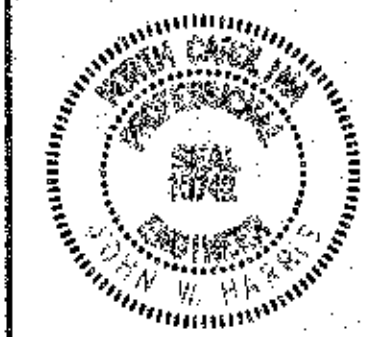
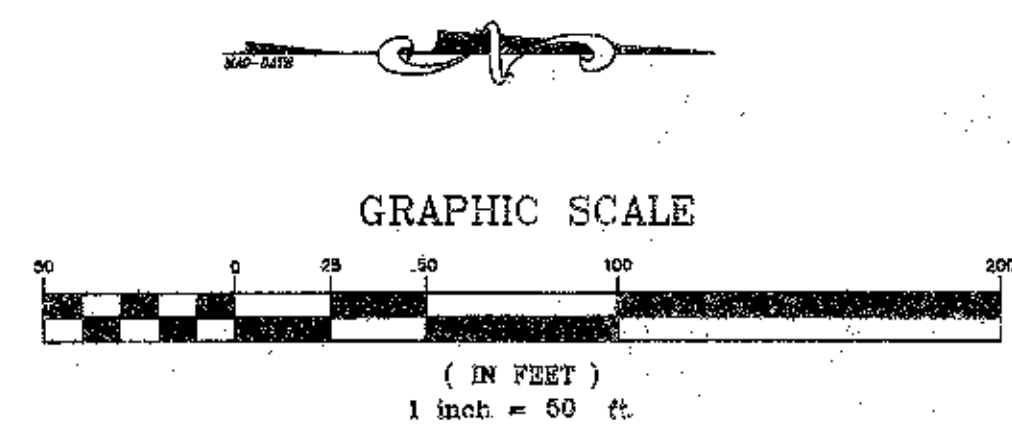
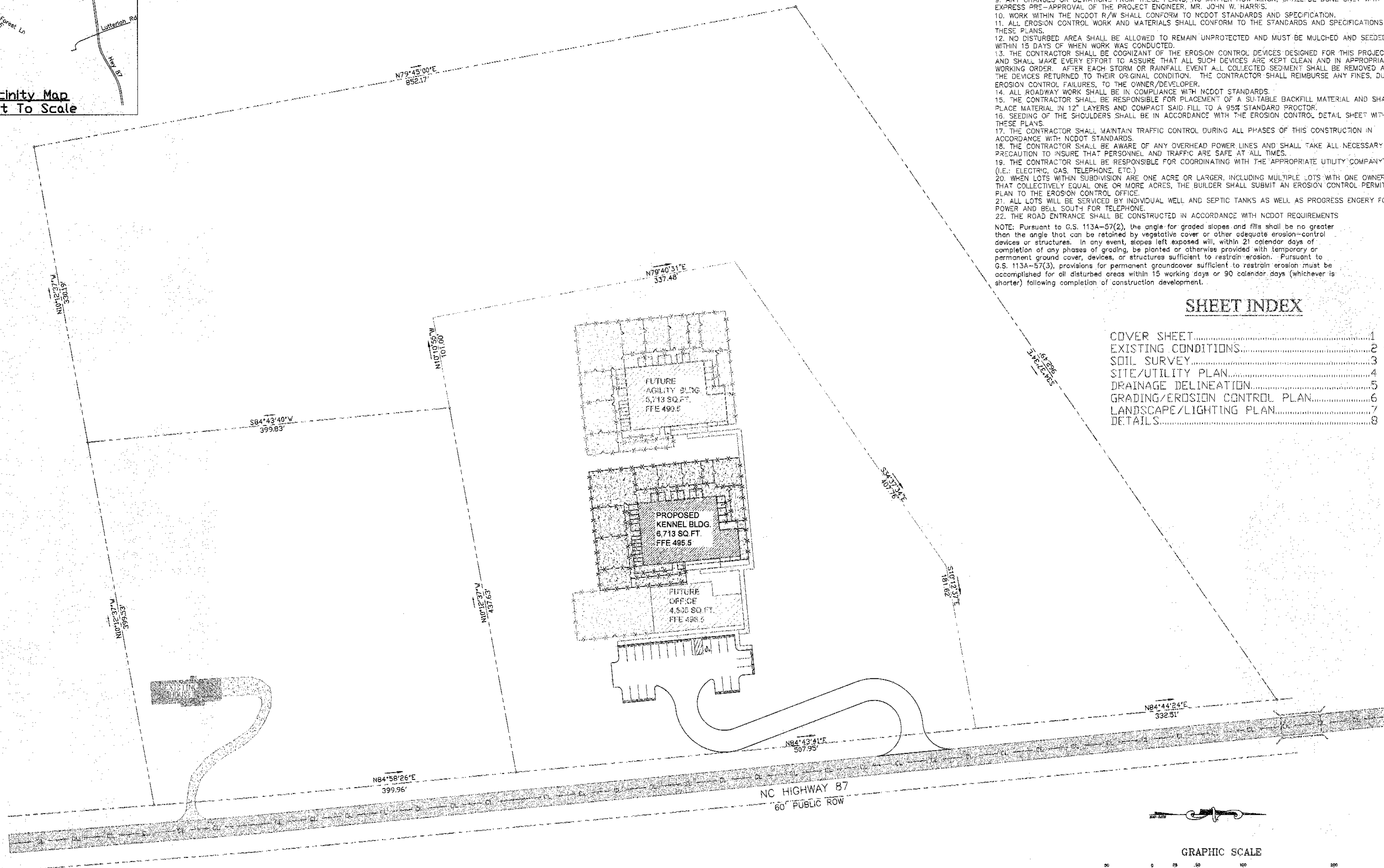


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SHEET INDEX

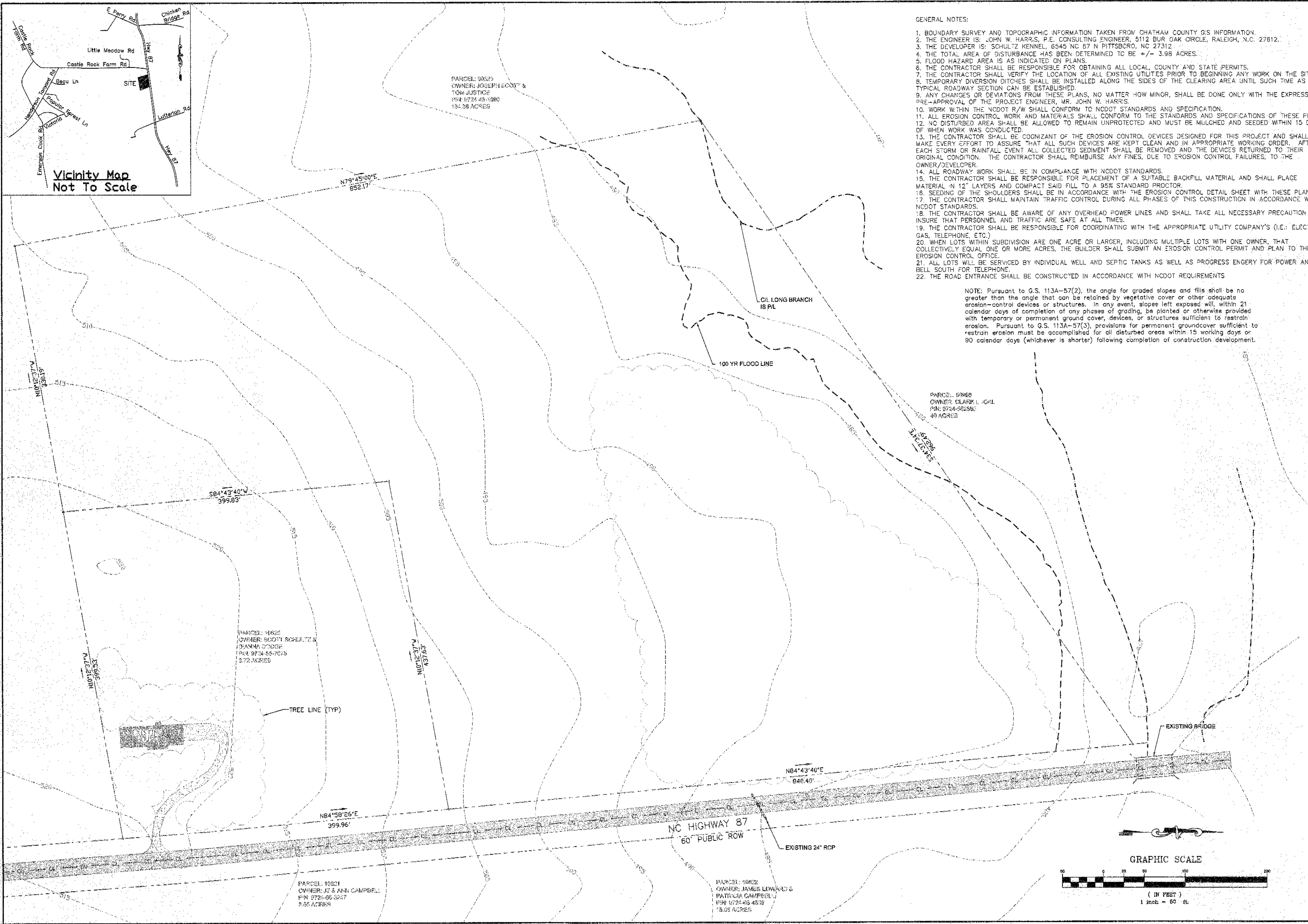
COVER SHEET.....	1
EXISTING CONDITIONS.....	2
SOIL SURVEY.....	3
SITE/UTILITY PLAN.....	4
DRAINAGE DELINEATION.....	5
GRADING/EROSION CONTROL PLAN.....	6
LANDSCAPE/LIGHTING PLAN.....	7
DETAILS.....	8



John W. Harris, P.E.
Consulting Engineer, Inc.
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744

Date: 04-18-08
Scale: 1" = 50'
Drawn By: EDS/RIH
Job #: 79-1107
File: Schultzkenel-2.dwg
Revision:

Cover Sheet
For
Schultz Kennel



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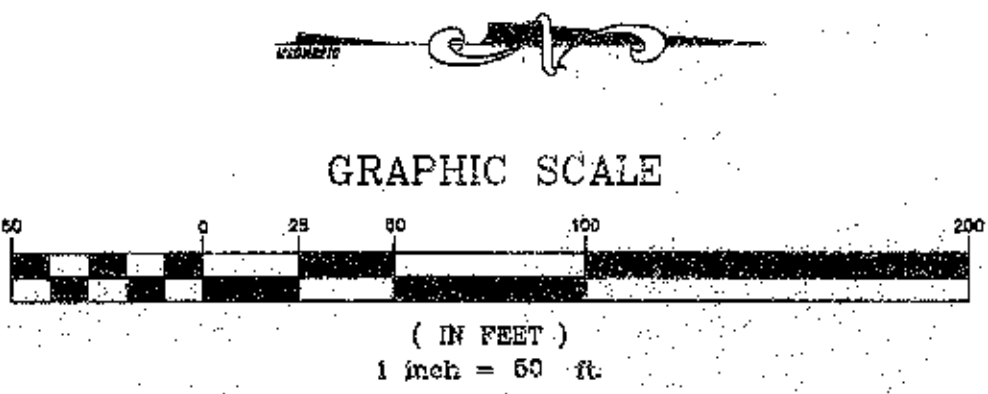
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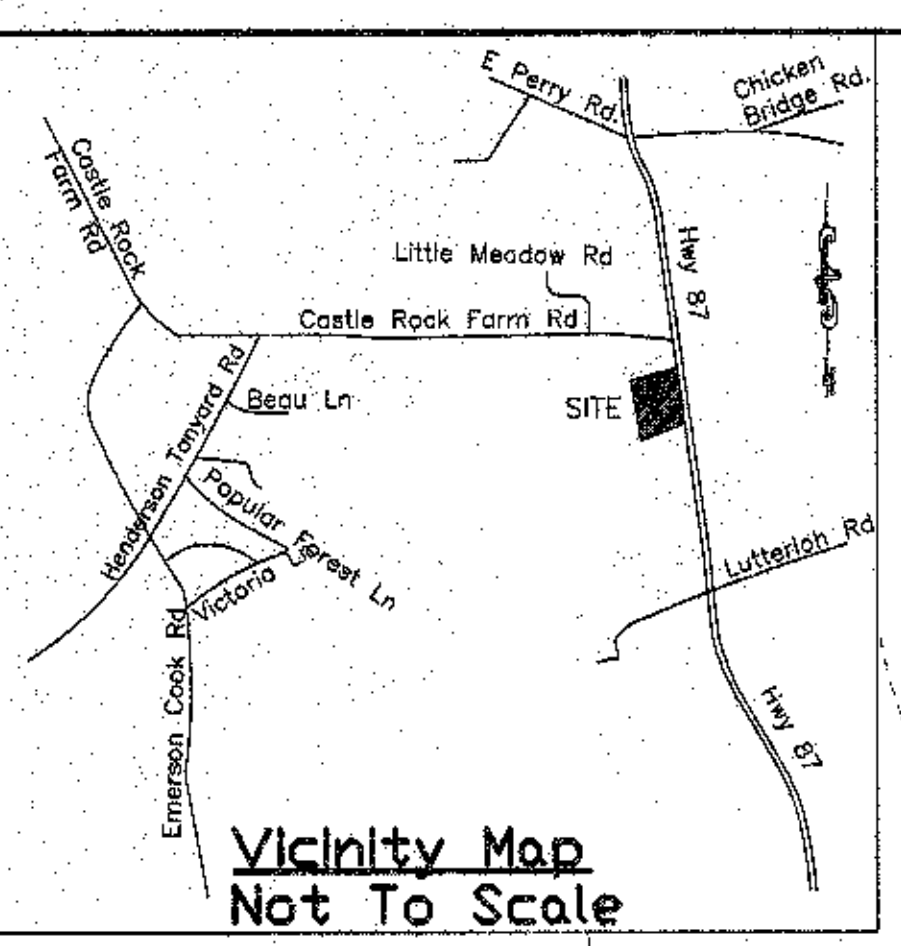


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(919) 789-0744

Date: 04-18-08
Scale: 1" = 50'
Drawn By: EDS/RLH
Job #: 79-1107
File: Schultzkenel-2.dwg
Revision:

Existing Conditions For Schultz Kennel





Soils Legend

- Soil Boundary
- GeB2** Georgeville silty clay loam, 2 to 6 percent slopes, moderately eroded
- NaC** Nanford-Badin complex, 6-10 percent slopes]
- CmB** Cid-Lignum complex, 2-6 percent slopes
- Areas contain soils with 30 inches or more of useable material and have potential for conventional or modified conventional septic systems. There will be inclusions of soils 24-29 inches that would support LPP or ultra-shallow conv. septic systems in the area mapped as conventional.

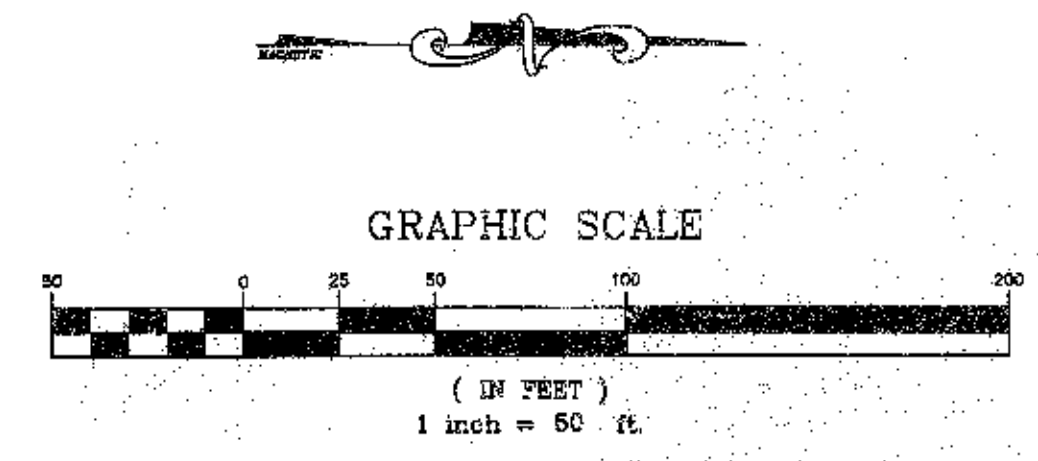


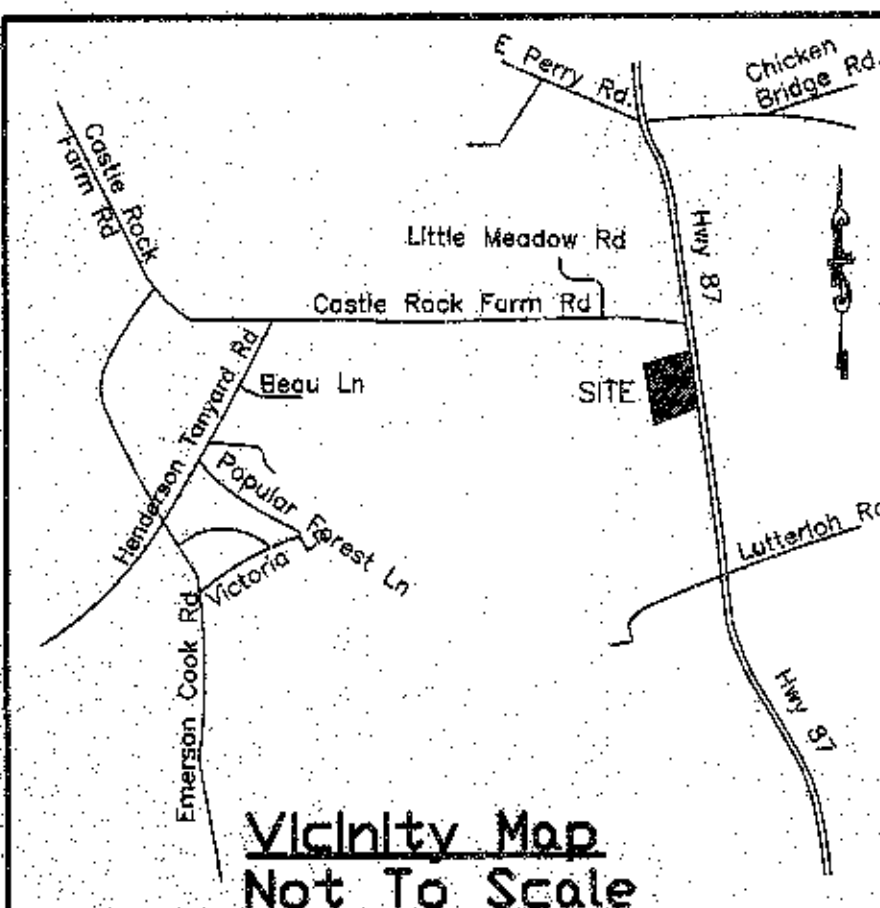
John W. Harris, P.E.
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 Revision:

Soil Survey
 For
Schultz Kennel





PARCEL 10020
OWNER: JOSEPH SCOTT &
TOM JUSTICE
PIN: 9724-45-1300
154.38 ACRES

GENERAL NOTES:

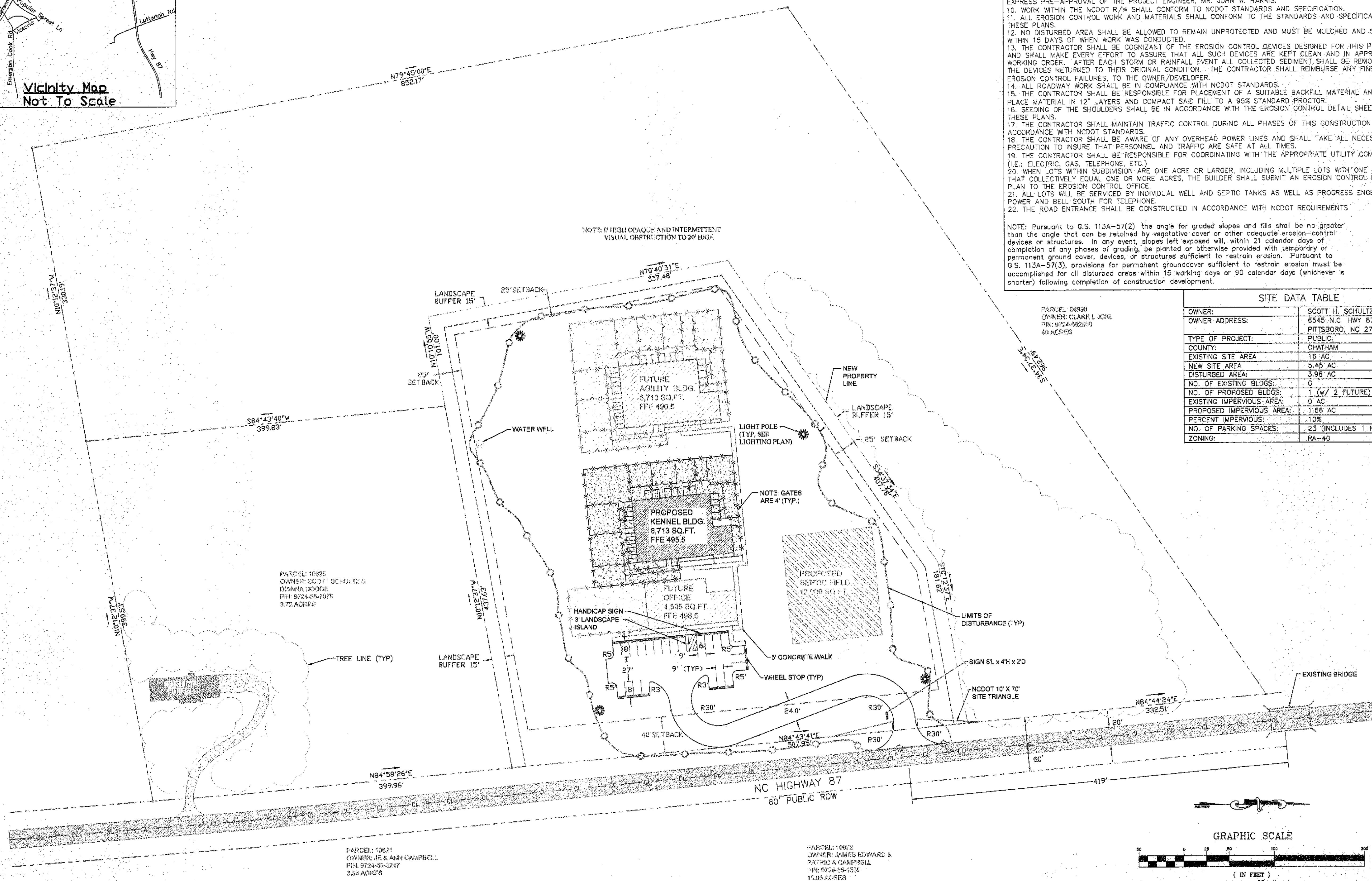
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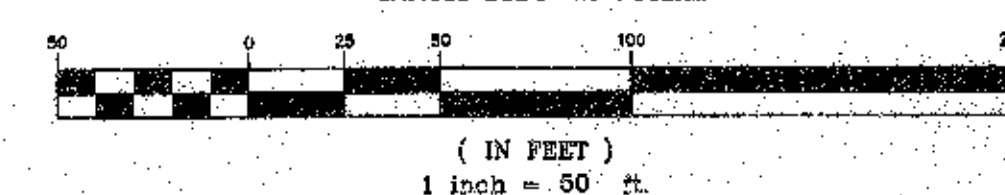
PARCEL: 68939
OWNER: CLARK L. JOKL
PIN: 9724-652897
49 ACRES

SITE DATA TABLE

OWNER:	SCOTT H. SCHULTZ
OWNER ADDRESS:	6545 N.C. HWY 87N PITTSBORO, NC 27312
TYPE OF PROJECT:	PUBLIC
COUNTY:	CHATHAM
EXISTING SITE AREA:	16 AC
NEW SITE AREA:	5.45 AC
DISTURBED AREA:	3.98 AC
NO. OF EXISTING BLDGS:	0
NO. OF PROPOSED BLDGS:	1 (w/ 2 FUTURE)
EXISTING IMPERVIOUS AREA:	0 AC
PROPOSED IMPERVIOUS AREA:	1.66 AC
PERCENT IMPERVIOUS:	10%
NO. OF PARKING SPACES:	23 (INCLUDES 1 HC SPACE)
ZONING:	RA-40



GRAPHIC SCALE



Site/Utility Plan

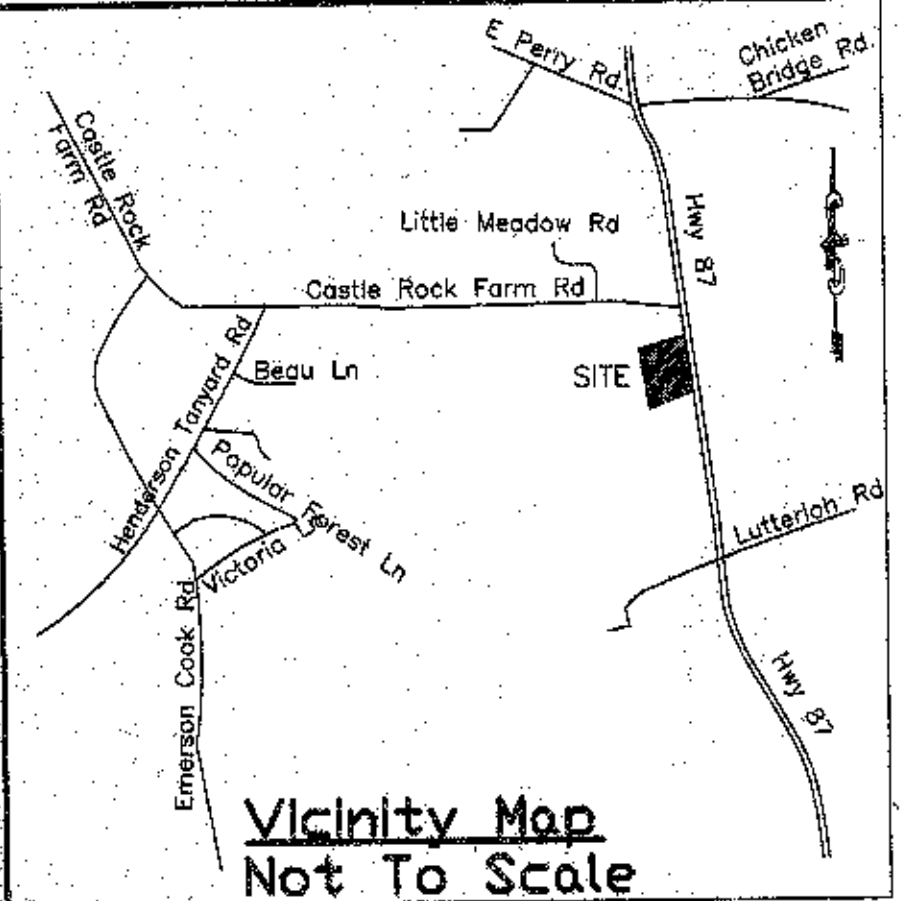
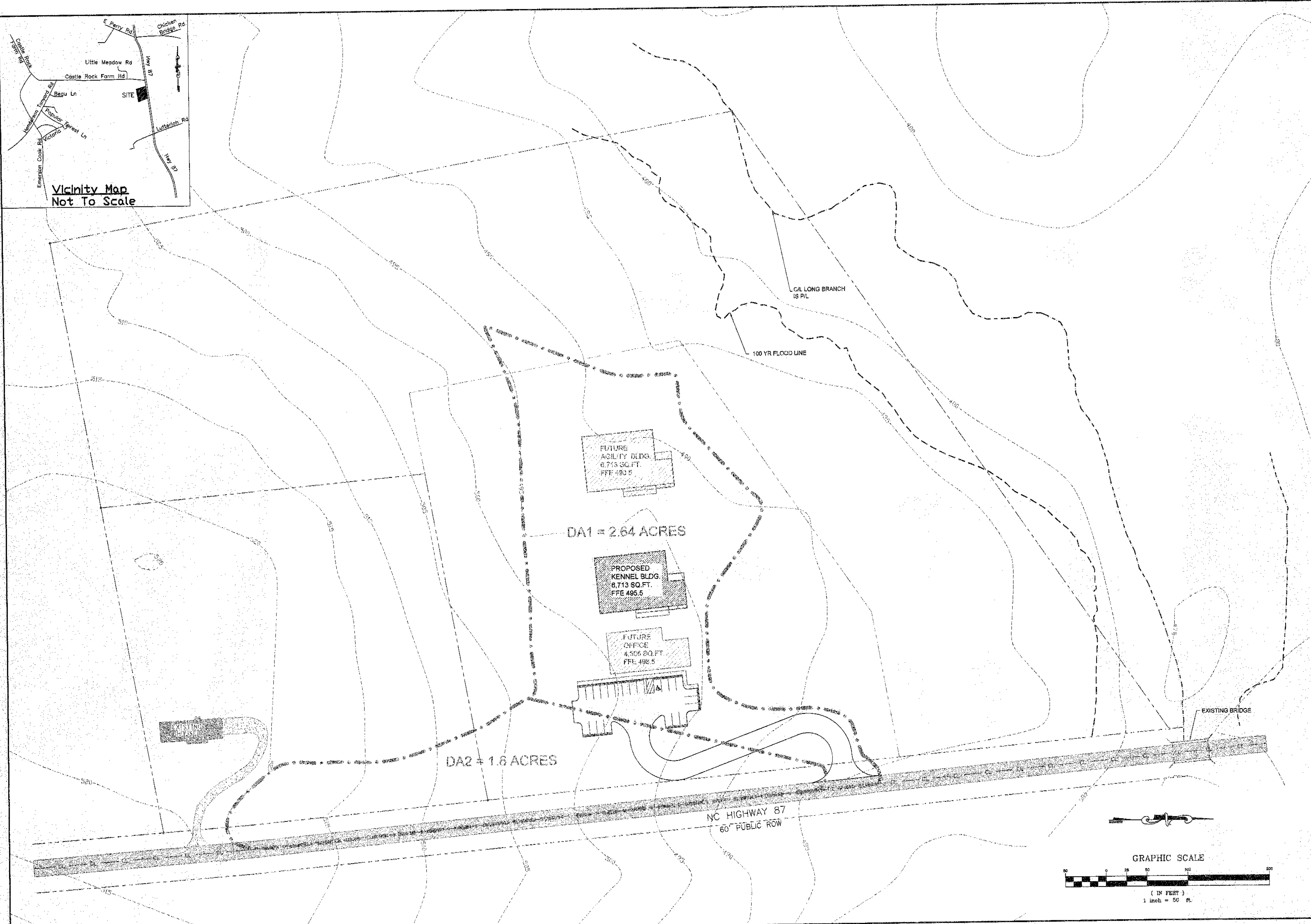
For

Schultz Kennel

Date: 4-19-08
Scale: 1" = 50'
Drawn By: EDS/RCH
Job #: 79-1107
File: Schultzkenel-2.dwg
Revision:

John W. Harris, P.E.
Consulting Engineer, Inc.
5112 Bur Oak Circle
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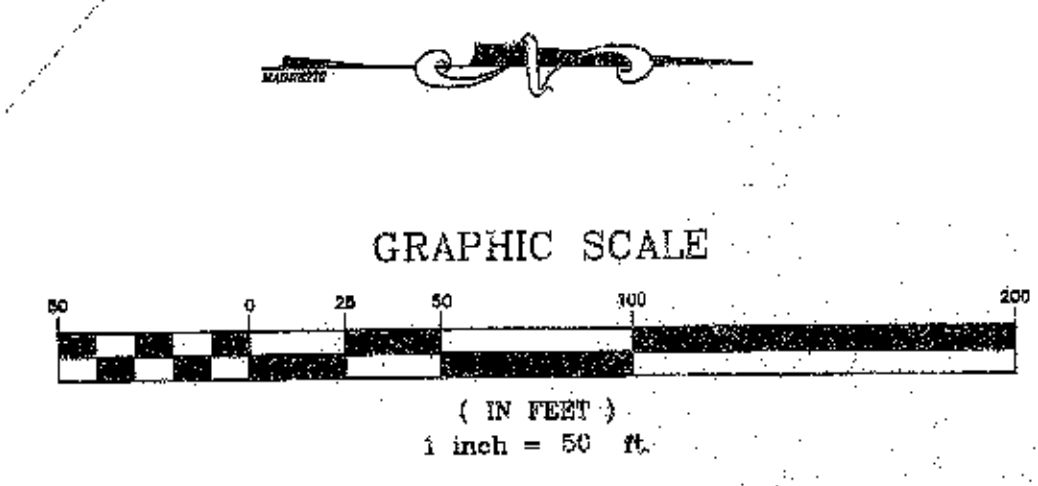


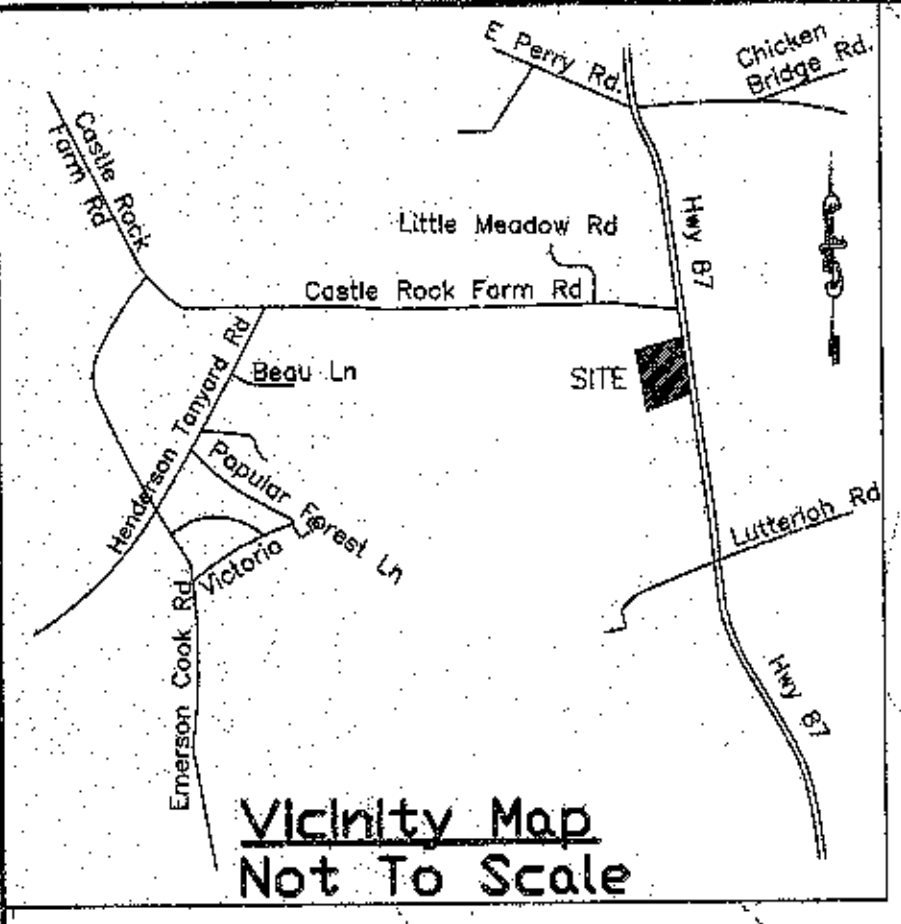
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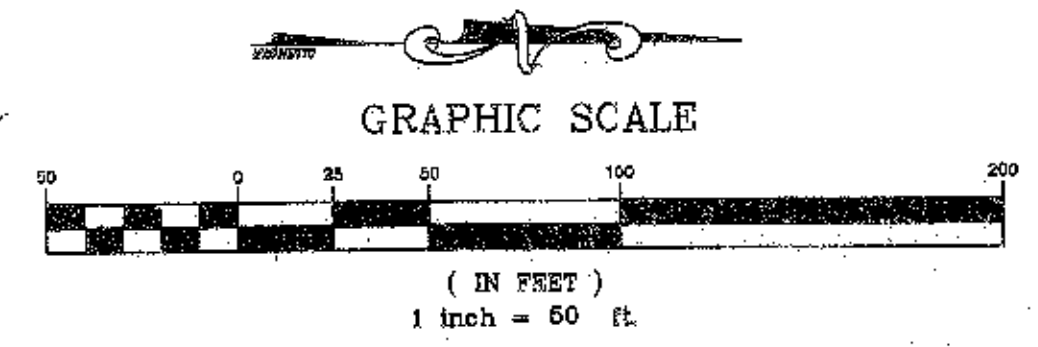
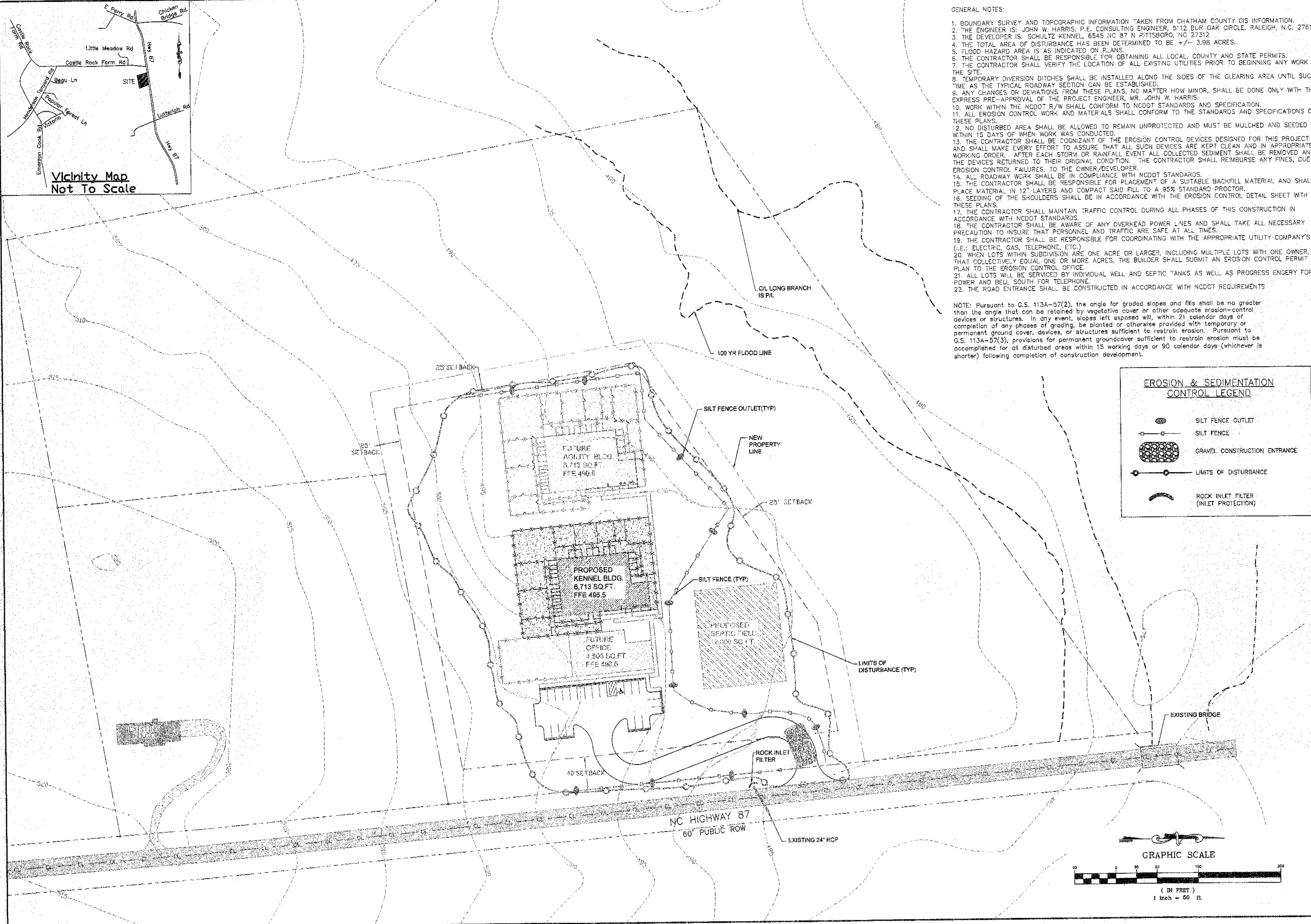
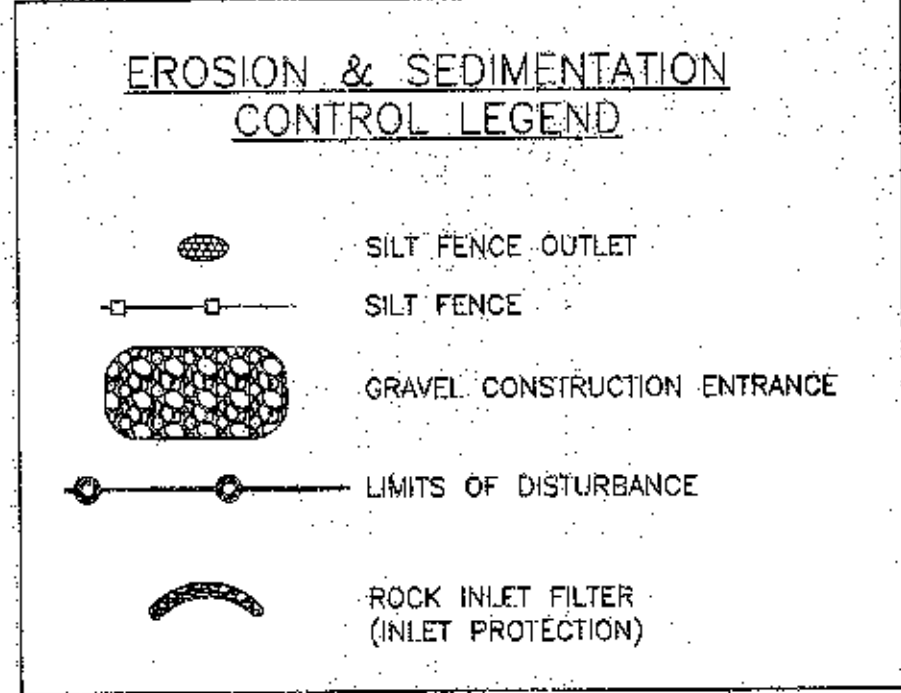
Drainage Delineation
For
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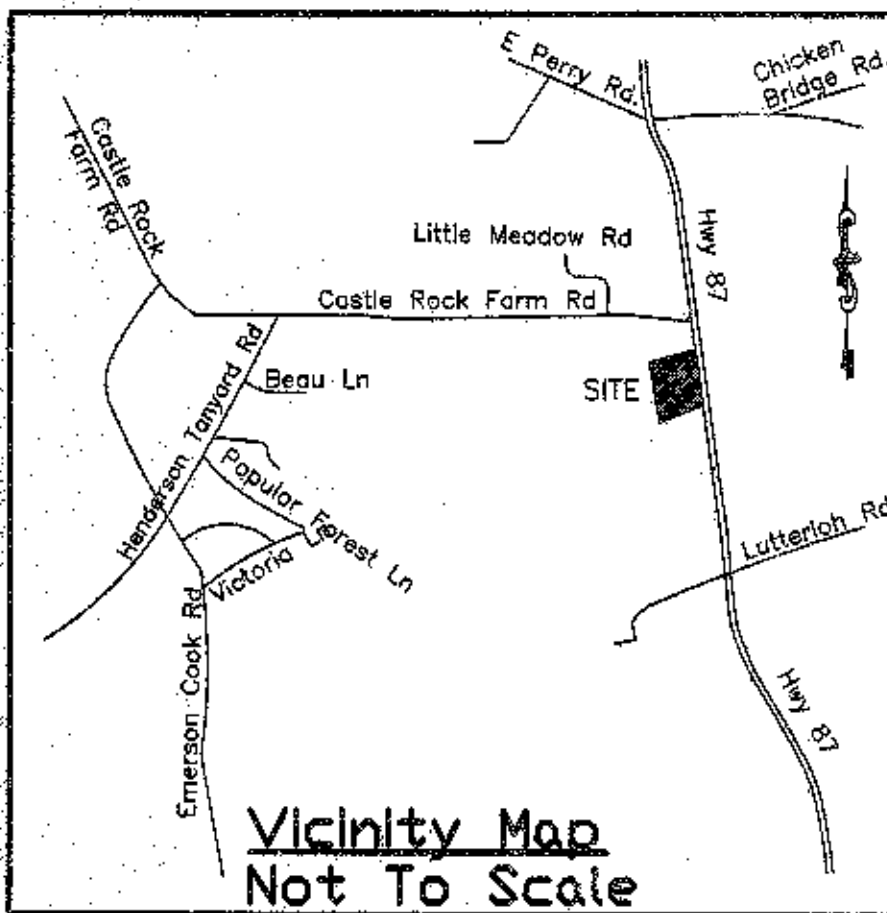


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Grading/Erosion Control Plan
For
Schultz Kennel





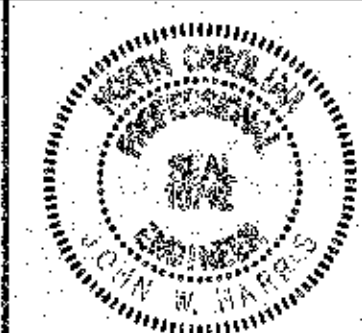
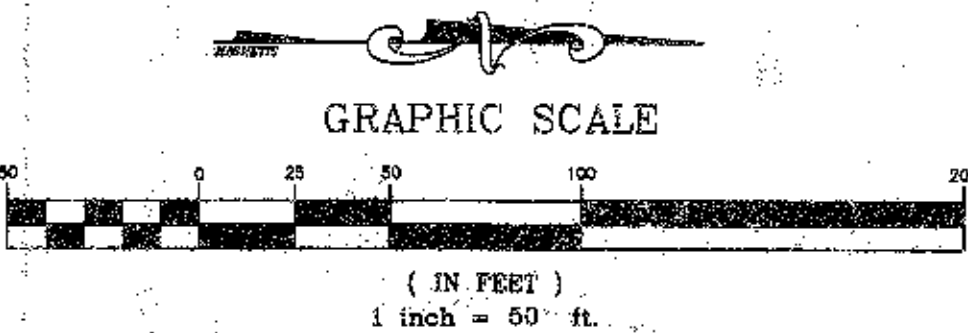
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 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACEMENT OF A SUITABLE BACKFILL MATERIAL AND SHALL PLACE MATERIAL IN 12" LAYERS AND COMPACT SAID FILL TO A 95% STANDARD PROCTOR.
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 17. THE CONTRACTOR SHALL MAINTAIN TRAFFIC CONTROL DURING ALL PHASES OF THIS CONSTRUCTION IN ACCORDANCE WITH NCDOT STANDARDS.
 18. THE CONTRACTOR SHALL BE AWARE OF ANY OVERHEAD POWER LINES AND SHALL TAKE ALL NECESSARY PRECAUTION TO INSURE THAT PERSONNEL AND TRAFFIC ARE SAFE AT ALL TIMES.
 19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY COMPANY'S (I.E.: ELECTRIC, GAS, TELEPHONE, ETC.).
 20. WHEN LOTS WITHIN SUBDIVISION ARE ONE ACRE OR LARGER, INCLUDING MULTIPLE LOTS WITH ONE OWNER, THAT COLLECTIVELY EQUAL ONE OR MORE ACRES, THE BUILDER SHALL SUBMIT AN EROSION CONTROL PERMIT AND PLAN TO THE EROSION CONTROL OFFICE.
 21. ALL LOTS WILL BE SERVICED BY INDIVIDUAL WELL AND SEPTIC TANKS AS WELL AS PROGRESS ENGERY FOR POWER AND BELL SOUTH FOR TELEPHONE.
 22. THE ROAD ENTRANCE SHALL BE CONSTRUCTED IN ACCORDANCE WITH NCDOT REQUIREMENTS

NOTE: Pursuant to G.S. 113A-57(2), the angle for graded slopes and fills shall be no greater than the angle that can be retained by vegetative cover or other adequate erosion-control devices or structures. In any event, slopes left exposed will, within 21 calendar days of completion of any phases of grading, be planted or otherwise provided with temporary or permanent ground cover, devices, or structures sufficient to restrain erosion. Pursuant to G.S. 113A-57(3), provisions for permanent groundcover sufficient to restrain erosion must be accomplished for all disturbed areas within 15 working days or 90 calendar days (whichever is shorter) following completion of construction development.

PLANT LEGEND - PROPOSED				
SYMBOL	QTY	BOTANICAL NAME, COMMON NAME	HEIGHT	CALIPER
TREES				
	15	QUERCUS ALBA, WHITE OAK	10-12'	2.5"
	15	ACER RUBRUM, RED MAPLE	10-12'	2.5"
	15	QUERCUS PHELLOS, WILLOW OAK	10-12'	2.5"
	19	QUERCUS RUBRA, RED OAK	10-12'	2.5"
SHRUBS				
	36	ELAEAGNUS ANGUSTIFOLIA, RUSSIAN OLIVE	4'	N/A
	30	SPIRACA FRITSCHIANA, WILMA PINK PARASOLS	3-4'	N/A

- Landscape Notes:
1. The Landscape Buffer is 15', and it is screen type "A".
 2. The street tree standards require 1 tree per 40' feet of frontage. This amounts to 13 trees. We have provided 13 trees.
 3. The Vehicular Use Area requires 8 trees and 36 shrubs. We have provided 13 trees and 39 shrubs.
 4. Existing trees shall be utilized wherever possible replacing proposed trees (based off field verification).

- Lighting Notes:
1. Wall packs will be mounted 9-15' off the ground.
 2. Wattage shall be typically 175 watts and a few 400 watt metal halide.
 3. The pole lights shall be photocell lights mounted on 15' wooden poles and tilted downward.

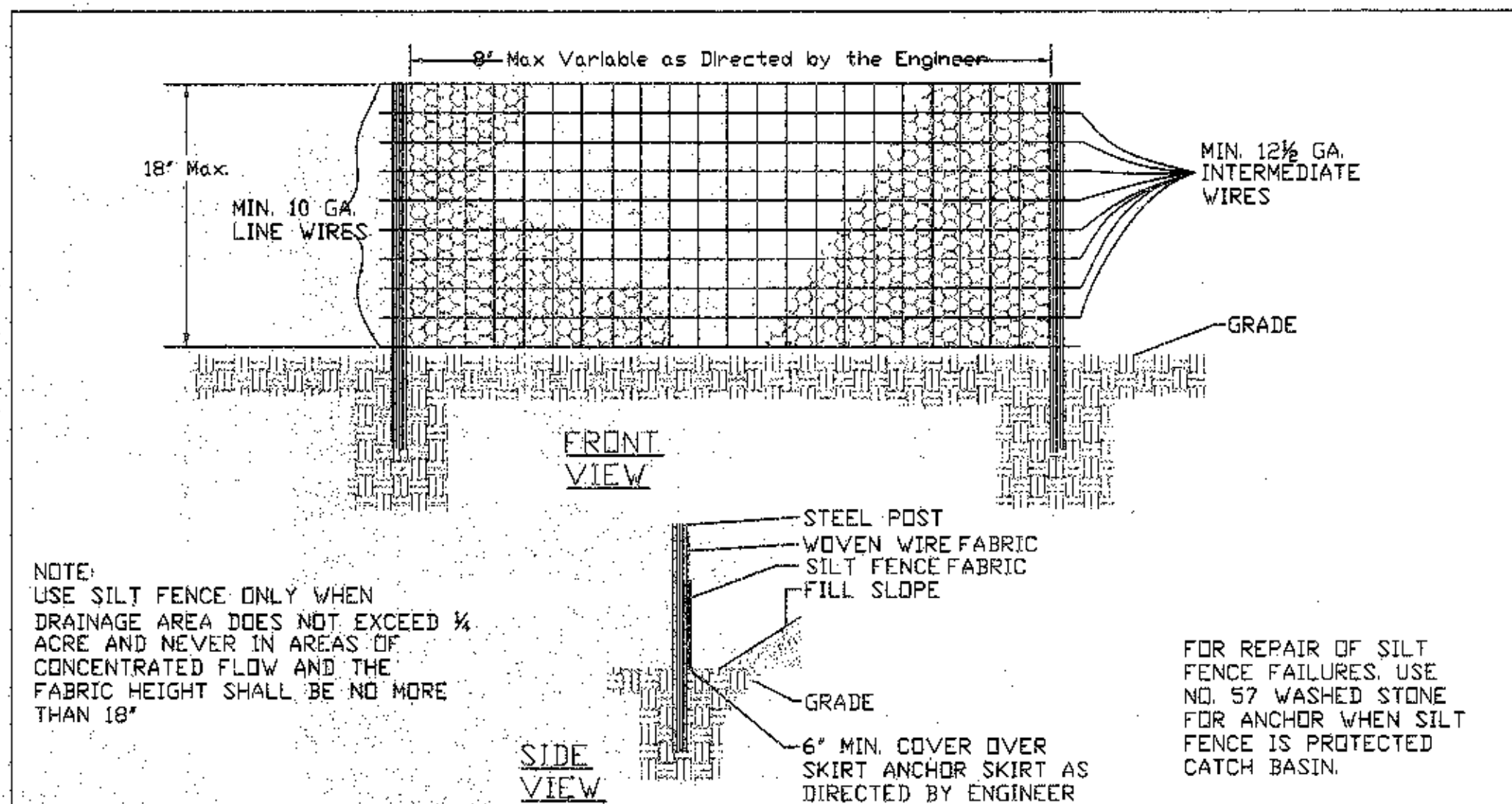


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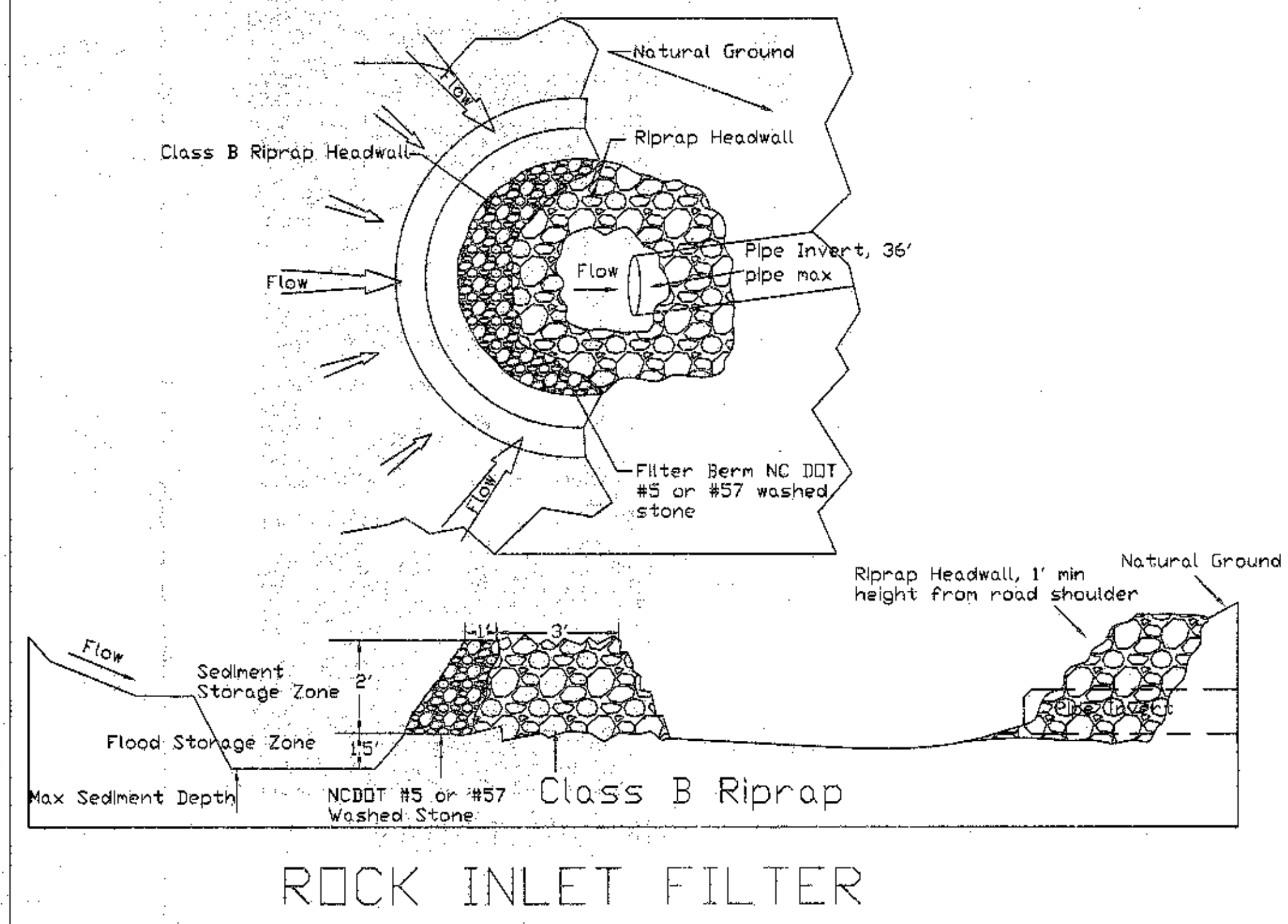
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Scale: 1" = 50'
Drawn By: EDS/RLH
Job #: 79-1107
File: Schultzkenel-2.dwg
Revision:

Landscape/Lighting Plan
For
Schultz Kennel





STANDARD TEMPORARY SILT FENCE



CHECK DAM: MAINTENANCE REQUIREMENTS

INSPECT CHECK DAMS AND CHANNELS FOR DAMAGE AFTER EACH RUNOFF EVENT.

ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM AND EROSION FROM HIGH FLOWS AROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, INSTALL A PROTECTIVE RIP RAP LINER IN THAT PORTION OF THE CHANNEL.

REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION, ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

CONSTRUCTION ENTRANCE: MAINTENANCE REQUIREMENTS

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, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

LAND GRADING: MAINTENANCE REQUIREMENTS

PERIODICALLY CHECK ALL GRADED AREAS AND THE SUPPORTING EROSION AND SEDIMENTATION CONTROL PRACTICES, ESPECIALLY AFTER HEAVY RAINFALLS. PROMPTLY REMOVE ALL SEDIMENT FROM DIVERSIONS AND OTHER WATER-DISPOSAL PRACTICES. IF WASHOUTS OR BREAKS OCCUR, REPAIR THEM IMMEDIATELY. PROMPT MAINTENANCE OF SMALL ERODED AREAS BEFORE THEY BECOME SIGNIFICANT GULLIES IS AN ESSENTIAL PART OF AN EFFECTIVE EROSION AND SEDIMENTATION CONTROL PLAN.

SEEDING: MAINTENANCE REQUIREMENTS

RESEED AND MULCH AREAS WHERE SEEDING EMERGENCE IS POOR, OR WHERE EROSION OCCURS, AS SOON AS POSSIBLE. DO NOT MOW. PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE. GENERALLY, A STAND OF VEGETATION CANNOT BE DETERMINED TO BE FULLY ESTABLISHED UNTIL SOIL COVER HAS BEEN MAINTAINED FOR ONE FULL YEAR FROM PLANTING. INSPECT SEEDED AREAS FOR FAILURE AND MAKE NECESSARY REPAIRS AND RESEEDINGS WITHIN THE SAME SEASON, IF POSSIBLE. RESEEDING-IF A STAND HAS INADEQUATE COVER, RE-EVALUATE CHOICE OF PLANT MATERIALS AND QUANTITIES OF LIME AND FERTILIZER. RE-ESTABLISH THE STAND AFTER SEEDBED PREPARATION OR OVER-SEED THE STAND. CONSIDER SEEDING TEMPORARY, ANNUAL SPECIES IF THE TIME OF YEAR IS NOT APPROPRIATE FOR PERMANENT SEEDING.

SEEDBED PREPARATION:

GOOD SEEDBED PREPARATION IS ESSENTIAL TO SUCCESSFUL PLANT ESTABLISHMENT. A GOOD SEEDBED IS WELL-PULVERIZED, LOOSE, AND UNIFORM. WHERE HYDROSEEDING METHODS ARE USED, THE SURFACE MAY BE LEFT WITH A MORE IRREGULAR SURFACE OF LARGE CLODS AND STONES.

LIMING—APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF THE PH (ACIDITY) OF THE SOIL IS NOT KNOWN, AN APPLICATION OF GROUND AGRICULTURAL LIMESTONE AT THE RATE OF 1 TO 1 1/2 TONS PER ACRE ON COARSE-TEXTURED SOILS AND 2-4 TONS PER ACRE ON FINE-TEXTURED SOILS IS USUALLY SUFFICIENT. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL. SOILS WITH A PH OF 6 OR HIGHER NEED NOT BE LIMED.

FERTILIZER—BASE APPLICATION RATES ON SOIL TESTS. WHEN THESE ARE NOT POSSIBLE, APPLY A 10-10-10 GRADE FERTILIZER AT 700-1,000 LB PER ACRE. BOTH FERTILIZER AND LIME SHOULD BE INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL. IF A HYDRAULIC SEEDER IS USED, DO NOT MIX SEED AND FERTILIZER MORE THAN 30 MINUTES BEFORE APPLICATION.

SURFACE ROUGHENING—IF RECENT TILLAGE OPERATIONS HAVE RESULTED IN A LOOSE SURFACE, ADDITIONAL ROUGHENING MAY NOT BE REQUIRED EXCEPT TO BREAK UP LARGE CLODS IF RAINFALL CAUSES THE SURFACE TO BECOME SEALED OR CRUSTED. LOOSEN IT JUST PRIOR TO SEEDING BY DISKING, RAKING, HARROWING, OR OTHER SUITABLE METHODS. GROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON THE CONTOUR BEFORE SEEDING (PRACTICE 6-03, SURFACE ROUGHENING).

SEEDBED PREPARATION

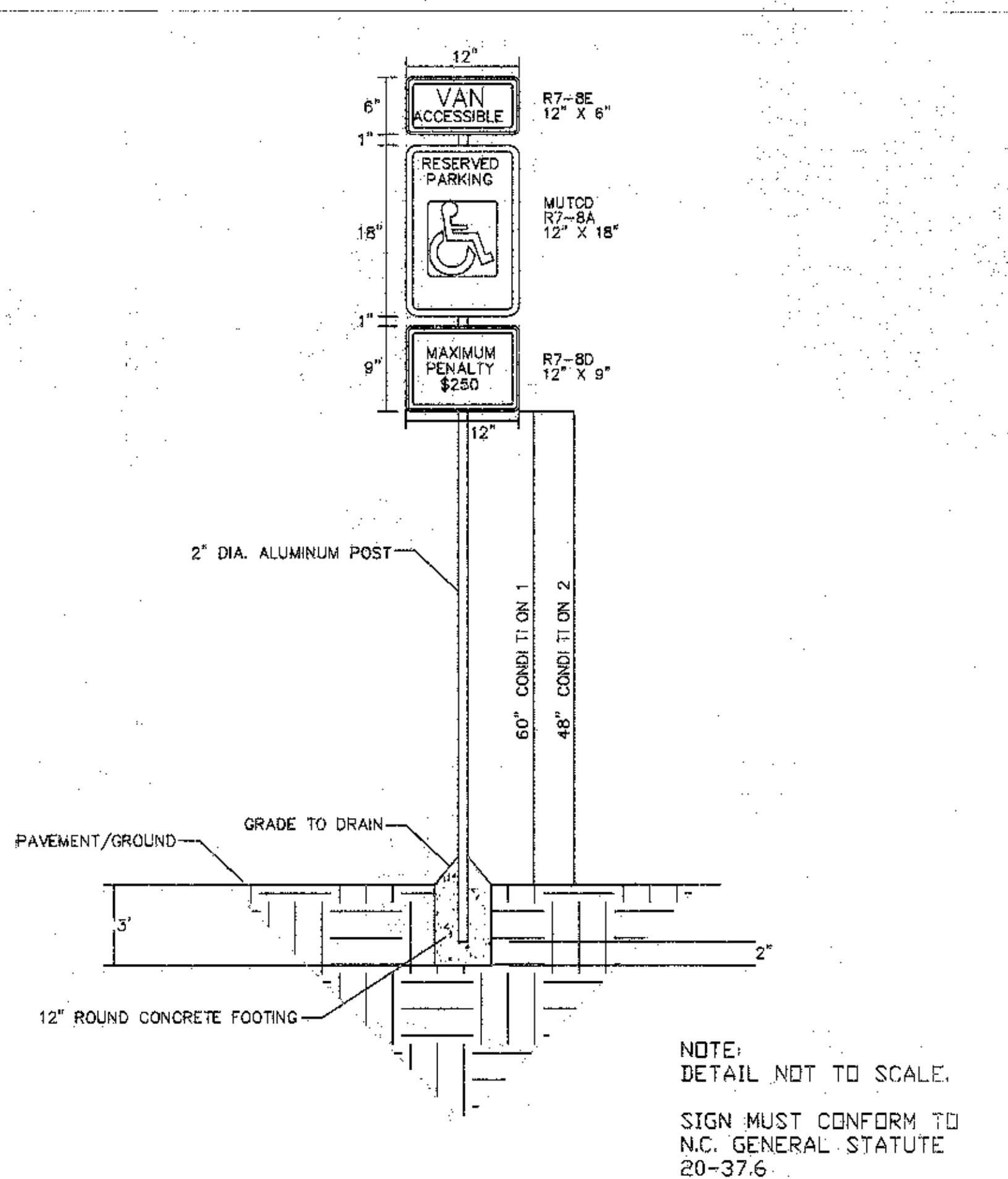
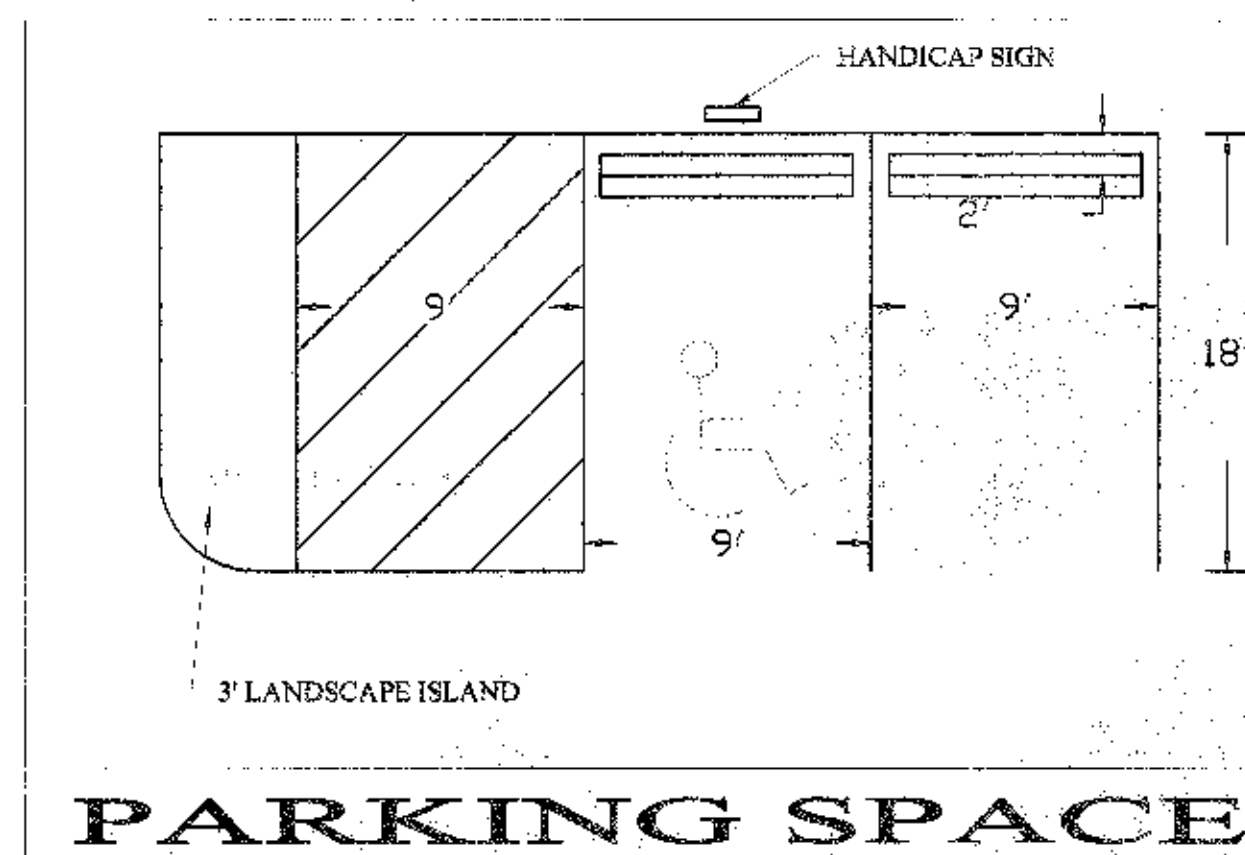
DATE	TYPE	PLANTING RATE
MARCH 1-JUNE 1	SERICEA LESPEDeza (SCARIFIED)	20 LBS/ACRE
MARCH 1-APRIL 15	ADD TALL FESCUE OR	120 LBS/ACRE
MARCH 1-JUNE 30	ADD HETERO COMBION	25 LBS/ACRE
JUNE 1-SEPTEMBER 1	* TALL FESCUE AND * BROWN TOP MILLET * OR SODGRASS-SUDAN HYBRIDS	120 LBS/ACRE 25 LBS/ACRE 20 LBS/ACRE
SEPTEMBER 1-MARCH 1	SERICEA LESPEDeza (UNMULCHED AND FULFILLED) AND TALL FESCUE AND ABRUZZEYES	20 LBS/ACRE 120 LBS/ACRE 25 LBS/ACRE
AGRICULTURAL LIMESTONE	2 TONS/ACRE	
FERTILIZER	100 LBS/ACRE 10-10-10	
SUPERPHOSPHATE	50 LBS/ACRE 20% ANALYSIS	
MULCH	2 TONS/ACRE SMALL GRASS STRAW	
ANCHOR	ASPHALT EMULSION @ 300 GALS/ACRE	

FERTILIZER APPLICATION

* TEMPORARY - RE-SEED ACCORDING TO OPTIMUM REASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12 INCHES IN HEIGHT BEFORE MOWING. OTHERWISE FESCUE MAY BE RESEED OUT.

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

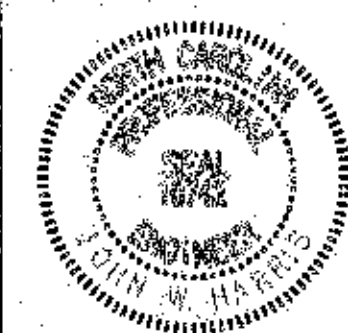
SEEDING SCHEDULE



HANDICAP SIGN

CONSTRUCTION SEQUENCE

- 1) OBTAIN A LAND-DISTURBING PERMIT. SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH THE ENGINEER.
- 2) FLAG THE WORK LIMITS AND HOLD PRE-CONSTRUCTION MEETING AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.
- 3) INSTALL SILT FENCING AS DICTATED ON THE APPROVED PLAN. VEGETATE DISTURBED AREAS. INSTALL THE TEMPORARY GRAVEL CONSTRUCTION ENTRANCES.
- 4) INSTALL TEMPORARY SEDIMENT TRAPS AS INDICATED ON PLANS.
- 5) INSTALL INLET PROTECTION AND RIPRAP APRONS FOR ALL PROPOSED PIPE OUTLETS AT TIME OF INSTALLATION.
- 6) CLEAR AND ROUGH GRADE SITE TO FACILITATE DRAINAGE (DIVERSIONS) INTO PROPER EROSION AND SEDIMENTATION CONTROL STRUCTURES. FINISH THE SLOPE ON AND AROUND THE PROPOSED ROAD AND STRUCTURES AS SOON AS ROUGH GRADING IS COMPLETE. LEAVE THE SITE SLIGHTLY ROUGHENED AND VEGETATE WITH SEED MIX AND MULCH IMMEDIATELY.
- 7) INSTALL PROPOSED MATTING DITCHES AND STEEP SLOPES AS INDICATED ON PLANS.
- 8) ALL EROSION CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS. REPAIRS WILL BE MADE IMMEDIATELY.
- 9) AFTER EACH PORTION OF THE SITE IS STABILIZED, REMOVE ALL TEMPORARY MEASURES AND INSTALL PERMANENT VEGETATION FOR THAT PORTION OF THE SITE.
- 10) RELOCATE SURFACE WATER CONTROLS OR EROSION CONTROL MEASURES SO AS SITE CONDITIONS CHANGE, THE EROSION CONTROL IS ALWAYS IN ACCORDANCE WITH NC DENR-LQS STANDARDS.
- 11) CALL FOR INSTALLATION OF POWER, TELEPHONE, AND OTHER UTILITIES. REGRADE, REGRADE, AND SEED AS NECESSARY BEHIND THE UTILITY COMPANIES.
- 12) ALL AREAS DISTURBED BY CONSTRUCTION (UNLESS OTHERWISE IMPROVED SHALL BE SODED OR SEEDED AS INDICATED WITHIN 15 DAYS AFTER CESSATION OF DISTURBANCE.
- 13) COVER ALL AREAS THAT WILL NOT BE WORKED ON MORE THAN SEVEN DAYS WITH STRAW, WOOD FIBER MULCH, COMPOST, OR EQUIVALENT. ALSO COVER AREAS BEFORE MAJOR STORM EVENTS.
- 14) AT 90% OF UPSTREAM STABILIZATION, REMOVE SPECIFIC EROSION DEVICES, FINE GRADE, SEED & MULCH.
- 15) ESTIMATED TIME BEFORE FINAL STABILIZATION - 18 MONTHS.



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