

# INDEPENDENT SENIOR HOUSING CHAPEL HILL

217 HOMESTEAD ROAD CHAPEL HILL, NC 27516

TOWN OF CHAPEL HILL SPECIAL USE PERMIT SUBMITTAL

SUBMITTED ON SEPTEMBER 27, 2017 RESUBMITTED ON JANUARY 16, 2018 RESUBMITTED ON APRIL 24, 2018 RESUBMITTED ON DEC. 26, 2018

	SITE DATA
PROJECT NAME:	Independent Senior Housing Chapel Hill
SITE ADDRESS:	2217 HOMESTEAD ROAD CHAPEL HILL NC 27516
COUNTY:	ORANGE COUNTY
PARCEL PIN #:	9870907548
PARCEL OWNER:	WILLIAM BAINSTER WOOD & VIRGINIA WOOD
PARCEL AREA:	15.73 ACRES
TOTAL DISTURBED/ PROJECT AREA:	387,684 SQUARE FEET (8.90 ACRES)
CURRENT ZONING:	R2
EXISTING LAND USE:	RESIDENTIAL
PROPOSED USE:	AGE RESTRICTED RENTAL APARTMENTS
FLOODPLAIN:	NONE
JORDAN RIPARIAN BUFFER ZONE:	NO
WETLANDS:	NONE
WATER SHED:	JORDAN LAKE
RIVER BASIN:	CAPE FEAR RIVER BASIN
STREAMS:	NONE
CONSTRUCTION TYPE:	NEW CONSTRUCTION
MIN. REQUIRED STREET SETBACK	20
MIN. REQUIRED INTERIOR SET BACK (NEIGHBORING PROPERTY LINE)	6
MIN. REQUIRED SOLAR SETBACK (NORTHERN PROPERTY LINE)	8
MAX BUILDING HEIGHT:	
PROPOSED BUILDING HEIGHT:	
EXISTING IMPERVIOUS AREA:	13,140 S.F.
PROPOSED IMPERVIOUS AREA:	196,940 S.F.

OVERALL PARKING SUMMARY					
PROVIDED PARKING	SOUTH	NORTH	EAST	WEST	TOTAL
REGULAR 9'X20' SPACES	23	28	88	88	227
REGULAR ADA ACCESSIBLE SPACES	-	3	2	3	9
TOTAL VEHICULAR PARKING SPACES	23	31	90	91	235
BIKE PARKING	-	-	20	18	38
PARKING RATIO (1 BEDROOM): MUTI - FAMILY (PER LUMO 5.9.7) = 1 SPACES PER DWELLING UNTIL (MIN) / 1.25 SPACES PER DWELLING UNIT (MAX) - BEDROOM (114 BEDROOMS)					
PARKING RATIO (2 BEDROOM):  MUTI - FAMILY (PER LUMO 5.9.7) = 1.4 SPACES PER DWELLING UNTIL (MIN) / 1.75 SPACES PER DWELLING UNIT (MAX) - BEDROOM (84 BEDROOMS)					
MIN REQUIRED (TOTAL) = 114 + 118 = 232 SPACES					

#### APARTMENT UNIT BREAKDOWN

114 One Bedroom Units 84 Two Bedroom Units Total - 198 Dwelling Units

UTILITIES IMPROVEMENTS QTY	
PRIVATE SEWER	
?" SEWER SERVICE	605 LF
PRIVATE WATER	
?" WATER MAIN	LF

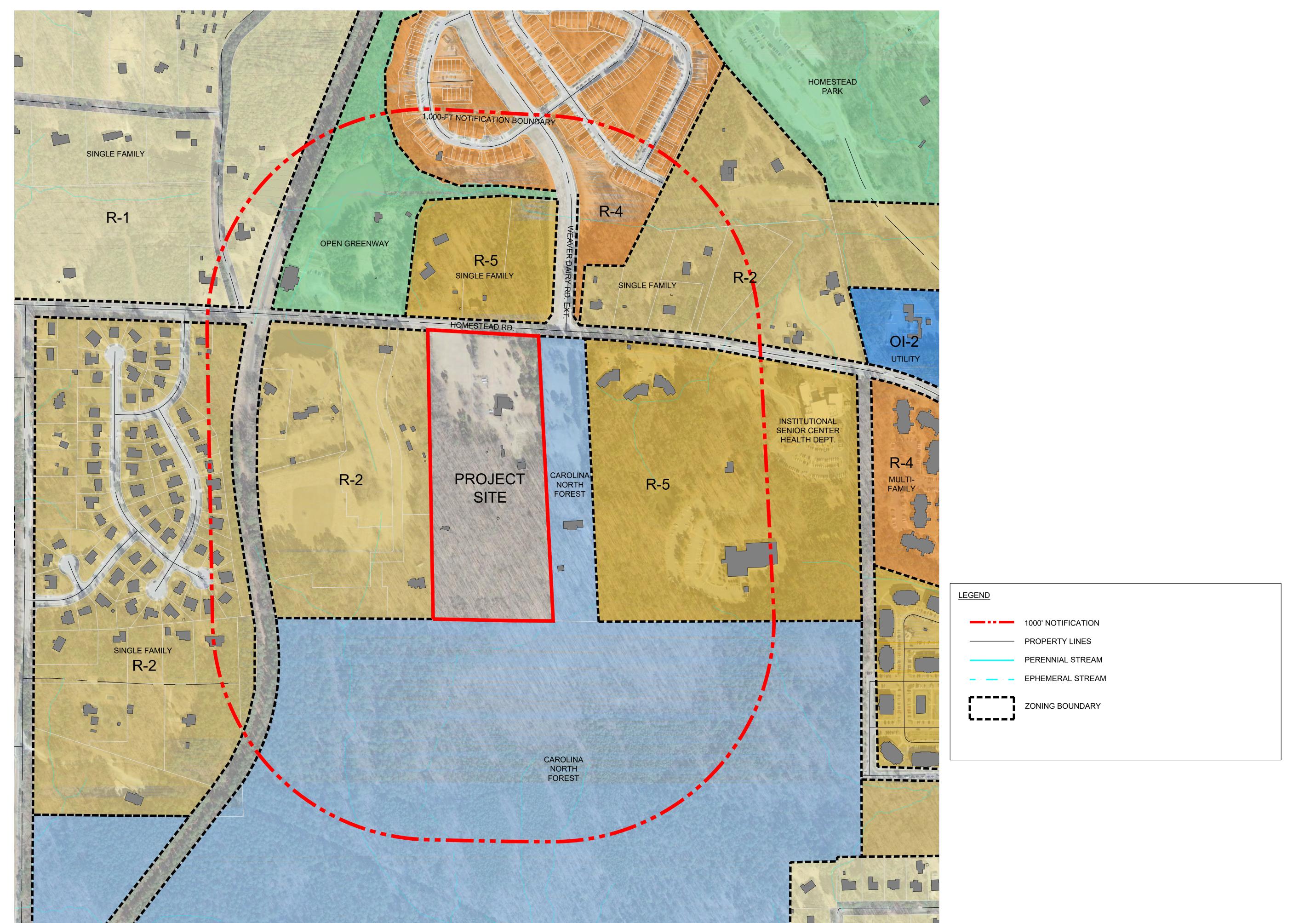
SHEET INDEX		
SHEET#	SHEET NAME	
C0.00	COVER SHEET	
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L1.00	LANDSCAPE PROTECTION PLAN	
L1.01	LANDSCAPE PROTECTION PLAN	
L1.10	PLANTING PLAN	
L1.11	PLANTING PLAN SCHEDULE	
L1.20	STEEP SLOPE PLAN	
L2.00	LANDSCAPE DETAILS	
L2.01	LANDSCAPE DETAILS	
L2.02	LANDSCAPE DETAILS	

APPLICANT/OWNER

CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE - GEOMATICS - GEOTECHNICAL

ARCHITECTS





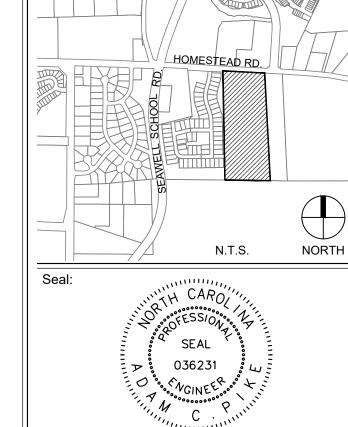


Client

GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

Projec

# INDEPENDENT SENIOR HOUSING CHAPEL HILL



SUP SUBMITTAL

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

Date Description

100 200 400 NORT

SCALE: 1"=200'

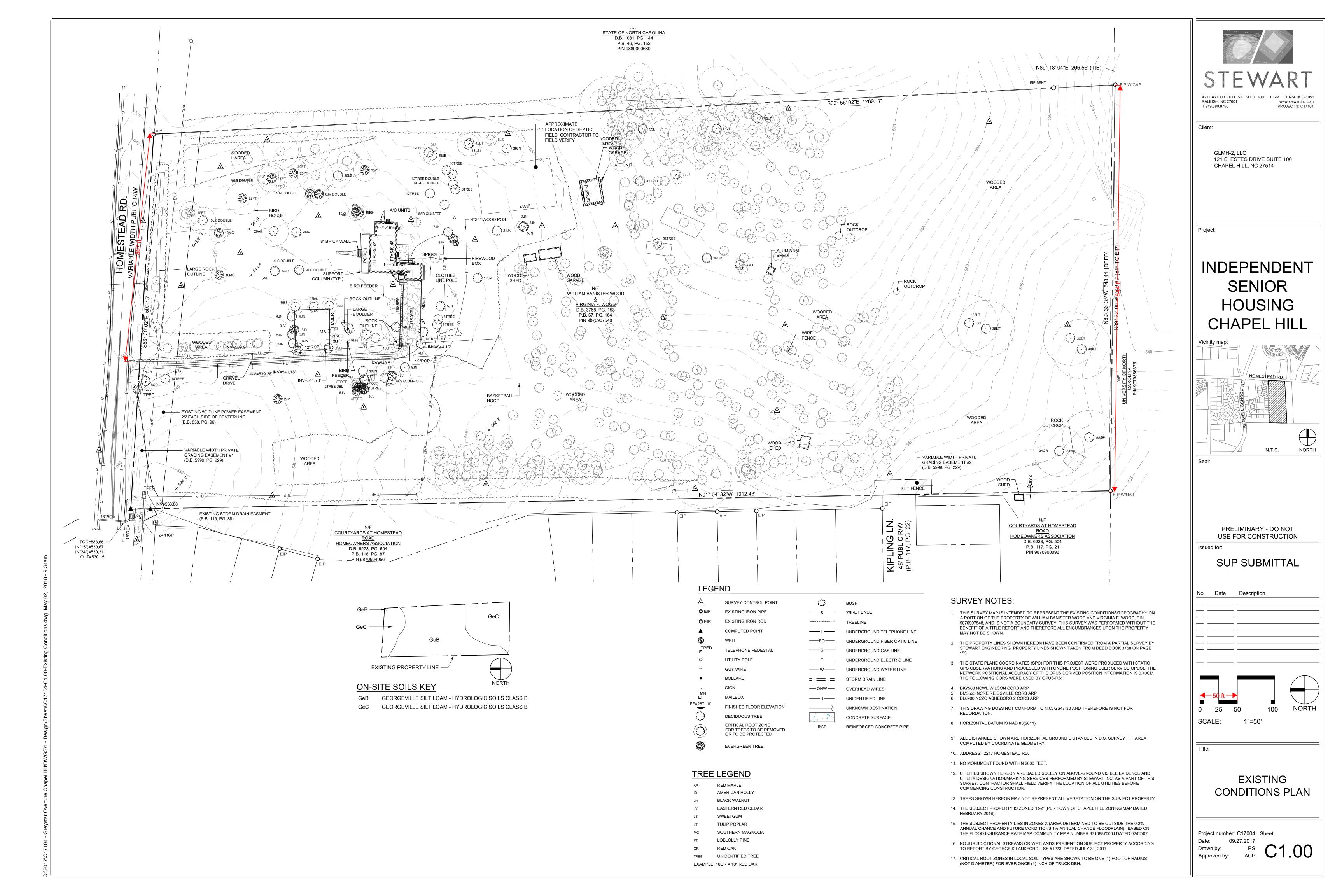
Title

AREA MAP

Project number: C17004 Sheet:

Date: 09.27.2017

Drawn by: RS



- 1. REFER TO SHEET C3.00 FOR GENERAL NOTES.
- 2. THE CONTRACTOR SHALL REMOVE CONCRETE (WHERE REQUIRED) TO THE FIRST COLD JOINT OR SAW CUT TO OBTAIN A CLEAN EDGE.
- 3. THE CONTRACTOR SHALL SAWCUT EXISTING ASPHALT (WHERE REQUIRED) TO OBTAIN A CLEAN EDGE.
- 4. CLEANOUTS AND WATER VALVES LOCATED IN AREAS OF DEMOLITION OR SUBSEQUENT CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE AND RAISED TO BE FLUSH WITH NEW GRADE.
- ANY UTILITY SERVICES SHOWN TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY PROVIDER. CONTRACTOR IS RESPONSIBLE FOR APPROPRIATE SEQUENCING OF UTILITY DEMOLITION WITH THE RESPECTIVE UTILITY AGENCIES.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES PRIOR TO BEGINNING DEMOLITION OPERATIONS. NOTIFY "NORTH CAROLINA ONE CALL" (TELEPHONE 1-800-632-4949) AT LEAST 48 HOURS PRIOR TO START OF DEMOLITION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NORTH CAROLINA
- 7. CLEAN SOILS SHALL BE UTILIZED FOR BACKFILL. COMPACTION OF THESE SOILS SHALL BE PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
- ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE REMOVED COMPLETELY, INCLUDING ALL SUBGRADE MATERIALS DIRECTLY ASSOCIATED WITH ITEMS TO BE
- 9. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF LEGALLY OFF-SITE UNLESS OTHERWISE NOTED ON THIS PLAN.

10. REFER TO LANDSCAPE AND EROSION CONTROL DRAWINGS FOR TREE PROTECTION

- PLAN AND REQUIREMENTS.
- 11. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL JURISDICTIONAL CODES OR REQUIREMENTS.
- 12. TREE PROTECTION FENCING SHALL BE IN PLACE PRIOR TO BEGINNING DEMOLITION OR CLEARING.
- 13. EROSION CONTROL PERMIT SHALL BE OBTAINED AND ONSITE PRIOR TO BEGINNING
- 14. ITEMS DESIGNATED TO BE SALVAGED AND/OR RE-USED SHALL BE REMOVED BY THE CONTRACTOR AND PROVIDED TO THE OWNER. COORDINATE STORAGE LOCATION WITH OWNER'S REPRESENTATIVE.
- 15. WHERE UTILITIES ("TO BE REMOVED") IMPACT THE FOOTPRINT OF THE NEW BUILDING, THE CONTRACTOR SHALL EXECUTE AND REMOVE AN ADDITIONAL 2 FEET OF SOILS TO EITHER SIDE OF THE PIPE, AND 1 FOOT BELOW. CLEAN SUITABLE SOIL SHALL BE UTILIZED FOR BACKFILL AND COMPACTED IN ACCORDANCE WITH THE CONTRACT
- 16. DEMOLITION AND SUBSEQUENT CONSTRUCTION OF STORM DRAINAGE PIPING SHALL BE PERFORMED IN SUCH A MANNER THAT THE OLD PIPE AND STRUCTURES REMOVED DO NOT IMPACT DRAINAGE UPSTREAM OF THE SYSTEM. PROVISIONS SHALL BE MADE TO MAINTAIN STORM WATER DRAINAGE PATTERNS DURING CONSTRUCTION.

- 17. DEMOLITION AND SUBSEQUENT CONSTRUCTION OF UTILITIES (WATER, SEWER, ETC) SHALL BE PERFORMED IN SUCH A MANNER THAT THE OLD PIPE AND STRUCTURES REMOVED DO NOT IMPACT OR MINIMIZE SERVICE INTERRUPTION TO EXISTING FACILITIES TO REMAIN. PROVISIONS SHALL BE MADE TO MAINTAIN SERVICE DURING CONSTRUCTION.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGES TO THE EXISTING DRIVEWAY, PARKING LOT, SIDEWALK AND CURB AND GUTTER AS A RESULT OF CONSTRUCTION ACTIVITY AND TRAFFIC. CONTRACTOR SHALL MAINTAIN A PRE-CONSTRUCTION VIDEO OR PHOTO DOCUMENTATION TO SHOW NO DAMAGES
- 19. ALL MATERIALS, FURNISHINGS, UTILITIES, AND PAVEMENT THAT ARE NOT SCHEDULED TO BE DEMOLISHED AND ARE DAMAGED BY THE CONTRACTOR AS A RESULT OF THE DEMOLITION OR CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 20. WHERE UTILITIES ARE SHOWN TO BE "REMOVED", CONTRACTOR SHALL INCLUDE NECESSARY PLUG OR VALVES TO ENSURE UTILITY LINES TO REMAIN WILL CONTINUE TO BE IN SERVICE. COORDINATE NECESSARY SHUT DOWN AND REMOVAL WITH THE LOCAL JURISDICTION OR UTILITY OWNER.
- 21. CONTRACTOR SHALL PROVIDE PEDESTRIAN INGRESS / EGRESS TO ALL EXISTING BUILDINGS, PARKING LOTS, AND PATHS OF PEDESTRIAN TRAVEL THROUGHOUT THE CONSTRUCTION PERIOD
- 22. ALL MATERIALS, FURNISHINGS, UTILITIES, AND PAVEMENT THAT ARE NOT SCHEDULED TO BE DEMOLISHED AND ARE DAMAGED BY THE CONTRACTOR AS A RESULT OF THE DEMOLITION OR CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 23. PRIOR TO DEMOLITION OF EXISTING BUILDINGS, INDIVIDUAL DEMOLITION PERMITS. FROM THE CHAPEL HILL BUILDING INSPECTIONS DEPARTMENT, WILL BE REQUIRED FOR EACH BUILDING BEING REMOVED. A COPY OF AN ASBESTOS TEST FOR EACH BUILDING WILL BE REQUIRED PRIOR TO REMOVING BUILDING(S) FROM SITE.
- 24. FIRE DEPARTMENT CONNECTIONS AND STANDPIPES: WHEN THE BUILDING BEING CONSTRUCTED REQUIRES STANDPIPES, A TEMPORARY STANDPIPE CONNECTION WILL BE CONSTRUCTED WITH READY FIRE DEPARTMENT ACCESS WHEN THE BUILDING IS NOT MORE THAN 40' IN HEIGHT. SUCH STANDPIPES SHALL PROVIDE USABLE CONNECTIONS ADJACENT TO THE STAIRS AND SHALL CONTINUE WITH BUILDING PROGRESSION ALWAYS BEING NOT MORE THAN ONE FLOOR BELOW THE HIGHEST FLOOR OF THE BUILDING. NC FPC 2012 SECTION 1413.
- 25. FIRE WATCH: DURING CONSTRUCTION AND DEMOLITION WHERE HOT WORK, MATERIALS SUBJECT TO SPONTANEOUS COMBUSTION, OR OTHER HAZARDOUS CONSTRUCTION OR DEMOLITION IS OCURRING, THE OWNER OR THEIR DESIGNEE SHALL BE RESPONSIBLE FOR MAINTAINING A FIRE WATCH. THE FIRE WATCH SHALL CONSIST OF AT LEAST ONE PERSON WITH A MEANS OF COMMUNICATING AN ALARM TO 911, SHALL A WRITTEN ADDRESS POSTED IN A CONSPICUOUS LOCATION AND SHALL MAINTAIN CONSTANT PATROLS. NC FPC 2012 SECTION 1404.

#### CONSTRUCTION WASTE:

- ALL EXISTING STRUCTURES 500 SQUARE FEET AND LARGER SHALL BE ASSESSED PRIOR TO THE ISSUANCE OF A DEMOLITION PERMIT TO ENSURE COMPLIANCE WITH THE COUNTY'S REGULATED RECYCLABLE MATERIALS ORDINANCE (RRMO) AND TO ASSESS THE POTENTIAL FOR DECONSTRUCTION AND/OR THE REUSE OF SALVAGEABLE
- 2. PURSUANT TO THE COUNTY'S RRMO, CLEAN WOOD WASTE, SCRAP METAL, AND CORRUGATED CARDBOARD PRESENT IN CONSTRUCTION OR DEMOLITION WASTE MUST BE RECYCLED.
- PURSUANT TO THE COUNTY'S RRMO, ALL HAULERS OF MIXED CONSTRUCTION AND DEMOLITION WASTE WHICH INCLUDES ANY REGULATED RECYCLABLE MATERIALS SHALL BE LICENSED BY ORANGE COUNTY.
- 4. PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITY ON THE SITE, THE APPLICANT SHALL HOLD A PRE-DEMOLITION / PRE-CONSTRUCTION CONFERENCE WITH SOLID WASTE STAFF. THIS MAY BE THE SAME PRE-CONTRUCTION MEETING HELD WITH OTHER DEVELOPMENT/ENFORCEMENT OFFICIALS.
- 5. THE PRESENCE IF ANY ASBESTOS CONTAINING MATERIALS ('ACM') AND/OR OTHER HAZARDOUS MATERIALS SHALL BE HANDLED IN ACCORDANCE WITH ANY AND ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND GUIDELINES. (OC SOLID WASTE)

#### PUBLIC RECYCLING WAIVER:

- APPLICANT ELECTS TO PROVIDE RECYCLING SERVICES TO RESIDENTS/TENANTS OF THIS PROPERTY IN LIEU OF BUILDING A RECYCLING STATION CONSTRUCTED TO ORANGE COUNTY SPECIFICATIONS. THE SITE WILL NOT RECEIVE PUBLIC RECYCLING COLLECTION NOW OR IN THE FUTURE UNLESS SUCH A RECYCLING STATION IS CONSTRUCTED OR CONTINGENCY FOR SUCH A STATION IS INCLUDED ON THE DEVELOPMENT PLANS.
- 2. APPLICANT MUST REQUIRE AT LEAST THE SAME LEVEL OF SERVICE (CURRENT OR FUTURE) TO ITS RESIDENTS AS THAT PROVIDED BY ORANGE COUNTY.
- 3. COUNTY FEES FOR RECYCLING AND WASTE MANAGEMENT ASSOCIATED WITH THIS PROJECT/PROPERTY WILL NOT BE WAIVED.
- 4. APPLICANT AGREES TO ENTER INTO A SERVICE AGREEMENT WITH A PRIVATE SOLID WASTE/RECYCLING COLLECTION CONTRACTOR THAT IS ACCEPTABLE TO ORANGE COUNTY. FURTHER, THE AGREEMENT SHALL PROVIDE FOR THE COLLECTION AND RECYCLING OF CORRUGATED CARDBOARD IN ADDITION TO THE OTHER CO-MINGLED RECYCLABLES AND AN EXECUTED COPY OF THE AGREEMENT SHALL BE PROVIDED TO AND APPROVED BY ORANGE COUNTY PRIOR TO APPROVAL OF FINAL CONSTRUCTION PLANS FOR THE PROPERTY/PROJECT.

#### DEMOLITION LEGEND

**REMOVE BUILDING** REMOVE GRAVEL

REMOVE ASPHALT

REMOVE BRICK WALKWAY REMOVE CONCRETE

REMOVE RIPRAP REMOVE VEGETATION

REMOVE WATER LINE LIMITS OF DISTURBANCE

SS REMOVE SANITARY SEWER LINE REMOVE STORM DRAINAGE REMOVE FENCE —— TP —— TREE PROTECTION FENCE

COORDINATE LIGHT POLE REMOVAL REMOVE TREE

REMOVE WHEEL STOP REMOVE CURB & GUTTER **REMOVE SIGN** 

REMOVE TREELINE

No. Date Description

Issued for:

GLMH-2, LLC

121 S. ESTES DRIVE SUITE 100

INDEPENDENT

SENIOR

HOUSING

**CHAPEL HILL** 

CHAPEL HILL, NC 27514

0 25

PRELIMINARY - DO NOT

USE FOR CONSTRUCTION

SUP SUBMITTAL

**DEMOLITIONS PLAN** 

Project number: C17004 Sheet:



- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE OFFICE OF STATE CONSTRUCTION, DEPARTMENT OF INSURANCE, NCDENR, AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL GUIDELINES. ALL UTILITY CONSTRUCTION SHALL COMPLY WITH APPLICABLE LOCAL JURISDICTIONAL STANDARDS AND SPECIFICATIONS.
- EXISTING SURVEY INFORMATION INCLUDING TOPOGRAPHIC INFORMATION PROVIDED BY STEWART, UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL PROVIDE NOTICE OF EXCAVATION TO NOTIFICATION CENTER AND FACILITY OWNERS (PER NC STATUTE) NO LESS THAN 3 BUSINESS DAYS AND NO MORE THAN 12 WORKING DAYS PRIOR TO BEGINNING DEMOLITION, EXCAVATION OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS. NO EXCAVATION OR DEMOLITION SHALL BE STARTED WITHOUT ALL UTILITIES BEING LOCATED.
- ALL SUB-SURFACE UTILITIES IDENTIFIED ON THE CONSTRUCTION DOCUMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON SURVEY INFORMATION GATHERED FROM FIELD INSPECTION AND/OR ANY OTHER APPLICABLE RECORD DRAWINGS WHICH MAY BE AVAILABLE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
- EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COORDINATING PERMITS, INSPECTIONS, CERTIFICATIONS AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT.
- 7. THE CONTRACTOR SHALL MAINTAIN "AS-BUILT" DRAWINGS TO RECORD

THE ACTUAL LOCATION OF ALL PIPING PRIOR TO CONCEALMENT, VALVE AND MANHOLE CHANGES, AND HARDSCAPE OR LANDSCAPE CHANGES. DRAWINGS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE AT REGULAR INTERVALS, OR AS REQUESTED THROUGHOUT THE PROJECT FOR RECORD KEEPING.

- 8. IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THERE OF SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE OWNER'S REPRESENTATIVE.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RELOCATION OF ANY EXISTING UTILITY LINES REQUIRED TO COMPLETE ANY PORTION OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE COORDINATION AND COSTS OF THE RELOCATION AND ASSOCIATED
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH CAUSED BY THE CONTRACTOR. ALL DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE ON A DAILY BASIS.
- 11. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- 12. ROADWAYS (TEMPORARY OR PERMANENT) MUST BE CAPABLE OF SUPPORTING FIRE FIGHTING APPARATUS (85,000 LBS) DURING ALL PHASES OF CONSTRUCTION ONCE VERTICAL CONSTRUCTION HAS BEGUN.
- 13. THIS BUILDING WILL REQUIRE SUBMITTAL TO THE NC DEPARTMENT OF INSURANCE FOR REVIEW AND APPROVAL PRIOR TO OFFICIAL BUILDING PERMIT SUBMITTAL PER TABLE 104.1 OF THE NC ADMINISTRATION AND ENFORCEMENT CODE. A CONCURRENT REVIEW WILL NOT BE CONDUCTED.

#### TOWN OF CHAPEL HILL INSPECTION NOTES:

1. THIS BUILDING WILL REQUIRE SUBMITTAL TO THE NC DEPARTMENT OF

INSURANCE FOR REVIEW AND APPROVAL PRIOR TO OFFICIAL BUILDING

PERMIT SUBMITTAL PER TABLE 104.1 OF THE NC ADMINISTRATION AND

2. A COMPLETE FIRE SPRINKLER SYSTEM WILL BE REQUIRED. 3. FIRE HYDRANTS MUST BE FULLY OPERATIONAL AND PHYSICALLY

ENFORCEMENT CODE. A CONCURRENT REVIEW WILL NOT BE

- APPROVED BY OWASA BEFORE COMBUSTIBLE MATERIALS CAN BE BROUGHT ONTO THE SITE.
- INSTALLED PER NFPA 24. THE LINE SHALL BE FLUSHED PER NFPA 24 AND WITNESSED BY A FIRE INSPECTOR FROM THE CHAPEL HILL FIRE DEPARTMENT PRIOR TO COVERING THE LINE.

4. PRIVATE FIRE MAINS THAT FEED THE SPRINKLER SYSTEM SHALL BE

- 5. A SINGLE ELECTRICAL SERVICE SHALL BE PROVIDED TO SERVE THE STRUCTURAL WITH EXCEPTION OF THE FIRE PUMP. ARTICLE 230.2 (1) 2014 EDITION OF NORTH CAROLINA ELECTRIC CODE.
- 6. KEY BOXES SHALL BE REQUIRED ON ANY BUILDING THAT HAS A FIRE ALARM, A FIRE SPRINKLER SYSTEM, AN ELEVATOR, OR SPECIAL LOCKING ARRANGEMENTS. THE KEY BOX SHALL BE OF AN APPROVED TYPE AS REQUIRED FROM CHAPEL HILL FIRE DEPARTMENT. THE SIZE OF THE KEY BOX WILL BE DETERMINED BY THE NUMBER OF KEYS NECESSARY TO MITIGATE ANY EMERGENCY SITUATION BASED ON THE BUILDING AND ITS OCCUPANCY. AN APPROVED LOCK SHALL BE INSTALLED ON GATES OR SIMILAR BARRIERS WHEN REQUIRED BY THE FIRE CODE OFFICIAL. KEYS SHALL BE CHANGED OUT IMMEDIATELY IF THE LOCKS ARE CHANGED OR
- 7. FIRE APPARATUS ACCESS ROADS AND ANY OTHER ACCESSWAYS SHALL NOT BE OBSTRUCTED IN ANY MANNER, INCLUDING BUT NOT LIMITED TO FENCES, GATES, PARKING OF VEHICLES, AND CONSTRUCTION MATERIALS OR EQUIPMENT. REQUIRED GATES SHALL BE INSTALLED AND MAINTAINED AT ALL TIMES. ELECTRIC GATES MUST COMPLY WITH UL 325 AND POSSIBLY ASTM F 2200, ALSO APPROVED KEY BOXES CAN BE OBTAINED FROM THE CHAPEL HILL FIRE MARSHAL'S OFFICE FOR IMMEDIATE ACCESS TO LIFE-SAVING OR FIRE-FIGHTING PURPOSES. FIREMARSHALS@TOWNOFCHAPELHILL.ORG
- 8. SUBDIVISION INTERCONNECTION VIA KEPLING LANE SHALL BE ESTABLISHED EARLY FOR EMERGENCY VEHICLE ACCESS.
- 9. DUE TO THE SIZE OF BUILDING, A BIDIRECTIONAL AMPLIFIER WILL BE NEEDED INSIDE ON ALL FLOORS TO ENSURE THE RADIOS OF EMERGENCY RESPONDERS WILL WORK PROPERLY.

#### SITE NOTES:

OTHERWISE NOTED.

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE CONSTRUCTION LAYDOWN AREA, PERIMETER FENCE, AND ASSOCIATED GATES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE REMOVAL OF THE CONSTRUCTION LAYDOWN AREA PERIMETER FENCE AND ASSOCIATED GATES AT THE COMPLETION OF THE PROJECT.
- 2. THE CONTRACTOR SHALL REFERENCE THE DESIGN PLANS FOR DIMENSIONS, JOINT LOCATIONS, AND INLAY SPECIFICATIONS NEAR BUILDINGS AND IN COURTYARDS. CONTRACTOR SHALL PROVIDE JOINTS IN WALKWAYS AND HARDSCAPE PER DETAILS OR AS INDICATED ON LANDSCAPE/HARDSCAPE PLAN SHEETS.
- 3. ALL CONSTRUCTION TRAFFIC SHALL ENTER SITE FROM UNLESS OTHERWISE APPROVED IN WRITING FROM THE OWNER'S REPRESENTATIVE FOR AN ALTERNATE POINT OF ACCESS.
- 4. REFER TO ARCHITECTURAL PLANS FOR BUILDING INFORMATION. 5. ALL DIMENSIONS ARE IN DECIMAL FEET TO OUTSIDE FACE OF BUILDINGS, TO CENTERLINES, AND/OR FACE OF CURB UNLESS
- 6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATES AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO ANY CONSTRUCTION.
- 7. ALL WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE FROM DRAWINGS.
- 8. ALL UTILITIES WITH SURFACE ACCESS SHALL BE LOCATED WITHIN THE PAVING PATTERN AND SHALL BE COORDINATED WITH LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. REFER TO LAYOUT DRAWINGS.
- 9. ALL ANGLES ARE 90 DEGREES UNLESS OTHERWISE NOTED. 10. ALIGN ALL JOINTS, CORNERS, AND EDGES AS SHOWN

- 11. CONTRACTOR SHALL REFER TO AND COORDINATE WITH ARCHITECTURAL, STRUCTURAL, AND MEP DRAWINGS AT ALL TIMES PRIOR TO AND DURING CONSTRUCTION.
- SHOWN ON PLAN. 13. WHERE NEW SIDEWALK ADJOINS EXISTING WALK, PROVIDE EXPANSION JOINT BY DRILLING INTO THE FACE OF THE EXISTING WALK FOR PLACEMENT OF DOWELS. TIE NEW SIDEWALKS INTO

NEAREST EXISTING PAVEMENT JOINT; MATCH WIDTH OF EXISTING

12. ALL CURB TAPERS ARE SIX (6') FEET LONG UNLESS OTHERWISE

14. WHERE SIDEWALK OR WALKWAYS ARE ADJACENT TO PARKING SPACES THE WALKWAY SHALL BE A MINIMUM 6.5' WIDE AS MEASURED FROM THE FACE OF CURB.

WALKWAY.

- 15. MAXIMUM RUNNING SLOPE FOR WALKING SURFACES CANNOT BE GREATER THAN 1:20 AND CROSS SLOPES CANNOT BE GREATER THAN 1:48. HANDICAP SPACES SURFACE SLOPES SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS.
- 16. SIGHT TRIANGLES NOTHING OVER 30" HIGH SHALL BE ALLOWED WITHIN THE SIGHT DISTANCE TRIANGLES.
- ISSUANCE OF A BUILDING CERTIFICATE OF OCCUPANCY OR

17. THE SITE SHALL BE FULLY STABILIZED (90% COVERAGE) PRIOR TO

- 18. HANDICAP RAMPS SHALL BE INSTALLED PER LATEST EDITION OF THE NC BUILDING CODE AND ANSI 117.11 WITH DETECTABLE WARNING DOMES WITH A COLOR CONTRAST OF 70% MINIMUM. SEE DETAILS AND GRADING SPOT ELEVATIONS, IF THE EXISTING CONDITIONS PRECLUDE THE ABILITY TO PROVIDE A MAXIMUM SLOPE 1/12 FOR 6-FEET OR A MAXIMUM CROSS SLOPE OF 1:48 AND A 36" MINIMUM LANDING, THE CONTRACTOR SHALL NOTIFY ENGINEER OR OWNER REPRESENTATIVE PRIOR TO INSTALLATION.
- 19. THE TESTING AGENCY SHALL BE RESPONSIBLE FOR PROVIDING THE ASPHALT AND CONTRACTOR CERTIFICATION MEMO TO NCDOT FOR ALL ROADWAY IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY.

#### SITE LEGEND

OIIL LL	<u> </u>
	PROPOSED BUILDING
	PROPOSED CONCRETE SIDEWALK
	PROPOSED HEAVY DUTY PAVEMENT
	PROPOSED CURB & GUTTER
	PROPOSED STOP BAR

PROPOSED 6' WIDE STANDARD CROSSWALK

PROPOSED SIGN H/C PROPOSED ADA PARKING SPACE PROPOSED CIP WALL

PROPOSED WHEEL STOP PROPOSED ASPHALT TRAIL

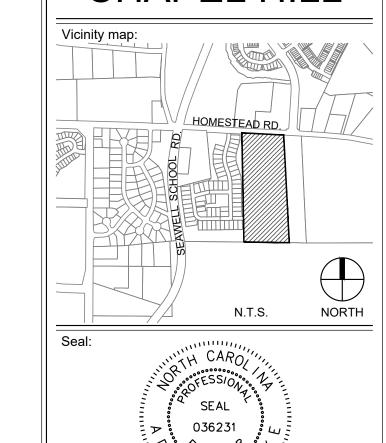
□ PROPOSED LIGHT PROPOSED BIKE RACK LIMITS OF DISTURBANCE

■ | ■ | ■ | ■ FUTURE ROADWAY IMPROVEMENTS (BY OTHERS)

EWARI

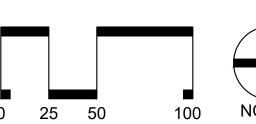
GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

# INDEPENDENT **SENIOR** HOUSING **CHAPEL HILL**



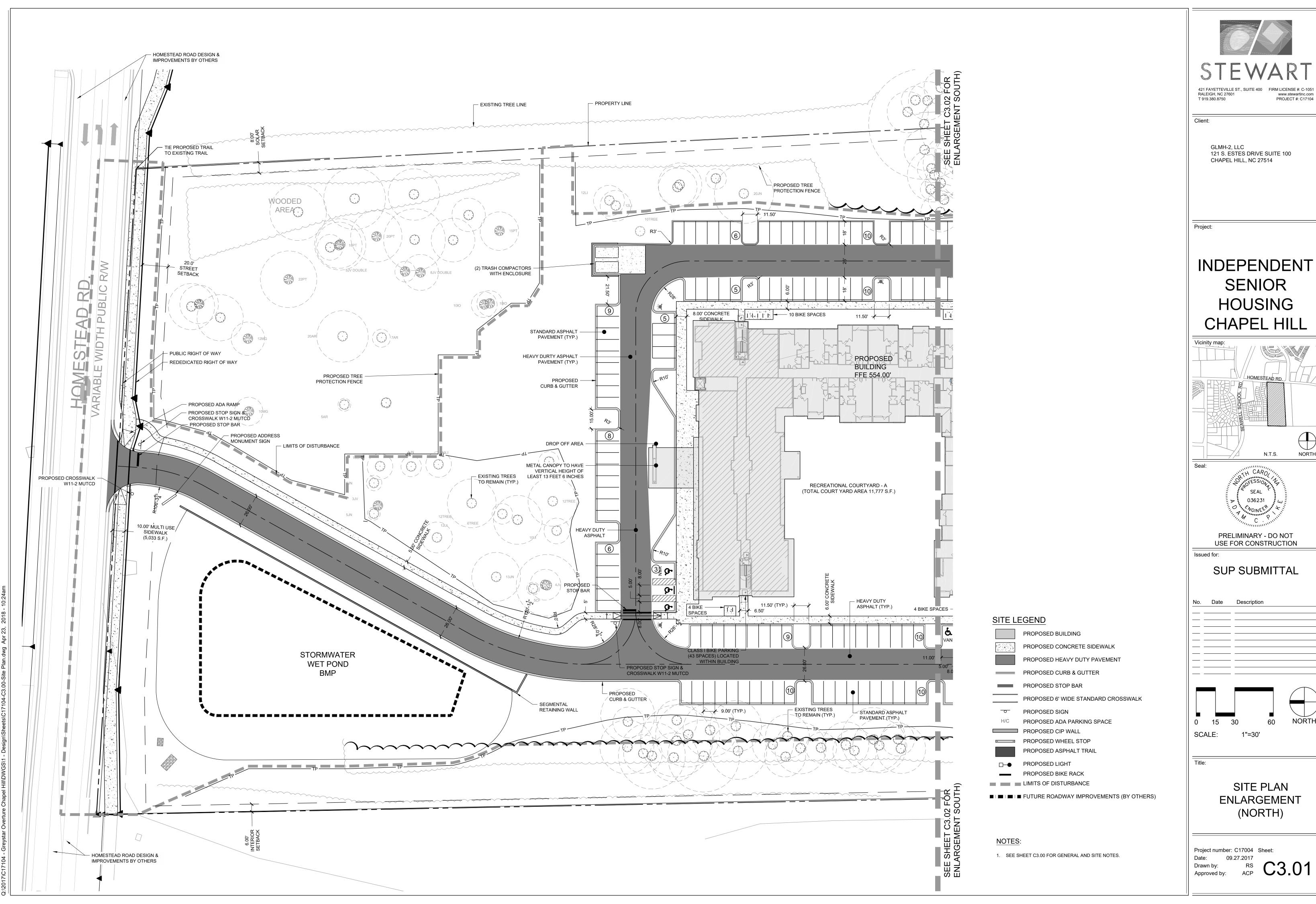
SUP SUBMITTAL

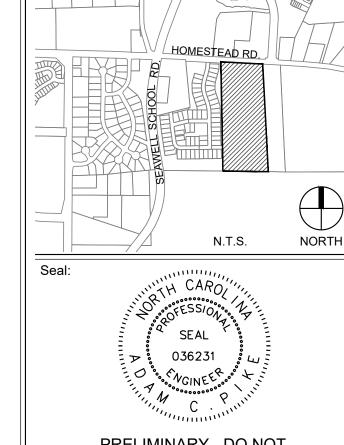
PRELIMINARY - DO NOT USE FOR CONSTRUCTION

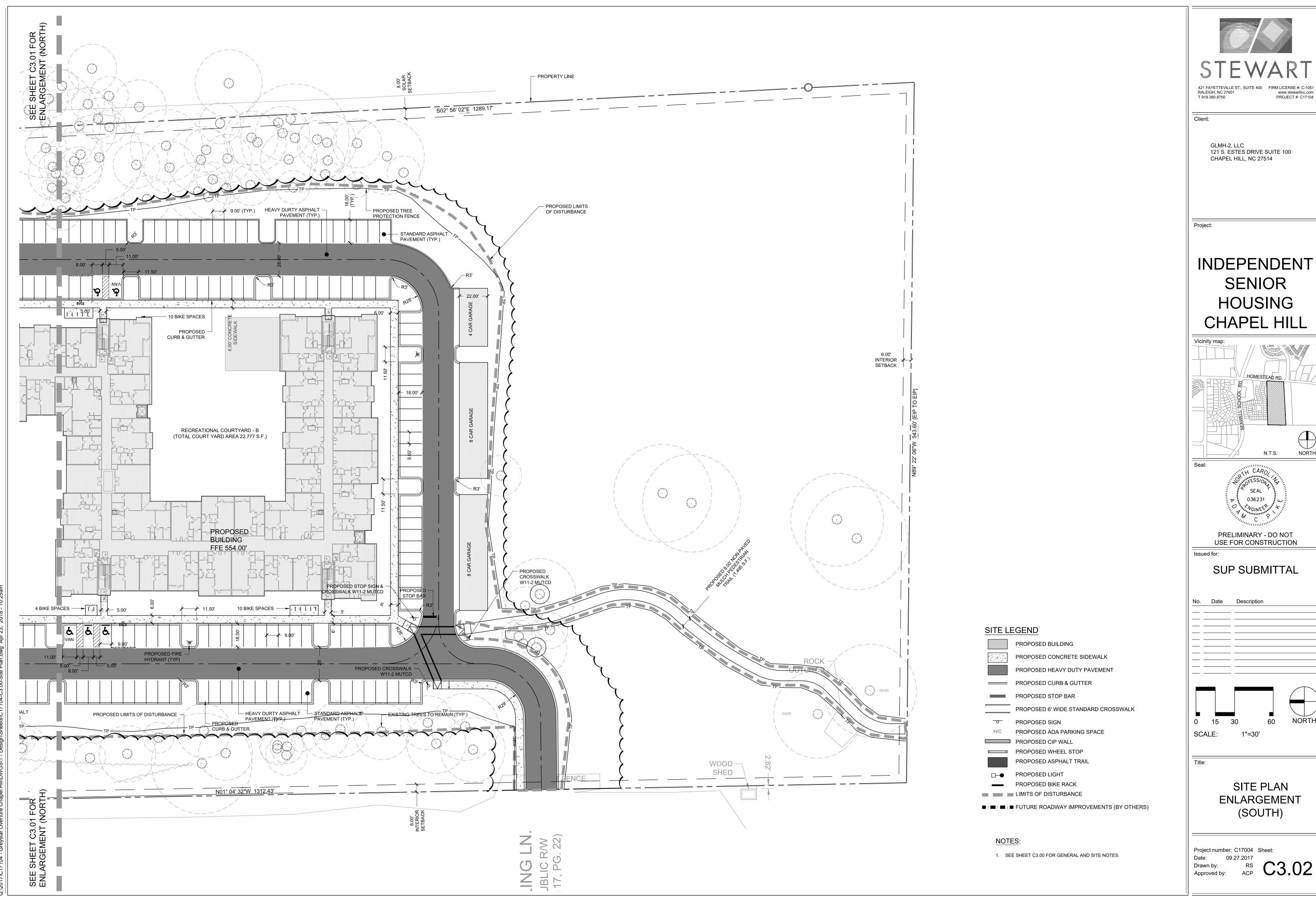



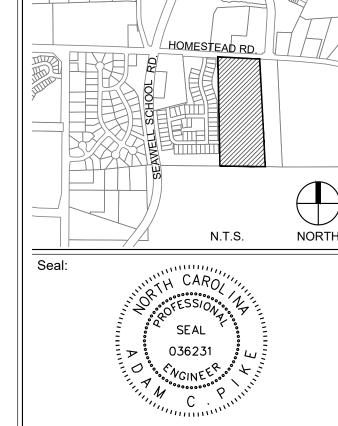
SITE PLAN

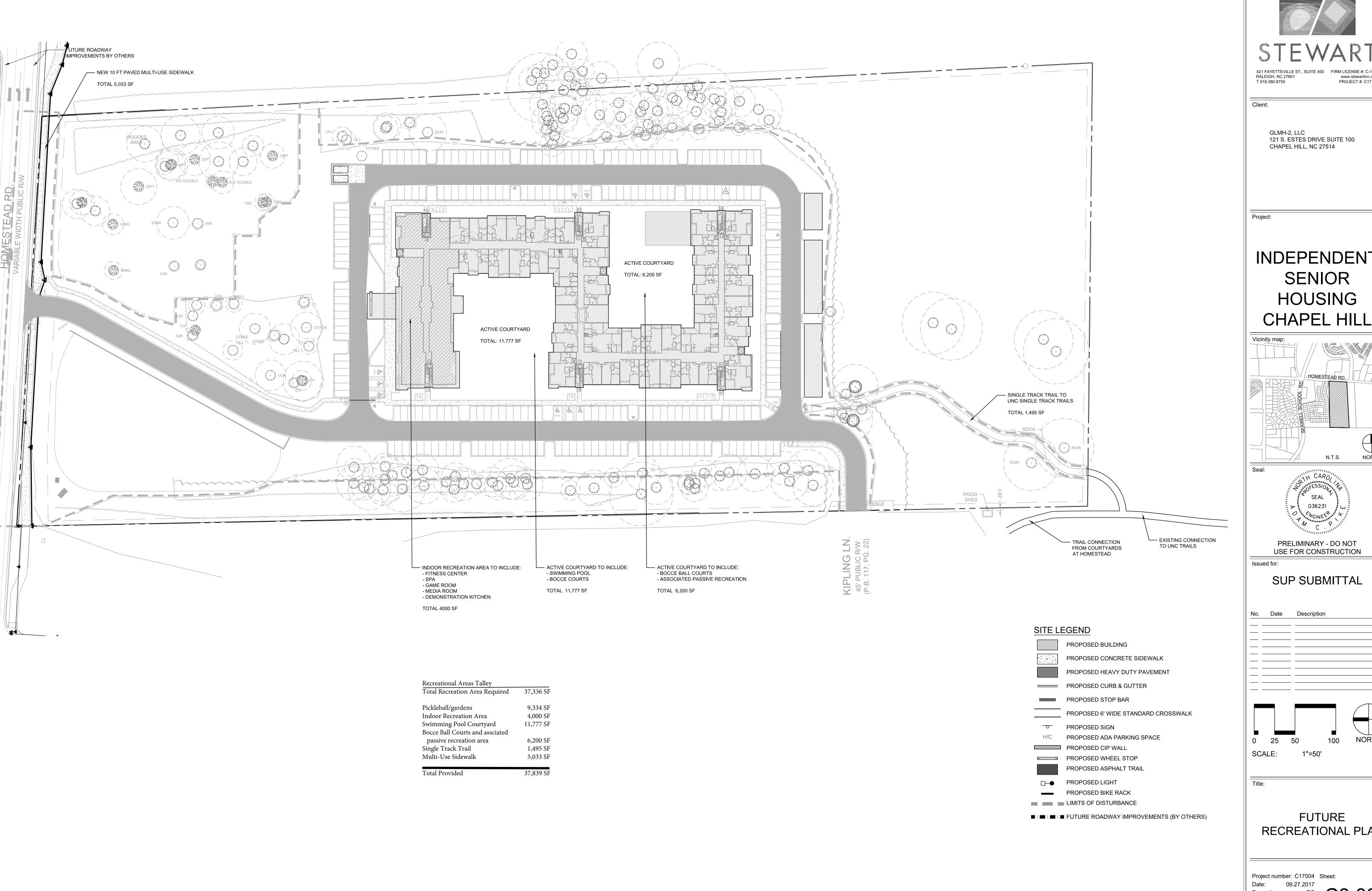
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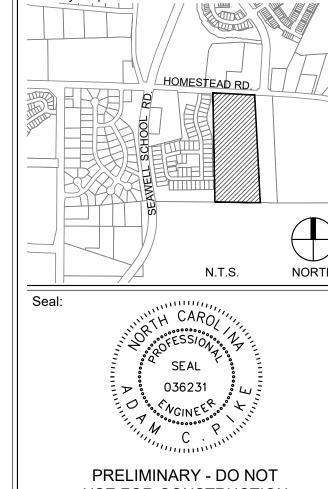






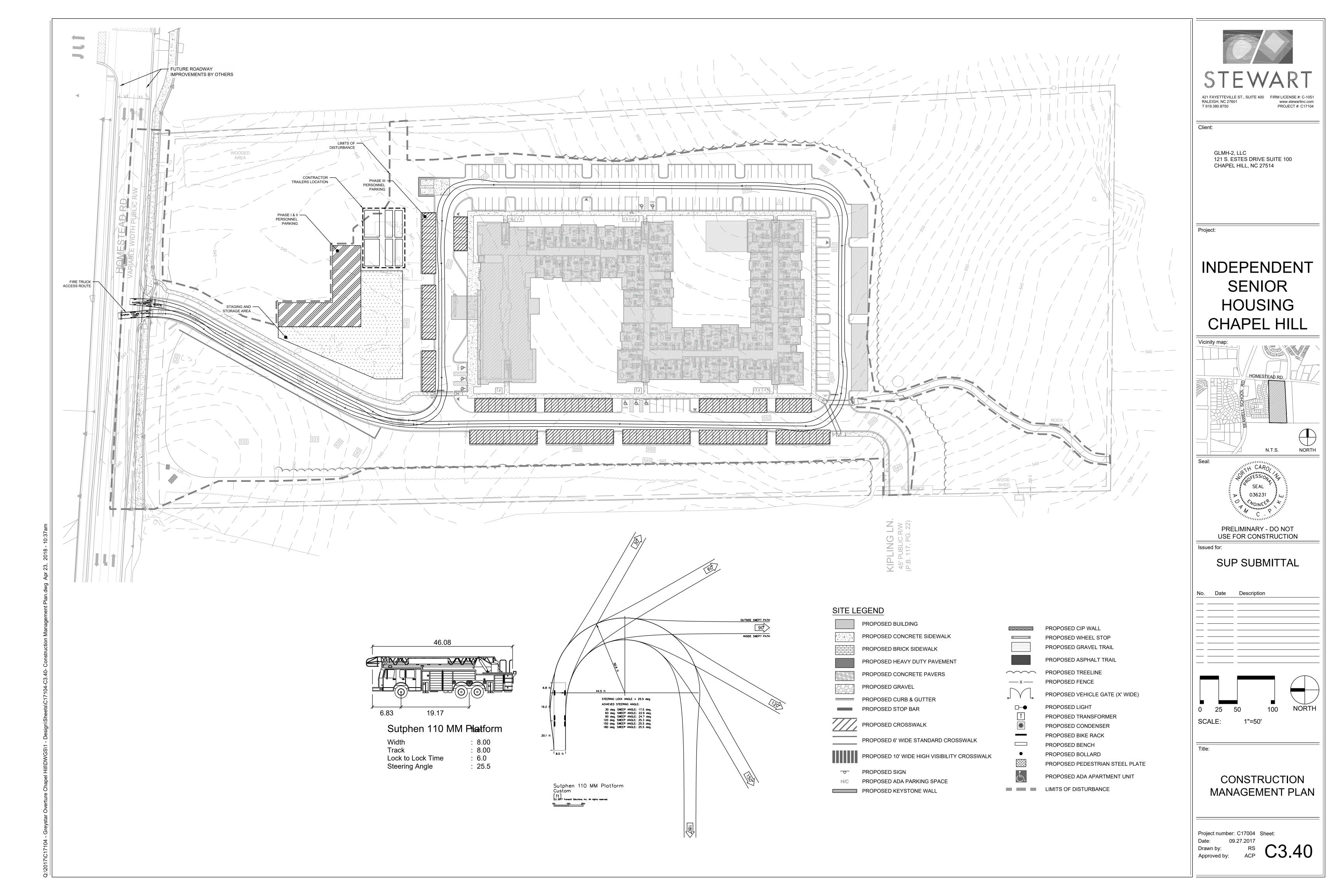
STEWART 421 FAYETTEVILLE ST., SUITE 400 FIRM LICENSE #: C-1051
RALEIGH, NC 27601 www.stewartinc.com
T 919.380.8750 PROJECT #: C17104

INDEPENDENT SENIOR HOUSING



RECREATIONAL PLAN

RS C3.03 Drawn by:



#### REFER TO C3.00 FOR GENERAL NOTES.

- 2. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED IN BEST LOCATION BASED ON FIELD CONDITIONS.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONSTRUCTION ENTRANCES AS NECESSARY TO PREVENT THE TRACKING OF SEDIMENT OFF-SITE. THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL PERMANENT EROSION CONTROL METHODS AFTER CONSTRUCTION IS COMPLETE, IF ANY PERMANENT METHODS ARE REQUIRED.
- 5. APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- 6. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- 7. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE LIMITS OF DISTURBANCE (L.O.D.) SHALL BE PERMITTED. THE L.O.D.
- SHALL BE MAINTAINED BY THE ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.

  8. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO
- AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
- 9. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
- 10. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. COPIES OF THE WRITTEN INSPECTION REPORTS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE TWICE PER WEEK AND AFTER RAINS OF GREATER THAN 0.5". RAIN GAUGE REQUIRED ON SITE.
- 11. ANY AREAS OF EXPOSED SOILS THAT WILL NOT BE DISTURBED FOR FOURTEEN DAYS SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- 12. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY EIGHT (48) HOURS FOLLOWING A STORM EVENT.
- 13. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- 14. STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- 15. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE A MINIMUM THICKNESS OF 2 TO 3 INCHES.
- 16. INTERIM SLOPES MAY BE GRADED TO A MAXIMUM SLOPE OF 2:1 (HORIZONTAL: VERTICAL); CUT SLOPES SHALL BE LIMITED TO A MAXIMUM
- 17. THE SURFACE OF AREAS SLOPES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL THAT ARE TO RECEIVE INTERIM FILL SHALL BE PLOWED, FURROWED, TILLED OR BROKEN UP PRIOR TO PLACING FILL SO THAT FILL MATERIAL WILL BOND WITH EXISTING . " SURFACE. INTERIM FILL SHALL BE PLACED AS SPECIFIED FOR PERMANENT FILLS AND IN LIFTS NOT GREATER THAN 6".
- 18. PROVIDE DUST CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, WETTING DOWN TO CONTROL DUST ON SITE, IN ORDER TO PREVENT ANNOYANCE/AND OR DAMAGE TO ADJACENT SITES. CALCIUM CHLORIDE OR ANY OTHER CHEMICAL MATERIAL MAY NOT BE USED ON SUBGRADES OF AREAS TO BE SEEDED OR PLANTED.
- 19. SEDIMENT LADEN RUNOFF FROM EXCAVATIONS SHALL NOT BE PUMPED DIRECTLY TO STORM DRAINAGE.
- 20. INSPECTOR REFERS TO LOCAL JURISDICTIONAL (NCDENR OR LOCAL) LAND QUALITY INSPECTOR OR HIS REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE
- 21. CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES LAND QUALITY SECTION EROSION AND SEDIMENT CONTROL PLANNING LAND DESIGN MANUAL.
- 22. NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM: THE PERSON RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES IS REQUIRED TO INSPECT THE PROJECT AFTER EACH PHASE OF THE PROJECT AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-54.1 AND 15A NCAC 4B.0131 TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FORM HTTP://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION\_NEW.HTML

#### MAINTENANCE NOTES

STABILIZE PROPERLY.

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
- 2. CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES LAND QUALITY SECTION EROSION AND SEDIMENT CONTROL PLANNING LAND DESIGN MANUAL.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONSTRUCTION ENTRANCES AS NECESSARY TO PREVENT THE TRACKING OF SEDIMENT OFF-SITE. THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL PERMANENT EROSION CONTROL METHODS AFTER CONSTRUCTION IS COMPLETE. IF ANY PERMANENT METHODS ARE REQUIRED.
- 4. THE CONTRACTOR IS ALSO REQUIRED TO MET THE BELOW REQUIREMENTS FOR EACH EROSION CONTROL MEASURE, AS NOTED IN THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY EROSION CONTROL MANUAL. THESE REQUIREMENTS ARE NOT LIMITED TO BUT INCLUDE:
- 4.1. CONSTRUCTION ENTRANCE MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL EVENT, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL MATERIALS SPILLED, WASHED, OR TRACKED OFF THE CONSTRUCTION SITE OR ONTO PUBLIC ROADWAYS.
- 4.2. SILT FENCE INSPECT TEMPORARY SEDIMENT TRAPS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT, AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA, AND REPLACE THE PART OF THE GRAVEL FACING THAT IS IMPAIRED BY SEDIMENT. CHECK THE STRUCTURE FOR DAMAGE FROM EROSION OR PIPING. PERIODICALLY CHECK THE DEPTH OF THE SPILLWAY TO ENSURE IT IS A MINIMUM OF 1.5 FT BELOW THE LOW POINT OF THE EMBANKMENT. IMMEDIATELY FILL AN SETTLEMENT OF THE EMBANKMENT TO SLIGHTLY ABOVE DESIGN GRADE. ANY RIPRAP DISPLACED FROM THE SPILLWAY MUST BE REPLACED IMMEDIATELY. AFTER ALL SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ADJOINING AREAS, AND
- 4.3. SILT FENCE STONE OUTLET INSPECT OUTLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (\frac{1}{2} INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE NO. 57 WASHED STONE AS NEEDED.
- 4.4. DROP INLET PROTECTION INSPECT THE BARRIER AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH OR GREATER) RAINFALL AND MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.
- 4.5. CONCRETE WASHOUT PIT -MAXIMUM WATER AND SEDIMENT DEPTH IS 12". PIT MUST BE EXCAVATED AND RE-LINED WHEN DEPTH OF SEDIMENT REACHES 12" OR COMBINED WATER/SEDIMENT DEPTH EXCEEDS 12" FOLLOWING WASHOUT OF CONCRETE TRUCK. ALLOW WATER TO EVAPORATE COMPLETELY PRIOR TO EXCAVATING PIT. WASHOUT PIT MAY BE LOCATED NO CLOSER THAN 50' TO DRAINS, INLETS, OR SURFACE WATERS. AT COMPLETION OF PROJECT, WASHOUT AREA TO BE BACKFILLED AND GRADED TO BE LEVEL WITH EXISTING GRADE.
- 4.6. TEMPORARY BERM/DIVERSION DITCH DETAIL- INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVED THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT. MACHINE COMPACTION OF ALL FILL IS REQUIRED. ALLOW AT LEAST 10% SETTLEMENT FOR THE TOTAL FILL HEIGHT. DIVERSIONS SUFFICIENT TO DIRECT ALL SEDIMENT-LADEN STORMWATER SEDIMENT CONTROL DEVICE MUST BE INSTALLED PRIOR TO INTO A CLEARING AND GRUBBING OF THE AREA. DIVERSIONS SHOULD BE LOCATED TO MINIMIZE DAMAGE DURING CONSTRUCTION OPERATIONS. DIVERSIONS SHALL BE SEEDED AND MULCHED IF THEY ARE REMAIN TO IN PLACED OVER 30 DAYS.CHECK DEVICE AFTER EACH RAIN, BUT ONCE A WEEK REGARDLESS. REPAIR AS NECESSARY.
- 4.7. INSPECT ROCK PIPE INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE SEDIMENT STORAGE AREA TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING. CHECK THE STRUCTURE FOR DAMAGE. ANY RIPRAP DISPLACED FROM THE STONE HORSESHOE MUST BE REPLACED IMMEDIATELY. AFTER ALL THE SEDIMENT-PRODUCING ARES HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL THE UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ADJOINING AREAS AND PROVIDE PERMANENT GROUND COVER.

#### SEQUENCE OF CONSTRUCTION ACTIVITIES:

- 1. OBTAIN GRADING PERMIT.
- 2. DETERMINE AND MARK LIMITS OF DISTURBANCE.
- 3. A PRECONSTRUCTION CONFERENCE MUST BE HELD 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. THE EROSION CONTROL INSPECTOR, ARCHITECT, ENGINEER, AND CONTRACTOR SHALL BE PRESENT TO SATISFY REQUIREMENTS.
- 4. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCE, PERIMETER EROSION CONTROL DEVICES AND ALL REQUIRED BASINS AND TRAPS.
- 5. SCHEDULE SITE INSPECTION.
- 6. UPON APPROVAL TO PROCEED BY THE EROSION CONTROL INSPECTOR, HARVEST ANY TIMBER.
- 7. CONSTRUCT REMAINING EROSION CONTROL MEASURES AS REQUIRED.
- 8. REMOVE AND/OR STORE TOPSOIL.
- 9. BEGIN GRADING OPERATIONS.
- 10. CLEAN SEDIMENT BASINS/TRAPS WHEN ONE-HALF FULL.

APPLY APPROPRIATE STABILIZATION.

- 10. GEE/W GEBINERY B/KOING/TIVW G WHEN GIVE FIXEL TOLE.
- 12. PLACE TEMPORARY SEEDING ON ALL DISTURBED AREAS THAT WILL BE IDLE 14 DAYS OR LONGER.

11. ALL STREETS SURROUNDING THE PROJECT SHALL BE KEPT CLEAN AT ALL TIMES.

- 13. PERMANENT SURFACE STABILIZATION SHALL BE INSTALLED FOR ALL AREAS WITHIN 14 DAYS AFTER FINAL GRADE HAS BEEN REACHED. AS NECESSARY, FERTILIZE, WATER AND RESEED AS REQUIRED TO ESTABLISH AND MAINTAIN A VIGOROUS STAND OF
- GRASS.

  14. AFTER COMPLETION OF CONSTRUCTION AND THE SITE IS STABILIZED, REMOVE ALL ACCUMULATED SEDIMENT FROM SEDIMENT TRAPPING MEASURES AND DISPOSE BY MEANS DEEMED ACCEPTABLE BY THE ENGINEER. SCHEDULE SITE INSPECTION. UPON APPROVAL BY THE EROSION CONTROL INSPECTOR, REMOVE TEMPORARY EROSION CONTROL MEASURES, SMOOTH AREA AND
- 15. STORMWATER PERMIT INSPECTION REPORTS SHALL BE PERFORMED BY THE CONTRACTOR UNTIL NOTIFIED OTHERWISE BY THE EROSION CONTROL INSPECTOR.

### NOTES: 1. INSPECTOR REFERS TO LOCAL JURISDICTIONAL (NCDENR OR LOCAL) LAND QUALITY INSPECTOR OR HIS REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE

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#### TREE PROTECTION NOTES:

- 1. TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE OR ISSUANCE OF A GRADING PERMIT. OR OBTAIN A GRADING PERMIT THEN TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE
- 2. TREE PROTECTION FENCING SHALL INCLUDE WARNING SIGNS POSTED IN BOTH ENGLISH AND SPANISH, AS FOLLOWS: "NO TRESPASSING/TREE PROTECTION AREA/PROHIBIDO ENTRAR / ZONA PROTECTORA PARA LOS ÁRBOLES."
- 3. PROTECTION OF EXISTING VEGETATION: AT THE START OF GRADING INVOLVING THE LOWERING OF EXISTING GRADE AROUND A TREE OR STRIPPING OF TOPSOIL, A CLEAN, SHARP, VERTICAL CUT SHALL BE MADE AT THE EDGE ON THE TREE ROOTS OUTSIDE OF THE TREE SAVE AREA. THIS SHALL OCCUR AT THE SAME TIME THAT OTHER EROSION CONTROL MEASURES ARE INSTALLED. THE TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THE CUT FARTHEST AWAY FROM THE TREE TRUNK AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE.
- 4. NO STORAGE OF MATERIALS, FILL, OR EQUIPMENT AND NO TRESPASSING SHALL BE ALLOWED WITHIN THE BOUNDARY OF THE
- 5. TREE PROTECTION AREA: EQUALS ONE FOOT OF RADIUS FOR EVERY INCH OF DIAMETER OF EXISTING TREES, OR SIX FOOT RADIUS, WHICHEVER IS GREATER. NO DISTURBANCE ALLOWED WITHIN THIS AREA.

#### **ADMIXTURES**

AGRICULTURAL LIMESTONE: 2 TONS/ACRE

FERTILIZER: 1,000 LBS/ACRE - 10-10-10

SUPERPHOSPHATE: 500 LBS/ACRE - 20% ANALYSIS

MULCH: 2 TONS/ACRE - SMALL GRAIN STRAW

ANCHOR: ASPHALT EMULSION AT 300 GALS/ACRE

#### SEEDING SCHEDULE

#### SHOULDERS, SIDE DITCHES, SLOPES (Max 3:1)

DATE	TYPE	PLANTING RATE
AUG 15 - NOV 1	TALL FESCUE	300 LBS/ACRE
NOV 1 - MAR 1	TALL FESCUE	300 LBS/ACRE
	& ABRUZZI RYE	25 LBS/ACRE
MAR 1 - APR 15	TALL FESCUE	300 LBS/ACRE
APR 15 - JUN 30	HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUL 1 - AUG 15	TALL FESCUE AND	120 LBS/ACRE
	***BROWNTOP MILLET	35 LBS/ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30 LBS/ACRE

#### SLOPES (3:1 to 2:1)

DATE	TYPE	PLANTING RATE
MAR 1 - JUN 1	***BROWNTOP MILLET	50 LBS/ACRE
(MAR 1 - APR 15)	ADD TALL FESCUE	120 LBS/ACRE (MAR 1 - JUN 30)
,	OR ADD HULLED COMMON BERMUDAGRASS	25 LBS/ACRE `
JUN 1 - SEP 1	***TALL FESCUE AND	120 LBS/ACRE
	***BROWNTOP MILLET	35 LBS/ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30 LBS/ACRE
SEP 1 - MAR 1	ANNUAL RYE	70 LBS/ACRE
	AND TALL FESCUE	120 LBS/ACRE (NOV 1 - MAR 1)
	ADD ARRITZI RVE	25 LBS/ACRE `

CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

\*\*\*TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHADED OUT.

#### TEMPORARY SEEDBED PREPARATION:

- 1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- 2. RIP THE ENTIRE AREA TO SIX INCHES DEEP.
- 3. REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE ADMIXTURE BELOW).
   CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
- 6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
- MULICULINAMEDIATELY AFTER OFFICIAL AND ANGUIOR MULICUL
- 7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- 8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN 60% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- 9. CONSULT S&EC ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS

#### SEEDBED PREPARATION

- 1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONED, IF AVAILABLE.
- 2. RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
- 3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- 4. APPLY ALL AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW).
- 5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM, REASONABLY UNIFORM 4 TO 6 INCHES DEEP SEEDBED IS PREPARED
- 6. SEED ON A FRESHLY PREPARED SEED BED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER
- 7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- 8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESENDING WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- 9. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESENDING WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 50% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES AND LANDSCAPING PLANS.
- 10. SEE LANDSCAPING PLANS FOR PERMANENT SEEDING, MULCHING, AND FERTILIZING RATES. ALL AREAS NOT DESIGNATED TO RECEIVE PLANTS SHALL BE SEEDED PER THE LANDSCAPING PLANS.

#### DIVERSION DITCH INFORMATION



#### **Diversion Channel Dimension Table**

Channel	Bottom Wid	dth (Y)	Sideslope (M)	Top Width (W)	Lining	Channel Depth (FT)	Velocity
DD-01	0.00	FT	2 :1	5 FT	STRAW SINGLE NET BLANKET	1 FT	6.01 FT/S
DD-02	0.00	FT	2 :1	4 FT	STRAW SINGLE NET BLANKET	0.75 FT	3.19 FT/S

#### SEDIMENT TRAP INFORMATION

Sediment Basin Summary:	Basin ID	=	ST-1	
	<b>Bottom Width</b>	=	77.5 ft	
	<b>Bottom Length</b>	=	167 ft	
	Surface Width	=	89.5 ft	
	Surface Length	=	179 ft	
	Top Width	=	98.5 ft	
	Top Length	=	188 ft	
	Stone Outlet Width	=	15 ft	
	<b>Outlet Sideslopes</b>	=	2:1	
	Storage Depth	=	2 ft	
	Dam Height	=	3.5 ft	
	Sideslopes	=	3:1	
	Skimmer Size	=	4 in	
	<b>Head on Skimmer</b>	=	0.333 ft	
	Orifice Size	=	2.50 in	

the North Carolina Erosion and Sedimentation Planning and Design Manual.

#### STABILIZATION TABLE

	1			
Area	SITE AREA	STABILIZATION	STABILIZATION TIME	
Aica	DESCRIPTION	TIME FRAME	FRAME EXCEPTION	
	Perimeter dikes,			
1	swales, ditches	7 days	None	
	and slopes			
2			If slopes are 10' or less	
	Slopes Steeper than 3:1	7 days	in length and are not	
2			steeper than 2:1, 14	
			days are allowed	
	Slopes 3:1 or		7-days for slopes	
3	flatter	14 days	greater than 50 feet in	
	Hatter		length	
	All other area		None (except as	
4	with slopes	14 days	· · · ·	
	flatter than 4:1		shown in chart)	

TOTAL AREA OF DISTURBANCE 8.90 AC

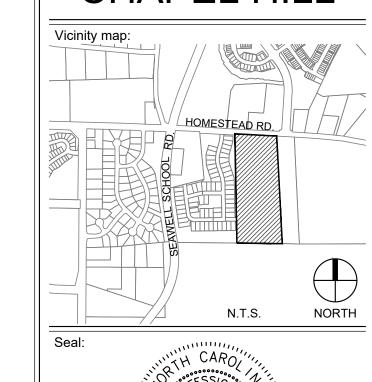


ient:

GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

Project:

# INDEPENDENT SENIOR HOUSING CHAPEL HILL



PRELIMINARY - DO NOT

USE FOR CONSTRUCTION

SUP SUBMITTAL

No. Date Description

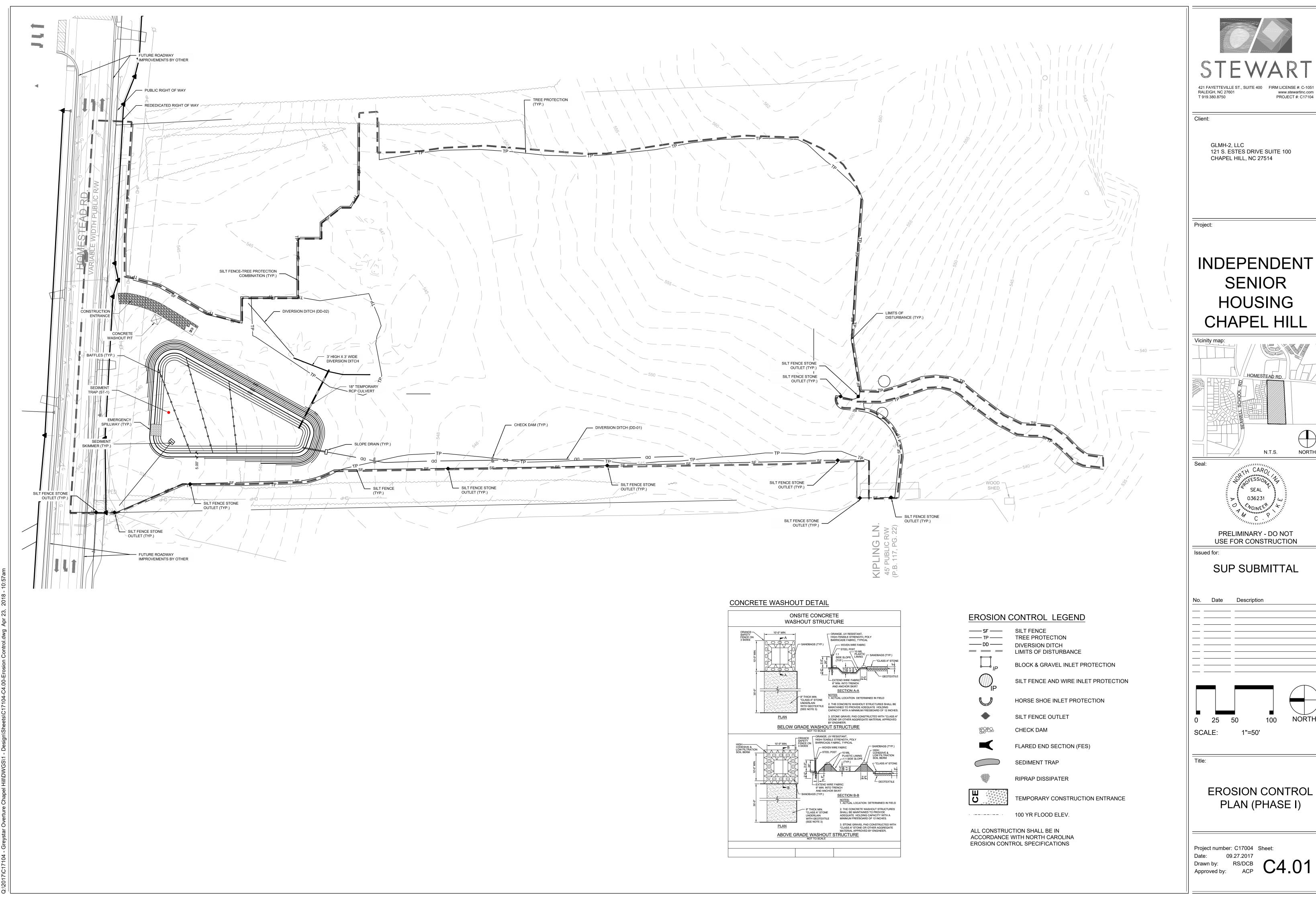
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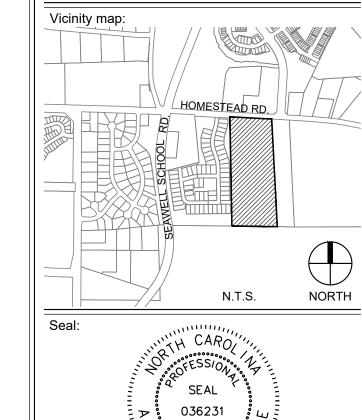
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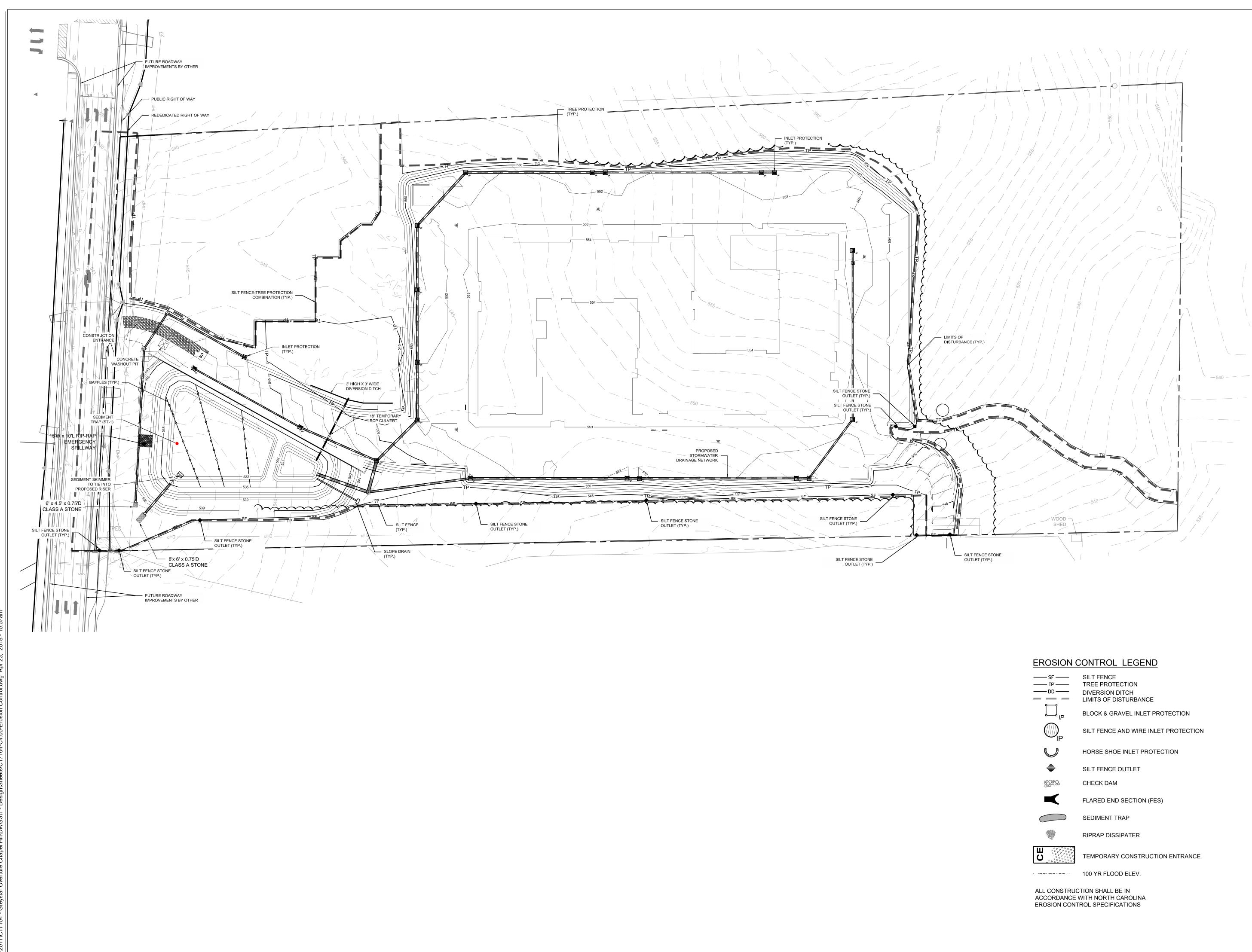
EROSION CONTROL NOTES

Project number: C17004 Sheet:

RS C4.00



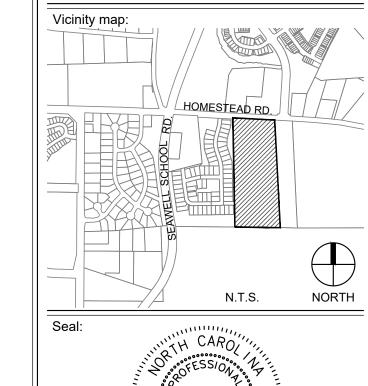






GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

## INDEPENDENT SENIOR HOUSING **CHAPEL HILL**

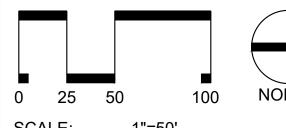


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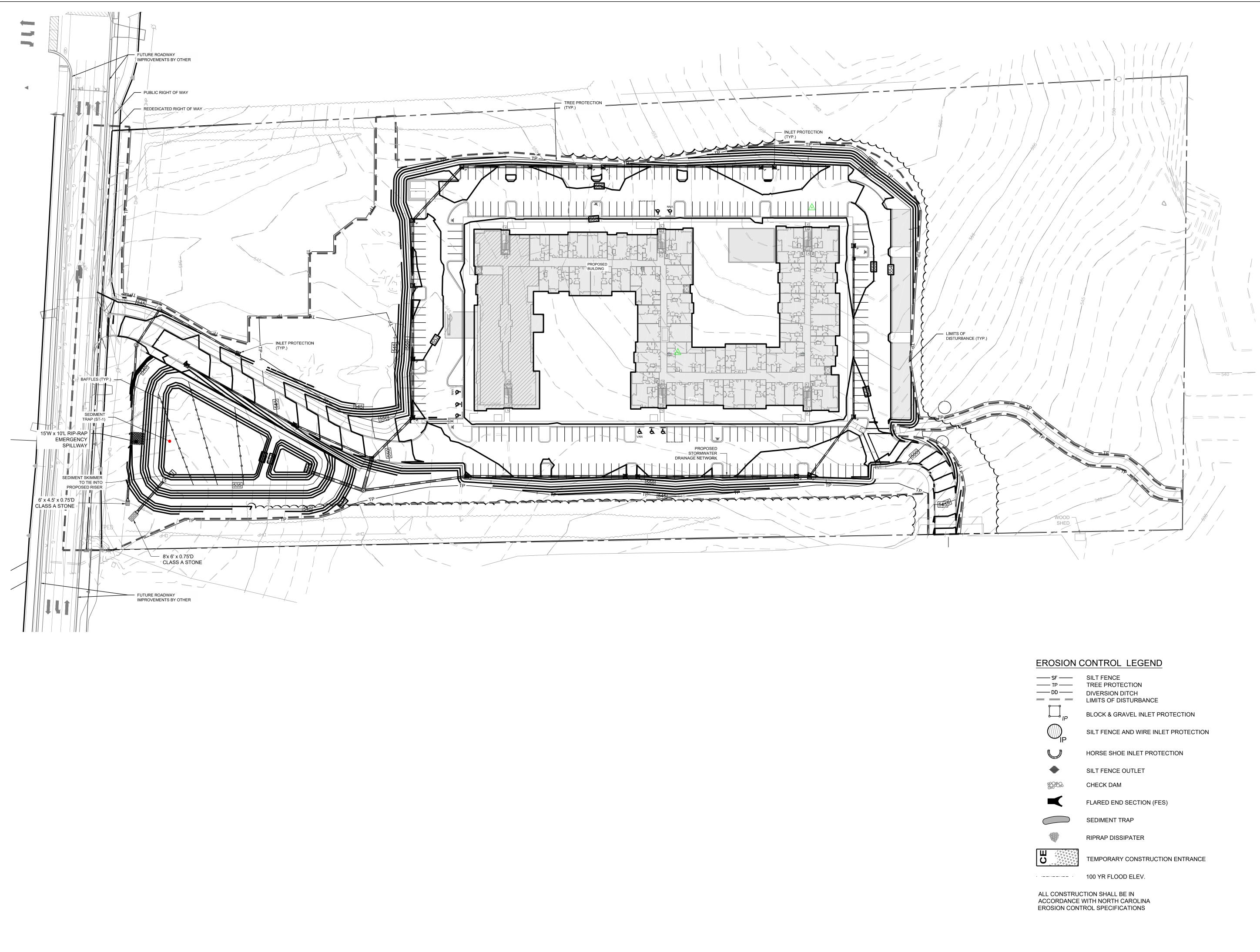


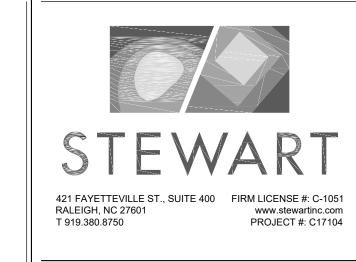
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**EROSION CONTROL** PLAN (PHASE II)

Project number: C17004 Sheet: Date: 09.27.2017

Drawn by: RS/DCB Approved by: ACP C4.02 Approved by:



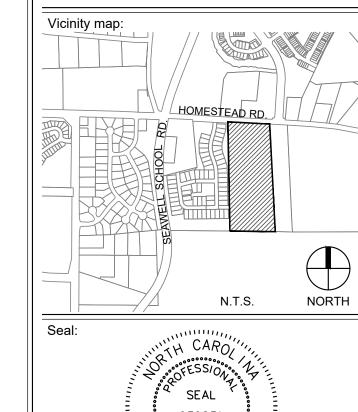


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GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

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# INDEPENDENT SENIOR HOUSING CHAPEL HILL



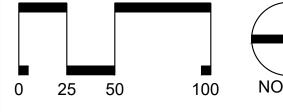
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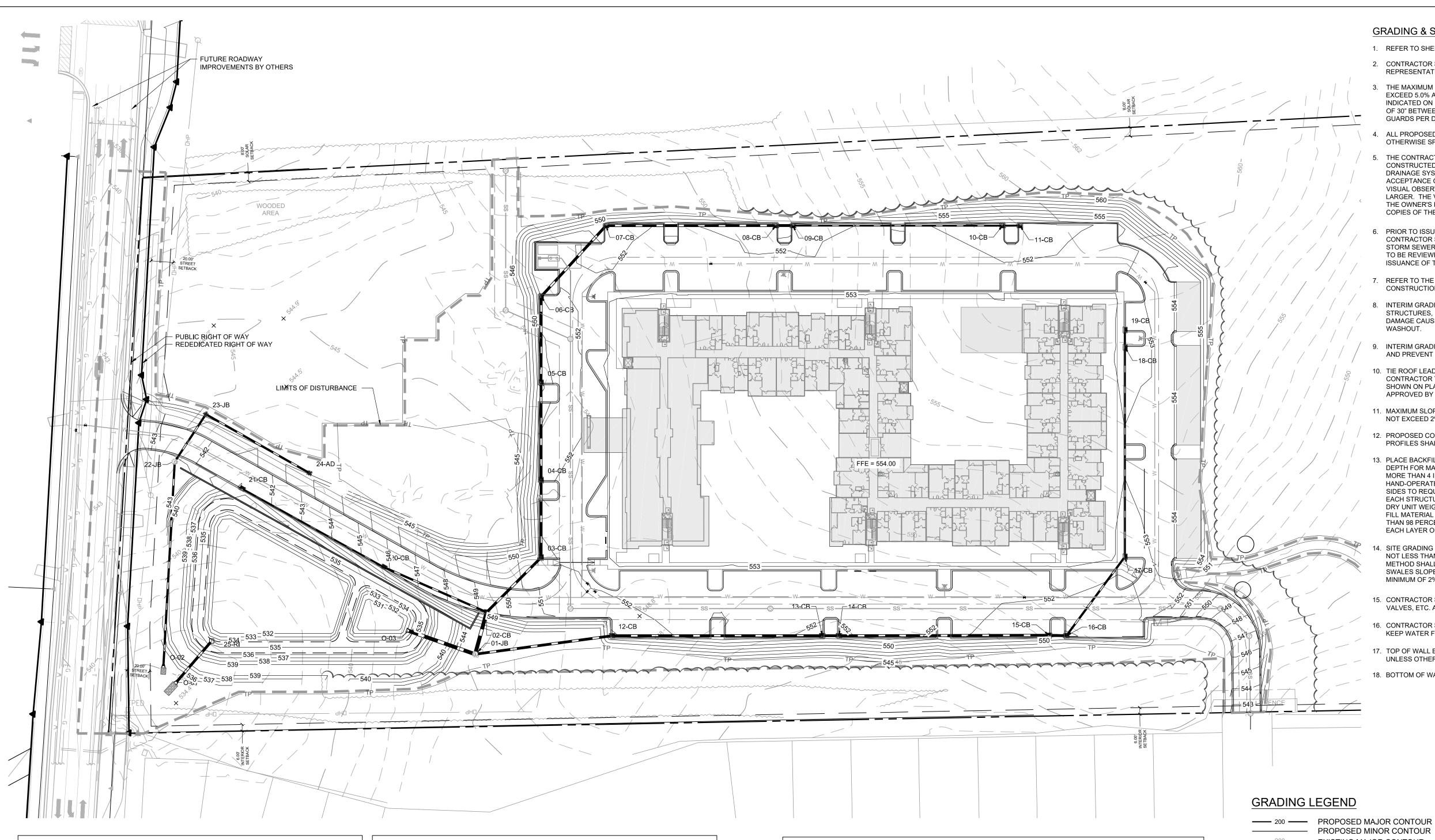


SCALE: 1"=50

EROSION CONTROL PLAN (PHASE III)

Project number: C17004 Sheet:
Date: 09.27.2017

Drawn by: RS/DCB Approved by: ACP C4.03



	STF	RUCTURE TABLE	
STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT
01-JB	RIM = 541.13 INV IN = 535.12 INV IN = 534.22 INV OUT = 534.12	12-SP, 24" RCP INV IN =535.12 02-SP, 36" RCP INV IN =534.22	01-SP, 36" RCP INV OUT =534.12
02-CB	RIM = 549.73 INV IN = 536.11 INV IN = 535.61 INV OUT = 534.61	20-SP, 18" RCP INV IN =536.11 03-SP, 24" RCP INV IN =535.61	02-SP, 36" RCP INV OUT =534.61
03-CB	RIM = 551.72 INV IN = 536.86 INV OUT = 536.76	04-SP, 24" RCP INV IN =536.86	03-SP, 24" RCP INV OUT =536.76
04-CB	RIM = 551.73 INV IN = 537.66 INV OUT = 537.56	05-SP, 24" RCP INV IN =537.66	04-SP, 24" RCP INV OUT =537.56
05-CB	RIM = 550.34 INV IN = 538.64 INV OUT = 538.54	06-SP, 24" RCP INV IN =538.64	05-SP, 24" RCP INV OUT =538.54
06-CB	RIM = 551.49 INV IN = 539.52 INV OUT = 539.42	07-SP, 24" RCP INV IN =539.52	06-SP, 24" RCP INV OUT =539.42
07-CB	RIM = 551.16 INV IN = 540.49 INV OUT = 540.39	08-SP, 24" RCP INV IN =540.49	07-SP, 24" RCP INV OUT =540.39
08-CB	RIM = 551.10 INV IN = 542.12 INV OUT = 542.03	09-SP, 24" RCP INV IN =542.12	08-SP, 24" RCP INV OUT =542.03
09-CB	RIM = 551.30 INV IN = 543.03 INV OUT = 542.28	10-SP, 15" RCP INV IN =543.03	09-SP, 24" RCP INV OUT =542.28
10-CB	RIM = 551.02 INV IN = 545.02 INV OUT = 544.92	11-SP, 15" RCP INV IN =545.02	10-SP, 15" RCP INV OUT =544.92
11-CB	RIM = 551.02 INV OUT = 545.18	N/A	11-SP, 15" RCP INV OUT =545.18
12-CB	RIM = 550.88 INV IN = 539.57 INV OUT = 539.47	13-SP, 24" RCP INV IN =539.57	12-SP, 24" RCP INV OUT =539.47
13-CB	RIM = 551.60 INV IN = 541.57 INV OUT = 541.47	14-SP, 24" RCP INV IN =541.57	13-SP, 24" RCP INV OUT =541.47
	RIM = 551 67		

INV IN = 541.82 INV OUT = 541.72

15-SP, 24" RCP INV IN =541.82 | 14-SP, 24" RCP INV OUT =541.72

STRUCTURE TABLE					
STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT		
15-CB	RIM = 551.08 INV IN = 543.82 INV OUT = 543.72	16-SP, 24" RCP INV IN =543.82	15-SP, 24" RCP INV OUT =543.72		
16-CB	RIM = 550.88 INV IN = 544.08 INV OUT = 543.97	17-SP, 18" RCP INV IN =544.08	16-SP, 24" RCP INV OUT =543.97		
17-CB	RIM = 552.12 INV IN = 545.07 INV OUT = 544.97	18-SP, 15" RCP INV IN =545.07	17-SP, 18" RCP INV OUT =544.97		
18-CB	RIM = 552.12 INV IN = 547.06 INV OUT = 546.96	19-SP, 15" RCP INV IN =547.06	18-SP, 15" RCP INV OUT =546.96		
19-CB	RIM = 552.12 INV OUT = 547.22	N/A	19-SP, 15" RCP INV OUT =547.22		
20-CB	RIM = 545.79 INV IN = 535.82 INV OUT = 537.13	21-SP, 15" RCP INV IN =535.82	20-SP, 18" RCP INV OUT =537.13		
21-CB	RIM = 541.03 INV OUT = 537.28	N/A	21-SP, 15" RCP INV OUT =537.28		
22-JB	RIM = 543.37 INV IN = 536.70 INV OUT = 536.60	23-SP, 18" RCP INV IN =536.70	22-SP, 18" RCP INV OUT =536.60		
23-JB	RIM = 539.79 INV IN = 537.58 INV OUT = 537.48	24-SP, 18" RCP INV IN =537.58	23-SP, 18" RCP INV OUT =537.48		
24-AD	RIM = 542.00 INV OUT = 538.66	N/A	24-SP, 18" RCP INV OUT =538.66		
25-RI	RIM = 537.55 INV OUT = 534.80	N/A	25-SP, 24" RCP INV OUT =534.80		
O-01	RIM = N/A INV IN = 533.99	25-SP, 24" RCP INV IN =533.99	N/A		
O-02	RIM = N/A INV IN = 534.74	22-SP, 18" RCP INV IN =534.74	N/A		
O-03	RIM = N/A INV IN = 533.50	01-SP, 36" RCP INV IN =533.50	N/A		

		PIPE TA	BLE				
START STRUCTURE	END STRUCTURE	START INVERT	END INVERT	SIZE	LENGTH	SLOPE	MATERIA
02-CB	01-JB	534.61	534.22	36"	39.37'	1.00%	RCP
12-CB	01-JB	539.47	535.12	24"	124.96'	3.48%	RCP
20-CB	02-CB	537.13	536.11	18"	101.33'	1.00%	RCP
03-CB	02-CB	536.76	535.61	24"	69.77'	1.65%	RCP
04-CB	03-CB	537.56	536.86	24"	69.98'	1.00%	RCP
05-CB	04-CB	538.54	537.66	24"	88.02'	1.00%	RCP
06-CB	05-CB	539.42	538.64	24"	77.95'	1.00%	RCP
07-CB	06-CB	540.39	539.52	24"	86.84'	1.00%	RCP
08-CB	07-CB	542.03	540.49	24"	153.50'	1.00%	RCP
09-CB	08-CB	542.28	542.12	24"	15.48'	1.00%	RCP
10-CB	09-CB	544.92	543.03	15"	189.41'	1.00%	RCP
11-CB	10-CB	545.18	545.02	15"	15.60'	1.00%	RCP
13-CB	12-CB	541.47	539.57	24"	189.91'	1.00%	RCP
14-CB	13-CB	541.72	541.57	24"	15.06'	1.00%	RCP
15-CB	14-CB	543.72	541.82	24"	189.96'	1.00%	RCP
16-CB	15-CB	543.97	543.82	24"	15.55'	1.00%	RCP
17-CB	16-CB	544.97	544.08	18"	88.89'	1.00%	RCP
18-CB	17-CB	546.96	545.07	15"	189.43'	1.00%	RCP
19-CB	18-CB	547.22	547.06	15"	15.54'	1.00%	RCP
21-CB	20-CB	537.28	535.82	15"	146.45'	1.00%	RCP
23-JB	22-JB	537.48	536.70	18"	51.30'	1.53%	RCP
24-AD	23-JB	538.66	537.58	18"	107.81'	1.00%	RCP
25-RI	O-01	534.80	533.99	24"	49.44'	1.63%	RCP
22-JB	O-02	536.60	534.74	18"	185.61'	1.00%	RCP
01-JB	O-03	534.12	533.50	36"	63.99'	0.96%	RCP

#### **GRADING & STORM DRAINAGE NOTES:**

1. REFER TO SHEET C3.00 FOR GENERAL NOTES.

- 2. CONTRACTOR SHALL REPORT ANY GRADE DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
- 3. THE MAXIMUM SLOPE ALONG ANY HANDICAP ACCESSIBLE PATHWAY SHALL NOT EXCEED 5.0% AND SHALL NOT EXCEED A 2.0% CROSS SLOPE. HANDICAP RAMPS INDICATED ON PLANS SHALL BE A MAXIMUM OF 1/12 SLOPES WITH A MAXIMUM RISE OF 30" BETWEEN LANDINGS. NON-CURB CUT RAMPS SHALL HAVE HANDRAILS AND GUARDS PER DETAILS WITH 5' LANDINGS AT THE BOTTOM AND TOP OF RAMP.
  - 4. ALL PROPOSED ELEVATIONS SHOWN ARE EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE SPECIFIED.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL NEWLY CONSTRUCTED STORM DRAINAGE IMPROVEMENTS AND RECEIVING STORM DRAINAGE SYSTEMS REMAIN CLEAN OF SEDIMENT AND DEBRIS. PRIOR TO OWNER ACCEPTANCE OF SYSTEM, THE CONTRACTOR SHALL COORDINATE AND PROVIDE A VISUAL OBSERVATION VIDEO OF ALL STORM DRAINAGE IMPROVEMENTS 12" AND LARGER. THE VISUAL OBSERVATION SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE TWO (2) DVD COPIES OF THE ENTIRE DRAINAGE VISUAL OBSERVATION.
- 6. PRIOR TO ISSUANCE OF A BUILDING CERTIFICATE OF OCCUPANCY THE CONTRACTOR SHALL PROVIDE THE OWNER WITH THE VIDEO INSPECTION OF THE STORM SEWER SYSTEM. (BOTH PUBLIC AND PRIVATE). THIS SUBMITTAL MAY NEED TO BE REVIEWED AND ACCEPTED BY THE LOCAL JURISDICTION PRIOR TO THE ISSUANCE OF THE BUILDING CO.
- . REFER TO THE EROSION CONTROL DETAILS SHEET FOR THE SEQUENCE OF
- 8. INTERIM GRADING SHALL BE PROVIDED THAT ENSURES THE PROTECTION OF STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, AND
- 9. INTERIM GRADING SHALL BE PROVIDED TO DIRECT WATER AWAY FROM BUILDINGS AND PREVENT PONDING.
- 10. TIE ROOF LEADERS WHERE POSSIBLE TO UNDERGROUND STORM SYSTEM. CONTRACTOR TO FIELD VERIFY LOCATE AND INSTALL WHERE POSSIBLE OR AS SHOWN ON PLANS. WHERE ROOF LEADERS DAYLIGHT AT GRADE A SPLASH BLOCK APPROVED BY THE OWNER'S REPRESENTATIVE SHALL BE INSTALLED.
- 11. MAXIMUM SLOPE ACROSS ANY HANDICAPPED PARKING SPACE AND AISLE SHALL NOT EXCEED 2% IN ANY DIRECTION.
- 12. PROPOSED CONTOURS ARE APPROXIMATE. SPOT ELEVATIONS AND ROADWAY PROFILES SHALL BE USED IN CASE OF DISCREPANCY.
- 13. PLACE BACKFILL AND FILL MATERIALS IN LAYER NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. PLACE BACKFILL AND FILL MATERIALS EVENLY ON ALL SIDES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698 FOR EACH LAYER OF BACKFILL OR FILL MATERIAL UP TO TWO FEET OF FINISHED GRADE. COMPACT SOIL TO NOT LESS THAN 98 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698 FOR EACH LAYER OF BACKFILL OR FILL MATERIAL FOR THE FINAL TWO FEET.
- 4. SITE GRADING IMMEDIATELY ADJACENT TO FOUNDATION OF BUILDING SHALL SLOPE NOT LESS THAN 1/20 AWAY FOR MINIMUM DISTANCE OF 10 FEET. ALTERNATIVE METHOD SHALL BE PROVIDED TO DIVERT WATER AWAY FROM FOUNDATION VIA SWALES SLOPED AT A MINIMUM OF 2% OR IMPERVIOUS SURFACES SLOPED AWAY A MINIMUM OF 2% AWAY FROM BUILDING.
- 15. CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF EXISTING MANHOLES, METERS, VALVES, ETC. AS REQUIRED TO MEET NEW FINISHED GRADES.
- 16. CONTRACTOR SHALL SLOPE GRADES TO ASSURE POSITIVE STORMWATER FLOW TO KEEP WATER FROM POOLING ALONG CURBS AND WALLS.
- 17. TOP OF WALL ELEVATIONS INDICATE THE ELEVATION AT THE TOP OF THE CAP, UNLESS OTHERWISE NOTED.
- 18. BOTTOM OF WALL ELEVATIONS INDICATE THE ELEVATION OF THE FINISHED GRADE.

#### IMPERVIOUS LEGEND

EXISTING BUILDING IMPERVIOUS = 6,098 SF EXISTING SIDEWALK IMPERVIOUS = 7,405 SF EXISTING PARKING / DRIVEWAY IMPERVIOUS = 436 SF

EXISTING WOODED AREA TO REMAIN UNDISTURBED

DRAINAGE AREA

200	EXISTING MAJOR CONTOUR EXISTING MINOR CONTOUR
	PROPOSED STORM DRAINAGE
	PROPOSED CATCH BASIN
	PROPOSED JUNCTION BOX
	PROPOSED AREA DRAIN
44.50	PROPOSED ELEVATION
TC 44.50 BC 44.00	TOP/BOTTOM OF CURB
TW 46.00 BW 44.00	TOP/BOTTOM OF WALL
	RIPRAP DISSIPATOR
<b></b>	FLOW DIRECTION
-	LIMITS OF DISTURBANCE

SHALL ALL BE TO LOCAL JURISDICTIONAL STANDARDS.

ALL STORM PIPES TO BE CLASS III RCP UNLESS OTHERWISE NOTED.

EXISTING IMPERVIOUS		
BUILDING	6,098 SF	
SIDEWALK	7,045 SF	
PARKING / DRIVE	436 SF	

PROPOSED IMPERVIOUS		
BUILDING	67.897 SF	
SIDEWALK	32,968 SF	
PARKING / DRIVE	94,075 SF	
PARKING / DRIVE	94,075 SF	

AD = AREA DRAIN FES = FLARED END SECTION JB = JUNCTION BOX RI = RISER YI = YARD INLET CB = CATCH BASIN CI = CURB INLET CO = CLEANOUT TD = TRENCH DRAIN	L-AD = AREA DRAIN L-JB = JUNCTION BOX L-TD = TRENCH DRAIN L-CO = CLEANOUT	UPSTREAM STRC UPSTREAM GRD. ELEV. FLOW UPSTREAM INVERT DOWNSTREAM INVERT	STRC DOWNSTRE GRD. ELEV.
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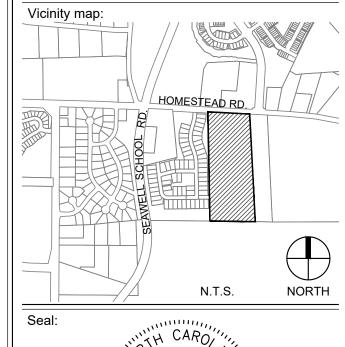


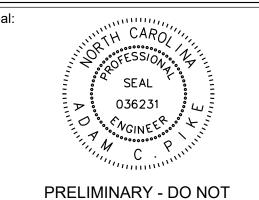
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GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

PROJECT #: C17104

### INDEPENDENT SENIOR HOUSING **CHAPEL HILL**



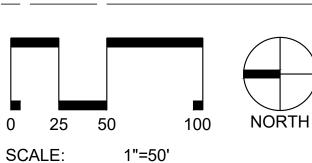


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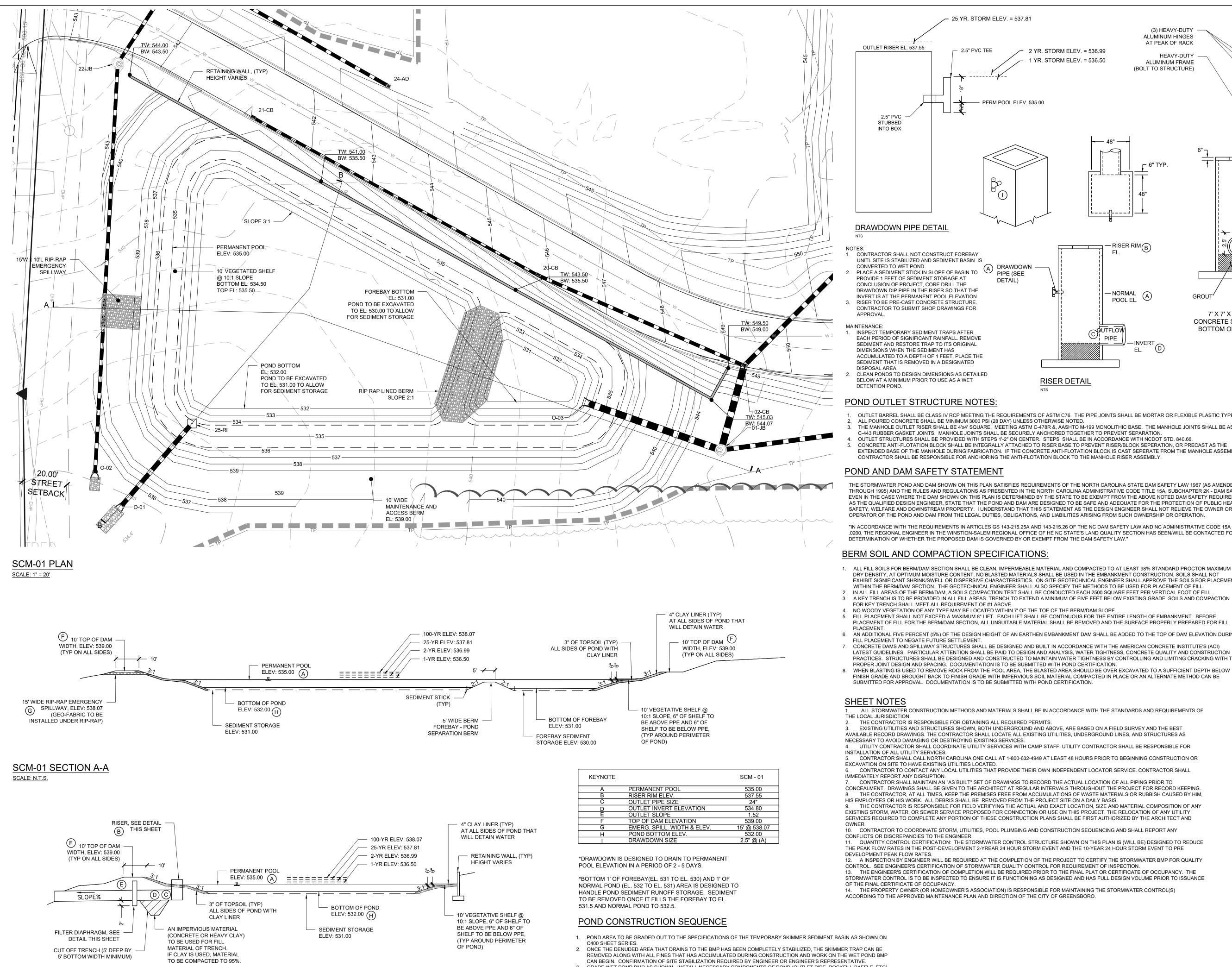
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**GRADING PLAN** 

Project number: C17004 Sheet:

09.27.2017 Drawn by: DCB/RS Approved by: ACP C5.00



SCM-01 SECTION B-B

SCALE: 1" = 20'

25 YR. STORM ELEV. = 537.81 3'X4' ACCESS HATCH (3) HEAVY-DUTY ALUMINUM HINGES AT PEAK OF RACK OUTLET RISER EL: 537.55 - 2.5" PVC TEE 2 YR. STORM ELEV. = 536.99 **HEAVY-DUTY** 1 YR. STORM ELEV. = 536.50 ALUMINUM FRAME (BOLT TO STRUCTURE) PERM POOL ELEV. 535.00 ROOF TRASH RACK ACCESS STAIRS 12" 0.C.;STAIRS TO BE INSTALLED ON SIDE OF RISER THAT IS ACCESSIBLE VIA DRY LAND. ACCESS PORT ON TRASH RACK TO ALSO BE ON THIS SIDE DRAWDOWN PIPE DETAIL CONTRACTOR SHALL NOT CONSTRUCT FOREBAY UNITL SITE IS STABILIZED AND SEDIMENT BASIN IS A DRAWDOWN ——
PIPE (SEE CONVERTED TO WET POND PLACE A SEDIMENT STICK IN SLOPE OF BASIN TO PROVIDE 1 FEET OF SEDIMENT STORAGE AT CONCLUSION OF PROJECT, CORE DRILL THE DRAWDOWN DIP PIPE IN THE RISER SO THAT THE NORMAL A INVERT IS AT THE PERMANENT POOL ELEVATION. POOL EL. RISER TO BE PRE-CAST CONCRETE STRUCTURE. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR 7' X 7' X 24" THK CONCRETE SLAB AT **BOTTOM OF RISER** INSPECT TEMPORARY SEDIMENT TRAPS AFTER EACH PERIOD OF SIGNIFICANT RAINFALL. REMOVE SEDIMENT AND RESTORE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1 FEET. PLACE THE SEDIMENT THAT IS REMOVED IN A DESIGNATED

#### POND OUTLET STRUCTURE NOTES

- OUTLET BARREL SHALL BE CLASS IV RCP MEETING THE REQUIREMENTS OF ASTM C76. THE PIPE JOINTS SHALL BE MORTAR OR FLEXIBLE PLASTIC TYPE JOINT. ALL POURED CONCRETE SHALL BE MINIMUM 3000 PSI (28 DAY) UNLESS OTHERWISE NOTED.
- THE MANHOLE OUTLET RISER SHALL BE 4'x4' SQUARE, MEETING ASTM C-478R &, AASHTO M-199 MONOLITHIC BASE. THE MANHOLE JOINTS SHALL BE ASTM C-443 RUBBER GASKET JOINTS. MANHOLE JOINTS SHALL BE SECURELY ANCHORED TOGETHER TO PREVENT SEPARATION.

RISER DETAIL

OUTLET STRUCTURES SHALL BE PROVIDED WITH STEPS 1'-2" ON CENTER. STEPS SHALL BE IN ACCORDANCE WITH NCDOT STD. 840.66 CONCRETE ANTI-FLOTATION BLOCK SHALL BE INTEGRALLY ATTACHED TO RISER BASE TO PREVENT RISER/BLOCK SEPERATION, OR PRECAST AS THE EXTENDED BASE OF THE MANHOLE DURING FABRICATION. IF THE CONCRETE ANTI-FLOTATION BLOCK IS CAST SEPERATE FROM THE MANHOLE ASSEMBLY THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANCHORING THE ANTI-FLOTATION BLOCK TO THE MANHOLE RISER ASSEMBLY

#### POND AND DAM SAFETY STATEMENT

THE STORMWATER POND AND DAM SHOWN ON THIS PLAN SATISFIES REQUIREMENTS OF THE NORTH CAROLINA STATE DAM SAFETY LAW 1967 (AS AMENDED THROUGH 1995) AND THE RULES AND REGULATIONS AS PRESENTED IN THE NORTH CAROLINA ADMINISTRATIVE CODE TITLE 15A. SUBCHAPTER 2K - DAM SAFETY EVEN IN THE CASE WHERE THE DAM SHOWN ON THIS PLAN IS DETERMINED BY THE STATE TO BE EXEMPT FROM THE ABOVE NOTED DAM SAFETY REQUIREMENTS, I, AS THE QUALIFIED DESIGN ENGINEER. STATE THAT THE POND AND DAM ARE DESIGNED TO BE SAFE AND ADEQUATE FOR THE PROTECTION OF PUBLIC HEALTH. SAFETY, WELFARE AND DOWNSTREAM PROPERTY. I UNDERSTAND THAT THIS STATEMENT AS THE DESIGN ENGINEER SHALL NOT RELIEVE THE OWNER OR

"IN ACCORDANCE WITH THE REQUIREMENTS IN ARTICLES GS 143-215.25A AND 143-215.26 OF THE NC DAM SAFETY LAW AND NC ADMINISTRATIVE CODE 15A NCAC 2K .0200. THE REGIONAL ENGINEER IN THE WINSTION-SALEM REGIONAL OFFICE OF HE NC STATE'S LAND QUALITY SECTION HAS BEEN/WILL BE CONTACTED FOR THE

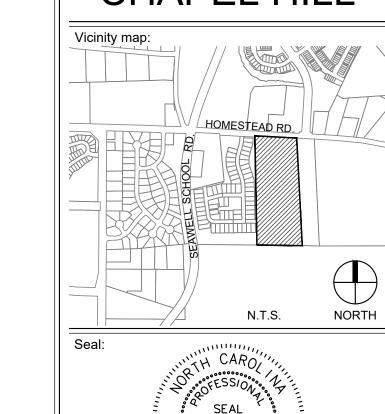
#### BERM SOIL AND COMPACTION SPECIFICATIONS:

- 1. ALL FILL SOILS FOR BERM/DAM SECTION SHALL BE CLEAN, IMPERMEABLE MATERIAL AND COMPACTED TO AT LEAST 98% STANDARD PROCTOR MAXIMUM DRY DENSITY, AT OPTIMUM MOISTURE CONTENT. NO BLASTED MATERIALS SHALL BE USED IN THE EMBANKMENT CONSTRUCTION. SOILS SHALL NOT EXHIBIT SIGNIFICANT SHRINK/SWELL OR DISPERSIVE CHARACTERISTICS. ON-SITE GEOTECHNICAL ENGINEER SHALL APPROVE THE SOILS FOR PLACEMENT
- WITHIN THE BERM/DAM SECTION. THE GEOTECHNICAL ENGINEER SHALL ALSO SPECIFY THE METHODS TO BE USED FOR PLACEMENT OF FILL. 2. IN ALL FILL AREAS OF THE BERM/DAM, A SOILS COMPACTION TEST SHALL BE CONDUCTED EACH 2500 SQUARE FEET PER VERTICAL FOOT OF FILL. 3. A KEY TRENCH IS TO BE PROVIDED IN ALL FILL AREAS. TRENCH TO EXTEND A MINIMUM OF FIVE FEET BELOW EXISTING GRADE. SOILS AND COMPACTION FOR KEY TRENCH SHALL MEET ALL REQUIREMENT OF #1 ABOVE.
- 4. NO WOODY VEGETATION OF ANY TYPE MAY BE LOCATED WITHIN 7' OF THE TOE OF THE BERM/DAM SLOPE. 5. FILL PLACEMENT SHALL NOT EXCEED A MAXIMUM 8" LIFT. EACH LIFT SHALL BE CONTINUOUS FOR THE ENTIRE LENGTH OF EMBANKMENT. BEFORE PLACEMENT OF FILL FOR THE BERM/DAM SECTION, ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND THE SURFACE PROPERLY PREPARED FOR FILL
- 6. AN ADDITIONAL FIVE PERCENT (5%) OF THE DESIGN HEIGHT OF AN EARTHEN EMBANKMENT DAM SHALL BE ADDED TO THE TOP OF DAM ELEVATION DURING FILL PLACEMENT TO NEGATE FUTURE SETTLEMENT. 7. CONCRETE DAMS AND SPILLWAY STRUCTURES SHALL BE DESIGNED AND BUILT IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE'S (ACI)
- PRACTICES. STRUCTURES SHALL BE DESIGNED AND CONSTRUCTED TO MAINTAIN WATER TIGHTNESS BY CONTROLLING AND LIMITING CRACKING WITH THE PROPER JOINT DESIGN AND SPACING. DOCUMENTATION IS TO BE SUBMITTED WITH POND CERTIFICATION. 8. WHEN BLASTING IS USED TO REMOVE ROCK FROM THE POOL AREA, THE BLASTED AREA SHOULD BE OVER EXCAVATED TO A SUFFICIENT DEPTH BELOW FINISH GRADE AND BROUGHT BACK TO FINISH GRADE WITH IMPERVIOUS SOIL MATERIAL COMPACTED IN PLACE OR AN ALTERNATE METHOD CAN BE
- 1. ALL STORMWATER CONSTRUCTION METHODS AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS.
- EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES, UNDERGROUND LINES, AND STRUCTURES AS
- NECESSARY TO AVOID DAMAGING OR DESTROYING EXISTING SERVICES. 4. UTILITY CONTRACTOR SHALL COORDINATE UTILITY SERVICES WITH CAMP STAFF. UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ALL UTILITY SERVICES.
- 5. CONTRACTOR SHALL CALL NORTH CAROLINA ONE CALL AT 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION ON SITE TO HAVE EXISTING UTILITIES LOCATED. 6. CONTRACTOR TO CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN INDEPENDENT LOCATOR SERVICE. CONTRACTOR SHALL
- IMMEDIATELY REPORT ANY DISRUPTION. 7. CONTRACTOR SHALL MAINTAIN AN "AS BUILT" SET OF DRAWINGS TO RECORD THE ACTUAL LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE ARCHITECT AT REGULAR INTERVALS THROUGHOUT THE PROJECT FOR RECORD KEEPING.
- 8. THE CONTRACTOR, AT ALL TIMES, KEEP THE PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS OR RUBBISH CAUSED BY HIM, HIS EMPLOYEES OR HIS WORK. ALL DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE ON A DAILY BASIS. 9. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE ACTUAL AND EXACT LOCATION, SIZE AND MATERIAL COMPOSITION OF ANY EXISTING STORM, WATER, OR SEWER SERVICE PROPOSED FOR CONNECTION OR USE ON THIS PROJECT. THE RELOCATION OF ANY UTILITY SERVICES REQUIRED TO COMPLETE ANY PORTION OF THESE CONSTRUCTION PLANS SHALL BE FIRST AUTHORIZED BY THE ARCHITECT AND
- 10. CONTRACTOR TO COORDINATE STORM, UTILITIES, POOL PLUMBING AND CONSTRUCTION SEQUENCING AND SHALL REPORT ANY CONFLICTS OR DISCREPANCIES TO THE ENGINEER.
- 11. QUANTITY CONTROL CERTIFICATION: THE STORMWATER CONTROL STRUCTURE SHOWN ON THIS PLAN IS (WILL BE) DESIGNED TO REDUCE THE PEAK FLOW RATES IN THE POST-DEVELOPMENT 2-YREAR 24 HOUR STORM EVENT AND THE 10-YEAR 24 HOUR STORM EVENT TO PRE DEVELOPMENT PEAK FLOW RATES. 12. A INSPECTION BY ENGINEER WILL BE REQUIRED AT THE COMPLETION OF THE PROJECT TO CERTIFY THE STORMWATER BMP FOR QUALITY
- CONTROL. SEE ENGINEER'S CERTIFICATION OF STORMWATER QUALITY CONTROL FOR REQUIREMENT OF INSPECTION. 13. THE ENGINEER'S CERTIFICATION OF COMPLETION WILL BE REQUIRED PRIOR TO THE FINAL PLAT OR CERTIFICATE OF OCCUPANCY. THE STORMWATER CONTROL IS TO BE INSPECTED TO ENSURE IT IS FUNCTIONING AS DESIGNED AND HAS FULL DESIGN VOLUME PRIOR TO ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY.
- 14. THE PROPERTY OWNER (OR HOMEOWNER'S ASSOCIATION) IS RESPONSIBLE FOR MAINTAINING THE STORMWATER CONTROL(S) ACCORDING TO THE APPROVED MAINTENANCE PLAN AND DIRECTION OF THE CITY OF GREENSBORO.

# STEWART RALEIGH, NC 27601 www.stewartinc.com T 919.380.8750 PROJECT #: C17104

GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

INDEPENDENT **SENIOR** HOUSING **CHAPEL HILL** 



PRELIMINARY - DO NOT USE FOR CONSTRUCTION

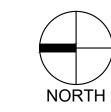
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SCALE: AS NOTED

STORMWATER MANAGEMENT PLAN (SCM-01)

Project number: C17004 Sheet:

Drawn by: DCB

3. GRADE WET POND BMP AS SHOWN. INSTALL NECESSARY COMPONENTS OF POND (OUTLET PIPE, ROCKFILL BAFFLE, ETC) DURING THIS PORTION OF THE CONSTRUCTION. PLEASE NOTE ALSO THAT A 4" THICK CLAY LINER IS TO BE INSTALLED

AREAS OF POND WHERE 4" CLAY LINER IS BE INSTALLED, CONTRACTOR TO INSTALL 3" OF TOPSOIL MATERIAL TO ENSURE

INSTALL OUTLET STRUCTURE AND ANTI FLOATATION SLAB AT ELEVATIONS SHOWN. ONCE THE POND AND OUTLET STRUCTURE HAS BEEN INSTALLED, CONFIRM THAT THE REQUIRED VOLUMES AND CORRECT ELEVATIONS OF THE PIPES/OUTLET STRUCTURE HAVE BEEN INSTALLED. CONFIRMATION REQUIRED BY ENGINEER. AN ELECTRONIC AS BUILT SURVEY WILL BE NECESSARY FOR POND VOLUME CONFIRMATION. 6. ONCE ITEMS HAVE BEEN CONFIRMED, POND TO BE PLANTED AND SEEDED AS SPECIFIED ON LANDSCAPE PLAN. AT

ALONG ANY SIDE THAT IS TO DETAIN WATER.

#### UTILITY NOTES:

- 1. REFER TO SHEET C3.00 FOR GENERAL NOTES.
- 2. UNLESS OTHERWISE NOTED, ALL MANHOLES SHALL BE PRE-CAST CONCRETE STRUCTURES.

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF

- UNDERGROUND UTILITIES (WATER, SEWER, STORM, ELECTRICAL, GAS, OR OTHER) FOR THIS PROJECT WITH THE BUILDING PLANS. THE UTILITY CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE INSTALLATION OF ALL UTILITY SERVICES TO WITHIN FIVE (5) FEET OF THE BUILDING CONNECTION POINT.
- 4. THE CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS ON SITE AND UTILITY PROVIDERS DURING CONSTRUCTION TO ENSURE SMOOTH TRANSITION BETWEEN DISCIPLINES.
- 5. THE CONTRACTOR SHALL COORDINATE ALL PEDESTRIAN AND VEHICULAR INTERRUPTIONS WITH OWNER'S REPRESENTATIVE AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
- 6. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INSIDE THE PUBLIC RIGHT OF WAY PRIOR TO RECEIPT AND COMPLIANCE WITH ALL APPLICABLE NCDOT PERMITS. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FLAGGERS AND TRAFFIC CONTROL DURING ALL WORK INSIDE THE PUBLIC RIGHTS OF
- 7. THE CONTRACTOR SHALL NOT RE-USE ANY FIRE HYDRANT REMOVED AS PART OF THIS PROJECT. ANY FIRE HYDRANT SHOWN TO BE REMOVED OR RELOCATED SHALL BE REPLACED WITH A NEW FIRE HYDRANT MEETING THE LOCAL JURISDICTIONAL REQUIREMENTS AND STANDARDS.
- 8. ALL EXISTING SUB-SURFACE UTILITIES IDENTIFIED ON THE CONSTRUCTION DOCUMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON SURVEY INFORMATION GATHERED FROM FIELD INSPECTION AND/OR ANY OTHER APPLICABLE RECORD DRAWINGS WHICH MAY BE AVAILABLE. DEPTHS OF EXISTING UTILITIES SHOWN IN PROFILE VIEWS ARE BASED ON STANDARD ASSUMPTIONS. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION, DEPTH, SIZE AND MATERIAL OF ANY AND ALL SUB-SURFACE CONDITIONS REFERENCED IN THESE PLANS PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.

- 9. ELEVATIONS OF UTILITIES ARE GIVEN TO THE EXTENT OF INFORMATION AVAILABLE, WHERE ELEVATIONS ARE NOT GIVEN AT POINTS OF EXISTING UTILITY CROSSINGS, SUCH ELEVATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND REPORTED TO THE ENGINEER, WHEN UNKNOWN LINES ARE EXPOSED, THEIR LOCATIONS AND ELEVATIONS SHALL ALSO BE REPORTED TO THE ENGINEER.
- 10. UNDERGROUND UTILITIES SHOWN ON THIS PLAN SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION OF PARKING AREA, DRIVES, CURB AND GUTTER OR CONCRETE WALKS / PADS. IF UTILITIES SHOWN ON THIS PLAN CANNOT BE INSTALLED PRIOR TO INSTALLATION OF IMPERVIOUS (ASPHALT / CONCRETE) CONDUIT SHALL BE INSTALLED FOR THE "FUTURE" UTILITY INSTALLATION.
- 11. AS-BUILT DOCUMENTATION REQUIREMENTS: PRIOR TO APPROVAL FROM LOCAL JURISDICTION OR ENGINEER THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS (IN BOTH PAPER AND ELECTRONIC FORMAT (CAD / PDF) PREPARED AND SEALED BY A PROFESSIONAL LAND SURVEYOR SHOWING ALL UTILITY INSTALLATION. HORIZONTAL AND VERTICAL INFORMATION SHALL BE PROVIDED FOR WATER, SEWER, STORM INCLUDING ALL STRUCTURES, VALVES, HYDRANTS, AND OTHER APPURTENANCES.

#### **WATER NOTES**

- 1. AS INDICATED, ALL WATERLINES SHALL BE DUCTILE IRON PIPE MEETING THE REQUIREMENTS OF ANSI-AWWA C151 PRESSURE CLASS 350 OR SOFT COPPER TYPE K PIPE PER ASTM B88. IF PVC WATERLINE IS INDICATED ON THE PLANS IT SHALL MEET THE REQUIREMENTS OF AWWA C-900; CLASS 200.
- 2. ALL WATERLINES SHALL HAVE A MINIMUM OF 3.5 FEET OF COVER.

SATISFACTORY RESULTS ARE OBTAINED.

3. TESTING NOTES:

PRESSURE:
LEAKAGE SHALL NOT EXCEED THE MAXIMUM ALLOWABLE LEAKAGE SPECIFIED IN AWWA C 600. MINIMUM TEST PRESSURE SHALL BE 150 PSI FOR DOMESTIC AND 200 PSI FOR FIRE PROTECTION.

BACTERIOLOGICAL:
TWO SAMPLES FOR BACTERIOLOGICAL SAMPLING SHALL BE COLLECTED AT LEAST 24 HOURS APART. IF CONTAMINATION IS INDICATED, THEN THE DISINFECTION PROCEDURE AND TESTING SHALL BE REPEATED UNTIL

- 4. THE CHLORINE IN HEAVILY CHLORINATED WATER FLUSHED FROM MAINS NEEDS TO BE NEUTRALIZED BEFORE DISCHARGE. CONTRACTORS SHALL NEUTRALIZE HEAVILY CHLORINATED WATER FLUSHED FROM MAINS PRIOR TO DISCHARGE OR TRANSPORT ALL HEAVILY CHLORINATED WATER OFFSITE FOR PROPER
- 5. PAINT VALVE COVERS, FIRE HYDRANTS AND OTHER WATER APPARATUS TO MEET THE LOCAL JURISDICTIONAL REQUIREMENTS.

#### PROPOSED UTILITY SEPARATION:

- 1. WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10-FOOT HORIZONTAL SEPARATION IN WHICH CASE;
- a. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE
- SEWER; OR
  b. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER
  MAIN LOCATED AT ONE SIDE OF A BENCH OF UNDISTURBED EARTH, AND WITH THE
  ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE
  TOP TO THE SEWER.
- 2. CROSSING A WATER MAIN OVER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION, IN WHICH CASE BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT
- 3. CROSSING A WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

#### SEPARATION OF SANITARY SEWERS AND STORM SEWERS:

1. A 24" VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN STORM SEWER AND SANITARY SEWER LINES OR BOTH THE SANITARY AND THE STORM LINES SHALL BE CONSTRUCTED OF FERROUS MATERIALS.

#### FIRE DEPARTMENT ACCESS NOTES

- 1. AERIALS; WHERE A BUILDING EXCEEDS 30' IN HEIGHT OR 3 STORIES ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT ACCESS, OVERHEAD POWER AND UTILITY LINES SHALL NOT BE ALLOWED WITHIN THE AERIAL APPARATUS ACCESS ROADWAY AND THE ROADWAY SHALL HAVE AN UNOBSTRUCTED WIDTH OF 26' EXCLUSIVE OF THE SHOULDERS. AT LEAST ONE OF THE APPARATUS ACCESS ROADWAYS SHALL BE LOCATED WITHIN A MINIMUM OF 15' AND MAXIMUM OF 30' FROM ONE COMPLETE SIDE OF THE BUILDING. NC FPC 2012 D105.1, D105.2, D105.3
- 2. FIRE APPARATUS ACCESS ROADS; ANY FIRE APPARATUS ACCESS ROADS, (ANY PUBLIC/PRIVATE STREET, PARKING LOT ACCESS, FIRE LANES AND ACCESS ROADWAYS), USED FOR FIRE DEPARTMENT ACCESS SHALL BE ALL WEATHER AND DESIGNED TO CARRY THE IMPOSED LOAD OF FIRE APPARATUS WEIGHING AT LEAST 80,000 LBS. FIRE APPARATUS ACCESS ROADS SHALL HAVE A MINIMUM WIDTH OF 20' WITH AN OVERHEAD CLEARANCE OF AT LEAST 13'-6" FOR STRUCTURES NOT EXCEEDING 30' IN HEIGHT AND SHALL PROVIDE ACCESS TO WITHIN 150' OF ALL EXTERIOR PORTIONS OF THE BUILDING. STRUCTURES EXCEEDING 30' IN HEIGHT SHALL BE PROVIDED WITH AN AERIAL APPARATUS ACCESS ROAD 26' IN WIDTH IN THE IMMEDIATE VICINITY OF THE BUILDING OR PORTION THEREOF AND SHALL PROVIDE AT LEAST ONE OF THE REQUIRED ACCESS ROADS TO BE LOCATED NOT LESS THAN 15' AND NOT MORE THAN 30' FROM THE STRUCTURE PARALLEL TO ONE ENTIRE SIDE OF THE STRUCTURE. NC FPC 2012 502.1,503.1.1, 503.2.1, D102.1

#### SEWER NOTES:

- SANITARY SEWER CLEANOUTS LOCATED IN PAVEMENT AREAS SHALL BE HEAVY DUTY TRAFFIC BEARING CASTINGS.
- 2. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES ARE 4' DIA.
- 3. MANHOLES LOCATED IN PAVEMENT, CONCRETE OR OTHER TRAFFIC AREAS SHALL BE SET AT GRADE. MANHOLES LOCATED IN OTHER AREAS (I.E. GRASS OR WOODED AREAS) SHALL HAVE THEIR RIMS RAISED SIX INCHES ABOVE THE SURROUNDING GRADE. MANHOLES SUBJECT TO POSSIBLE WATER INFILTRATION SHALL HAVE WATERTIGHT, BOLTED LIDS.
- 4. MINIMUM REQUIRED SLOPES FOR SEWER SERVICES:
  4" SEWER SERVICE 2.00% SLOPE
  6" SEWER SERVICE 1.00% SLOPE
  8" SEWER SERVICE 0.50% SLOPE
- 5. UNLESS OTHERWISE NOTED, LOCATE SANITARY SERVICE CLEANOUTS AT ALL HORIZONTAL OR VERTICAL CHANGES IN DIRECTION. MAXIMUM SPACING BETWEEN CLEANOUTS SHALL BE 75 FEET.
- 6. SEWER LINES LESS THAN 3 FEET OF COVER SHALL BE CLASS 50 DUCTILE IRON PIPE. SEWER LINES WITH GREATER THAN 3 FEET OF COVER SHALL BE AS NOTED BELOW:

  4" SEWER SERVICE SCH 80
  6" SEWER SERVICE SCH 80
- 7. SEWER LINES UNDER CONSTRUCTION SHALL BE PROTECTED FROM DIRT, DEBRIS OR OTHER CONTAMINANTS ENTERING THE NEW SYSTEM. A MECHANICAL PLUG SHALL BE UTILIZED BOTH IMMEDIATELY UPSTREAM OF THE NEW CONSTRUCTION AND AT THE FIRST MANHOLE DOWNSTREAM IN THE EXISTING SYSTEM. EXISTING STRUCTURES, PIPING AND APPURTENANCES SHALL BE PROTECTED FROM ANY INFLOW OF WATER, DIRT OR DEBRIS DUE TO NEW CONSTRUCTION CONNECTING TO OR IN THE VICINITY OF THE EXISTING SYSTEM. CONTRACTOR TO REMOVE DEBRIS AND PLUG PRIOR TO OCCUPANCY.
- 8. ALL MANHOLES COVERS SHALL BE PAINTED TO LOCAL JURISDICTIONAL REQUIREMENTS.

#### FIRE SERVICE FEATURES NOTES:

8" SEWER SERVICE - SDR-35

- 1. FIRE LANES; WHERE REQUIRED, APPROVED MARKING SIGNS INCLUDING THE WORDS, NO PARKING-FIRE LANE SIGNS SHALL BE PROVIDED FOR FIRE APPARATUS ACCESS ROADS TO IDENTIFY SUCH ROADS. NC FPC 2012, 503.3, D103.6, D103.6.1, D103.6.2
- 2. GATES AND BARRICADES; WHERE REQUIRED OR AUTHORIZED BY THE FIRE CODE OFFICIAL AND PERMANENT OR TEMPORARY (CONSTRUCTION), ANY GATES ACROSS FIRE APPARATUS ACCESS ROADS SHALL BE A MINIMUM WIDTH OF 20', BE OF SWINGING OR SLIDING TYPE, HAVE AN EMERGENCY MEANS OF OPERATION, SHALL BE OPENABLE BY EITHER FORCIBLE ENTRY OR KEYED, CAPABLE OF BEING OPERATED BY ONE PERSON, AND SHALL BE INSTALLED AND MAINTAINED ACCORDING TO UL 325 AND ASTM F 2200. NC FPC 2012, 503.5, 503.6, D103.5
- 3. GRADE AND APPROACH; FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 10% IN GRADE UNLESS APPROVED BY THE FIRE CHIEF AND ALL APPROACH AND DEPARTURE ANGLES SHALL BE WITHIN THE LIMITS ESTABLISHED BASED ON THE DEPARTMENT'S APPARATUS. NC FPC 2012, 503.2.7, 503.2.8 AND D103.2

#### FIRE PROTECTION NOTES:

- 1. FIRE DEPARTMENT CONNECTIONS, INSTALLATION: A WORKING SPACE OF NOT LESS THAN 36" IN WIDTH AND DEPTH AND A WORKING SPACE OF 78" IN HEIGHT SHALL BE PROVIDED ON ALL SIDES WITH THE EXCEPTION OF WALL MOUNTED FDC'S UNLESS OTHERWISE APPROVED BY THE FIRE CODE OFFICIAL. THE FDC'S WHERE REQUIRED MUST BE PHYSICALLY PROTECTED BY AN APPROVED BARRIER FROM IMPACTS. NC FPC 2012, 912.1, 912.2 912.2.1, 912.3.2, 312
- 2. FIRE DEPARTMENT CONNECTIONS, LOCATIONS; ANY REQUIRED FDC'S FOR ANY BUILDINGS SHALL MEET THE DESIGN AND INSTALLATION REQUIREMENTS FOR THE CURRENT, APPROVED EDITION OF NFPA 13, 13D, 13R, OR 14 OF THE NC FPC 2012 AND TOWN ORDINANCES; 7-38 FOR LOCATION. FDC'S SHALL BE INSTALLED ON THE STREET/ ADDRESS SIDE OF THE BUILDING AND WITHIN 100' OF A HYDRANT OR UNLESS OTHERWISE APPROVED BY THE FIRE CODE OFFICIAL AND SHALL NOT BE OBSTRUCTED OR HINDERED BY PARKING OR LANDSCAPING.
- 3. SPRINKLERS: ANY BUILDING WITH MORE THAN 6000 SF OF FLOOR SPACE IS REQUIRED TO HAVE A SPRINKLER SYSTEM. TOWN ORDINANCE 7-56.
- 4. FIRE HYDRANTS; THE ADDITION OF ANY REQUIRED HYDRANTS TO SERVE THE SUBMITTED BUILDING MUST FLOW A MINIMUM OF 2500 GPM PER TOWN ENGINEERING STANDARDS UNLESS APPROVED BY THE FIRE CODE OFFICIAL. THE FARTHEST HYDRANT SERVING A PROPOSED STRUCTURE MUST BE NO MORE THAN 500' DISTANT. A MAXIMUM DISTANCE OF 500' SPACING BETWEEN HYDRANTS MUST BE MAINTAINED UNLESS OTHERWISE APPROVED BY THE FIRE CODE OFFICIAL. LESSER SPACING DISTANCES MAY BE REQUIRED. A MINIMUM WORKING SPACE OF 3' MUST BE MAINTAINED AROUND ALL HYDRANTS. WHERE HYDRANTS ARE SUBJECT TO PHYSICAL IMPACT, PHYSICAL PROTECTION MAY BE REQUIRED, NC FPC 2012, 507.5.6. THE MINIMUM NUMBER OF REQUIRED HYDRANTS AND THEIR SPACING MUST MEET NC FPC 2012, APPENDIX C, TABLE C105.1
- 5. FIRE HYDRANTS; WHERE A FIRE HYDRANT EXISTS ON AN A FIRE APPARATUS ACCESS ROAD SERVING THE BUILDING BEING SUBMITTED, THE FIRE APPARATUS ACCESS ROAD SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 26'. NC FPC 2012 D103.1

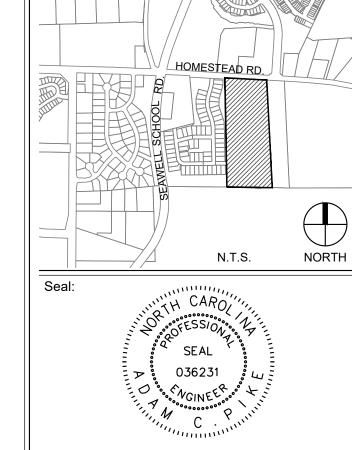


Client:

GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

Project:

# INDEPENDENT SENIOR HOUSING CHAPEL HILL

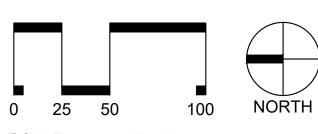


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PRELIMINARY - DO NOT

**USE FOR CONSTRUCTION** 

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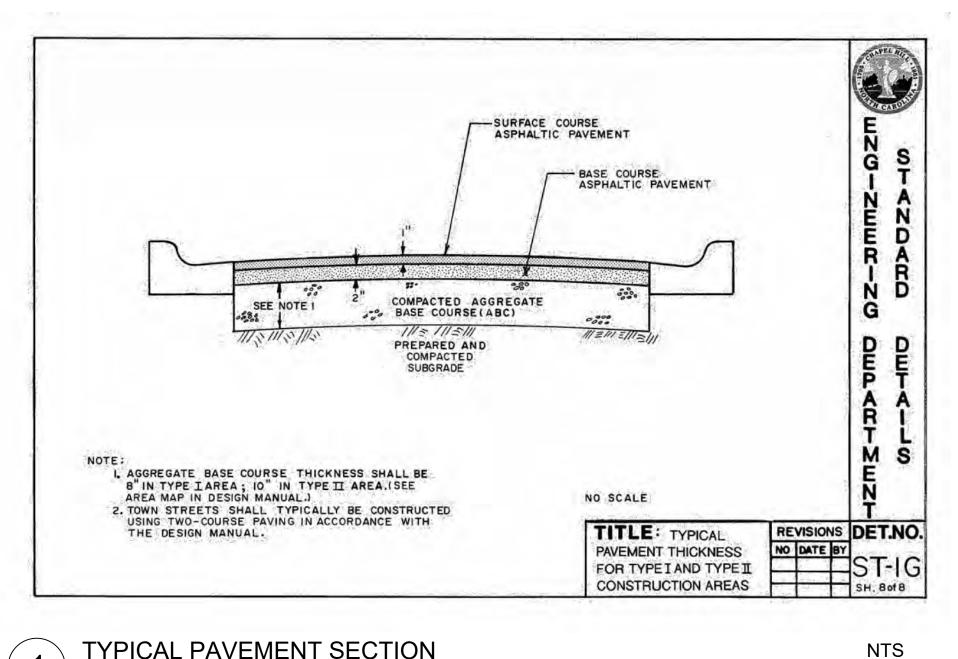


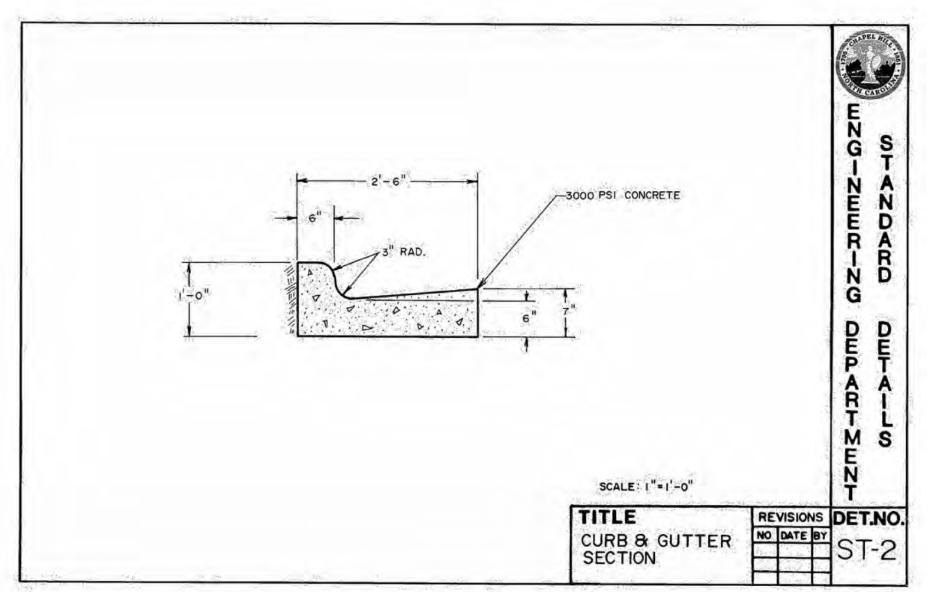
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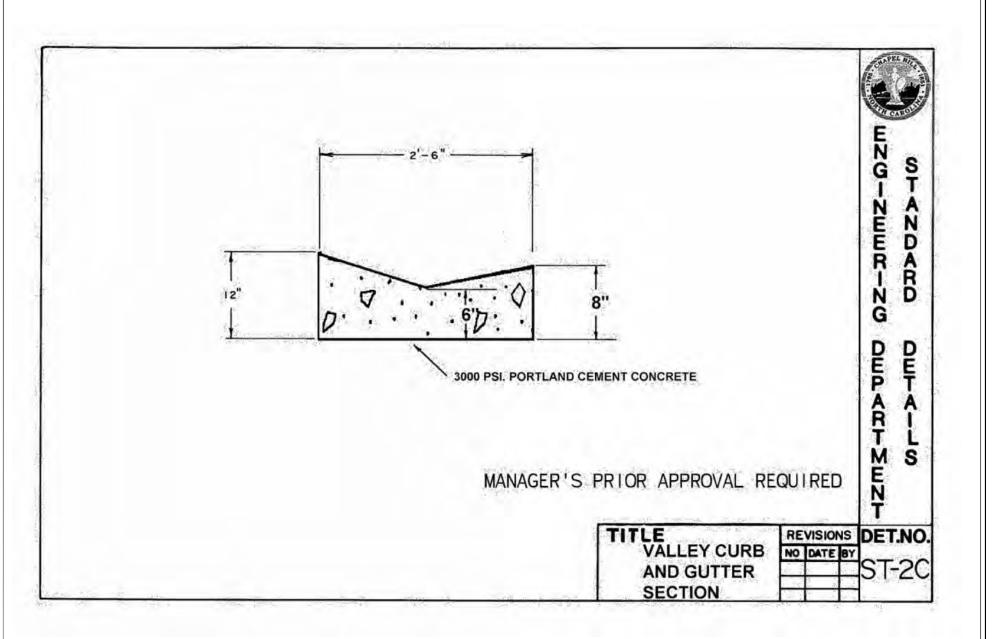
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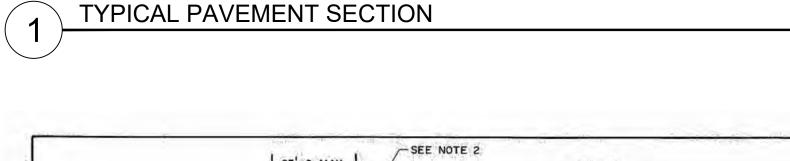
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Date: 09.27.2017
Drawn by: DCB/RS

9.27.2017 DCB/RS **C6 OC** 

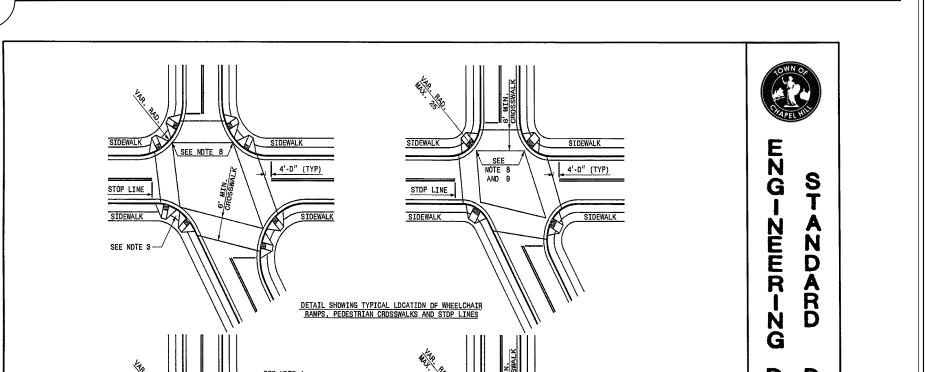


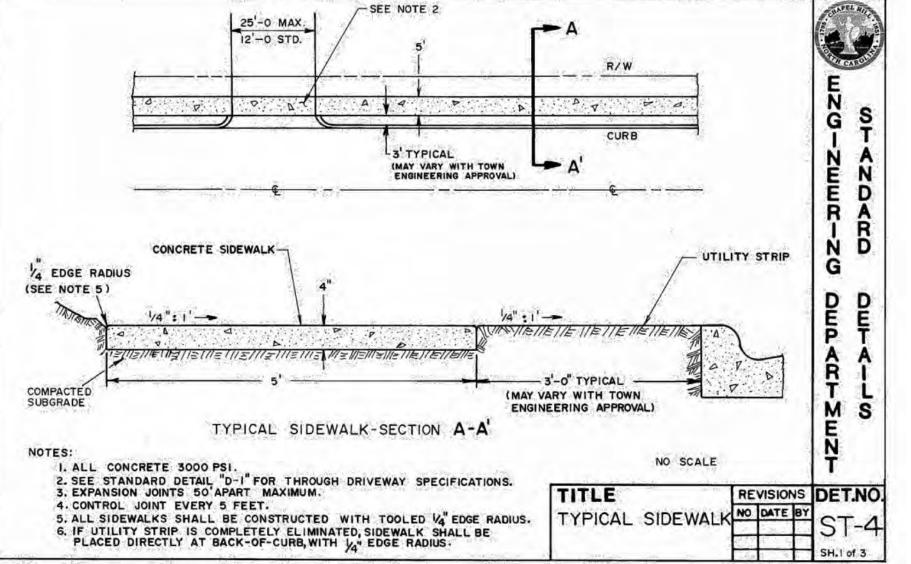


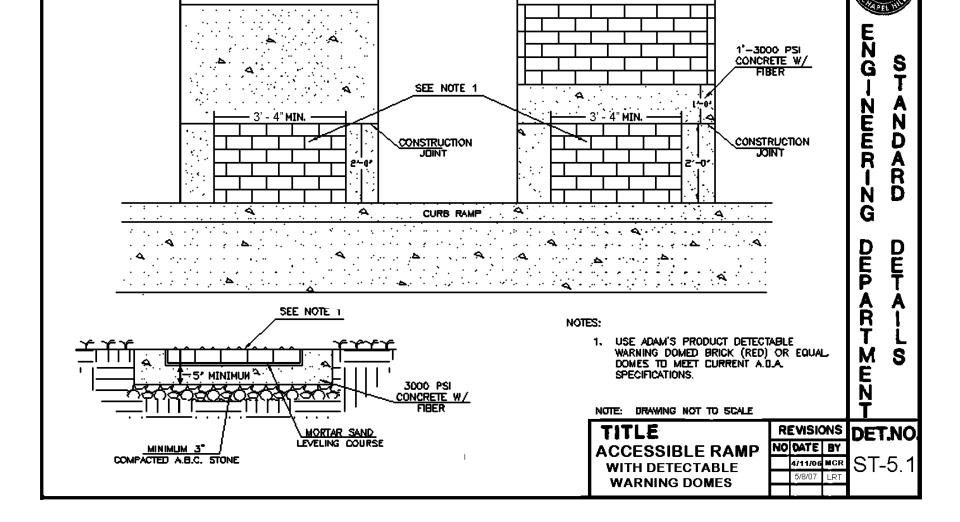




**CURB & GUTTER SECTION** 







5' BRICK SIDEWALK WITH RUNNING COURSE

ACCESSIBLE RAMP DETAIL (PART1)

1. CONSTRUCT THE WALKING SURFACE WITH SLIP RESISTANCE AND A 70% CONTRASTING COLOR TO THE SIDEWALK.

4. DO NOT EXCEED 0.08 (12:1) SLOPE ON THE WHEELCHAIR RAMP IN RELATIONSHIP TO THE GRADE OF THE STREET.

PROVIDE WHEELCHAIR RAMPS AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. LOCATE WHEELCHAIR RAMPS AS DIRECTED BY THE ENGINEER WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT. WHERE TWO RAMPS ARE INSTALLED, PLACE NOT LESS THAN TWO FEET OF FULL HEIGHT CURB BETWEEN THE RAMPS. PLACE DUAL RAMPS AS PERPENDICULAR TO THE TRAVEL LANE BEING CROSSED AS POSSIBLE.

5. CONSTRUCT WHEELCHAIR RAMPS 40" (3'-4") OR GREATER FOR DUAL RAMPS AND 60" (3'-0") OR GREATER FOR DIAGONAL RAMPS.

7. PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE WHEELCHAIR RAMP JOINS THE CURB AS SHOWN ON DETAIL ST-5A.

2. CROSSWALK WIDTHS AND CONFIGURATION MAY VARY BUT MUST CONFORM TO TRAFFIC DESIGN STANDARDS.

6. USE CONCRETE WITH A SIDEWALK FINISH IN ORDER TO OBTAIN A ROUGH NON-SKID TYPE SURFACE.

SOURCE: NCDOT STANDARD DRAWINGS

5' CONCRETE SIDEWALK 3000 PSI W/ FIBER

**VALLEY CURB & GUTTER SECTION** 

SUP SUBMITTAL

SEAL

036231

PRELIMINARY - DO NOT

USE FOR CONSTRUCTION

Seal:

Issued for:

421 FAYETTEVILLE ST., SUITE 400 FIRM LICENSE #: C-1051

121 S. ESTES DRIVE SUITE 100

INDEPENDENT

SENIOR

HOUSING

**CHAPEL HILL** 

HOMESTEAD RD.

NORTH

CHAPEL HILL, NC 27514

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RALEIGH, NC 27601

GLMH-2, LLC

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NTS

No. Date Description

SCALE: N.T.S.

SITE DETAILS

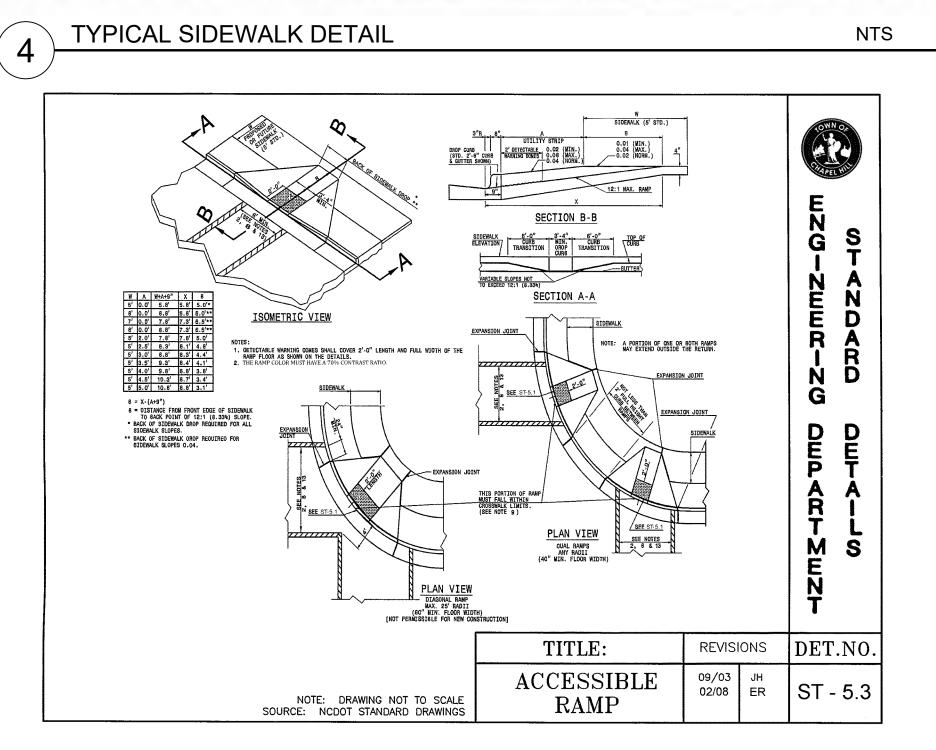
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Approved by:

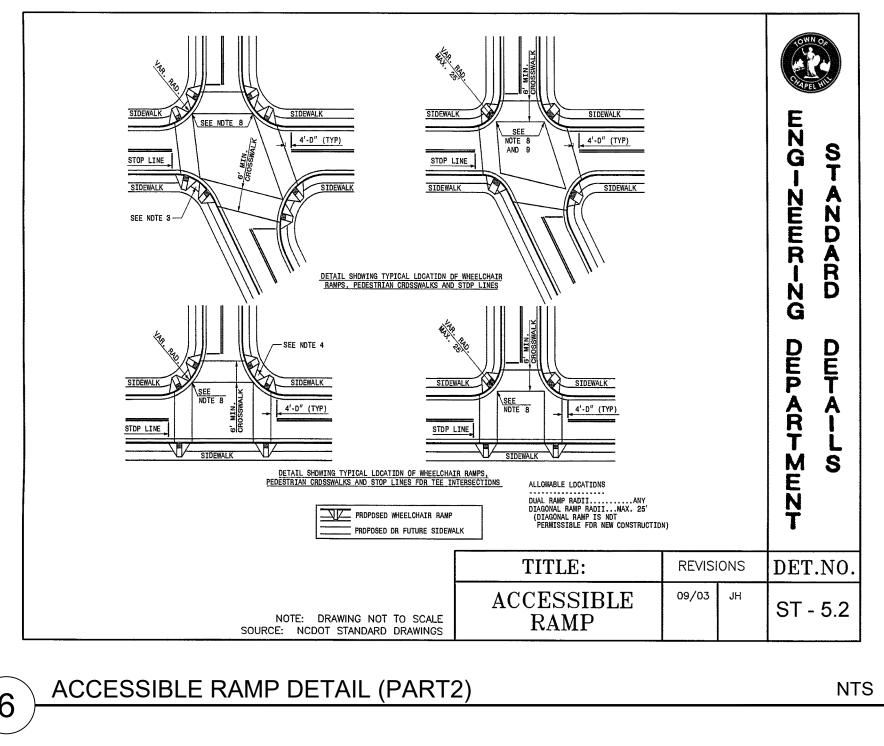
G 8. PLACE THE INSIDE PEDESTRIAN CROSSWALK LINES NO CLOSER IN THE INTERSECTION BY BISECTING THE INTERSECTION RADII, WITH ALLOWANCE OF A 4' CLEAR ZONE IN THE VEHICULAR TRAVELWAY WHEN ONE RAMP IS INSTALLED. (SEE NOTE 13) 9. COORDINATE THE CURB CUT AND THE PEDESTRIAN CROSSWALK LINES SO THE FLOOR OF THE WHEELCHAIR RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES. PLACE DIAGONAL RAMPS WITH FLARED SIDES SO 24" OF FULL HEIGHT CURB FALLS WITHIN THE CROSSWALK MARKINGS ON EACH SIDE OF THE FLARES. 10. CONSTRUCT THE PEDESTRIAN CROSSWALK A MINIMUM OF 6 FEET. A CROSSWALK WIDTH OF 8 FEET OR GREATER IS DESIRABLE. 11. USE STOP LINES, NORMALLY PERPENDICULAR TO THE LANE LINES, WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL, STOP SIGN OR OTHER LEGAL REQUIREMENT. AN UNUSUAL APPROACH SKEW MAY REQUIRE THE PLACEMENT OF THE STOP LINE TO BE PARALLEL TO THE INTERSECTION ROADWAY. 12. TERMINATE PARKING A MINIMUM OF 20 FEET BACK OF PEDESTRIAN CROSSWALK. MS 13. PLACE ALL PAVEMENT MARKINGS IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION AND THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD.

DET.NO. TITLE: REVISIONS ACCESSIBLE 09/03 JH ST - 5.4 RAMP

ACCESSIBLE RAMP DETAIL (PART4)



ACCESSIBLE RAMP DETAIL (PART3)

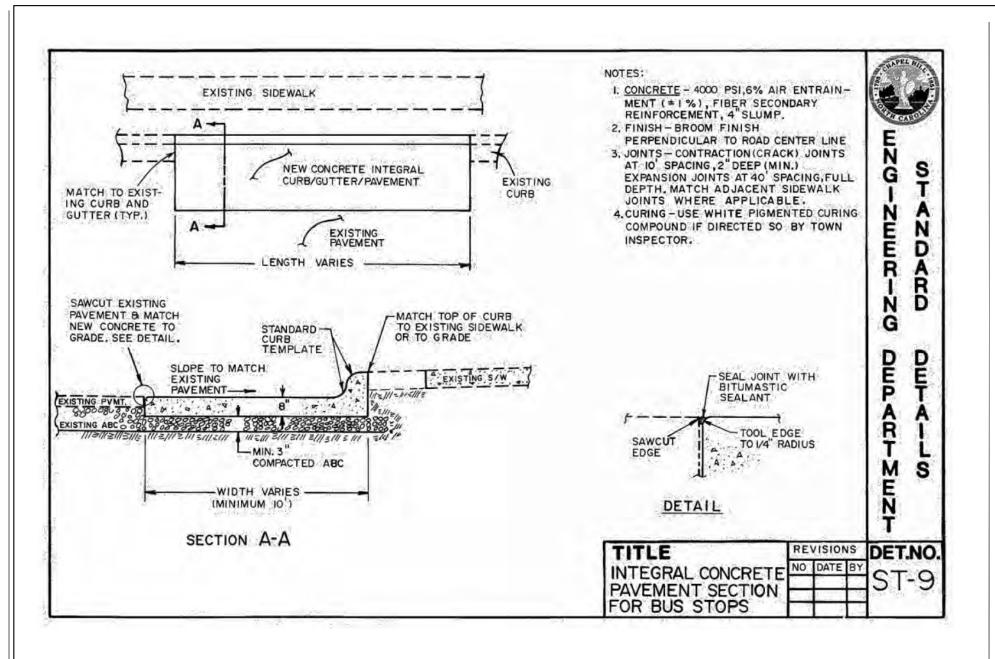


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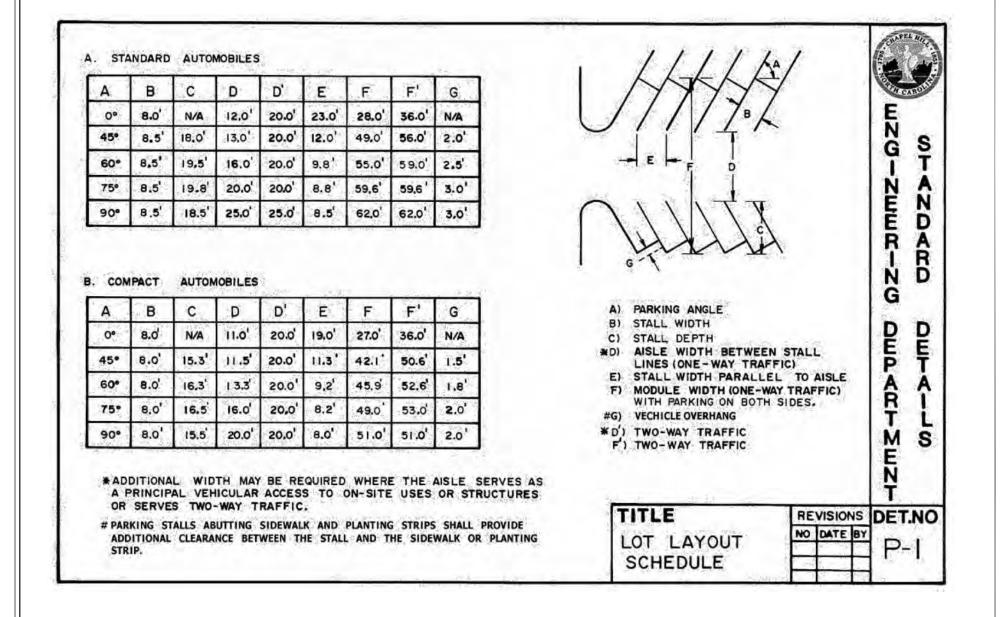
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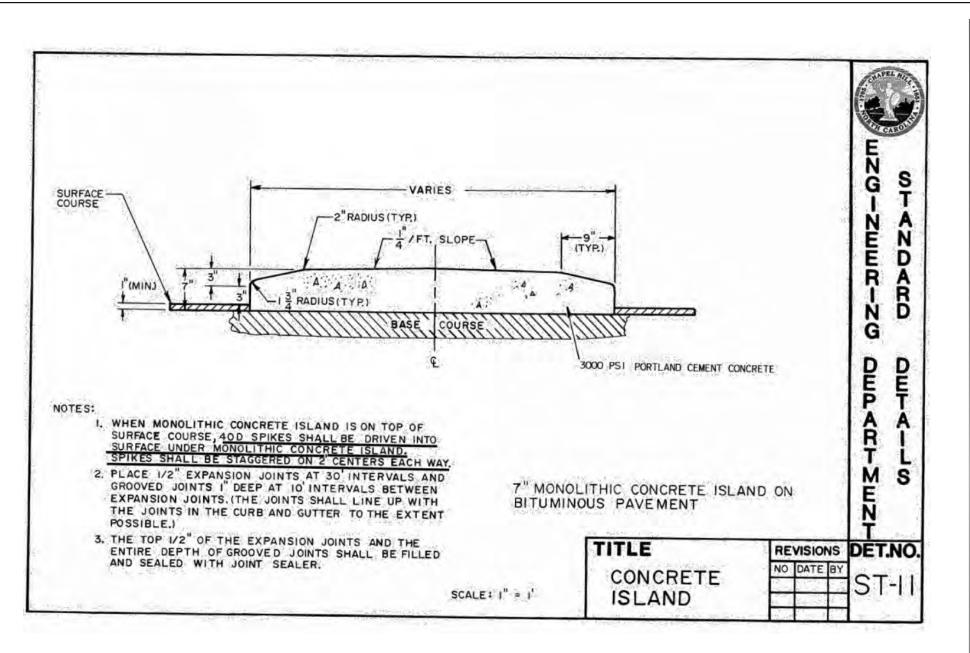




PARKING LOT LAYOUT SCHEDULE

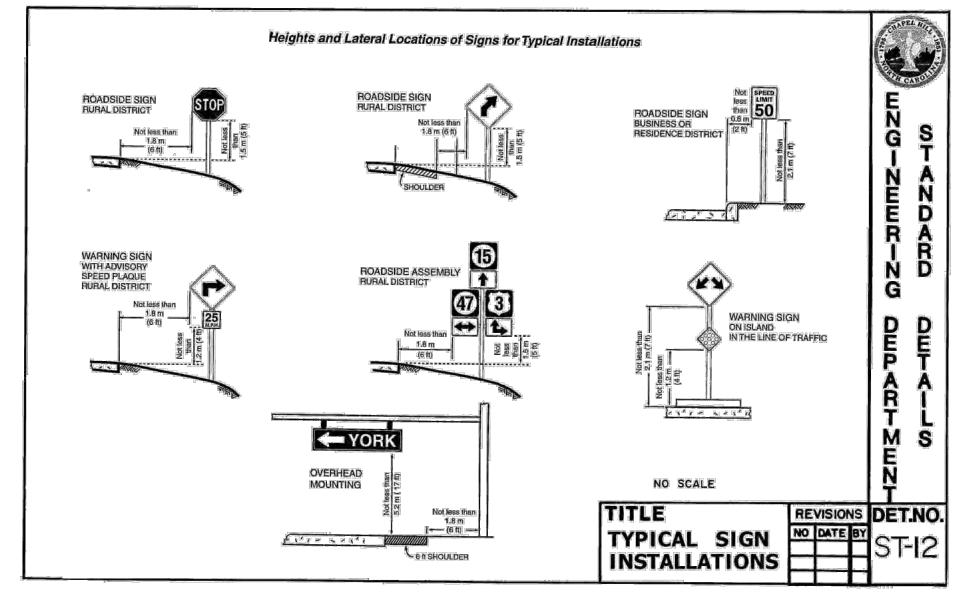
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CONCRETE ISLAND DETAIL

NTS



TYPICAL SIGN INSTALLATIONS DETAIL

NTS

INDEPENDENT SENIOR

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CHAPEL HILL, NC 27514

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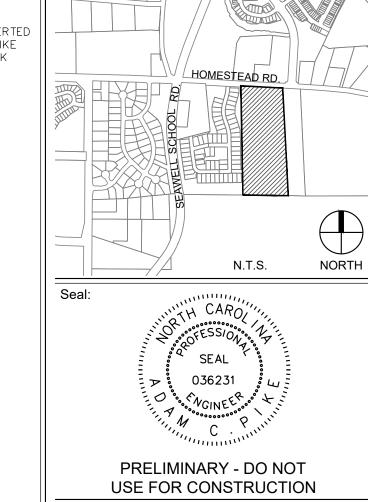
PROJECT #: C17104

RALEIGH, NC 27601

GLMH-2, LLC

T 919.380.8750

HOUSING **CHAPEL HILL** 



SUP SUBMITTAL

Issued for:

No. Date Description

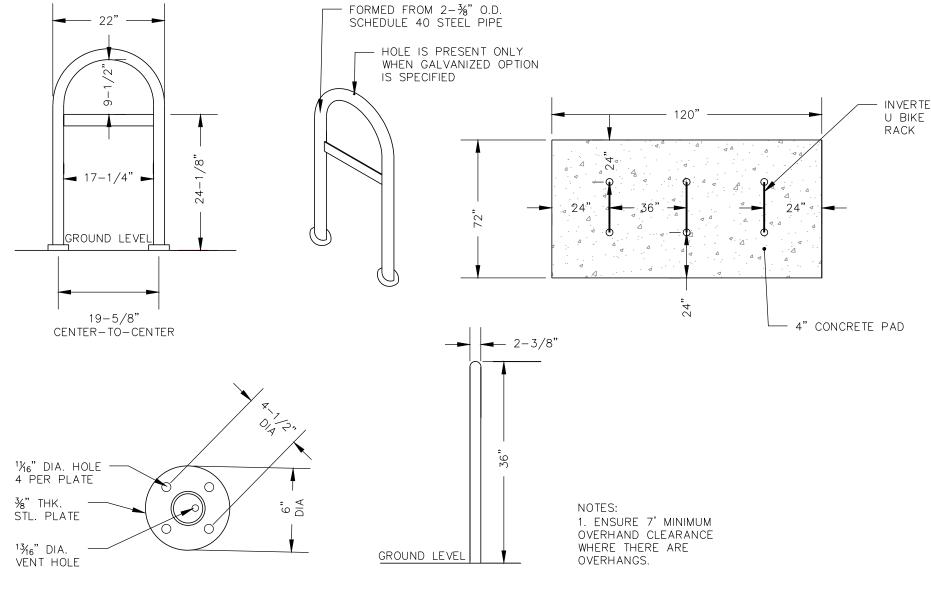
SCALE: N.T.S.

SITE DETAILS

09.27.2017

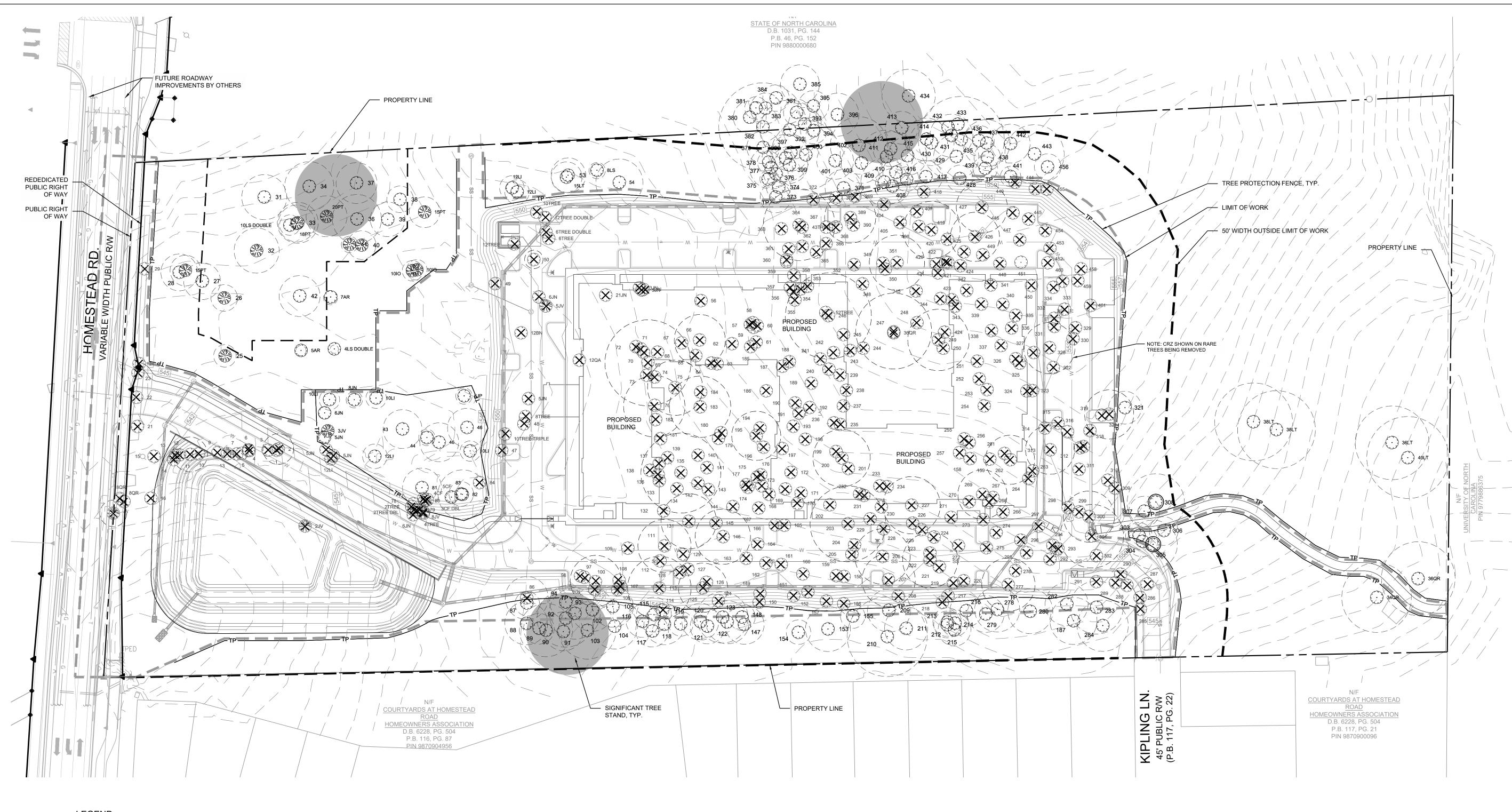
FOR DIMENSIONS SEE DETAIL NO. P-I (LOT LAYOUT SCHEDULE) /- WHEELSTOP NO SCALE TITLE REVISIONS DET.NO. NO DATE BY LAYOUT

TYPICAL 90° PARKING LOT LAYOUT



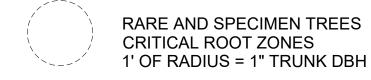
INVERTED U BIKE RACK WITH CROSS BRACE DETAIL 6

Project number: C17004 Sheet: RS C9.01 Drawn by: ACP



LEGEND





— LIMIT OF WORK

50' WIDTH TREE PROTECTION LIMIT

— TP — TREE PROTECTION FENCE



SIGNIFICANT TREE STAND



RARE OR SPECIMEN TREE TO BE



(·) \*\*X NON-RARE OR SPECIMEN TREE

- SEE SHEET L1.01 FOR TREE SPECIES. - CRZ SHOWN ON ALL RARE TREES BEING REMOVED.

#### LANDSCAPING PROTECTION NOTES

MATERIALS AND EQUIPMENT ON SITE.

- 1. PRE-CONSTRUCTION CONFERENCE. PRIOR TO THE COMMENCEMENT OF ANY ACTIVITIES REQUIRING A ZONING COMPLIANCE PERMIT, A PRE-CONSTRUCTION CONFERENCE WITH THE TOWN'S URBAN FORESTER OR LANDSCAPE ARCHITECT SHALL TAKE PLACE TO REVIEW PROCEDURES FOR PROTECTION AND MANAGEMENT OF ALL PROTECTED LANDSCAPE ELEMENTS IDENTIFIED ON THE LANDSCAPE PROTECTION PLAN.
- 2. ON-SITE SUPERVISION. FOR ALL DEVELOPMENT OTHER THAN THAT RELATED TO SINGLE-FAMILY AND TWO-FAMILY DWELLINGS ON INDIVIDUAL ZONING LOTS, THE FOLLOWING ON-SITE SUPERVISION IS REQUIRED:
- THE APPLICANT SHALL DESIGNATE AS LANDSCAPE PROTECTION SUPERVISORS ONE OR MORE PERSONS WHO HAVE COMPLETED INSTRUCTION IN LANDSCAPE PROTECTION PROCEDURES WITH THE TOWN. IT SHALL BE THE DUTY OF THE LANDSCAPE PROTECTION SUPERVISOR TO ENSURE THE PROTECTION OF NEW OR EXISTING LANDSCAPE ELEMENTS, AS DEFINED IN THE LANDSCAPE PROTECTION PLAN. THE APPROVED LANDSCAPE PROTECTION SUPERVISOR SHALL SUPERVISE ALL SITE WORK TO ASSURE THAT DEVELOPMENT ACTIVITY CONFORMS TO PROVISIONS OF THE APPROVED LANDSCAPE PROTECTION PLAN. AT LEAST ONE (1) IDENTIFIED LANDSCAPE PROTECTION SUPERVISOR SHALL BE PRESENT ON THE DEVELOPMENT SITE AT ALL TIMES WHEN ACTIVITY THAT COULD DAMAGE OR DISTURB SOIL AND ADJACENT LANDSCAPE ELEMENTS OCCURS SUCH AS: CLEARING AND GRUBBING; ANY EXCAVATION, GRADING, TRENCHING OR MOVING OF SOIL; REMOVAL, INSTALLATION, OR MAINTENANCE OF ALL LANDSCAPE ELEMENTS AND LANDSCAPE PROTECTION DEVICES; OR DELIVERY, TRANSPORTING, AND PLACEMENT OF CONSTRUCTION
- 3. TOWN STANDARD TREE PROTECTION NOTES: A PRE-CONSTRUCTION CONFERENCE WILL BE HELD WITH THE TOWN'S URBAN FORESTER PRIOR TO BEGINNING SITE WORK. ANY TREE ROOTS EXPOSED BY CONSTRUCTION WILL BE SEVERED CLEANLY
- WITH AN APPROPRIATE PRUNING TOOL. THE SOIL WITHIN THE CRITICAL ROOT ZONES OF EXISTING TREES WILL NOT BE DRIVEN ON OR OTHERWISE DISTURBED DURING THE INSTALLATION OF

(ON DEVELOPMENT APPLICATIONS FOR NON-RESIDENTIAL AND MULTI-FAMILY CONSTRUCTION THE FOLLOWING ADDITIONAL NOTE SHOULD ALSO BE INCLUDED ON THE

 A LANDSCAPE PROTECTION SUPERVISOR WHO IS REGISTERED WITH THE TOWN OF CHAPEL HILL WILL BE PRESENT ON SITE AT ALL TIMES WHEN THE FOLLOWING ACTIVITIES ARE TAKING PLACE: CLEARING, GRUBBING, EXCAVATION, GRADING, TRENCHING, MOVING OF SOIL, INSTALLATION AND REMOVAL OF TREE PROTECTION FENCING, AND THE DELIVERY TRANSPORTING AND PLACEMENT OF CONSTRUCTION MATERIALS AND EQUIPMENT.

THE FENCING LOCATION SHOULD BE

TREE PROTECTION FENCING: TO PROPERLY PROTECT AND ENSURE THE HEALTH OF EXISTING TREES TO REMAIN, PROTECTIVE FENCING SHOULD BE INSTALLED TO PROTECT NO LESS THAN 75% OF A TREE'S CRITICAL ROOT ZONE. WHEN ERECTING FENCING NEAR TREES THAT ARE NOT INDIVIDUALLY IDENTIFIED ON THE LANDSCAPE PROTECTION PLAN,

SHIFTED, WHERE POSSIBLE, OR A TREE REMOVED IF ITS CRITICAL ROOT ZONE IS NOT ADEQUATELY PROTECTED. ALL LAND DISTURBING ACTIVITY, STORAGE OF EQUIPMENT, BUILDING MATERIAL, SOIL AND

OTHER DEBRIS SHOULD BE KEPT WITHIN THE AREA OF DEVELOPMENT ACTIVITY AND OUTSIDE OF THE PROTECTIVE FENCING. THE TOWN'S STANDARD FOR TREE PROTECTION FENCING IS ORANGE WOVEN PLASTIC OR FABRIC WITH A HEIGHT OF FOUR FEET INSTALLED ON METAL POSTS SET A MAXIMUM OF TEN (10) FEET APART AS SHOWN IN THE FOLLOWING TYPICAL DETAIL.

CRITICAL ROOT ZONES IN LOCAL SOIL TYPES ARE SHOWN TO BE ONE (1) FOOT OF RADIUS (NOT DIAMETER) FOR EVER ONCE (1) INCH OF TRUCK DBH.

#### **EXISTING TREE CANOPY CALCULATIONS:**

- 1. TOTAL PARCEL AREA: 15.58 AC.
- 2. DEDICATED ROW AREA: 0.11 AC. 3. PROPOSED UTILITY EASEMENT AREA: 0.08 AC.
- 4. ACTIVE RECREATIONAL AREA (ACTIVE COURTYARD & PED. TRAIL): 0.45 AC.
- 5. NET AREA {1 (2+3+4)}: 14.94 AC.
- 6. EXISTING CANOPY COVERAGE: 10.22 AC. (66%) 7. EXISTING CANOPY TO BE REMOVED: 4.13 AC.
- 9. PROPOSED CANOPY COVERAGE {8/5}: 41%
- 8. EXISTING CANOPY TO BE REMAIN: 6.09 AC.

#### LANDSCAPING NOTES:

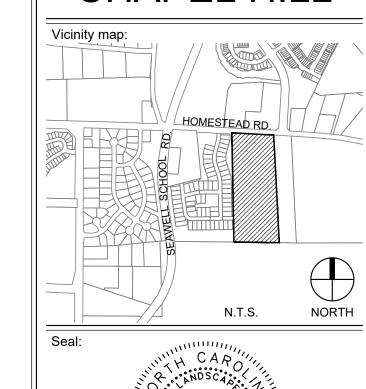
- 17. VERIFY ALL QUANTITIES AND REPORT ANY DISCREPANCIES OR INACCURACIES IN THE PLANS TO THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING.
- 18. LANDSCAPE WORK SHALL INCLUDE THE FURNISHING, INSTALLATION, AND WARRANTY OF ALL PLANTING MATERIALS WITHIN THE PROJECT AREA.
- THE LANDSCAPE CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL EXISTING AND NEW UNDERGROUND UTILITIES PRIOR TO EXCAVATION FOR PLANTING. DAMAGES TO UTILITIES CAUSED BY THE LANDSCAPE OPERATION SHALL BE CORRECTED BY THE LANDSCAPE CONTRACTOR AT NO COST TO THE OWNER.
- 20. LANDSCAPING SHALL REMAIN CLEAR FROM ANY FIRE HYDRANTS ON THE SITE.
- 21. ALL TREES TO BE A MINIMUM OF 2" IN CALIPER AND MUST MEET THE AMERICAN STANDARD FOR NURSERY STOCK.
- TREE PROTECTION NOTE: TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE OR ISSUANCE OF A GRADING PERMIT AND SHALL INCLUDE WARNING SIGNS POSTED IN BOTH ENGLISH AND SPANISH, AS FOLLOWS: "NO TRESPASSING/TREE PROTECTION AREA/PROHIBIDO ENTRAR / ZONA PROTECTORA PARA LOS ÁRBOLES."
- 23. PROTECTION OF EXISTING VEGETATION: AT THE START OF GRADING INVOLVING THE LOWERING OF EXISTING GRADE AROUND A TREE OR STRIPPING OF TOPSOIL, A CLEAN, SHARP, VERTICAL CUT SHALL BE MADE AT THE EDGE OF THE TREE SAVE AREA AT THE SAME TIME AS OTHER EROSION CONTROL MEASURES ARE INSTALLED. THE TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THE CUT FARTHEST AWAY FROM THE TREE TRUNK AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE. NO STORAGE OF MATERIALS, FILL, OR EQUIPMENT AND NO TRESPASSING SHALL BE ALLOWED WITHIN THE BOUNDARY OF THE PROTECTED AREA.
- 24. ROOT ZONE PROTECTION AREA: VARIES BASED ON LOCAL JURISDICTION HAVING AUTHORITY. CONTRACTOR SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS. NO DISTURBANCE ALLOWED WITHIN THIS AREA. AREA MUST BE PROTECTED WITH BOTH TREE PROTECTION FENCING AND WARNING SIGNS.
- 25. SEED BED PREPARATION: ALL AREAS TO BE SEEDED ARE TO BE RECEIVE A MINIMUM OF 2" OF APPROVED TOPSOIL. ALL DEBRIS, ROCKS, ETC. LARGER THAN .5" ARE TO

BE REMOVED. ALL LARGE CONCENTRATIONS OF GRAVEL & DEBRIS REGARDLESS OF SIZE ARE TO BE REMOVED PRIOR TO SEEDING OR PLANTING.

- 26. ALL PLANT BED AREAS ARE TO RECEIVE A MINIMUM OF 6" OF APPROVED TOPSOIL.
- SOIL SHOULD BE TESTED AND AMENDED WITH LIME AND FERTILIZER FOR HARDWOOD TREES ACCORDING TO NCDA PROCEDURES. SCARIFY PLANT PIT WALLS. CONSULT LANDSCAPE ARCHITECT FOR ALTERNATE COMPLIANCE.
- 28. SHREDDED HARDWOOD MULCH 3" DEEP EXCEPT AT CROWN OF PLANT UNLESS OTHERWISE NOTED. FLARE AT CROWN SHOULD BE REVEALED. BACKFILL CONSISTS OF THOROUGHLY BROKEN UP NATIVE SOIL. TOTAL VOLUME OF BACKFILL SHOULD BE AMENDED WITH UP TO ONE THIRD PINE BARK MULCH. PIECES SHOULD BE NO LARGER THAN WHAT PASSES THROUGH A ONE INCH SCREEN. IF ADDITIONAL SOIL IS REQUIRED FOR BACKFILL DUE TO DETRIMENTAL SUBSOIL DRAINAGE CONDITIONS, USE SOIL SIMILAR TO EXISTING NATIVE SOIL. ADDITIONAL SOIL TO BE APPROVED BY LANDSCAPE ARCHITECT. MAXIMUM SAUCER HEIGHT IS 6 INCHES.
- 29. TOP OF ROOTBALL TO BE RAISED 2-3 INCHES ABOVE EXISTING GRADE.
- FOR B&B PLANTS, NATURAL FIBER BURLAP SHOULD BE TURNED DOWN BY 1/3 TOTAL HEIGHT OF ROOT BALL. PLASTIC FIBER BURLAP AND WIRE BASKETS SHOULD BE REMOVED TO 2/3'S OF TOTAL HEIGHT OF ROOT BALL.
- CONTRACTOR IS RESPONSIBLE FOR KEEPING THE TREE UPRIGHT AND PLUMB THROUGHOUT THE WARRANTY PERIOD. IF STABILIZATION IS NECESSARY SEE STAKING IN TREE DETAIL, ORANGE FLAGGING TAPE SHOULD BE ATTACHED TO SUPPORT WIRE. STAKING SHOULD BE REMOVED BY CONTRACTOR AT END OF ONE YEAR WARRANTY PERIOD OR AS DIRECTED BY GROUNDS MANAGEMENT.
- 32. USE STANDARD "GATOR" BAGS FOR WATERING TREES IN AREAS NOT UNDER IRRIGATION. INCORPORATE TERRA-SORB (OR EQUAL) AS PER MANUFACTURERS RECOMMENDATIONS, FOR AREAS NOT UNDER IRRIGATION.
- 33. USE "BIO-BARRIER" OR EQUIVALENT ACCORDING TO MANUFACTURER'S RECOMMENDATION FOR TREES THAT WILL BE PLANTED WITHIN 10' OF PAVEMENT
- 34. LANDSCAPING/C.O. STANDARDS NOTE: ALL LANDSCAPING MUST BE IN PLACE PRIOR TO REQUEST FOR A CERTIFICATE OF COMPLIANCE.

GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

# INDEPENDENT **SENIOR** HOUSING **CHAPEL HILL**

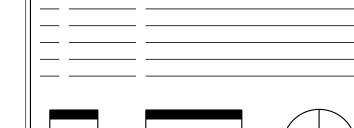


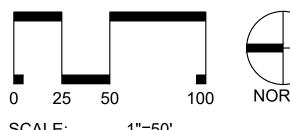
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PRELIMINARY - DO NOT

USE FOR CONSTRUCTION

٧o.	Date	Description





LANDSCAPE PROTECTION PLAN

Project number: C17004 Sheet:

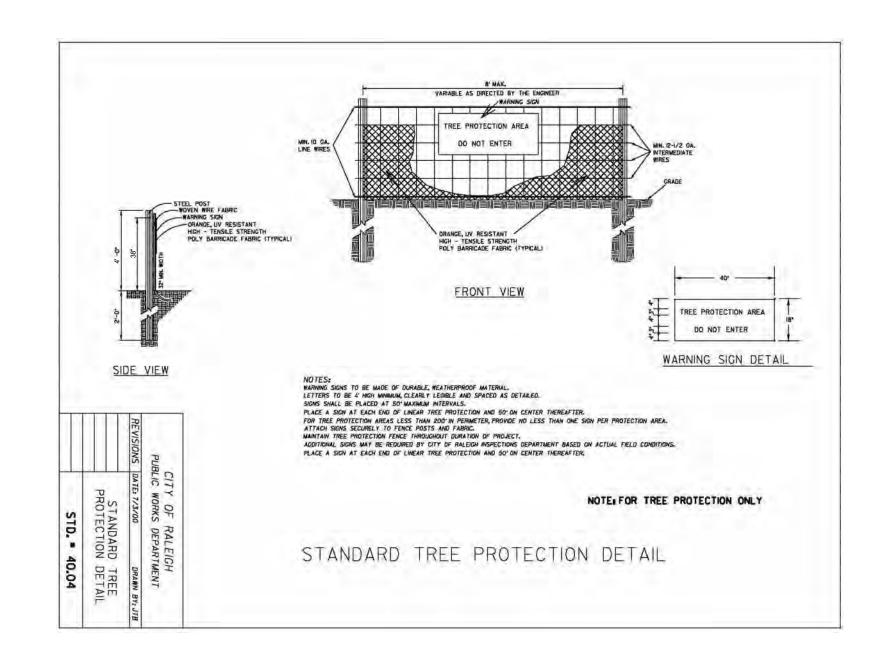
Drawn by:

ID# +1	CODE •		Scientific Name		Rare or Spec 🕶	Multistem Number
2	LIST JUVI	Sw eetgum Eastern Red Cedar	Liquidambar styraciflua  Juniperus virginiana	15 15	Specimen Rare	
3	PRSE	Black Cherry	Prunus serratina	16	Specimen	
4 5	LIST PITA	Sw eetgum Loblolly Pine	Liquidambar styraciflua Pinus taeda	16 19	Specimen Specimen	
6	COFL	Dogw ood	Cornus florida	9	Specimen	
7 8	LIST JUVI	Sw eetgum Eastern Red Cedar	Liquidambar styraciflua  Juniperus virginiana	12 13	Specimen Rare	
9	LIST	Sw eetgum	Liquidambar styraciflua	17	Specimen	
10 11	PRSE JUVI	Black Cherry Eastern Red Cedar	Prunus serratina  Juniperus virginiana	9 17	NA Rare	
12	LIST	Sw eetgum	Liquidambar styraciflua	12	Specimen	
13 14	PITA LITU	Loblolly Pine Tulip Poplar	Pinus taeda Liriodendron tulipifera	18 15	Specimen Specimen	
15	PYCA	Callery Pear	Pyrus calleryana	17	NA NA	
16 17	PYCA JUVI	Callery Pear Eastern Red Cedar	Pyrus calleryana  Juniperus virginiana	17 13	NA Rare	
18	CECA	Eastern Redbud	Cercis canadensis	8	Specimen	
19 20	ILOP LITU	American Holly Tulip Poplar	llex opaca Liriodendron tulipifera	7 15	Specimen Specimen	
21	COFL	Dogw ood	Cornus florida	6	Specimen	
22 23	COFL LITU	Dogw ood	Cornus florida	7 16	Specimen	
23	COFL	Tulip Poplar Dogw ood	Liriodendron tulipifera  Cornus florida	8	Specimen Specimen	
25 26	MAGR MAGR	Southern Magnolia Southern Magnolia	Magnolia grandiflora  Magnolia grandiflora	11 13	NA Specimen	
27	LIST	Sw eetgum	Liquidambar styraciflua	18	Specimen	
28 29	PITA LITU	Loblolly Pine Tulip Poplar	Pinus taeda Liriodendron tulipifera	18 15	Specimen Specimen	
30	LITU	Tulip Poplar	Liriodendron tulipifera	24	Specimen	
31 32	LITU PITA	Tulip Poplar Loblolly Pine	Liriodendron tulipifera Pinus taeda	22 22	Specimen Specimen	
33	LITU	Tulip Poplar	Liriodendron tulipifera	20	Specimen	
34	PITA	Loblolly Pine	Pinus taeda	24	Specimen	
35 36	LIST PITA	Sw eetgum Loblolly Pine	Liquidambar styraciflua Pinus taeda	14 24	Specimen Specimen	
37 38	PITA LIST	Loblolly Pine	Pinus taeda Liguidambar styraciflua	20 13	Specimen Specimen	
38	LIST	Sw eetgum Sw eetgum	Liquidambar styraciflua Liquidambar styraciflua	13 17	Specimen Specimen	
40 41	JUVI	Eastern Red Cedar Eastern Red Cedar	Juniperus virginiana Juniperus virginiana	14 8	Rare Specimen	
41	ACRU	Red Maple	Acer rubrum	20	Specimen Specimen	
43 44	BENI CRAT	River Birch Haw thorn	Betula nigra Crataegus species	19 8	Specimen Specimen	
44 45	LITU	Haw thorn Tulip Poplar	Liriodendron tulipifera	19	Specimen Specimen	
46 47	BENI BENI	River Birch	Betula nigra Betula nigra	19 21	Specimen Specimen	
48	COFL	Dogw ood	Cornus florida	9	Specimen Specimen	
49 50	Morris PYCA	Mulberry Callery Pear	Morus Sp Pyrus calleryana	20 9	NA	
50	CECA	Eastern Redbud	Pyrus calleryana Cercis canadensis	9 16	Rare	
52 53	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	19 17	Specimen Specimen	
54	JUNI	Black Walnut	Juglans nigra	23	Specimen	- Minananah waka Milanan ana ana ana ana ana ana ana ana an
55 56	LITU JUNI	Tulip Poplar Black Walnut	Liriodendron tulipifera  Juglans nigra	35 12	Rare Specimen	
57	ACRU	Red Maple	Acer rubrum	12	Specimen Specimen	
58 59	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	22 22	Specimen Specimen	
60	LITU	Tulip Poplar	Liriodendron tulipifera	18	Specimen Specimen	
61 62	LITU CARYA	Tulip Poplar Hickory	Liriodendron tulipifera Carya species	21 13	Specimen Specimen	
63	CARYA	Hickory	Carya species  Carya species	17	Specimen	
64 65	ACRU LITU	Red Maple Tulio Poplar	Acer rubrum	16 18	Specimen Specimen	
65 66	LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	18 25	Specimen Rare	
67 68	LIST CARYA	Sw eetgum Hickory	Liquidambar styraciflua Carya species	16 17	Specimen Specimen	
69	QUVE	Black Oak	Quercus velutina	42	Rare	
70	ULAL	Winged ⊟m	Ulmus alatus	14	Specimen	
71 72	JUNI CARYA	Black Walnut Hickory	Juglans nigra Carya species	17 13	Specimen Specimen	
73 74	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	21 20	Specimen Specimen	
74 75	LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera	27	Specimen Rare	
76 77	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	30 15	Rare Specimen	
77	LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera	15	Specimen Specimen	
79 80	PRSE DIVI	Black Cherry Persimmon	Prunus serratina Diosporos virginiana	19 10	Specimen Specimen	
80 81	CAIL	Persimmon Pecan	Diosporos virginiana Carya illinoiensis	19	Specimen Specimen	
82 83	LIST LIST	Sw eetgum	Liquidambar styraciflua Liquidambar styraciflua	12 24	Specimen Rare	
83 84	CAIL	Sw eetgum Pecan	Carya illinoiensis	12	Specimen	
85 86	CAIL LITU	Pecan Tulip Poplar	Carya illinoiensis Liriodendron tulipifera	13 21	Specimen Specimen	
86 87	LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera	12	Specimen Specimen	
88 89	LIST QUAL	Sw eetgum White Oak	Liquidambar styraciflua  Quercus alba	21 15	Specimen Specimen	
90	QUAL	White Oak	Quercus alba	26	Rare	
91 92	LIST LIST	Sw eetgum	Liquidambar styraciflua Liquidambar styraciflua	19 28	Specimen Rare	
93	QUAL	Sw eetgum White Oak	Quercus alba	25	Rare Rare	
94 95	LIST QUPH	Sw eetgum Willow Oak	Liquidambar styraciflua  Quercus phellos	16 12	Specimen Specimen	
95 96	LIST	Sw eetgum	Liquidambar styraciflua	16	Specimen Specimen	
97 98	QUAL PRSE	White Oak Black Cherry	Quercus alba Prunus serratina	16 8	Specimen NA	
99	PRSE	Black Cherry Black Cherry	Prunus serratina Prunus serratina	6	NA NA	
100 101	LIST LIST	Sw eetgum Sw eetgum	Liquidambar styraciflua Liquidambar styraciflua	25 16	Rare Specimen	
102	QUAL	White Oak	Quercus alba	21	Specimen	
103 104	QUVE QUAL	Black Oak White Oak	Quercus velutina Quercus alba	28 22	Rare Specimen	
104	QUAL	White Oak	Quercus alba	20	Specimen Specimen	
106 107	QUA L QUMA	White Oak Blackjack Oak	Quercus alba Quercus marilandica	15 23	Specimen Specimen	
107	QUAL	White Oak	Quercus marilandica Quercus alba	23 17	Specimen Specimen	
109	PITA	Loblolly Pine	Pinus taeda	19 22	Specimen Specimen	
110 111	PITA QUAL	Loblolly Pine White Oak	Pinus taeda Quercus alba	22 26	Specimen Rare	
112	LIST	Sw eetgum	Liquidambar styraciflua	17	Specimen	
113 114	QUA L LITU	White Oak Tulip Poplar	Quercus alba Liriodendron tulipifera	31 22	Rare Specimen	
115	QUAL	White Oak	Quercus alba	17	Specimen	
116 117	QUA L LIST	White Oak Sw eetgum	Quercus alba Liquidambar styraciflua	16 16	Specimen Specimen	
118	FRAX	Ash	Fraxinus species	20	Specimen	
119 120	CATO QUAL	Mockernut Hickory White Oak	Carya tomentosa  Quercus alba	12 18	Specimen Specimen	
121	QUAL	White Oak	Quercus alba	17	Specimen	
122 123	LITU QUAL	Tulip Poplar White Oak	Liriodendron tulipifera  Quercus alba	21 25	Specimen Rare	
124	CATO	Mockernut Hickory	Carya tomentosa	13	Specimen	
125	QUAL	White Oak	Quercus alba	24	Rare	

ID# ₊ſ	CODE •	Common Name	Scientific Name	DB⊦ •	Rare or Spec 🕶	Multistem Numbe
126	LIST	Sw eetgum	Liquidambar styraciflua	14	Specimen	
127 128	FRAX NYSY	Ash Blackgum	Fraxinus species Nyssa sylvatica	15 13	Specimen Specimen	
129	NYSY	Blackgum	Nyssa sylvatica	12	Specimen	
130 131	ILOP NYSY	American Holly Blackgum	llex opaca  Nyssa sylvatica	6 27	Specimen Rare	
132	LIST	Sw eetgum	Liquidambar styraciflua	15	Specimen	
133	LIST	Sw eetgum	Liquidambar styraciflua	21	Specimen	
134 135	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	19 39	Specimen Rare	
136	LIST	Sw eetgum	Liquidambar styraciflua	13	Specimen	
137 138	QUMA OXA R	Blackjack Oak Sourw ood	Quercus marilandica Oxydendron arboreum	13 9	Specimen Specimen	
139	QUAL	White Oak	Quercus alba	12	Specimen	
140	CATO	Mockernut Hickory	Carya tomentosa	22	Specimen	
141 142	NYSY QUVE	Blackgum Black Oak	Nyssa sylvatica  Quercus velutina	16 16	Specimen Specimen	
143	QUAL	White Oak	Quercus alba	21	Specimen	
144	QUAL	White Oak	Quercus alba	18	Specimen	
145 146	LIST LIST	Sw eetgum Sw eetgum	Liquidambar styraciflua Liquidambar styraciflua	15 27	Specimen Rare	
147	QUAL	White Oak	Quercus alba	19	Specimen	
148 149	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	13 23	Specimen Specimen	
150	QUAL	White Oak	Quercus alba	18	Specimen	
151 152	LIST	Sw eetgum	Liquidambar styraciflua	18 13	Specimen	
153	FRAX	Mockernut Hickory Ash	Carya tomentosa Fraxinus species	22	Specimen Specimen	
154	CATO	Mockernut Hickory	Carya tomentosa	12	Specimen	
155 156	LIST	Sw eetgum Pignut Hickory	Liquidambar styraciflua Carya glabra	12 16	Specimen Specimen	
157	CAGL	Pignut Hickory	Carya glabra	12	Specimen	
158	LIST	Sw eetgum	Liquidambar styraciflua	13	Specimen	
159 160	QUA L QUVE	White Oak Black Oak	Quercus alba Quercus velutina	14 16	Specimen Specimen	
161	CATO	Mockernut Hickory	Carya tomentosa	16	Specimen	
162 163	CAGL QUAL	Pignut Hickory White Oak	Carya glabra Quercus alba	16 18	Specimen Specimen	
164	QUAL	White Oak	Quercus alba	20	Specimen	
165	CATO	Mockernut Hickory	Carya tomentosa	17	Specimen	
166 167	LIST LITU	Sw eetgum Tulip Poplar	Liquidambar styraciflua Liriodendron tulipifera	15 17	Specimen Specimen	
168	QUAL	White Oak	Quercus alba	13	Specimen	
169 170	LITU QUA L	Tulip Poplar White Oak	Liriodendron tulipifera  Quercus alba	19 18	Specimen Specimen	
171	LITU	Tulip Poplar	Liriodendron tulipifera	15	Specimen	
172 173	QUA L LITU	White Oak Tulip Poplar	Quercus alba Liriodendron tulipifera	22 14	Specimen	
174	FRAX	Ash	Fraxinus species	17	Specimen Specimen	
175	LITU	Tulip Poplar	Liriodendron tulipifera	18	Specimen	
176 177	QUA L QUA L	White Oak White Oak	Quercus alba Quercus alba	18 18	Specimen Specimen	
178	LITU	Tulip Poplar	Liriodendron tulipifera	17	Specimen	
179	QUA L LITU	White Oak	Quercus alba Liriodendron tulipifera	15 14	Specimen	
180 181	LIST	Tulip Poplar Sw eetgum	Liquidambar styraciflua	22	Specimen Specimen	
182	LIST	Sw eetgum	Liquidambar styraciflua	12	Specimen	
183 184	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	30 23	Rare Specimen	
185	LITU	Tulip Poplar	Liriodendron tulipifera	22	Specimen	
186	QUAL	White Oak	Quercus alba	19	Specimen	
187 188	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	23 16	Specimen Specimen	
189	QUAL	White Oak	Quercus alba	20	Specimen	
190 191	QUMA LITU	Blackjack Oak Tulip Poplar	Quercus marilandica Liriodendron tulipifera	20 18	Specimen Specimen	
192	LITU	Tulip Poplar	Liriodendron tulipifera	17	Specimen	
193 194	LITU QUAL	Tulip Poplar White Oak	Liriodendron tulipifera  Quercus alba	19 14	Specimen Specimen	
195	QUAL	White Oak	Quercus alba	24	Rare	
196 197	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	14 16	Specimen Specimen	
198	QUAL	White Oak	Quercus alba	22	Specimen	
199	QUAL	White Oak	Quercus alba	16	Specimen	
200	LITU CARYA	Tulip Poplar Hickory	Liriodendron tulipifera  Carya species	28 20	Rare Specimen	
202	CATO	Mockernut Hickory	Carya tomentosa	18	Specimen	• • • • • • • • • • • • • • • • • • • •
203	LITU	Tulip Poplar	Liriodendron tulipifera	37	Rare	
204 205	CARYA QUAL	Hickory White Oak	Carya species  Quercus alba	15 21	Specimen Specimen	
206	LITU	Tulip Poplar	Liriodendron tulipifera	27	Rare	
207 208	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	26 20	Rare Specimen	
208	QUAL	White Oak	Quercus alba	20	Specimen Specimen	
210	LITU	Tulip Poplar	Liriodendron tulipifera	39	Rare	
211 212	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	21 13	Specimen Specimen	
213	LITU	Tulip Poplar	Liriodendron tulipifera	14	Specimen	
214 215	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	13 16	Specimen Specimen	
216	QUAL	White Oak	Quercus alba	16	Specimen Specimen	
217	LITU	Tulip Poplar	Liriodendron tulipifera	20	Specimen	
218 219	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	21 20	Specimen Specimen	
220	LITU	Tulip Poplar	Liriodendron tulipifera	12	Specimen	
221 222	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	22 27	Specimen Rare	
223	CAGL	Pignut Hickory	Carya glabra	18	Specimen	
224 225	CARYA LITU	Hickory Tulio Poplar	Carya species Liriodendron tulipifera	13 23	Specimen Specimen	
225	LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera	17	Specimen Specimen	
227	QUAL	White Oak	Quercus alba	28	Rare	
228 229	LITU QUA L	Tulip Poplar White Oak	Liriodendron tulipifera  Quercus alba	17 15	Specimen Specimen	
230	QUAL	White Oak	Quercus alba	22	Specimen	
231 232	LITU QUA L	Tulip Poplar White Oak	Liriodendron tulipifera  Quercus alba	23 17	Specimen Specimen	
233	CARYA	Hickory	Carya species	12	Specimen	
234 235	QUA L CATO	White Oak  Mockernut Hickory	Quercus alba	22 17	Specimen Specimen	
235	QUAL	White Oak	Carya tomentosa  Quercus alba	17	Specimen Specimen	
237	LIST	Sw eetgum	Liquidambar styraciflua	13	Specimen	
238 239	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	12 20	Specimen Specimen	
240	LITU	Tulip Poplar	Liriodendron tulipifera	22	Specimen	
	LITU	Tulip Poplar	Liriodendron tulipifera	21	Specimen	
241	LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	15 12	Specimen Specimen	
241 242 243	LITU					T
242 243 244	LITU	Tulip Poplar	Liriodendron tulipifera	18	Specimen	
242 243		Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera	18 15 42	Specimen Specimen Rare	
242 243 244 245 246 247	LITU LITU LITU LITU	Tulip Poplar Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera	15 42 37	Specimen Rare Rare	
242 243 244 245 246 247 248	LITU LITU LITU LITU QUAL	Tulip Poplar Tulip Poplar Tulip Poplar White Oak	Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera Quercus alba	15 42 37 20	Specimen Rare Rare Specimen	
242 243 244 245 246 247	LITU LITU LITU LITU	Tulip Poplar Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera Liriodendron tulipifera	15 42 37	Specimen Rare Rare	

ID# ₊ſ 251	CODE *	Common Name •  Mockernut Hickory	Scientific Name • Carya tomentosa	DB⊢ <b>*</b> 12	Rare or Spec 🕶 Specimen	Multistem Number
252	ACRU	Red Maple	Acer rubrum	12	Specimen	
253 254	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	21 21	Specimen Specimen	
255	LIST	Sw eetgum	Liquidambar styraciflua	12	Specimen	
256 257	QUAL CATO	White Oak  Mockernut Hickory	Quercus alba Carya tomentosa	22 13	Specimen Specimen	
258 259	QUAL LITU	White Oak Tulip Poplar	Quercus alba Liriodendron tulipifera	16 15	Specimen Specimen	
260	CATO	Mockernut Hickory	Carya tomentosa	12	Specimen	
261 262	CATO LIST	Mockernut Hickory Sw eetgum	Carya tomentosa  Liquidambar styraciflua	14 24	Specimen Rare	
263 264	LIST CATO	Sw eetgum	Liquidambar styraciflua Carya tomentosa	15 15	Specimen	
265	QUAL	Mockernut Hickory White Oak	Quercus alba	24	Specimen Rare	
266 267	LIST LITU	Sw eetgum Tulip Poplar	Liquidambar styraciflua Liriodendron tulipifera	15 18	Specimen Specimen	
268	LITU	Tulip Poplar	Liriodendron tulipifera	18	Specimen	
269 270	LITU CA GL	Tulip Poplar Pignut Hickory	Liriodendron tulipifera Carya glabra	24 19	Rare Specimen	
271 272	LIST LIST	Sw eetgum Sw eetgum	Liquidambar styraciflua Liquidambar styraciflua		Specimen Specimen	
273	FRAX	Ash	Fraxinus species	17	Specimen	
274 275	LIST CATO	Sw eetgum  Mockernut Hickory	Liquidambar styraciflua Carya tomentosa	18 12	Specimen Specimen	
276	FRAX	Ash	Fraxinus species	18	Specimen	
277 278	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	26 22	Rare Specimen	
279 280	NYSY QUAL	Blackgum White Oak	Nyssa sylvatica Quercus alba	18 22	Specimen Specimen	
281	QUAL	White Oak	Quercus alba	21	Specimen	
282 283	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	21 26	Specimen Rare	
284	QUAL LITU	White Oak	Quercus alba	25 15	Rare	
285 286	LIST	Tulip Poplar Sw eetgum	Liriodendron tulipifera Liquidambar styraciflua		Specimen Rare	
287 288	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	12 20	Specimen Specimen	
289	QUAL	White Oak	Quercus alba	15	Specimen	
290 291	QUAL LIST	White Oak Sw eetgum	Quercus alba Liquidambar styraciflua	21 15	Specimen Specimen	
292 293	QUAL QUVE	White Oak Black Oak	Quercus alba Quercus velutina	18 19	Specimen Specimen	
294	QUFA	Southern Red Oak	Quercus falcata	16	Specimen	
295 296	QUAL LITU	White Oak Tulip Poplar	Quercus alba Liriodendron tulipifera	17 16	Specimen Specimen	
297 298	LITU QURU	Tulip Poplar Northern Red Oak	Liriodendron tulipifera Quercus rubra	19 20	Specimen Specimen	
299	LITU	Tulip Poplar	Liriodendron tulipifera	19	Specimen	
300 301	LITU QURU	Tulip Poplar  Northern Red Oak	Liriodendron tulipifera  Quercus rubra	25 31	Rare Rare	
302	QUAL	White Oak	Quercus alba	14	Specimen	
303 304	LIST QUAL	Sw eetgum White Oak	Liquidambar styraciflua Quercus alba	13 15	Specimen Specimen	
305 306	LITU QUAL	Tulip Poplar White Oak	Liriodendron tulipifera  Quercus alba	24 14	Rare Specimen	
307	QUVE	Black Oak	Quercus velutina	15	Specimen	
308 309	LITU LIST	Tulip Poplar Sw eetgum	Liriodendron tulipifera Liquidambar styraciflua	28 12	Rare Specimen	
310 311	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	23 19	Specimen Specimen	
312	LITU	Tulip Poplar	Liriodendron tulipifera	20	Specimen	
313 314	LITU	Tulip Poplar Sw eetgum	Liriodendron tulipifera Liquidambar styraciflua	24 17	Rare Specimen	
315 316	LITU NYSY	Tulip Poplar	Liriodendron tulipifera Nyssa sylvatica	22 11	Specimen NA	
317	QUAL	Blackgum White Oak	Quercus alba	15	Specimen	
318 319	LITU QUVE	Tulip Poplar Black Oak	Liriodendron tulipifera Quercus velutina	21 16	Specimen Specimen	
320	ACRU	Red Maple	Acer rubrum	24	Rare	
321 322	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	16 18	Specimen Specimen	
323 324	QUVE LITU	Black Oak Tulip Poplar	Quercus velutina Liriodendron tulipifera	23 19	Specimen Specimen	
325	PITA	Loblolly Pine	Pinus taeda	18	Specimen	
326 327	QUAL LITU	White Oak Tulip Poplar	Quercus alba Liriodendron tulipifera	12 20	Specimen Specimen	
328 329	QUAL LITU	White Oak Tulip Poplar	Quercus alba Liriodendron tulipifera	25 25	Rare Specimen	
330	CARYA	Hickory	Carya species	25 14	Specimen	
331 332	LITU QUAL	Tulip Poplar White Oak	Liriodendron tulipifera Quercus alba	17 17	Specimen Specimen	
333	QUAL	White Oak	Quercus alba	22	Specimen	
334 335	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	14 14	Specimen Specimen	
336 337	LIST QUAL	Sw eetgum White Oak	Liquidambar styraciflua Quercus alba	14 20	Specimen Specimen	
338	LIST	Sw eetgum	Liquidambar styraciflua	14	Specimen	
339 340	QUAL LITU	White Oak Tulip Poplar	Quercus alba Liriodendron tulipifera	18 15	Specimen Specimen	
341 342	QUAL QUVE	White Oak Black Oak	Quercus alba Quercus velutina	19 15	Specimen Specimen	
343	QUAL	White Oak	Quercus alba	18	Specimen	A A A A A A A A A A A A A A A A A A A
344 345	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	22 18	Specimen Specimen	
346 347	QUAL QUAL	White Oak White Oak	Quercus alba	12 15	Specimen	
348	CATO	Mockernut Hickory	Quercus alba Carya tomentosa	20	Specimen Specimen	
349 350	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	13 20	Specimen Specimen	
351 352	LITU	Tulip Poplar	Liriodendron tulipifera	27 23	Rare	
353	QURU QUAL	Northern Red Oak White Oak	Quercus rubra Quercus alba	12	Specimen Specimen	
354 355	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	16 17	Specimen Specimen	
356	OXAR	Sourw ood	Oxydendron arboreum	9	Specimen	
357 358	LITU CATO	Tulip Poplar  Mockernut Hickory	Liriodendron tulipifera Carya tomentosa	14 16	Specimen Specimen	
359 360	CARYA LITU	Hickory Tulip Poplar	Carya species Liriodendron tulipifera	11 19	NA Specimen	
361	CARYA	Hickory	Carya species	13	Specimen	
362 363	QUAL LITU	White Oak Tulip Poplar	Quercus alba Liriodendron tulipifera	15 13	Specimen Specimen	
364 365	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera	35 20	Rare Specimen	
366	LITU	Tulip Poplar	Liriodendron tulipifera	15	Specimen Specimen	
367 368	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	13 19	Specimen Specimen	
369	QUAL	White Oak	Quercus alba	15	Specimen	
370 371	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	20 18	Specimen Specimen	
372 373	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	23 15	Specimen Specimen	
374	CAGL	Pignut Hickory	Carya glabra	12	Specimen	
375	SAAL	Sassafrass	Sassafras albidum	8	Specimen	l

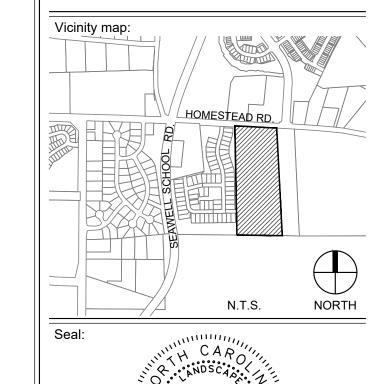
ID# +[	CODE •		Scientific Name		Rare or Spec 🕶	Multistem Number
376 377	LITU	White Oak   Tulip Poplar	Quercus alba Liriodendron tulipifera	12 21	Specimen Specimen	
378	SAAL	Sassafrass	Sassafras albidum	11	Specimen	
379	QUMA	Blackjack Oak	Quercus marilandica	16	Specimen	
380	QUAL	White Oak	Quercus alba	16	Specimen	
381 382	SA A L QUA L	Sassafrass White Oak	Sassafras albidum  Quercus alba	11 43	Specimen Rare	
383	LITU	Tulip Poplar	Liriodendron tulipifera	15	Specimen	
384	LITU	Tulip Poplar	Liriodendron tulipifera	13	Specimen	
385	LITU	Tulip Poplar	Liriodendron tulipifera	19	Specimen	
386	LITU	Tulip Poplar	Liriodendron tulipifera	23	Specimen	
387 388	QUVE QURU	Black Oak  Northern Red Oak	Quercus velutina  Quercus rubra	20 28	Specimen Rare	
389	LITU	Tulip Poplar	Liriodendron tulipifera	25	Rare	
390	LITU	Tulip Poplar	Liriodendron tulipifera	13	Specimen	
391	CATO	Mockernut Hickory	Carya tomentosa	14	Specimen	
392 393	LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	29 16	Rare Specimen	
394	LIST	Sw eetgum	Liquidambar styraciflua	13	Specimen	
395	LIST	Sw eetgum	Liquidambar styraciflua	15	Specimen	
396	LITU	Tulip Poplar	Liriodendron tulipifera	21	Specimen	
397	LITU	Tulip Poplar	Liriodendron tulipifera	18	Specimen	
398 399	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	23 18	Specimen Specimen	
400	LITU	Tulip Poplar	Liriodendron tulipifera	34	Rare	
401	LITU	Tulip Poplar	Liriodendron tulipifera	18	Specimen	
402	LITU	Tulip Poplar	Liriodendron tulipifera	28	Rare	
403	LITU LITU	Tulip Poplar	Liriodendron tulipifera	20	Specimen	
404 405	QUAL	Tulip Poplar White Oak	Liriodendron tulipifera  Quercus alba	19 19	Specimen Specimen	
406	QUAL	White Oak	Quercus alba	12	Specimen	
407	QUAL	White Oak	Quercus alba	13	Specimen	
408	LITU	Tulip Poplar	Liriodendron tulipifera	17	Specimen	
409 410	LITU QUAL	Tulip Poplar White Oak	Liriodendron tulipifera  Quercus alba	23 13	Specimen Specimen	
411	LITU	Tulip Poplar	Liriodendron tulipifera	26	Rare	***************************************
412	LITU	Tulip Poplar	Liriodendron tulipifera	17	Specimen	
413	LIST	Sw eetgum	Liquidambar styraciflua	16	Specimen	
414 415	LITU	Tulip Poplar	Liriodendron tulipifera	21 19	Specimen	
415	LIST	Tulip Poplar Sw eetgum	Liriodendron tulipifera Liquidambar styraciflua	19	Specimen Specimen	
417	LITU	Tulip Poplar	Liriodendron tulipifera	16	Specimen	
418	LITU	Tulip Poplar	Liriodendron tulipifera	21	Specimen	
419	QUAL	White Oak	Quercus alba	28	Rare	
420 421	LITU QUAL	Tulip Poplar White Oak	Liriodendron tulipifera  Quercus alba	16 14	Specimen Specimen	
422	LIST	Sw eetgum	Liquidambar styraciflua	12	Specimen	10 (6,4)
423	LIST	Sw eetgum	Liquidambar styraciflua	12	Specimen	12 (4,8)
424	QUAL	White Oak	Quercus alba	19	Specimen	12 (6,6)
425 426	QUAL QUAL	White Oak White Oak	Quercus alba Quercus alba	14 24	Specimen Rare	12 (8,4)
427	QUAL	White Oak	Quercus alba	25	Rare	13 (4,4,5) 15 (10,5)
428	OXAR	Sourw ood	Oxydendron arboreum	13	Specimen	17 (13,4)
429	QUAL	White Oak	Quercus alba	22	Specimen	18 (12,6)
430	LITU	Tulip Poplar	Liriodendron tulipifera	22	Specimen	19 (11,8)
431 432	LITU LITU	Tulip Poplar Tulip Poplar	Liriodendron tulipifera Liriodendron tulipifera	21 25	Specimen Rare	20 (9,11) 21 (10,10)
433	QUVE	Black Oak	Quercus velutina	22	Specimen	22 (12,10)
434	QUAL	White Oak	Quercus alba	26	Rare	22 (12,10)
435	LITU	Tulip Poplar	Liriodendron tulipifera	42	Rare	22 (16,6)
436 437	CA GL QURU	Pignut Hickory  Northern Red Oak	Carya glabra Quercus rubra	15 23	Specimen	22 (9,13)
437	LIST	Sw eetgum	Liquidambar styraciflua	13	Specimen Specimen	23 (9,14) 24 (12,12)
439	LITU	Tulip Poplar	Liriodendron tulipifera	12	Specimen	24 (12,12)
440	PITA	Loblolly Pine	Pinus taeda	15	NA	25 (12,13)
441	OXAR	Sourw ood	Oxydendron arboreum	10	Specimen	26 (13,13)
442 443	CATO QUAL	Mockernut Hickory White Oak	Carya tomentosa  Quercus alba	19 29	Specimen Rare	26 (20,6) 27 (14,13)
444	LIST	Sw eetgum	Liquidambar styraciflua	14	Specimen	28 (13,8,7)
445	LIST	Sw eetgum	Liquidambar styraciflua	13	Specimen	28 (14,14)
446	CATO	Mockernut Hickory	Carya tomentosa	23	Specimen	29 (17,12)
447	LIST	Sw eetgum	Liquidambar styraciflua	12	Specimen	32 (24,8)
448 449	LIST	Sw eetgum Sw eetgum	Liquidambar styraciflua Liquidambar styraciflua	12 13	Specimen Specimen	32 (8,12,12) 34 (28,6)
450	QUAL	White Oak	Quercus alba	12	Specimen	36 (18,18)
451	PITA	Loblolly Pine	Pinus taeda	16	NA NA	36 (18,18)
452	QUAL	White Oak	Quercus alba	22	Specimen	42 (21,21)
453 454	QUAL	White Oak	Quercus alba	22	Specimen	42 (21,21)
454 455	LITU QUFA	Tulip Poplar Southern Red Oak	Liriodendron tulipifera  Quercus falcata	23 21	Specimen Specimen	44 (10,34) 45 (11,12,22)
456	QUAL	White Oak	Quercus alba	13	Specimen	45 (8,18,10,9)
457	CATO	Mockernut Hickory	Carya tomentosa	19	Specimen	46 (8,8,10,11,9)
458	CATO	Mockernut Hickory	Carya tomentosa	17	Specimen	52 (26,26)
459 460	QUAL	White Oak	Quercus alba	18	Specimen	59 (22,13,24) 70 (17,22,31)
460 461	CATO QUAL	Mockernut Hickory White Oak	Carya tomentosa  Quercus alba	14 12	Specimen Specimen	70 (17,22,31) 8 (4,4)
101	₩.	,o can	and and	12	Spoomon	<u> </u>





GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

## INDEPENDENT SENIOR HOUSING CHAPEL HILL



PRELIMINARY - DO NOT USE FOR CONSTRUCTION

SUP SUBMITTAL

No. Date Description

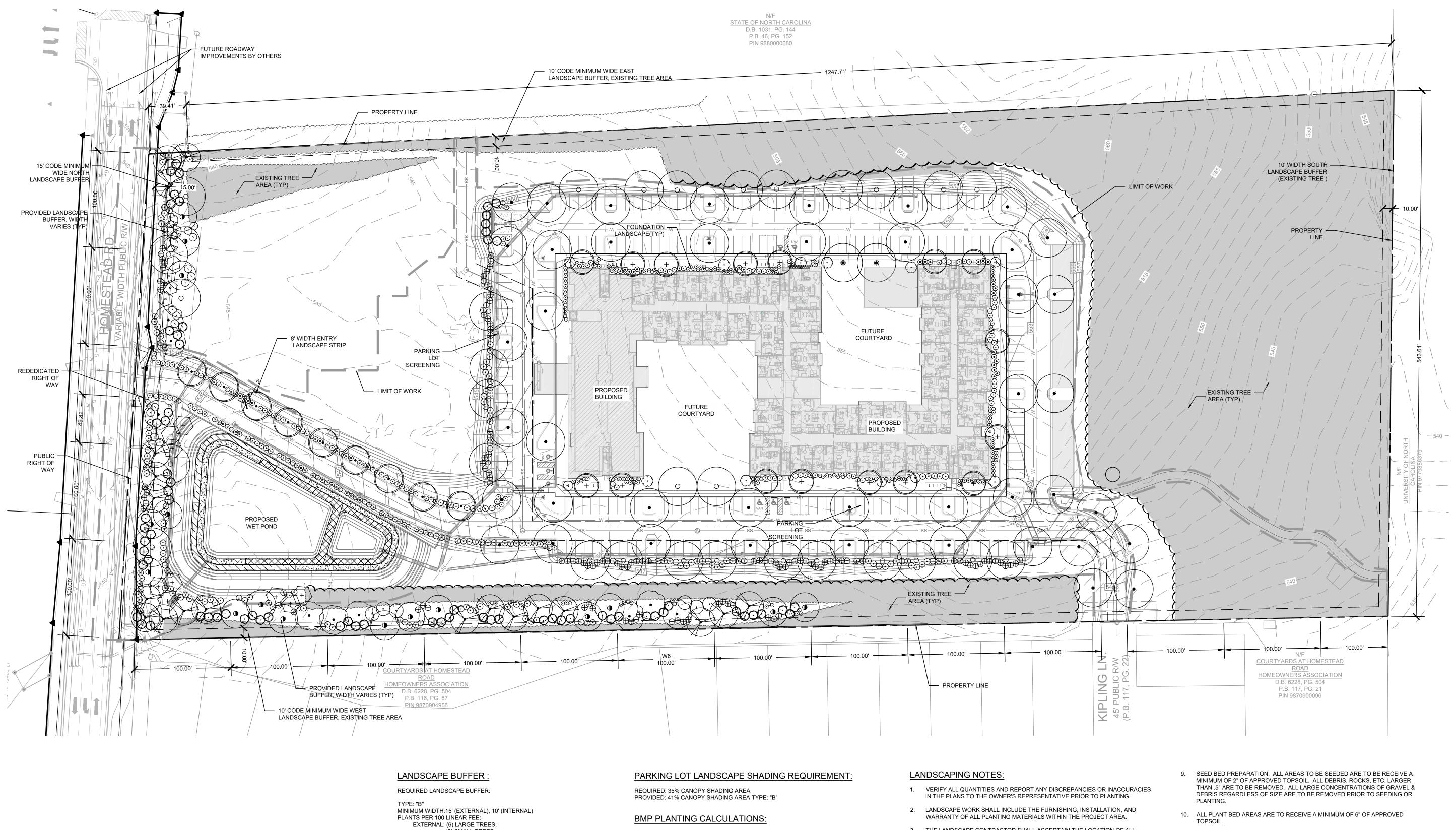
Issued for:

0 25 50 SCALE:

LANDSCAPE PROTECTION PLAN

Project number: C17004 Sheet: Drawn by:

DG L1.01



(15) SHRUBS (MINIMUM OF 50% SHOULD BE EVERGREEN) EXTERNAL: (4) LARGE TREES;

(7)SMALL TREES; (12) SHRUBS (MINIMUM OF 50% SHOULD BE EVERGREEN)

PROVIDED LANDSCAPE BUFFER:

NORTH BUFFER (EXTERNAL) = 450 LINEAR FEET TOTAL

(25) LARGE TREES; (40) SMALL TREES; (89) SHRUBS (72.5% EVERGREEN)

WEST BUFFER (INTERNAL) = 1300 LINEAR FEET TOTAL (PARTIALLY WITHIN

EXISTING TREE AREA) (28) LARGE TREES;

(52) SMALL TREES; (90) SHRUBS (70% EVERGREEN)

EAST BUFFER (INTERNAL) = 1281 LINEAR FEET TOTAL (WITHIN EXISTING TREE AREA)

SHALLOW WATER PLANTING BMP MANUAL: 50HERBACEOUS PLANTS REQUIRED PER 200 SF REQUIRED: 7457 SF = 1867 PLANTS REQUIRED 1944 PLANTS PROPOSED PROPOSED:

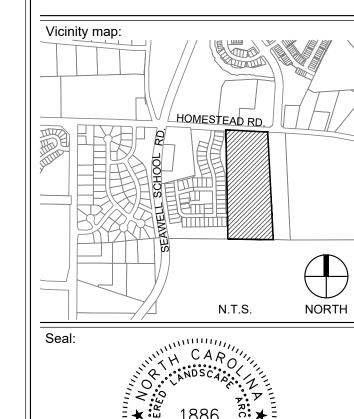
- 3. THE LANDSCAPE CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL EXISTING AND NEW UNDERGROUND UTILITIES PRIOR TO EXCAVATION FOR PLANTING. DAMAGES TO UTILITIES CAUSED BY THE LANDSCAPE OPERATION SHALL BE CORRECTED BY THE LANDSCAPE CONTRACTOR AT NO COST TO
- 4. LANDSCAPING SHALL REMAIN CLEAR FROM ANY FIRE HYDRANTS ON THE SITE.
- ALL TREES TO BE A MINIMUM OF 2.5" IN CALIPER AND MUST MEET THE AMERICAN STANDARD FOR NURSERY STOCK.
- TREE PROTECTION NOTE: TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE OR ISSUANCE OF A GRADING PERMIT AND SHALL INCLUDE WARNING SIGNS POSTED IN BOTH ENGLISH AND SPANISH, AS FOLLOWS: "NO TRESPASSING/TREE PROTECTION AREA/PROHIBIDO ENTRAR / ZONA PROTECTORA PARA LOS ÁRBOLES."
- PROTECTION OF EXISTING VEGETATION: AT THE START OF GRADING INVOLVING THE LOWERING OF EXISTING GRADE AROUND A TREE OR STRIPPING OF TOPSOIL, A CLEAN, SHARP, VERTICAL CUT SHALL BE MADE AT THE EDGE OF THE TREE SAVE AREA AT THE SAME TIME AS OTHER EROSION CONTROL MEASURES ARE INSTALLED. THE TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THE CUT FARTHEST AWAY FROM THE TREE TRUNK AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE. NO STORAGE OF MATERIALS, FILL, OR EQUIPMENT AND NO TRESPASSING SHALL BE ALLOWED WITHIN THE BOUNDARY OF THE PROTECTED AREA.
- ROOT ZONE PROTECTION AREA: VARIES BASED ON LOCAL JURISDICTION HAVING AUTHORITY. CONTRACTOR SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS. NO DISTURBANCE ALLOWED WITHIN THIS AREA. AREA MUST BE PROTECTED WITH BOTH TREE PROTECTION FENCING AND WARNING SIGNS.

- 11. SOIL SHOULD BE TESTED AND AMENDED WITH LIME AND FERTILIZER FOR HARDWOOD TREES ACCORDING TO NCDA PROCEDURES. SCARIFY PLANT PIT WALLS. CONSULT LANDSCAPE ARCHITECT FOR ALTERNATE COMPLIANCE.
- 12. SHREDDED HARDWOOD MULCH 3" DEEP EXCEPT AT CROWN OF PLANT UNLESS OTHERWISE NOTED. FLARE AT CROWN SHOULD BE REVEALED. BACKFILL CONSISTS OF THOROUGHLY BROKEN UP NATIVE SOIL. TOTAL VOLUME OF BACKFILL SHOULD BE AMENDED WITH UP TO ONE THIRD PINE BARK MULCH. PIECES SHOULD BE NO LARGER THAN WHAT PASSES THROUGH A ONE INCH SCREEN. IF ADDITIONAL SOIL IS REQUIRED FOR BACKFILL DUE TO DETRIMENTAL SUBSOIL DRAINAGE CONDITIONS, USE SOIL SIMILAR TO EXISTING NATIVE SOIL. ADDITIONAL SOIL TO BE APPROVED BY LANDSCAPE ARCHITECT. MAXIMUM SAUCER HEIGHT IS 6 INCHES.
- 13. TOP OF ROOTBALL TO BE RAISED 2-3 INCHES ABOVE EXISTING GRADE.
- 14. FOR B&B PLANTS, NATURAL FIBER BURLAP SHOULD BE TURNED DOWN BY 1/3 TOTAL HEIGHT OF ROOT BALL. PLASTIC FIBER BURLAP AND WIRE BASKETS SHOULD BE REMOVED TO 2/3'S OF TOTAL HEIGHT OF ROOT BALL.
- 15. CONTRACTOR IS RESPONSIBLE FOR KEEPING THE TREE UPRIGHT AND PLUMB THROUGHOUT THE WARRANTY PERIOD. IF STABILIZATION IS NECESSARY SEE STAKING IN TREE DETAIL, ORANGE FLAGGING TAPE SHOULD BE ATTACHED TO SUPPORT WIRE. STAKING SHOULD BE REMOVED BY CONTRACTOR AT END OF ONE YEAR WARRANTY PERIOD OR AS DIRECTED BY GROUNDS MANAGEMENT.
- 16. USE STANDARD "GATOR" BAGS FOR WATERING TREES IN AREAS NOT UNDER IRRIGATION. INCORPORATE TERRA-SORB (OR EQUAL) AS PER MANUFACTURERS RECOMMENDATIONS, FOR AREAS NOT UNDER IRRIGATION.
- 17. USE "BIO-BARRIER" OR EQUIVALENT ACCORDING TO MANUFACTURER'S RECOMMENDATION FOR TREES THAT WILL BE PLANTED WITHIN 10' OF
- 18. LANDSCAPING/C.O. STANDARDS NOTE: ALL LANDSCAPING MUST BE IN PLACE PRIOR TO REQUEST FOR A CERTIFICATE OF COMPLIANCE.



GLMH-2, LLC 121 S. ESTES DRIVE SUITE 100 CHAPEL HILL, NC 27514

## INDEPENDENT **SENIOR** HOUSING **CHAPEL HILL**

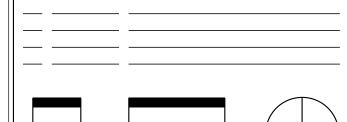


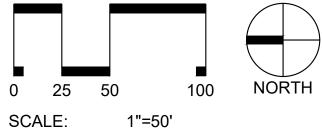
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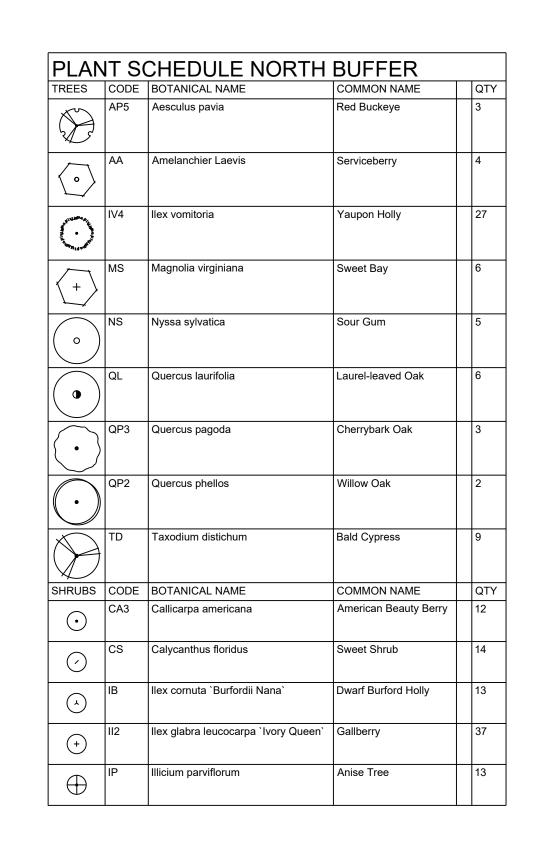


Title:

PLANTING PLAN

Project number: C17004 Sheet: 09.27.2017 Drawn by:

Approved by:



IT SC	HEDULE WEST BU	JFFFER	
CODE	BOTANICAL NAME	COMMON NAME	QTY
ILE AME	llex opaca	American Holly	6
IV4	llex vomitoria	Yaupon Holly	40
MS	Magnolia virginiana	Sweet Bay	6
QL	Quercus laurifolia	Laurel-leaved Oak	10
QP3	Quercus pagoda	Cherrybark Oak	6
TD	Taxodium distichum	Bald Cypress	12
CODE	BOTANICAL NAME	COMMON NAME	QTY
CA3	Callicarpa americana	American Beauty Berry	11
II2	llex glabra leucocarpa `lvory Queen`	Gallberry	39
IP	Illicium parviflorum	Anise Tree	21
LD	Leucothoe fontanesiana	Drooping Leucothoe	19
	ILE AME  IV4  MS  QL  QP3  TD  CODE  CA3  II2	CODE       BOTANICAL NAME         ILE AME       Ilex opaca         IV4       Ilex vomitoria         MS       Magnolia virginiana         QL       Quercus laurifolia         QP3       Quercus pagoda         TD       Taxodium distichum         CODE       BOTANICAL NAME         CA3       Callicarpa americana         II2       Ilex glabra leucocarpa 'Ivory Queen'         IP       Illicium parviflorum	ILE AME Ilex opaca American Holly  IV4 Ilex vomitoria Yaupon Holly  MS Magnolia virginiana Sweet Bay  QL Quercus laurifolia Laurel-leaved Oak  QP3 Quercus pagoda Cherrybark Oak  TD Taxodium distichum Bald Cypress  CODE BOTANICAL NAME CA3 Callicarpa americana American Beauty Berry  II2 Ilex glabra leucocarpa 'Ivory Queen' Gallberry  IP Illicium parviflorum Anise Tree

TREES	CODE	BOTANICAL NAME	COMMON NAME		QTY	REMARKS
×	AP5	Aesculus pavia	Red Buckeye		3	
	AA	Amelanchier Laevis	Serviceberry		4	
$\langle \cdot \rangle$						
	HC2	Halesia carolina	Snowdrop Tree		16	
	1102	Tialesia Carollila	Showdrop free		10	
(-)						
	ILE AME	llex opaca	American Holly		6	
(.)						
and interest of	IV4	Ilex vomitoria	Yaupon Holly		71	
(·)						
. A William	ML	Magnolia grandiflora `Little Gem`	Dwarf Southern Magnolia		8	
	IVIL	Magnolia grandiliora Little Gerii	Dwarf Southern Magnolla		0	
	MS	Magnolia virginiana	Sweet Bay		9	
( + )						
	NS	Nyssa sylvatica	Sour Gum		32	
( • )						
$\overline{}$		Output Investor	Laurella con LO L		40	
	QL	Quercus laurifolia	Laurel-leaved Oak		16	
$\overline{}$	QP3	Quercus pagoda	Cherrybark Oak		9	
(•)						
	L			L		
	QP2	Quercus phellos	Willow Oak		9	
( • )						
	000				10-	
	QS2	Quercus shumardii	Shumard Red Oak		107	
( • )						
$\overline{}$	TD	Taxodium distichum	Bald Cypress		19	
		Taxodiam distinum	Baid Oypicoo			
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME		QTY	REMARKS
	AG2	Abelia grandiflora	Glossy Abelia		29	
(4)						
$\bigcirc$	CA3	Callicarpa americana	American Beauty Berry		40	
$\odot$						
(2)	cs	Calycanthus floridus	Sweet Shrub		14	
$\bigcirc$						
$\bigcirc$	GM	Gardenia jasminoides `Radicans`	Miniature Or Trailing Jasmine		10	
$\cup$						
$\bigcirc$	HA2	Hydrangea arborescens `Annabelle`	Annabelle Smooth Hydrangea		24	
lacktriangle						
$\overline{}$	IB	Ilex cornuta 'Burfordii Nana'	Dwarf Burford Holly		141	
(*)						
$\sim$	II2	Ilex glabra leucocarpa `Ivory Queen`	Gallberry		138	PARKING LOT SCREENING,
(+)						PLANTING AT 3 FEET IN HEIG
	IW	llex verticillata	Winterberry	+	44	
<u> </u>	IP	Illicium parviflorum	Anise Tree		113	PARKING LOT SCREENING,
$\bigoplus$	I					PLANTING AT 3 FEET IN HEIG
				1		
~	IV5	Itea virginica `Henrv`s Garnet`	Henry's Garnet Sweetspire		21	
$\odot$	IV5	Itea virginica `Henry`s Garnet`	Henry's Garnet Sweetspire		21	
<u>•</u>						
<ul><li>⊙</li><li>⊙</li></ul>	IV5	Itea virginica `Henry`s Garnet`  Leucothoe fontanesiana	Henry's Garnet Sweetspire  Drooping Leucothoe		34	
$\odot$	LD	Leucothoe fontanesiana	Drooping Leucothoe		34	
$\odot$	LD	Leucothoe fontanesiana Osmanthus fragrans	Drooping Leucothoe  Sweet Olive, Tea Olive		34	
$\odot$	LD	Leucothoe fontanesiana	Drooping Leucothoe		34	
<ul><li>⊙</li><li>♠</li><li>⊕</li></ul>	LD OF RO	Leucothoe fontanesiana  Osmanthus fragrans  Rosa shrub `RADrazz` TM	Drooping Leucothoe  Sweet Olive, Tea Olive  Knock Out	CDA CINC	34 5 70	DEMARKS
<ul><li>⊙</li><li>♠</li></ul>	LD OF RO CODE	Leucothoe fontanesiana  Osmanthus fragrans  Rosa shrub 'RADrazz' TM  BOTANICAL NAME	Drooping Leucothoe  Sweet Olive, Tea Olive  Knock Out  COMMON NAME	SPACING	34 5 70 QTY	REMARKS
<ul><li>⊙</li><li>♠</li><li>⊕</li></ul>	LD OF RO	Leucothoe fontanesiana  Osmanthus fragrans  Rosa shrub `RADrazz` TM	Drooping Leucothoe  Sweet Olive, Tea Olive  Knock Out	SPACING 24" o.c.	34 5 70	REMARKS
<ul><li>⊙</li><li>♠</li><li>⊕</li></ul>	LD OF RO CODE	Leucothoe fontanesiana  Osmanthus fragrans  Rosa shrub 'RADrazz' TM  BOTANICAL NAME  Asclepias incarnata	Drooping Leucothoe  Sweet Olive, Tea Olive  Knock Out  COMMON NAME  Swamp Milkweed	24" o.c.	34 5 70 QTY 718	REMARKS
<ul><li>⊙</li><li>♠</li><li>⊕</li></ul>	LD OF RO CODE	Leucothoe fontanesiana  Osmanthus fragrans  Rosa shrub 'RADrazz' TM  BOTANICAL NAME	Drooping Leucothoe  Sweet Olive, Tea Olive  Knock Out  COMMON NAME		34 5 70 QTY	REMARKS
<ul><li>⊙</li><li>♠</li><li>⊕</li></ul>	CODE AI	Leucothoe fontanesiana  Osmanthus fragrans  Rosa shrub `RADrazz` TM  BOTANICAL NAME  Asclepias incarnata  Carex tenera	Drooping Leucothoe  Sweet Olive, Tea Olive  Knock Out  COMMON NAME  Swamp Milkweed  Quill Sedge	24" o.c.	34 5 70 QTY 718	REMARKS
<ul><li>⊙</li><li>♠</li><li>⊕</li></ul>	LD OF RO CODE	Leucothoe fontanesiana  Osmanthus fragrans  Rosa shrub 'RADrazz' TM  BOTANICAL NAME  Asclepias incarnata	Drooping Leucothoe  Sweet Olive, Tea Olive  Knock Out  COMMON NAME  Swamp Milkweed	24" o.c.	34 5 70 QTY 718	REMARKS

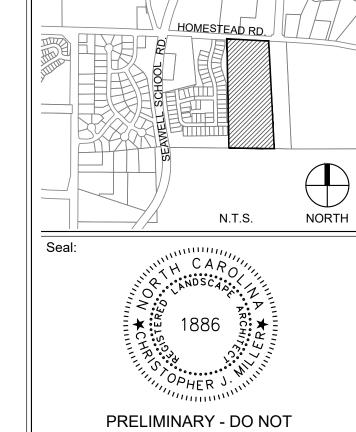
PLANT SCHEDULE



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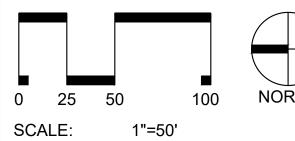
# INDEPENDENT SENIOR HOUSING CHAPEL HILL



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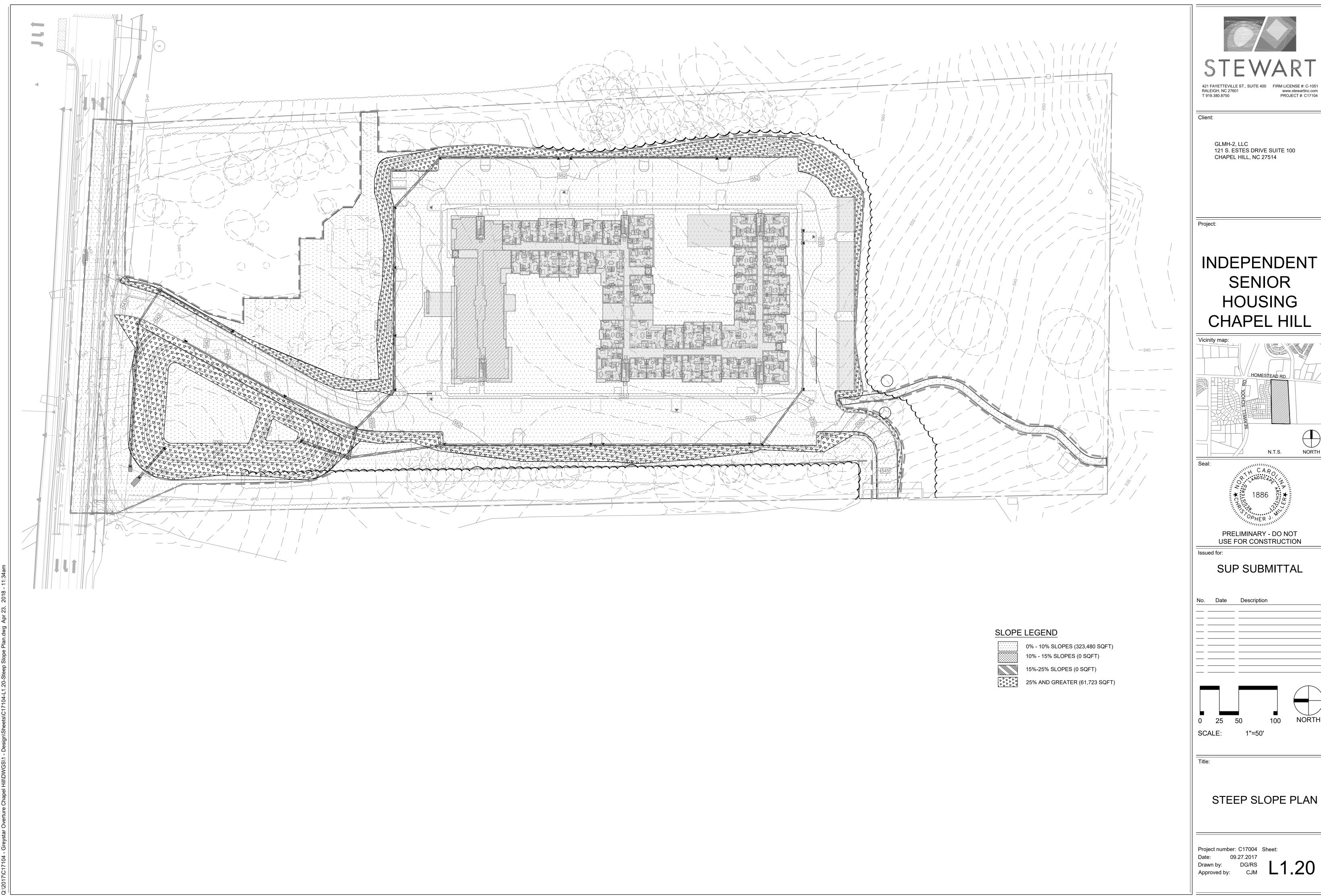


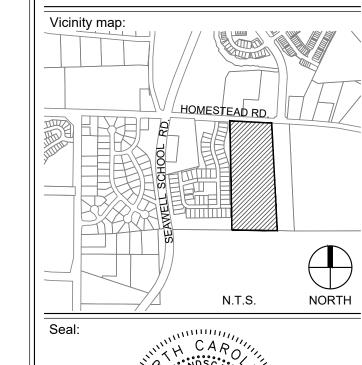
PLANTING PLAN SCHEDULE

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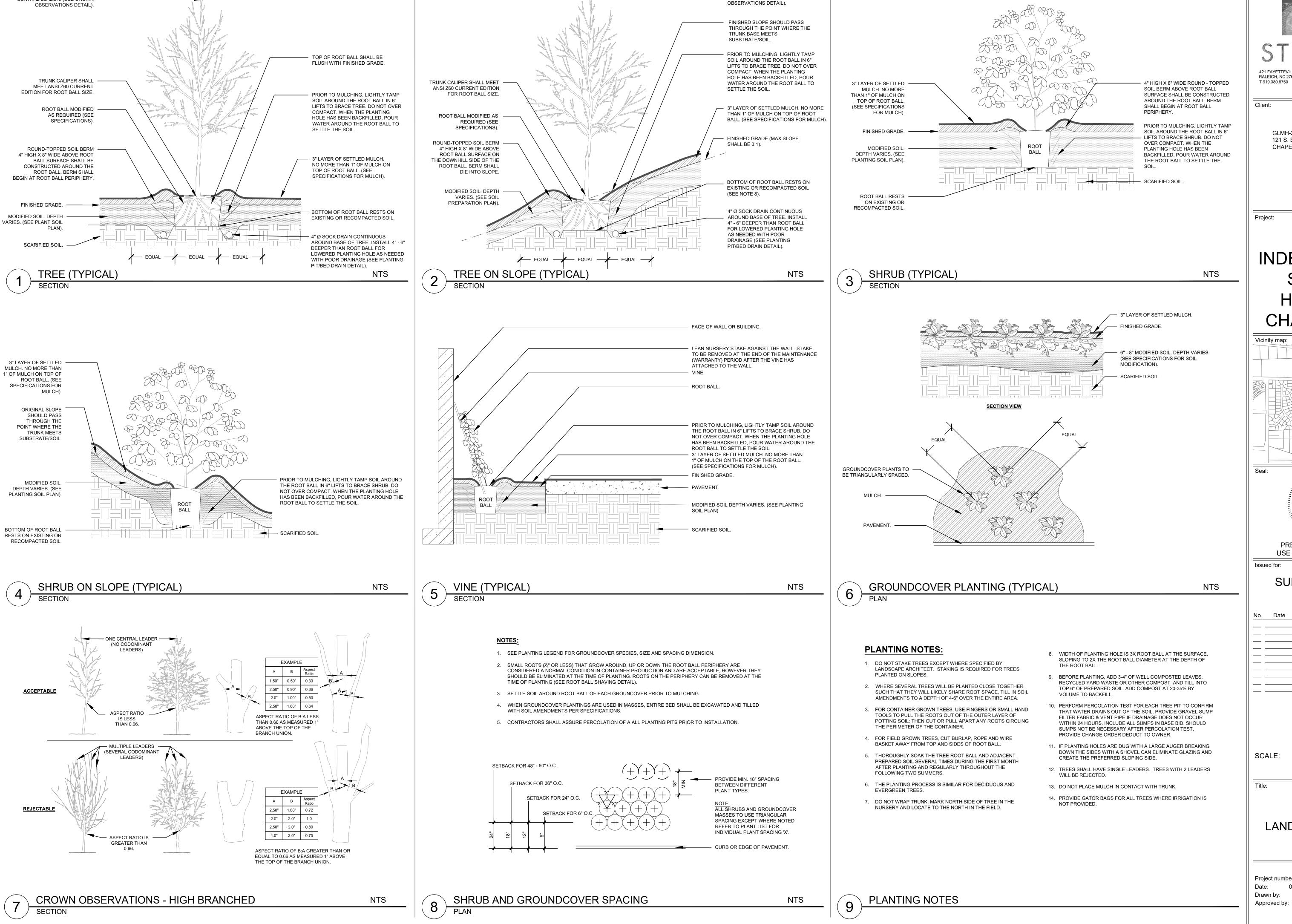
Date: 09.27.2017

Drawn by: DG
Approved by: CDM





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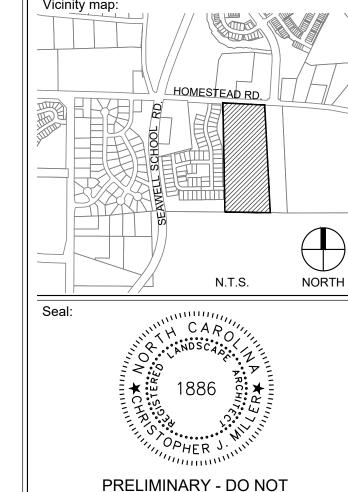
421 FAYETTEVILLE ST., SUITE 400 FIRM LICENSE #: C-1051 RALEIGH, NC 27601 www.stewartinc.com

Client:

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PROJECT #: C17104

## INDEPENDENT **SENIOR** HOUSING **CHAPEL HILL**



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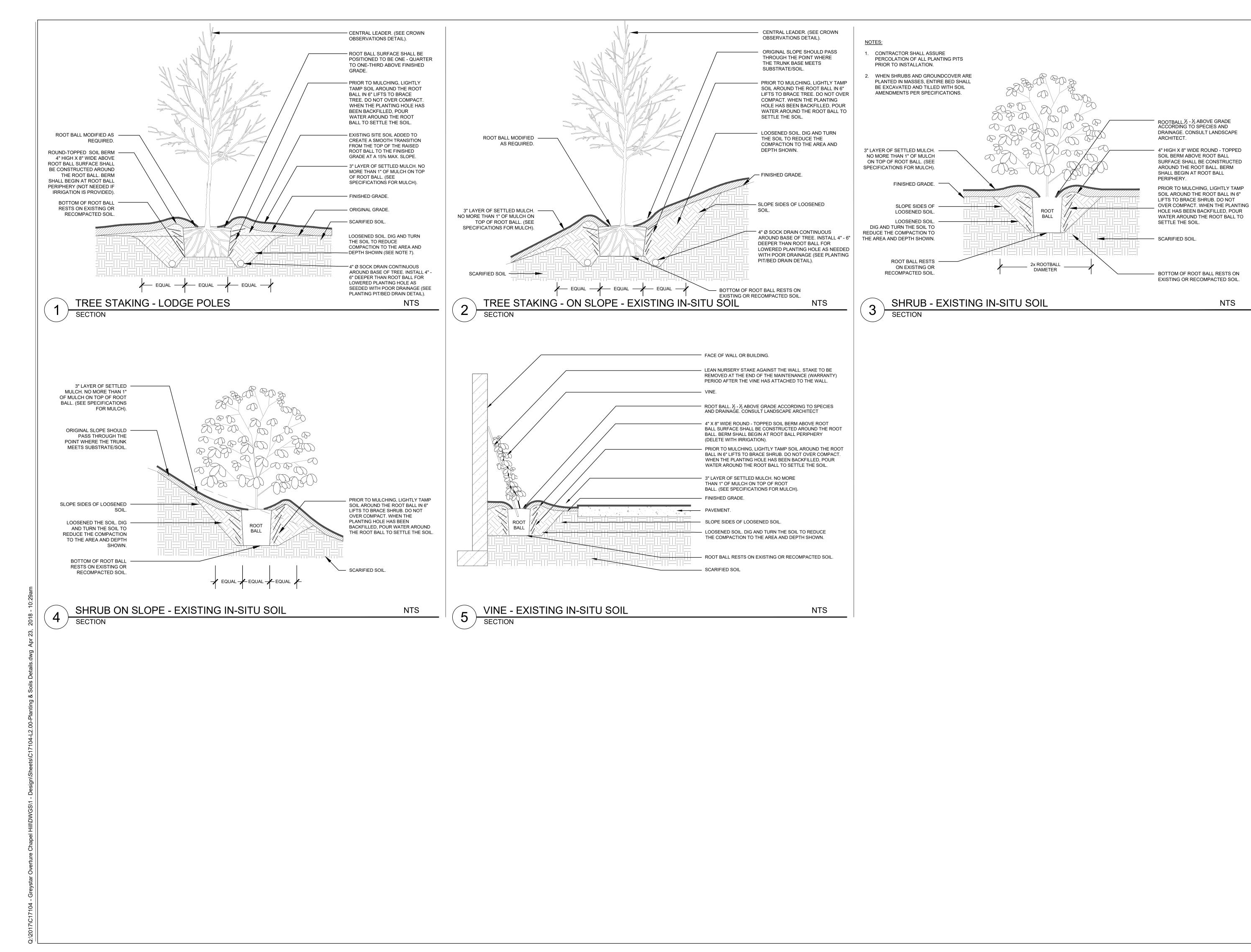
No. Date Description

SCALE: N.T.S.

LANDSCAPE DETAILS

Project number: C17004 Sheet:

Drawn by: Approved by:



421 FAYETTEVILLE ST., SUITE 400 FIRM LICENSE #: C-1051 RALEIGH, NC 27601 www.stewartinc.com

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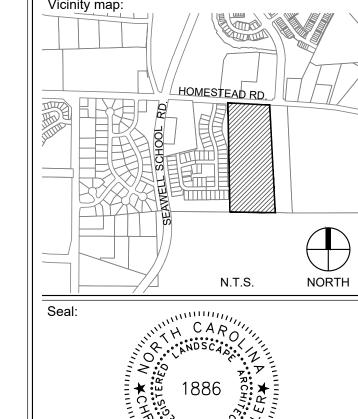
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PROJECT #: C17104

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# INDEPENDENT SENIOR HOUSING CHAPEL HILL



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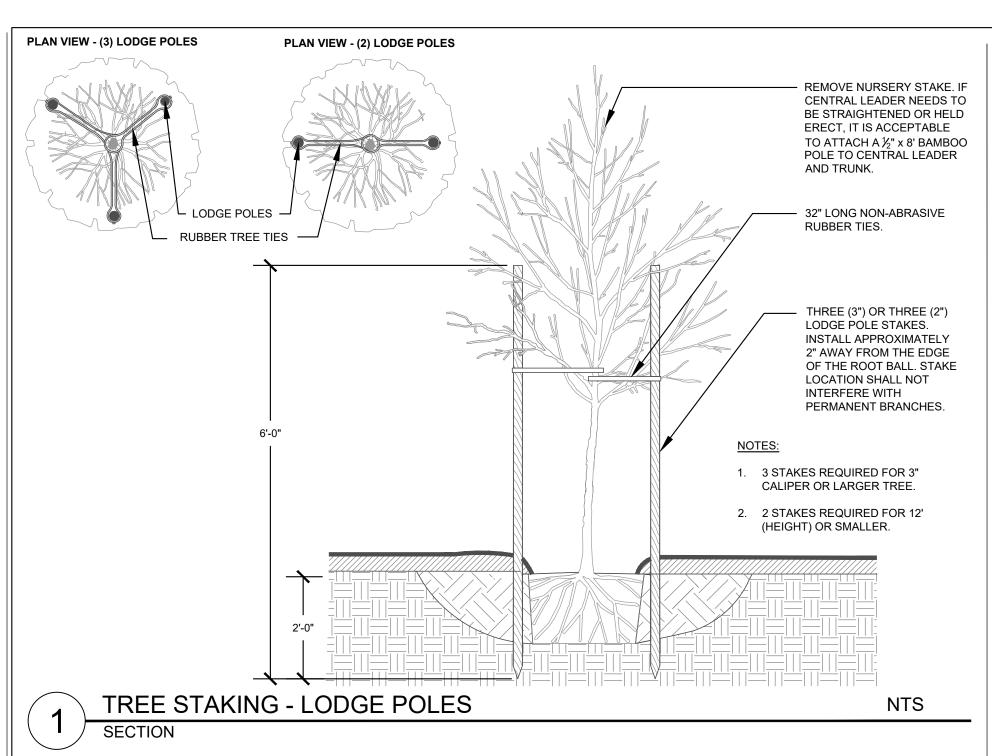
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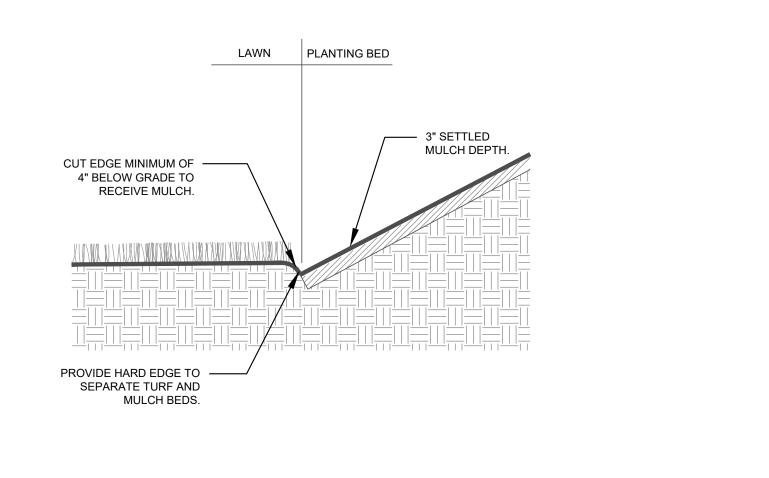
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LANDSCAPE DETAILS

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Date: 09.27.2017
Drawn by: DI/RS
Approved by: CJM





NTS

LAWN / PLANT BED TRENCH EDGING

1° x 9° SINGLE METAL STAKE.

WITH METAL ARM BAR SECURED
TO STAKE AND RUBBER STRAP
AROUND TRUNK.

PREVAILING
WIND.

PLAN VIEW

REMOVE NURSERY STAKE. IF CENTRAL
LEADER NEEDS TO BE STRACHERHED ON HELD ERECT, IT IS ACCEPTABLE TO ATTACH A 3' x 8' BAMBOO POLE TO THE CENTRAL LEADER AND TRUNK.

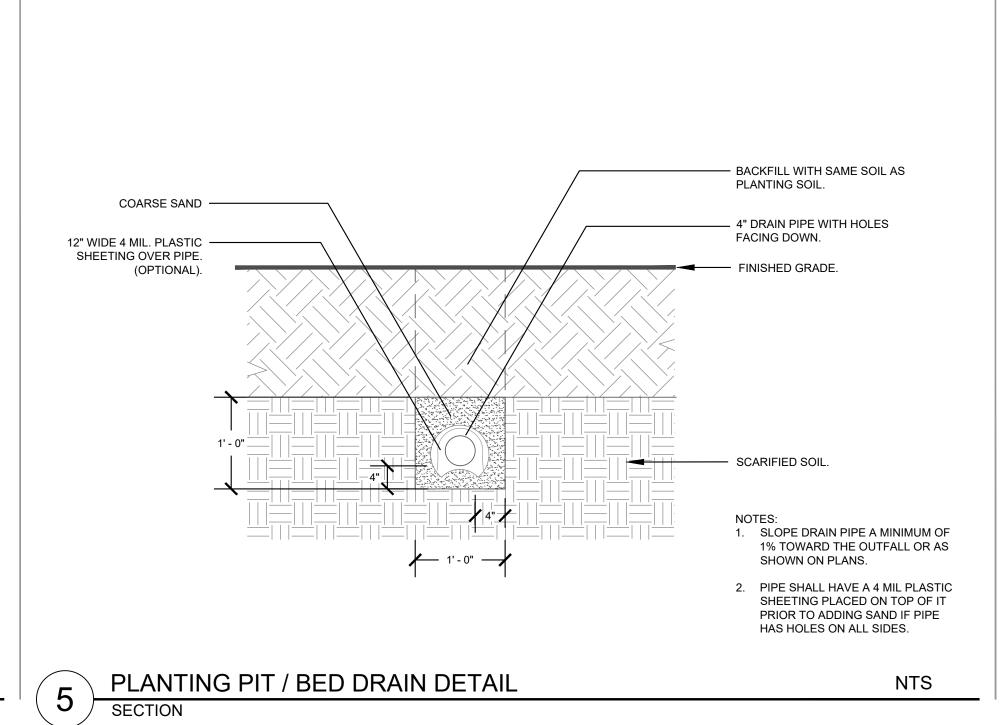
PREVAILING
WIND.

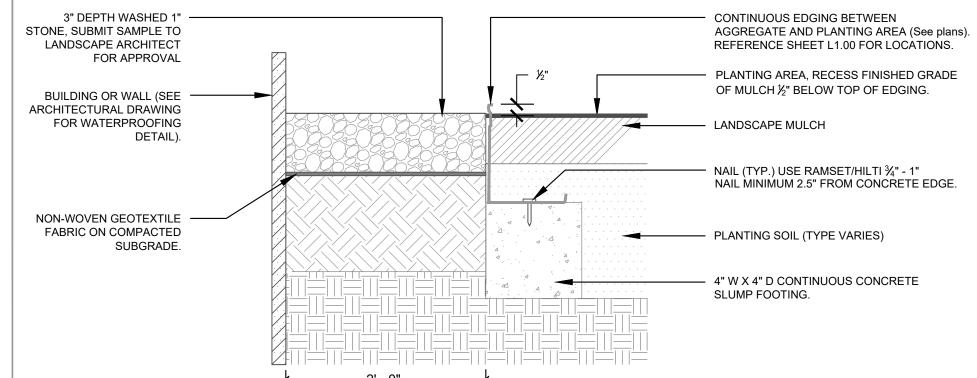
HEIGHT OF ARM BAR SHALL VARY PER TREE. CONTRACTOR TO ADJUST AS NEEDED TO HOLD TREE ERECT.

1" x 9" SINGLE METAL STAKE. INSTALL PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. STAKE LOCATION SHALL NOT INTERFERE WITH BRANCHES.

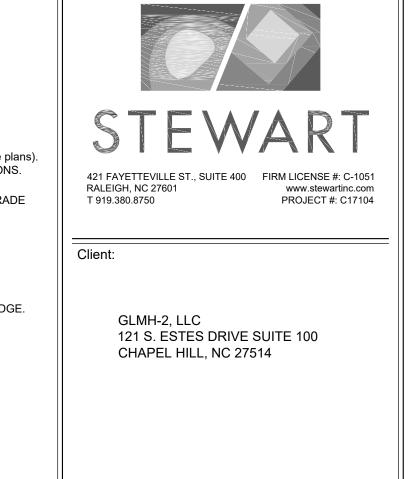
NTS

TREE STAKING - ON SLOPE



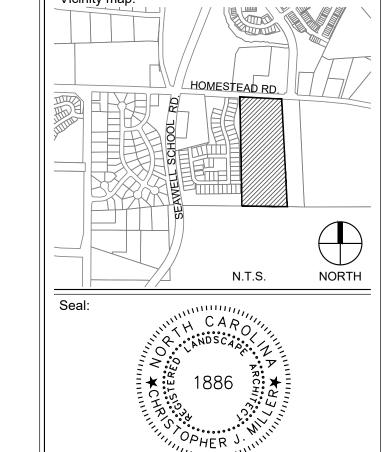


GRAVEL BAND WITH STEEL EDGING
SECTION



INDEPENDENT
SENIOR
HOUSING
CHAPEL HILL

NTS



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SCALE: N.T.S.

Title:

LANDSCAPE DETAILS

Project number: C17004 Sheet:
Date: 09.27.2017

Drawn by: DG/RS Approved by: CJM L2.02