



Planning, Development & Inspections

TEL (PLANNING) 919 856 6310
TEL (INSPECTIONS) 919 856 6222

A Division of Community Services
P.O. Box 550 • Raleigh, NC 27602
www.wakegov.com

S-06-15

PRELIMINARY SUBDIVISION PLAN APPROVAL APPLICATION

Name of Subdivision CAMP KANATA ROAD SUBDIVISION

(X) cluster subdivision () lot-by-lot subdivision () open space
Has a preliminary plan previously been approved for subdivision of this site? () Yes (X) No
If yes, when and under what name?

Property

Parcel Identification Number: 1822756490

Address: 0 CAMP KANATA RD.

Location: EAST AND WEST side of CAMP KANATA ROAD, at/between
(north, east, south, west) (street)

PURNELL RD. and WOODLAND CHURCH RD.
(street) (street)

Total site area in square feet and acres: 6,575,202 square feet 151.405 acres

Zoning District(s) and Overlay Districts (if any) and land area within each: R-40W (155.025 AC

CROSS, 151.405 AC NET SITE AREA EXCLUDING EX. PUBLIC R/W)

Conditions of any Conditional Use Zoning Districts: N/A

Present land use(s): WOODED / UNDEVELOPED

Property Owner (Contact information is needed for reviews to proceed- Please provide fax or email)

Name: AF-CAMP KANATA, LLC, % CRAIG BRINER

Address: 1330 SUNDAY DR.

City: RALEIGH State: NC Zip Code: 27607

E-mail Address: c.briner@greenhawk.com FAX: 919-861-2901

Telephone Number: 919-210-1996

Consultant (i.e. surveyor or engineer; person to whom all correspondence will be sent)

Name: DAN SIMMONS TRIANGLE CIVIL WORKS, PA

Address: 211 TYLER DR.

City: SMITHFIELD State: NC Zip Code: 27577

E-mail Address: dan.simmons@trcivil.com FAX: (919) 205-1045

Telephone Number: (919) 209-9955 Relationship to Owner: ENGINEERING CONSULTANT

Proposal

Max. allowable lot density standard* (see Article 5, Unified Development Ordinance, and the Wake County Land Use Plan): 1 DWELLING UNIT / ACRE

Max. # of lots allowable*: 151 Proposed # of lots*: 123

Min. allowable lot area*: 20,000 sf Proposed min. lot area*: 30010 (SMALLEST) sf

Average lot area*: 32,234 sf

Min. allowable lot width*: 75 ft Proposed min. lot width*: 75 ft

* If applicable, show for each zoning district

Min. open space standard (see Sec. 3.4.3(E)(1)): () 10% () 25% () 30% () 40% of site area
 Min. open space area: 37.85 acres
 Proposed open space area [by parcel]: 42.37 acres
 Proposed open space use(s) [by parcel]: ENVIRONMENTAL PROTECTION, PASSIVE RECREATION
 Proposed future development site area [by site]: 0 acres
 Proposed impervious surfaces area: 1,116,007 sf
 Proposed impervious surface coverage (impervious surfaces area/site area x 100): 16.92 %
 Site area w/in area of special flood hazard (see Article 14, Unified Development Ordinance): 0 acres
 within floodway: 0 acres

Vehicular Access

Names of access street(s) and number of access points along each: CAMP KANAWA RD (2 ACCESS PTS)
BOLD RUN HILL (1 ACCESS PT)

Name of access or adjacent street	Right-of-way width (ft)	Pavement width (ft)	No. of lanes	Paved? (Y or N)	Roadway design capacity	Traffic volume (ADT) ²	Est. traffic generated (ADT) ³
<u>CAMP KANAWA RD.</u>	<u>60</u>	<u>20</u>	<u>2</u>	<u>Y</u>	<u>12,000</u>	<u>1500</u>	<u>1150</u>
<u>BOLD RUN HILL RD.</u>	<u>60</u>	<u>20</u>	<u>2</u>	<u>Y</u>	<u>12,000</u>	<u>1000</u>	<u>330</u>

¹ See NCDOT Highway Capacity Manual or Wake County Thoroughfare Plan Appendix
² See CAMPO web site (www.raleigh-nc.org/campo) or contact NCDOT Traffic Survey Unit
³ Base on Institute of Transportation Engineers ratios - ratio used for estimate (e.g., x trips per y sf) EQUATIONS USED

Estimated traffic generated by heavy vehicles (vehicles other than automobiles and light trucks):
 Type of vehicle: N/A ADT: N/A
 Type of vehicle: N/A ADT: N/A

Utilities and Services

Water supply provided by: () municipal system (TO BE OWNED BY AQUA NORTH CAROLINA) () community system () individual well(s)
 Estimated total water demand: 57,200 gpd
 Wastewater collection/treatment provided by: () municipal system () community system - specify type () individual on-site system
 Estimated total wastewater discharge: 46,030 gpd
 Electrical service provided by: WAKE EMC Underground () yes () no
 Natural gas service provided by: PSNC
 Telephone service provided by: ATT Underground () yes () no
 Cable television service provided by: Time Warner Underground () yes () no
 Fire protection provided by: STONY HILL #1 - COUNTY RESP. DISTRICT

Miscellaneous

Generalized slope of site: ROLLING, TO EAST & WEST TO TWO STREAMS
 Valuable natural features (rare plant community, wildlife habitat, lake, stream, geology, etc.) on or adjoining site: DESIGNATED STREAMS, LIMITED WETLANDS
 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 FALLS LAKE _____

() Non-Urban Area _____

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

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

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: Craig A. Brune Date: 1.30.15

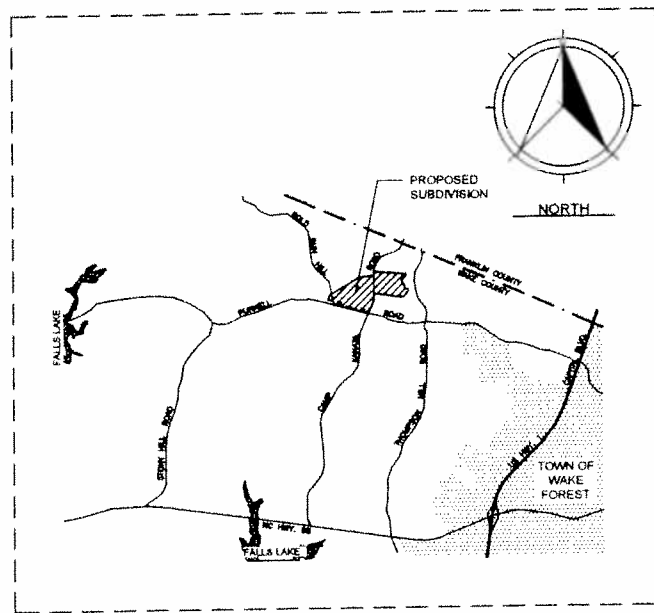
Signature: _____ Date: _____

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: Craig A. Brune Date: 1.30.15

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 <http://www.wakegov.com/>
All application fees are non-refundable.

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VICINITY MAP

PRELIMINARY SUBDIVISION PLAN CAMP KANATA ROAD SUBDIVISION CLUSTER DEVELOPMENT

DRAWING LIST	
COVER SHEET	1
EXISTING CONDITIONS	2
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**SITE ADDRESS:
INTERSECTION OF CAMP KANATA ROAD AND
PURNELL ROAD, NEW LIGHT TOWNSHIP
WAKE FOREST, NC 27587**

**OWNER / DEVELOPER:
AF - CAMP KANATA, LLC
1330 SUNDAY DRIVE, SUITE 105
RALEIGH, NC 27607**

FEBRUARY, 2015

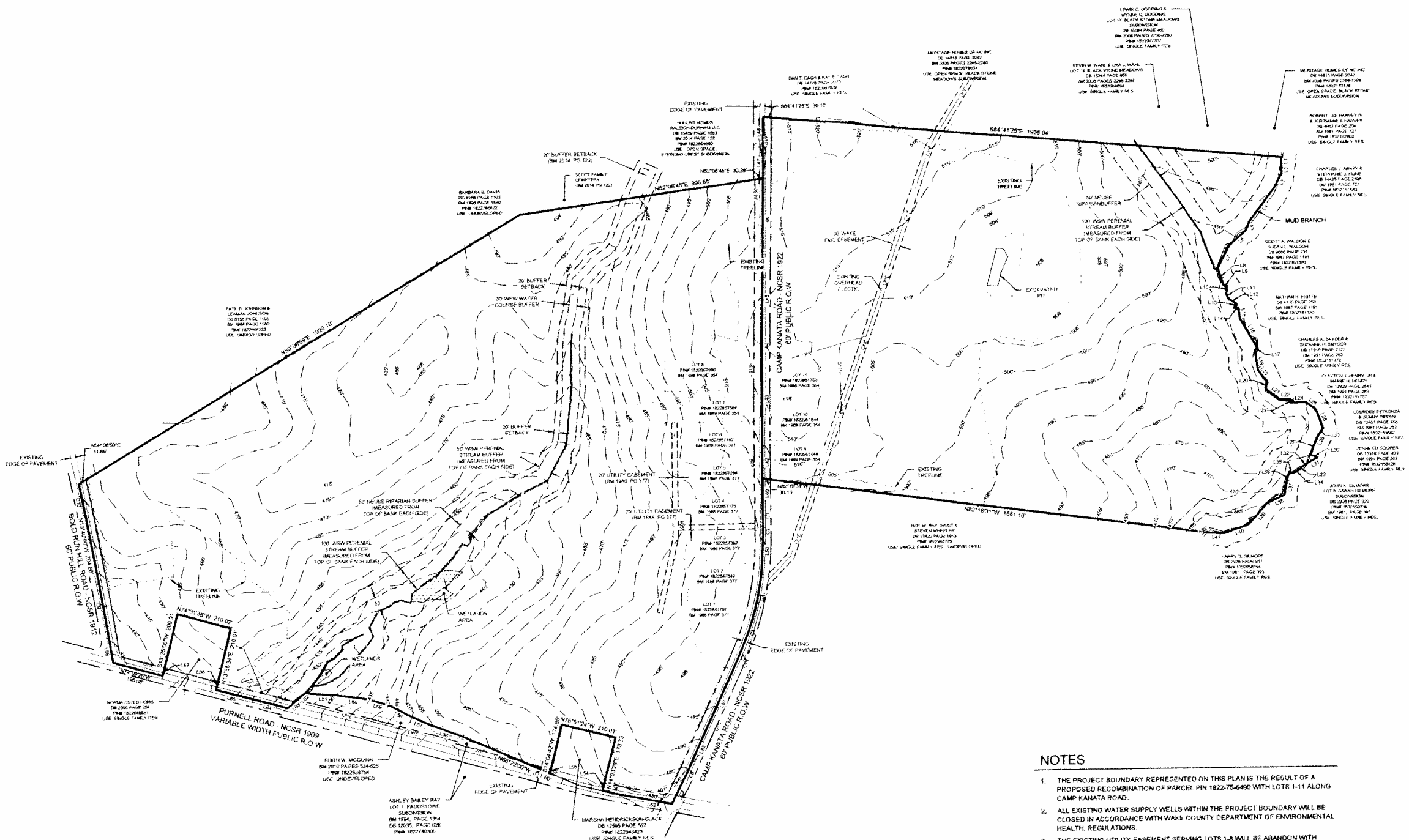


**TRIANGLE
CIVILWORKS**
PROFESSIONAL ASSOCIATION
NCBELS NO. C-2603
211 TYLER DRIVE
SMITHFIELD, NC 27577
919-209-9955



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02/03/2015

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PARCEL LINE DATA				PARCEL LINE DATA			
SEGMENT	LENGTH	DIRECTION	SEGMENT	LENGTH	DIRECTION		
L1	35.75	S11°43'27"E	L35	15.27	N7°42'44"W		
L2	26.06	S2°21'30"E	L36	34.15	S13°14'45"W		
L3	65.56	S28°04'37"W	L37	54.52	S10°05'33"W		
L4	156.07	S36°17'24"W	L38	71.44	S54°52'38"W		
L5	35.00	S20°11'30"W	L39	107.28	S41°37'19"W		
L6	84.95	S48°18'51"W	L40	99.34	S70°46'53"W		
L7	88.70	S27°18'37"W	L41	53.98	N86°23'36"W		
L8	54.02	S17°41'15"E	L42	123.63	S0°13'52"E		
L9	14.04	S72°55'50"E	L43	327.35	S0°03'15"W		
L10	26.93	S5°07'18"W	L44	96.69	S0°31'07"W		
L11	20.82	S15°18'09"E	L45	236.03	S0°37'41"W		
L12	36.01	S54°29'12"E	L46	389.21	S0°27'35"W		
L13	19.21	S28°13'04"W	L47	119.95	N0°30'57"E		
L14	17.09	N87°26'41"E	L48	115.94	N8°28'46"E		
L15	42.72	S6°38'38"E	L49	120.49	S0°13'02"E		
L16	83.13	S30°11'41"E	L50	61.87	S2°31'35"W		
L17	12.65	S46°28'13"W	L51	195.43	S24°31'39"W		
L18	78.34	S9°05'17"E	L52	175.14	S23°56'35"W		
L19	35.34	S37°31'18"E	L53	183.46	N78°56'13"W		
L20	28.65	S49°07'30"W	L54	30.81	N14°03'29"E		
L21	86.64	S33°42'58"E	L55	14.52	S14°04'42"W		
L22	39.79	S58°08'04"E	L56	118.22	N65°58'10"W		
L23	13.30	S5°57'04"W	L57	78.53	N65°17'51"W		
L24	57.43	N88°11'00"E	L58	38.07	N62°02'43"W		
L25	42.93	S32°28'19"E	L59	78.41	N72°57'10"W		
L26	76.81	S71°01'57"E	L60	124.80	N82°05'04"W		
L27	25.81	S31°02'00"W	L61	122.28	N65°28'34"W		
L28	42.09	S24°57'08"W	L62	35.14	S45°14'45"W		
L29	33.69	S19°38'39"W	L63	48.92	S49°23'00"W		
L30	28.00	S96°21'17"E	L64	150.98	N74°52'00"W		
L31	44.20	S61°17'05"W	L65	129.70	N74°47'37"W		
L32	27.49	S58°35'45"W	L66	30.64	N13°35'34"E		
L33	10.31	S24°29'40"W	L67	30.02	S13°35'08"W		
L34	28.42	S65°22'31"W	L68	80.40	N8°38'11"W		


PARCEL CURVE DATA						
SEGMENT	LENGTH	RADIUS	DELTA	TANGENT BEARING	CHORD DISTANCE	
C1	49.55	2575.29	1°56'38"	24.77 S0°46'56"E	49.54	
C2	74.66	1108.53	3°51'38"	37.30 N0°39'47"E	74.66	
C3	260.29	361.62	15°30'30"	130.34 N10°15'52"E	259.49	
C4	38.87	755.00	2°56'50"	19.42 N19°30'30"E	38.83	
C5	174.78	2824.47	3°32'44"	87.42 N22°45'17"E	174.76	
C6	47.49	755.00	3°36'13"	23.75 N25°44'42"E	47.48	
C7	104.49	2061.94	2°54'08"	52.27 S26°05'44"W	104.44	
C8	84.99	2530.25	1°50'28"	42.50 S77°58'29"E	84.99	
C9	208.49	12175.50	1°15'48"	134.25 S10°02'53"E	208.48	
C10	138.57	5190.50	1°22'50"	68.29 S11°22'23"E	138.57	

NOTES

- THE PROJECT BOUNDARY REPRESENTED ON THIS PLAN IS THE RESULT OF A PROPOSED RECOMBINATION OF PARCEL PIN 1822-75-6490 WITH LOTS 1-11 ALONG CAMP KANATA ROAD.
- ALL EXISTING WATER SUPPLY WELLS WITHIN THE PROJECT BOUNDARY WILL BE CLOSED IN ACCORDANCE WITH WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH REGULATIONS.
- THE EXISTING UTILITY EASEMENT SERVING LOTS 1-8 WILL BE ABANDON WITH RECORDATION OF THE PROPOSED RECOMBINATION PLAN.
- TOTAL RECOMBINED TRACT AREA = 151.405 AC (EXCLUDING EXISTING PUBLIC RIGHT-OF-WAY).

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DESIGNED: DCS	PROJECT DATE: FEBRUARY 2015
DRAWN: TAN	PROJECT NO.
CHECKED: ACS	DWG FILE NAME: 15-Cond Plat.dwg
PROJ. ENG: ORC	



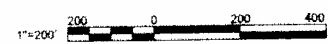
TRIANGLE CIVILWORKS
PROFESSIONAL ASSOCIATION
MEMBER NO. C-2693
211 TYLER DRIVE
SMITHFIELD, NC 27577
919-289-9955

**PRELIMINARY SUBDIVISION PLAN
CAMP KANATA ROAD SUBDIVISION
CLUSTER DEVELOPMENT**

SITE ADDRESS
INTERSECTION OF CAMP KANATA ROAD AND
PURNELL ROAD, NEW LIGHT TOWNSHIP
WAKE FOREST, NC 27687

OVERALL EXISTING CONDITIONS

1"=200'



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02/03/2015

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DEVELOPMENT DATA:

TRACT OWNER
 AF - CAMP KANATA, LLC
 1330 SUNDAY DRIVE, SUITE 105
 RALEIGH, NC 27607
 CONTACT NO: (919) 961-2900
 NC PIN: 1622-75-6485
 REAL ESTATE ID: 0020094
 DEED REFERENCE: DE 15803, PG 2643
 TOTAL TRACT AREA: ±155.03 AC (6,732,808 SF)
 DEVELOPABLE TRACT AREA: ±151.41 AC
 ZONING: R-40W (SUBJECT SUBDIVISION AND ALL ADJOINING PARCELS)
 EXISTING USE: VACANT / UNDEVELOPED WOODS / CULTIVATED
 PROPOSED USE: CLUSTER DEVELOPMENT SUBDIVISION
 EXPECTED DISTURBED AREA: 128.43 AC
 DEVELOPMENT REQUIREMENTS
 -MIN LOT SIZE: 20,000 SF
 -MIN LOT WIDTH: 75'
 -MIN LOT FRONTAGE: 30'
 -MAX BUILDING HEIGHT: 35'
 -MAX PER LOT IMPERVIOUS AREA: 6,000 SF
 SETBACKS:
 FRONT: 15'
 SIDE: 7.5'
 CORNER: 15'
 REAR: 15'
 PERIMETER: 30'
 TREE PRESERVATION BUFFER:
 ROADWAY: 50'
 ADJACENT PROPERTY: 25'

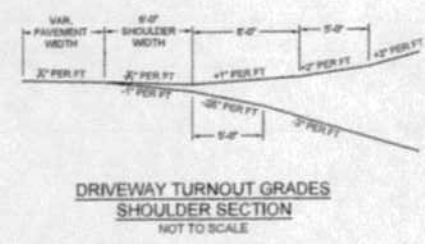
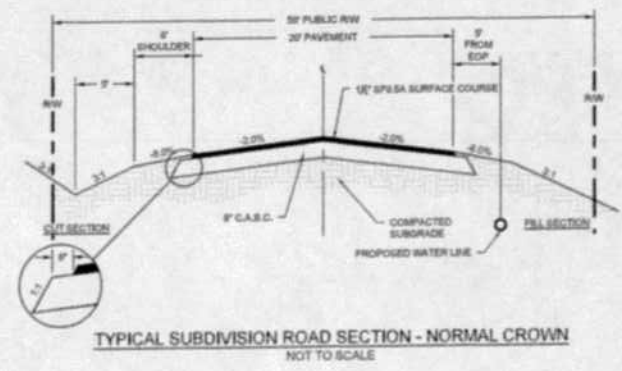
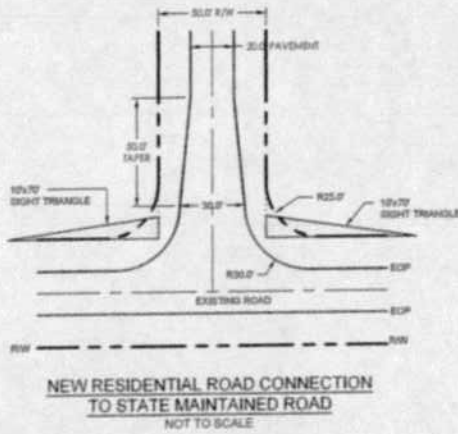
GENERAL NOTES

- THE EXISTING TOPOGRAPHY DEPICTED IN THESE PLANS WAS DERIVED FROM WAKE COUNTY / RALEIGH GEOGRAPHICAL INFORMATION SYSTEM.
- WATER SUPPLY FOR ALL LOTS IN THIS DEVELOPMENT SHALL BE BY COMMUNITY WELL AND WATER DISTRIBUTION SYSTEM.
- SEWAGE DISPOSAL FOR ALL LOTS IN THIS DEVELOPMENT SHALL BE BY INDIVIDUAL ON-SITE PRIVATE SEPTIC SYSTEMS.
- THE DEVELOPMENT IS OUTSIDE ANY EXISTING URBAN SERVICES AREA AND INSIDE THE WATER SUPPLY WATERSHED FOR FALLS LAKE.
- ALL OPEN SPACE PARCELS SHALL BE OWNED BY A LEGALLY ORGANIZED HOME OWNERS ASSOCIATION THAT WILL BE RESPONSIBLE FOR MANAGING THE OPEN SPACE PARCELS AND ENSURING RESIDENTS ACCESS TO THE OPEN SPACE.
- OPEN SPACE SHALL FUNCTION AS PROTECTION OF NATURAL HAZARD AND ENVIRONMENTAL AREAS.
- ROAD NAMES SHALL BE SUBMITTED AND APPROVED PRIOR TO APPROVAL OF THE FINAL PLAT.
- A SUBDIVISION NAME SHALL BE SUBMITTED AND APPROVED PRIOR TO APPROVAL OF THE FINAL PLAT.
- EXISTING WELLS ON SITE SHALL BE CLOSED IN ACCORDANCE WITH WAKE COUNTY HEALTH DEPARTMENT STANDARDS.
- PER FEMA HFP PANELS 1622 AND 1632 FOR NORTH CAROLINA, THERE ARE NO FLOOD HAZARD AREAS DELINEATED WITHIN THE DEVELOPMENT BOUNDARIES.



SUBDIVISION DATA SUMMARY

	PHASE 1	PHASE 2	CUMULATIVE (PH 1 + PH 2)	PHASE 3	OVERALL
TRACT AREA SUMMARY					
GROSS AREA (AC)	42.13	56.87	120.96	14.06	135.02
EXISTING PUBLIC RIGHT-OF-WAY (AC)	0.94	1.38	2.1	1.51	3.93
DEVELOPABLE AREA (AC)	41.19	57.67	118.86	12.55	131.41
NEW PUBLIC R/W (AC)	4.51	3.97	10.48	3.95	14.43
OPEN SPACE REQUIRED AT 25% (AC)	15.30	14.42	29.72	8.34	37.85
OPEN SPACE PROVIDED (AC)	26.5	18.37	44.87	0	42.87
AREA IN LOTS (AC)	32.58	33.53	65.11	38.6	94.11
LOT DATA					
NUMBER OF LOTS PROVIDED	43	46	89	39	128
MAXIMUM DENSITY ALLOWED (UNITS/ACRE)	1.0	1.0	1.0	1.0	1.0
DENSITY PROVIDED (UNITS/ACRE)	0.79	0.80	0.75	1.29	0.85
SMALLEST LOT SIZE (AC, #)	0.89, #23	0.89, #69	N/A	0.58, #124	0.58, #124
LARGEST LOT SIZE (AC, #)	1.15, #4	0.96, #44	N/A	1.35, #50	1.35, #50
AVERAGE LOT SIZE (AC, #)	0.75	0.72	0.74	0.73	0.74
IMPERVIOUS AREA SUMMARY					
EXISTING (AC)	0	0	0	0	0.00
ROADWAY (AC)	1.86	2.56	4.54	2.29	8.93
MISCELLANEOUS (MAIL BOXES, WELLS) (AC)	0.52	0.54	1.06	0	1.06
RESIDENTIAL LOTS AT 6000 SF/LOT (AC)	5.92	6.44	12.36	5.37	17.89
MAXIMUM IMPERVIOUS AREA ALLOWED AT 30% (AC)	18.36	17.30	35.66	9.77	45.42
TOTAL IMPERVIOUS AREA PROVIDED (AC)	6.42	9.44	17.88	7.26	25.62
IMPERVIOUS AREA BALD	11.76%	15.36%	15.02%	23.84%	18.92%
LENGTH OF NEW ROADWAYS (LF)	3,590	4,391	N/A	2,706	11,471



DESIGNED: CJC	PROJECT DATE: FEBRUARY 2015	
DRAWN: TJC	PROJECT NO.:	
CHECKED: AJS	DWG FILE NAME: CampKanata_Prelim	
PROJ. ENG: CJC	REV. NO.:	
	DESCRIPTION:	
	REVISIONS:	

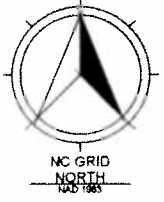


PRELIMINARY SUBDIVISION PLAN
CAMP KANATA ROAD SUBDIVISION
CLUSTER DEVELOPMENT
 SITE ADDRESS
 INTERSECTION OF CAMP KANATA ROAD AND
 PURNELL ROAD, NEW LIGHT TOWNSHIP
 WAKE FOREST, NC 27587

OVERALL DEVELOPMENT PLAN
 1"=200'
 PRELIMINARY
 NOT RELEASED
 FOR CONSTRUCTION
 02/03/2015

SHEET NO.
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 OF:





PARCEL CURVE DATA						
SEGMENT	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD DISTANCE
C1	38.31	25.00	67°05'40"	25.04	S44°29'30"E	35.38
C2	33.82	525.00	3°40'11"	16.82	S87°42'21"E	33.62
C3	36.09	25.00	84°47'03"	22.82	N51°44'13"E	33.71
C4	21.07	25.00	68°11'23"	11.18	N14°45'00"W	20.41
C5	62.91	50.00	72°05'27"	36.39	N2°47'56"W	58.84
C6	57.68	49.88	66°19'11"	32.85	N66°18'27"E	54.52
C7	40.95	50.00	46°56'45"	21.70	S36°01'42"E	36.82
C8	57.19	60.00	65°32'25"	32.19	S24°45'52"W	64.13
C9	21.19	25.00	48°34'18"	11.29	S33°18'01"W	20.67
C10	38.99	25.00	64°47'03"	22.82	S33°22'50"E	33.71
C11	108.88	525.00	11°52'58"	54.63	S69°29'35"E	106.68
C12	36.27	25.00	80°00'00"	25.00	N71°28'35"E	35.36
C13	21.00	25.00	48°07'35"	11.16	N2°22'47"E	20.39
C14	57.81	60.00	66°14'47"	32.82	N11°19'49"E	54.64
C15	56.51	60.00	64°45'41"	31.71	N76°54'52"E	53.56
C16	66.22	50.00	64°26'44"	31.50	S38°40'12"E	53.31
C17	71.15	50.00	81°30'25"	43.09	S34°08'10"W	65.28
C18	21.06	25.00	48°16'28"	11.20	S20°34'49"W	20.45
C19	39.27	25.00	80°00'00"	25.00	S18°33'25"E	35.36
C20	39.27	25.00	80°00'00"	25.00	N71°28'35"E	35.36
C21	21.06	25.00	48°16'28"	11.20	N2°18'21"E	20.45
C22	52.94	50.00	60°39'33"	28.25	N67°18'34"E	60.50
C23	48.44	50.00	56°30'21"	28.31	N66°14'52"E	45.57
C24	15.37	50.00	17°36'45"	7.75	S68°45'43"E	15.31
C25	73.72	60.00	84°28'20"	45.40	S5°43'01"E	67.22
C26	33.99	50.00	38°29'22"	17.48	S55°42'15"W	32.96
C27	21.06	25.00	48°16'28"	11.20	S50°34'49"W	20.45
C28	39.27	25.00	80°00'00"	25.00	S18°33'25"E	35.36
C29	72.90	496.47	6°22'46"	36.51	S56°38'28"E	72.83
C30	21.11	496.47	2°25'35"	10.86	S54°14'18"E	21.11
C31	21.03	25.00	48°12'06"	11.18	S77°23'59"E	20.42
C32	74.47	50.00	85°20'20"	46.00	S58°49'27"E	67.78
C33	51.10	50.00	58°33'07"	28.03	S13°09'48"W	48.90
C34	51.29	60.00	68°43'31"	28.17	S71°44'40"W	48.07
C35	64.40	50.00	73°47'50"	37.84	S42°00'11"E	60.04
C36	21.03	25.00	48°12'06"	11.16	S20°11'54"E	20.42
C37	58.09	472.94	8°21'56"	34.50	S57°27'34"E	68.99
C38	15.98	472.94	1°56'14"	8.00	S62°36'39"E	15.98
C39	39.27	25.00	80°00'00"	25.00	N71°28'35"E	35.36
C40	78.68	328.00	14°02'49"	40.04	N19°26'10"E	78.48
C41	39.27	25.00	80°00'00"	25.00	S18°33'25"E	35.36
C42	58.70	475.00	7°04'51"	28.39	S67°05'57"E	58.67
C43	153.85	475.00	18°32'02"	77.50	S79°54'17"E	152.88
C44	3.06	475.00	0°22'48"	1.53	S89°12'22"E	3.06
C45	39.23	25.00	80°54'20"	24.90	N45°30'24"E	35.33

TRICIVILWORKS PROJECTS/ENGINEERING/CAMP KANATA SUBDIVISION/PRELIMINARY PLAT DOCUMENT/SUBSHEETS/SITE PLAN PH1.DWG

DESIGNED: DCS	PROJECT DATE: FEBRUARY 2014	
DRAWN: TAN	PROJECT NO.	
CHECKED: ADS	DWG FILE NAME: Site Plan PH1.dwg	
PRCL. ENG: GBC		

REV. NO.	DESCRIPTIONS



PRELIMINARY SUBDIVISION PLAN
CAMP KANATA ROAD SUBDIVISION
CLUSTER DEVELOPMENT

SITE ADDRESS
 INTERSECTION OF CAMP KANATA ROAD AND
 PURNELL ROAD, NEW LIGHT TOWNSHIP
 WAKE FOREST, NC 27587

PHASE 1
SITE PLAN

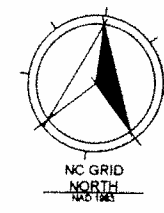
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02/03/2015

SHEET NO.
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PARCEL CURVE DATA						
SEGMENT	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD DISTANCE
C48	39.23	25.00	89°54'20"	24.99	N45°30'24"E	35.37
C49	82.29	775.00	8°09'52"	41.18	N87°25'53"E	82.29
C50	30.03	775.00	2°13'12"	15.02	N83°15'56"E	30.03
C51	156.48	750.00	10°39'16"	69.84	N78°49'41"E	138.28
C52	113.82	851.00	7°38'53"	57.05	N87°08'53"E	113.82
C53	39.71	25.00	91°01'02"	25.48	S71°14'45"E	35.87
C54	37.24	25.00	85°20'17"	23.04	N18°28'54"E	33.89
C55	83.24	300.00	17°48'29"	47.03	N68°03'17"E	92.87
C56	40.80	25.00	93°44'58"	26.89	S59°10'23"E	36.49
C57	38.49	25.00	88°12'45"	24.23	N33°28'49"E	34.80
C58	113.31	350.00	18°32'54"	57.15	N58°18'44"E	112.81
C59	39.32	25.00	90°08'46"	25.05	S75°54'20"E	35.36
C60	21.03	25.00	48°11'23"	11.18	S6°45'16"E	20.41
C61	59.00	50.00	57°17'56"	27.32	S11°18'31"E	47.94
C62	20.14	50.00	23°04'28"	19.21	S51°28'42"E	20.00
C63	50.46	50.00	57°49'02"	27.81	N89°03'34"E	48.34
C64	40.86	50.00	48°35'42"	21.53	N35°51'12"E	38.58
C65	40.89	50.00	46°38'42"	21.53	N10°44'50"W	38.58
C66	39.27	50.00	44°59'58"	20.71	N68°32'20"W	38.27
C67	21.03	25.00	48°11'23"	11.18	N54°56'38"W	20.41
C68	39.27	25.00	90°00'00"	25.00	N14°00'03"E	35.36
C69	39.27	25.00	90°00'00"	25.00	S75°50'57"E	35.36
C70	56.18	275.00	12°18'45"	29.70	S24°41'04"E	99.00
C71	43.81	275.00	9°08'57"	22.00	S13°56'44"E	43.87
C72	21.03	25.00	48°11'23"	11.18	S14°47'26"W	20.41
C73	89.00	50.00	60°08'47"	42.03	S1°09'46"E	64.34
C74	50.70	50.00	58°05'38"	27.77	S70°19'28"E	48.50
C75	57.11	50.00	85°28'48"	32.12	N47°58'21"E	54.08
C76	63.48	50.00	72°44'30"	36.82	N21°07'17"W	56.30
C77	21.03	25.00	48°11'23"	11.18	N33°29'59"W	20.41

PARCEL CURVE DATA						
SEGMENT	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD DISTANCE
C78	62.70	325.00	11°03'54"	31.48	N14°53'39"W	62.67
C79	56.13	325.00	10°25'25"	29.54	N26°38'14"W	56.04
C80	39.27	25.00	90°00'00"	25.00	N14°00'03"E	35.36
C81	39.27	25.00	90°00'00"	25.00	S75°50'57"E	35.36
C82	71.76	286.01	14°18'30"	36.07	S23°22'14"E	71.57
C83	21.03	25.00	48°11'23"	11.18	S4°12'00"W	20.41
C84	70.34	50.00	80°36'14"	42.41	S8°00'26"E	64.88
C85	54.69	50.00	60°33'13"	30.37	S79°30'09"E	51.92
C86	61.83	60.00	70°37'06"	35.41	N32°49'40"E	57.80
C87	54.83	90.00	62°38'11"	30.40	N32°46'59"W	51.90
C88	21.03	25.00	48°11'23"	11.18	N30°59'23"W	20.41
C89	75.43	325.00	13°17'52"	37.89	N24°12'00"W	75.28
C90	39.27	25.00	90°00'00"	25.00	N14°00'03"E	35.36
C91	39.27	25.00	90°00'00"	25.00	S75°50'57"E	35.36
C92	105.41	275.00	21°32'41"	52.32	S20°04'38"E	102.80
C93	21.03	25.00	48°11'23"	11.18	S14°47'26"W	20.41
C94	10.89	50.00	12°35'38"	9.52	S32°38'18"W	10.97
C95	84.07	50.00	98°20'09"	56.86	S21°52'35"E	74.51
C96	74.78	50.00	85°41'49"	48.38	N87°08'26"E	88.01
C97	71.34	50.00	81°45'10"	43.29	N18°37'03"W	86.44
C98	21.03	25.00	48°11'23"	11.18	N33°29'59"W	20.41
C99	65.48	325.00	15°48'32"	45.03	N17°13'24"W	99.20
C100	32.72	325.00	5°46'06"	16.38	N27°57'32"W	32.71
C101	39.27	25.00	90°00'00"	25.00	N14°00'03"E	35.36
C102	91.27	700.00	7°27'58"	45.87	N78°29'17"E	91.16
C104	42.74	25.00	97°57'48"	28.74	S48°52'03"E	37.72
C105	35.80	25.00	82°02'46"	21.75	N41°07'57"E	32.82
C106	108.07	725.00	5°18'14"	52.53	N48°18'37"E	104.99
C107	39.31	25.00	90°05'40"	25.04	S44°29'36"E	35.36

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DESIGNED: DCS	PROJECT DATE: FEBRUARY 2015
DRAWN: TAN	PROJECT NO.
CHECKED: ACS	DWG FILE NAME: 581781.dwg
PROJ. ENGR: GBC	REV. NO.
	DESCRIPTION
	REVISIONS



PRELIMINARY SUBDIVISION PLAN
CAMP KANATA ROAD SUBDIVISION
CLUSTER DEVELOPMENT

SITE ADDRESS
 INTERSECTION OF CAMP KANATA ROAD AND
 PURNELL ROAD, NEW LIGHT TOWNSHIP
 WAKE FOREST, NC 27587

PHASE 2
SITE PLAN

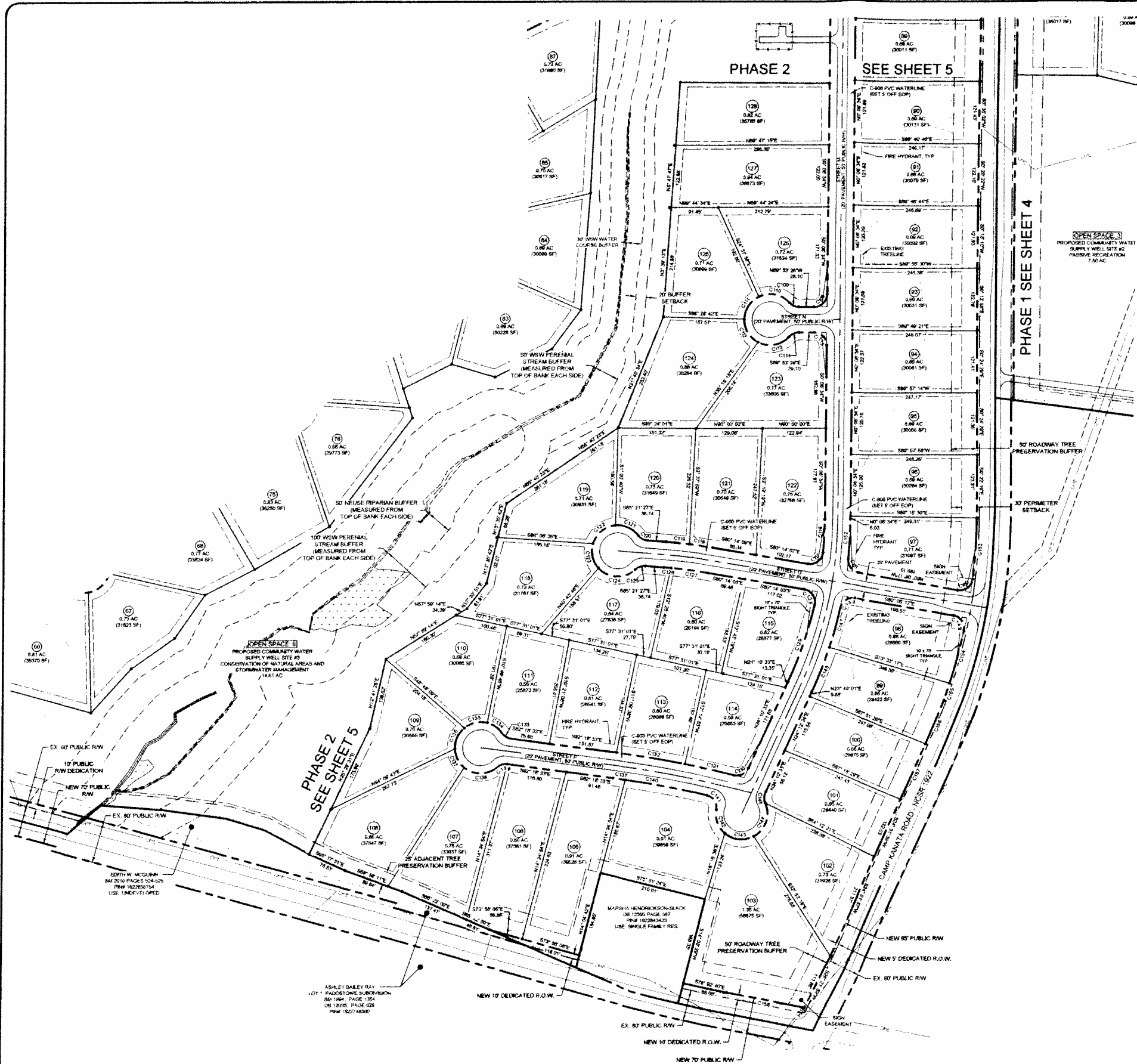
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 OF





PARCEL CURVE DATA

SEGMENT	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD DISTANCE
C106	39.27	25.00	90°00'00"	25.00	S45°08'34"W	35.36
C109	21.03	25.00	48°11'23"	11.18	N85°47'44"W	20.41
C110	94.82	50.00	74°24'34"	37.98	N78°54'20"W	95.47
C111	54.88	50.00	62°37'11"	30.41	S32°34'47"W	51.97
C112	54.99	50.00	62°38'18"	30.42	S31°12'34"E	51.98
C113	65.93	50.00	75°33'07"	38.75	N79°41'45"E	61.26
C114	21.03	25.00	48°11'23"	11.18	N85°47'44"W	20.41
C115	39.27	25.00	90°00'00"	25.00	S44°53'28"E	35.36
C116	94.25	775.17	4°44'55"	32.14	S2°31'50"W	64.23
C117	41.34	25.00	94°44'27"	27.16	S52°16'31"W	36.79
C118	45.83	1025.00	2°53'42"	22.92	S81°30'54"E	45.82
C119	45.83	1025.00	2°53'42"	22.92	S84°04'36"E	45.82
C120	21.03	25.00	48°11'23"	11.18	N81°15'48"W	20.41
C121	50.45	50.00	57°48'23"	27.61	N86°04'16"W	48.33
C122	50.96	50.00	68°35'20"	34.70	S80°43'48"W	56.35
C123	45.40	50.00	62°01'23"	24.40	S8°34'38"E	43.89
C124	76.63	50.00	81°14'39"	51.10	S67°59'30"E	71.47
C125	21.03	25.00	48°11'23"	11.18	N70°32'52"E	20.41
C126	13.98	975.00	0°49'14"	6.98	S84°56'50"E	13.98
C127	83.79	975.00	3°44'54"	31.80	S82°06'30"E	63.78
C128	40.47	25.00	92°44'21"	26.22	N33°51'53"W	36.18
C129	157.27	775.00	11°37'38"	78.61	N18°24'41"E	157.00
C130	34.99	25.00	80°08'47"	21.01	N84°19'27"E	32.17
C131	97.21	2025.00	2°40'02"	48.61	S77°08'10"E	97.20
C132	105.40	2025.00	3°49'51"	67.72	S80°23'37"E	105.37
C133	21.03	25.00	48°11'23"	11.18	S88°12'51"E	20.41
C134	36.09	50.00	41°19'32"	16.86	S54°46'54"E	35.29
C135	47.29	50.00	54°08'42"	25.36	N77°28'58"E	46.51
C136	46.27	50.00	53°01'10"	24.94	N23°54'03"E	44.64
C137	24.32	1975.00	0°42'20"	12.16	S81°57'23"E	24.32
C137	41.97	50.00	48°05'34"	22.31	N26°39'20"W	40.75
C138	89.84	50.00	70°47'49"	41.80	S89°23'59"W	84.74
C139	21.03	25.00	48°11'23"	11.18	S73°35'48"W	20.41
C140	161.72	1975.00	4°41'29"	80.90	S79°15'28"E	161.67
C141	37.85	25.00	98°03'04"	23.33	S35°59'11"E	34.12
C142	50.86	50.00	58°18'49"	27.86	S20°00'54"E	46.69
C143	80.54	50.00	68°22'38"	34.61	S83°49'47"E	56.81
C144	74.61	50.00	85°28'44"	46.22	N18°44'02"E	67.88
C145	23.20	25.00	50°19'25"	12.57	N2°18'48"E	23.20
C146	92.85	825.00	0°28'54"	46.37	N2°10'09"E	92.80
C147	79.23	825.00	0°30'08"	39.85	N15°02'02"E	79.20
C148	38.27	25.00	67°41'51"	24.02	N58°02'48"E	34.64
C150	40.74	25.00	83°21'48"	26.51	S55°17'30"W	36.58
C151	37.33	25.00	85°33'24"	23.17	N37°19'36"W	33.98
C152	78.83	825.00	5°20'33"	38.46	N2°46'11"E	78.80

**CURVE DATA
NEW R.O.W. CAMP KANATA RD.**

PARCEL CURVE DATA

SEGMENT	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD DISTANCE
C153	119.89	1063.00	6°15'32"	56.78	S3°24'11"W	119.84
C154	106.74	1171.54	5°10'17"	52.51	S14°40'17"W	106.70
C155	34.87	1069.53	1°49'10"	17.30	S18°20'59"W	34.90
C156	92.80	3897.25	1°21'41"	46.30	S22°36'45"W	92.80
C157	117.80	5067.64	1°20'08"	56.86	S23°58'58"W	117.80
C158	54.30	5661.42	1°29'08"	27.16	N78°58'19"W	154.30



DESIGNED:	DCS	PROJECT DATE:	FEBRUARY 2015
DRAWN:	TAN	PROJECT NO.:	
CHECKED:	ACS	DWG FILE NAME:	Sub Plan p3.dwg
PROJ. ENG.:	ORC	REV. NO.:	

TRIANGLE CIVILWORKS
PROFESSIONAL ASSOCIATION
INC. REG. NO. 1-3018
211 TYLER DRIVE
SMITHFIELD, NC 27577
313-249-9153

**PRELIMINARY SUBDIVISION PLAN
CAMP KANATA ROAD SUBDIVISION
CLUSTER DEVELOPMENT**

SITE ADDRESS
INTERSECTION OF CAMP KANATA ROAD AND
PURNELL ROAD, NEW LIGHT TOWNSHIP
WAKE FOREST, NC 27587

**PHASE 3
SITE PLAN**

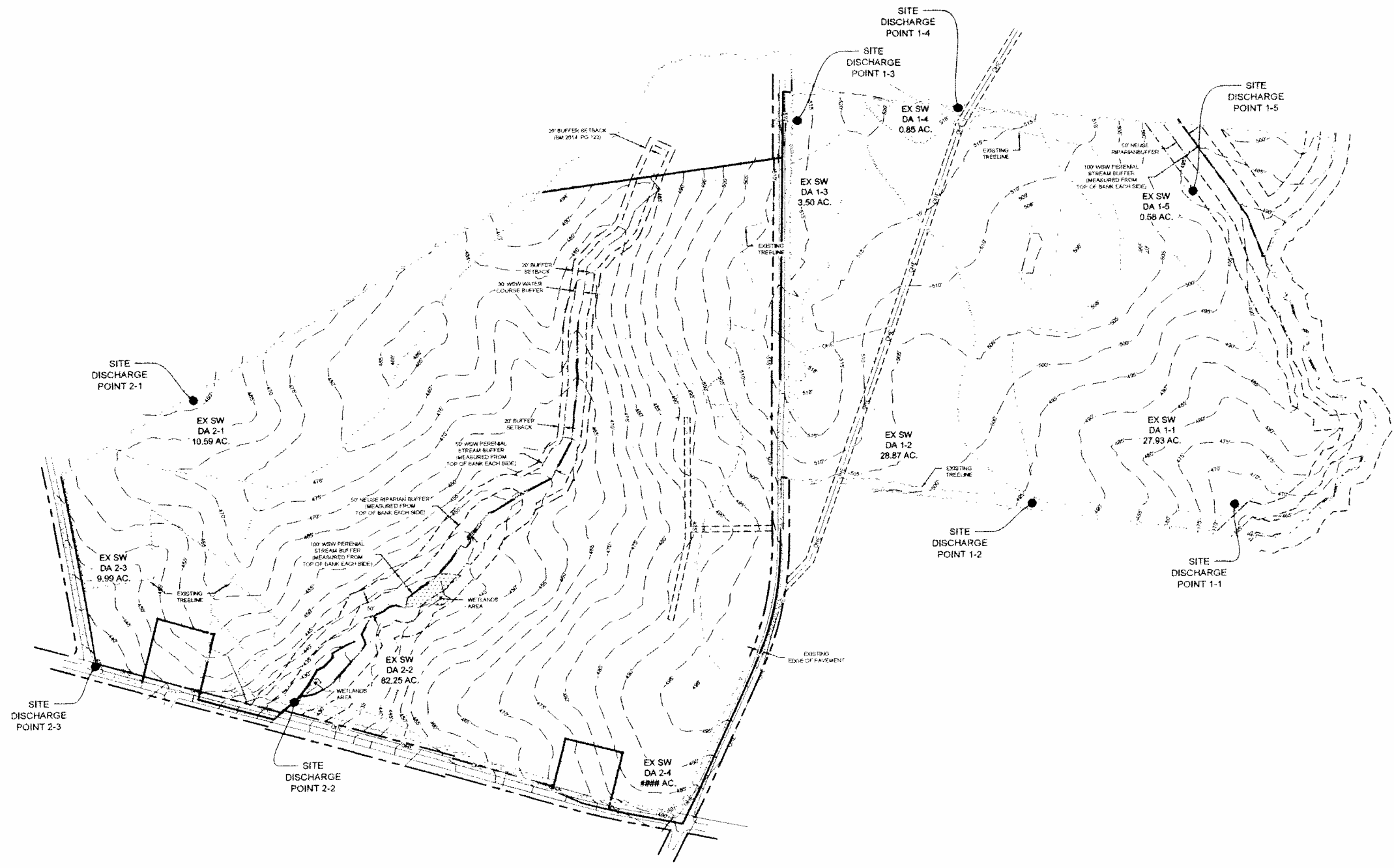
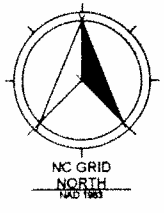
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DESIGNED:	DCS	PROJECT DATE:	FEBRUARY, 2015
DRAWN:	TAM	PROJECT NO.:	
CHECKED:	ACS	DWG FILE NAME:	SISTORM PRE DEV.DWG
PROJ. ENG.:	GBC	REV. NO.:	
		DESCRIPTIONS:	
		REVISIONS:	



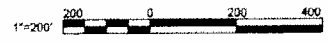
TRIANGLE CIVILWORKS
PROFESSIONAL ASSOCIATION
MEMBER NO. C-2613
211 TYLER DRIVE
SMITHFIELD, NC 27577
919-219-4955

**PRELIMINARY SUBDIVISION PLAN
CAMP KANATA ROAD SUBDIVISION
CLUSTER DEVELOPMENT**

SITE ADDRESS
INTERSECTION OF CAMP KANATA ROAD AND
FURNELL ROAD, NEW LIGHT TOWNSHIP
WAKE FOREST, NC 27587

**PRE-DEVELOPMENT
STORM DRAINAGE AREAS**

1"=200'

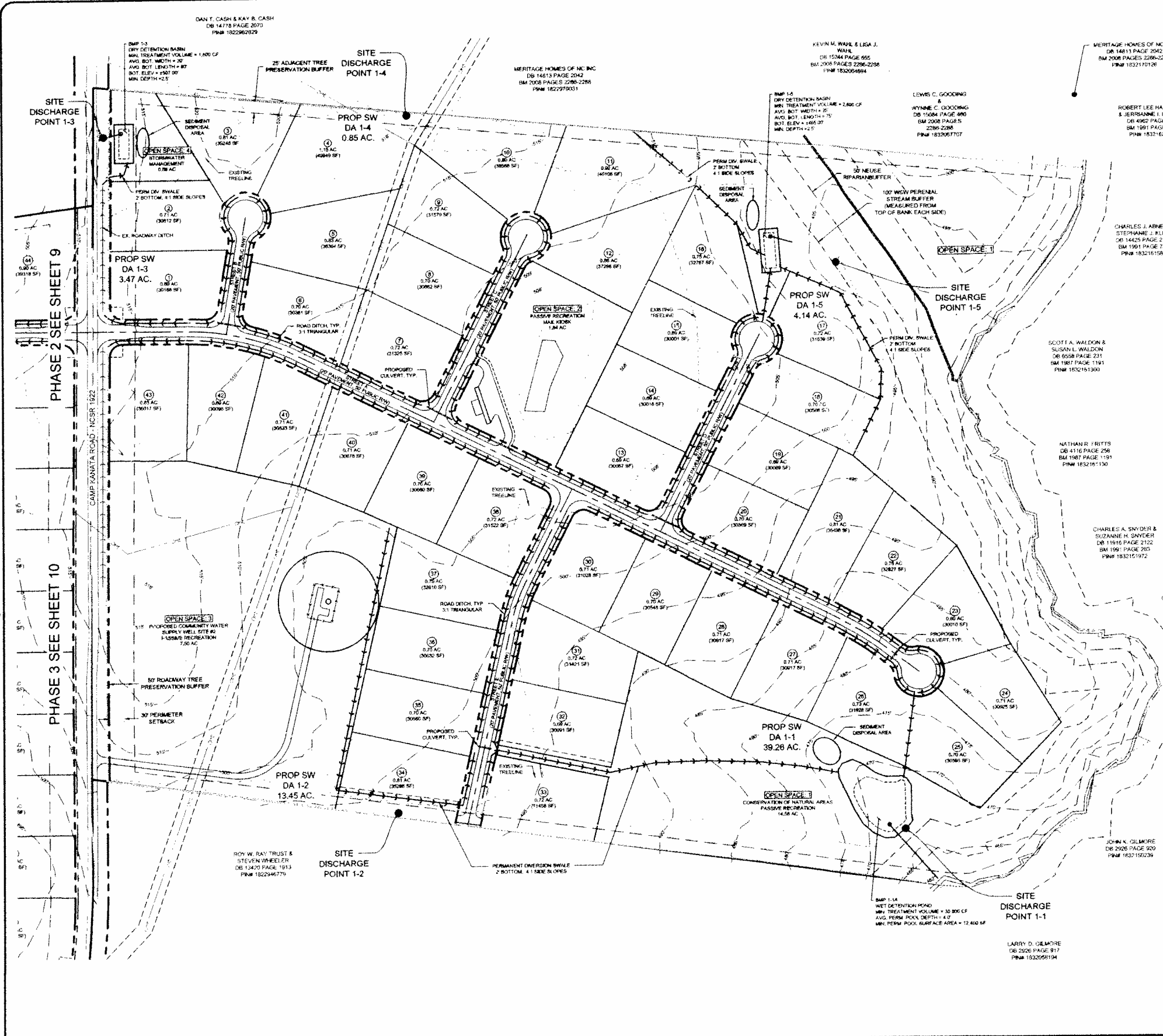
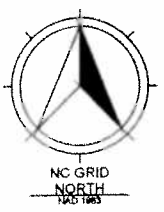


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OF:

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STORMWATER COMPLIANCE SUMMARY
 1 YEAR, 24 HOUR DESIGN STORM (SCS CN METHOD, TR-55)

POINT OF DISCHARGE	PRE-DEVELOPED PEAK DISCHARGE (CFS)	POST-DEVELOPED UNTREATED PEAK DISCHARGE (CFS)	POST-DEVELOPED UNTREATED % CHANGE	POST BMP PEAK DISCHARGE (CFS)	POST BMP % CHANGE	NOTES	TN EXPORT (LBS/AC/YR)	TP EXPORT (LBS/AC/YR)
PHASE 1								
1-1	2.50	16.05	542%	2.22	-11%		1.79	0.23
1-2	2.16	0.84	-61%	N/A	N/A			
1-3	0.49	3.15	543%	0.33	-33%			
1-4	0.11	0.19	68%	N/A	N/A	NO TREATMENT PROPOSED DUE TO SMALL PEAK DISCHARGE AND LACK OF IMPACT DOWNSTREAM TO PROPERTY		
1-5	0.04	1.46	3550%	0.04	0%		2.12	0.28
PHASE 2								
2-1	0.59	5.92	923%	0.44	-25%			
2-2	9.83	41.33	320%	7.51	-24%			
2-3	1.56	5.32	241%	1.62	4%			

DESIGNED: DCS	PROJECT DATE: FEBRUARY 2014	
DRAWN: TMM	PROJECT NO.	
CHECKED: ADS	DWG FILE NAME: Storm Drainage p1.dwg	
PROJ. ENG: OBC		
REV. NO.	DESCRIPTIONS	
	REVISIONS	



PRELIMINARY SUBDIVISION PLAN
CAMP KANATA ROAD SUBDIVISION
CLUSTER DEVELOPMENT

SITE ADDRESS
 INTERSECTION OF CAMP KANATA ROAD AND
 PURNELL ROAD, NEW LIGHT TOWNSHIP,
 WAKE FOREST, NC 27587

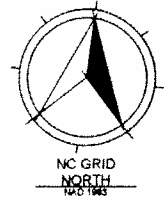
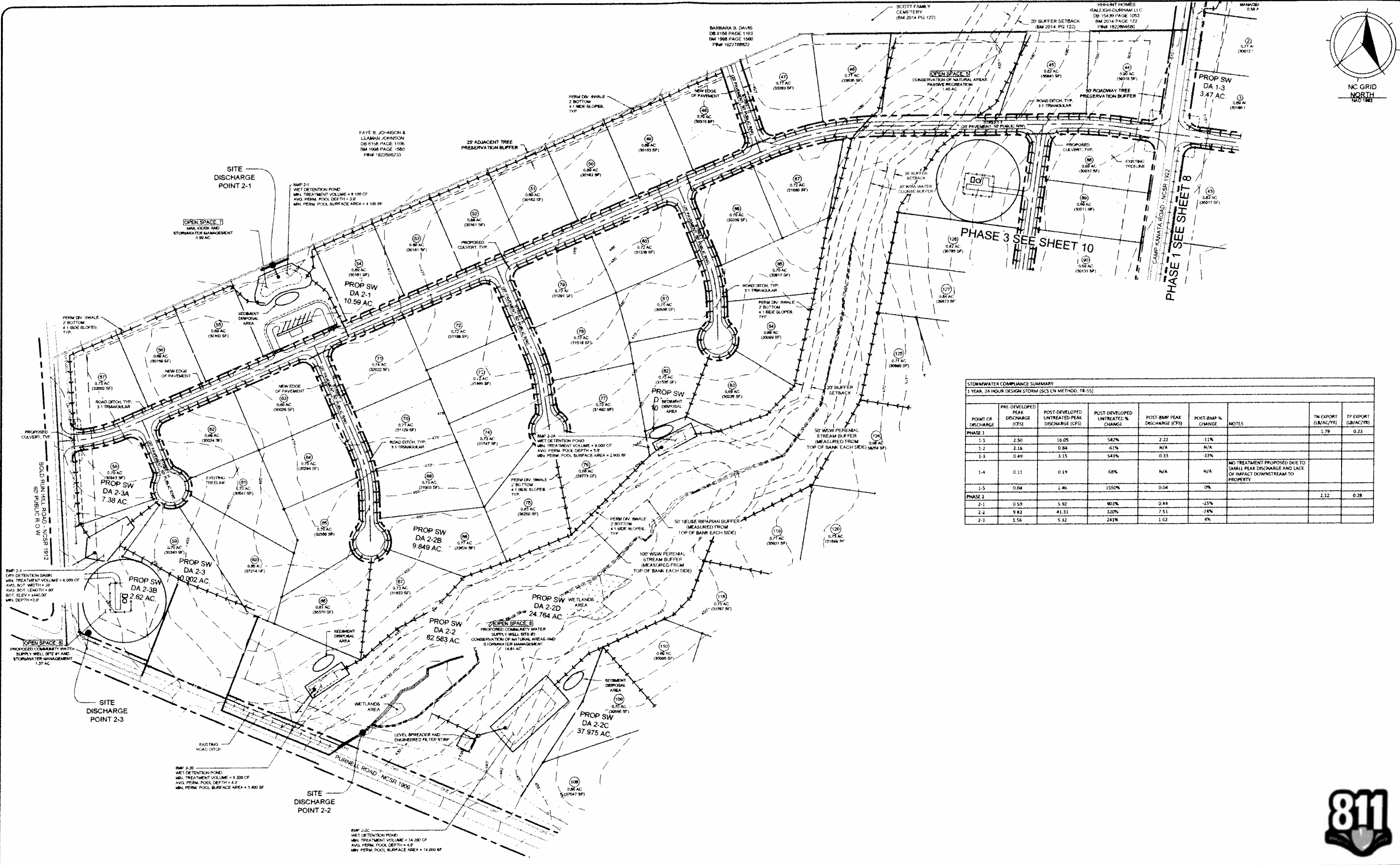
PRELIMINARY PHASE 1
STORMWATER MANAGEMENT PLAN

1"=100'

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SHEET NO.
8
 OF:



STORMWATER COMPLIANCE SUMMARY
1 YEAR, 24 HOUR DESIGN STORM (SCS CN METHOD, TR-55)

POINT OF DISCHARGE	PRE-DEVELOPED PEAK DISCHARGE (CFS)	POST-DEVELOPED UNTREATED PEAK DISCHARGE (CFS)	POST-DEVELOPED UNTREATED % CHANGE	POST-BMP PEAK DISCHARGE (CFS)	POST-BMP % CHANGE	NOTES	TN EXPORT (LB/AC/YR)	TP EXPORT (LB/AC/YR)
PHASE 1								
1-1	2.50	16.05	542%	2.22	-11%		1.78	0.23
1-2	2.16	0.84	-61%	N/A	N/A			
1-3	0.49	3.15	543%	0.33	-33%			
1-4	0.11	0.19	68%	N/A	N/A	NO TREATMENT PROPOSED DUE TO SMALL PEAK DISCHARGE AND LACK OF IMPACT DOWNSTREAM TO PROPERTY		
1-5	0.04	1.46	3550%	0.04	0%		2.12	0.28
PHASE 2								
2-1	0.59	5.92	903%	0.44	-25%			
2-2	9.83	41.33	320%	7.51	-24%			
2-3	1.56	5.32	241%	1.62	4%			

DESIGNED: DCS	PROJECT DATE: FEBRUARY 2015
DRAWN: TAN	PROJECT NO.
CHECKED: ACS	DWG FILE NAME: Storm Drainage ph2.dwg
PROJ. ENG.: GRI	REV. NO.

NO.	DESCRIPTION



PRELIMINARY SUBDIVISION PLAN
CAMP KANATA ROAD SUBDIVISION
CLUSTER DEVELOPMENT

SITE ADDRESS:
INTERSECTION OF CAMP KANATA ROAD AND PURNELL ROAD, NEW LIGHT TOWNSHIP, WAKE FOREST, NC 27587

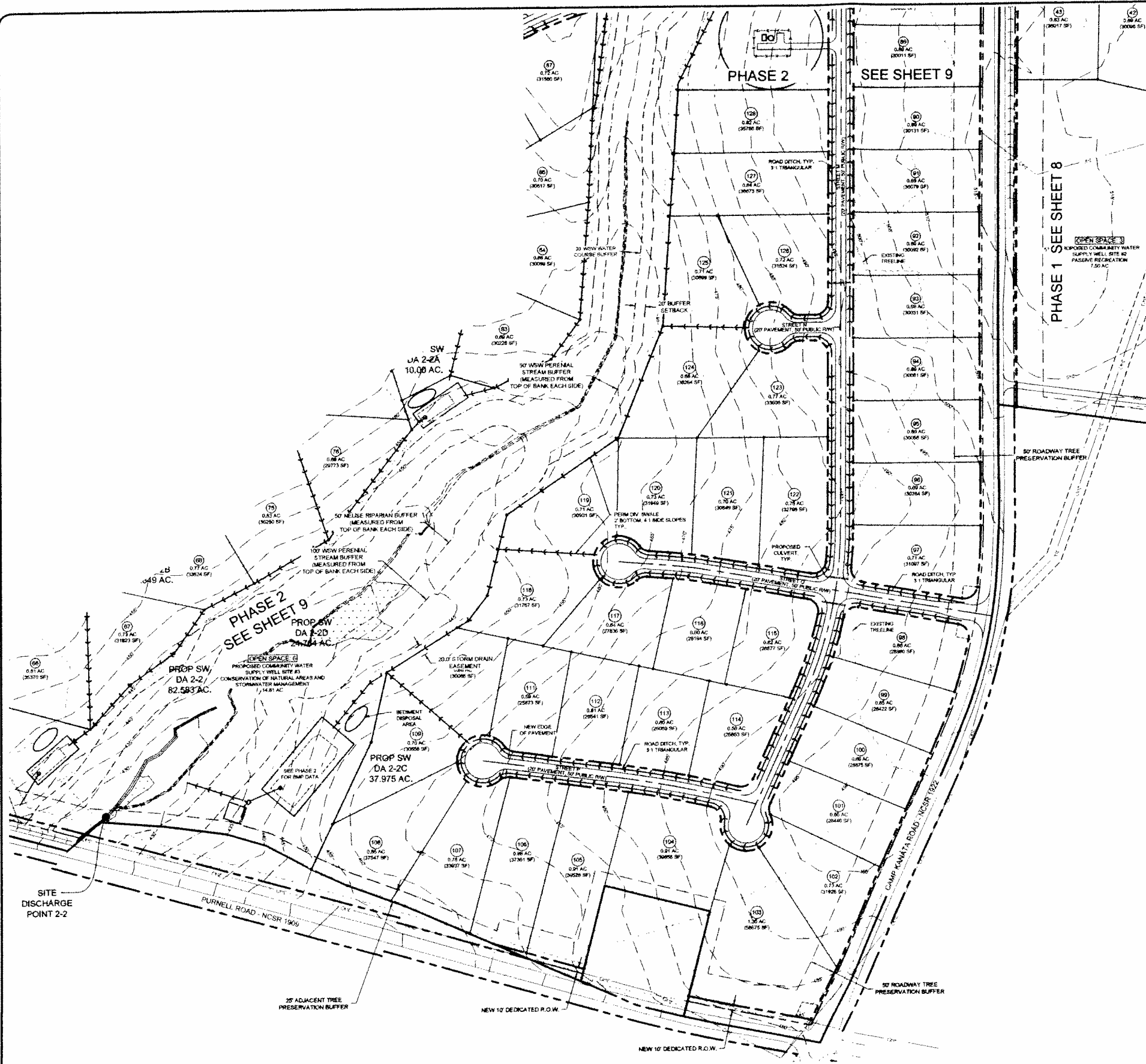
PRELIMINARY PHASE 2
STORMWATER MANAGEMENT PLAN

Scale: 1"=100'

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NOT RELEASED
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SHEET NO.
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OF:



STORMWATER COMPLIANCE SUMMARY							TN EXPORT (LBS/AC/YR)		TP EXPORT (LBS/AC/YR)		
1 YEAR, 24 HOUR DESIGN STORM (SCS CM METHOD, TR-55)							1.79	0.23			
POINT OF DISCHARGE	PRE-DEVELOPED PEAK DISCHARGE (CFS)	POST-DEVELOPED UNTREATED PEAK DISCHARGE (CFS)	POST-DEVELOPED TREATED % CHANGE	POST-BMP PEAK DISCHARGE (CFS)	POST-BMP % CHANGE	NOTES					
PHASE 1											
1-1	2.50	16.05	842%	2.22	11%						
1-2	2.16	0.84	61%	N/A	N/A						
1-3	0.49	3.15	543%	0.33	33%						
1-4	0.11	0.19	68%	N/A	N/A	NO TREATMENT PROPOSED DUE TO SMALL PEAK DISCHARGE AND LACK OF IMPACT DOWNSTREAM TO PROPERTY					
1-5	0.04	1.46	3550%	0.04	0%		2.22	0.28			
PHASE 2											
2-1	0.59	5.92	903%	0.44	-25%						
2-2	4.83	41.33	3206%	7.51	-24%						
2-3	1.58	5.32	241%	1.62	4%						

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DESIGNED: DCS	PROJECT DATE: FEBRUARY, 2015	
DRAWN: TAN	PROJECT NO.	
CHECKED: ACS	DWG FILE NAME: Storm Drainage PH3.dwg	
PROJ. ENG: GBC	REV. NO.	DESCRIPTIONS
		REVISIONS

TRIANGLE CIVILWORKS
PROFESSIONAL ASSOCIATION
NOBELS NO. C-2693
211 TYLER DRIVE
SMITHFIELD, NC 27577
919-299-9933

PRELIMINARY SUBDIVISION PLAN
CAMP KANATA ROAD SUBDIVISION
CLUSTER DEVELOPMENT

SITE ADDRESS
INTERSECTION OF CAMP KANATA ROAD AND
PURNELL ROAD, NEW LIGHT TOWNSHIP
WAKE FOREST, NC 27587

PRELIMINARY PHASE 3
STORMWATER MANAGEMENT PLAN

1"=100'

PRELIMINARY
NOT RELEASED
FOR CONSTRUCTION

02/03/2015

SHEET NO.
10
OF:

