PLANNED COMPLIANCE PERMIT APPLICATION

WAKE COUNTY
NORTH CAROLINA

Submit required documentation to:
Wake County Planning , Development and Inspections
PO Box 550 Wake County Office Building
Raleigh, NC 27602-0550 336 Fayetteville Street Mall, Downtown Raleigh
Contact (919) 856-6335 for additional information.

File #
Fee
Amt Paid
Check #
Rec'd Date
Rec'd By

Complete with required information (write "n/a" if information is not applicable to proposal).

Type of Proposed Use (be as specific as possible and cite code section listing use as permitted use)

Proposed 75,756 sf self-storage building (2-story, conditioned space). Associated with rezoning permit app to CU-HC.

Modification of previously issued Use Permit? ( )Yes (x)No

If Yes, provide relevant Permit Number: **N/A**

Property

Parcel Identification Number: **1618 54 6225**

Address: **0 Benson Road**

Location: **west** (north, east, south, west) side of **Benson Road** (street), at/between **Turner Farms Road** (street) and **Golden Grain Road** (street)

Total site area in square feet and acres: **158,995** square feet **3.65** acres

List Conditions of the Conditional Use Zoning District(s): **CU-HC**
Uses limited to self storage and vehicle sales and leasing

Present land use(s): **Vacant**

How is this proposed use a public necessity? **This proposed use fulfills a deman for additional conditioned, enclosed self-storage in a rapidly growing part of the County.**

What is impact on surrounding neighborhood and adjacent properties?"
Minimal impact to surrounding properties due to low traffic demands and utility demand. The proposed use is consistent with adjacent commercial properties (gas station, self-storage, and retail).

Land Owner

Land Owner Name: **Ball Rentals**

Business Operator Name (if different from Land Owner): **Turner Farms Self Storage**

Address: **1401 Aversboro Road**

City: **Garner** State: **NC** Zip Code: **27529**

E-mail Address: **douglas@ballrentals.com** Fax:

Telephone Number: **919-661-6268**

Applicant (person to whom all correspondence will be sent)

Name: Donald Curry - Curry Engineering

Address: 205 S. Fuquay Ave.

City: Fuquay-Varina State: NC Zip Code: 27526

E-mail Address: don@curryeng.com Fax: 919-552-2043

Telephone Number: 919-552-0849 Relationship to Owner: Engineer

Proposal

Max. allowable floor area ratio (see applicable zoning district/use regulation): no limit for comm.

Proposed total floor area: 37,741 sf Proposed floor area ratio (floor area/site area): 0.24

Max. allowable impervious surface coverage (see applicable zoning district/use regulation) : n/a %

Proposed impervious surfaces area: 82,770 sf

Proposed impervious surface coverage (impervious surfaces area/site area x 100): 52 %

Required transitional bufferyard types and depths (see Article 16):

Front (___) 10 ft Left (___)_____ft Right (___) 10 ft Rear (___) _____ ft

Proposed transitional bufferyard types and depths (see Article 16):

Front (___) 10 ft Left (___)_____ft Right (___) 10 ft Rear (___) _____ ft

Min. yard depths (see applicable district/use regulation):

Front_____ft Corner side_____ft Side_____ft Rear _____ ft

Proposed yard depths: Front_____ft Corner side_____ft Side_____ft Rear _____ ft

Max. building height (see applicable district/use regulation): _____ft

Proposed building height: 25 ft

Min. parking space standard (see Article 15): _____spaces per 1/300 office and 1/5000 storage

Min. no. of parking spaces: 17 Proposed no. of parking spaces 21

Number of employees: 1 Hours of operation: 8-5

Vehicular Access:

Names of access street(s) and number of access points along each: Wakefield Ln - 2

Name of access or adjacent street	Right-of-way width (ft)	Pavement width (ft)	No. of lanes	Paved? (Y or N)	Roadway design capacity [1]	Traffic volume (ADT)[2]	Est. traffic generated (ADT)[3]
Wakefield Ln.	30'	24'	2	Y			

[1] See NCDOT Highway Capacity Manual or most recent Wake County Thoroughfare Plan Appendix

[2] See CAMPO web site (www.raleigh-nc.org/campo) or NCDOT Traffic Survey Unit

[3] Base on Institute of Transportation Engineers ratios - ratio used for estimate (e.g., x trips per y sf) _____

Estimated traffic generated by heavy vehicles (vehicles other than automobiles and light trucks):

Type of vehicle:_____ ADT: _____

Type of vehicle:_____ ADT: _____

Utilities and Services:

Water supply provided by: (x) municipal system : Aqua North Carolina

( ) community system – specify type:_____ ( ) individual well(s)

Est. total water demand: 100 gpd

Wastewater collection/treatment provided by: ( ) municipal system: _____

( ) community system – specify type: _____

(x) individual on-site system

Est. total wastewater discharge: 100 gpd

Solid waste collection provided by: Private

Electrical service provided by: Duke Energy Underground (x) yes ( ) no

Natural gas service provided by: PSNC

Telephone service provided by: Time Warner Underground (x) yes ( ) no

Cable television service provided by: Time Warner Underground (x) yes ( ) no

Fire protection provided by: Town of Garner

Miscellaneous:

Generalized slope of site Very flat (less than 1%)

Valuable natural features (rare plant community, wildlife habitat, lake, stream, geology, etc.) on or adjoining site: N/A

Valuable historic resources (homestead, mill, archeological site) on or adjoining site: N/A

Land Use Plan Classifications

General Classification (note associated municipality and/or watershed):

( ) Short-Range Urban Services Area/Water Supply Watershed _____

( ) Short-Range Urban Services Area _____

( ) Long-Range Urban Services Area/Water Supply Watershed _____

( ) Long-Range Urban Services Area _____

( ) Non-Urban Area/Water Supply Watershed _____

( ) Non-Urban Area

Land Use Classification(s) (Note Area Land Use Plan, if applicable):

SFF - Special Function Facility

Other information (additional relevant information about the site or proposal you wish to note or cite)

In addition to providing a need for the growing Garner community, this particular site also improves traffic in the vicinity by offering intersections improvments at Benson Road and Wakefield Lane/Turner Farms Road. The proposed use is minimally impactful relative to other potential uses for the property and the proposed conditional uses for the property are specific to the intended use.

All property owners must sign this application unless one or more individuals are specifically authorized to act as an agent on behalf of the collective interest of some or all of the owners (provide a copy of such authorization).

The undersigned property owner(s) hereby authorize the filing of this application (and any subsequent revisions thereto). The filing of this application authorizes the Wake County staff to enter upon the site to conduct relevant site inspections as deemed necessary to process the application.

Signature:_____ Date: _____

Signature: Douglas Ball Date: 09/06/2016

Signature:_____ Date: _____

Land use professionals (architects, engineers, planners, landscape architects, etc.), as well as employees of corporate or municipal applicants, may testify at quasi-judicial proceedings about factual matters in support of an application, petition or appeal. However, they MAY NOT examine or cross-examine witnesses, make legal arguments as to why an application, petition or appeal should be granted, or otherwise advocate for results on behalf of another individual or entity at a quasi-judicial proceeding. These functions can ONLY be performed at a quasi-judicial proceeding by an attorney licensed to practice law in North Carolina. Therefore, it is **strongly recommended** that unless you are an individual representing yourself in a quasi-judicial proceeding, you have an attorney present to present your case.

The undersigned applicant hereby certifies that, to the best of his or her knowledge and belief, all information supplied with this application is true and accurate.

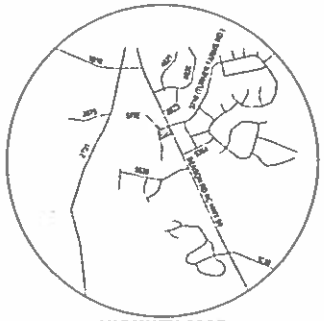
Signature: [signature] Date: 9/6/16

Notes: All documents and maps submitted as required become the property of Wake County.
The Wake County Unified Development Ordinance is on the web at www.wakegov.com.

TURNER FARMS SELF-STORAGE

TOWN OF GARNER
WAKE COUNTY, NORTH CAROLINA

PRE-APPLICATION SUBMITTED TO WAKE COUNTY - DATE SEPT 6, 2016



VICINITY MAP
NOT TO SCALE

DRAWING INDEX

C-00	COVER SHEET
C-01	EXISTING CONDITIONS
C-02	DEMOLITION PLAN
C-03	SITE PLAN
C-04	UTILITY PLAN
C-05	GRADING-DRAINAGE PLAN
C-06	EROSION CONTROL PLAN
C-07	LANDSCAPE PLAN
C-08	LIGHTING PLAN (NOT INCLUDED IN THIS SUBMITTAL)
D-01	SITE DETAILS I
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D-03	WATER DETAILS
D-04	DRAINAGE DETAILS
D-05	BMP DETAILS
D-06	LANDSCAPE DETAILS
D-07	EROSION CONTROL DETAILS I
D-08	EROSION CONTROL DETAILS II
D-09	EROSION CONTROL DETAILS III

SITE INFORMATION:

LOCATION: BENSON ROAD, GARNER, NC

COUNTY: WAKE
PARCEL #: 1808948223
DBPG: 016826 / 00899
ZONING: CU-HC (PROPOSED)
ACREAGE: 3.86 AC

SETBACKS
FRONT YARD: 100' FT. (B' MIN.)
SIDE YARD: 20' FT. (0' FT MIN.)
REAR YARD: 40' FT. (0' MIN.)

BUILDING DATA
PROPOSED USE: SELF-STORAGE FACILITY
BUILDING HEIGHT: 25' (TWO STORY)

PARKING
SELF STORAGE SPECIFICATION: 1 SPACE / 1,000 SQ FT STORAGE; 1 SPACE / 200 SQ FT OFFICE
STORAGE SQ FT: 75,100 SQ FT
OFFICE SQ FT: 800 SQ FT
TOTAL SPACE REQUIRED
OFFICE SPACE 8: 2 (PARKS)
STORAGE 75 PARKS OF: 15 (PARKS)
: 17 (PARKS)

PROVIDED PARKING: 19 STANDARD; 2 VAN ACCESSIBLE HC; 21 (PARKS)

IMPERVIOUS AREA
EXISTING
PAVEMENT: 0 SQ FT (0 AC)
SIDEWALK: 0 SQ FT (0 AC)
BUILDING: 0 SQ FT (0 AC)
TOTAL EXISTING IMPERVIOUS: 0 SQ FT (0.72 AC)
PROPOSED
PAVEMENT: 41,384 SQ FT (0.95 AC)
SIDEWALK: 1,372 SQ FT (0.03 AC)
BUILDING (TWO STORY): 38,400 SQ FT (0.88 AC)
TOTAL IMPERVIOUS: 81,772 SQ FT (1.88 AC)
IMPERVIOUS PERCENTAGE: 53%

GOVERNING AGENCIES:

PLANNING/ZONING:
WAKE COUNTY PLANNING
336 Fayetteville St. Ste 10
Raleigh, NC 27601
CONTACT: Stacy Mabry
Stacy.Mabry@wakegov.com

SITE & STORMWATER
WAKE COUNTY SITE & STORMWATER
336 Fayetteville St.
Raleigh, NC 27602
919-856-6166
CONTACT: Jennifer Campbell

EROSION CONTROL
WAKE COUNTY EROSION CONTROL
336 Fayetteville St.
Raleigh, NC 27602
919-856-6388
CONTACT: Jennifer Campbell

UTILITY AGENCIES:

WATER & SEWER
AQUA NORTH CAROLINA
3800 Ten Oaks Dr.
Cary, NC 27511
919-662-0964
CONTACT: Peggy Sue Dunn

ELECTRIC
PROGRESS ENERGY BUSINESS SERVICES
PO Box 1551
Raleigh, NC 27602
919-807-3171
CONTACT: Tom Stokes

TELEPHONE
AT&T
Raleigh, NC
877-253-8000

NATURAL GAS
PSNC ENERGY - SCANA
P.O. BOX 100256
Columbia, SC 29202
919-837-1720
CONTACT: Mike Kennedy

General Notes

1. TOPOGRAPHICAL DATA PERFORMED BY STANCIL SURVEYING P.A. SEE SURVEYOR FOR BENCHMARK INFORMATION CONTOURS SHOWN HEREON ARE FROM AN ACTUAL FIELD SURVEY. BOUNDARY INFORMATION SUPPLIED BY OWNER AND SHOWN FOR REFERENCE ONLY. CONSULT PLS FOR ACTUAL BOUNDARY DATA.
2. THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES OF FIRMS HAVING FACILITIES ON OR ADJACENT TO THE SITE BEFORE DISTURBING, ALTERING, REMOVING, RELOCATING, ADJUSTING OR CONNECTING TO SAID FACILITIES. THE OWNER SHALL PAY ALL COSTS IN CONNECTION WITH ALTERATION OF OR RELOCATION OF ANY EXISTING FACILITIES.
3. ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED.
4. ALL STRUCTURAL FILL MATERIAL SHALL BE FREE OF ALL ORGANIC WOOD, AND OTHER UNSUITABLE MATERIALS.
5. UNSUITABLE EXCAVATED MATERIALS AND ALL WASTE BUILDING RUBBLE CLEARING AND GRUBBING SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR IN AN APPROVED SOLID WASTE LANDFILL.
6. THE PROPOSED BUILDING SHALL NOT BE SPRINKLERED.
7. THERE IS EXISTING UNDERGROUND WATER, SEWER, ELECTRICAL, AND FIBER OPTIC ON-SITE OR WITHIN CLOSE PROXIMITY. CONTRACTORS SHALL DIG WITH EXTREME CAUTION.
8. CONCRETE SUB SHALL BE RESPONSIBLE FOR ALL SCORE JOINTS AND EXPANSION JOINTS. SHOULD A QUESTION ARISE ABOUT THE PROPOSED PATTERN CONSULT WITH THE ENGINEER PRIOR TO POURING.
9. CONTRACTOR TO FURNISH ALL PAVEMENT MARKINGS AS SHOWN.
10. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AND MUST BE FIELD VERIFIED. CONTACT THE NC ONE CALL CENTER AT LEAST 48 HOURS PRIOR TO DIGGING @ 1-800-632-4949. STANCIL SURVEYING HAS ONLY LOCATED THE UTILITIES THAT ARE ABOVE GROUND AT THE TIME OF FIELD SURVEY. UNDERGROUND LINES SHOWN HEREON ARE APPROXIMATE OR AS REPORTED BY VARIOUS RESPONSIBLE PARTIES. THE SURVEYOR DOES NOT GUARANTEE THAT ALL UNDERGROUND STRUCTURES SUCH AS UTILITIES, TANKS AND PIPES ARE LOCATED HEREON.
11. ALL PIPE LENGTHS ARE HORIZONTAL DISTANCES AND ARE APPROXIMATE.
12. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS AND/OR LOCAL STANDARDS IMPOSED BY LOCAL UTILITY, WAKE COUNTY AND TOWN OF GARNER.
13. ALL CONSTRUCTION AND MATERIALS SHALL MEET COUNTY SPECIFICATIONS AND STANDARDS, LATEST EDITION. ALL WORK WITHIN NCDOT RIGHT OF WAY SHALL MEET THE SPECIFICATIONS AND STANDARDS OF NCDOT.
14. ALL CONCRETE PIPE IS TO BE ARMORCLAD CLASS III WITH MANWAY.
15. THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD ZONE PER FEMA MAP FEMA COMMUNITY MAP # 3720167 8966 DATED 5/2/06.
16. ALL LOT DIMENSIONS SHOWN ARE APPROXIMATE. CONSULT THE BOUNDARY SURVEY OF ACTUAL SITE BOUNDARY INFORMATION.
17. WETLANDS AND PONDS ARE NOT PRESENT ON SITE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL IN OR ADJACENT TO NCDOT RIGHT OF WAY. ALL SIGNS, PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
19. PRIOR TO PLACING BASE STONE SHALL THE CONTRACTOR SHOULD NOTIFY THE PROJECT ENGINEER TO INSPECT AND PROOF ROLL THE SUBGRADE. ANY STONE PLACE WITHOUT PRIOR APPROVAL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
20. DESIGN FIELD CONDITIONS OUTSIDE LIMITS MAY VARY FROM THAT REPRESENTED IN THE INITIAL SOIL REPORT AND/OR TOPOGRAPHICAL REPORT. ISOLATED AREAS MAY SHOW UP WEAK AND ADVERSE SOILS OR UNFORESEEN CONDITIONS MAY BE DISCOVERED THAT WERE NOT REVEALED DURING THE INITIAL SOIL & SITE EVALUATION. THEREFORE, THE OWNER FULLY AGREES TO BE AWARE THAT DURIN ENGINEERING GROUP, PLLC WILL NOT AND CANNOT BE HELD RESPONSIBLE FOR ANY FAILURES TO EITHER A STREET OR PARKING LOT PAVEMENT DESIGN UNLESS WE CAN BE FULLY AND TOTALLY PARTICIPATED IN THE CONSTRUCTION PROCESS WHICH MAY INCLUDE, BUT MAY NOT NECESSARILY BE LIMITED TO, TESTING SUBGRADE AND BASE DENSITY, ENGAGING THE DESIGN ENGINEER FOR THE EVALUATION OF THE SUBGRADE AND FOR THE OBSERVATION OF PROOF ROLLING SUBGRADE AND BASE AT VARIOUS STAGES OF CONSTRUCTION OPPORTUNITY FOR THE DESIGN ENGINEER TO CALL ON A SOILS ENGINEER FOR CONSULTATION AND ADVICE, ETC. STEPS WHICH TAKEN IN TOGETHER WITH THE INITIAL DESIGN SHOWN ON THE PLANS CONSTITUTE THE COMPLETE DESIGN OF THE ROAD, STREET OR PAVEMENT AREA (WHICH IS OFTEN PUBLIC). THE DESIGN ENGINEER MUST BE GIVEN THE FULL LATITUDE AND OPPORTUNITY TO COMPLETE THE DESIGN BY FULLY PARTICIPATING IN THE CONSTRUCTION PROCESS. PLAN DESIGN IS A SMALL PORTION OF THE DESIGN AND CANNOT BE SEPARATED FROM THE CONSTRUCTION PROCESS IF THE OWNER FEELS SAVING IS TO HAVE THE DESIGN ENGINEER STAND BEHIND THE COMPLETED DESIGNED PROJECT.
21. ALL UTILITY SERVICES (POWER, TELEPHONE, CABLE ETC.) ARE PROPOSED TO BE UNDERGROUND DO NOT REC OR MULCH DISTURBED AREAS. ANY ALL UNDERGROUND UTILITIES MUST BE INSPECTED.
22. LIGHTS ARE LEASED AND SUPPLIED BY DUKE ENERGY. SEE PROFILE/TRACE SHEET FOR DETAILS.
23. PROPERTY IS TO BE FENCED BY AQUA NORTH CAROLINA.
24. THE BUILDING SETBACK LINES SHOWN ON THIS PLAT ARE FOR THE ENGINEER'S USE IN ESTABLISHING MINIMUM LOT FRONTAGES AT THE SETBACK LINE AND FOR DETERMINING SUFFICIENT BUILDING AREA. BUILDING CONTRACTORS ARE TO VERIFY LOT LINE SETBACKS BEFORE SETTING FORMS OR ORDERING FOOTINGS.
25. REGULATORY SIGNS, STOP'S SIGNS AND STREET NAME SIGNS SHALL BE WHITE ACTURED FROM HIGH INTENSITY REFLECTIVE MATERIALS.
26. ALL EXCESS TOPSOIL AND UNCLASSIFIED EXCAVATION IS TO BE HAULED OFF SITE, UNLESS OTHERWISE DIRECTED BY THE OWNER.
27. ALL SITE CONSTRUCTION MUST BE INSPECTED BY THE PROJECT ENGINEER AT THE FOLLOWING STAGES:
   A. COMPLETION OF GRADING/SUBGRADE PRIOR TO PLACING STONE BASE
   B. COMPLETION OF STONE PLACEMENT PRIOR TO PAVING
   C. FINAL INSPECTION WHEN ALL WORK IS COMPLETE
28. THE SURVEY FOR DID NOT VERIFY WETLAND CHARACTERISTICS IN ANY OPEN AREAS UNLESS OTHERWISE NOTED.
29. THIS PROPERTY DOES NOT REFLECT ENCUMBRANCES THAT ARE FOUND DURING A PROFESSIONAL TITLE SEARCH.
30. ALL WORK LIMITS FOR THE PROPOSED BUILDING WILL BE SCREENED FROM PUBLIC RIGHT OF WAY.
31. ALL CURB AND GUTTER TO BE 24" STANDARD CURB AND GUTTER. ALL CURB AND GUTTER WITHIN NCDOT ON AND SHALL BE 30" STANDARD.
32. ALL CURB AND GUTTER AND SIDEWALK CONCRETE IS TO BE MINIMUM 3,000 PSI AT 28 DAYS, AIR ENTRAINED.
33. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS INDICATED OTHERWISE.
34. PROVIDE HANDICAP SIGNS, MARKING AND RAMPS AS SHOWN.
35. HANDICAP RAMPS ARE TO MEET "ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES" AS DEFINED IN THE FEDERAL REGISTER, VOLUME 56, NUMBER 144 DATED JULY 26, 1991 RULES AND REGULATIONS ACTIVATED JANUARY 26, 1992. FOR ADDITIONAL INFORMATION REFER TO THE 2012 NC STATE BUILDING CODE CHAPTER 11 "ACCESSIBILITY". ALL STREET RETURNS TO HAVE A 25' RADIUS.
36. CONTRACTOR SHALL NOT POUR ANY CONCRETE BEFORE FORMS ARE INSPECTED BY THE PROJECT ENGINEER AND/OR OWNER. ANY CONCRETE THAT HAS NOT BEEN APPROVED BY THE ENGINEER AND/OR OWNER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
37. ALL AREAS NOT COVERED BY BUILDING OR PAVEMENT SHALL BE COVERED WITH A MINIMUM OF TOPSOIL, FREE OF ROCK, WATER AND ROCKS AND GRADED.
38. CONTRACTOR SHALL SAWCUT TO PROVIDE SMOOTH TRANSITIONS WHERE EXISTING ASPHALT AND/OR CURB AND GUTTER IS TO BE REMOVED.
39. THE CONTRACTOR SHALL PROVIDE ALL THE MATERIAL AND APPURTENANCES NECESSARY FOR THE COMPLETE INSTALLATION OF THE UTILITIES. ALL PIPE AND FITTINGS SHALL BE INSPECTED PRIOR TO BEING LOWERED.
40. ALL HANDICAP SPACES ARE TO RECEIVE A HANDICAP SIGN AND HANDICAP SYMBOL PAINTED ON THE ASPHALT. MORE STALLS TO RECEIVE VAN ACCESSIBLE SIGNAGE.
41. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE POINTS.
42. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS AND FIELD CONDITIONS WHEN POSSIBLE. BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING. IF THE CLEARANCES ARE LESS THAN SPECIFIED ON THE PLANS OR 12 INCHES, WHICH EVER IS LESS, CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
43. THE CONTRACTOR SHALL INCLUDE IN HIS CONTRACT PRICE THE REMOVAL AND DISPOSAL OF ANY EXCESS TOPSOIL HE DETERMINES IS NOT REQUIRED TO PERFORM THE FINAL GRADING AND LANDSCAPING OPERATION.
44. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL REQUIREMENTS, SHORING, SHORING AND SPECIAL EXCAVATION MEASURES REQUIRED ON THE PROJECT TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THE DRAWINGS. THE NCDOT, WAKE COUNTY, TOWN OF GARNER, & CURRY ENGINEERING ACCEPT NO RESPONSIBILITY FOR THE DESIGN TO THE "ALL GOOD" FIRM.
45. THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE DAILY RECORD KEEPING OF THE AS-BUILT CONDITION OF ALL OF THE UNDERGROUND UTILITIES, CONSTRUCTION & INCIDENT ASSOCIATED WITH THE PROJECT.
46. ALL WATER LINE AND SEWER LINE INSTALLATION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE STATE OF NORTH CAROLINA DEPARTMENT OF HEALTH, THE CONSTRUCTION PERMIT AND TOWN OF GARNER.
47. THE LAND DISTURBANCE PERMIT MUST BE KEPT ON THE WORK SITE AND SHOWN UPON REQUEST.
48. THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ALL MATERIAL AND LABOR ASSOCIATED WITH THE TESTING OF THE WATER AND SEWER LINES REQUIRED BY THE STATE OF NORTH CAROLINA DEPARTMENT OF HEALTH & TOWN OF GARNER.
49. THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY DE-WATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.
50. ROCK PLANS ARE NOT AVAILABLE.
51. TESTING BY CONTRACTOR: CONTRACTOR SHALL EMPLOY AT HIS EXPENSE AN OUTSIDE INDEPENDENT SOIL TESTING SERVICE (APPROVED BY THE ARCHITECT) TO PERFORM SOIL TESTING AND INSPECTION SERVICE FOR QUALITY CONTROL TESTING DURING EARTHWORK OPERATIONS. COPIES OF RESULTS OF TESTS SHALL BE SUBMITTED BY THE TESTING SERVICE DIRECTLY TO THE CONTRACTOR, THE ARCHITECT AND THE STRUCTURAL ENGINEER. THE TESTING SERVICE WILL CLASSIFY PROPOSED CUT AND BORROW SOILS TO VERIFY THAT SOILS COMPLY WITH SPECIFIED REQUIREMENTS AND TO PERFORM REQUIRED FIELD AND LABORATORY TESTING. ALLOWABLE REQUIRED SOIL BEARING CAPACITY IS NOTED ON THE STRUCTURAL DRAWINGS. IN PAVED AND BUILDING SLAB AREAS, THE TESTING SERVICE SHALL MAKE AT LEAST ONE FIELD DENSITY TEST FOR EACH 2000 SQUARE FEET OF FILL IN EACH COMPACTED FILL LAYER. IF A TEST SHOULD FAIL TO MEET REQUIRED DENSITY, THE CONTRACTOR SHALL RE-COMPACT THAT AREA AND THE SOIL TESTING SERVICE SHALL PERFORM ADDITIONAL TESTS AT THE CONTRACTOR'S EXPENSE TO SHOW THAT THE FAILED LAYER HAS REACHED THE REQUIRED COMPACTION. IN FOUNDATION WALL AREAS, THE TESTING SERVICE SHALL MAKE AT LEAST ONE FIELD DENSITY TEST FOR EACH 100 FEET OR LESS OF WALL LENGTH OF FILL IN EACH COMPACTED FILL LAYER, WITH NO LESS THAN TWO TESTS ALONE A WALL. FACE OF A TEST SHOULD FAIL TO MEET REQUIRED DENSITY, THE CONTRACTOR SHALL RE-COMPACT THAT LAYER. THE SOIL TESTING SERVICE SHALL PERFORM ADDITIONAL TESTS AT THE CONTRACTOR'S EXPENSE TO SHOW THAT THE FAILED LAYER HAS REACHED THE REQUIRED COMPACTION.
52. COMPACTION: COMPACT EACH LAYER OF BACKFILL AND FILL SOIL MATERIALS AND THE TOP 12" OF SUBGRADE IN CUT AREAS TO 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 FOR STRUCTURES, BLDGS, AND PAVEMENTS AND 85% OF MAXIMUM DENSITY FOR LAWNS OR UNPAVED AREAS.
53. THE BUILDING CONTRACTOR AND THE SITE WORK CONTRACTOR ARE TO COORDINATE THE INSTALLATION OF DRAINAGE PIPES AROUND THE BUILDING STRUCTURE.
54. ANY RELOCATION OF EXISTING UTILITIES WILL BE AT THE COST OF THE DEVELOPER/OWNER. THE NCDOT WILL NOT ACCEPT RESPONSIBILITY FOR DAMAGES TO CURB AND GUTTER OR STREET IMPROVEMENTS INSTALLED PRIOR TO UNDERGROUND SERVICES. NOR WILL THE NCDOT ASSUME THE COST FOR REPAIRS TO INSTALL UNDERGROUND SERVICE. PAVEMENT PATCHING OR DAMAGE TO LANDSCAPING. THESE WILL BE THE RESPONSIBILITY OF THE DEVELOPER/OWNER.
55. FIRE DEPARTMENT VEHICULAR ACCESS TO ALL STRUCTURES UNDER CONSTRUCTION SHALL BE PROVIDED AT ALL TIMES IN AREAS WHERE GROUND SURFACES ARE SOFT OR LIKELY TO BECOME SOFT. HARD ALL WEATHER SURFACE ROADS SHALL BE PROVIDED AND MAINTAINED.
56. ADDRESS NUMBERS, BOTH COMMERCIAL AND RESIDENTIAL, MUST BE POSTED ON THE FRONT OF THE STRUCTURE. BE VISIBLE TO THE RESPONDING FIRE DEPARTMENT IN A POSITION TO BE PLAINLY LEGIBLE, VISIBLE AND UNOBSTRUCTED FROM THE STREET OR ROAD FRONTING THE PROPERTY.
57. DISTURBED AREA IS IN EXCESS OF 1 ACRE AND FORMAL SEDIMENTATION & EROSION CONTROL PLAN APPROVAL WILL BE REQUIRED AS A CONDITION OF CONSTRUCTION PLAN APPROVAL. A COPY OF THE APPROVED EROSION CONTROL PLAN MUST BE KEPT ON SITE AT ALL TIMES. THE APPROVED SEDIMENTATION & EROSION CONTROL PLAN SHOULD BE REVISED AS MINIMUM REQUIREMENTS. ADDITIONAL MEASURES SHALL BE PUT IN PLACE AS NEEDED TO ENSURE THAT NO SEDIMENT IS RELEASED FROM THE SITE.
58. CONSTRUCTION WATER LINES AND SEWER PERMIT APPLICATIONS HAVE BEEN APPROVED BY THE NCDENR. PERMIT NUMBERS ARE AS FOLLOWS:
   A. WATER PERMIT NUMBER [illegible]
   B. SEWER PERMIT NUMBER [illegible]
59. COPIES OF ALL PERMITS AND APPROVED PLANS MUST BE KEPT ON SITE. A PERMIT BOX THAT IS CONSPICUOUSLY LOCATED AND EASILY ACCESSIBLE DURING CONSTRUCTION ON THE INCLUDES APPROVED CONSTRUCTION PLANS, APPROVED EROSION CONTROL PLANS, ENCROACHMENT AGREEMENTS, DRIVEWAY PERMITS, DRIVEWAY PERMITS, ETC.
60. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL WAKE COUNTY, NCDOT, AND NCDENR STANDARDS AND SPECIFICATIONS.
61. INSTALL MINIMUM 2' COVER FOR ALL WATER PIPE.
62. WATERLINE CROSSES:
   A. SANITARY SEWER: WATERLINE SHALL CROSS ABOVE AND MAINTAIN 18" VERTICAL SEPARATION OR 18" OF HORIZONTAL SEPARATION. IF THIS SEPARATION CANNOT BE MAINTAIN OR IF WATERLINE PASSES BELOW SEWER LINE THEN BOTH THE SEWER AND WATER LINE SHALL BE CLASS 350 DUCTILE IRON PIPE FOR A MINIMUM OF 10 EACH SIDE OF CROSSING.
   B. STORM SEWER: WHERE WATERLINE CROSSES ABOVE MAINTAIN 18" VERTICAL SEPARATION. WHERE WATERLINE CROSSES BELOW MAINTAIN 12" VERTICAL SEPARATION. IF THIS SEPARATION CANNOT BE MAINTAINED WATERLINE SHALL BE CLASS 350 DUCTILE IRON PIPE FOR MINIMUM OF 10 EACH SIDE OF CROSSING.
63. WHERE SANITARY SEWER CROSSES STORM MAINTAIN 12" SEPARATION. IF THIS SEPARATION CANNOT BE MAINTAINED SANITARY SEWER SHALL BE CLASS 350 DUCTILE IRON PIPE FOR MINIMUM OF 10' EACH SIDE OF CROSSING.
64. REFERENCE NC 15A NC, 2000 FOR ADDITIONAL CROSSING INFORMATION. THIS CRITERIA SHALL BE MET AT ALL CROSSINGS.

Civil Engineer:
The Curry Engineering Group, PLLC
NC License # P-0793
PO Box 2916
225 S. Fuquay Ave
Fuquay-Varina, NC 27526
919 552 0649 (o)
Contact: Don Curry, PE
don@currycorp.com

Surveyor:
Stancil & Associates, P.A.
98 Depot St. PO Box 739
Angier, NC 27501
Phone: 919 639 2133
Contact:
Email: stancilsurvey@gmail.com

Owner/Developer:
Turner Farms Self-Storage
1401 Aversboro Rd
Garner, NC 27529
Phone: 919-661-6268
Contact: Douglas Bell
E-mail: douglas@bellrentals.com

Architect:
Cothran Harris Architecture
5725 Oleander Dr., Ste E
Wilmington, NC 28403
Phone: 910-793-3433
Contact: Christina Medlin
E-mail: christina@cothranharris.com

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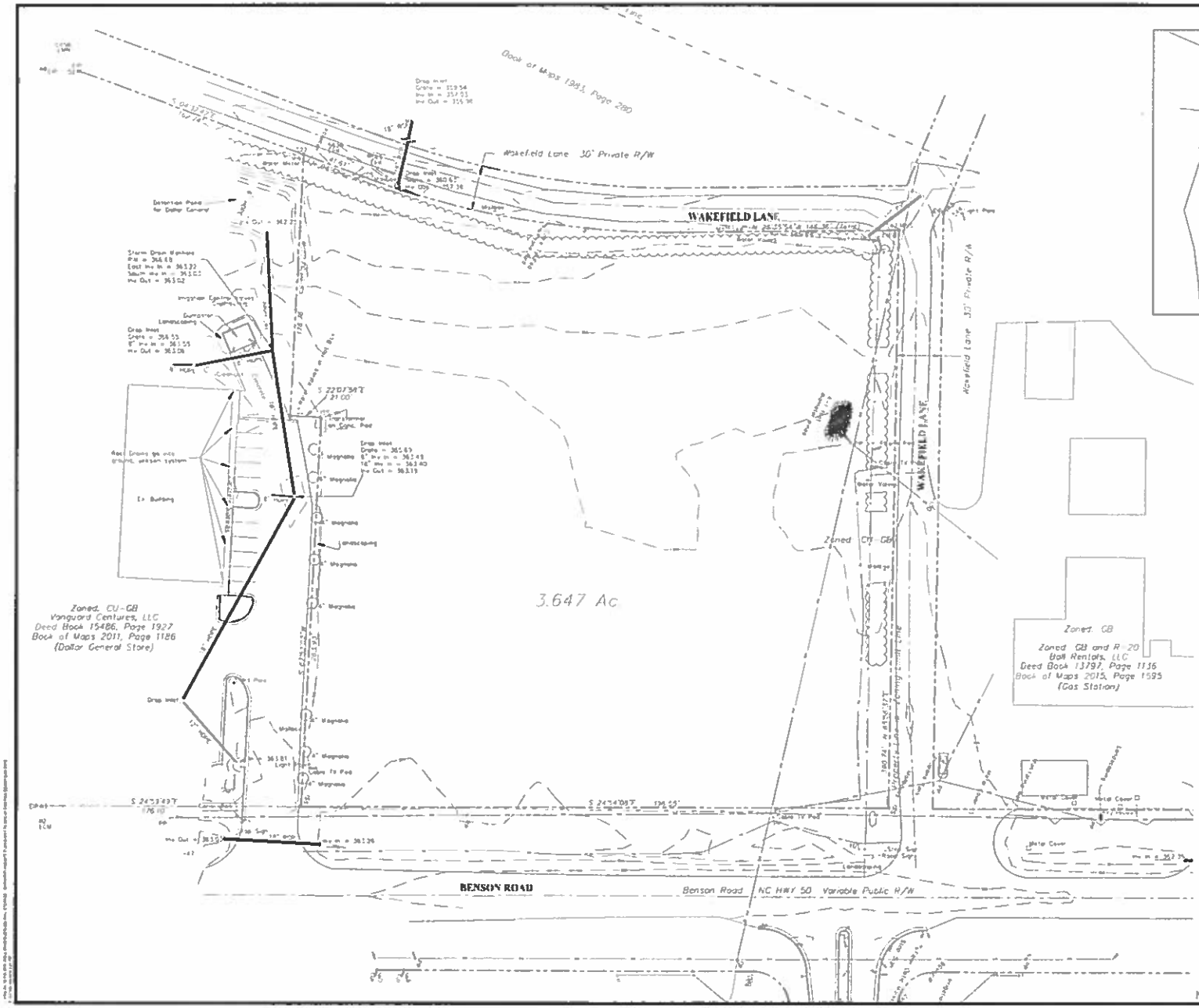
9/9/16

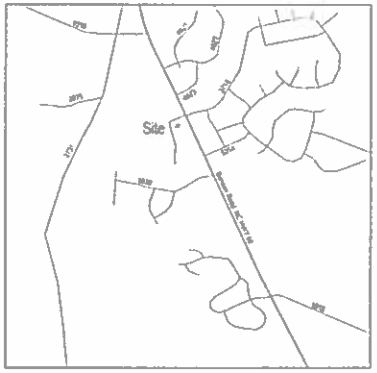
TURNER FARMS SELF-STORAGE - GARNER, NC

COVER SHEET

Curry ENGINEERING

C-00





VICINITY MAP

NOT TO SCALE

LEGEND:

	Lines Surveyed	TP	Telephone Pedestal
	Lines Not Surveyed	MH	Manhole
	Fin or Adjoining Lines	WM	Water Meter
	Right of Way Lines	FH	Fire Hydrant
EIP/EIS	Existing Iron Pipe or Stake	Esmt	Easement
ECM	Existing Concrete Monument	R/W	Right of Way
EPK	Existing P.K. Nail	C/L	Centerline
PKS	P.K. Nail Set	P.C.	Pipe Cabinet
EMN	Existing MAG Nail	D.B.	Deed Book
MNS	MAG Nail Set	P.B.	Plat Book
ISS	Iron Stake Set	B.M.	Book of Maps
CSS	Cotton Spindle Set	PIN	Parcel Identifier Number
ECS	Existing Cotton Spindle		
RRS	Railroad Spike	Ac.	Acres
ELS	Existing Lightwood Stake	Sq. Ft.	Square feet
PP	Power Pole	CP	Computed Point
OHE	Overhead Electric Lines		Street Address

N.C.G.S. North Carolina Geodetic Survey
NAD 27 North American Datum of 1927
NAD 83 North American Datum of 1983

NOTES:
* Iron Stakes set at all property corners unless noted otherwise
* Areas determined by coordinate method
* All distances/dimensions are Horizontal ground distances unless otherwise indicated

Note:
Elevations shown hereon are based on NC Global Navigation Satellite System Real Time Kinematic Network NAVD 88 (Geoid 12A).

Note:
Items and paint marks on the surface of the ground were located for the location of the underground utilities as shown hereon. However, lacking excavation, the exact location of underground features can not be accurately, completely and reliably depicted. Where additional or more detailed information is required, the clients are advised that excavation may be necessary.

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SCALE 1 IN = 30 FT
SCALE IN FEET HORIZONTAL

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TURNER FARMS SELF-STORAGE - GARNER, NC

EXISTING CONDITIONS

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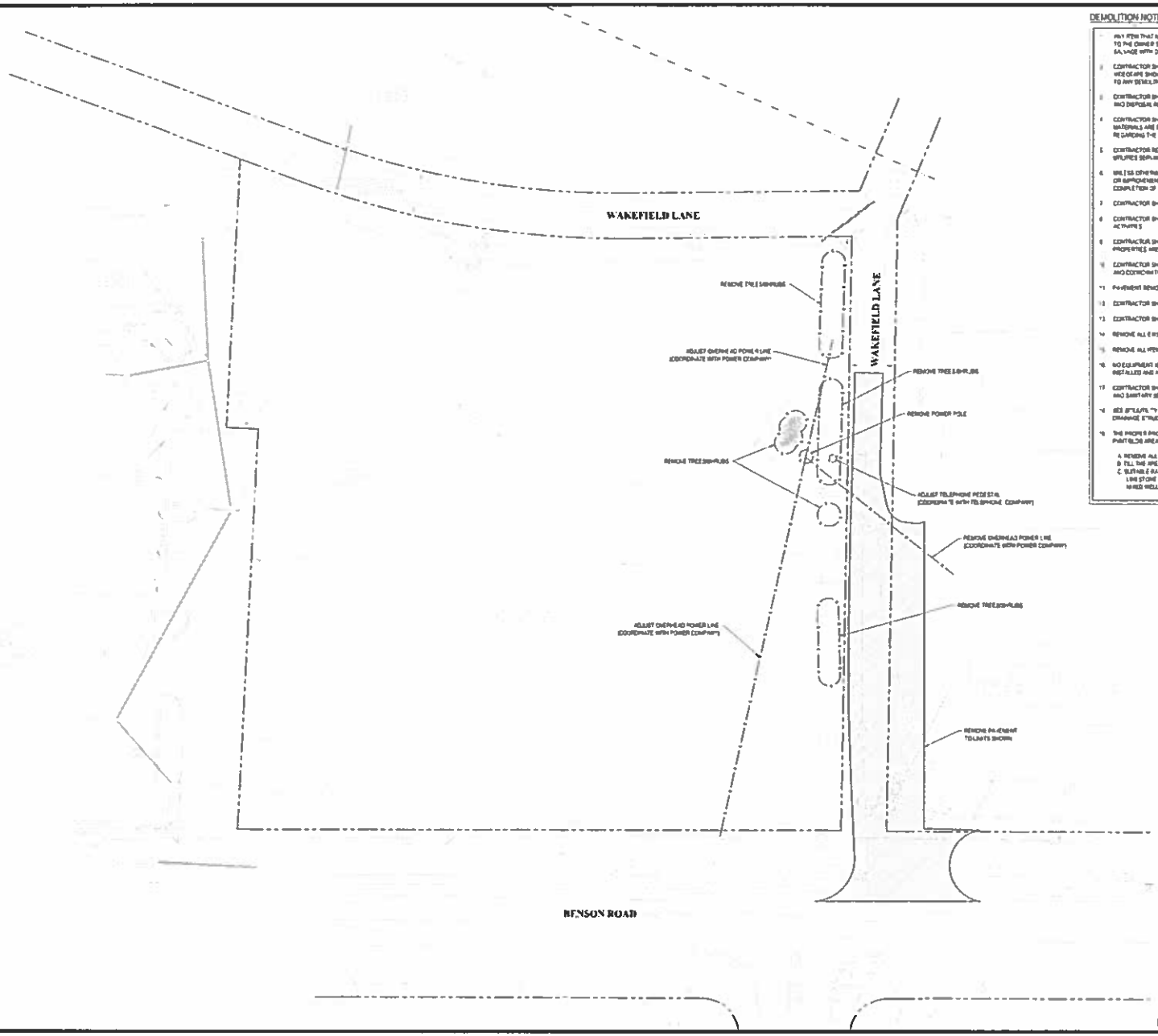
C-01



DEMOLITION NOTES

ANY ITEM THAT MAY BE ENCOUNTERED DURING BUILDING DEMOLITION THAT MAY BE OF INTEREST OR VALUE TO THE OWNER SHALL REMAIN THE OWNER'S PROPERTY. COORDINATE PROCEDURE FOR REMOVAL AND SALVAGE WITH OWNER.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING PRE-DEMOLITION PHOTOGRAPHS AND/OR VIDEO TAPE SHOWING "BEFORE CONDITIONS" ONE OF ADJOINING CONSTRUCTION AND SITE IMPROVEMENTS PRIOR TO ANY DEMOLITION WORK.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ENVIRONMENTAL EPA REGULATIONS AND HAULING AND DISPOSAL REGULATIONS OF LOCAL JURISDICTION, INCLUDING OBTAINING ALL REQUIRED PERMITS.

4. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER IN THE EVENT THAT UNANTICIPATED HAZARDOUS MATERIALS ARE ENCOUNTERED. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS AND REGULATIONS REGARDING THE HANDLING AND DISPOSAL OF HAZARDOUS MATERIALS.

5. CONTRACTOR RESPONSIBLE FOR LOCATING, IDENTIFYING, DISCONNECTING AND SEALING OR CAPPING UTILITIES SERVING BUILDINGS AND STRUCTURES TO BE DEMOLISHED.

6. UNLESS OTHERWISE NOTED ON DRAWINGS, DEMOLITION SHALL INCLUDE REMOVAL OF EXISTING OBJECTS OR IMPROVEMENTS, WITH THE EXCEPTION OF "TREES" THAT INSULT INTERFERE WITH PROGRESS OR COMPLETION OF PROPOSED WORK.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL DURING DEMOLITION.

8. CONTRACTOR SHALL NOTIFY OWNER AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF DEMOLITION ACTIVITIES.

9. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTION TO ENSURE THAT UTILITY SERVICES OF ADJOINING PROPERTIES ARE NOT DISTURBED DURING SITE DEMOLITION.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL OFFSITE IMPROVEMENTS DURING DEMOLITION AND COORDINATING RELOCATION OF ANY UTILITY SERVICES DISRUPTED BY DEMOLITION ACTIVITIES.

11. PAVEMENT REMOVAL INCLUDES THE REMOVAL OF ANY ASSOCIATED BASE COURSE AND CURBING.

12. CONTRACTOR SHALL FIELD VERIFY ALL LITURES BEFORE COMMENCING DEMOLITION ACTIVITIES.

13. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER SHOULD ANY DISCREPANCIES OR CONFLICTS ARISE.

14. REMOVE ALL EXISTING STRUCTURES INCLUDING FOUNDATIONS.

15. REMOVE ALL ITEMS SHOWN ON EXISTING CONDITIONS PLAN AS NEEDED FOR INSTALLATION OF NEW WORK.

16. NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.

17. CONTRACTOR SHALL CONTACT NEW CONNECTIONS PRIOR TO ANY DEMOLITION TO ENSURE EXISTING WATER AND SANITARY SEWER DISCONNECTS ARE HANDLED ACCORDING TO CHARLOTTE COUNTY GUIDELINES.

18. SEE SITE/UTILITY PLAN & GRADING/DRAINAGE PLAN FOR PROPOSED MODIFICATIONS TO UTILITIES & DRAINAGE STRUCTURES.

19. THE PROPER PROCEDURE FOR COMPACTED SOIL REMEDIATION IS AS FOLLOWS, REQUIRED IN FORMER PARTIALLY AREAS TO RECEIVE LANDSCAPING:

A. REMOVE ALL IMPERVIOUS SURFACES FROM THE SUBJECT AREA
B. FILL THE AREA TO A DEPTH OF 12 INCHES THE TOP OF COMPACTED SUBGRADE
C. SUITABLE RATES AND TYPES OF SOIL AMENDMENTS SHOULD BE DETERMINED BASED ON SOIL TESTS. LIME STONE AND PERTILIZER SHOULD BE APPLIED UNIFORMLY DURING SECOND PREPARATION AND MIXED WELL WITH THE TOP 4 TO 6 INCHES OF SOIL.

DEMOLITION LEGEND

- INDICATES UTILITY STRUCTURE OR TREE TO BE REMOVED
- INDICATES UTILITY LINE OR FENCE TO BE REMOVED
- INDICATES PAVEMENT TO BE REMOVED

SCALE: 1 IN = 30 FT

SCALE IN FEET HORIZONTAL

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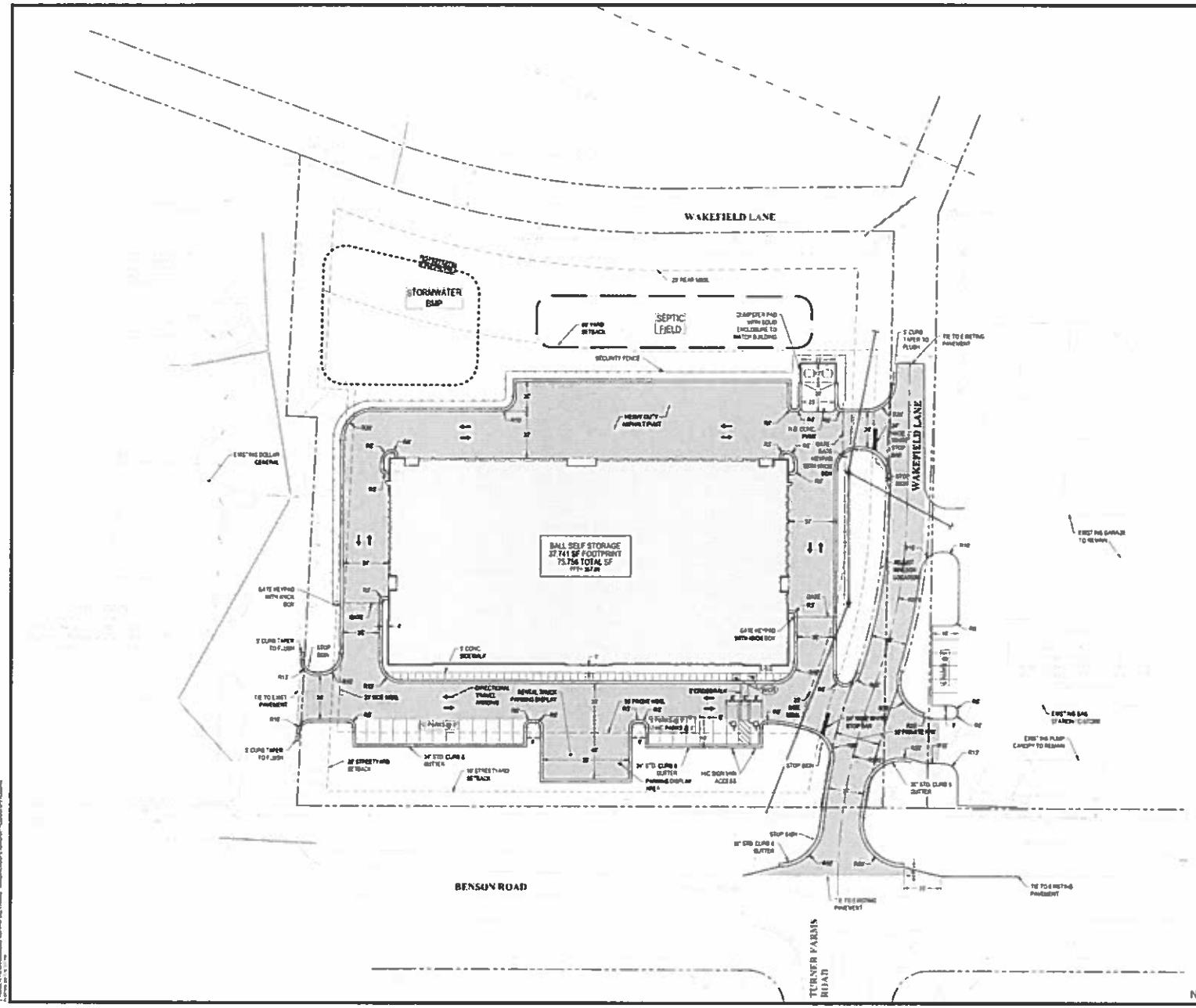
TURNER FARMS SELF-STORAGE - GARNER, NC

DEMOLITION PLAN

Curry ENGINEERING

C-02



SITE NOTES:

1. ALL SIGNS SHOULD USE PRISMATIC SHEETING THAT MEETS MINIMUM RETROREFLECTIVITY 5" INCHES FOUND IN THE LATEST EDITION OF THE MUTCD
2. ALL CONSTRUCTION MUST BE PERFORMED IN ACCORDANCE WITH WAKE COUNTY NCDOT AND NCDEQ STANDARD SPECIFICATIONS AND DETAILS
3. ALL ASPHALT EDGES SHALL BE SAW CUT TO PROVIDE A GOOD LONGITUDINAL JOINT. MILL 1.5 FEET AT 1.5 INCHES DEEP MINIMUM TO PROVIDE A LONGITUDINAL LAP JOINT FOR FINAL SURFACE LAYER. NO MILLING SHALL BE LEFT FOR A PERIOD OF TIME GREATER THAN 48 HOURS BEFORE A STREET IS TO BE PAVED/RESURFACED
4. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO CARRY OUT THE WORK
5. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL GRADES PRIOR TO THE START OF CONSTRUCTION
6. DUMPSTER PAD GATE ENCLOSURE SHALL BE 8' VINYL SLATS COLORED TO MATCH THE BUILDING
7. EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED
8. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, FACE OF CURB, FACE OF BUILDING, OR PROPERTY LINE UNLESS SHOWN OTHERWISE
9. MAX AREA OF FREE-STANDING SIGNAGE SOLID
10. TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS
11. ALL PARKING STALL WARNINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE
12. MAX SIDEWALK CROSS SLOPE 1.5%

SITE LEGEND

- CONC. CURB & GUTTER
- MINIMUM BUILDING SETBACK LINE
- DRIVE ISLE HEAVY DUTY PAVEMENT
- CONCRETE SIDEWALK
- BUILDING
- WHEELSTOP
- HANDICAP PARK
- WHEELCHAIR RAMP
- SIGNAGE
- SPILL UP
- TRAVEL DIRECTIONAL ARROWS
- EXISTING CONTOUR

SCALE 1 IN = 20 FT
SCALE IN FEET HORIZONTAL

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TURNER FARMS SELF-STORAGE - GARNER, NC

SITE PLAN

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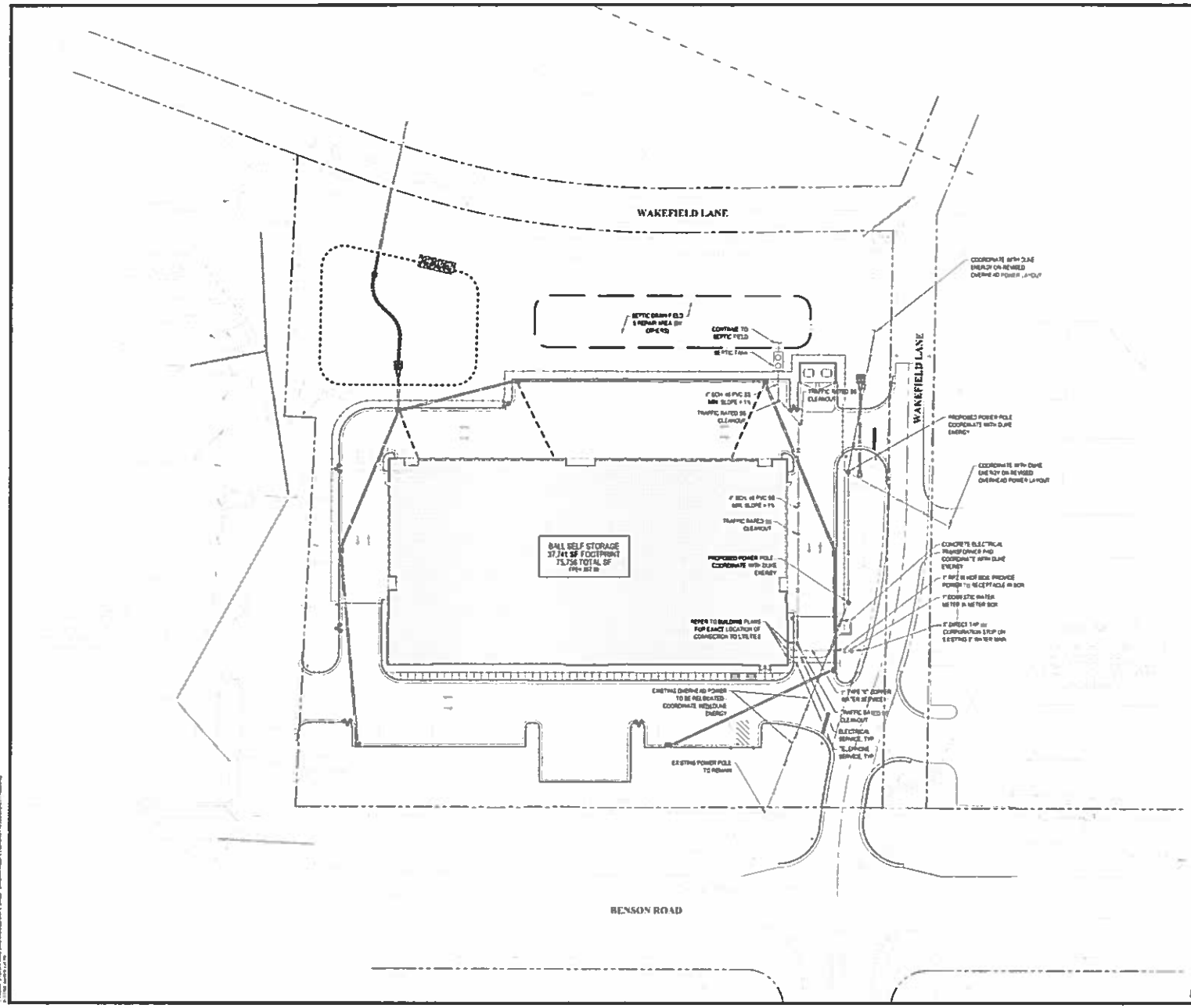
C-03



UTILITY NOTES

1. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED WATER PIPING, HYDRANTS, FILL POINTS, OR OTHER WATER-USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN THE WATER METER AND ITS AQUA-APPROVED BACKFLOW PREVENTERS.
2. REQUIRED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLIES TO BE INSTALLED ABOVE GROUND WITH INSULATED ENCLOSURE PER AQUA UTILITIES REQUIREMENTS. ENCLOSURES SHALL BE WATER TIGHT PRESS AND SHALL INCLUDE DRAIN PORTS FOR DISCHARGING WATER.
3. THE FOLLOWING BACKFLOW PREVENTION MODEL NUMBERS SHALL BE PROVIDED
   - 1" DOMESTIC BACKFLOW PRESSURE MODEL 975XL
4. SEE COVER SHEET FOR "UTILITY CONFLICT REQUIREMENTS" AND "NOTE INSTALLED BY MANUFACTURER'S INSTALLATION DETAILS" ON INSIDE FOR ON SITE USE
5. ALL CONSTRUCTION MUST BE PERFORMED IN ACCORDANCE WITH AQUA UTILITIES "MODIFY AND INCLUDE STANDARD SPECIFICATIONS AND DETAILS
6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO CARRY OUT THE WORK
7. THIS SITE IS SERVED BY AQUA UTILITIES
8. SANITARY SEWER IS CODED FOR ALL WATER PIPE
9. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED
13. SEPTIC SYSTEM DESIGN IS BY OTHERS
14. CONTRACTOR IS TO COORDINATE WITH DUKE ENERGY FOR ELECTRICAL UTILITY RELOCATIONS AND NEW SERVICE

UTILITY LEGEND

SS	SANITARY SEWER LINE
W	WATER LINE
OHE	OVERHEAD ELECTRICAL
T	TELEPHONE SERVICE
	STORMWATER LINE
	GATE VALVE
	TEE
	ELECTRICAL POWER POLE
	SANITARY SEWER CLEANOUT
	FLARED END SECTION
BFP	BACKFLOW PREVENTER
WM	WATER METER

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SCALE IN FEET HORIZONTAL

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TURNER FARMS SELF-STORAGE - GARNER, NC

UTILITY PLAN

Curry ENGINEERING

C-04

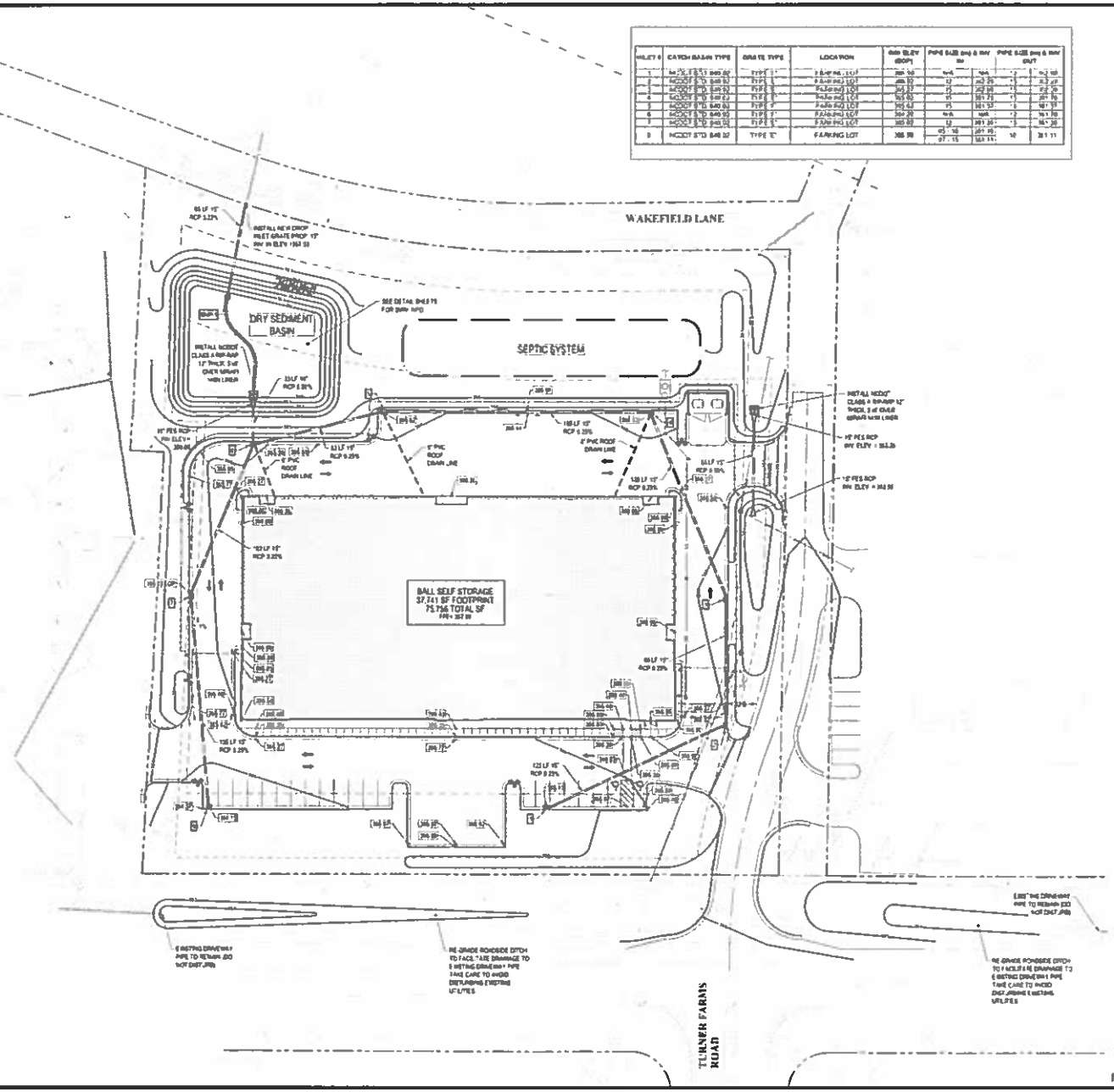
INLET #	CATCH BASIN TYPE	GRATE TYPE	LOCATION	GRATE ELEV (BOP)	PIPE SIZE (in) & INV IN	PIPE SIZE (in) & INV OUT		
1	NCDOT STD 840.02	TYPE "I"	PARKING LOT	368.50	N/A	N/A	12	363.50
2	NCDOT STD 840.02	TYPE "I"	PARKING LOT	366.50	12	362.25	12	362.25
3	NCDOT STD 840.02	TYPE "I"	PARKING LOT	365.37	12	362.50	12	362.50
4	NCDOT STD 840.02	TYPE "I"	PARKING LOT	365.00	12	361.75	12	361.75
5	NCDOT STD 840.02	TYPE "I"	PARKING LOT	365.62	12	361.50	12	361.50
6	NCDOT STD 840.02	TYPE "I"	PARKING LOT	364.20	N/A	N/A	12	361.70
7	NCDOT STD 840.02	TYPE "I"	PARKING LOT	365.00	12	361.20	12	361.20
8	NCDOT STD 840.02	TYPE "I"	PARKING LOT	368.50	15 - 16	361.15	12	361.11
					17 - 15	363.11		

GRADING/DRAINAGE NOTES

1. ALL STORM DRAINAGE PIPING SHALL BE CLASS III RCP UNLESS NOTED OTHERWISE
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NCDEQ, NCDOT AND WAKE COUNTY STANDARDS AND SPECIFICATIONS
3. CONTRACTOR SHALL COORDINATE ALL GRADING OPERATIONS WITH THE OWNER'S GEOTECHNICAL ENGINEER, AS APPROPRIATE
4. CONTRACTOR SHALL MAINTAIN POS "THE SLOPE AND DUST ALL OF ANY FOUNDATION DRAIN SYSTEMS
5. SPOT ELEVATIONS ON CURB REFER TO THE BACK OR TOP OF CURB (TOC) ELEVATION. ELEVATIONS ON STORM DRAINAGE TABULATIONS SEE DETAIL SHEET REFER TO EDGE OF PAVEMENT (EOP) ELEVATION
6. ALL STORM DRAIN INLETS, MANHOLE COVERS AND GRATES ARE TO BE LABELED "NO DUMPING DRAINS TO STREAM"
7. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL GRADES PRIOR TO THE START OF CONSTRUCTION
8. THIS SITE IS ANTICIPATED TO BE A BALANCE EARTHWORK SITE. IN THE EVENT MATERIAL IS TAKEN OFF SITE OR RECEIVED FROM AN OFF-SITE SOURCE, NCDEQ MUST BE NOTIFIED AND THE MATERIAL MUST ORIGINATE FROM A PERMITTED FACILITY

GRADING/DRAINAGE LEGEND

- PROPOSED STORM DRAIN LINE
- CURB INLET
- STORM INLET
- EXISTING CONTOUR
- PROPOSED CONTOUR
- SPOT ELEVATION
- SPILL UP



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SCALE IN FEET HORIZONTAL

NOT FOR CONSTRUCTION

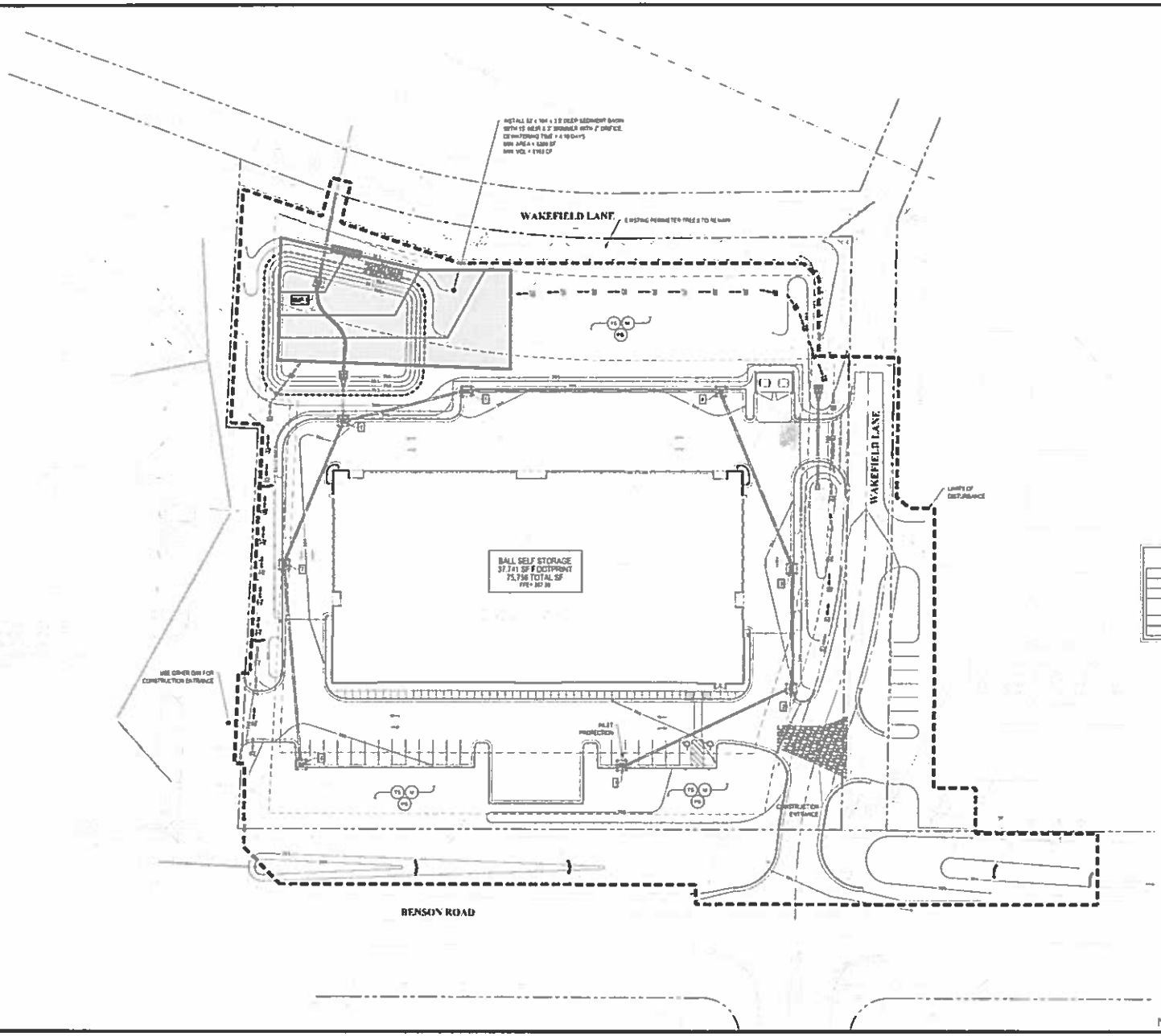
7/8/16

TURNER FARMS SELF-STORAGE - GARNER, NC

GRADING-DRAINAGE PLAN

Curry ENGINEERING

C-05



NOTES

1. THE TEMPORARY DIVERSION DITCHES, SILT FENCE, AND LIMITS OF DISTURBANCE SHOWN ON THIS PLAN ARE GRAPHICAL REPRESENTATION OF THE ACTUAL EROSION CONTROL MEASURES THAT SHALL BE PLACED UNDER THIS PROJECT DUE TO SCALE OF THE DRAWING. THESE MEASURES ARE GRAPHICALLY DEPICTED AND MAY BE BEYOND WHERE THEY ACTUALLY WILL BE INSTALLED IN THE FIELD.
2. TOTAL DISTURBED AREA = 7.14 AC
3. REFER TO DETAIL SHEETS FOR CONSTRUCTION SEQUENCE, EROSION CONTROL MATERIAL, MAINTENANCE NOTES, STABILIZATION RESTRICTIONS & EROSION CONTROL DETAILS
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT WAKE COUNTY STANDARDS AND REGULATIONS
5. THERE SHALL BE NO DISTURBANCE OUTSIDE THE LIMITS SHOWN ON THIS PLAN WITHOUT AN APPROVED PLAN AMENDMENT BY WAKE COUNTY EMC
6. ALL DISTURBED AREAS SHALL BE SEEDED PER STABILIZATION TABLE
7. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SELF INSPECTION LOG
8. SHAPE OF SEDIMENT BASINS CAN VARY AS SHOWN PROVIDED MINIMUM VOLUME & SURFACE AREA REQUIREMENTS ARE PROVIDED
9. ALL DIVERSION DITCHES SHALL HAVE 12" STRAW BATTLE CHECK DAMS SPACED EVERY 100 L.F. OF DITCH

LEGEND

- SEDIMENT BASIN
- SILT FENCE OUTLET
- STRAW BATTLE
- TEMP SEDIMENT DIVERSION DITCH
- OUTLET PROTECTION
- DIVERSION DITCH
- INLET PROTECTION
- SILT FENCE
- TREE PROTECTION FENCE
- DISTURBANCE LIMITS

NPDES STABILIZATION TABLE

SITE AREA DESCRIPTION	STABILIZATION	RESTRICTIONS AND EXCEPTIONS
Perimeter dikes, swales, ditches, and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 50' or less in length and are not steeper than 2:1, no stabilization required
Slopes 3:1 or flatter	14 days	If flat 50' slopes longer than 50' in length
All other areas with slopes flatter than 4:1	14 days	None except for perimeter and HQW Zones

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SCALE 1 IN = 30 FT

SCALE IN FEET HORIZONTAL

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9/4/14

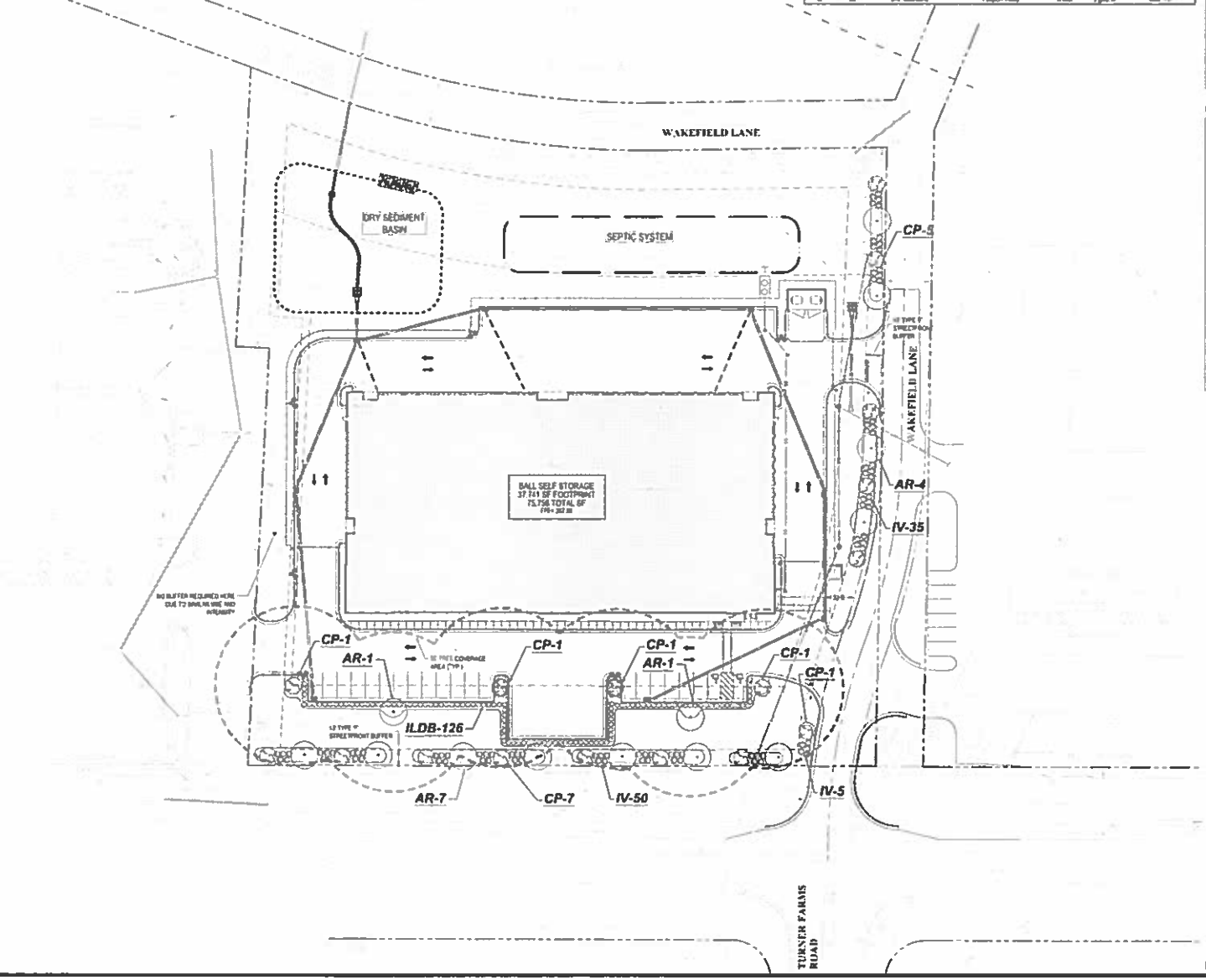
TURNER FARMS SELF-STORAGE - GARNER, NC

EROSION CONTROL PLAN

Curry ENGINEERING

C-06

KEY	QTY	BOTANICAL NAME	COMMON NAME	TYPE	SIZE	HEIGHT
		(TREES)				
AR	11	Acer rubrum	Red Maple	Canopy	2" ±	Min. 10'
CP	17	Cupressocyparis leylandii	Clone Myrtle Red Ranger	Understory	2" ±	Min. 6'
		(SHRUBS)				
ILDB	126	Ilex cornuta 'Burfordii' nana	Dwarf Burford Holly	Small	3 gallon	Min. 18"
IV	55	Ilex vomitoria	Yaupon Holly	Small	3 gallon	Min. 18"



NOTES

1. LANDSCAPING SHALL COMPLY WITH THE WAKE COUNTY LANDSCAPING ORDINANCE
2. ALL DISTURBED AREAS NOT IDENTIFIED FOR PLANTINGS AND MULCH SHALL BE SEEDED SEE DETAIL SHEET FOR REQUIREMENTS.
3. FOR ALL EVERGREEN AND CANOPY TREES THE MIN. CALIPER INCHES AT PLANTING IS 2"
4. MINIMUM HEIGHT FOR SHRUBS IS 18"
5. ALL PLANTED AND RETAINED LIVING MATERIAL REQUIRED TO MEET THE WAKE COUNTY LANDSCAPING REGULATIONS SHALL BE PERPETUALLY PROTECTED AND MAINTAINED TO PROFESSIONALLY ACCEPTED STANDARDS BY JOINT AND SEVERAL RESPONSIBILITY OF THE OWNER, OCCUPANT, TENANT AND RESPECTIVE AGENTS OF THE PROPERTY ON WHICH THE MATERIAL IS LOCATED.
6. IRRIGATION SYSTEMS BY OTHERS
7. NO SUBSTITUTION OF PLANT MATERIAL ALLOWED WITHOUT WAKE COUNTY APPROVAL.

LANDSCAPING CALCULATIONS

LANDSCAPE REQUIREMENTS - WAKE COUNTY (ARTICLE 16.1.2(D))

A. PERIMETER LANDSCAPING
- REQUIRED PLANTINGS
  - *REQUIRED SHRUB PLANTINGS ALONG PARKING SPACES TO CREATE EVERGREEN HEDGE
    - *CANOPY TREES (VERY 40' MINIMUM ALONG PARKING) ARE 44
- PROVIDED PLANTINGS
  - TREES = 44
  - *SHRUBS=126

B. INTERIOR PLANTINGS
- REQUIRED PLANTINGS
  - REQUIRED TREES=1 PER 15 AND WITH 30' TREE COVERAGE FOR ALL PARKING SPACES
    - *SHRUBS ALSO REQUIRED IN ISLANDS
- PROVIDED PLANTINGS
  - TREES = 1 (SAME AS PERIMETER REQUIREMENT)
  - *SHRUBS=42

C. BUFFERS NEXT TO STREETYARDS
- REQUIRED PLANTINGS (TYPE "C" BETWEEN 100 & 200 FEET DUE TO CALCULATE OPACITY = 3 DECIDUOUS CANOPY, 2 EVERGREEN TREES, 14 SHRUBS PER 100 FT
- PROVIDED PLANTINGS (BETWEEN 100 & 200 FT)
  - *FRONTAGE LENGTH=200
    - *PROVIDED=7 CANOPY, 1 USE 33 SHRUBS
- PROVIDED PLANTINGS (BETWEEN 200 & 300 FT)
  - *FRONTAGE LENGTH=245 (EXCLUDE DRIVEWAYS)
    - *PROVIDED=8 CANOPY, 1 USE 40 SHRUBS
    - *NOTE: CLEARING 5 SLANTED REDUCED DUE TO PRESENCE OF UTILITIES AND SIGHT DISTANCE CONCERNS

LANDSCAPE LEGEND

RED MAPLE (AR)
CLONE MYRTLE (CP)
*YAUPON HOLLY (IV)
DWARF BURFORD HOLLY (ILDB)
PINE BARK MULCHED BED

SCALE IN FEET HORIZONTAL

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TURNER FARMS SELF-STORAGE - GARNER, NC

LANDSCAPE PLAN

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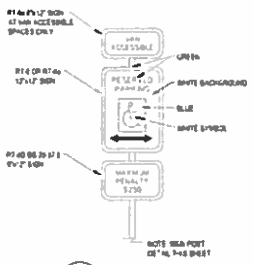
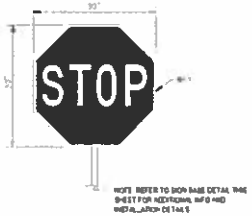
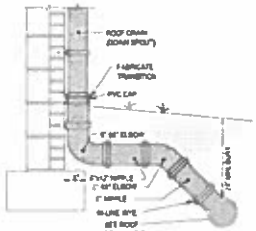
C-07



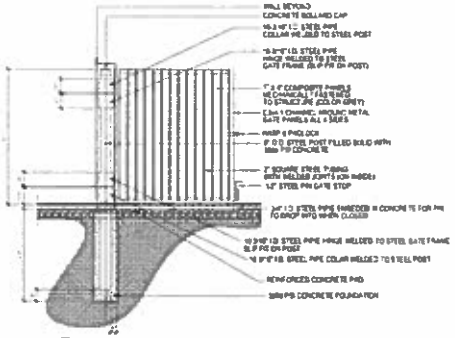
1 D-01 ACCESSIBLE PARKING SIGNAGE
SCALE N.T.S.



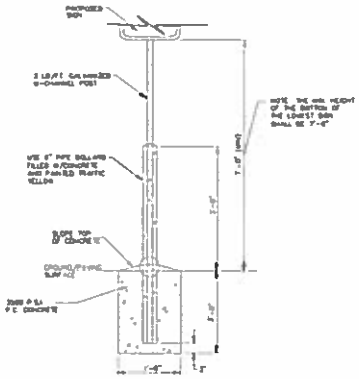
2 D-01 STOP SIGN
SCALE N.T.S.



3 D-01 ROOF DRAIN TIE-IN
SCALE N.T.S.

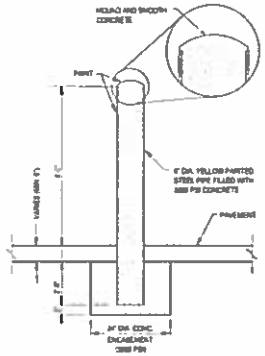


4 D-01 DUMPSTER ENCLOSURE GATE
SCALE N.T.S.

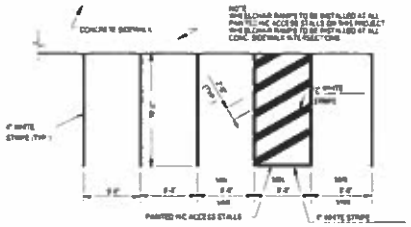


SIGN BASE DETAIL (ALL SIGNS)

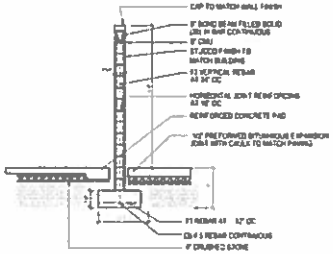
5 D-01 SIGN IN BOLLARD
SCALE N.T.S.



6 D-01 BOLLARD
SCALE N.T.S.



7 D-01 90 DEG. HANDICAP STALLS - TYPICAL
SCALE N.T.S.



8 D-01 DUMPSTER ENCLOSURE
SCALE N.T.S.

BEFORE YOU DIG CALL TOLL FREE
NORTH CAROLINA ONE-CALL CENTER

NOT FOR CONSTRUCTION

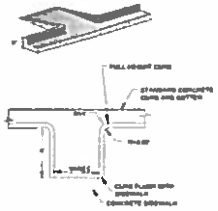
9/9/16

TURNER FARMS SELF-STORAGE - GARNER, NC

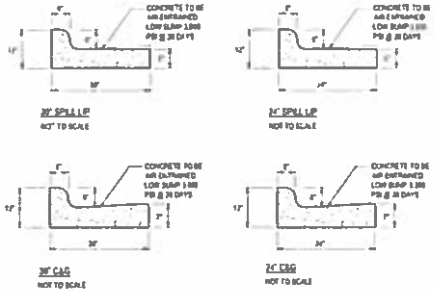
SITE DETAILS I

Curry ENGINEERING

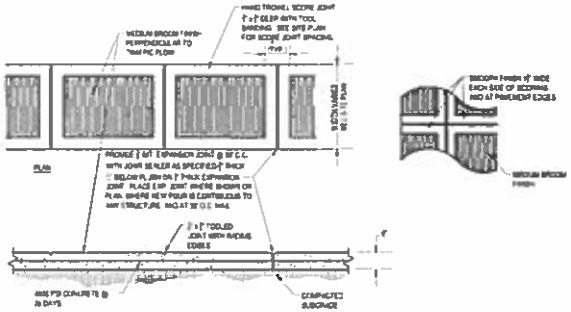
D-01



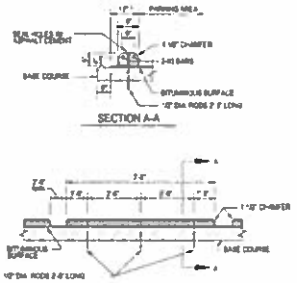
1 D-02 WHEEL CHAIR CURB CUT
SCALE N.T.S



2 D-02 CURB AND GUTTER
SCALE N.T.S



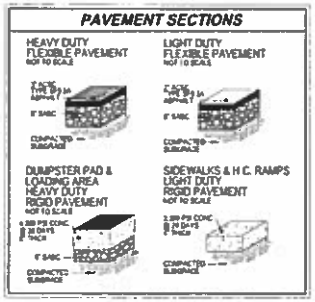
3 D-02 CONCRETE SIDEWALK - SITE
SCALE N.T.S



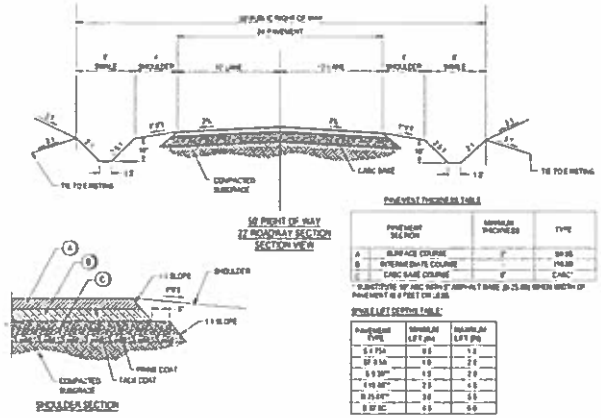
NOTE:
ANCHOR RODS TO BE SLEEVED OR BREAKED THRU CONC. CURBS TO PERMIT RELOCATION OF CURBS.

4 D-02 WHEEL STOP
SCALE N.T.S

5 D-02 CONCRETE CORNER DETAIL
SCALE N.T.S



6 D-02 PAVEMENT SECTIONS
SCALE N.T.S



PAVEMENT THICKNESS TABLE

	PAVEMENT SECTION	MINIMUM THICKNESS	TYPE
A	SURFACE COURSE	1"	S9.5B
B	INTERMEDIATE COURSE		I19.0B
C	CABC BASE COURSE	6"	CABC*

* SUBSTITUTE 10" ABC WITH 3" ASPHALT BASE @ 25.00 WHEN WIDTH OF PAVEMENT IS 6 FEET OR LESS.

PONDS LIFT DEPTH TABLE:

PAVEMENT TYPE	MINIMUM LIFT (in)	MAXIMUM LIFT (in)
S-9.5B	3.5	5.0
BT-9.5A	4.0	7.0
S-9.5B**	4.5	7.0
I-19.0B**	7.5	10.5
B-25.0B**	10	15
B-25.0C**	10	15
B-25.0D**	10	15
B-25.0E**	10	15
B-25.0F**	10	15
B-25.0G**	10	15
B-25.0H**	10	15
B-25.0I**	10	15
B-25.0J**	10	15
B-25.0K**	10	15
B-25.0L**	10	15
B-25.0M**	10	15
B-25.0N**	10	15
B-25.0O**	10	15
B-25.0P**	10	15
B-25.0Q**	10	15
B-25.0R**	10	15
B-25.0S**	10	15
B-25.0T**	10	15
B-25.0U**	10	15
B-25.0V**	10	15
B-25.0W**	10	15
B-25.0X**	10	15
B-25.0Y**	10	15
B-25.0Z**	10	15
B-25.0AA**	10	15
B-25.0BB**	10	15
B-25.0CC**	10	15
B-25.0DD**	10	15
B-25.0EE**	10	15
B-25.0FF**	10	15
B-25.0GG**	10	15
B-25.0HH**	10	15
B-25.0II**	10	15
B-25.0JJ**	10	15
B-25.0KK**	10	15
B-25.0LL**	10	15
B-25.0MM**	10	15
B-25.0NN**	10	15
B-25.0OO**	10	15
B-25.0PP**	10	15
B-25.0QQ**	10	15
B-25.0RR**	10	15
B-25.0SS**	10	15
B-25.0TT**	10	15
B-25.0UU**	10	15
B-25.0VV**	10	15
B-25.0WW**	10	15
B-25.0XX**	10	15
B-25.0YY**	10	15
B-25.0ZZ**	10	15
B-25.0AAA**	10	15
B-25.0BBB**	10	15
B-25.0CCC**	10	15
B-25.0DDD**	10	15
B-25.0EEE**	10	15
B-25.0FFF**	10	15
B-25.0GGG**	10	15
B-25.0HHH**	10	15
B-25.0III**	10	15
B-25.0JJJ**	10	15
B-25.0KKK**	10	15
B-25.0LLL**	10	15
B-25.0MMM**	10	15
B-25.0NNN**	10	15
B-25.0OOO**	10	15
B-25.0PPP**	10	15
B-25.0QQQ**	10	15
B-25.0RRR**	10	15
B-25.0SSS**	10	15
B-25.0TTT**	10	15
B-25.0UUU**	10	15
B-25.0VVV**	10	15
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B-25.0XXX**	10	15
B-25.0YYY**	10	15
B-25.0ZZZ**	10	15
B-25.0AAAA**	10	15
B-25.0BBBB**	10	15
B-25.0CCCC**	10	15
B-25.0DDDD**	10	15
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B-25.0FFFF**	10	15
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B-25.0HHHHH**	10	15
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B-25.0PPPPP**	10	15
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B-25.0NNNNNNNNNNNNNNNN**	10	15
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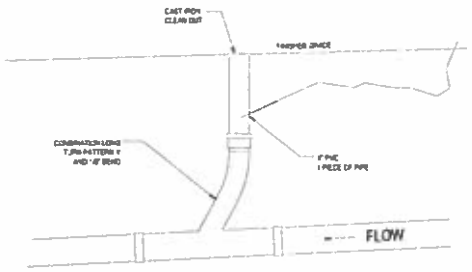
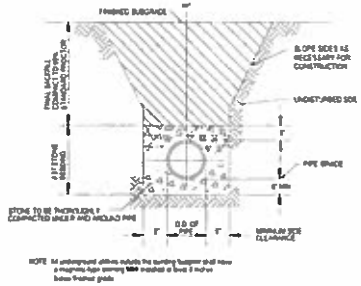


1 / D-04 SANITARY SEWER CLEAN-OUT
SCALE N.T.S.



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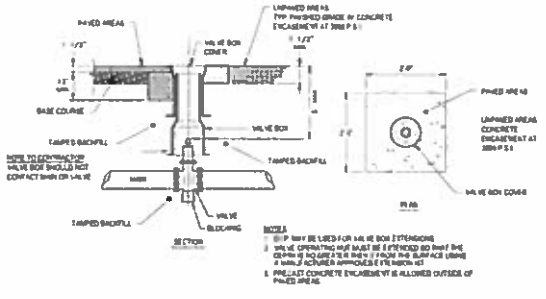

3 / D-04 VALVE BOX DETAIL
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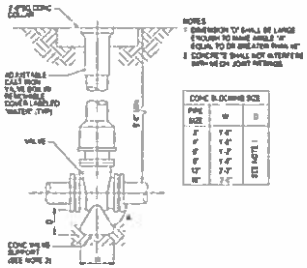

4 / D-04 GATE VALVE DETAIL
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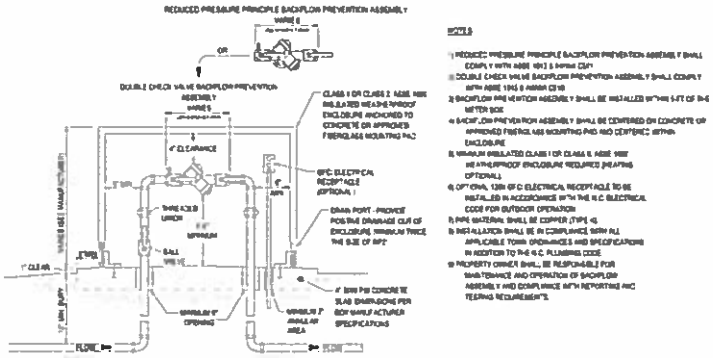

5 / D-04 RPZ DETAIL
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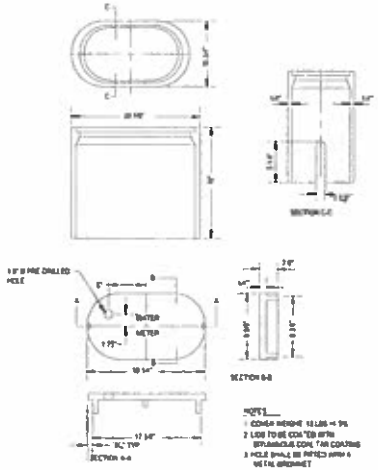

6 / D-04 WATER METER
SCALE N.T.S.

BEFORE YOU DIG CALL TOLL FREE
NORTH CAROLINA ONE CALL CENTER

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TURNER FARMS SELF-STORAGE - GARNER, NC

WATER DETAILS

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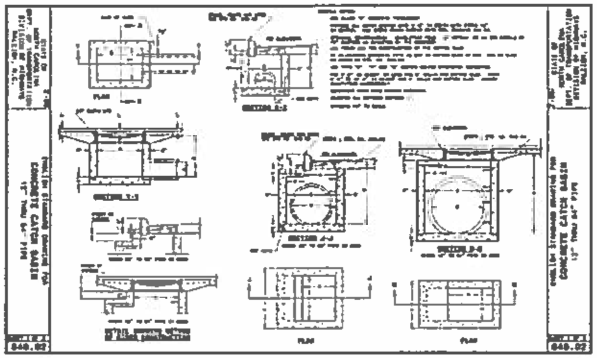
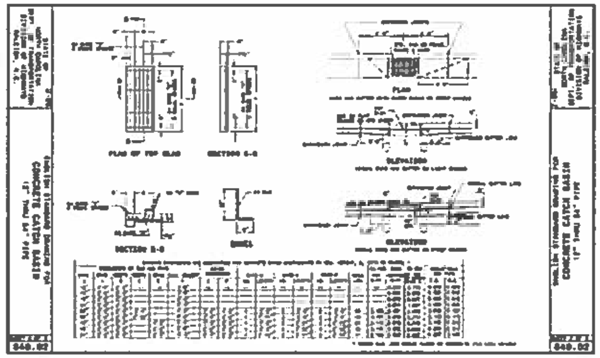
D-03

TURNER FARMS SELF-STORAGE - GARNER, NC
DRAINAGE DETAILS



1 CONCRETE CATCH BASIN 1 of 2 — D-04 — SCALE: NTS



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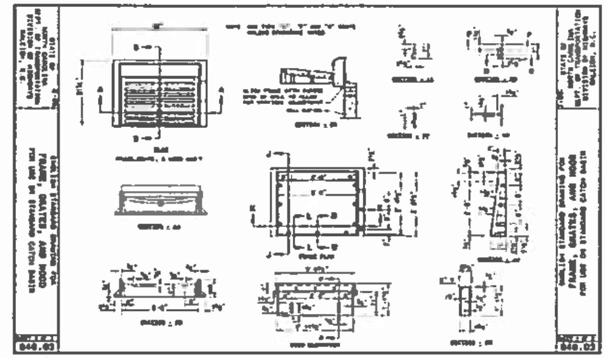
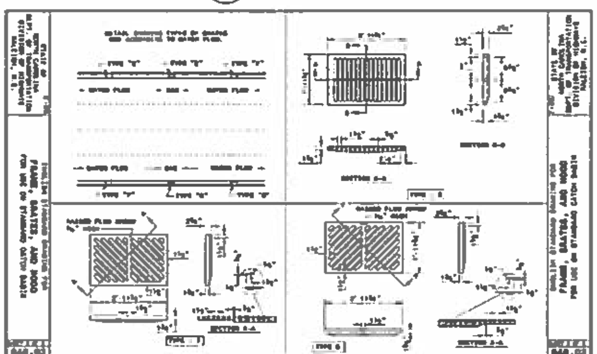
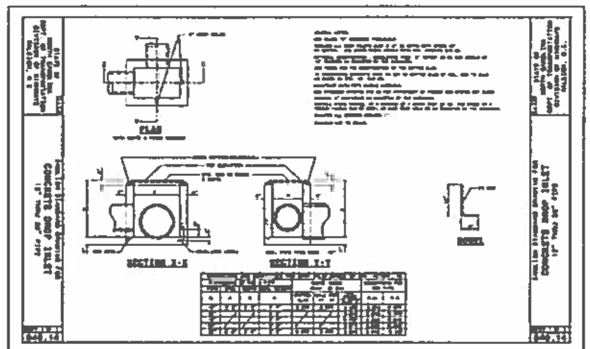


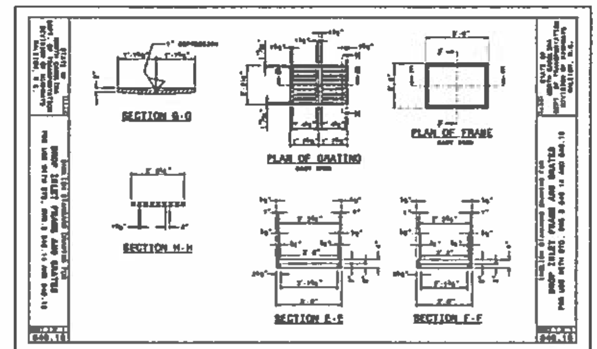
3 FRAME, GRATES, AND HOOD 1 OF 2 — D-04 — SCALE: NTS



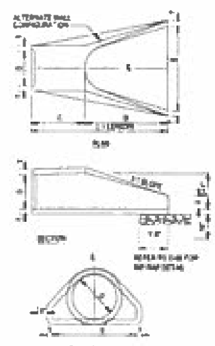
4 FRAME, GRATES, AND HOOD 2 OF 2 — D-04 — SCALE: NTS

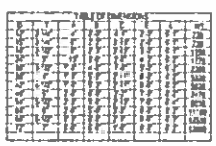


5 CONCRETE DROP INLET — D-04 — SCALE: NTS



6 DROP INLET FRAME & GRATE — D-04 — SCALE: NTS





GENERAL NOTES

1. SEE FORMER NCDOT STANDARD INLET FOR DETAILS
2. REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF REINFORCED CONCRETE PIPE OF LIKE DIAMETER PER AASHTO M170, TABLE [illegible] WALL B
3. ALL CONCRETE TO BE [illegible] P.S.I. COMPRESSIVE STRENGTH
4. PROVIDE TONGUE OR SPIGOT JOINT AT INLET END SECTION
5. PROVIDE GROOVE OR BELL JOINT AT OUTLET END SECTION
6. THE DIMENSIONS FOR END SECTIONS SHALL SUBSTANTIALLY AGREE WITH THE TABLE. MINOR VARIATIONS WILL BE PERMITTED BASED ON THE MANUFACTURER'S STANDARD FORMS AND TEMPLATES
7. NOT TO BE USED IN NCDOT MAINTAINED RIGHT OF WAY

7 FLARED END SECTION — D-04 — SCALE: NTS

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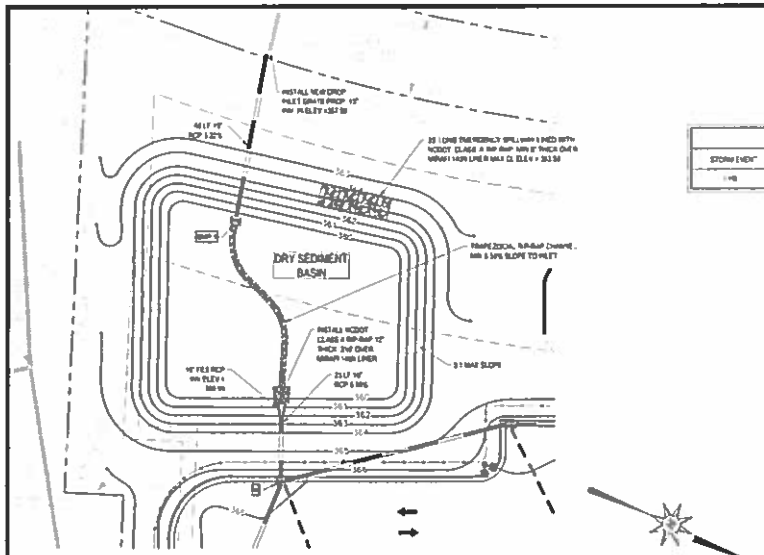
D-04



1 D-05 DRY DETENTION - PLAN VIEW
SCALE 1" = 20'

SCALE IN FEET HORIZONTAL

PEAK RUNOFF CALCULATIONS				
STORM EVENT	PRE	POST	POST-REFORESTATION	ELEV
1-YR	[illegible]	[illegible]	[illegible]	[illegible]

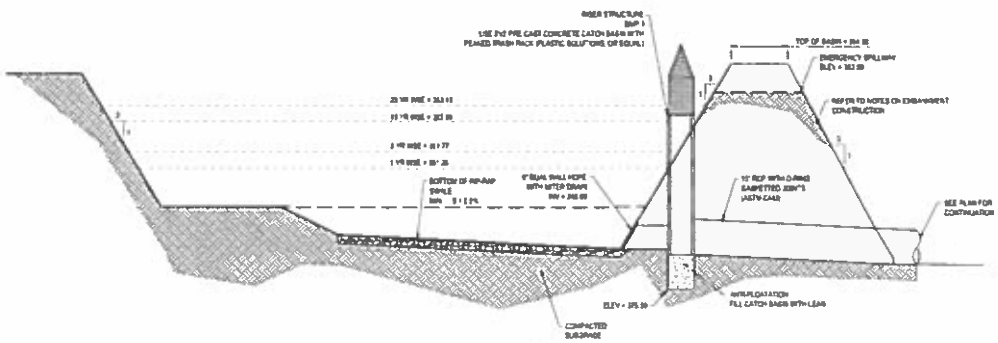
2 D-05 BMP RUNOFF SUMMARY
SCALE N.T.S.

STONE CLASSIFICATION	RIP RAP DEPTH
A	12"
B	18"
CLASS I	24"
CLASS II	36" 48"

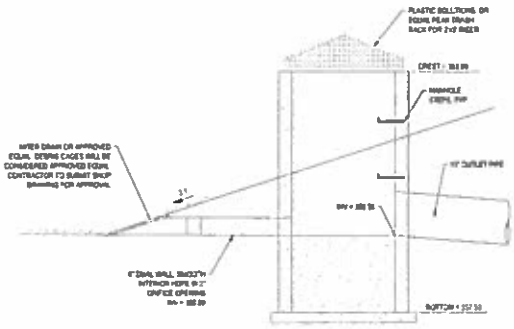
3 D-05 RIP-RAP CHANNEL
SCALE N.T.S.

GENERAL NOTES:

1. THE SITE IS LOCATED IN THE NEUSE RIVER BASIN. MEDIUM DENSITY COMM ROAD.
2. DRY DETENTION BASIN SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES STORMWATER BMP MANUAL. LATEST EDITION. DRY DETENTION BASIN PROVIDES MINIMAL WATER QUALITY TREATMENT.
3. THE PROJECT MEETS THE REQUIREMENTS OF WAKE COUNTY STORMWATER MANUAL. LATEST EDITION.
4. MAXIMUM SLOPE OF BASIN IS 3:1.
5. ALL SIDE SLOPES, EMBANKMENTS AND SPILLWAYS SHALL BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR PER ASTM D698.
6. CONTROLLED FILL AS SPECIFIED BY THE RESIDENT ENGINEER ON THE DAM EMBANKMENT SHALL BE PLACED IN 8-INCH LOOSE LIFTS PER 4-INCH LOOSE LAYERS WITHIN 5 FEET OF EITHER SIDE OF THE PRINCIPAL SPILLWAY PIPE TO A DEPTH OF 3 FEET OVER THE PIPE) AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - FOUR PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698.
7. ALL VISIBLE ORGANIC DEBRIS SUCH AS ROOTS AND LOGS SHALL BE REMOVED FROM THE FILL MATERIAL PRIOR TO COMPACTION TO THE REQUIRED DENSITY. SOILS WITH ORGANIC MATTER CONTENT EXCEEDING 5% BY WEIGHT SHALL BE USED. STONES GREATER THAN 3-INCH IN ANY DIRECTION SHALL BE REMOVED FROM THE FILL PRIOR TO COMPACTION.
8. FILL MATERIAL PLACED AT DENSITIES LOWER THAN SPECIFIED MINIMUM DENSITIES OR AT MOISTURE CONTENTS OUTSIDE THE SPECIFIED RANGES OR OTHERWISE NOT CONFORMING TO SPECIFIED REQUIREMENTS SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIALS.
9. ANY FILL LAYER THAT IS SMOOTH DRUM ROLLED TO REDUCE MOISTURE PENETRATION DURING A STORM EVENT SHALL BE PROPERLY SCARIFIED PRIOR TO THE PLACEMENT OF THE NEXT 8-INCH LIFT.
10. SURFACE WATER AND STREAM FLOW SHALL BE CONTROLLED TO PROVIDE CONTROLLED UNINTERRUPTED CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.
11. FOUNDATION AREAS MAY REQUIRE UNDERCUTTING OF COMPRESSIBLE AND/OR UNSUITABLE SOILS IN ADDITION TO THAT INDICATED ON THE PLANS. ALL SUCH UNDERCUTTING SHALL BE PERFORMED AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER AND SHALL BE MONITORED AND DOCUMENTED. IN NO CASE SHALL THERE BE AN ATTEMPT TO STABILIZE AND PORTIONS OF THE FOUNDATION SOILS WITH CRUSHED STONE.
12. TREATMENT OF SEEPAGE AREAS, SUBGRADE PREPARATION, FOUNDATION DEWATERING AND ROCK FOUNDATION PREPARATION (I.E. TREATMENT WITH SLURRY, GROUTING, DENTAL CONCRETE, ETC.) MAY BE REQUIRED AT THE DIRECTION OF THE RESIDENT ENGINEER. ALL SUCH NEW WELLS SHALL BE CLOSED, MONITORED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER.
13. FILL ADJACENT TO THE RISER AND PRINCIPAL SPILLWAY PIPE SHALL BE PLACED SO THAT LIFTS ARE AT THE SAME LEVEL ON BOTH SIDES OF THE STRUCTURES.
14. EARTHWORK COMPACTION WITHIN 3 FEET OF ANY STRUCTURE SHALL BE ACCOMPLISHED BY MEANS OF HAND TAMPERS, WAN JALI DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR SMALL PIPE SELF PROPELLED ROLLERS.
15. COMPACTION BY MEANS OF DROP WEIGHTS FROM A CRANE OR HOIST SHALL NOT BE PERMITTED.
16. HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER CAST-IN-PLACE STRUCTURES UNTIL ADEQUATE CURING TIME HAS ELAPSED.
17. TO RE-ESTABLISH VEGETATION AFTER CONSTRUCTION, 6 TO 8 INCH LAYER OF TOPSOIL SHALL BE PLACED ON THE DISTURBED EMBANKMENT SLOPES AND THE AREA BENEATH AND HALFWAY OF IMPOUNDED.
18. ALL RISER STRUCTURES INCLUDING WEIR WALL TYPE STRUCTURES SHALL BE REINFORCED CONCRETE BRICK/CONCRETE BLOCK AND WOOD OR TYPE STRUCTURES SHALL NOT BE ACCEPTED.
19. ALL RISER STRUCTURES SHALL BE LOCATED SUCH THAT DIRECT ACCESS FROM THE DAM EMBANKMENT CAN BE ACHIEVED.
20. RISER STRUCTURES WITH MULTIPLE BARREL SECTIONS SHALL HAVE GASKETED JOINTS, AND EACH SECTION SHALL BE SOLDERED TO ADJACENT SECTIONS WITH STAINLESS STEEL STRAPS.



4 D-05 DRY DETENTION - SECTION A
SCALE N.T.S.



5 D-05 RISER STRUCTURE DETAIL
SCALE N.T.S.

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TURNER FARMS SELF-STORAGE - GARNER, NC

BMP DETAILS

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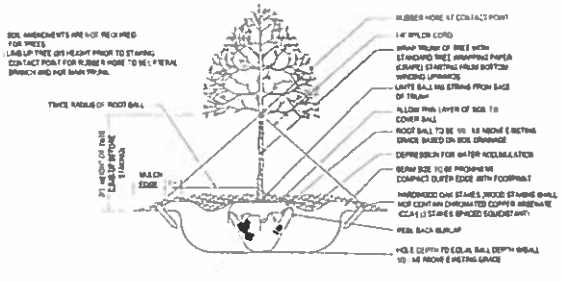
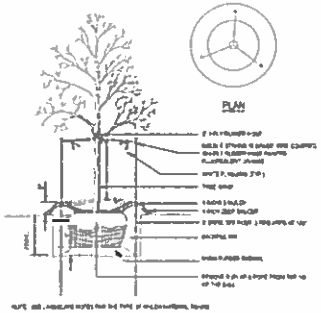
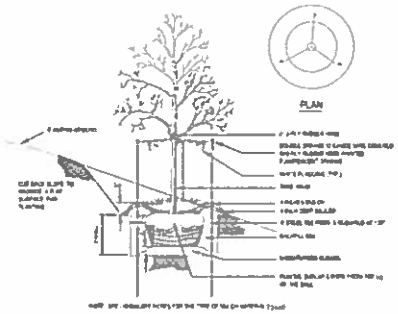
D-05



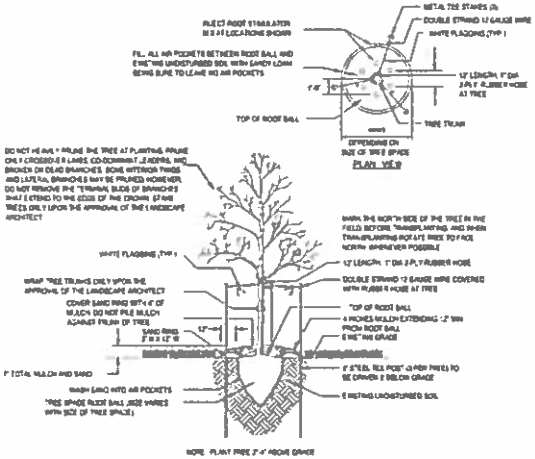
1 D-06 TREE STAKING & PLANTING DETAIL



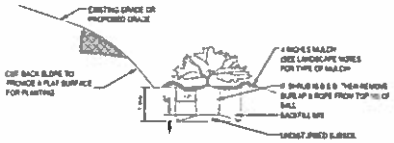
2 D-06 TREE PLANTING



3 D-06 TREE PLANTING ON SLOPE



4 D-06 MACHINE DUG TREE PLANTING



5 D-06 SHRUB PLANTING ON SLOPE

6 D-06 SHRUB PLANTING

NOTE

1. PLANT TREES WITH A MINIMUM CALIPER OF TWO INCHES MEASURED SIX INCHES ABOVE THE GROUND AND A ROOT BALL NO SMALLER THAN TWO FEET IN DIAMETER AND 18 INCHES IN DEPTH.
2. THE BEST TIME FOR PLANTING ARE EARLY SPRING AND EARLY FALL. TREES PLANTED IN THE SUMMER RUN THE RISK OF DEHYDRATION.
3. PLANT ALL TREES AT LEAST THREE AND-A-HALF FEET FROM THE END OF HEADS IN PARKING SPACES IN ORDER TO PREVENT DAMAGE FROM CAR OVERHANGS.
4. DIG THE TREE PIT AT LEAST TWO FOOT WIDER THAN THE ROOT BALL AND AT LEAST SIX INCHES DEEPER THAN THE BALL VERTICAL DIMENSION.
5. ESPECIALLY IN AREAS WHERE CONSTRUCTION ACTIVITY HAS COMPACTED THE SOIL, THE BOTTOM OF THE PIT SHOULD BE SCARIFIED OR LOOSENED WITH A FORK AS OR SHOVEL.
6. AFTER THE PIT IS DUG, CHECKING SUB-SURFACE DRAINAGE CONDITIONS. WHERE POOR DRAINAGE EXISTS, THE TREE PIT SHOULD BE DUG AT LEAST SIX ADDITIONAL INCHES WIDER AND THE SOIL MANAGED TO ALLOW ROOT GROWTH PROPERLY.
7. BACKFILL SHOULD INCLUDE A PROPER MIX OF SOIL AND FERTILIZER. ALL ROOTS MUST BE COMPLETELY COVERED.
8. BACKFILL SHOULD BE THOROUGHLY WATERED AS IT IS PLACED AROUND THE ROOTS.
9. IMMEDIATELY AFTER IT IS PLANTED, THE TREE SHOULD BE SUPPORTED WITH STAKES AND STRAPS TO FIRMLY HOLD IT IN PLACE AS ITS ROOT SYSTEM BEGINS TO DEVELOP. REMOVE STAKES AND TIES AFTER ONE YEAR.
10. SPREAD AT LEAST THREE INCHES OF MULCH OVER THE ENTIRE EXCAVATION IN ORDER TO RETAIN MOISTURE AND KEEP DOWN WEEDS. AN ADDITIONAL THREE INCH SAUCER AND MULCH SHOULD BE PROVIDED TO HOLD A BASIN AROUND THE TRUNK OF THE TREE. THIS SAUCER HELPS CATCH AND RETAIN MOISTURE.
11. CONSCIENTIOUS POST-PLANTING CARE, ESPECIALLY WATERING, PRUNING AND FERTILIZING IS VITAL FOR STREET AND PARKING LOT TREES. PRUNE OFF BROKEN OR DAMAGED BRANCHES.

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NORTH CAROLINA ONE-CALL CENTER

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TURNER FARMS SELF-STORAGE - GARNER, NC

LANDSCAPE DETAILS

Curry ENGINEERING

D-06

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS.
2. TOTAL DISTURBANCE 1 ACRE + 0.34 AC
3. ANY GRADING BEYOND THE DEMARCATED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE NORTH CAROLINA SEDIMENTATION CONTROL LAW & IS SUBJECT TO A FINE.
4. GRADING MORE THAN 1 ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE THE NORTH CAROLINA SEDIMENTATION CONTROL LAW AND ARTICLE 16 OF THE WAKE COUNTY UDO & IS SUBJECT TO A FINE
5. ALL EROSION CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH ALL WAKE COUNTY & NCDENR STANDARDS AND SPECIFICATIONS.
6. CONSTRUCTION ENTRANCE SHALL BE MAINTAINED THROUGHOUT THE ENTIRE CONSTRUCTION PROJECT. A MINIMUM OF ONE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AND UPGRADED. THE ENTRANCE SHALL BE BETWEEN THE LIMITS OF DISTURBANCE AND ANY ROAD RIGHT OF WAY.
9. ADJACENT PROPERTIES AND RIGHT-OF-WAY SHALL BE KEPT FREE OF MUD AND/OR SEDIMENT LADEN RUNOFF
10. THE EROSION CONTROL MEASURES SHOWN ON THIS PLAN ARE RECOMMENDED AS A MINIMUM IN ORDER TO CONTROL RUN-OFF. IT IS POSSIBLE THAT MORE STRINGENT MEASURES MAY BE NEEDED AS DETERMINED BY THE CONTRACTOR, PROJECT ENGINEER, AND/OR EROSION CONTROL INSPECTOR. IF IT IS DETERMINED THAT ADDITIONAL RUN-OFF CONTROL IS NEEDED, SUCH MEASURES SHALL BE INSTALLED IMMEDIATELY
11. SHOULD MAINTENANCE ISSUES ARISE, PLEASE CONTACT DOUGLAS BALL AT 919-435-2501
12. CONTRACTOR SHALL LOCATE AND VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK.

EROSION & SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A NEW 3-STORY SELF-STORAGE BUILDING. THE PROPERTY IS PRIVATELY OWNED. SEE OWNER INFORMATION ON EXISTING CONDITIONS PLAN. THE SITE IS CURRENTLY UNDEVELOPED.

APPROXIMATELY 4.34 ACRES WILL BE DISTURBED DURING CONSTRUCTION. THE MINIMUM FILL WILL BE APPROX. 2 FEET. CONSTRUCTION OF A NEW 3-STORY SELF STORAGE BUILDING WITH ASSOCIATED PARKING AND UTILITY SERVICES. A PORTION OF A NEW FIELD LANE WILL ALSO BE RE-ALIGNED. AN UNDERGROUND STORM DRAINAGE SYSTEM WILL BE INSTALLED TO CONVEY STORMWATER TO A PERMANENT STORMWATER MANAGEMENT AREA.

THE PROJECT IS SCHEDULED TO BEGIN CONSTRUCTION IN WINTER 2017 WITH PROJECT COMPLETION AND FINAL STABILIZATION BY SUMMER OF 2017. THE EROSION AND SEDIMENT CONTROL PROGRAM FOR THIS PROJECT WILL INCLUDE THE INSTALLATION OF A STABLE CONSTRUCTION ENTRANCE, TEMPORARY SILT FENCE, SILT FENCE, CURB & GUTTER, DIVERSION DITCHES, INLET PROTECTION MEASURES AND A SEDIMENT BASIN.

ADJACENT PROPERTY

ADJACENT PROPERTY OWNERS ARE NOTED ON THE EXISTING CONDITIONS PLAN.

NATIVE SOILS

THE SOILS AT THIS SITE ARE PREDOMINATELY LOAMY SANDS. SOILS ARE MOSTLY WELL DRAINED WITH SLOPE RANGES FROM MODERATE 6 PERCENT TO HIGH SLOPES ARE LARGELY BETWEEN 1-4%. ON SITE SOILS ARE NORFOLK LOAMY SAND (NoB).

REQUIRED WAKE COUNTY CONSTRUCTION SEQUENCE

1. SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL ENGINEER, JENNIFER MITCHELL AT 919-856-6415 OR 919-414-3700 TO OBTAIN A LAND-DISTURBING PERMIT.
2. CLEAR THE AREA NEEDED TO CONSTRUCT THE PROPOSED CONSTRUCTION ENTRANCE.
3. CONSTRUCT THE ENTRANCE AS SHOWN ON THE PLANS. MAINTAIN THE CONSTRUCTION ENTRANCE DAILY TO ENSURE THAT MUD AND SILT WILL NOT BE TRACKED ONTO THE PAVED SURFACE. IF MUD IS TRACKED ONTO THE SURFACE, IT IS TO BE REMOVED IMMEDIATELY.
4. CLEAR THE AREA NEEDED TO CONSTRUCT THE PERIMETER OF PERIMETER EROSION CONTROL MEASURES INCLUDING SILT FENCE, ROCK CHECK DAMS, TEMPORARY DIVERSIONS, SEDIMENT BASIN AND OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. INSTALL PROPOSED DEVICES. DEVIATE TEMPORARY DIVERSIONS, BERMS AND SWALES AROUND ROW AFTER CONSTRUCTION.
5. CALL JENNIFER MITCHELL FOR AN ONSITE INSPECTION BY THE ENVIRONMENTAL ENGINEER TO OBTAIN A CERTIFICATE OF COMPLIANCE.
6. BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED.
7. ROUGH GRADE ONLY INCLUDING BUILDING AND PARKING LOT AREAS.
8. CONSTRUCT SANITARY SEWER SYSTEM THROUGHOUT PROJECT.
9. INSTALL STORM DRAIN, AND PROTECT INLETS WITH BLOCK AND GRAVEL, INLET CONTROL, SEDIMENT TRAPS OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN. BEGIN CONSTRUCTION BUILDING, ETC.
10. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LINING, ETC. SEED AND MULCH DISTURBED AREAS WITHIN 7 OR 14 DAYS OF COMPLETION OF ANY PHASE OF CONSTRUCTION.
11. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL JENNIFER MITCHELL FOR AN INSPECTION BY THE ENVIRONMENTAL ENGINEER.
12. IF IT IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY REMAINING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED. EXISTING STORM DRAINAGE SYSTEM SHALL BE CLEANED OF ANY SEDIMENT. NOTE THAT ALL SEDIMENT MUST BE REMOVED PRIOR TO BMP CONSTRUCTION.
13. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE ENVIRONMENTAL ENGINEER, JENNIFER MITCHELL, OBTAIN A CERTIFICATE OF COMPLETION.

MAINTENANCE INSPECTION PROCEDURES

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

- ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT. THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, DAILY AND within 24 HOURS OF EVERY RAINFALL EVENT.
- SILT FENCE, STAKING, SILTS PROTECTION INSPECT FOR DEPTH OF SEDIMENT TRAPS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND. SILT UP SEDIMENT WILL BE REMOVED WHEN SILT FENCE WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF THE FENCE.
- DIVERSION DIKE/SWALES INSPECT AND ANY BREACHES PROMPTLY REPAIRED. SEDIMENT SHALL BE REMOVED FROM THE FLOW AREA IMMEDIATELY AFTER EACH RAINFALL.
- TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SITE MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2" STONE AFTER A RAINFALL. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED OR TRACKED ONTO ROADWAYS.
- SEDIMENT BASIN INSPECT AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (0.2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. PLACE REMOVED SEDIMENT IN AN AREA WITH SEDIMENT CONTROLS. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE. AND INSPECT THE EMBANKMENT FOR REPAIRS AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA. REPAIR BAFFLES AND BLANKETS AS NEEDED.
- INLET PROTECTION INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (0.2 INCH OR GREATER) RAINFALL EVENT. CLEAN THE WEEK BASE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE NON-SHORT FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE BASE WHEN DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.
- SEEDING, FERTILIZING, AND MULCHING INSPECT SEEDED AREAS FOR FAILURE AND NECESSARY REPAIRS AND RE-SEEDING SHALL BE MADE WITHIN THE SAME SEASON. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTH GROWTH.
- MAINTAIN THE ON-SITE RAIN GAUGE & DAILY AND STORMWATER INSPECTION LOG SHEETS. THIS PERMIT INFORMATION MUST BE COLLECTED AND MAINTAINED UNTIL WAKE COUNTY HAS CLOSED THE PROJECT & SURETY HAS BEEN RELEASED.
- THE CONTACT PERSON IS REQUIRED TO MAKE AN AVERAGE OF WEEKLY INSPECTIONS PER REQUIREMENTS AS OUTLINED IN NCDENR SW PERMIT. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS OR STORMWATER MANAGEMENT PLANS. THIS PERMIT INFORMATION MUST BE COLLECTED AND MAINTAINED UNTIL WAKE COUNTY HAS CLOSED THE PROJECT.
- THE SITE SUPERINTENDENT SHALL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
- PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.
- GROUND STABILIZATION: SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:
  - A. ALL PERIMETER DIKES, DIVERSIONS, DITCHES, & PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE, BUT IN NO EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
  - B. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS POSSIBLE, BUT IN NO EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

SEDIMENT & EROSION CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO SUPPLEMENT THE EROSION AND SEDIMENT CONTROLS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE SE CONTROLS ARE PROPERLY INSTALLED MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR SHALL ADJUST THE EROSION CONTROLS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES AS NEEDED, TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND SEDIMENT CONTROL REQUIREMENTS. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE PER THE STANDARDS OF THE NC DEPT OF ENVIRONMENTAL MANAGEMENT, LAND QUALITY SECTION, AND ARTICLE 16 OF THE WAKE COUNTY UNIFIED DEVELOPMENT CODE LATEST EDITION.

STRUCTURAL PRACTICES

1. SILT FENCE (SEDIMENT FENCE): SILT FENCE CAN BE USED BELOW DISTURBED AREAS AND SUBJECT TO SHEET AND RILL EROSION. SILT FENCE SHALL BE PROVIDED WHERE SHOWN AND AS NEEDED ON THE SITE PLAN. THE SE BARRIERS SHALL BE USED TO CONTAIN SEDIMENT.
2. SILT FENCE OUTLET (BASIN): SILT FENCE OUTLETS SHALL BE PROVIDED WHERE SHOWN AND AS NEEDED ON THE SITE PLAN. THESE OUTLETS SHALL BE LOCATED AT ALL LOW POINTS ON A RUN OF SILT FENCE AND USED TO DISCHARGE CLEAN WATER OFF SITE.
3. DIVERSION DITCHES: USE DIVERSION DITCHES TO CONVEY SEDIMENT LADEN RUNOFF TO EROSION CONTROL BMPS AS SHOWN ON THE PLANS.
4. CONSTRUCTION ENTRANCE: CONSTRUCTION ENTRANCE SHALL BE LIMITED TO STABILIZED AREAS. AT A MINIMUM, A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE PROVIDED AS SHOWN ON THE DRAWING. VEHICLE WHEELS SHALL BE CLEAN BEFORE LEAVING THE SITE TO PREVENT THE TRACKING OF MUD ON PAVED ROADS.
5. ROCK CHECK DAMS: ROCK CHECK DAMS CAN BE USED TO REDUCE EROSION IN A DRAINAGE CHANNEL TO LIMIT EROSION BY REDUCING VELOCITY IN OPEN CHANNELS.
6. SEDIMENT BASINS: SEDIMENT BASINS WITH BARRIERS AND POROUS BAFFLES ARE USED TO RETAIN SEDIMENT ON THE CONSTRUCTION SITE, AND PREVENT SEDIMENT FROM OFF SITE STREAMS, LAKES, AND DRAINAGE WAYS.
7. INLET PROTECTION: HARDWARE CLOTH AND GRAVEL INLET PROTECTION DEVICES CAN BE USED TO PREVENT SEDIMENT FROM ENTERING YARD INLETS, GRATED STORM DRAINS OR DROP INLETS DURING CONSTRUCTION. THIS PRACTICE ALLOWS EARLY USE OF THE STORM DRAIN SYSTEM.

VEGETATIVE PRACTICES

1. TEMPORARY SEEDING: DISTURBED AREAS THAT ARE NOT INTENDED TO BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 7 OR 14 CALENDAR DAYS MUST RECEIVE TEMPORARY SEEDING AND MULCHES. IF FAILED, A QUICK GROWING GRASS SPECIES, WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING, SHOULD BE USED. TEMPORARY SEEDING SHALL BE PER STATE AND COUNTY REQUIREMENTS.
2. TEMPORARY GRASSING: THE NEEDED OF SEEDED AND MULCHED AREAS SHALL BE REVIEWED AND BARRIERS OR WINDROWS CHECKED OR OTHER SUITABLE METHODS IF REQUIRED TO ACHIEVE CERTAIN GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.
3. TEMPORARY RETOUCHING: IF AFTER 10 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE RE-WORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER. RESEED AND MULCH BARE SPOTS LARGER THAN 9 SQUARE FEET.
4. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM BE SEEDED. PERMANENT SEEDING SHALL BE PER WAKE COUNTY REQUIREMENTS. IF GROWTH IS NOT ESTABLISHED BY FINAL PROJECT INSPECTION, CONTINUE SPECIFIED ATTENTION UNTIL THE STAND OF GRASS IS ACCEPTABLE.

MANAGEMENT STRATEGIES

1. STOCKING MATERIAL: NO BEDDING MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY INTO THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM DRAIN COLLECTION FACILITY PER NCDENR CONSTRUCTION GENERAL PERMIT AS ISSUED AUGUST 2, 2011. ALL EARTHEN MATERIAL STOCKPILE MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO OTHER REASONABLE ALTERNATIVE IS AVAILABLE.
2. SPRAYED BUFFER PROTECTION: ALL BMP SHALL BE INSTALLED WITH FILTER FABRIC BENEATH.
3. BOX DISPOSAL: DISPOSE OF ALL STOCKPILED MATERIAL TO AN APPROVED REPORTED WAKE COUNTY DISPOSAL SITE.
4. DEWATERING: ALL DEWATERING WATER MUST DISCHARGE TO AN APPROVED SAFE MEASURE OR SILT SACK PRIOR TO LEAVING THE SITE.
5. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.

DUST CONTROL

VEGETATIVE COVER

FOR DISTURBED AREAS NOT SUBJECT TO TRAFFIC, VEGETATION PROVIDES THE MOST PRACTICAL METHOD OF DUST CONTROL.

MULCH

WHEN PROPERLY APPLIED, MULCH OFFERS A FAST, EFFECTIVE MEANS OF CONTROLLING DUST.

MAINTENANCE

MAINTAIN DUST CONTROL MEASURES THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.

WAKE COUNTY STOCKPILE NOTES

DESIGN CRITERIA

A. A 25-FOOT TEMPORARY MAINTENANCE AND ACCESS EASEMENT SHALL BE SHOWN AROUND ALL PROPOSED STOCKPILES. EROSION CONTROL MEASURES SURROUNDING THE STOCKPILE SHALL BE SHOWN AT THE OUTER LIMIT OF THIS EASEMENT.
B. STOCKPILE FOOTPRINTS SHALL BE SETBACK A MINIMUM OF 50 FEET FROM ADJACENT PROPERTY LINES.
C. A NOTE SHALL BE PROVIDED ON THE APPROVED PLAN THAT STOCKPILE HEIGHT SHALL NOT EXCEED 30 FEET.
D. STOCKPILE SLOPES SHALL BE 3:1 OR FLATTER.
E. APPROVED BMPS SHALL BE SHOWN ON A PLAN TO CONTROL ANY POTENTIAL SEDIMENT LOSS FROM A STOCKPILE.
F. STOCKPILES WITHIN 5 WATERWAYS ADJACENT TO A STREAM, DRAINAGE WAY, WATERCOURSE, WETLAND, STREAM BUFFER, OR OTHER BODY OF WATER SHALL BE PROCESSED UNLESS AN ALTERNATIVE LOCATION IS DEMONSTRATED TO BE UNAVAILABLE.
G. ANY CONCENTRATED FLOW LIKELY TO AFFECT THE STOCKPILE SHALL BE DIVERTED TO AN APPROVED BMP.
H. OFF SITE SPOIL OR BORROW AREAS MUST BE IN COMPLIANCE WITH WAKE COUNTY UDO AND STATE REGULATIONS. ALL SPOIL AREAS OVER 40 ACRE ARE REQUIRED TO HAVE AN APPROVED SEDIMENT CONTROL PLAN. DEVELOPER/CONTRACTOR SHALL NOTIFY WAKE COUNTY OF ANY OFFSITE DISPOSAL OF SOIL PRIOR TO DISPOSAL. FILL OF PENN PLOODPLAINS AND NON-ENCROACHMENT AREAS ARE PROHIBITED EXCEPT AS OTHERWISE PROVIDED BY SUBSECTION 1-16.2 OF THE WAKE COUNTY UNIFIED DEVELOPMENT ORDINANCE. CERTIFICATIONS AND PERMITS REQUIRED.

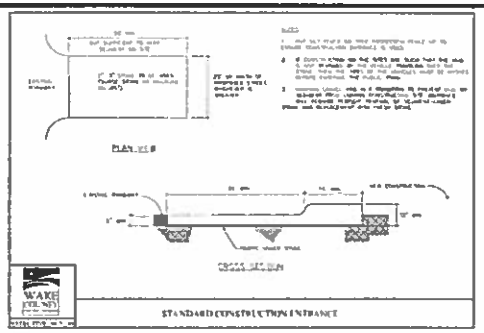
MAINTENANCE REQUIREMENTS

1. SEEDING OR COVERING STOCKPILES WITH TARPS OR MULCH IS REQUIRED AND WILL REDUCE EROSION PROBLEMS. TARPS SHOULD BE REVIEWED AT THE TOP OF THE SLOPE TO KEEP WATER FROM RUNNING UNDERNEATH THE PLASTIC.
2. IF A STOCKPILE IS TO REMAIN FOR FUTURE USE AFTER THE PROJECT IS COMPLETE (BLACKTOP, ETC.) THE FINANCIAL RESPONSIBLE PARTY MUST NOTIFY WAKE COUNTY OF A NEW RESPONSIBLE PARTY FOR THAT STOCKPILE.
3. THE APPROVED PLAN SHALL PROVIDE FOR THE USE OF STAKED SEEDING AND MULCHING OR A CONTAINMENT BASIN WHILE THE STOCKPILE IS IN USE.
4. ESTABLISH AND MAINTAIN A VEGETATIVE BUFFER AT THE TOP OF THE SLOPE (WHERE PRACTICAL).

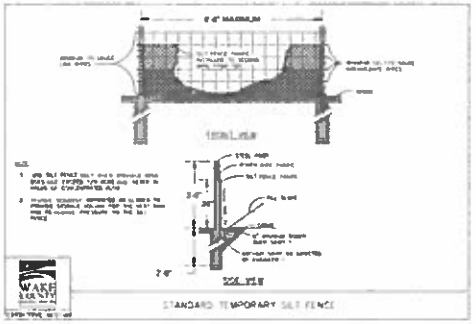
WAKE COUNTY BASIN REMOVAL SEQUENCE

1. SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL ENGINEER/COMPLIANCE TO REVIEW IF A BASIN CAN BE REMOVED. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
2. REMOVE BARRELS AND ASSOCIATED TEMPORARY DIVERSION DITCHES. IF CULVERT PIPE NEEDS TO BE EXTENDED, PERFORM THE OPERATION AT THIS TIME. FINE GRADE AREA IN PREPARATION FOR SEEDING.
3. PERFORM SEEDBED PREPARATION, SEED, MULCH AND ANCHOR. TACK ANY REMAINING BARE AREAS IMMEDIATELY.
4. INSTALL VELOCITY DISSIPATORS AND/OR LEVEL SPREADERS AS REQUIRED ON THE EROSION CONTROL PLAN.
5. WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL ENGINEER/COMPLIANCE TO REVIEW FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVICE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION.

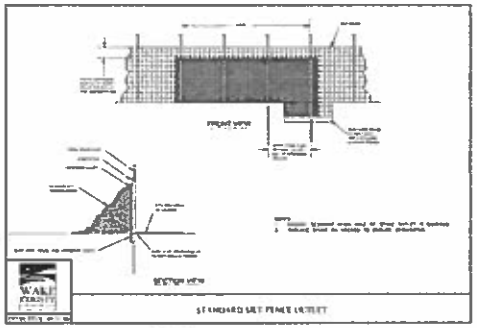
NOTE: A MEETING SHOULD ALSO BE SCHEDULED WITH THE ENVIRONMENTAL ENGINEER/COMPLIANCE & WAKE COUNTY INSPECTORS TO DETERMINE WHEN A BASIN MAY BE CONVERTED FOR PERMANENT USE.



1 D-07 STANDARD CONSTRUCTION ENTRANCE
SCALE: NTS



2 D-07 STANDARD TEMPORARY SILT FENCE
SCALE: NTS



3 D-07 STANDARD SILT FENCE OUTLET
SCALE: NTS

NOT FOR CONSTRUCTION

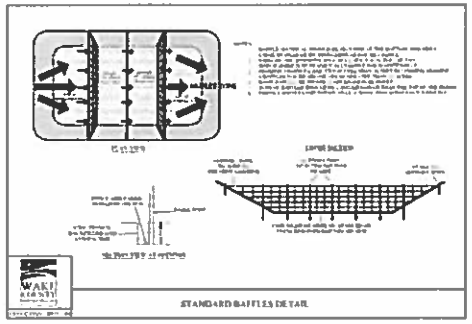
9/9/16

TURNER FARMS SELF-STORAGE - GARNER, NC

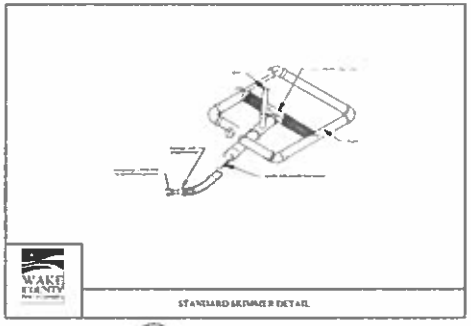
EROSION CONTROL DETAILS I

Curry ENGINEERING

D-07



1 D-08 STANDARD BAFFLES DETAIL
SCALE NTS



2 D-08 STANDARD SKIMMER DETAIL
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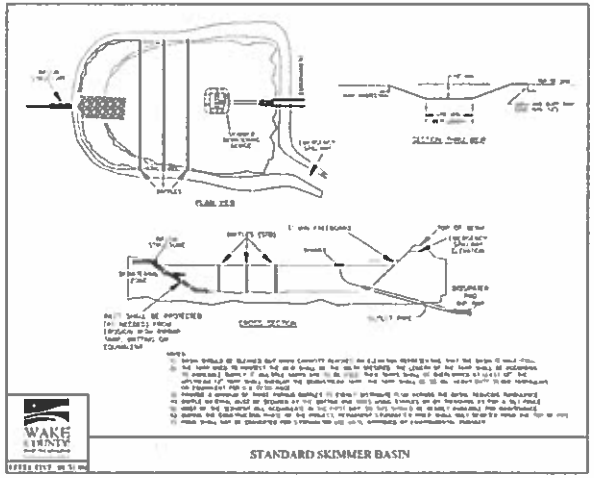

3 D-08 STANDARD SKIMMER BASIN
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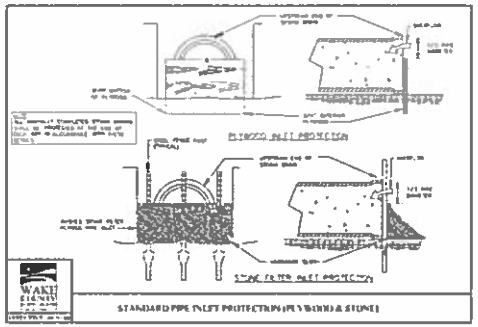
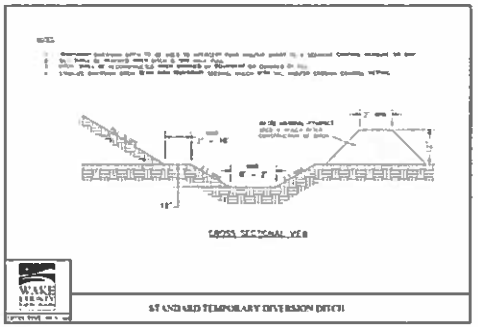
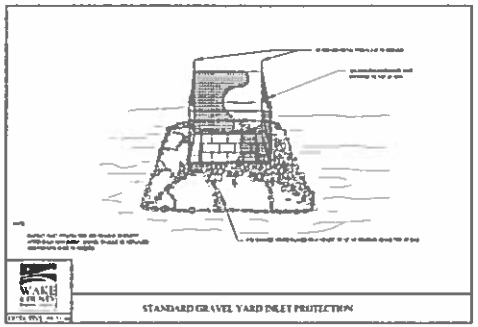


4 D-08 STANDARD PIPE INLET PROTECTION
SCALE NTS



5 D-08 STANDARD TEMPORARY DIVERSION DITCH
SCALE NTS



6 D-08 STANDARD INLET PROTECTION
SCALE NTS

BEFORE YOU DIG
CALL 811 FIRST
1 800 632 4949
NORTH CAROLINA
ONE-CALL CENTER

NOT FOR CONSTRUCTION

9/4/16

TURNER FARMS SELF-STORAGE - GARNER, NC

EROSION CONTROL DETAILS II

Curry ENGINEERING

D-08

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE
2. RIP THE ENTIRE AREA TO SIX INCHES DEEP
3. REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM
4. APPLY AGRICULTURAL LIME, FERTILIZER AND SUPERPHOSPHATE UNIFORMLY AND MIX INTO SOIL (SEE MIXTURES)
5. CONTINUE FILLAGE UNTIL A WELL PULVERIZED, FIRM, RELATIVELY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR COLLTIPACK AFTER SEEDING
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON IF POSSIBLE. IF STAND SHOULD BE MORE THAN 50% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES
9. CONSULT SAFE ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED

MIXTURE

AGRICULTURAL LIME STONE ..... 2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)
FERTILIZER ..... 1,000 LBS/ACRE (10-10-10)
SUPERPHOSPHATE ..... 500 LBS/ACRE (20% AVAILABLE P2O5)
MULCH ..... 1.5 TONS/ACRE (SMALL GRAIN STRAW)
ANCHOR ..... ASPHALT EMULSION AT 200 GAL/ACRE

SEEDING SCHEDULE

FOR SHOULDERS, SIDE DITCHES, SLOPES (MAX 3:1)

DATE	TYPE	PLANTING RATE
AUG 15 - NOV 1	TALL FESCUE	300 LBS/ACRE
NOV 1 - MAR 1	TALL FESCUE & ANNUAL RYE	300 LBS/ACRE
MAR 1 - APR 15	TALL FESCUE	300 LBS/ACRE
APR 15 - JUN 30	HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUL 1 - AUG 15	TALL FESCUE AND BROMETOP (ANNUAL RYEGRASS OR SORGHUM SUDAN MIXTURE**)	125 LBS/ACRE (TALL FESCUE) + 15 LBS/ACRE (BROMETOP ANNUAL RYEGRASS) 30 LBS/ACRE (SORGHUM SUDAN MIXTURE)

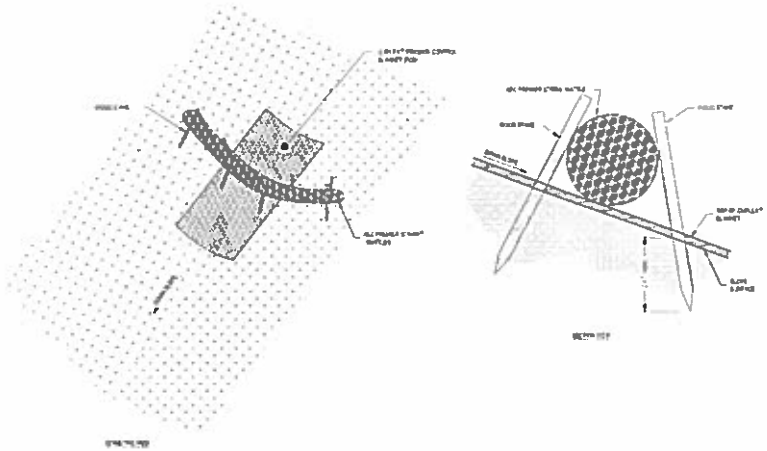
FOR SHOULDERS, SIDE DITCHES, SLOPES (3:1 TO 2:1)

DATE	TYPE	PLANTING RATE
MAR 1 - JUN 1	SERICEA LESPEDEZA (SCARIFIED AND USE THE FOLLOWING COMBINATIONS	50 LBS/ACRE SERICEA LESPEDEZA
MAR 1 - APR 15	ADD TALL FESCUE	125 LBS/ACRE
MAR 1 - JUN 30	OR ADD BERMUDA LOW GRASS	10 LBS/ACRE
MAR 1 - JUN 30	OR ADD HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUN 1 - SEPT 1	TALL FESCUE AND BROMETOP (ANNUAL RYEGRASS OR SORGHUM SUDAN MIXTURE**)	125 LBS/ACRE (TALL FESCUE) + 25 LBS/ACRE (BROMETOP ANNUAL RYEGRASS) 30 LBS/ACRE (SORGHUM SUDAN MIXTURE)
SEPT 1 - MAR 1	SERICEA LESPEDEZA (UNHULLED - UNSCARIFIED) AND TALL FESCUE	50 LBS/ACRE (SERICEA LESPEDEZA) 125 LBS/ACRE (TALL FESCUE)
NOV 1 - MAR 1	ADD ANNUAL RYE	25 LBS/ACRE

CONSULT SAFE ENVIRONMENTAL ENGINEERS FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DISTURBED AREAS. THE ABOVE VEGETATION RATES ARE THOSE THAT DO WELL UNDER LOCAL CONDITIONS. OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

** TEMPORARY RESEEDED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW MORE THAN 12" IN HEIGHT BEFORE MOWING. OTHERWISE FESCUE MAY BE SHADED OUT

1 / D-09 SEEDING SCHEDULE
SCALE: NTS



MAINTENANCE

INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (.50 INCH OR GREATER). REMOVE ACCUMULATED SEDIMENT AND MAT SO THAT THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN. IF REPAIRS BECOME EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OR A SUPERIOR MEASURE. THE SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED. THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED

CONSTRUCTION SPECIFICATIONS

1. MATERIALS USED IN THE COMPOST SOCK MUST MEET THE SPECIFICATIONS OUTLINED ABOVE AND IN PRACTICE 6.10 COMPOST BLANKETS
2. COMPOST SOCKS SHOULD BE LOCATED AS INDICATED ON THE EROSION AND SEDIMENTATION CONTROL PLAN
3. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND OTHER DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF THE COMPOST SOCK
4. COMPOST SOCKS SHOULD BE INSTALLED PARALLEL TO THE TOE OF A DIVIDED SLOPE, A MINIMUM OF 10 FEET BEYOND THE TOE OF THE SLOPE. SOCKS LOCATED WELL ON FLAT AREAS SHOULD BE LOCATED AT THE EDGE OF THE LAND DISTURBANCE. THE ENDS OF THE SOCKS SHOULD BE TURNED UPHILL TO SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE END OF THE SOCKS
5. FILL SOCKS NEAT AND UNIFORMLY WITH COMPOST TO THE DESIRED LENGTH SUCH THAT LONG DO NOT DEFORM
6. ONE OR OTHER DURABLE HARDWOOD STAKES 2" X 2" IN CROSS SECTION SHOULD BE DRIVEN VERTICALLY THROUGH THE CENTER OF THE COMPOST SOCK. STAKES SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 4 FEET, OR A MAXIMUM INTERVAL OF 8 FEET IF THE SOCK IS PLACED IN A 4 INCH TRENCH PER DETAIL. THE STAKES SHOULD BE DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 2 INCHES PROTRUDING ABOVE THE COMPOST SOCK
7. IN THE EVENT STAKING IS NOT POSSIBLE (I.E., WHEN SOCKS ARE USED ON PAVEMENT) HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SOCK TO HOLD IT IN PLACE DURING RUNOFF EVENTS
8. IF THE COMPOST SOCK IS TO BE LEFT AS PART OF THE NATURAL LANDSCAPE, IT MAY BE NEEDED AT TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION USING THE SEEDING SPECIFICATION IN THE EROSION AND SEDIMENTATION CONTROL PLAN
9. COMPOST SOCKS ARE NOT TO BE USED IN PERENNIAL OR INTERMITTENT STREAMS

2 / D-09 STRAW WATTLE (COMPOST SOCK)
SCALE: NTS

BEFORE YOU DIG CALL TOLL FREE 1-800-632-4949 NORTH CAROLINA ONE-CALL CENTER

NOT FOR CONSTRUCTION

7/9/12

TURNER FARMS SELF-STORAGE - GARNER, NC
EROSION CONTROL DETAILS III

Curry ENGINEERING

D-09