607

SD 15-09



DATE: JAN. 2015  
DRAWN BY: JSR  
CHECKED BY: RKG, P.E.  
SCALE: NOT TO SCALE

**TREE PROTECTION DURING CONSTRUCTION**

SHEET 2 of 2

**WILMINGTON**  
CITY OF WILMINGTON ENGINEERING  
PO BOX 1810  
WILMINGTON, NC 28402  
(910) 344-7607

SD 15-09

BY	DESCRIPTION	REVISIONS

**DETAILS AND NOTES**

**HOLIDAY INN EXPRESS AND SUITES**  
839 MEDICAL CENTER DRIVE  
WILMINGTON, N. C.

**DEVELOPER**  
MANJULA AHLUWALIA, MANAGER  
KISMET WILMINGTON, LLC  
5578 SUNSTAR COURT  
CHARLOTTE, NC 28226  
(PHONE) 704-507-1614

**NORRIS & TUNSTALL**  
CONSULTING ENGINEERS P.C.

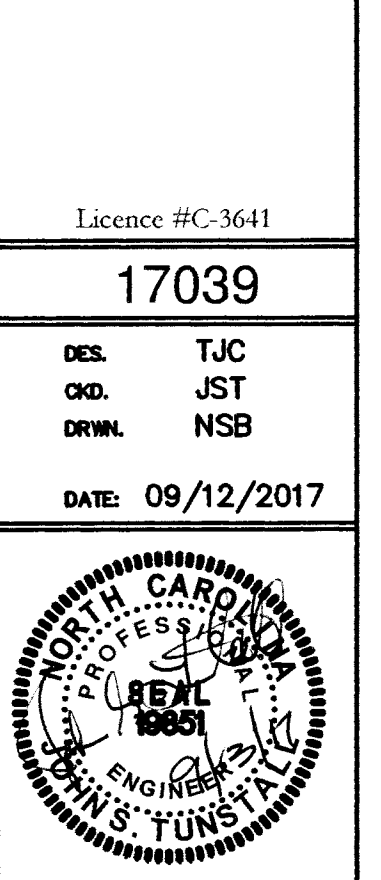
1429 ASHLITTLE RIVER RD, NW  
ASHL, NC 28402  
PHONE: (910) 287-5900

License #C-3641

**17039**

DES: TJC  
O.D: JST  
DRAW: NSB

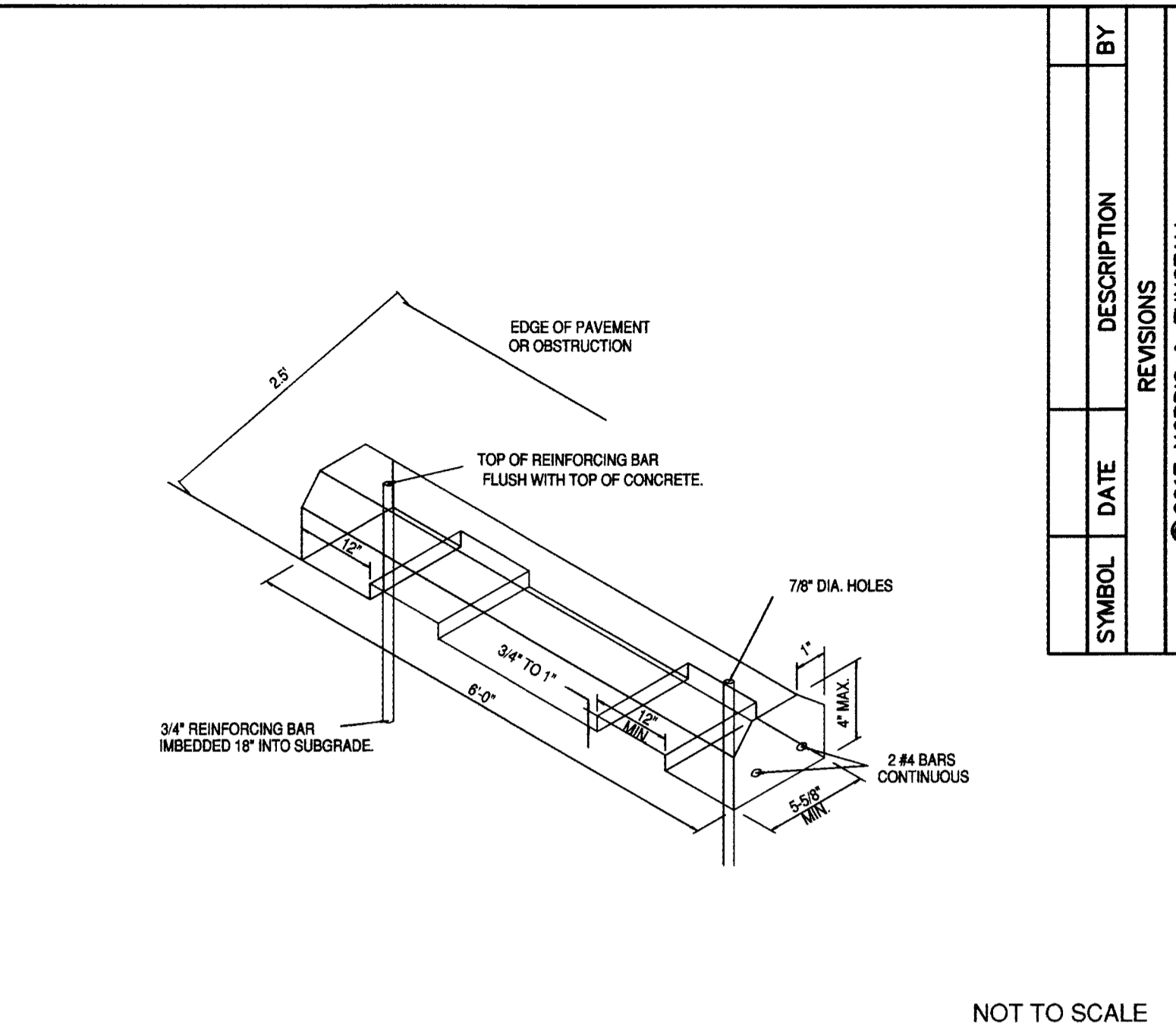
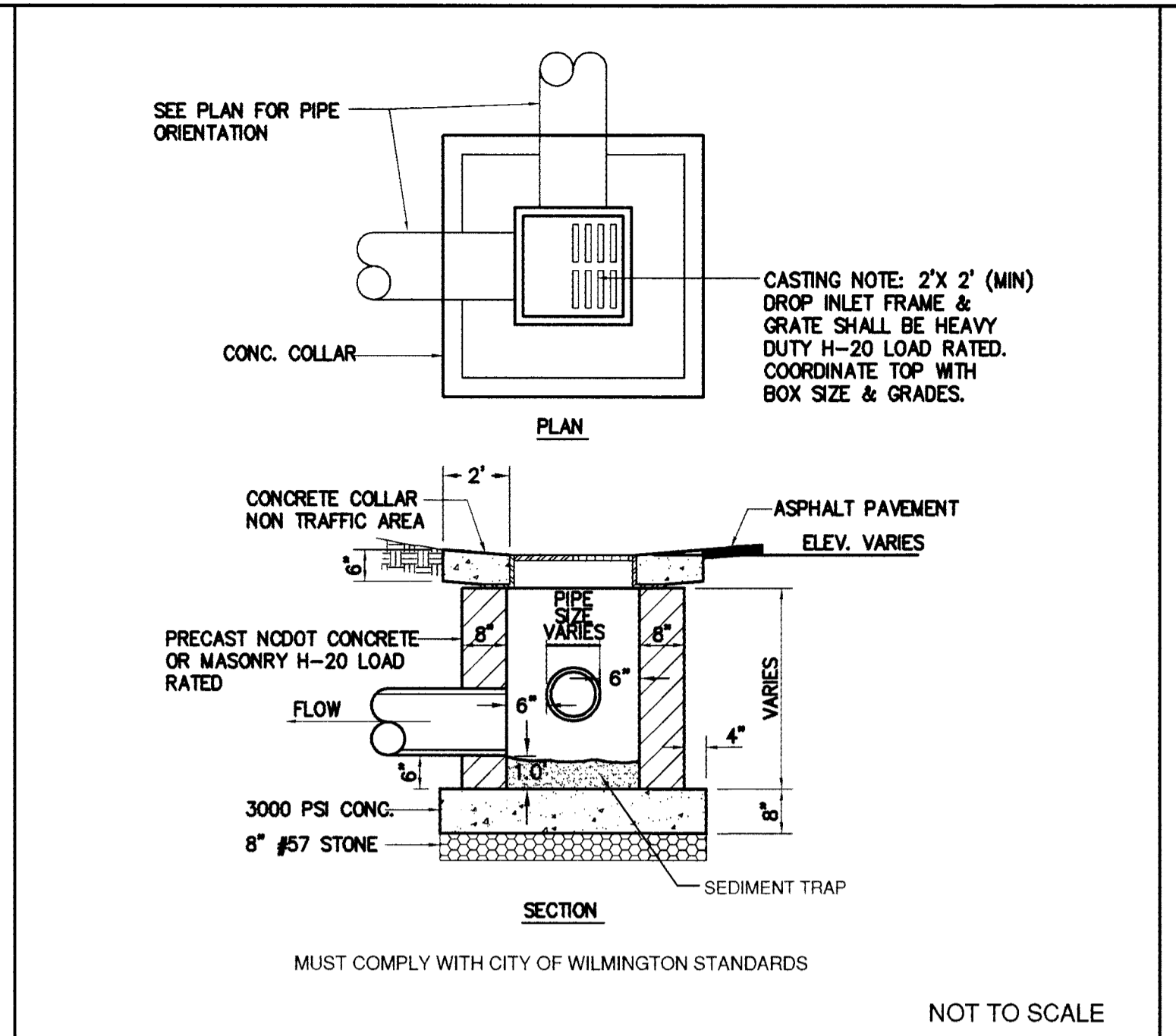
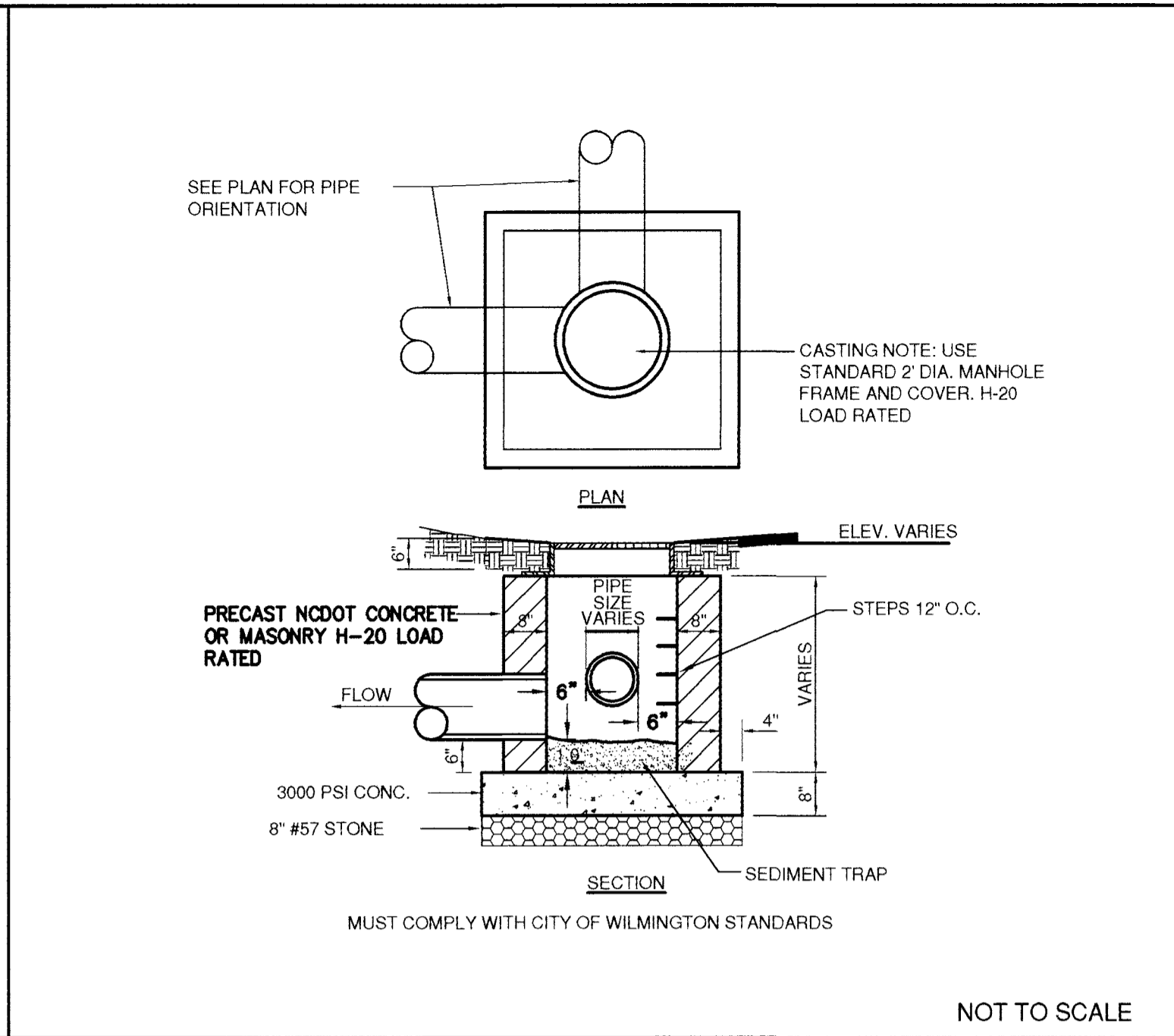
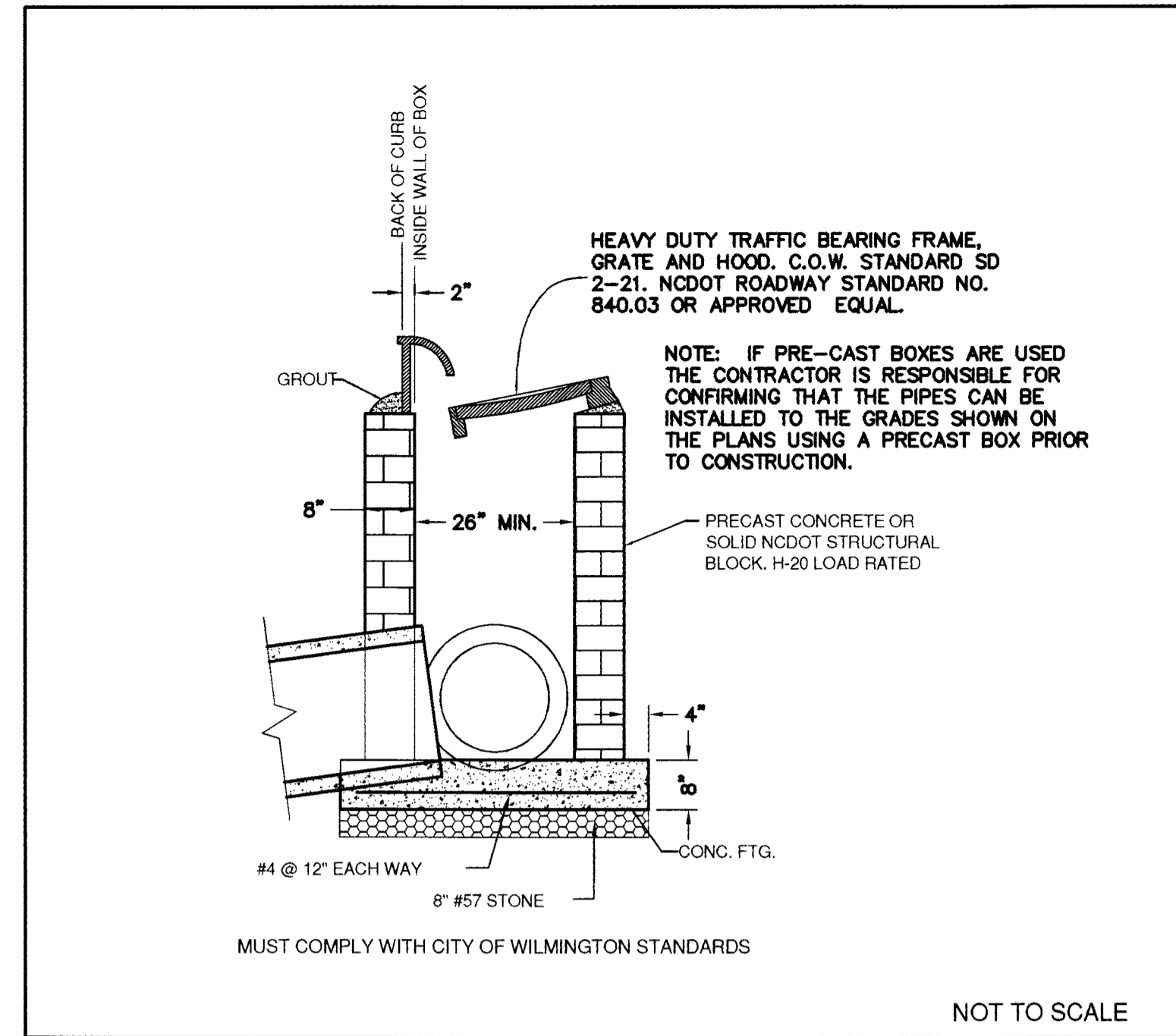
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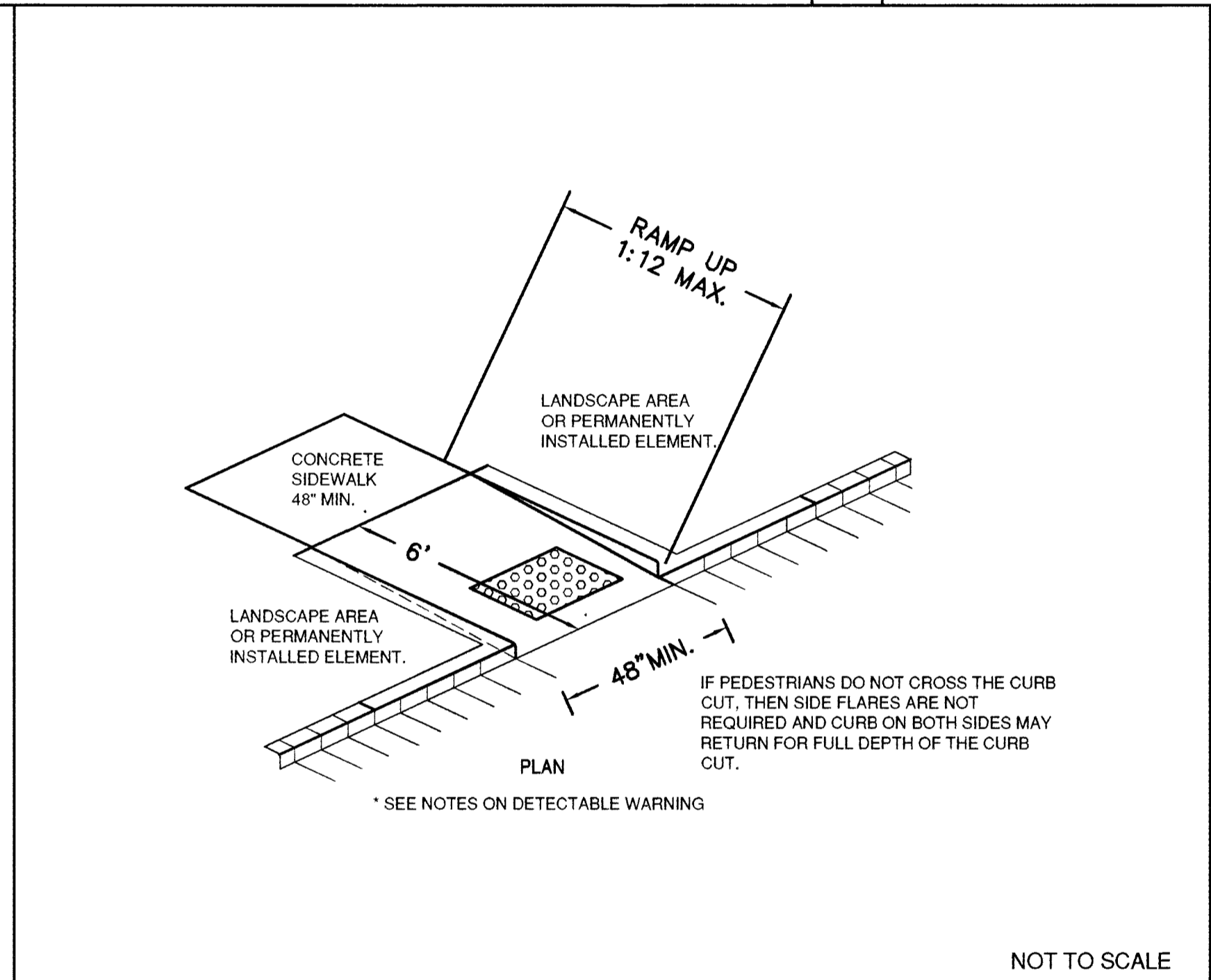
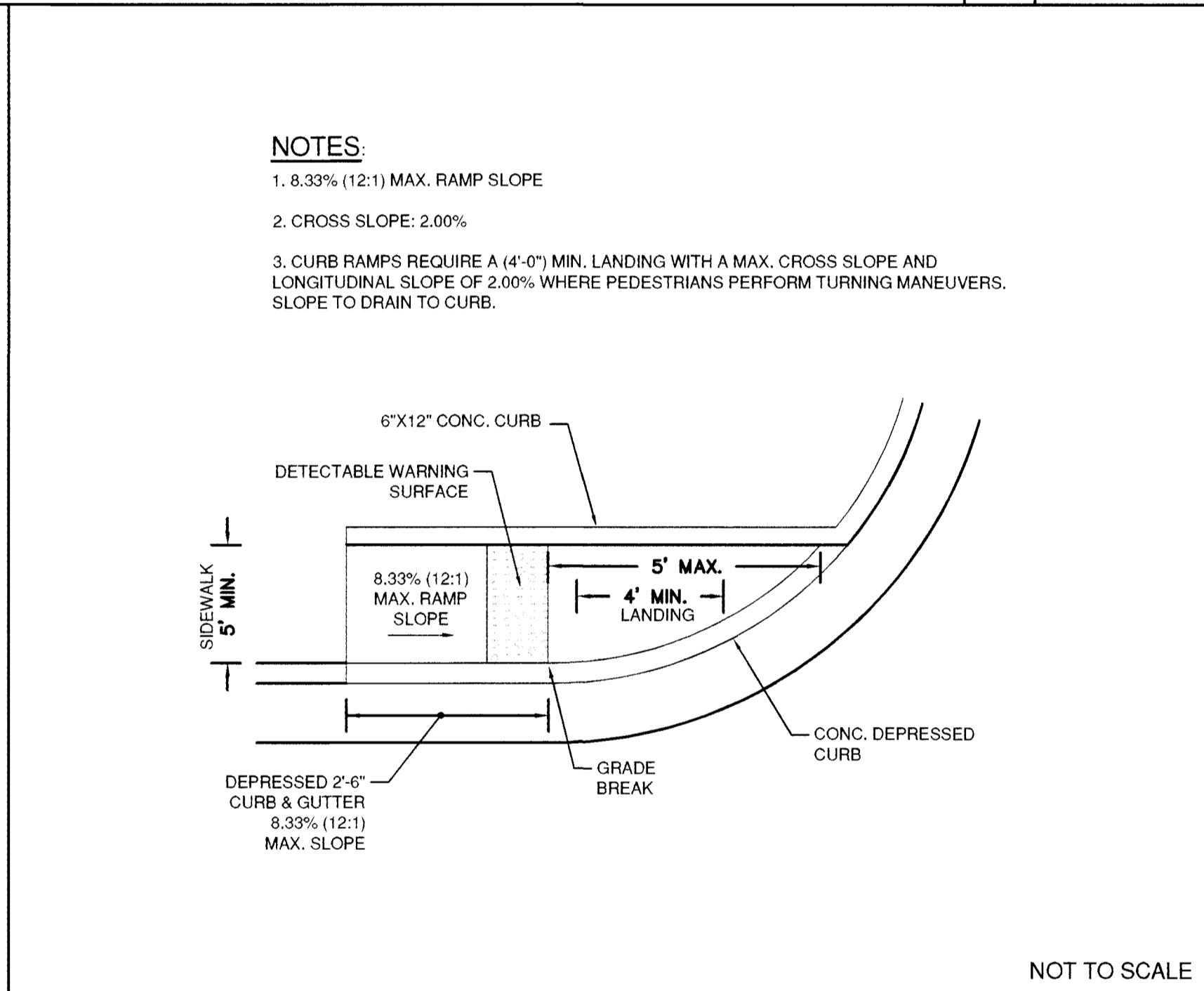
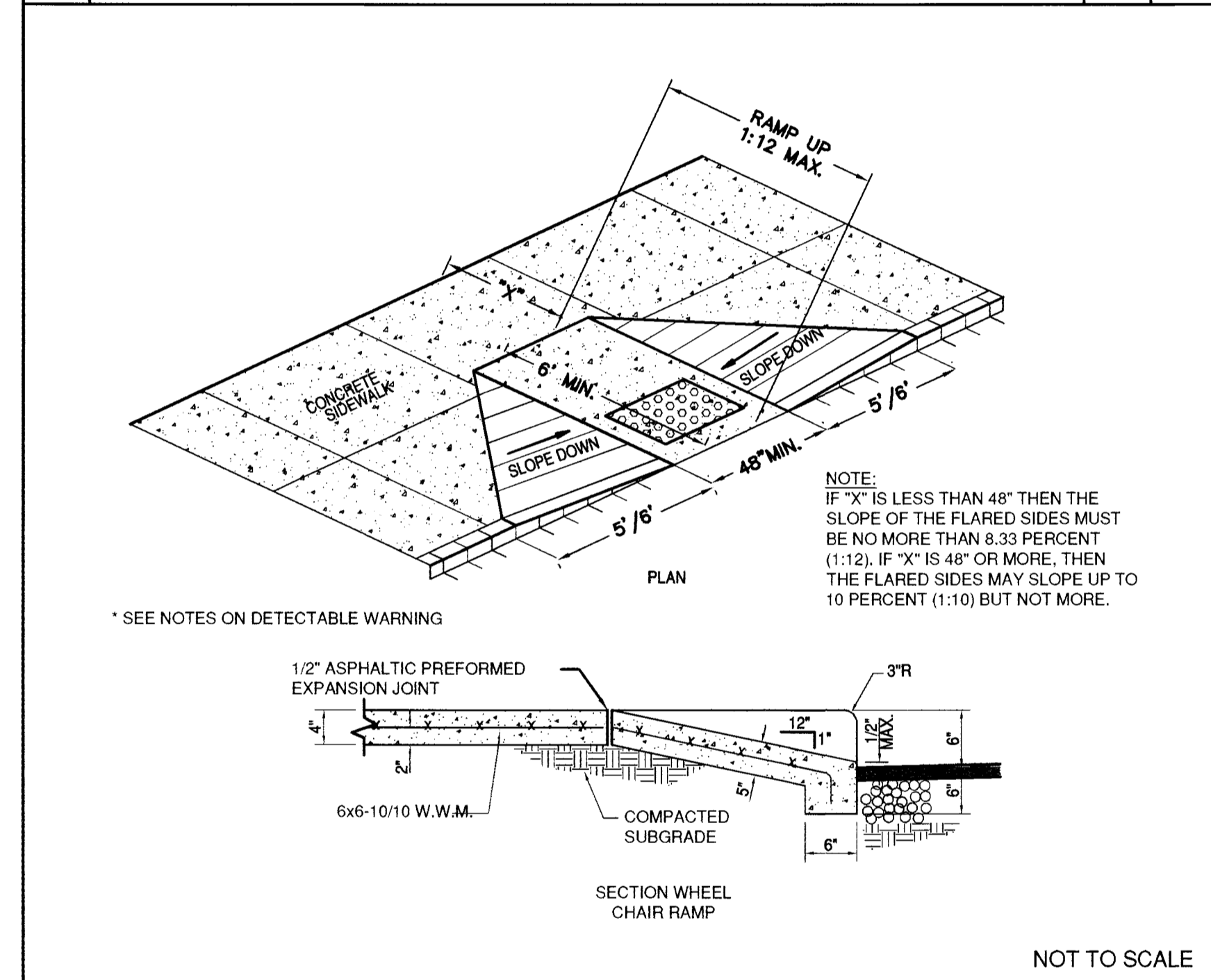


1 CATCH BASIN DETAIL

2 JUNCTION BOX DETAIL

3 DROP INLET DETAIL

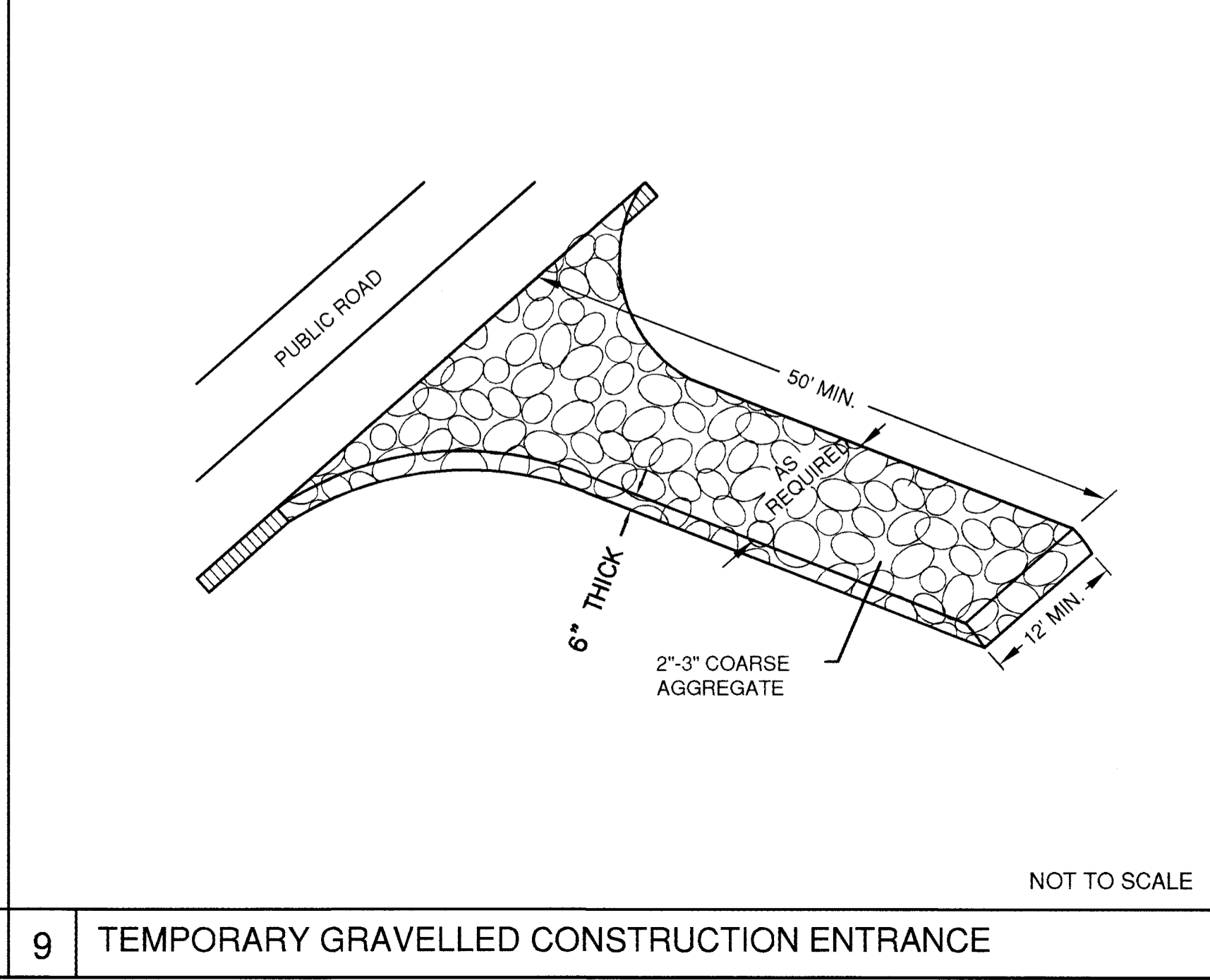
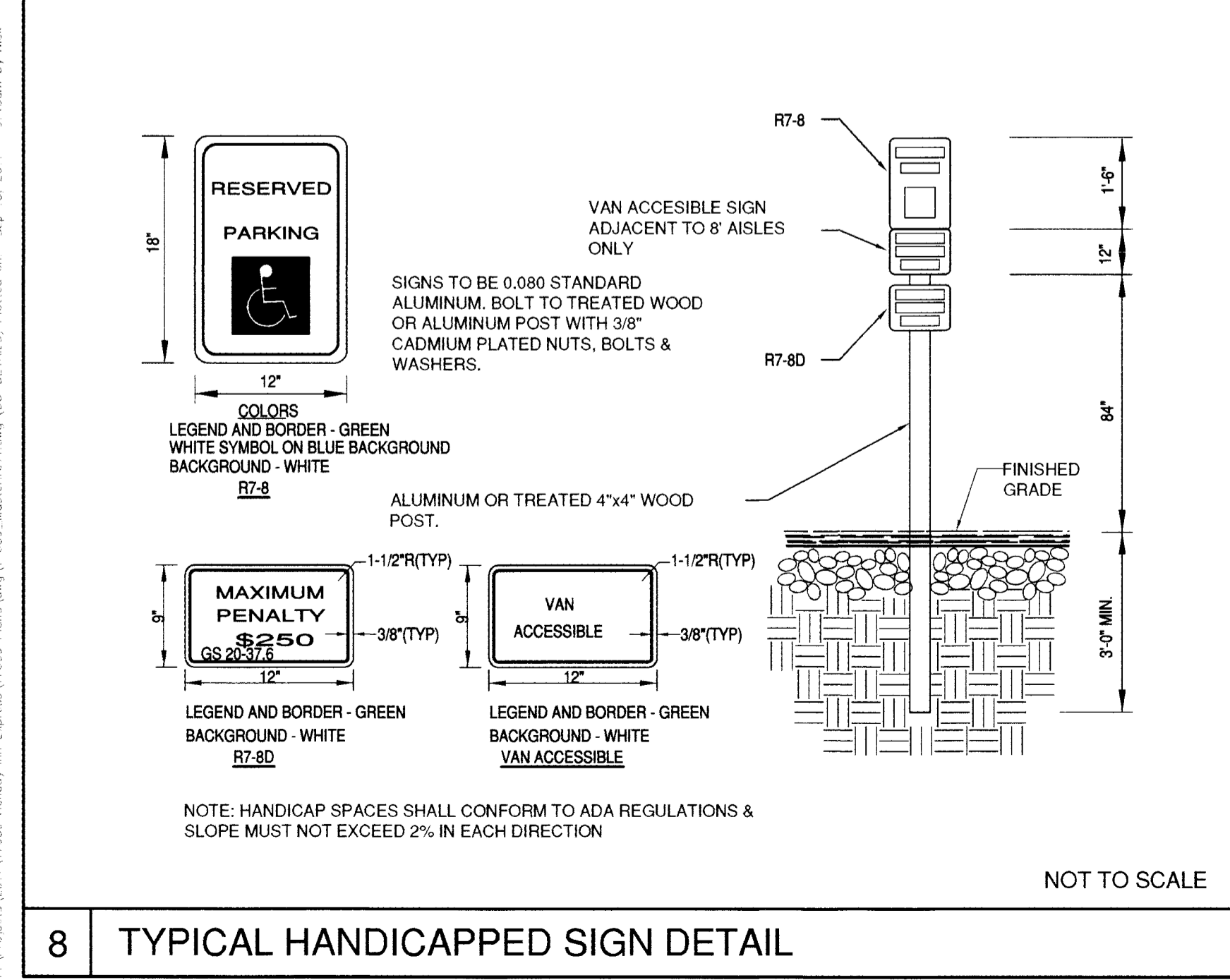
4 CONCRETE WHEEL STOPS



5 SIDEWALK, CURB CUT AND WHEEL CHAIR RAMP DETAIL

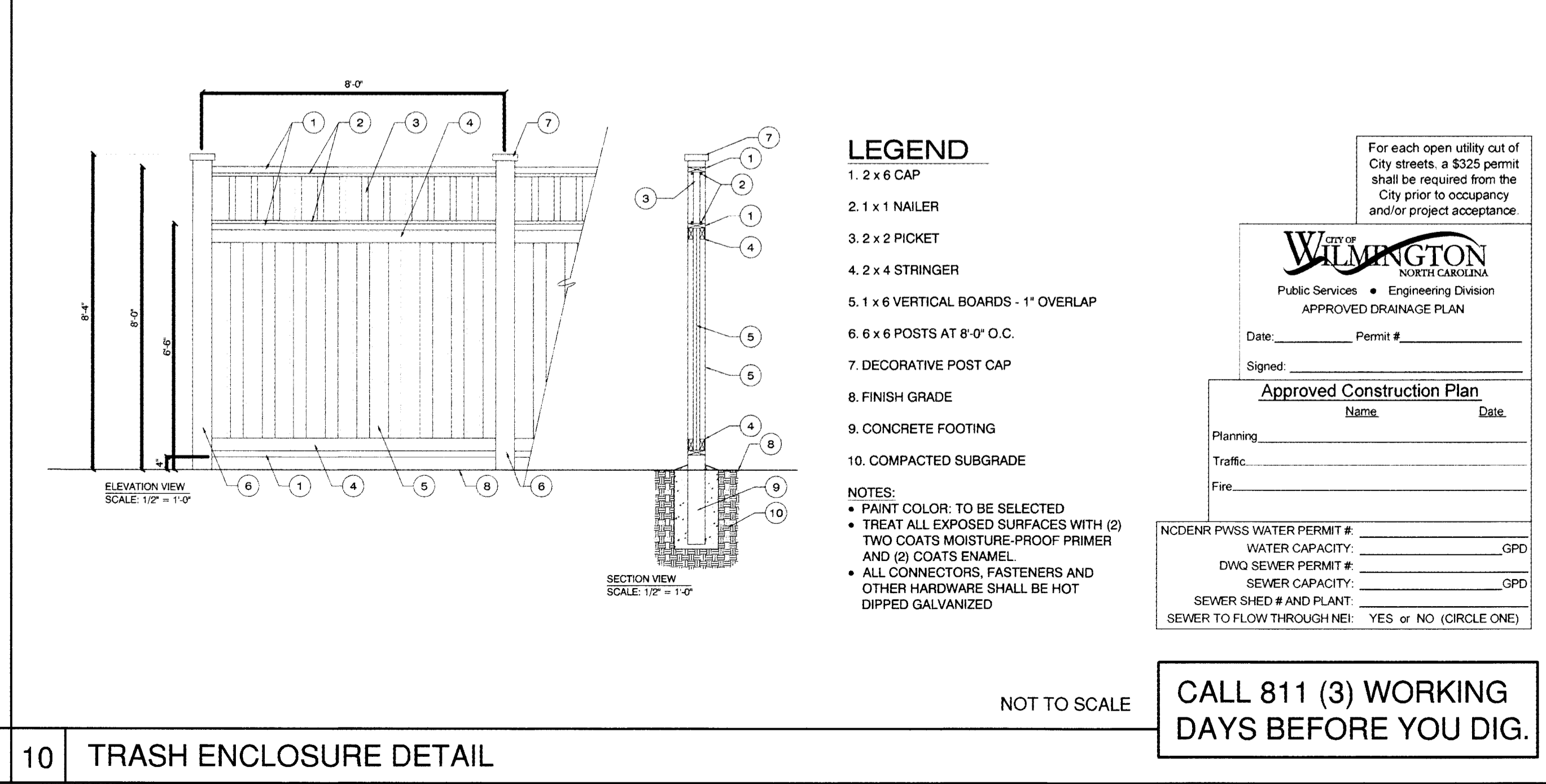
6 TYPE 1 CURB RAMP

7 SIDEWALK, CURB CUT AND WHEEL CHAIR RAMP DETAIL



8 TYPICAL HANDICAPPED SIGN DETAIL

9 TEMPORARY GRAVELLED CONSTRUCTION ENTRANCE



10 TRASH ENCLOSURE DETAIL

REVISIONS

BY	DATE	DESCRIPTION

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902 MARKET STREET  
WILMINGTON, NC 28401  
PHONE (919) 343-9653

License #C-3641

17039

DES. TJC  
O.D. JST  
DRWL. NSB

DATE: 09/12/2017

Professional Engineer Seal for Norris & Tunstall, P.C., License No. 17039, State of North Carolina.

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