

CONDITIONAL ZONING APPLICATION



TOWN OF CHAPEL HILL
Planning Department
405 Martin Luther King Jr. Blvd.
Chapel Hill, NC 27514
phone (919) 969-5040 fax (919) 969-2014
www.townofchapelhill.org

Parcel Identifier Number (PIN): 9778-37-4748, 9778-37-6817 Date: 2 Mar 2020

Section A: Project Information

Project Name: Rosemary Street Parking Deck
Property Address: 125 E Rosemary St Zip Code: 27514
Use Groups (A, B, and/or C): C Existing Zoning District: TC-2
Project Description: Demolition of 276 space existing parking deck and construction of a 1,000 to 1,100 space deck

Section B: Applicant, Owner, and/or Contract Purchaser Information

Applicant Information (to whom correspondence will be mailed):

Name: Ballentine Associates, attn: George Retschle
Address: 221 Providence Road
City: Chapel Hill State: NC Zip Code: 27514
Phone: (919) 929-0481 Email: georger@bapa.eng.pro

The undersigned applicant hereby certifies that, to the best of their knowledge and belief, all information supplied with this application and accurate.

Signature: _____ Date: 2 Mar 2020

Owner/Contract Purchaser Information:

Owner **Contract Purchaser**

Name: Franklin Office Chapel Hill LLC c/o Grubb Properties, Inc
Address: 113 Edinburgh South Drive Suite 120
City: Cary State: NC Zip Code: 27511
Phone: (919) 388-5774 Email: JDye@grubbproperties.com

The undersigned applicant hereby certifies that, to the best of their knowledge and belief, all information supplied with this application and accurate.

Signature: _____ Date: 2 Mar 2020

Click [here](#) for application submittal instructions.



CONDITIONAL ZONING

TOWN OF CHAPEL HILL
Planning and Development Service

Conditional Rezoning applications are reviewed by staff, Planning Commission, and Town Council. The application is part of an open public process that enables Town Council to discuss and decide on the key issues of a rezoning proposal. If a rezoning is approved, the applicant may then submit a detailed final plan application to staff for compliance review with the technical development standards and with the Council rezoning approval.

The establishment of a Conditional Zoning District shall be consistent with the Land Use Plan in the Comprehensive Plan. A proposed Conditional Zoning District is deemed consistent if the proposed District will be located in conformance with an adopted small area plan and/or in one of the following Land Use Categories:

- Medium Residential
- High Residential
- Commercial
- Mixed Use, Office/Commercial Emphasis
- Mixed Use, Office Emphasis
- Town/Village Center
- Institutional
- Office
- University
- Development Opportunity Area
- Light Industrial Opportunity Area

If the proposed conditional zoning districts is located in a Low Residential or a Rural Residential Land Use Category, the Town Council must approve a Land Use Plan amendment prior to proceeding.

SIGNED CONDITIONS: All conditions shall be in writing, prepared by the owner of the property or an attorney and must be signed by all property owners and contract purchasers, if applicable. The Town Attorney may require additional signatures if necessary and will determine whether or not the conditions statement is legally sufficient. Within thirty (30) days after receipt of the conditions the Planning Division Manager will notify the applicant of any deficiencies in the conditions statement or if any additional information is needed. The applicant may make changes to the written conditions statement provided it is submitted at least thirty (30) prior to Planning Commission meeting or thirty (30) days prior to Town Council public hearing.

RECORDATION OF CONDITIONS: After a rezoning has been approved by the Town Council, the conditions statement shall be recorded with the Register of Deeds Office. After a rezoning has been approved by Town Council and recorded by the Register of Deeds Office, the conditions may not be amended except through a new rezoning application.



Section A: Project Information

Use Type: (check/list all that apply)

- Office/Institutional Residential Mixed-Use Other: _____

Overlay District: (check all that apply)

- Historic District Neighborhood Conservation District Airport Hazard Zone

Section B: Land Area

Net Land Area (NLA): Area within zoning lot boundaries		NLA=	73,097	sq. ft.
Choose one, or both, of the following (a or b), not to exceed 10% of NLA	a) Credited Street Area (total adjacent frontage) x ½ width of public right-of-way	CSA=	7,310	sq. ft.
	b) Credited Permanent Open Space (total adjacent frontage) x ½ public or dedicated open space	COS=		sq. ft.
TOTAL: NLA + CSA and/or COS = Gross Land Area (not to exceed NLA + 10%)		GLA=	80,407	sq. ft.

Section C: Special Protection Areas, Land Disturbance, and Impervious Area

Special Protection Areas: (check all those that apply)

- Jordan Buffer Resource Conservation District 100 Year Floodplain Watershed Protection District

Land Disturbance	Total (sq. ft.)
Area of Land Disturbance (Includes: Footprint of proposed activity plus work area envelope, staging area for materials, access/equipment paths, and all grading, including off-site clearing)	100,000
Area of Land Disturbance within RCD	0
Area of Land Disturbance within Jordan Buffer	0

Impervious Areas	Existing (sq. ft.)	Demolition (sq. ft.)	Proposed (sq. ft.)	Total (sq. ft.)
Impervious Surface Area (ISA)	66,548	66,548	65,000	65,000
Impervious Surface Ratio: Percent Impervious Surface Area of Gross Land Area (ISA/GLA)%	82.76	82.76	80.84	80.84
If located in Watershed Protection District, % of impervious surface on 7/1/1993				



Section D: Dimensions

Dimensional Unit (sq. ft.)	Existing (sq. ft.)	Demolition (sq. ft.)	Proposed (sq. ft.)	Total (sq. ft.)
Number of Buildings	1 +/- 200 sf enclosed	all	1,415 enclosed	1,415
Number of Floors	3	3	6	6
Recreational Space	n/a	n/a	n/a	n/a

Residential Space				
Dimensional Unit (sq. ft.)	Existing (sq. ft.)	Demolition (sq. ft.)	Proposed (sq. ft.)	Total (sq. ft.)
Floor Area (all floors – heated and unheated)				
Total Square Footage of All Units				
Total Square Footage of Affordable Units				
Total Residential Density				
Number of Dwelling Units				
Number of Affordable Dwelling Units				
Number of Single Bedroom Units				
Number of Two Bedroom Units				
Number of Three Bedroom Units				

Non-Residential Space (Gross Floor Area in Square Feet)					
Use Type	Existing	Proposed	Uses	Existing	Proposed
Commercial					
Restaurant			# of Seats		
Government					
Institutional					
Medical					
Office		800			
Hotel			# of Rooms		
Industrial					
Place of Worship			# of Seats		
Other	200	615			

Dimensional Requirements		Required by Ordinance	Existing	Proposed
Setbacks (minimum)	Street	0	9.5	8
	Interior (neighboring property lines)	0	0	0
	Solar (northern property line)	0	10	20
Height (maximum)	Primary	44	0	0
	Secondary	90	40	80
Streets	Frontages	12	191/165	356
	Widths	15	191/165	356



Section F: Adjoining or Connecting Streets and Sidewalks

Note: For approval of proposed street names, contact the Engineering Department.

Street Name	Right-of-Way Width	Pavement Width	Number of Lanes	Existing Sidewalk*	Existing Curb/Gutter
Rosemary St	60	39	3	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
				<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

List Proposed Points of Access (Ex: Number, Street Name):

*If existing sidewalks do not exist and the applicant is adding sidewalks, please provide the following information:

Sidewalk Information			
Street Names	Dimensions	Surface	Handicapped Ramps
			<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
			<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

Section G: Parking Information

Parking Spaces	Minimum	Maximum	Proposed
Regular Spaces			1,079
Handicap Spaces			21
Total Spaces			1,100
Loading Spaces			
Bicycle Spaces			30
Surface Type	conc parking deck		

Section H: Landscape Buffers

Location (North, South, Street, Etc.)	Minimum Width	Proposed Width	Alternate Buffer	Modify Buffer
North 1	15 & 20	10	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes
North 2	15	5	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes
south, east, west	0	0	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
			<input type="checkbox"/> Yes	<input type="checkbox"/> Yes



Section I: Land Use Intensity

Existing Zoning District:
 Proposed Zoning Change (if any):

Zoning – Area – Ratio			Impervious Surface Thresholds			Minimum and Maximum Limitations	
Zoning District(s)	Floor Area Ratio (FAR)	Recreation Space Ratio (RSR)	Low Density Residential (0.24)	High Density Residential (0.50)	Non-Residential (0.70)	Maximum Floor Area (MFA) = FAR x GLA	Minimum Recreation Space (MSR) = RSR x GLA
TC-2 CZ	1.97	n/a			n/a	158,402	n/a
TOTAL							
RCD Streamside		0.01					
RCD Managed		0.019					
RCD Upland							

Section J: Utility Service

Check all that apply:

Water	<input checked="" type="checkbox"/> OWASA	<input type="checkbox"/> Individual Well	<input type="checkbox"/> Community Well	<input type="checkbox"/> Other
Sewer	<input checked="" type="checkbox"/> OWASA	<input type="checkbox"/> Individual Septic Tank	<input type="checkbox"/> Community Package Plant	<input type="checkbox"/> Other
Electrical	<input checked="" type="checkbox"/> Underground	<input checked="" type="checkbox"/> Above Ground		
Telephone	<input checked="" type="checkbox"/> Underground	<input checked="" type="checkbox"/> Above Ground		
Solid Waste	<input type="checkbox"/> Town	<input type="checkbox"/> Private		



**CONDITIONAL ZONING APPLICATION
SUBMITTAL REQUIREMENTS
TOWN OF CHAPEL HILL
Planning and Development Services**

The following must accompany your application. Failure to do so will result in your application being considered incomplete. For assistance with this application, please contact the Chapel Hill Planning Department (Planning) at (919) 969-5066 or at planning@townofchapelhill.org.

X	Application fee (including Engineering Review fee) (refer to fee schedule)	Amount Paid \$	8,585
X	Pre-application meeting –with appropriate staff		
X	Digital Files – provide digital files of all plans and documents		
X	Recorded Plat or Deed of Property		
X	Project Fact Sheet		
Pend	Traffic Impact Statement – completed by Town’s consultant (or exemption)		
n/a	Description of Public Art Proposal, if applicable		
X	Statement of Justification		
n/a	Response to Community Design Commission and Town Council Concept Plan comments		
n/a	Affordable Housing Proposal, if applicable		
X	Statement of Consistency with Comprehensive Plan or request to amend Comprehensive Plan		
X	Mailing list of owners of property within 1,000 feet perimeter of subject property (see GIS notification tool)		
X	Mailing fee for above mailing list (mailing fee is double due to 2 mailings)	Amount Paid \$	
X	Written Narrative describing the proposal, including proposed land uses		
n/a	Resource Conservation District, Floodplain, & Jordan Buffers Determination – necessary for all submittals		
n/a	Jurisdictional Wetland Determination – if applicable		
n/a	Resource Conservation District Encroachment Exemption or Variance (determined by Planning)		
n/a	Jordan Buffer Authorization Certificate or Mitigation Plan Approval (determined by Planning)		
X	Reduced Site Plan Set (reduced to 8.5” x 11”)		

Stormwater Impact Statement (1 copy to be submitted)

- a) Written narrative describing existing & proposed conditions, anticipated stormwater impacts and management structures and strategies to mitigate impacts
- b) Description of land uses and area (in square footage)
- c) Existing and proposed impervious surface area in square feet for all subareas and project area
- d) Ground cover and uses information
- e) Soil information (classification, infiltration rates, depth to groundwater and bedrock)
- f) Time of concentration calculations and assumptions
- g) Topography (2-foot contours)
- h) Pertinent on-site and off-site drainage conditions
- i) Upstream and/or downstream volumes
- j) Discharges and velocities
- k) Backwater elevations and effects on existing drainage conveyance facilities
- l) Location of jurisdictional wetlands and regulatory FEMA Special Flood Hazard Areas
- m) Water quality volume calculations
- n) Drainage areas and sub-areas delineated
- o) Peak discharge calculations and rates (1, 2, and 25-year storms)
- p) Hydrographs for pre- & post-development without mitigation, post-development with mitigation
- q) Volume calculations and documentation of retention for 2-year storm



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- r) 85% TSS removal for post-development stormwater runoff
- s) Nutrient loading calculations
- t) BMP sizing calculations
- u) Pipe sizing calculations and schedule (include HGL & EGL calculations and profiles)

Plan Sets (10 copies to be submitted no larger than 24" x 36")

Plans should be legible and clearly drawn. All plan set sheets should include the following:

- Project Name
- Legend
- Labels
- North Arrow (North oriented toward top of page)
- Property boundaries with bearing and distances
- Scale (Engineering), denoted graphically and numerically
- Setbacks
- Streams, RCD Boundary, Jordan Riparian Buffer Boundary, Floodplain, and Wetlands Boundary, where applicable
- Revision dates and professional seals and signatures, as applicable

Cover Sheet

- a) Include Project Name, Project fact information, PIN, and Design Team

Area Map

- a) Project name, applicant, contact information, location, PIN, & legend
- b) Dedicated open space, parks, greenways
- c) Overlay Districts, if applicable
- d) Property lines, zoning district boundaries, land uses, project names of site and surrounding properties, significant buildings, corporate limit lines
- e) Existing roads (public & private), rights-of-way, sidewalks, driveways, vehicular parking areas, bicycle parking, handicapped parking, street names
- f) 1,000' notification boundary

Existing Conditions Plan

- a) Slopes, soils, environmental constraints, existing vegetation, and any existing land features
- b) Location of all existing structures and uses
- c) Existing property line and right-of-way lines
- d) Existing utilities & easements including location & sizes of water, sewer, electrical, & drainage lines
- e) Nearest fire hydrants
- f) Nearest bus shelters and transit facilities
- g) Existing topography at minimum 2-foot intervals and finished grade
- h) Natural drainage features & water bodies, floodways, floodplain, RCD, Jordan Buffers & Watershed boundaries



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Planning and Development Services**

Detailed Site Plan

- a) Existing and proposed building locations
- b) Description & analysis of adjacent land uses, roads, topography, soils, drainage patterns, environmental constraints, features, existing vegetation, vistas (on and off-site)
- c) Location, arrangement, & dimension of vehicular parking, width of aisles and bays, angle of parking, number of spaces, handicapped parking, bicycle parking. Typical pavement sections & surface type.
- d) Location of existing and proposed fire hydrants
- e) Location and dimension of all vehicle entrances, exits, and drives
- f) Dimensioned street cross-sections and rights-of-way widths
- g) Pavement and curb & gutter construction details
- h) Dimensioned sidewalk and tree lawn cross sections
- i) Proposed transit improvements including bus pull-off and/or bus shelter
- j) Required landscape buffers (or proposed alternate/modified buffers)
- k) Required recreation area/space (including written statement of recreation plans)
- l) Refuse collection facilities (existing and proposed) or shared dumpster agreement
- m) Construction parking, staging, storage area, and construction trailer location
- n) Sight distance triangles at intersections
- o) Proposed location of street lights and underground utility lines and/or conduit lines to be installed
- p) Easements
- q) Clearing and construction limits
- r) Traffic Calming Plan – detailed construction designs of devices proposed & associated sign & marking plan

Stormwater Management Plan

- a) Topography (2-foot contours)
- b) Existing drainage conditions
- c) RCD and Jordan Riparian Buffer delineation and boundary (perennial & intermittent streams; note ephemeral streams on site)
- d) Proposed drainage and stormwater conditions
- e) Drainage conveyance system (piping)
- f) Roof drains
- g) Easements
- h) BMP plans, dimensions, details, and cross-sections
- i) Planting and stabilization plans and specifications

Landscape Protection Plan

- a) Rare, specimen, and significant tree survey within 50 feet of construction area
- b) Rare and specimen tree critical root zones
- c) Rare and specimen trees proposed to be removed
- d) Certified arborist tree evaluation, if applicable
- e) Significant tree stand survey
- f) Clearing limit line
- g) Proposed tree protection/silt fence location
- h) Pre-construction/demolition conference note
- i) Landscape protection supervisor note
- j) Existing and proposed tree canopy calculations, if applicable



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Planting Plan

- a) Dimensioned and labeled perimeter buffers
- b) Off-site buffer easement, if applicable
- c) Landscape buffer and parking lot planting plan (including planting strip between parking and building, entryway planting, and 35% shading requirement)

Steep Slope Plan

- a) Classify and quantify slopes 0-10%, 10-15%, 15-25%, and 25% and greater
- b) Show and quantify areas of disturbance in each slope category
- c) Provide/show specialized site design and construction techniques

Grading and Erosion Control Plan

- a) Topography (2-foot contours)
- b) Limits of Disturbance
- c) Pertinent off-site drainage features
- d) Existing and proposed impervious surface tallies

Streetscape Plan, if applicable

- a) Public right-of-way existing conditions plan
- b) Streetscape demolition plan
- c) Streetscape proposed improvement plan
- d) Streetscape proposed utility plan and details
- e) Streetscape proposed pavement/sidewalk details
- f) Streetscape proposed furnishing details
- g) Streetscape proposed lighting detail

Solid Waste Plan

- a) Preliminary Solid Waste Management Plan
- b) Existing and proposed dumpster pads
- c) Proposed dumpster pad layout design
- d) Proposed heavy duty pavement locations and pavement construction detail
- e) Preliminary shared dumpster agreement, if applicable



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Construction Management Plan

- a) Construction trailer location
- b) Location of construction personnel parking and construction equipment parking
- c) Location and size of staging and materials storage area
- d) Description of emergency vehicle access to and around project site during construction
- e) Delivery truck routes shown or noted on plan sheets

Energy Management Plan

- a) Description of how project will be 20% more energy efficient than ASHRAE standards
- b) Description of utilization of sustainable forms of energy (Solar, Wind, Hydroelectric, and Biofuels)
- c) Participation in NC GreenPower program
- d) Description of how project will ensure indoor air quality, adequate access to natural lighting, and allow for proposed utilization of sustainable energy
- e) Description of how project will maintain commitment to energy efficiency and reduced carbon footprint over time
- f) Description of how the project's Transportation Management Plan will support efforts to reduce energy consumption as it affects the community

Exterior Elevations

- a) An outline of each elevation of the building, including the finished grade line along the foundation (height of building measured from mean natural grade)

Rosemary Street Parking Deck – Conditional Zoning

Project Narrative

The Rosemary Street Parking Deck will create much needed parking for visitors, businesses and workers in downtown Chapel Hill and will be an integral component of the revitalization of East Rosemary Street. This redevelopment strategy for East Rosemary Street will create space for hundreds of new technology workers and researchers in the heart of downtown. The new deck will also create an attractive new arrival experience for visitors to downtown and will improve the streetscape on the southern frontage of Rosemary Street.

The new parking deck will be located on the site of the existing 'CVS' parking deck combined with the surface parking lot immediately to the east. Combining these parcels will create a combined parcel of approximately 1.6 acres. Grubb Properties controls these properties and is proposing to exchange these parcels with the Town of Chapel Hill for the land currently occupied by the Wallace Parking deck, a parcel of 1.49 acres which would be developed into a new research facility with labs and office space for business and institutional tenants.

The existing parking deck is a three-level structure and parks 276 cars. It was built over 40 years ago and has reached the end of its service life. The new parking deck will be a six-level structure and will park between 1,000 and 1,100 cars.

In addition to new parking spaces the Rosemary Street frontage will be improved by widening the sidewalks to incorporate a 'retail porch' that will provide space for small business, artisans and food vendors to operate on an economical, short term basis.

Statement of Justification – Conditional Zoning

This is a statement of justification to support the request for Conditional Zoning for 125 East Rosemary Street and the parcel immediately to the east. Both parcels are currently within the TC-2 zoning district. The Conditional Zoning is being requested to facilitate an open dialogue with the public and negotiations between the applicant and the Town of Chapel Hill.

In order to establish and maintain sound, stable, and desirable development within the planning jurisdiction of the Town, it is intended that the Land Use Management Ordinance (as stated in Section 4.4) shall not be amended except:

- 1) To correct a manifest error in the chapter; or
- 2) Because of changed or changing conditions in a particular area or in the jurisdiction generally; or
- 3) To achieve the purposes of the Comprehensive Plan.

Below is the applicant's evaluation of this application based on these three findings.

- 1) **Finding #1:** The proposed zoning amendment is necessary to correct a manifest error.

Response: We do not believe there is error in the Town's Zoning Atlas Amendment related to the project site.

- 2) **Finding #2:** The proposed zoning amendment is necessary because of changed or changing conditions in a particular area or in the jurisdiction generally.

Response: We believe that the conditions have changed in the following respect: In recent years downtown Chapel Hill has undergone a loss of jobs and businesses which has adversely affected the economic vitality of Chapel Hill. One component of this problem is the lack of centralized public parking to support business and visitors, which this project addresses.

3) Finding #3: The proposed zoning amendment is necessary to achieve the purposes of the comprehensive plan.

Response: The proposed rezoning would contribute to the following elements of the Comprehensive Plan:

Theme 2: Community Prosperity and Engagement

- Balance and sustain finances by increasing revenues and decreasing expenses (CPE.1).
- Foster success of local businesses (CPE.2).

Theme 3: Getting Around

- A connected community that links neighborhoods, businesses and schools through the provision of greenways, sidewalks, bike facilities and public transportation (GA.2).

Theme 4: Good Places, New Spaces

- A vibrant, diverse, pedestrian-friendly, and accessible downtown with opportunities for growing office, retail, residential and cultural development and activity (GPNS.2).
- A community that welcomes and supports change and creativity (GPNS.6).

Theme 6: Town and Gown Collaboration

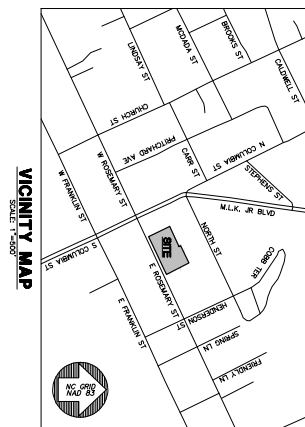
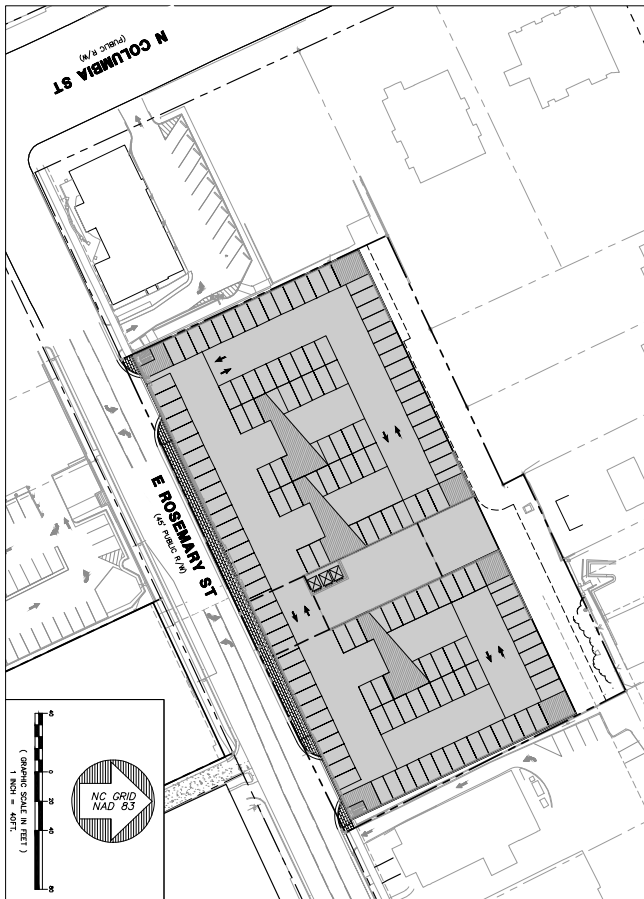
- Take full advantage of ideas and resources to create a thriving economy and incorporate the utilize the intellectual capital that the University and Town create (TGC.1).

CONDITIONAL ZONING DRAWINGS

FOR

ROSEMARY STREET PARKING DECK

CHAPEL HILL, ORANGE COUNTY, NORTH CAROLINA



SHEET	DRAWING TITLE	LATEST ISSUE DATE
G0001	COVER	02 MAR 20
G0001	AREA MAP	02 MAR 20
G0001	EXISTING CONDITIONS, LANDSCAPE PROTECTION & DEMOLITION PLAN	02 MAR 20
G1001	SITE PLAN	02 MAR 20
G1300	GRADING & UTILITY PLAN	02 MAR 20
ASD-01	EXTERIOR ELEVATIONS	02 MAR 20

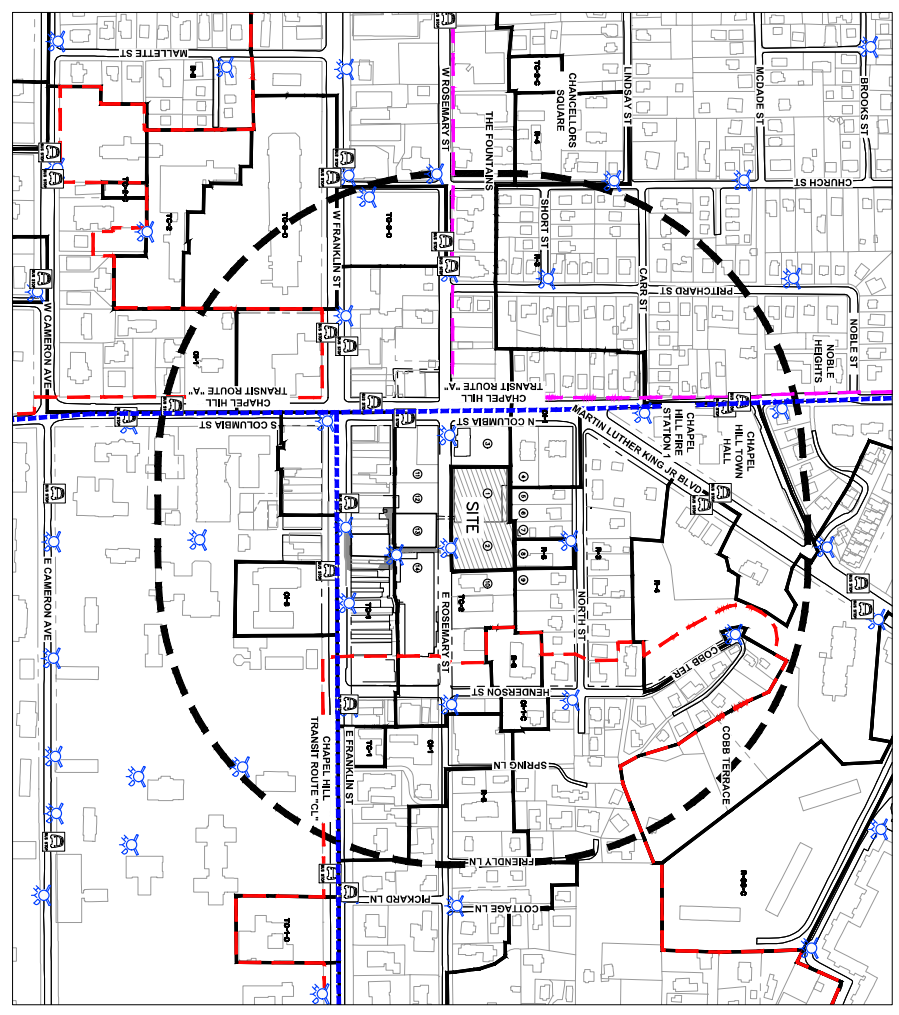
Perkins&Will
ARCHITECTURE
411 W. GARDEN CITY STREET, SUITE 200
CHAPEL HILL, NC 27514
(919) 306-2500

GRUBB PROPERTIES
DEVELOPER
People who care. Places that matter.
115 DOWNEY DRIVE, SUITE 200
CHAPEL HILL, NC 27514
(919) 306-2772

BALLENTINE ASSOCIATES, P.A.
SITE PLANNING / CIVIL ENGINEERING
221 PROVIDENCE ROAD, CHAPEL HILL, NC 27514
(919) 326-0441

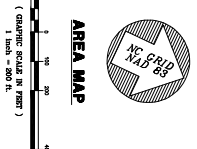
REVIEW DRAWING
NOT FOR CONSTRUCTION

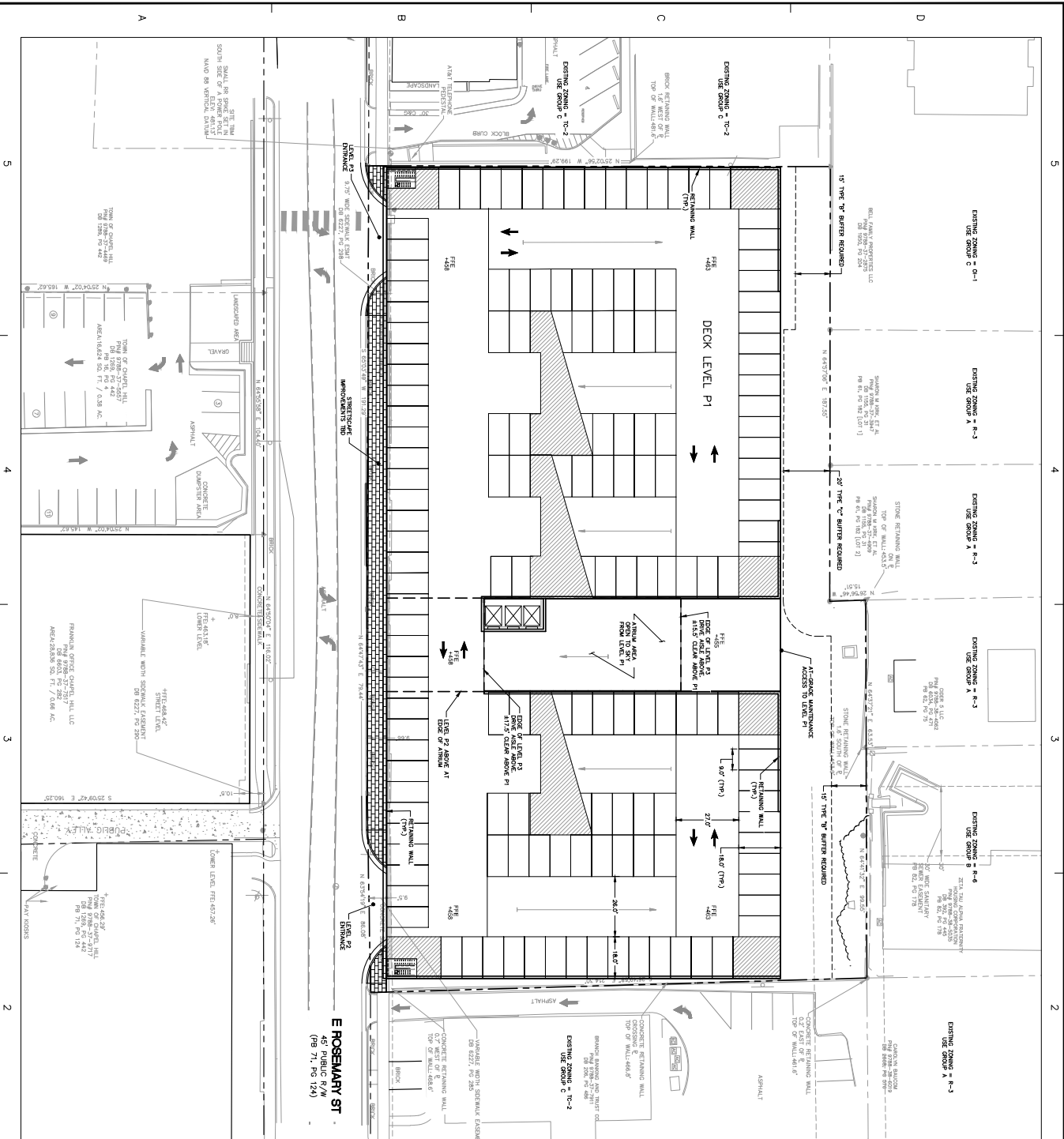
<p>ROSEMARY STREET PARKING DECK 125 E. ROSEMARY ST CHAPEL HILL, NORTH CAROLINA</p> <p style="text-align: center;">CONDITIONAL ZONING DRAWINGS</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ISSUED</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>CONDITIONAL ZONING SUBMITTAL #1</td> <td>02 MAR 20</td> </tr> </tbody> </table>	ISSUED	DATE	CONDITIONAL ZONING SUBMITTAL #1	02 MAR 20	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REVISIONS</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS	DATE							<p>BALLENTINE ASSOCIATES, P.A. 221 PROVIDENCE ROAD, CHAPEL HILL, NC 27514 (919) 326-0441</p>	<p>Perkins&Will</p>
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CONDITIONAL ZONING SUBMITTAL #1	02 MAR 20															
REVISIONS	DATE															
<p>G0001</p>	<p>CONDITIONAL ZONING DRAWINGS</p>			<p>BALLENTINE ASSOCIATES, P.A. 221 PROVIDENCE ROAD, CHAPEL HILL, NC 27514 (919) 326-0441</p>												



PARCEL #	OWNER	PN #	ZONING	SR/PPC	PARTIAL	CHANGING LAND
1	FRANKS OFFICE CENTER, LLC	9798-37-4148	TC-2	660/292	0.87	PARKING LOT
2	INVESTORS TITLE COMPANY	9798-37-4817	TC-2	719/87	0.81	PARKING LOT

LABEL #	OWNER (COMMENT)	PN #	ZONING	CHANGING LAND
3	CENTRAL BANK	9798-37-2291	TC-2	BANK
4	BELL FAMILY PROPERTIES, LLC	9798-37-2875	0-1	OFFICE
5	SPADON W. HARK & WILLIAM E. HARK	9798-37-2647	R-3	RESIDENTIAL
6	SPADON W. HARK & WILLIAM E. HARK	9798-37-4629	R-3	RESIDENTIAL
7	COBR & LLC	9798-38-4402	R-3	RESIDENTIAL
8	ZOTZ, TUDU & PAUL PARTNERSHIP HOLDING	9798-38-6029	R-3	RESIDENTIAL
9	125 NORTH ST UNIT B & 126 NORTH ST UNIT A	9798-37-7911	TC-2	COLLEGE
10	BRANCH BANKING AND TRUST CO	9798-37-4468	TC-2	PARKING LOT
11	TOWN OF CHAPEL HILL	9798-37-4537	TC-2	PARKING LOT
12	FRANKS OFFICE CENTER, LLC	9798-37-7517	TC-2	OFFICE
13	FRANKS OFFICE CENTER, LLC	9798-37-7517	TC-2	OFFICE
14	BELL PROPERTIES, LLC	9798-37-2441	TC-1	PARKING LOT





NOTES

1. ALL DIMENSIONS SHALL COMPLY WITH APPLICABLE TOWN OF CHAPEL HILL AND COUNTY STANDARDS AND SPECIFICATIONS.
2. THE TOWN OF CHAPEL HILL, ITS AGENTS OR GRANTING COUNTY SHALL NOT BE RESPONSIBLE FOR ANY PROPERTY DAMAGE THAT MAY RESULT FROM SERVICE CONDITIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE TOWN OF CHAPEL HILL AND THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND PUBLIC SAFETY.
4. MATERIALS SHALL BE IDENTIFIED WITH A MANUFACTURER'S IDENTIFICATION NUMBER AND A BRAND NAME.

SITE DATA

APPLICANT: GRUBB PROPERTIES, INC.
 PROPERTY OWNER: FRANKLIN OFFICE CHAIRS, LLC
 PROJECT ADDRESS: 125 E. ROSEMARY STREET, CHAPEL HILL, NC 27514
 PHONE: 704-236-4847
 FAX: 704-236-4847
 PROJECT ZONING: C-1

DEED REFERENCES

7/26/2007 DEED # 2007-00012
 10/28/2008 DEED # 2008-00012

PROPOSED ZONING

PROPOSED ZONING: C-1

EXISTING USE: OFFICE

PROPOSED USE: PARKING DECK

NET LAND AREA: 73,997 SF (1.68 AC)

CREATED STREET AREA: 7,310 SF (0.17 AC)

GROSS LAND AREA: 80,407 SF (1.85 AC)

NET LAND AREA: 73,097 SF (1.68 AC)

NET IMPROVEMENT TOTAL: 80,407 SF (1.85 AC)

NET IMPROVEMENT DEDUCTION: -1,046 SF (0.02 AC)

LAND DEDUCTIBLE SQUARE FEET: 73,000 SF

NET SITE: 72,000 SF

TOTAL: 100,000 SF

* IMPROVEMENT TOTAL INCLUDES 2,688 SF OF IMPROVEMENT ALLOWANCE.

DRAWING LEGEND

SYMBOL / ABBREVIATION	DESCRIPTION
--- (dashed line)	PROPOSED
--- (solid line)	EXISTING
--- (dash-dot line)	RIGHT-OF-WAY LINE
--- (long-dash line)	ADJOINER PROPERTY LINE
○ (circle)	EXISTING CURB
○ (circle with dot)	PROPOSED CURB
○ (circle with cross)	EXISTING SIGN POST
○ (circle with cross and dot)	PROPOSED SIGN POST
○ (circle with cross and dot, larger)	EXISTING SIGN
○ (circle with cross and dot, larger)	PROPOSED SIGN
○ (circle with cross and dot, larger)	MAK BOX
○ (circle with cross and dot, larger)	ROLLBACK

REVISIONS

NO.	DATE	DESCRIPTION
1	11/03/2010	ISSUED
2	11/03/2010	REVISIONS
3	11/03/2010	REVISIONS
4	11/03/2010	REVISIONS
5	11/03/2010	REVISIONS
6	11/03/2010	REVISIONS
7	11/03/2010	REVISIONS
8	11/03/2010	REVISIONS
9	11/03/2010	REVISIONS
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15	11/03/2010	REVISIONS
16	11/03/2010	REVISIONS
17	11/03/2010	REVISIONS
18	11/03/2010	REVISIONS
19	11/03/2010	REVISIONS
20	11/03/2010	REVISIONS

CONTRACT INFORMATION

OWNER: GRUBB PROPERTIES, INC.
 PROJECT NO.: 11001000
 DRAWING NO.: C-1001
 SHEET NO.: 1 OF 1

CONTRACTOR INFORMATION

CONTRACTOR: BALLETINE ASSOCIATES, P.A.
 PROJECT NO.: 11001000
 DRAWING NO.: C-1001
 SHEET NO.: 1 OF 1

DATE

11/03/2010

SCALE

AS SHOWN

REVISIONS

REVISIONS TO BE MADE BY CONTRACTOR

APPROVED

FOR THE OWNER: _____
 FOR THE CONTRACTOR: _____

CONTRACT NUMBER: 11001000

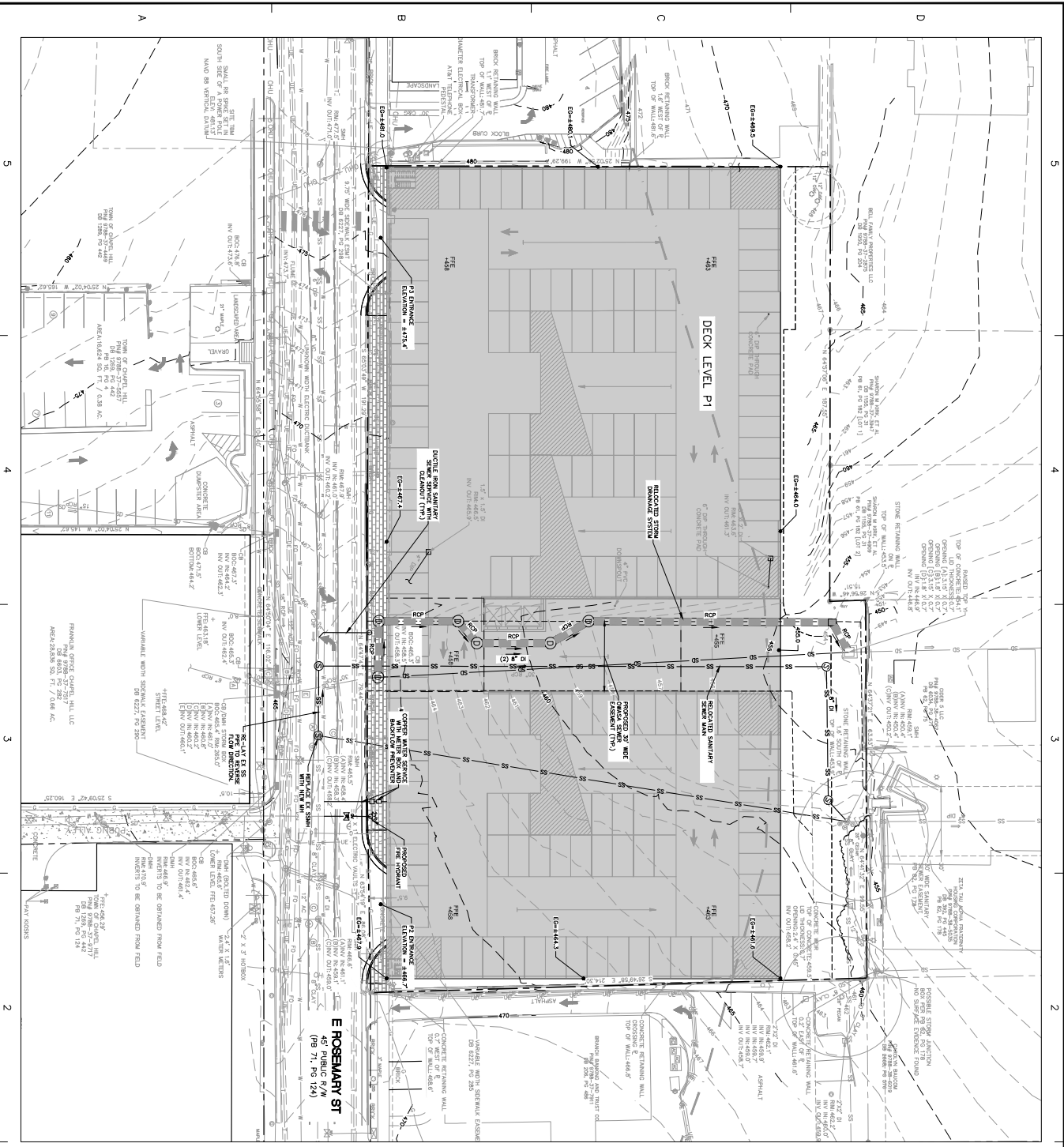
DATE: 02 MAR 20

SCALE: AS SHOWN

DRAWN BY: JAL

CHECKED BY: CLE

SHEET C-1001



- ### GRADING AND STORM DRAINAGE NOTES
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS AND SPECIFICATIONS.
 2. CONTRACTOR SHALL MAINTAIN SLOPES AND GRADING TO MAINTAIN EXISTING DRAINAGE PATTERNS AND TO PREVENT UNDESIRABLE WATER RUNOFF. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO RESUMING CONSTRUCTION. CONTRACTOR SHALL VERIFY THE DEPTHS AND SPACINGS OF EXISTING UTILITIES TO PREVENT COLLISIONS.
 3. ALL EXISTING UTILITIES SHALL BE PROTECTED AND MAINTAINED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL VERIFY THE DEPTHS AND SPACINGS OF EXISTING UTILITIES TO PREVENT COLLISIONS.
 4. ALL EXISTING UTILITIES SHALL BE PROTECTED AND MAINTAINED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL VERIFY THE DEPTHS AND SPACINGS OF EXISTING UTILITIES TO PREVENT COLLISIONS.
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 9. ALL EXISTING UTILITIES SHALL BE PROTECTED AND MAINTAINED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL VERIFY THE DEPTHS AND SPACINGS OF EXISTING UTILITIES TO PREVENT COLLISIONS.
- ### UTILITY PLAN NOTES
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS AND SPECIFICATIONS.
 2. CONTRACTOR SHALL MAINTAIN SLOPES AND GRADING TO MAINTAIN EXISTING DRAINAGE PATTERNS AND TO PREVENT UNDESIRABLE WATER RUNOFF. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO RESUMING CONSTRUCTION. CONTRACTOR SHALL VERIFY THE DEPTHS AND SPACINGS OF EXISTING UTILITIES TO PREVENT COLLISIONS.
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ROSEMARY STREET PARKING DECK

125 E. ROSEMARY ST

CHAPEL HILL, NORTH CAROLINA

CONDITIONAL ZONING DRAWINGS

NO.	DATE	DESCRIPTION

REVIEW DRAWING

NOT FOR CONSTRUCTION

PROJECT INFORMATION

PROJECT NO.: 11501000

DATE: 02 MAR 20

SCALE: AS SHOWN

DRAWN BY: JAL

CHECKED BY: CLE

CLIENT INFORMATION

CLIENT: CHAPEL HILL

ADDRESS: 125 E. ROSEMARY ST

CITY: CHAPEL HILL, NC 27514

CONTACT: (704) 943-1234

DESIGNER INFORMATION

DESIGNER: BALLENTINE ASSOCIATES, P.A.

ADDRESS: 1000 BALLENTINE DRIVE

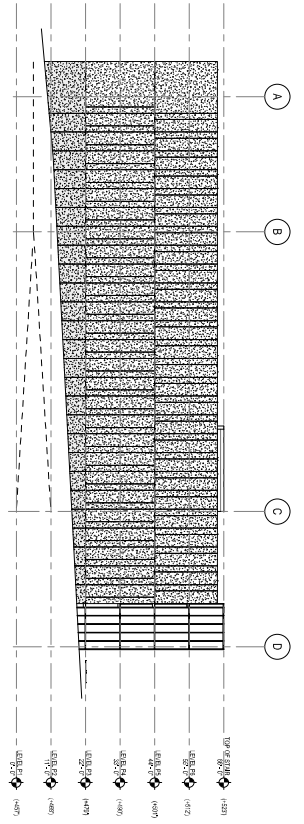
CITY: CHAPEL HILL, NC 27514

CONTACT: (704) 943-1234

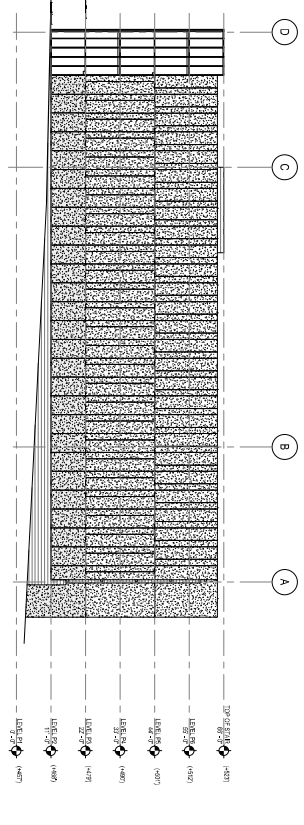
APPROVALS

DATE: 02 MAR 20

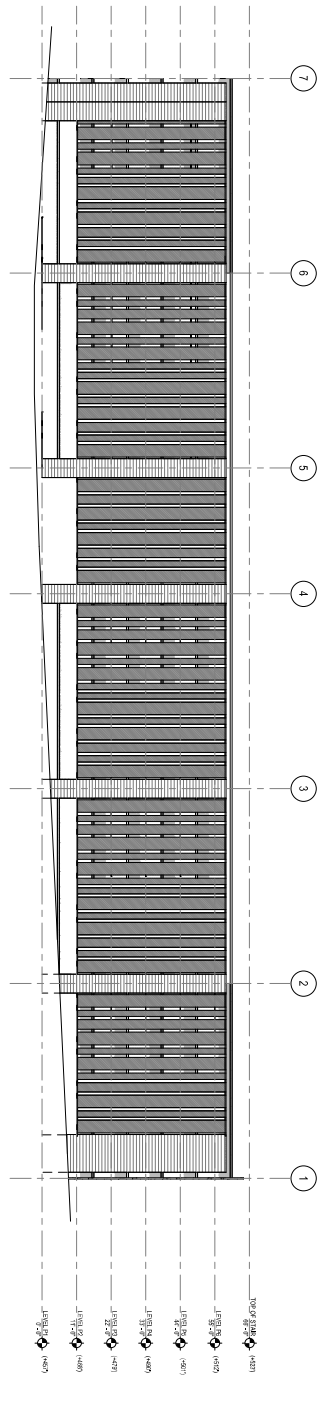
BY: [Signature]



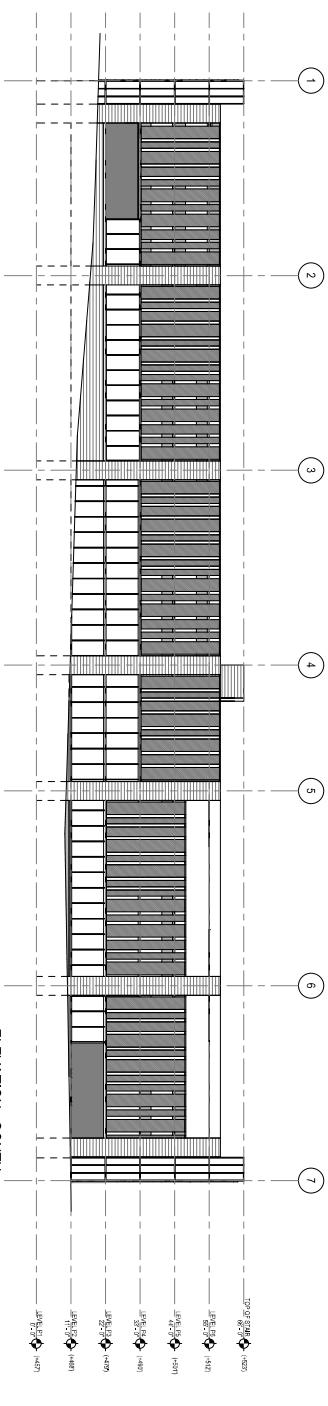
④ ELEVATION - WEST
FIG. 1-10



③ ELEVATION - EAST
FIG. 1-11



② ELEVATION - NORTH
FIG. 1-12



① ELEVATION - SOUTH
FIG. 1-13

Storm Water Impact Analysis

For

Rosemary Street Parking Deck

125 East Rosemary Street

(PIN: 9788-37-4748 & 9788-37-6817)

Prepared by:

Ballentine Associates, P.A.

Consulting Engineers
221 Providence Road
Chapel Hill, NC 27514
(919) 929-0481

BA Project # 119016.02



Issue Dates

Description

04 Mar 2020

Conditional Zoning Submittal #1

Project Overview:

The Rosemary Street Parking Deck is located along East Rosemary in Chapel Hill, NC. The property PINs are 9788-37-4748 & 9788-37-6817. The project is 1.68 acres total. The proposed project consists of approximately six parking levels, 1,100 parking spots, bicycle parking, 800 square feet of office space, 615 square feet of heated storage and 90 square feet of caged storage. The project will include utility relocation & removal, and relocation of an existing storm pipe. The project will decrease the stormwater impact of the existing site by decreasing the total impervious shown on the drainage area maps provided.

Existing Site Description:

The majority of the site slopes towards a yard inlet located north on the site, which collects water from E Rosemary Street. An old 30” storm pipe runs south to north through our site towards the yard inlet and then drains off the site.

There is 66,548 SF (1.53 AC) of existing impervious ground cover within the project property limits. All the existing impervious ground cover will be removed as the site is re-developed.

There are no stream features within 150 feet of the parcel boundaries, so a stream determination was not required as directed by The Town of Chapel Hill. The site lies in the Jordan Lake Watershed, which is part of the Cape Fear River Basin. A copy of FIRM panel 3710978800K is included in Appendix A, which confirms that the site is not within a special flood hazard area. The NRCS Soils Survey mapping included in Appendix A shows that the soils on the site are Appling-urban land complex “AuC” and Urban land “Ur” and the site is 26% HSG B and 74% of the site is unrated.

Proposed Project Description:

The redevelopment of the site includes the demolition of existing parking lots and the construction of a parking deck with associated features.

The project will result in a post-developed impervious cover of 65,000 SF (1.49 AC), which represents a net decrease of 1,548 SF (0.04 AC) under existing conditions in the site’s net land area. Please note the total impervious cover includes an impervious allowance of 2,568 SF for future modifications to the plan.

Stormwater Management Requirements:

This project must meet the town of Chapel Hill’s current stormwater requirements, which include:

Water Quality Requirements:

- All post-development stormwater runoff resulting from the first one inch of precipitation shall be treated to remove 85% of total suspended solids for all new impervious surfaces resulting from the Development. Stormwater treatment facilities will be designed according to the North Carolina Department of Environment Quality (NCDEQ) “Stormwater Design Manual” as

modified by the Town: and any future written design guidance approved by both the Town and NCDEQ.

Water Quantity Requirements:

- Post-developed peak flows cannot exceed pre-developed peak flows during the 1, 2, and 25-year storms.
- The increase in runoff volume (“Delta”) for the 2-year, 24-hour storm (3.6” depth) must be managed (i.e. released over a 2-5 day period).

Proposed Stormwater Management:

The project as proposed removes 1,548 SF of impervious surface cover. Therefore there is not a net impervious increase with the redevelopment of the site and the town’s water quality/quantity requirements are satisfied. Refer to appendix A for site area mapping.

Proposed Pipe under Deck:

The old 30” storm pipe that currently runs through the site will be relocated onsite and replaced with a new RCP pipe in a location with adequate access in the bottom of the parking garage. After preliminary analysis at the outfall of the site, it is recommended to replace the existing 30-inch RCP (see sheet C0101) with a new 42-inch RCP. Appendix A (DA 3- Proposed Pipe Drainage Area Map) and Appendix B shows the drainage area map and preliminary pipe calculations, respectfully.

Conclusion:

This project as proposed, will comply with the Town of Chapel Hill’s current stormwater management regulations. In addition, this project will improve the existing storm drainage that currently runs through the site.

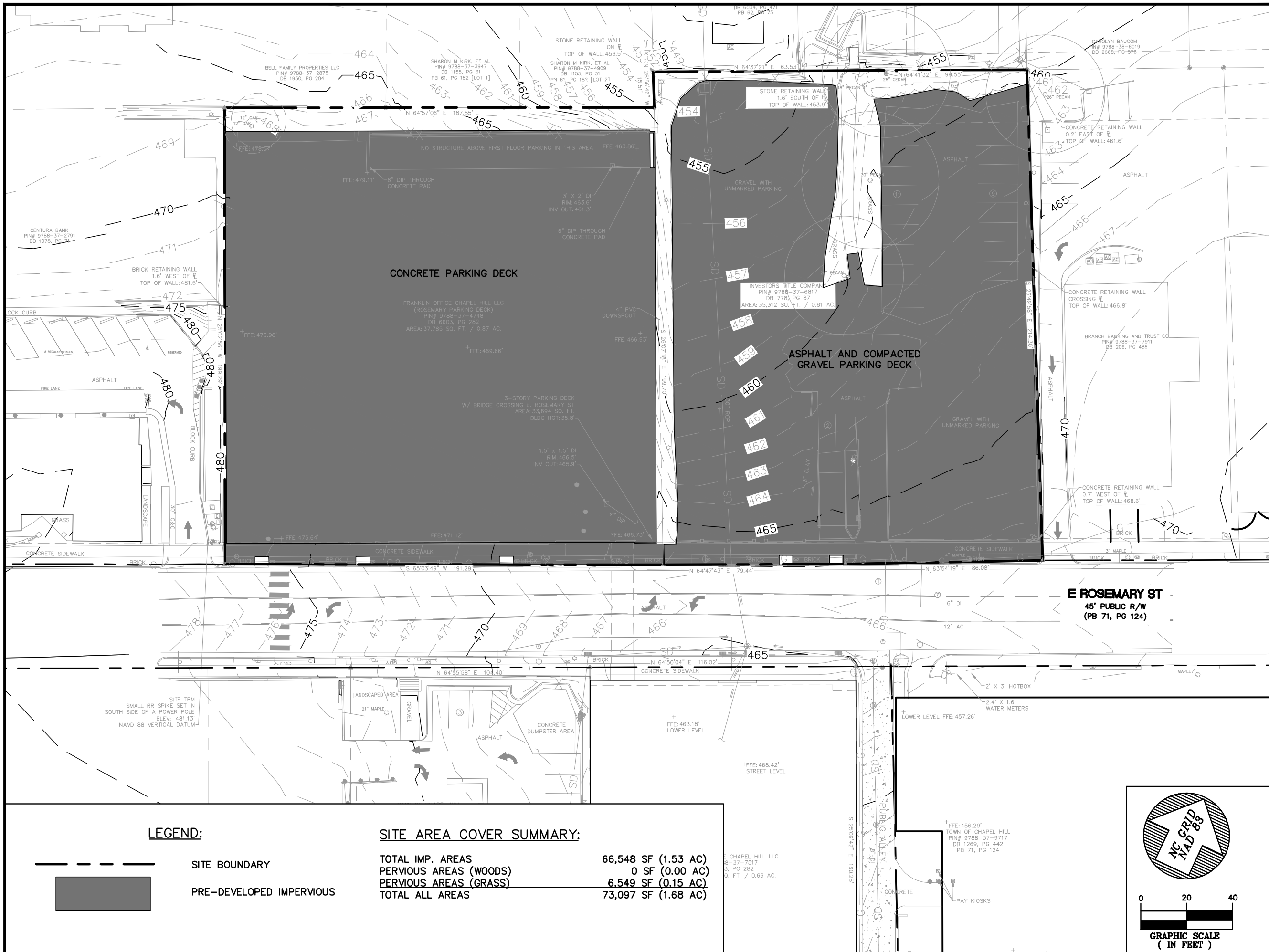
List of Appendices:

- Appendix A - Maps
 - DA-1 Pre-Developed Site Area Map
 - DA-2 Post-Developed Site Area Map
 - DA-3 Proposed Pipe Drainage Area Map
 - Soils Map –
 - Hardbound
 - NRCS Soils Map
 - NRCS Hydrologic Soil Groups
 - FIRM Panel 3710978800K
 - USGS Topographic Map
 - Aerial
- Appendix B – Stormwater Design Calculations
 - Pipe Capacity Calculations

- **Appendix A - Maps**

- DA-1 Pre-Developed Site Area Map
- DA-2 Post-Developed Site Area Map
- DA-3 Proposed Pipe Drainage Area Map
- Soils Map –
 - Hardbound
 - NRCS Soils Map
 - NRCS Hydrologic Soil Groups
- FIRM Panel 3710978800K
- USGS Topographic Map
- Aerial

N:\Projects\119016.00 Rosemary St\Properties\119006.02 Rosemary Deck11_Dwg\BA-Model Files\Water_Storm Design CAD Files\DA 1 - Existing SA.dwg, 3/1/2020 5:45:39 PM, georger

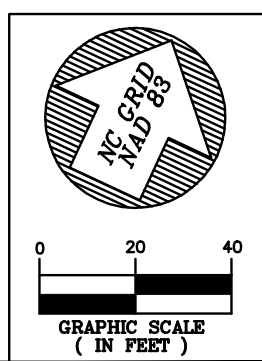


LEGEND:

- SITE BOUNDARY
- PRE-DEVELOPED IMPERVIOUS

SITE AREA COVER SUMMARY:

TOTAL IMP. AREAS	66,548 SF (1.53 AC)
PERVIOUS AREAS (WOODS)	0 SF (0.00 AC)
PERVIOUS AREAS (GRASS)	6,549 SF (0.15 AC)
TOTAL ALL AREAS	73,097 SF (1.68 AC)



**E ROSEMARY DECK
PRE-DEVELOPED SITE AREA MAP
CHAPEL HILL, NC**

ISSUED	DATE	ISSUED	DATE
TO TOWN OF CHAPEL HILL	2 MAR 20		

BALLENTINE ASSOCIATES, P.A.
 221 PROVIDENCE ROAD, CHAPEL HILL, N.C. 27514
 (919) 929 - 0481 (919) 489 - 4789

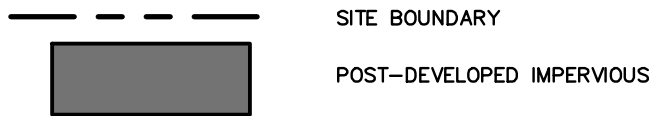
SCALE: AS NOTED
 DATE: 2 MAR 20
 JOB NUMBER: 119016.02
 DRAWN BY: GJR
 REVIEWED BY: GJR

**DA
1**

N:\Projects\119016.00 Rosemary St\Properties\119006.02 Rosemary Deck11_Dwg\BA-Model Files\Water_Storm Design CAD Files\DA 2 - Proposed SA.dwg, 3/1/2020 7:00:06 PM, georger



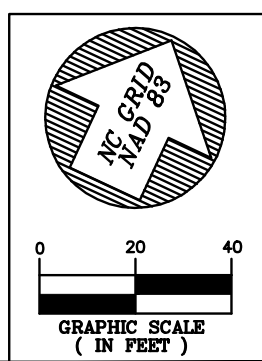
LEGEND:



SITE AREA COVER SUMMARY:


TOTAL IMP. AREAS	65,000* SF (1.49 AC)
PERVIOUS AREAS (WOODS)	0 SF (0.00 AC)
PERVIOUS AREAS (GRASS)	8,079 SF (0.19 AC)
TOTAL ALL AREAS	73,097 SF (1.68 AC)

* INCLUDES 2,568 SF OF IMPERVIOUS ALLOWANCE BEYOND WHAT IS HATCHED ON THIS DRAWING



**E ROSEMARY DECK
POST-DEVELOPED SITE AREA MAP
CHAPEL HILL, NC**

ISSUED	DATE	ISSUED	DATE
TO TOWN OF CHAPEL HILL	2 MAR 20		


BALLENTINE ASSOCIATES, P.A.
 221 PROVIDENCE ROAD, CHAPEL HILL, N.C. 27514
 (919) 929 - 0481 (919) 489 - 4789

SCALE: AS NOTED
 DATE: 2 MAR 20
 JOB NUMBER: 119016.02
 DRAWN BY: GJR
 REVIEWED BY: GJR

**DA
2**

(Joins sheet 26)

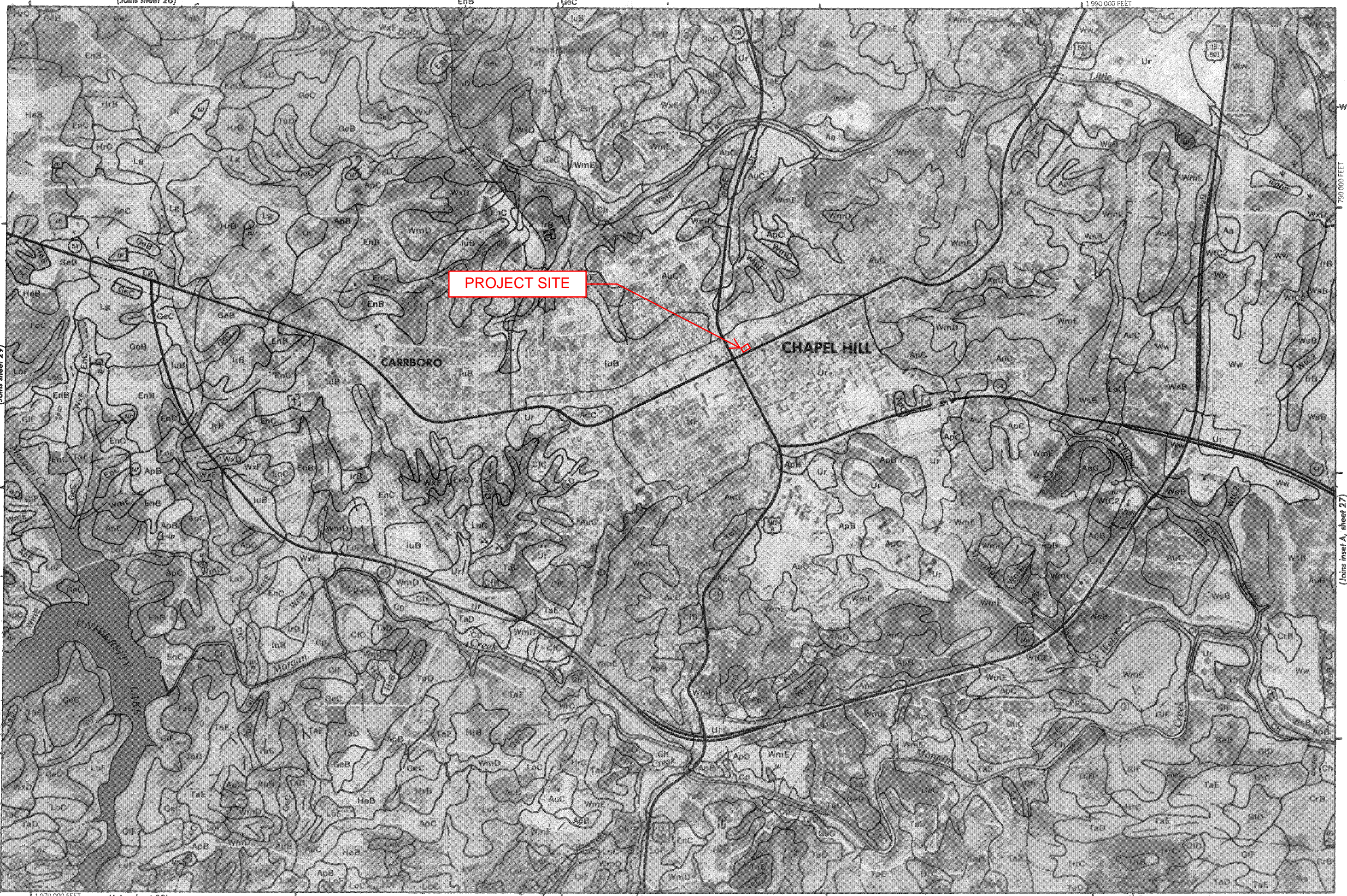
1 990 000 FEET



1 Mile
5000 Feet

Scale 1:20000

0
1000
2000
3000
4000
5000



PROJECT SITE

CARRBORO

CHAPEL HILL

UNIVERSITY LAKE

Morgan

(Joins sheet 32)

(Joins inset A, sheet 27)

1 970 000 FEET

790 000 FEET

WIC2

Ch

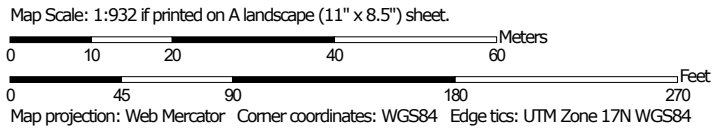
L6c

GeB

Soil Map—Orange County, North Carolina



Soil Map may not be valid at this scale.






MAP LEGEND




















Area of Interest (AOI)






Area of Interest (AOI)

Soils


-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Orange County, North Carolina
 Survey Area Data: Version 19, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 27, 2014—May 6, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

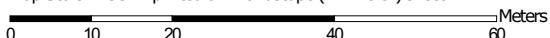
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AuC	Appling-Urban land complex, 2 to 10 percent slopes	0.5	26.0%
Ur	Urban land	1.3	74.0%
Totals for Area of Interest		1.8	100.0%

Hydrologic Soil Group—Orange County, North Carolina


































Map Scale: 1:932 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



MAP LEGEND

Area of Interest (AOI)		 C
Area of Interest (AOI)		 C/D
		 D
		 Not rated or not available
Soils		
Soil Rating Polygons		
 A		
 A/D		
 B		
 B/D		
 C		
 C/D		
 D		
 Not rated or not available		
Soil Rating Lines		
 A		
 A/D		
 B		
 B/D		
 C		
 C/D		
 D		
 Not rated or not available		
Soil Rating Points		
 A		
 A/D		
 B		
 B/D		
Water Features		
 Streams and Canals		
Transportation		
 Rails		
 Interstate Highways		
 US Routes		
 Major Roads		
 Local Roads		
Background		
 Aerial Photography		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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Soil Survey Area: Orange County, North Carolina
 Survey Area Data: Version 19, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 27, 2014—May 6, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AuC	Appling-Urban land complex, 2 to 10 percent slopes	B	0.5	26.0%
Ur	Urban land		1.3	74.0%
Totals for Area of Interest			1.8	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long term approach to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map flood hazard areas at the local level. As a part of this effort, the State of North Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
 THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING
 DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTP://FRIS.NC.GOV/FRIS](http://FRIS.NC.GOV/FRIS)

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		Regulatory Floodway
		0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with Average Depth Less Than One Foot or With Drainage Areas of Less Than One Square Mile Zone X
OTHER AREAS		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee See Notes Zone X
GENERAL STRUCTURES		Areas Determined to be Outside the 0.2% Annual Chance Floodplain Zone X
		Channel, Culvert, or Storm Sewer Accredited or Provisionally Accredited Levee, Dike, or Floodwall
OTHER FEATURES		Non-accredited Levee, Dike, or Floodwall
		North Carolina Geodetic Survey bench mark National Geodetic Survey bench mark Contractor Est. NCFMP Survey bench mark Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
		Coastal Transect
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Limit of Study
		Jurisdiction Boundary

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <http://mfc.fema.gov>. An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at <http://www.ncfloodmaps.com> or contact the FEMA Map Service Center.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Flood Insurance Study (FIS) means an examination, evaluation, and determination of flood hazards, corresponding water surface elevations, flood hazard risk zones, and other flood data in a community issued by the North Carolina Floodplain Mapping Program (NCFMP). The Flood Insurance Study (FIS) is comprised of the following products used together: the Digital Flood Hazard Database, the Water Surface Elevation Raster, the digitally derived, autogenerated Flood Insurance Rate Map and the Flood Insurance Survey Report. A Flood Insurance Survey is a compilation and presentation of flood risk data for specific watercourses, lakes, and coastal flood hazard areas within a community. This report contains detailed flood elevation data, data tables and FIRM indices. When a flood study is completed for the NFIP, the digital information, reports and maps are assembled into an FIS. Information shown on this FIRM is provided in digital format by the NCFMP. Base map information shown on this FIRM was provided in digital format by the NCFMP. The source of this information can be determined from the metadata available in the digital FLOOD database and in the Technical Support Data Notebook (TSDN).

ACCREDITED LEVEE NOTES TO USERS: If an accredited levee note appears on this panel check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfip/index.shtm>.

PROVISIONALLY ACCREDITED LEVEE NOTES TO USERS: If a Provisionally Accredited Levee (PAL) note appears on this panel, check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfip/index.shtm>.

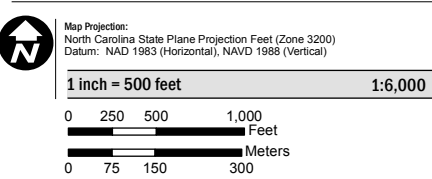
LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone category has been divided by a Limit of Moderate Wave Action (LIMWA). The LIMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LIMWA or between the shoreline and the LIMWA for areas where VE Zones are not identified will be the same to, but less severe than those in the VE Zone.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE

This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information see <http://www.fws.gov/cbra>, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-WILD.

CBRS Area Otherwise Protected Area

SCALE



PANEL LOCATOR

	Caswell				Person			
	9920	9940	9960	9980	9990	9900	9910	
		9849	9859		9889	9899	9809	9819
	9828			9848	9858		9888	9898
	9827	9837	9847	9857	9867	9877	9887	9897
	9826	9836	9846	9856	9866	9876	9886	9896
	9825	9835	9845	9855	9865	9875	9885	9895
	9824	9834	9844	9854	9864	9874	9884	9894
	9823	9833	9843	9853	9863	9873	9883	9893
	9822	9832	9842	9852	9862	9872	9882	9892
	9820	9840	9850	9860	9870	9880	9890	9800
	9720	9730	9740	9750	9760	9770	9780	9790
	9728	9738	9748	9758	9768	9778	9788	9798
	9727	9737		9767	9777	9787	9797	
				9766	9776	9786	9796	

National Flood Insurance Program

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

NORTH CAROLINA

PANEL 9788

Panel Contains:

COMMUNITY
CARRBORO, TOWN OF
CHAPEL HILL, TOWN OF

CID PANEL SUFFIX

370275 9788 K
370180 9788 K

VERSION NUMBER
2.3.3.2

MAP NUMBER
3710978800K

MAP REVISED
November 17, 2017

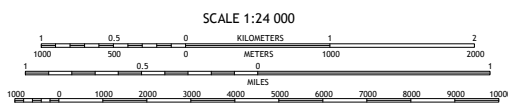
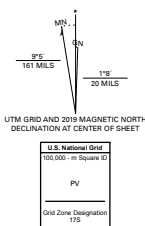


Produced by the United States Geological Survey

North American Datum of 1983 (NAD83) World Geodetic System of 1984 (WGS84) Projection and 1 000-meter grid-Universal Transverse Mercator, Zone 17S

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

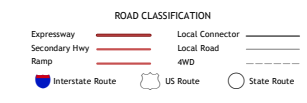
Imagery: ...NAP, May 2016 - November 2016 Roads: ...U.S. Census Bureau, 2016 Names: ...GNIS, 1980 - 2019 Hydrography: ...National Hydrography Dataset, 2001 - 2018 Contours: ...National Elevation Dataset, 2008 Boundaries: ...Multiple sources; see metadata file 2017 - 2018 Wetlands: ...FWS National Wetlands Inventory 1983

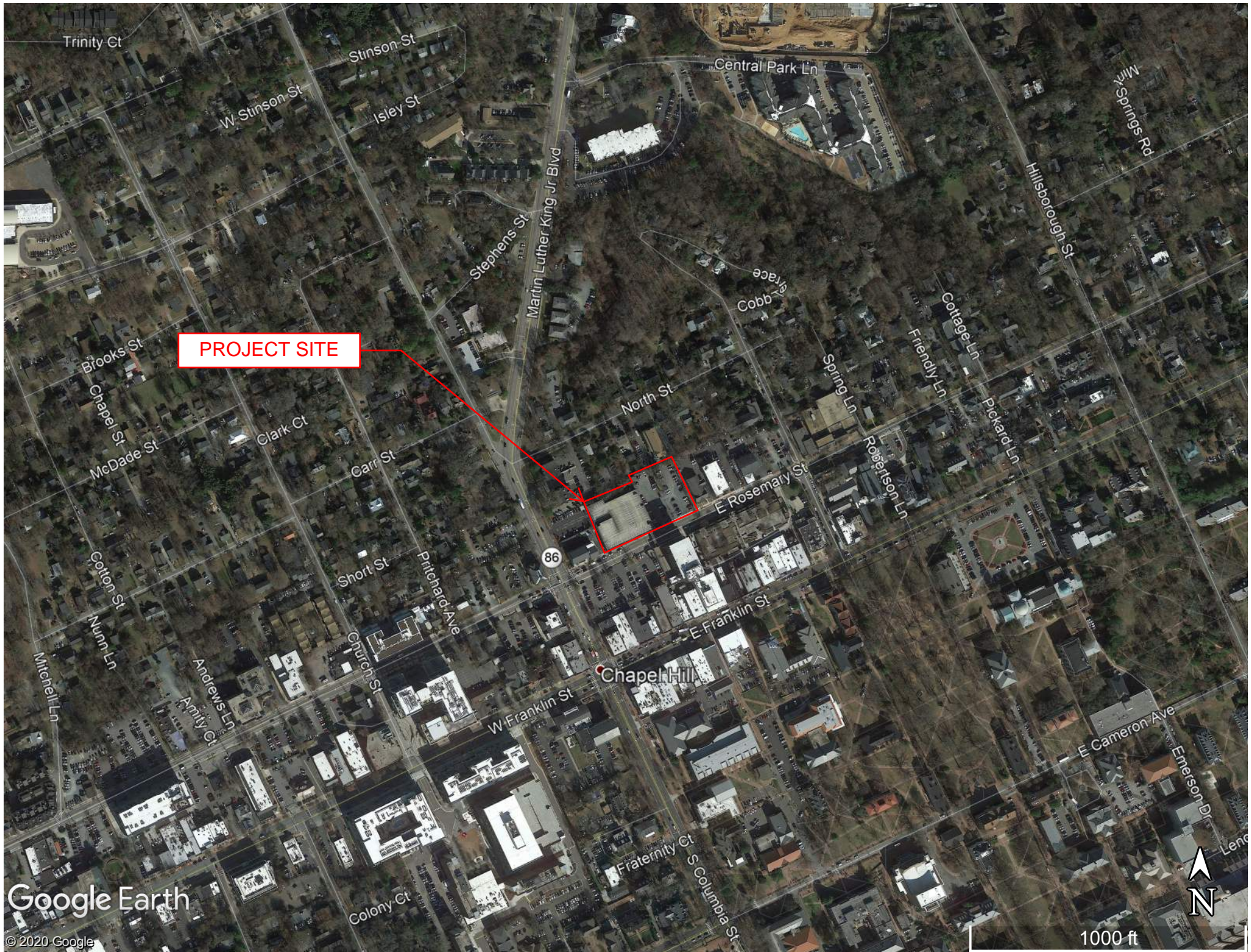


SCALE 1:24 000 CONTOUR INTERVAL 10 FEET NORTH AMERICAN VERTICAL DATUM OF 1988



Table with 3 columns and 3 rows showing adjacent quadrangles and their names: 1 Eiland, 2 Hillsborough, 3 Northwest Durham, 4 White Cross, 5 Southwest Durham, 6 Byrum, 7 Farrington, 8 Green Level





PROJECT SITE

86

Chapel Hill

Google Earth

© 2020 Google

1000 ft



- **Appendix B – Stormwater Design Calculations**
 - Pipe Capacity Calculations

Pipe Capacity Calcs

Rational Method

Project: **Rosemary Deck**
 Proj. Number: **119006.02**
 Client: **Rosemary St Properties**
 Date: **3/3/2020**
 Revised:



**Ballentine
 Associates, P.A.**

Chapel Hill, NC 27514
 (919) 929-0481 fax 489-2803

Preliminary Rosemary Deck Pipe Capacity

Total Drainage Area	962960.00	sf
	22.11	ac

	Runoff Coefficient	Water Shed area (acres)	Total
Business Downtown area	0.80	22.11	0.80
		22.11	0.80

		25 yr	
Drainage area	A	22.11	acres
Runoff Coefficient	C	0.80	
Time of Concentration	t	15.00	mins
Rainfall Intensity	I	5.41	in/hr
Peak discharge	Q	95.68	cfs

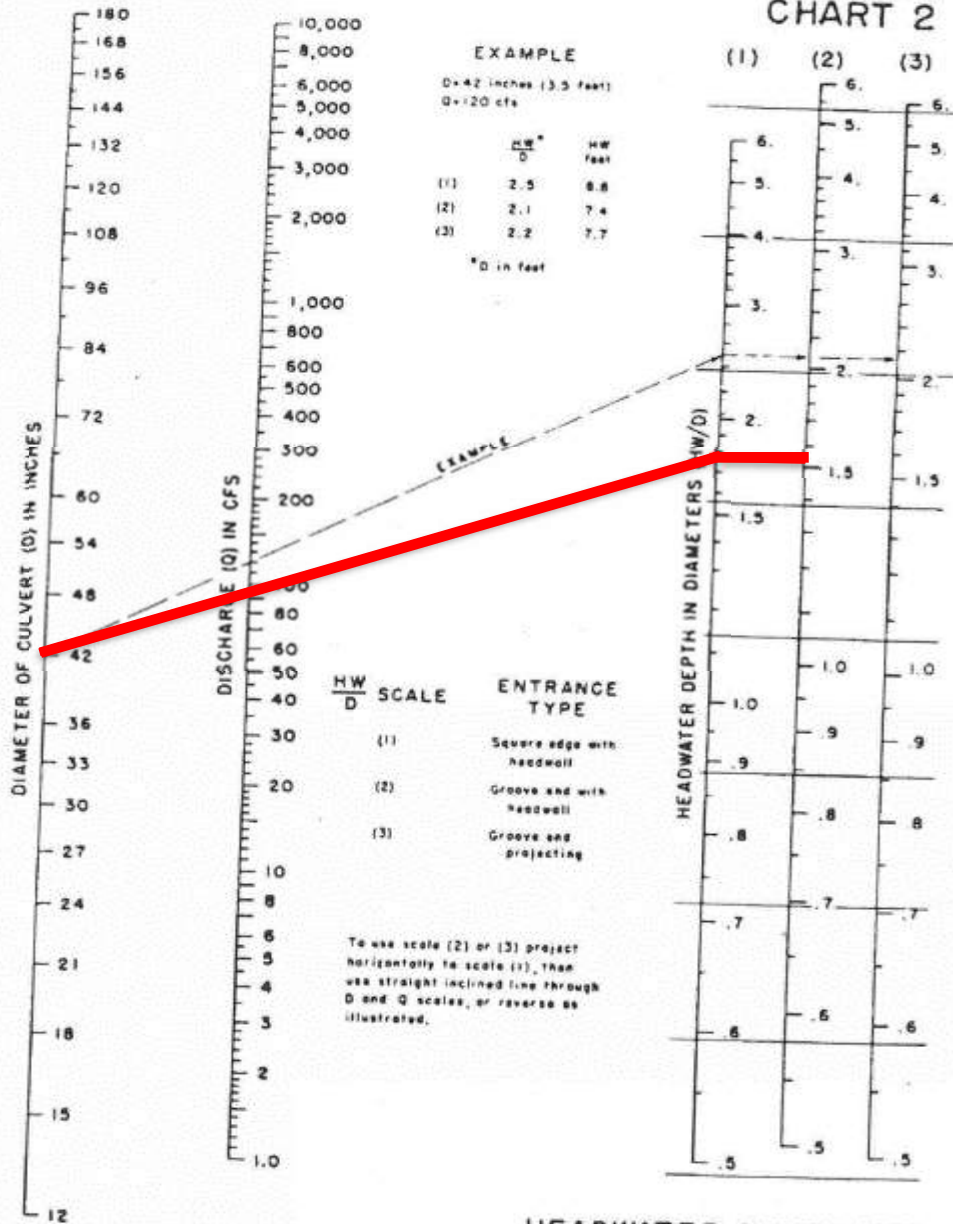
Sheet flow	$T_c = \frac{0.007(nL)^{0.8}}{P_2^{0.5} S^{0.4}}$	n	0.10	Grass + Pavement
		Length	200.00	ft
		Start Inv	500.50	ft
		End inv	498.00	ft
		Slope	0.013	ft/ft
		P	3.58	in
	$T_c = 0.23$	hours		
	14.07	minutes		

Shallow concentrated flow	$T_c = \frac{L}{3600V}$	Length	439.00	ft
		Start Inv	498.00	ft
		End inv	491.00	ft
		Slope	0.02	ft/ft
		Cover	Bare	
		V constant	9.97	Table 15-3
	$T_c = 0.10$	hours		
	5.81	minutes		
	V	1.26	ft/s	

Pipe flow (assumed)	$T_c = \frac{L}{60V}$	Length	1054.00	ft
		Start Inv	491.00	ft
		End inv	446.80	ft
		Slope	0.04	ft/ft
		$V = \frac{1.49A^{0.67} S^{0.5}}{nP^{0.67}}$	V	10.00

Time of Concentration	21.64 minutes
Use:	15.00 minutes

CHART 2



HEADWATER DEPTH FOR CONCRETE PIPE CULVERTS WITH INLET CONTROL

HEADWATER SCALES 283

REVISED MAY 1964

BUREAU OF PUBLIC ROADS JAN 1963