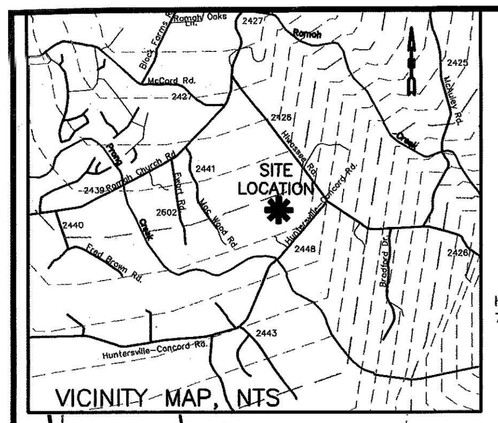


VICINITY MAP, NTS

NAME OF DEVELOPMENT – THE PAVILION
LOT 4
PIN 01924321
15328 PAVILION HILL CIRCLE
HUNTERSVILLE, NORTH CAROLINA
WATERSHED – CLARKE
FEMA PANEL 3701580068E , OUTSIDE
ZONED R
OWNER OF RECORD – SIMONINI BUILDERS OF NC
CLIENT – KILIAN–SIMONINI
LOT SIZE – 1.535 ACRES = 66,903.30 SF

DESIGNATED TREE SAVE = 24,174.14 SF
(AT TIME OF PLAT RECORDING)
CHANGES TO TREE SAVE AREA
REMOVED FOR LID MEASURES = 6826 SF
ADDED OVER SEPTIC REPAIR FIELD = 4562 SF
ADDED IN YARD = 2347 SF

NET GAIN = 83 SF

(NOTE: OWNER IS NOT REQUIRED TO ADD ADDITIONAL TREE SAVE AREA, ADDITIONAL AMENDMENTS REQUIRED SHOULD BE VERIFIED BY AN AS BUILT SURVEY, ALL CLEARING LIMITS SHALL BE CLEARLY MARKED PRIOR TO BEGINNING CLEARING AND OR CONSTRUCTION)

IMPERVIOUS AREA CALCULATION

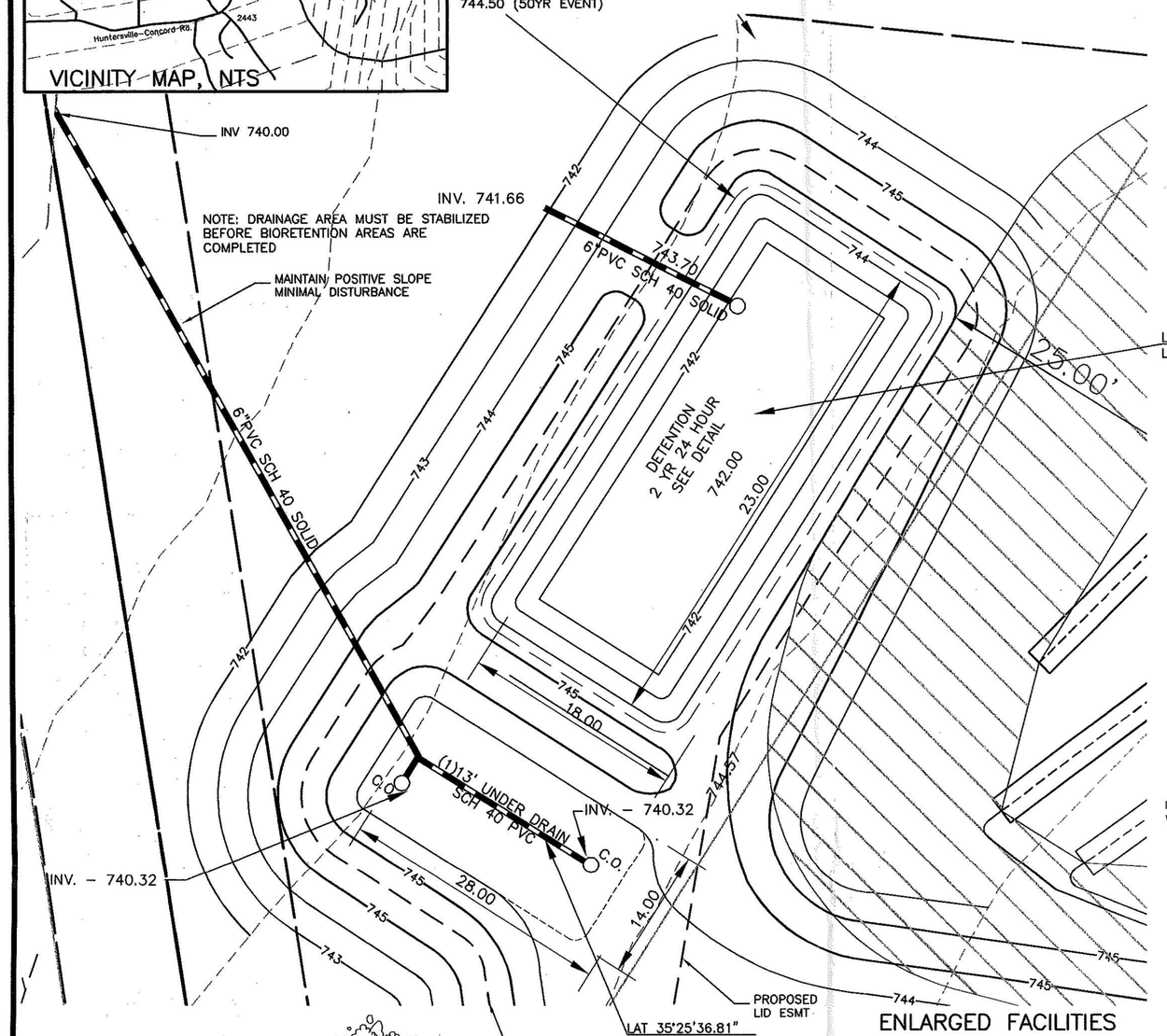
HOUSE	4,542.40 SF
PAVED DRIVEWAY	2,065.54 SF
PAVED SIDEWALK	340.32 SF
POOL AND PAVED DECK	1,500.00 SF
POOL HOUSE	600.00 SF
TOTAL IMPERVIOUS	9,046.26 SF

TOTAL PERCENT IMPERVIOUS 13.52% (WITH RESPECT TO THE LOT ACREAGE)
ACTUAL DRAINAGE AREA 0.66 ACRES
(CALCULATION FOR LID AND DETENTION PROVIDED UNDER SEPARATE COVER)

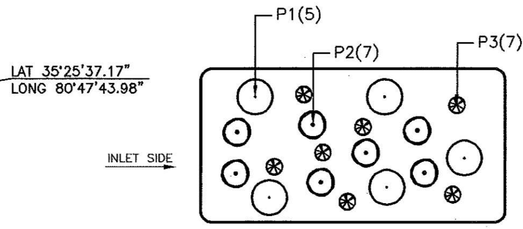
CONSTRUCTION SEQUENCE
1. OBTAIN REQUIRED APPROVALS AND PERMITS, HOLD ANY REQUIRED PRE CONSTRUCTION CONFERENCES
2. MARK CLEARING LIMITS
3. CLEAR MINIMUALLY FOR SILT FENCE INSTALLATION
4. INSTALL SILT FENCE AND DRIVE CULVERT AND CONSTRUCTION ENTRANCE
5. CLEAR AND GRUB SITE
6. LAYOUT AND CONSTRUCT HOME
7. FINSIH REQUIRED SITE WORK
8. STABILIZE SITE
9. GRADE AND INSTALL DETENTION BASIN
10. GRADE AND INSTALL RAIN GARDEN

RAIN GARDEN 400 SF/43560 SF/1 AC = 0.009183X2000 = 18.36 EA = 19 EA

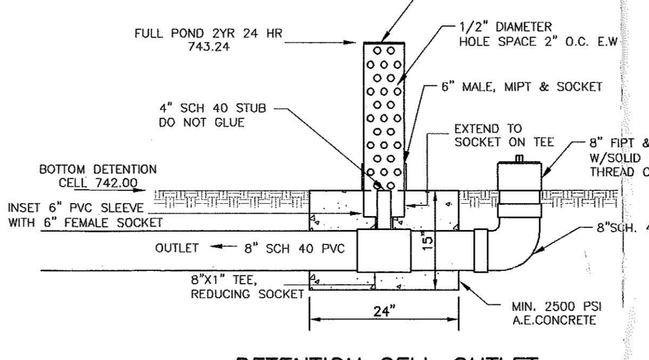
P1 (5 EA) ARONIA MELANOCARPA (BLACK CHOKEBERRY)
P2 (7 EA) CLETHRA ALNIFOLIA (SWEET PEPPERBUSH)
P3 (7 EA) MUHLENBERGIA CAPILLARIS (PINK MUHLY GRASS)
19 EA



ENLARGED FACILITIES DRAWING
SCALE 1" = 10'



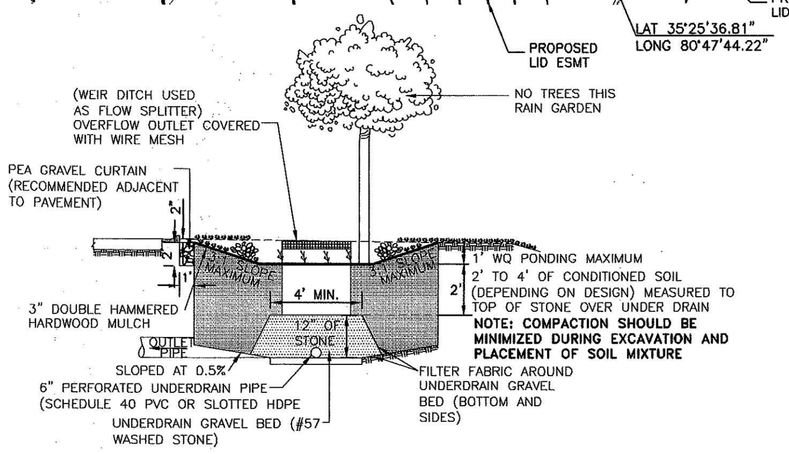
RAIN GARDEN PLANTINGS
NTS



DETENTION CELL OUTLET
NTS

NOTE:

1. OWNER/CLIENT RESERVES THE RIGHT TO MAKE LAYOUT CHANGES WITHIN THOSE ALLOWED BY THE ENGINEERING AND ZONING ORDINANCE OF HUNTERSVILLE, MECKLENBURG COUNTY, NORTH CAROLINA. INCREASE IN IMPERVIOUS AREA PROPOSED SHALL BE BROUGHT TO THE ATTENTION OF THE CERTIFYING ENGINEER SO LID MEASURES AND DETENTION FACILITIES CAN BE CHANGED BASED ON THE PROPOSED REVISIONS TO THE PLAN.
2. OWNER/CLIENT MUST COMPLY WITH APPLICABLE SECTIONS OF THE TOWN OF HUNTERSVILLE WATER QUALITY DESIGN MANUAL JULY 26, 2007 EDITION. IN ADDITION OWNER/CLIENT IS REQUIRED TO PROVIDE EASEMENT AND MAINTENANCE AGREEMENT TO SATISFY THE ABOVE REFERENCED MANUAL.
3. OWNER/CLIENT IS RESPONSIBLE FOR PERIODIC INSPECTION AND MAINTENANCE OF ALL MEASURES INSTALLED. WHEN REQUIRED BY THE ORDINANCE AND DESIGN MANUAL, QUALIFIED PROFESSIONALS SHALL BE RETAINED TO PROVIDE THE APPROPRIATE DOCUMENTATION.
4. OWNER/CLIENT SHALL BE RESPONSIBLE TO VERIFY THAT MEASURES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLAN.
5. FIELD ADJUST TO MAINTAIN THE MINIMUM 25' SEPARATION BETWEEN SEPTIC FIELD AND TOP OF RAIN GARDEN (MAX. POND LEVEL)
6. REVISIONS TO THE TREE SAVE LINE DUE TO FIELD ADJUSTMENTS SHALL BE MADE AND REPLATTED.



NOTES:

1. EXCAVATE THE RAIN GARDEN TO THE DESIGN DIMENSIONS.
2. PLACE NON–WOVEN FILTER FABRIC (MIRAFI 140 OR EQUAL FILTER FABRIC) ACROSS THE BOTTOM OF THE EXCAVATION IN LOCATIONS FOR UNDERDRAINS.
3. INSTALL UNDERDRAIN SYSTEM ON TOP OF THE FILTER FABRIC IN THE BOTTOM OF THE EXCAVATION. DOUBLE WALL HDPE CORRUGATED PLASTIC PIPE IS RECOMMENDED DUE TO ITS RIGIDITY AND LONG LIFE EXPECTANCY, OTHER PIPE MATERIALS MAY BE SUBSTITUTED AT THE DESIGNER'S DISCRETION AND WITH THE INSPECTOR'S APPROVAL.
4. INSTALL CLEANOUT STANDPIPES AND OUTLETS TO THE UNDERDRAIN. THE CLEANOUT STANDPIPES MUST BE LOCATED AT THE UPPER END OF THE STRUCTURE AND BE CAPPED ABOVE THE WATER LEVEL ELEVATION. THE CLEANOUTS SHOULD CONSIST OF RIGID NON–PERFORATED PVC PIPE, 6 INCHES IN DIAMETER.
5. PLACE #57 WASH STONE (GRAVEL) OVER THE UNDERDRAIN TO A DEPTH OF 12 INCHES AND WIDTH OF 4 FEET.
6. PLACE FILTER FABRIC OVER THE GRAVEL BED TO FULLY ENCLOSE IT ON THE TOP, BOTTOM AND SIDES.
7. BACKFILL WITH A SOIL MIXTURE CONTAINING 80% WHITE MORTAR SAND AND 20% ORGANIC MATERIAL (COMPOST, TOPSOIL) TO A DEPTH OF 2 TO 4 FEET (DEPENDING ON DESIGN) MEASURED FROM THE TOP OF THE STONE OVER THE UNDERDRAIN. SOIL MUST NOT BE INSTALLED UNTIL ALL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED AND APPROVED BY THE INSPECTOR. **NOTE: SOIL MIXTURE MUST BE PLACED IN LIFTS OF 12 INCHES AND WATERED UNTIL WATER FLOWS OUT OF UNDERDRAIN BEFORE PLACING NEXT LAYER.** NO HEAVY EQUIPMENT IS ALLOWED IN THE BASIN AREA.
8. INSTALL VEGETATION AS PER APPROVED PLANS.
9. PLACE MULCH ON TOP OF THE SOIL MIXTURE TO A DEPTH OF 3 INCHES.
10. STABILIZE THE SLOPES DRAINING TO THE RAIN GARDEN WITH GRASS SOD TO A MINIMUM WIDTH OF 14 FEET AND SURROUND THE STRUCTURE WITH SILT FENCE UNTIL DRAINAGE AREA IS FULLY VEGETATED TO PREVENT SEDIMENT FROM CONTAMINATING THE SOIL MIXTURE.
11. AN ENERGY DISPERSION DEVICE IS REQUIRED FOR CONCENTRATED FLOW ENTERING THE STRUCTURE.
12. REFER TO SECTION 4.1 OF THE MECKLENBURG COUNTY BMP DESIGN MANUAL FOR
13. SPECIFIC DESIGN CRITERIA FOR RAIN GARDENS/BIORETENTION SYSTEMS.

TYPICAL BIORETENTION 85% TSS REMOVAL
NTS

MAINTENANCE RESPONSIBILITIES
TOWN OF HUNTERSVILLE WATER QUALITY DESIGN MANUAL 7/26/2007 ED.
SECT. 8.5.2.

BMPS THAT ARE CONSTRUCTED ON PRIVATELY–OWNED LAND AND THAT ARE NOT WITHIN A PUBLIC EASEMENT SHALL BE MAINTAINED BY A HOMEOWNERS ASSOCIATION OR THE OWNER OF THE SUBJECT PROPERTY. BMPS THAT ARE CONSTRUCTED ON PUBLIC LAND WITHIN PUBLIC RIGHTS–OF–WAY, AND/OR WITHIN PUBLIC EASEMENTS SHALL BE MAINTAINED BY THE PUBLIC BODY WITH OWNERSHIP/JURISDICTION OF THE SUBJECT PROPERTY. THE FOLLOWING REQUIREMENTS SHALL BE MET FOR ALL BMPS THAT HAVE BEEN CONSTRUCTED ON PRIVATELY–OWNED PROPERTY AND NOT WITHIN A PUBLIC EASEMENT.

A. MAINTENANCE COVENANTS. PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT FOR ANY BUILDING WITHIN A PERMITTED DEVELOPMENT SERVED BY A BMP, THE APPLICANT OR OWNER OF THE BMP SHALL ESTABLISH A FORMAL MAINTENANCE COVENANT APPROVED BY THE MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY AND RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN WHICH THE OWNER ACKNOWLEDGES THE DUTY OF THE OWNER AND ALL SUBSEQUENT OWNERS OF THE PROPERTY TO MAINTAIN THE BMP IN ACCORDANCE WITH THE TERMS OF THE COVENANT. A MAINTENANCE PLAN AND SCHEDULE SHALL BE INCLUDED AS PART OF THE COVENANT AS WELL AS A MECHANISM FOR FUNDING MAINTENANCE AND REPAIRS. THE MAINTENANCE COVENANT SHALL ALSO SPECIFY THE HOMEOWNERS ASSOCIATION OR SIMILAR LEGAL ENTITY HAS THE POWER TO COMPEL CONTRIBUTIONS FROM RESIDENTS OF A DEVELOPMENT TO COVER THEIR PROPORTIONATE SHARES OF A TYPICAL MAINTENANCE COVENANT. APPENDIX H CONTAINS AN EXAMPLE MAINTENANCE PLAN AND INSPECTION CHECKLISTS.

B. REQUIREMENTS FOR THE MAINTENANCE COVENANTS. BMPS SHALL BE INSPECTED AT A MINIMUM OF ANNUALLY BY A QUALIFIED PROFESSIONAL AS DESCRIBED IN THE MAINTENANCE COVENANT. THE PURPOSE OF THIS INSPECTION IS TO IDENTIFY MAINTENANCE AND REPAIR NEEDS TO ENSURE THE LONG–TERM FUNCTIONALITY OF THE BMP. ANY IDENTIFIED MAINTENANCE AND/OR REPAIR NEEDS SHALL BE ADDRESSED IN A TIMELY MANNER. THE INSPECTION AND MAINTENANCE REQUIREMENT MAY BE INCREASED AS DEEMED NECESSARY BY THE MECKLENBURG COUNTY WATER QUALITY PROGRAM (MCWQP) TO ENSURE PROPER FUNCTIONING OF THE BMP.

C. RECORDS OF INSTALLATION AND MAINTENANCE ACTIVITIES. PARTIES RESPONSIBLE FOR THE INSPECTION, OPERATION AND MAINTENANCE OF A BMP SHALL MAINTAIN RECORDS OF THE INSTALLATION OF ALL THE MAINTENANCE AND REPAIRS AND SHALL RETAIN THE RECORDS FOR THE LIFE OF THE BMP. AFTER INSPECTIONS AND MAINTENANCE HAVE BEEN PERFORMED, A COPY OF THE INSPECTION CHECKLIST (SEE APPENDIX H) SHALL BE FORWARDED BY THE OWNER TO MCWQP WITHIN TWO WEEKS OF THE INSPECTION. MCWQP STAFF WILL FILE SUBMITTED DATA BASE TO TRACK INSPECTIONS AND MAINTENANCE PERFORMED. ALL INSPECTION CHECKLISTS ARE TO BE MAILED TO 700 NORTH TRYON STREET, CHARLOTTE, NC 28202, ATTENTION: WATER QUALITY PROGRAM.

WATERING AND MAINTENANCE RESPONSIBILITIES DURING DIFFERENT PHASES OF A PROJECT SHALL GENERALLY BE DEFINED AS FOLLOWS, UNLESS CONTRACTUAL OBLIGATIONS REQUIRE OTHERWISE:

- CONSTRUCTION PHASE: DEVELOPER/BUILDER
- PROJECT ACCEPTANCE: BUILDER
- PROPERTY OWNERSHIP TRANSFER: BUILDER/PROPERTY OWNER
- WARRANTEE PHASE: PROPERTY OWNER
- OPERATION PHASE: PROPERTY OWNER/HOMEOWNERS ASSOCIATION

BOUNDARY SHOWN FOR INFORMATION ONLY, REFER TO RECORDED PLAT FOR ACTUAL LOT DIMENSIONS

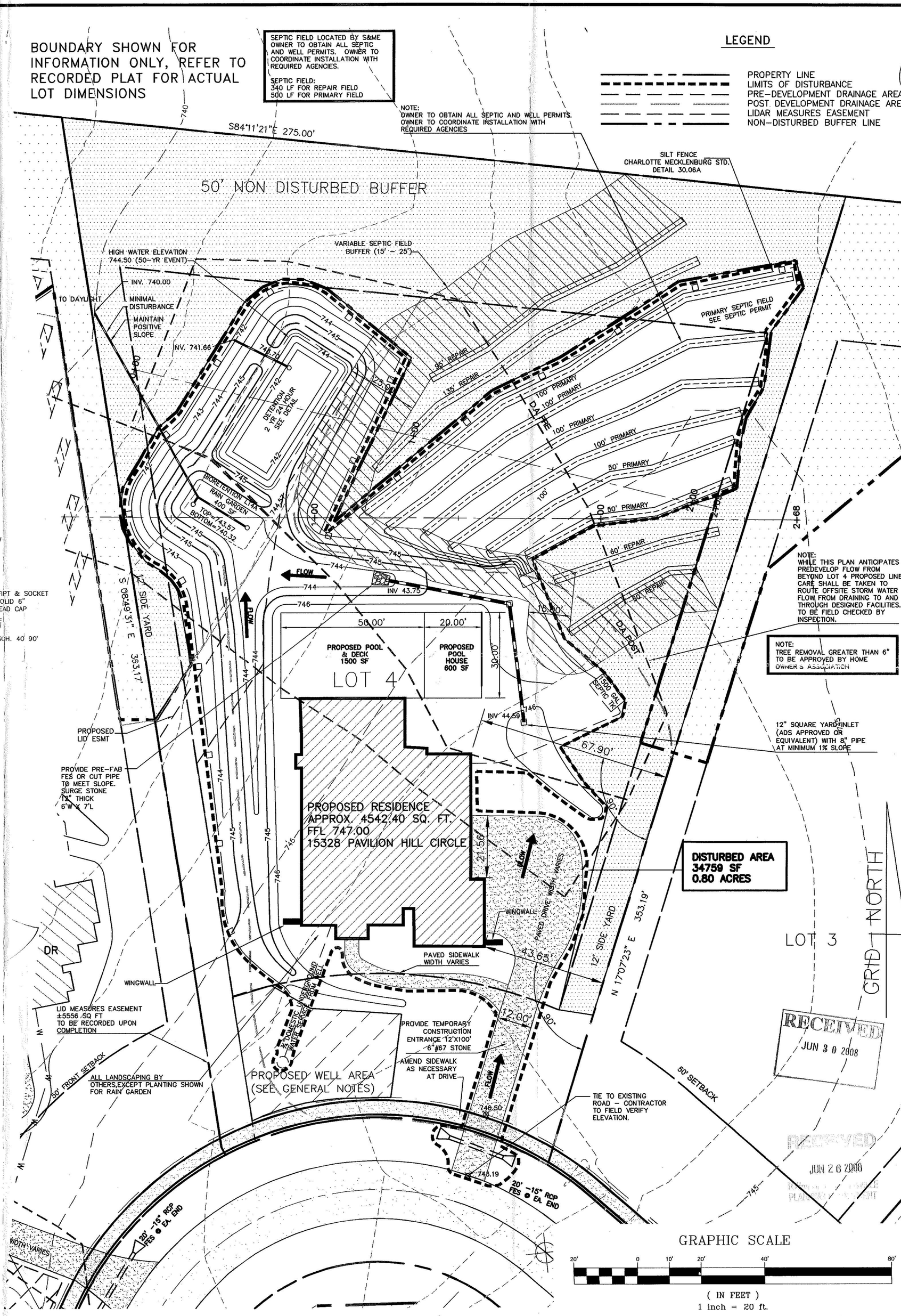
SEPTIC FIELD LOCATED BY S&ME
OWNER TO OBTAIN ALL SEPTIC AND WELL PERMITS. OWNER TO COORDINATE INSTALLATION WITH REQUIRED AGENCIES.

SEPTIC FIELD:
340 LF FOR REPAIR FIELD
500 LF FOR PRIMARY FIELD

NOTE:
OWNER TO OBTAIN ALL SEPTIC AND WELL PERMITS. OWNER TO COORDINATE INSTALLATION WITH REQUIRED AGENCIES

LEGEND

- PROPERTY LINE
- LIMITS OF DISTURBANCE
- PRE–DEVELOPMENT DRAINAGE AREA
- POST DEVELOPMENT DRAINAGE AREA
- LIDAR MEASURES EASEMENT
- NON–DISTURBED BUFFER LINE



NOTE:
WHILE THIS PLAN ANTICIPATES PREDEVELOP FLOW FROM BEYOND LOT 4 PROPOSED LINES, CARE SHALL BE TAKEN TO ROUTE OFFSITE STORM WATER FLOW FROM DRAINING TO AND THROUGH DESIGNED FACILITIES. TO BE FIELD CHECKED BY INSPECTION.

NOTE:
TREE REMOVAL GREATER THAN 6" TO BE APPROVED BY HOME OWNER'S ASSOCIATION

GRAPHIC SCALE
20' 0 10' 20' 40' 80'
(IN FEET)
1 inch = 20 ft.

NORTH CAROLINA PROFESSIONAL SEAL 12863 ENGINEER DAVID F. REESE

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NO.	DATE	INITIALS	REVISION
1	03/18/08	DFR	FIRST SUBMITTAL HUNTERSVILLE MECKLENBURG CTY
2	04/15/08	DFR	REVISED ACTUAL DRAINAGE AREA NUMBER

PROJECT NUMBER: 070303.104
PROJECT MANAGER: DFR
DESIGNED BY: CESI
DRAWN BY:MRG
1" = 20'
DATE: 03/11/08

LOT 4 PAVILION
RESIDENTIAL SITE PLAN – LID MEASURES
15328 PAVILION HILL CIRCLE
SIMONINI BUILDERS OF NC

C100

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