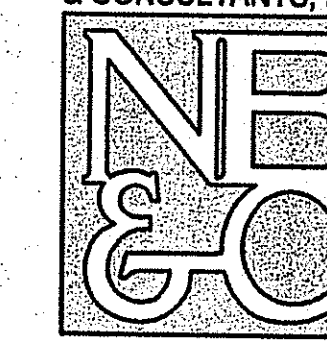


# MIDDLE CREEK FARM

## PROPOSED SUBDIVISION A.P. 128 LOT 73 (MIDDLETOWN) AND A.P. 68 LOT 71 (PORTSMOUTH) OLD MILL LANE AND CORNELIUS DRIVE MIDDLETOWN AND PORTSMOUTH, RHODE ISLAND

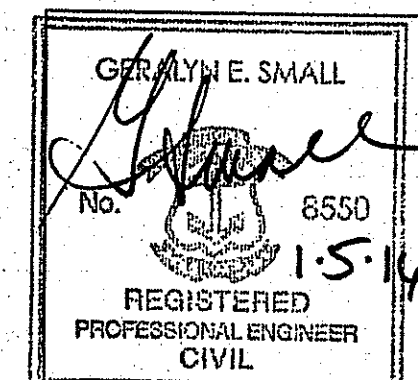
CIVIL ENGINEER:

NORTHEAST ENGINEERS  
& CONSULTANTS, INC.



A KNOWLEDGE CORPORATION  
55 JOHN CLARKE ROAD MIDDLETOWN RI 02842  
PHONE (401) 848-0810 FAX (401) 848-4169  
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SITE/CIVIL  
LAND PLANNING  
WATERFRONT  
SURVEYING  
GEOLOGICAL  
ENVIRONMENTAL  
TRANSPORTATION  
STRUCTURAL  
MATERIALS TESTING



ENGINEER CERTIFICATION

*D3089*

OWNER:

MIDDLE CREEK FARM, LLC  
C/O MICHAEL BEHAN  
975 AQUIDNECK AVENUE  
MIDDLETOWN, RI 02842

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JAN 08 2016 FILE # 15-0187  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

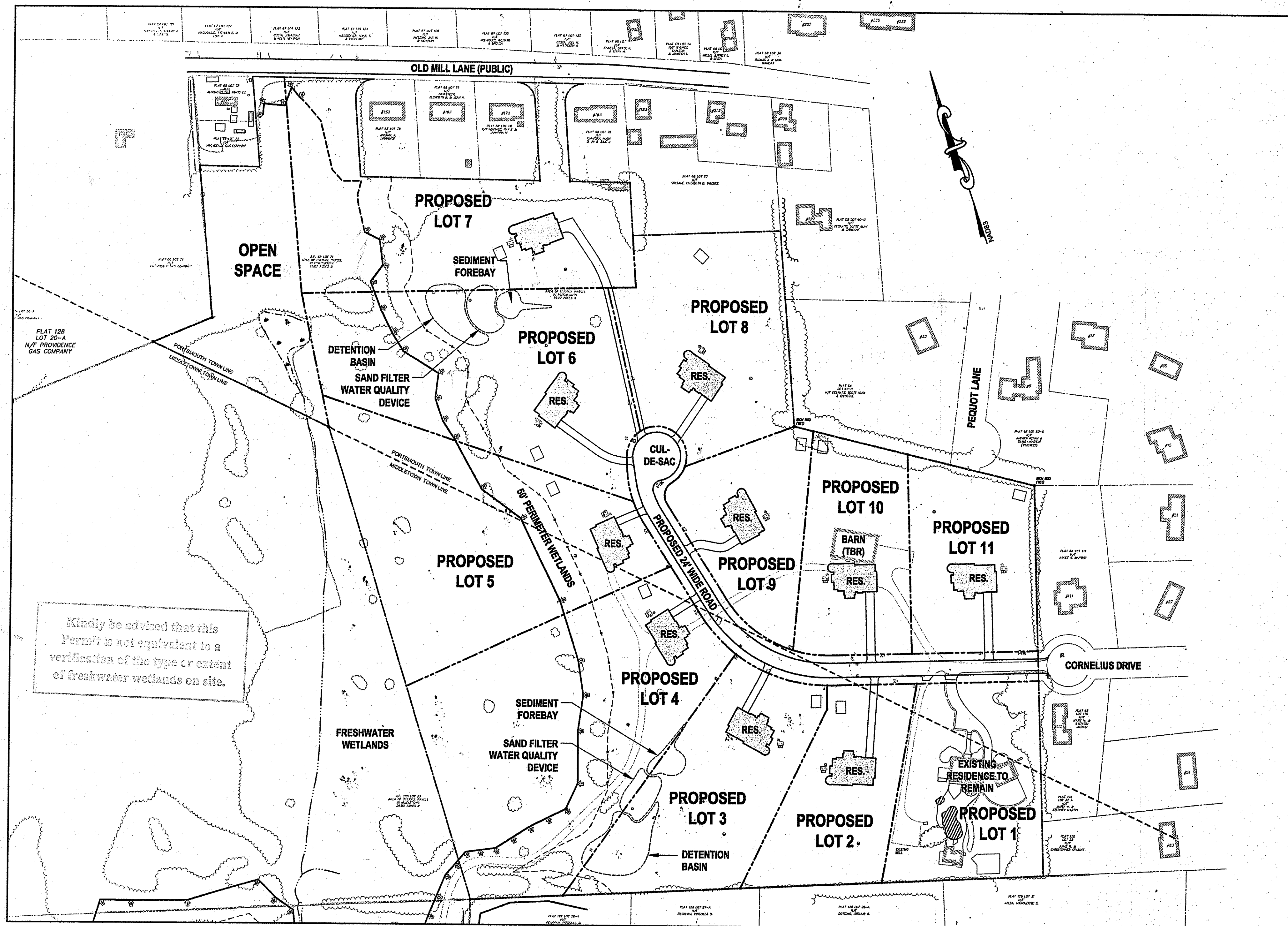
## NOVEMBER 24, 2015 PERMIT SET

### PLAN INDEX

#### SITE/CIVIL ENGINEERING PLANS

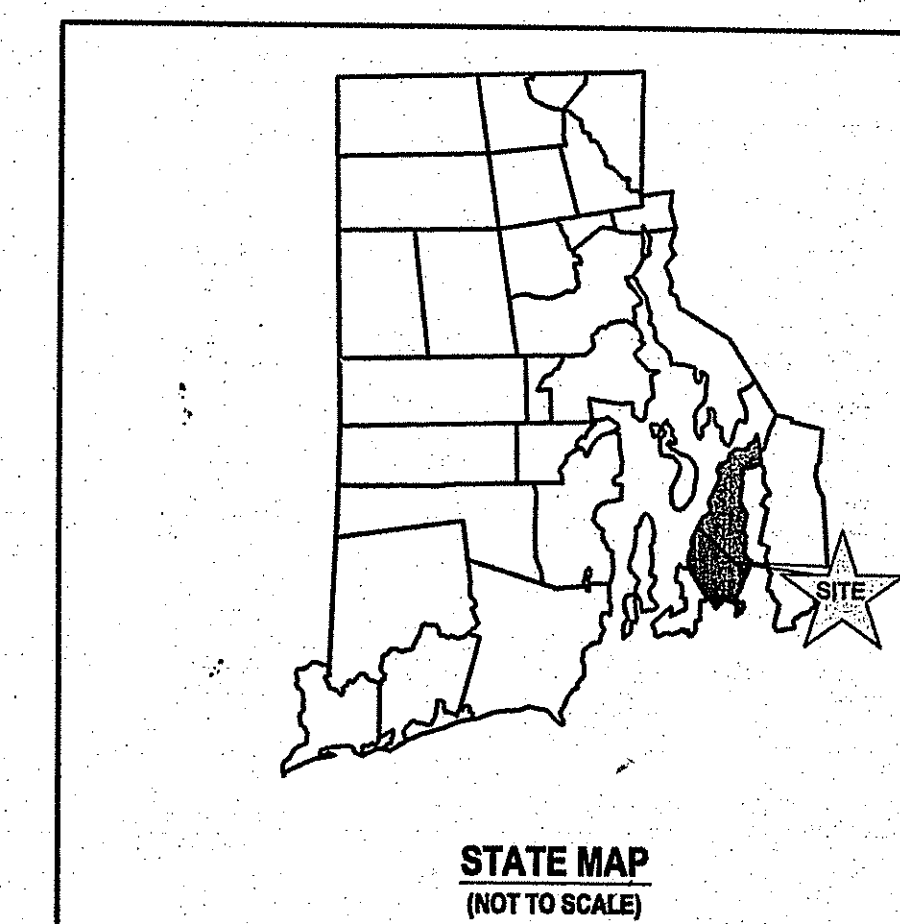
TITLE SHEET  
SITE / CIVIL NOTES  
EXISTING CONDITIONS  
PROPOSED SUBDIVISION  
PROPOSED LAYOUT  
PROPOSED GRADING AND DRAINAGE  
PROPOSED UTILITIES AND OWTS  
PROPOSED CONSTRUCTION GRADING AND SESC  
PROPOSED ROAD PROFILE  
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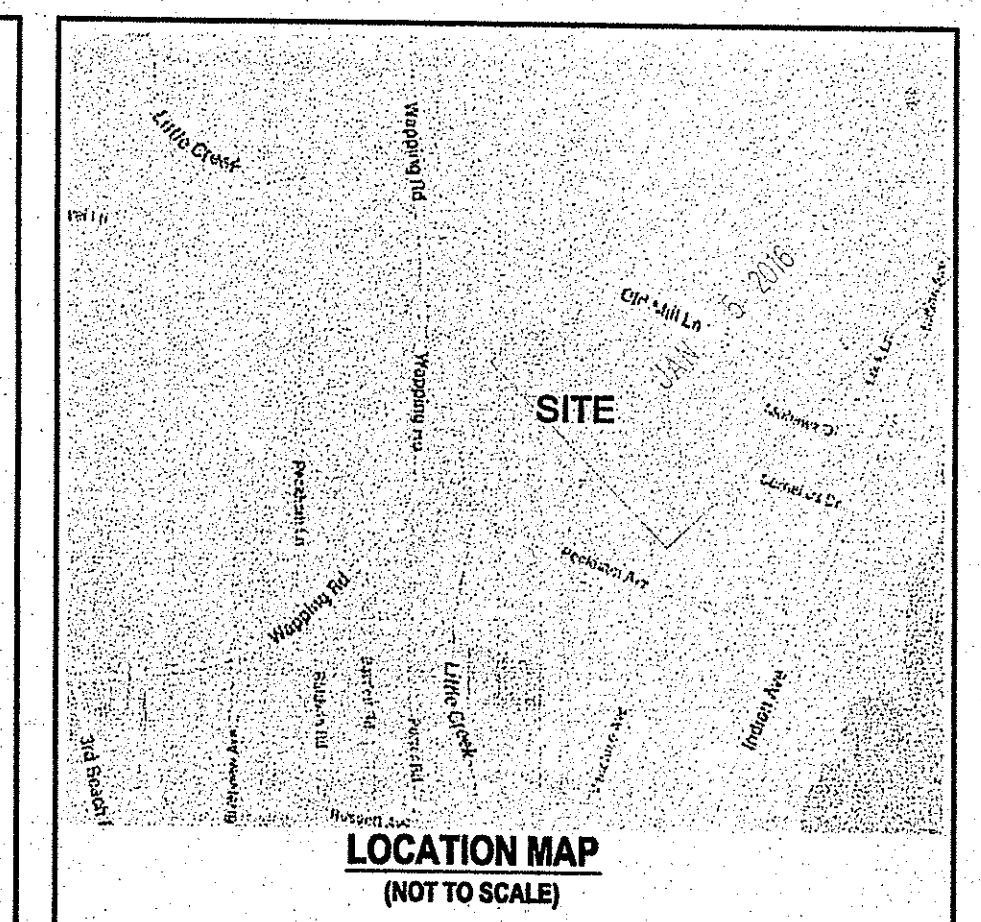


### SITE PLAN

SCALE = 1"=100'



STATE MAP  
(NOT TO SCALE)



LOCATION MAP  
(NOT TO SCALE)

#### SUBMISSION AND REVISION SUMMARY

AGENCY OR REVISION	DATE:	COMMENTS:
TOWN OF PORTSMOUTH PRELIMINARY RIDEM FRESHWATER WETLANDS RIDEM SUBDIVISION SUITABILITY		
TOWN OF MIDDLETOWN PRELIMINARY REVISED FOR RIDEM WETLANDS SUITABILITY	11/24/15	
REVISED FOR RIDEM SUBDIVISION SUITABILITY	12/08/15	
REVISED FOR RIDEM WETLANDS	01/05/16	

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

**GENERAL NOTES**

1. PROPERTY LINES TAKEN FROM PLAN ENTITLED "ADMINISTRATIVE SUBDIVISION FOR MIDDLE CREEK FARM, PORTSMOUTH A.P. 68 LOT 71, MIDDLETOWN A.P. 128 LOTS 25, 65, 66, 67, 73, 116 CORNELIUS DRIVE, PORTSMOUTH/MIDDLETOWN, RHODE ISLAND", A CLASS I SURVEY PREPARED BY NORTHEAST ENGINEERS & CONSULTANTS DATED FEBRUARY 8, 2015.
2. ELEVATIONS ESTABLISHED BY GPS OBSERVATION AND REFLECT NORTH AMERICAN VERTICAL DATUM 1988 (NAVB8).
3. EXISTING TOPOGRAPHY AND SITE FEATURES TAKEN FROM AERIAL SURVEY PERFORMED BY EASTERN TOPOGRAPHICS IN JANUARY 2015 AND BASED ON GROUND CONTROL BY NORTHEAST ENGINEERS & CONSULTANTS. PROPERTY LINES AND SITE FEATURES OUTSIDE OF THE SUBJECT PROPERTY ARE APPROXIMATE AND ARE INCLUDED FOR REFERENCE ONLY.
4. ON-SITE FRESHWATER WETLANDS FLAGGED BY NATURAL RESOURCE SERVICES IN SEPTEMBER OF 2013.
5. SITE LIES WITHIN FEMA FLOOD ZONES X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER FLOOD INSURANCE RATE MAP 44050C0113J, LAST REVISED SEPTEMBER 4, 2013.
6. THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT AND DETAILS WITH THEIR RELATIONSHIP TO THE EXISTING SITE SURVEY. CONTRACTOR SHALL ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING WORK.
7. THE UNDERGROUND UTILITIES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. ALL DAMAGED PORTIONS SHALL BE REPLACED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE AFFECTED UTILITY COMPANY AND SHALL BE THE CONTRACTORS RESPONSIBILITY. PERSONAL INJURY RESULTING FROM CONTACT WITH EXISTING UTILITIES SHALL BE THE CONTRACTORS RESPONSIBILITY. WHEREVER CONNECTION OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR NEW LINES. (PLEASE CALL DIG SAFE PRIOR TO CONSTRUCTION AT 1-888-DIG-SAFE AND ALL LOCAL UTILITY COMPANIES).
8. THE CONTRACTOR SHALL NOTIFY ALL AGENCIES TO VERIFY THE ACTUAL LOCATIONS OF ALL UTILITIES IN THE PROJECT AREA PRIOR TO EXCAVATING.
9. THE CONTRACTOR SHALL RESTORE TO THEIR ORIGINAL CONDITION OR BETTER, ALL IMPROVEMENTS DAMAGED AS A RESULT OF THE CONSTRUCTION, INCLUDING PAVEMENTS, EMBANKMENTS, CURBS, SIGNS, LANDSCAPING, STRUCTURES, UTILITIES, WALLS, FENCES, ETC. UNLESS PROVIDED FOR SPECIFICALLY IN THE PROPOSAL.
10. CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO PRESERVE STREET MONUMENTS.
11. STREET MONUMENTS THAT ARE DISTURBED SHALL BE RESTORED UNDER THE LICENSED LAND SURVEYORS DIRECTION. ANY NEW DATA SUCH AS ELEVATIONS SHALL BE CERTIFIED BY THE SURVEYOR, AND SUBMITTED TO THE TOWN OF PORTSMOUTH.
12. DEVIATIONS OR CHANGES FROM THESE PLANS WILL NOT BE ALLOWED UNLESS APPROVED BY THE PROJECT ENGINEER, APPROPRIATE AGENCY AND OWNER.
13. RELOCATION OF ANY UTILITIES SHALL BE AT THE OWNERS EXPENSE AND BE COMPLETED WITH THE UTILITY WORK. THE OWNER SHALL BE NOTIFIED AS TO THE RELOCATION REQUIRED PRIOR TO THE START OF CONSTRUCTION.
14. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
15. CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM "THE SOLE NEGLIGENCE OF THE OWNER OR PROJECT ENGINEER."
16. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION INCLUDING ALL REVISIONS.
17. THIS SITE IS LOCATED IN A NATURAL HERITAGE AREA AS IDENTIFIED BY RIDEM.
18. THIS PROJECT IS SUBJECT TO PERMITTING THROUGH THE TOWNS OF PORTSMOUTH AND MIDDLETOWN AS WELL AS RIDEM FRESHWATER WETLANDS SUBDIVISION SUITABILITY AND RIFIDES.

**GRADING NOTES**

1. ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR THE SLOPED SURFACES OF A FILL. FURTHERMORE, ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT RUNOFF FROM LEAVING THE SITE.
2. ALL GRADED AREAS SHALL BE SODDED OR PLANTED IMMEDIATELY AFTER THE GRUBBING WORK HAS BEEN COMPLETED.
3. THE TOWN SHALL BE INFORMED OF THE LOCATION OF THE DISPOSAL SITE, IF ANY, FOR THE PROJECT.
4. NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE TOWN, PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY NOISE CONTROL STANDARDS.
5. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
6. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND THE TOWN.
7. WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE GRADING WORK IS INITIATED.
8. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN PLACE AND ESTABLISHED.
9. IF THE GRADING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.
10. NONCOMPLIANCE TO ANY OF THE ABOVE REQUIREMENTS SHALL MEAN IMMEDIATE SUSPENSION OF ALL WORK, AND REMEDIAL WORK SHALL COMMENCE IMMEDIATELY. ALL COSTS INCURRED SHALL BE BILLED TO THE VIOLATOR. FURTHERMORE, VIOLATORS SHALL BE SUBJECT TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES.

**UTILITY NOTES**

1. THE LOCATIONS OF PROPOSED ELECTRICAL CONDUITS AND CONNECTIONS TO THE EXISTING OVERHEAD SERVICES IN CORNELIUS DRIVE ARE PRELIMINARY. FINAL DESIGN OF THE ELECTRICAL SERVICES ARE SUBJECT TO DESIGN REVIEW AND APPROVAL OF NATIONAL GRID.
2. PER NATIONAL GRID, THERE ARE NO EXISTING GAS MAINS IN OLD MILL LANE AND CORNELIUS DRIVE.
3. THE LOCATIONS OF WATER LINES AND SERVICES ARE PRELIMINARY AND SUBJECT TO REVIEW AND APPROVAL BY PORTSMOUTH FIRE AND WATER DISTRICT. ALTERNATE WELL LOCATIONS ARE ALSO SHOWN ON THESE PERMITTING PLANS. EACH LOT TO BE SERVED EITHER BY A PRIVATE WELL OR BY TOWN WATER.
4. ELECTRIC, TELEPHONE AND CABLE SERVICES SHALL BE INSTALLED UNDERGROUND.
5. PROPOSED ONSITE WASTEWATER TREATMENT SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT'S RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION, AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS REVISED JULY 16, 2014. SEE GENERAL OWTS NOTES THIS SHEET.
6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL ASSUMPTIONS, DEDUCTIONS, OR CONCLUSIONS HE/SHE MAY MAKE OR DERIVE FROM THE SUBSURFACE INFORMATION OR DATA FURNISHED ON THE PLANS. THE CONTRACTOR MUST SATISFY HIMSELF/HERSELF THROUGH HIS/HER OWN INVESTIGATIONS AS TO WHAT SUBSURFACE CONDITIONS ARE TO BE ENCOUNTERED.
7. IF THE CONTRACTOR ELECTS NOT TO EXPOSE AND VERIFY ALL EXISTING UNDERGROUND UTILITIES AND STRUCTURES AT CROSSINGS PRIOR TO PIPELINE EXCAVATION, HE/SHE FORFEITS HIS/HER RIGHTS FOR ANY CLAIMS FOR COMPENSATION CAUSED BY ANY CONFLICTS WITH EXISTING UTILITIES AND STRUCTURES.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL EFFLUENT ASSOCIATED WITH THE CONSTRUCTION ACTIVITY AND THE DISINFECTION AND HYDROTESTING OPERATIONS TO SAFEGUARD PUBLIC HEALTH AND SAFETY IN ACCORDANCE WITH APPLICABLE DEPARTMENT OF HEALTH REQUIREMENTS. ALL PERMITS AND LICENSES FOR CONSTRUCTION WATER DISPOSAL, INCLUDING ALL APPLICATIONS, CHARGES, FEES, AND TAXES, ARE THE RESPONSIBILITY OF THE CONTRACTOR.
9. APPLICABLE UTILITY EASEMENTS SHALL BE ESTABLISHED PRIOR TO FINAL APPROVAL.

**DRAINAGE NOTES**

1. ALL DRAIN PIPES SHALL BE ADS-N12 TYPE IB SOILTIGHT PIPES UNLESS OTHERWISE NOTED ON THIS PLAN.
2. ALL ROADWAY DRAIN STRUCTURES SHALL BE PRECAST CONCRETE STRUCTURES UNLESS OTHERWISE NOTED ON PLANS CONFORMING TO RIDOT STANDARD 4.4.0.
3. ALL DRAIN MANHOLES SHALL HAVE HEAVY DUTY COVERS CONFORMING TO RIDOT STANDARD 6.1.1.
4. ALL CATCH BASINS SHALL HAVE HIGH CAPACITY BICYCLE SAFE GRATES CONFORMING TO RIDOT STANDARD 6.3.4.
5. ALL CATCH BASINS SHALL HAVE OIL WATER SEPARATING HOODS PER THE DETAIL PROVIDED.

**PUBLIC HEALTH SAFETY AND CONVENIENCE NOTES**

1. CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY AND ENVIRONMENTAL QUALITY.
2. THE CONTRACTOR AT HIS/HER EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM RUBBISH, DUST, NOISE, EROSION, ETC. THE WORK SHALL BE DONE IN CONFORMANCE WITH THE AIR AND WATER POLLUTION CONTROL STANDARDS AND REGULATIONS OF ALL APPLICABLE FEDERAL, STATE AND LOCAL AGENCIES.
3. NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATION SO AS TO CAUSE FALLING ROCKS, SILT OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS AS NECESSARY.
4. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES, AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC.

**SOIL EROSION AND SEDIMENT CONTROL NOTES**

1. CONSTRUCTION SEQUENCE:
  - A. DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE, AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
  - B. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE LOCATED AS SHOWN ON PLANS. CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THE SITE VIA THIS ENTRANCE.
  - C. INSTALL SILT FENCES, SILT BAGS, CHECK DAMS AND/OR STRAW BALES AS INDICATED ON THE DRAWINGS TO CONTROL EROSION AND PREVENT SEDIMENT CONTAMINATION OF STREAMS AND WETLANDS PRIOR TO ANY EARTH MOVING ACTIVITIES.
  - D. REMOVE TREES ONLY WHERE NECESSARY. ALL STUMPS TO BE GROUND OR DISPOSED OF OFF SITE
  - E. DEMOLISH EXISTING BARN AND IMPROVEMENTS IN AREAS OF CONSTRUCTION.
  - F. ROUGH GRADE ROADWAY AND DRAINAGE FEATURES.
  - G. EXCAVATE SAND FILTERS IN ACCORDANCE WITH THE PLANS AND DETAILS AND ESTABLISH A TEMPORARY VEGETATIVE GROWTH THAT MEETS THE APPROVAL OF THE TOWN ENGINEER.
  - H. CONSTRUCT UTILITIES.
  - I. FINAL GRADE ROADWAY AND BINDER PAVEMENT COURSE.
  - J. REMOVE EXISTING UNPAVED ROADWAYS AND COMPLETE LANDSCAPE AREAS.
  - K. REMOVE SEDIMENTS FROM SAND FILTERS, PLACE SOIL LAYER, AND INSTALL PLANTINGS.
  - L. TOP PAVEMENT COURSE AND MAINTAIN SITE IN ACCORDANCE WITH THE MAINTENANCE NOTES.
2. NOTES:
  - A. DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. ONLY THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME.
  - B. NO DRAINAGE AREAS SHALL BE USED FOR STOCKPILES OR STORAGE OF MATERIALS OR EQUIPMENT. THESE AREAS SHOULD BE DELINEATED IN THE FIELD PRIOR TO CONSTRUCTION.
  - C. ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE STABILIZED WITHIN FOURTEEN DAYS IN ACCORDANCE WITH TEMPORARY MEASURES IN THE VEGETATIVE PRACTICE NOTES.
  - D. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOP SOIL TO REMOVE VEGETATION, ROOTS, AND ANY OTHER OBJECTIONABLE MATERIAL.
  - E. ALL FILL SHALL BE COMPACTED TO 95% MAX. DENSITY TO REDUCE EROSION, SLIPPAGE, SETTLEMENT SUBSIDENCE, OR OTHER RELATED PROBLEMS.
  - F. FILL INTENDED TO SUPPORT BUILDING STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL CODES AND SPECIFICATIONS.
  - G. ALL FILL SHALL BE PLACED AND COMPACTED TO 95% MAX. DENSITY IN LAGERS NOT TO EXCEED 12" IN THICKNESS FILLS.
  - H. FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
  - I. FROZEN, SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIAL SHALL NOT BE INCORPORATED INTO FILLS.
  - J. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION SUBGRADE.
  - K. SHEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.
  - L. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 14 DAYS OF FINISH GRADING IN ACCORDANCE WITH THE VEGETATIVE PRACTICE NOTES.
  - M. REMOVE TEMPORARY EROSION CONTROL MEASURES ONCE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED AND VEGETATED AREAS HAVE RECEIVED TWO MOWINGS.
3. VEGETATIVE PRACTICE:
 

PERMANENT MEASURES:

  - A. SLOPES SHALL NOT BE STEEPER THAN 1 VERTICAL TO 3 HORIZONTAL UNLESS OTHERWISE SPECIFIED.
  - B. LOAM AND SEED REQUIREMENTS ARE SPECIFIED IN RIDOT L01 & L02.
  - C. A MINIMUM OF 4 INCHES OF LOAM SHALL BE INSTALLED. THE LOAM SHALL BE GRADED TO A SMOOTH CONDITION AND OTHER OBJECTS LARGER THAN 2 INCHES SHALL BE REMOVED.

TEMPORARY MEASURES (FOR TEMPORARY PROTECTION OF DISTURBED AREAS)

  - D. LIMESTONE AND FERTILIZER SHALL BE APPLIED AT THE FOLLOWING RATE:  
LIMESTONE: 3 TONS/ACRE  
FERTILIZER: (10-10-10): 600 LBS/ACRE
  - E. SEED SHALL BE APPLIED AT THE FOLLOWING RATE:  
WINTER RYE: 100 LB/ACRE
  - F. STRAW MULCH SHALL BE APPLIED AT THE RATE OF 1.5 TONS/ACRE.
4. MAINTENANCE
 

DURING THE PERIOD OF CONSTRUCTION AND/OR UNTIL LONG TERM VEGETATION IS ESTABLISHED, THE EROSION CONTROL MEASURES SHALL BE INSPECTED.

  - A. AT A MINIMUM THE SILT FENCING, STRAW BALES AND FILTER SOCK BARRIERS SHALL BE INSPECTED AND REPAIRED ONCE A WEEK AND / OR IMMEDIATELY FOLLOWING A SIGNIFICANT RAINFALL OR SNOWMELT. SEDIMENT TRAPPED BEHIND THE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REGRADED ON THE SITE.
  - B. EROSION CONTROL BLANKETS SHALL BE INSPECTED ON A WEEKLY BASIS.
  - C. SILT SACKS SHALL BE INSPECTED AND REPAIRED ONCE A WEEK AND / OR IMMEDIATELY FOLLOWING A SIGNIFICANT RAINFALL OR SNOWMELT. DURING HEAVY RAIN EVENT, IT MAY BE NECESSARY TO TEMPORARILY REMOVE SACKS IN ORDER TO PREVENT FLOODING. SEDIMENT TRAPPED WITHIN SACKS SHALL BE DISPOSED OF OFF SITE AT A LICENSED FACILITY OR REGRADED ON THE SITE.
  - D. STONE APRONS SHALL BE INSPECTED MONTHLY FOR EXCESSIVE ACCUMULATION OF SEDIMENT. IT MAY BE NECESSARY TO REMOVE STONES, EXCAVATE SEDIMENT, AND REPLACE STONES.
  - E. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE REMOVED PRIOR TO PAVING. DURING CONSTRUCTION THE ENTRANCE SHALL BE INSPECTED WEEKLY, AND REESTABLISHED AS NECESSARY.
  - F. SEEDING AREAS WILL BE FERTILIZED AND RESEEDING AS NECESSARY TO INSURE ESTABLISHMENT OF A VEGETATIVE GROWTH THAT MEETS THE APPROVAL OF THE TOWN ENGINEER.

**GENERAL OWTS NOTES**

1. ALL BRUSH AND TREES WILL BE CLEARED WITHIN 10 FT OF BOTTOMLESS SAND FILTERS.
2. A MINIMUM ELEVATION CORRESPONDING TO 2 FEET BELOW THE BOTTOM OF THE PEASTONE, SHOULD BE MAINTAINED WITHIN 5 FT OF BOTTOMLESS SAND FILTERS.
3. ALL EXISTING AND PROPOSED PRIVATE WELLS WITHIN 200 FT. OF OWTS ARE SHOWN. ALL PUBLIC WELLS EXISTING OR PROPOSED WITHIN 500' ARE SHOWN.
4. NO DRAINS OR WATER LINES ARE KNOWN TO EXIST OR ARE TO BE CONSTRUCTED IN THE PROXIMITY OF THE SYSTEM WITHIN THE DISTANCES SPECIFIED IN RIDEM OWTS TABLE 22.1.
5. THE SYSTEMS FOR THE SUBSURFACE DISPOSAL OF SANITARY SEWAGE SHOWN ON THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE STATE OF RHODE ISLAND, DEPARTMENT ENVIRONMENTAL MANAGEMENT, RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION, AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS.
6. THE DESIGN INTENT IS TO MEET THE STATE STANDARDS. SINCE THESE PLANS HAVE BEEN CREATED TO GAIN THE NECESSARY PERMITTING, NO CONSTRUCTION INSTALLATIONS HAVE COMMENCED. BECAUSE THIS IS NOT A RECORD DRAWING OF AS-BUILT CONDITIONS AND NOTHING HAS BEEN INSTALLED, THE ENGINEER SIGNING AND STAMPING THIS PLAN IS NOT GUARANTEEING THE OPERATION OF THE INSTALLED SEPTIC SYSTEMS. UPON THE APPROVED SYSTEM INSTALLATIONS, THE DESIGN ENGINEER WILL SUPERVISE, VERIFY, AND CERTIFY THAT THE SYSTEM WAS INSTALLED AS SPECIFIED ON THE APPROVED PLAN.
7. ANTI-FLOATATION DEVICES AS PROVIDED BY THE MANUFACTURER SHALL BE USED FOR THE PROPOSED ADVANTEX PODS.
8. LAND OWNERS MUST MINIMIZE SHADING OF THE BOTTOMLESS SAND FILTERS. THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT RECOMMENDS THAT BOTTOMLESS SAND FILTERS BE EXPOSED TO THE SUNLIGHT TO PREVENT FREEZING DURING THE WINTER MONTHS.
9. NO FOUNDATION DRAIN LINES ARE TO BE CONSTRUCTED WITHIN 29 FT. OF THE OWTS OR BUILDING SEWERS.
10. GRADING EASEMENTS MAY BE REQUIRED FOR APPROPRIATE OWTS GRADING. IF APPLICABLE, THESE EASEMENTS SHALL BE ESTABLISHED DURING THE INDIVIDUAL OWTS PERMITTING.

**STORMWATER MAINTENANCE NOTES**

1. SAND FILTER MAINTENANCE:
  - a. GRASSES AND/OR SPECIFIED VEGETATION SHALL BE PLANTED AROUND AND WITHIN EACH SAND FILTER IMMEDIATELY FOLLOWING CONSTRUCTION TO STABILIZE SLOPES AND PREVENT EROSION.
  - b. EACH FILTER SHOULD BE INSPECTED FOLLOWING AT LEAST THE FIRST TWO PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, THE FILTER SHOULD BE INSPECTED AT LEAST ANNUALLY AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL THE 1-YEAR, 24-HOUR TYPE II PRECIPITATION EVENT (2.8 INCHES). SEDIMENTS COLLECTED WITHIN THE TOP STRATA OF THE FILTER SHALL BE GRASSES AND/OR SPECIFIED VEGETATION SHALL BE PLANTED AROUND AND WITHIN EACH SAND FILTER IMMEDIATELY FOLLOWING CONSTRUCTION TO STABILIZE SLOPES AND PREVENT EROSION.
  - c. THE FOLLOWING SHALL ALSO BE COMPLETED ON AN ANNUAL BASIS:
    - i. THE SLOPES OF THE FILTERS SHOULD BE INSPECTED FOR EROSION AND GULLYING.
    - ii. REINFORCE ANY EXISTING RIPRAP IF IT IS FOUND TO BE DEFICIENT, EROSION IS PRESENT AT THE OUTLET STRUCTURES, OR ANY EXISTING RIPRAP HAS BEEN COMPROMISED.
    - iii. THE UNDERDRAIN RISERS OR OVERFLOW OUTLET STRUCTURES SHALL BE INSPECTED FOR LEAKY JOINTS OR CRUSHED LINES. UNDERDRAIN AND OUTLET PIPES SHALL BE CLEAN AND FREE OF MATERIALS THAT CAN REDUCE FLOW.
    - iv. ANY AREAS WITHIN THE EXTENTS OF THE FILTER THAT ARE SUBJECT TO EROSION OR GULLYING SHOULD BE REPLISHED WITH THE ORIGINAL DESIGN MATERIAL AND RE-VEGETATED ACCORDING TO DESIGN DRAWINGS. SLOPE PROTECTION MATERIAL SHOULD BE PLACED IN AREAS PRONE TO EROSION. EMBANKMENT STABILITY SHOULD BE INSPECTED FOR SEEPAGE AND BURROWING ANIMALS.
    - v. MOW THE GRASS AROUND THE PERIMETER OF AND WITHIN THE FILTERS, SEED BARE AREAS, AND REMOVE LITTER AND DEBRIS AT LEAST THREE TIMES PER GROWING SEASON TO MAINTAIN MAXIMUM GRASS HEIGHTS LESS THAN TWELVE INCHES. REMOVE ANY INVASIVE VEGETATION WITHIN THE EXTENTS OF THE FILTERS. ANY INVASIVE VEGETATION ENCROACHING UPON THE PERIMETER OF THE FILTER SHOULD BE PRUNED OR REMOVED IF IT IS PROHIBITING ACCESS TO THE FILTERS, COMPROMISING SIGHT VISIBILITY, AND/OR COMPROMISING THE ORIGINAL DESIGN INTENT. IF DEAD OR DYING GRASS ON THE BOTTOM IS OBSERVED, CHECK TO ENSURE THAT WATER INFILTRATES WITHIN TWO DAYS FOLLOWING STORMS.
    - vi. SILT/SEDIMENT SHOULD BE REMOVED FROM THE FILTER BEDS ANNUALLY, WHEN ACCUMULATION EXCEEDS 1 INCH, OR WHEN THE FILTERING CAPACITY DIMINISHES SUBSTANTIALLY. IF STANDING WATER IS OBSERVED MORE THAN 48 HOURS AFTER A STORM EVENT, THEN THE TOP 6 INCHES OF SAND SHOULD BE REMOVED AND REPLACED. IF DISCOLORED OR CONTAMINATED MATERIAL IS FOUND BELOW THIS REMOVED SURFACE THEN THAT MATERIAL SHOULD ALSO BE REMOVED AND REPLACED UNTIL ALL CONTAMINATED SAND HAS BEEN REMOVED FROM THE FILTER MEDIA. THE SAND SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
2. SEDIMENT FOREBAY MAINTENANCE:
  - a. EACH FOREBAY SHOULD BE INSPECTED FOLLOWING AT LEAST THE FIRST TWO PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, THE FOREBAY SHOULD BE INSPECTED AT LEAST ONCE A MONTH AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL THE 1-YEAR, 24-HOUR TYPE II PRECIPITATION EVENT (2.8 INCHES). SEDIMENTS SHALL BE DISPOSED OF ONCE 25% OF THE VOLUME OF THE FOREBAY HAS ACCUMULATED.
3. CONVEYANCE STRUCTURE MAINTENANCE:
  - a. ALL INLET / OUTFLOW PIPES ARE TO BE INSPECTED AT LEAST THREE TIMES IN THE FIRST SIX MONTHS OF OPERATION. EVIDENCE OF CLOGGING, OR RAPID RELEASE OF FLOW SHALL BE REPORTED TO THE PROJECT ENGINEER AND REMEDIATED IMMEDIATELY.
  - b. CONVEYANCE PIPES SHOULD BE INSPECTED BIANNUALLY. ANY STRUCTURAL FAULTS SHOULD BE REPAIRED AS NECESSARY FOR PROPER FUNCTION OF THE STRUCTURE.
  - c. ROOF RUNOFF STRUCTURES SUCH AS GUTTERS AND DOWNSPOUTS SHOULD BE CLEAN AND FREE OF OBSTRUCTIONS THAT REDUCE FLOW. A REGISTERED PROFESSIONAL ENGINEER SHOULD BE CONSULTED IF NECESSARY TO DETERMINE WHETHER A STRUCTURE HAS BEEN COMPROMISED.
4. RIPRAP SPILLWAY MAINTENANCE:
  - a. THE SPILLWAYS SHOULD BE INSPECTED ANNUALLY FOR EROSION AND DETEIORATION. RIPRAP SHOULD BE REPLACED IN KIND AS NECESSARY TO COMPLETELY COVER THE SPILLWAY IN THE DIMENSIONS DESIGNATED IN THE ORIGINAL DESIGN DOCUMENTS. SHOULD EXCESSIVE STONE WASHOUT BE OBSERVED, A REGISTERED PROFESSIONAL ENGINEER SHOULD BE CONSULTED.
5. MAINTENANCE OF THE STORMWATER SYSTEM DURING CONSTRUCTION OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. UPON COMPLETION OF THE CONSTRUCTION, MAINTENANCE OF THE STORMWATER SYSTEM SHALL BECOME THE RESPONSIBILITY OF THE HOMEOWNERS ASSOCIATION.

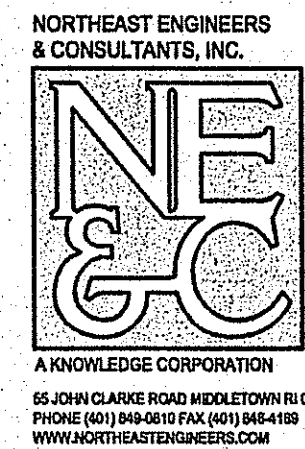
**ABBREVIATIONS**

AC	ADJ	ACCESS	ARCH	BC	BH	BIT	CLR	CMP	CMU	CONC	CONN	COTG	CF	DEMO	DI	DIA	DMH	dp	DS	DWG	E	ELEV	EMH	EOP	EQ	EXIST	EXP	FFE	FG	FH	FT	GT	GAL	GV	IN	JT	L	LAND	NTS	MAX	MECH	MIN	PAVT	PVC	RC	RECONN	RHB	RIDOT	ROW	S	SE	SH	SHM	STA	STRUCT	TC	TOP	UTG	TYP	W	WM	PAVEMENT	POLYNYLCHLORIDE	RADIUS	REINFORCED CONCRETE	RECONNECT	RHODE ISLAND HIGHWAY BOUND	RHODE ISLAND DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY	SLOPE, SEWER	SQUARE FEET	SEWER MANHOLE	STATION	STRUCTURAL	TOP OF CURB	TOP OF SURFACE	UNDERGROUND TELEPHONE	TYPICAL	WATER	WITH	WELDED WIRE MESH
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**LEGEND**

---	PROPERTY LINE
---	ABUTTING PROPERTY LINE
---	EDGE OF FLAGGED WETLAND
---	PERIMETER WETLAND EDGE
---	STREAM
---	WETLAND FLAG
---	TOPOGRAPHIC CONTOUR
---	FENCE LINE
---	TREE LINE
---	BRUSH LINE
---	STONE WALL
---	TOWN LINE (ZONING LINE)
---	MONUMENT
---	WATER MAIN
---	OVERHEAD WIRE
---	SPOT ELEVATION
---	UTILITY POLE
---	WATER VALVE
---	SUBDIVISION LINE
---	EASEMENT LINE
---	PROPOSED CONTOUR
---	PROPOSED SPOT ELEVATION
---	PROPOSED DRAIN LINE
---	PROPOSED CATCH BASIN
---	PROPOSED DRAIN MANHOLE
---	PROPOSED WATER MAIN
---	PROPOSED WATER SERVICE
---	PROPOSED UG ELEC / COMM
---	PROPOSED OWTS SEWER SERVICE
---	PROPOSED WATER SERVICE VALVE
---	PROPOSED PUMP CHAMBER
---	PROPOSED SEPTIC TANK
---	PROPOSED ADVANTEX UNIT
---	PROPOSED ELECTRIC BOX
---	SOIL EVALUATION LOCATION (TEST HOLE)
---	STRAWBALES
---	SILT FENCE
---	LIMIT OF DISTURBANCE
---	SILT SACK

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JAN 09 2016 FILE # 15-0187  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



PROJECT TITLE:  
**MIDDLE CREEK FARM SUBDIVISION**  
A.P. 128 LOT 73 (MIDDLETOWN)  
A.P. 68 LOT 71 (PORTSMOUTH)  
CORNELIUS DRIVE  
PORTSMOUTH, RI 02871

CLIENT/OWNER:  
MIDDLE CREEK FARM, LLC  
C/O MICHAEL BEHAN  
975 AQUIDNECK AVENUE  
MIDDLETOWN  
RHODE ISLAND  
02842

DESIGNED BY: GES/JJR  
DRAWN BY: JJR  
CHECKED BY:  
DATE: 06JUL15

REVISION HISTORY:

DATE	ISSUED FOR
24NOV16	RIDEM WETLANDS
08DEC15	RIDEM SUBDIVISION SUITABILITY

CERTIFICATION:  
BEVLYN E. SMALL  
No. 8550  
12.8.15  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL  
D2089

PROJECT NUMBER:  
**13172.1**

SCALE: N/A

DRAWING TITLE:  
**NOTES**

DRAWING NUMBER:  
**C-2**

SHEET 2 OF 18

OWNERSHIP AND USE OF DOCUMENTS: DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER. THESE DOCUMENTS ARE NOT TO BE USED IN WHOLE OR PART, FOR ANY OTHER PROJECTS OR PURPOSES, OR BY ANY OTHER PARTIES, THAN THOSE PROPERLY AUTHORIZED BY CONTRACT, WITHOUT THE EXPRESS AUTHORIZATION OF THE ENGINEER.



PROJECT TITLE:

**MIDDLE CREEK FARM SUBDIVISION**

A.P. 128 LOT 73 (MIDDLETOWN)  
 A.P. 68 LOT 71 (PORTSMOUTH)  
 CORNELIUS DRIVE  
 PORTSMOUTH, RI 02871

CLIENT/OWNER:

MIDDLE CREEK FARM, LLC  
 C/O MICHAEL BEHAN  
 975 AQUIDNECK AVENUE  
 MIDDLETOWN  
 RHODE ISLAND  
 02842

DESIGNED BY: GES/JJR

DRAWN BY: JJR

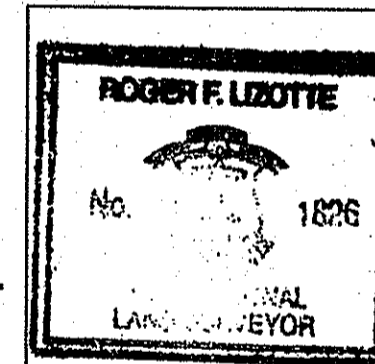
CHECKED BY:

DATE: 06JUL15

REVISION HISTORY:

DATE	ISSUED FOR

CERTIFICATION:



THIS SURVEY AND PLAN CONFORM TO A CLASS STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

DATE: 7/24/15

*Roger F. Lozotte*  
 REGISTERED PROFESSIONAL  
 LAND SURVEYOR

PROJECT NUMBER:

13172.1

SCALE: 1" = 40'

DRAWING TITLE:

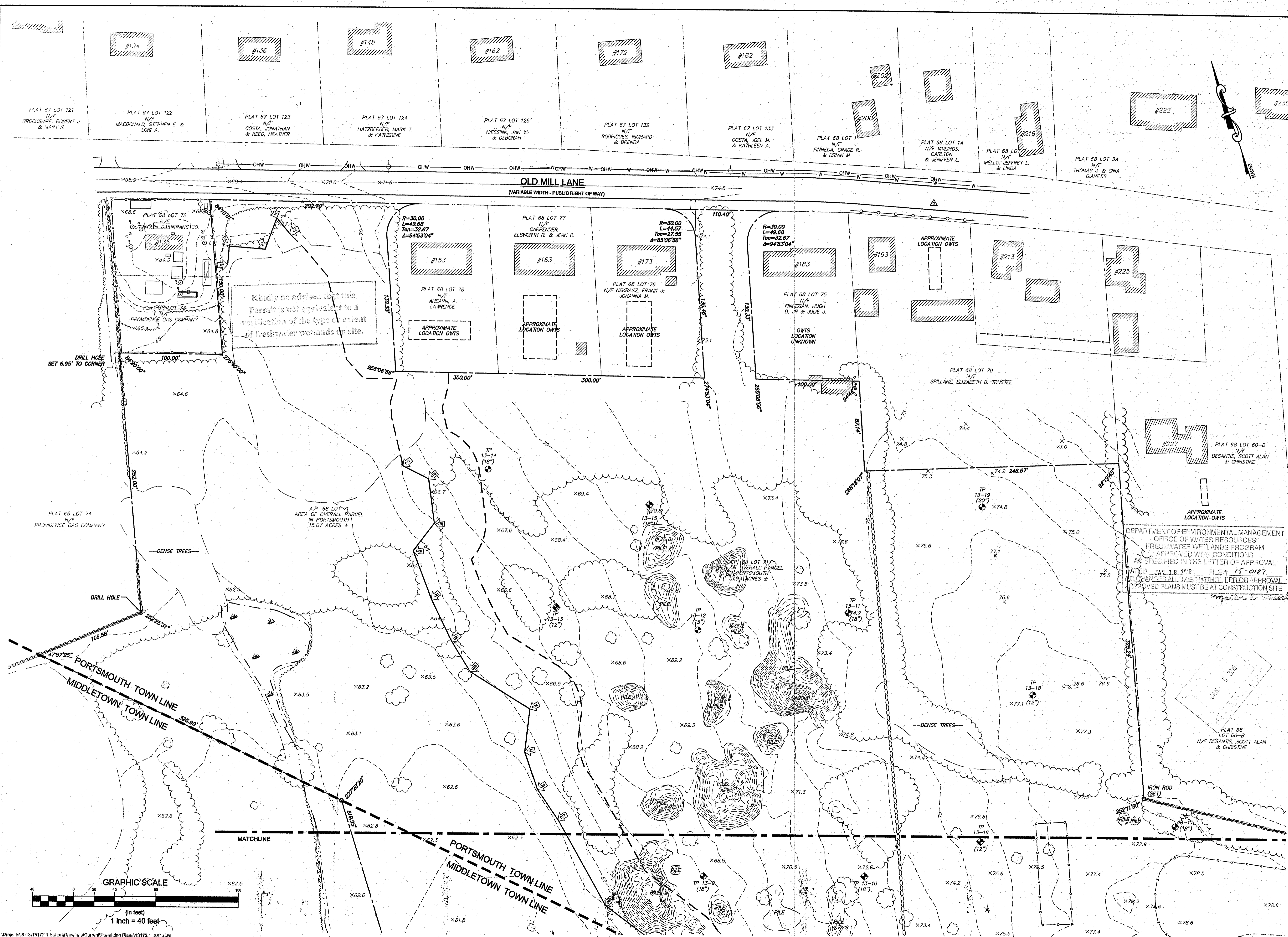
**EXISTING CONDITIONS PLAN**

DRAWING NUMBER:

**C-4**

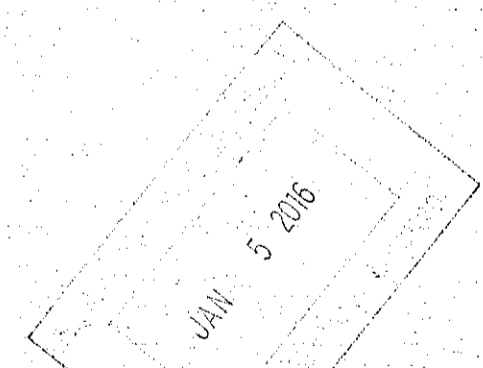
SHEET 4 OF 18

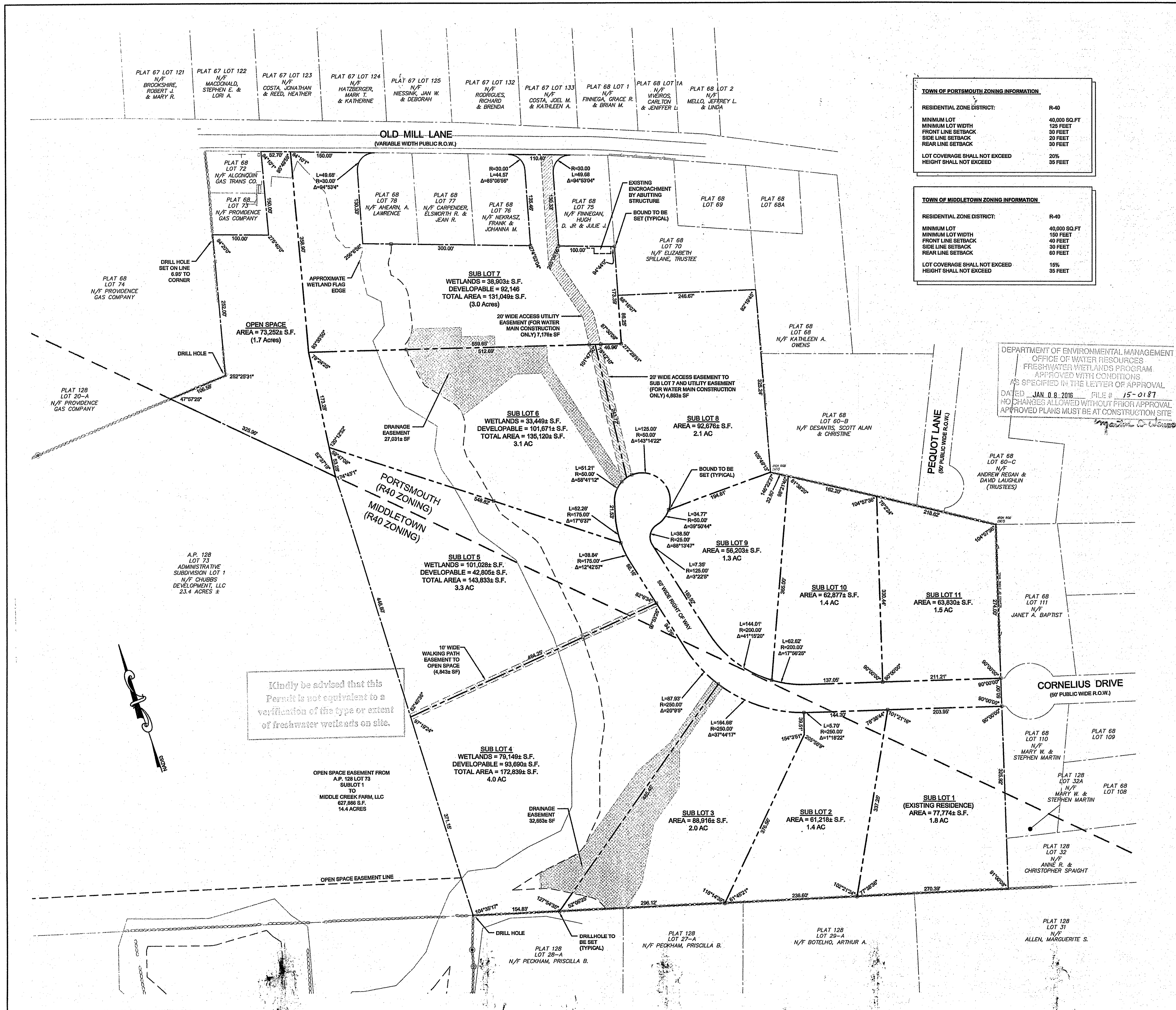
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Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JAN. 08, 2015 FILE # 15-0187  
 ENGINEERS ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE





**NOTES:**

- NORTH ARROW REFERENCES GRID NORTH (RISP - NAD83).
- SITE LIES WITHIN FEMA FLOOD ZONES X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER FLOOD INSURANCE RATE MAP 44005C0113J, LAST REVISED SEPTEMBER 4, 2015.
- PORTSMOUTH A.P. 68, LOT 71 AND ABUTTERS LIE WITHIN THE R-40 ZONING DISTRICT.
- MIDDLETOWN A.P. 128, LOT 73 AND ABUTTERS LIE WITHIN THE R-40 ZONING DISTRICT.
- AERIAL SURVEY PERFORMED BY EASTERN TOPOGRAPHICS IN JANUARY 2015, BASED ON GROUND CONTROL BY NORTHEAST ENGINEERS & CONSULTANTS, INC.
- FRESHWATER WETLANDS FLAGGED BY NATURAL RESOURCES SERVICES IN SEPTEMBER 2013.

**PLAN REFERENCES:**

- "RAPOSA ESTATES, LAND OF JOHN H. RAPOSA AND JOSEPH S. RAPOSA, JR., INDIAN AVE. PORTSMOUTH, R.I., PROPOSED SUBDIVISION OF LOTS 57, 57A, 57B, 57C, TAX MAP 88 LOT 32 TAX MAP 128 MIDDLETOWN DATED MAY 3, 1979, SCALE 1"=40', RECORDED IN THE TOWN CLERK'S OFFICE OF MIDDLETOWN, RHODE ISLAND.
- "SUBDIVISION, ESTATE OF JOSEPH S. RAPOSA, CORNER OF WAPPING ROAD & PECKHAM AVENUE, MIDDLETOWN, R.I. DATED MAY 1985, SCALE 1"=80', RECORDED IN THE TOWN CLERK'S OFFICE OF MIDDLETOWN, RHODE ISLAND.
- "LAND OF BERKELEY B. HALL ET. UX. BERTHA, PORTSMOUTH, R.I. BY MALCOLM E. BERRITT, P.E. LAST REVISED 10/17/86 SCALE 1"=40', RECORDED IN THE TOWN CLERK'S OFFICE OF PORTSMOUTH, RHODE ISLAND IN 1-C-5, MAP 1.
- "LAND OF SEVENTEEN INC., PORTSMOUTH, RHODE ISLAND" BY HAROLD E. ST. JOHN, DATED 15 JULY 1988, SCALE 1"=40', RECORDED IN THE TOWN CLERK'S OFFICE OF PORTSMOUTH, RHODE ISLAND IN 1-D-2, MAP 2.
- "LAND OF ESTATE OF JOHN O. BETTEMCOURT, OLD MILL LANE, PORTSMOUTH, R.I. BY FRANCIS J. O'LOUGHLIN, DATED SEPT. 15, 1972 SCALE 1"=80', RECORDED IN THE TOWN CLERK'S OFFICE OF PORTSMOUTH, RHODE ISLAND.
- "PROPOSED LOCATION, METER STATION SITE, NEWPORT, RHODE ISLAND" BY FORD, BACON & DAVIS, INC. DATED 10-22-81 SCALE 1"=20', RECORDED IN THE TOWN CLERK'S OFFICE OF PORTSMOUTH, RHODE ISLAND.
- "RAPOSA ESTATES, LAND OF JOHN H. RAPOSA AND JOSEPH S. RAPOSA, JR., INDIAN AVE. PORTSMOUTH, R.I. BY FRANCIS J. O'LOUGHLIN, RECORDED IN THE TOWN CLERK'S OFFICE OF PORTSMOUTH, RHODE ISLAND AS 6-D-3 MAP 1.
- "LAND OF JOHN H. & BERTHA RAPOSA, LOT 25 TAX PLATE 128, WAPPING ROAD & PECKHAM AVENUE, MIDDLETOWN, RHODE ISLAND" BY FRANCIS J. O'LOUGHLIN, DATED AUG. 1984, SCALE 1"=50', RECORDED IN THE TOWN CLERK'S OFFICE OF MIDDLETOWN, RHODE ISLAND.

**TOWN OF PORTSMOUTH ZONING INFORMATION**

RESIDENTIAL ZONE DISTRICT:	R-40
MINIMUM LOT	40,000 SQ.FT
MINIMUM LOT WIDTH	125 FEET
FRONT LINE SETBACK	30 FEET
SIDE LINE SETBACK	20 FEET
REAR LINE SETBACK	30 FEET
LOT COVERAGE SHALL NOT EXCEED	20%
HEIGHT SHALL NOT EXCEED	35 FEET

**TOWN OF MIDDLETOWN ZONING INFORMATION**

RESIDENTIAL ZONE DISTRICT:	R-40
MINIMUM LOT	40,000 SQ.FT
MINIMUM LOT WIDTH	150 FEET
FRONT LINE SETBACK	40 FEET
SIDE LINE SETBACK	30 FEET
REAR LINE SETBACK	60 FEET
LOT COVERAGE SHALL NOT EXCEED	15%
HEIGHT SHALL NOT EXCEED	35 FEET

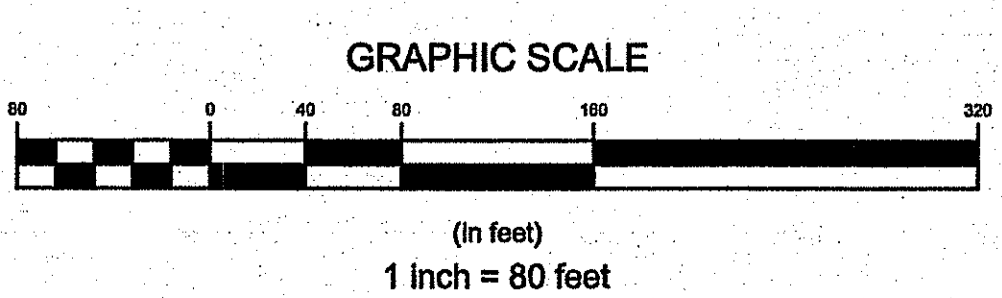
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JAN. 0 8 2016 FILE # 15-0187  
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**AREA TABLE:**

EXISTING:	AREA (S.F.) ±
A.P. 128 LOT 73 (MIDDLETOWN)	480,737
A.P. 68 LOT 71 (PORTSMOUTH)	727,910
<b>TOTAL</b>	<b>1,208,647</b>
<b>DEVELOPABLE:</b>	<b>AREA (S.F.) ±</b>
TOTAL	1,208,647
WETLANDS	322,613
RIGHT OF WAY	49,060
STORMWATER DETENTION	20,000
DEVELOPABLE AREA (DA)	816,974
MAX LOTS = (DA / 40,000)	20
<b>PROPOSED:</b>	<b>AREA (S.F.) ±</b>
SUB LOT 1:	77,774
SUB LOT 2:	61,216
SUB LOT 3:	66,916
SUB LOT 4:	172,839
SUB LOT 5:	143,833
SUB LOT 6:	135,120
SUB LOT 7:	131,049
SUB LOT 8:	92,676
SUB LOT 9:	56,203
SUB LOT 10:	62,877
SUB LOT 11:	63,830
RIGHT OF WAY:	49,060
OPEN SPACE:	73,252
<b>TOTAL</b>	<b>1,208,647</b>

**LEGEND:**

- PROPERTY LINE
- ABUTTING PROPERTY LINE
- EDGE OF FLAGGED WETLAND
- PERIMETER WETLAND EDGE
- STONE WALL
- SUBDIVISION LINE
- EASEMENT LINE
- WIRE FENCE



NORTHEAST ENGINEERS & CONSULTANTS, INC.

**PROJECT TITLE:**  
**MIDDLE CREEK FARM SUBDIVISION**  
A.P. 128 LOT 73 (MIDDLETOWN)  
A.P. 68 LOT 71 (PORTSMOUTH)  
CORNELIUS DRIVE  
PORTSMOUTH, RI 02871

**CLIENT/OWNER:**  
MIDDLE CREEK FARM, LLC  
C/O MICHAEL BEHAN  
975 AQUIDNECK AVENUE  
MIDDLETOWN  
RHODE ISLAND  
02842

**DESIGNED BY:** GES/JJR  
**DRAWN BY:** JJR  
**CHECKED BY:**  
**DATE:** 07JUL15

**REVISION HISTORY:**

DATE	ISSUED FOR
24NOV16	RIDEM WETLANDS

**CERTIFICATION:**  
**ROGER F. LIZOTTE**  
No. 1826  
PROFESSIONAL LAND SURVEYOR

THIS SURVEY AND PLAN CONFORM TO A CLASS I STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

DATE: 12 / 4 / 15

**PROJECT NUMBER:**  
**13172.1**

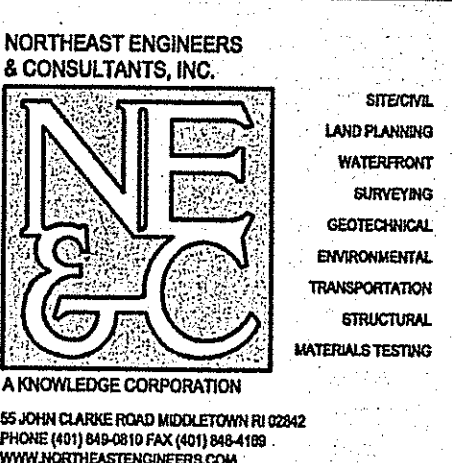
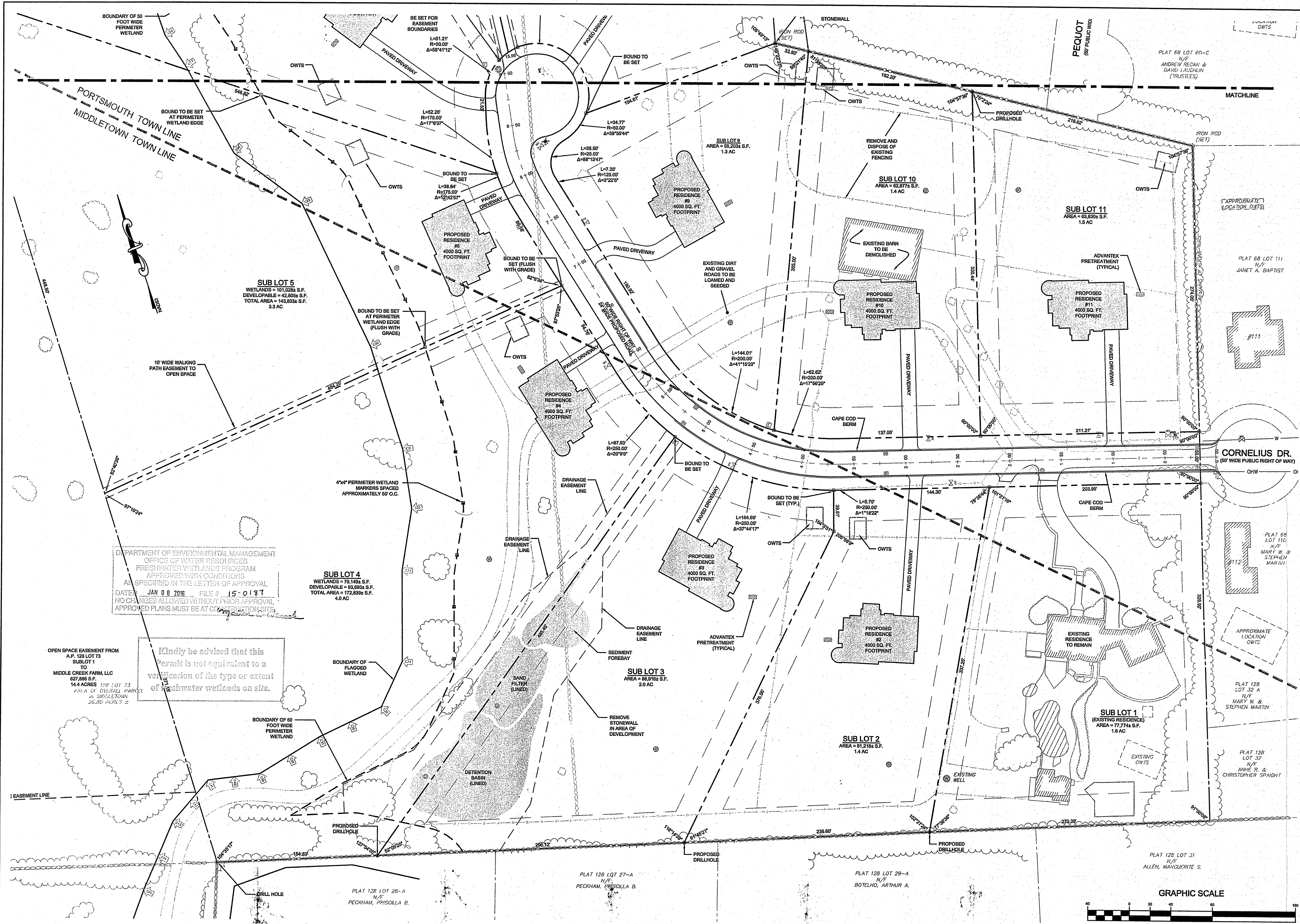
**SCALE:** 1" = 80'

**DRAWING TITLE:**  
**SUBDIVISION PLAN**

**DRAWING NUMBER:**  
**C-5**

**SHEET 5 OF 18**

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**PROJECT TITLE:**  
**MIDDLE CREEK FARM SUBDIVISION**  
A.P. 128 LOT 73 (MIDDLETOWN)  
A.P. 68 LOT 71 (PORTSMOUTH)  
CORNELIUS DRIVE  
PORTSMOUTH, RI 02871

**CLIENT/OWNER:**  
MIDDLE CREEK FARM, LLC  
C/O MICHAEL BEHAN  
975 AQUINECK AVENUE  
MIDDLETOWN  
RHODE ISLAND  
02842

**DESIGNED BY:** GES/JJR  
**DRAWN BY:** JJR  
**CHECKED BY:**  
**DATE:** 07JUL15

**REVISION HISTORY:**

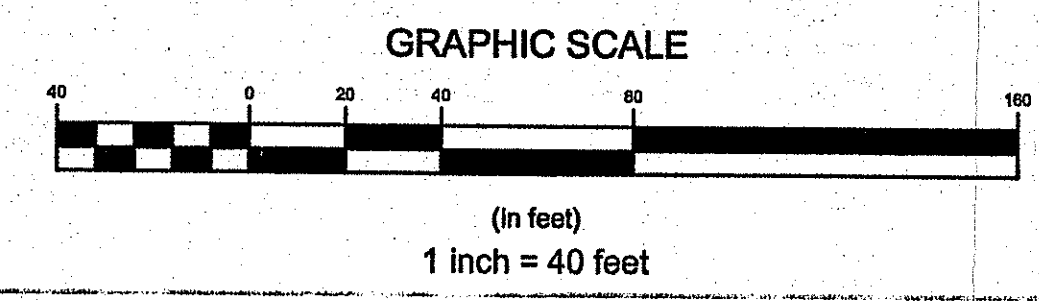
DATE	ISSUED FOR
24NOV15	RIDEM WETLANDS

**CERTIFICATION:**  
GERALYN E. SMALL  
No. 8550  
12-4-15  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL

**PROJECT NUMBER:**  
13172.1

**SCALE:** 1" = 40'  
**DRAWING TITLE:**  
PROPOSED LAYOUT PLAN

**DRAWING NUMBER:**  
C-6  
SHEET 6 OF 18



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
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DATE: JAN 08 2016 FILE # 15-0137  
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OPEN SPACE EASEMENT FROM A.P. 128 LOT 73 SUBLOT 1 TO MIDDLE CREEK FARM, LLC 627,886 S.F. 14.4 ACRES

**SUB LOT 4**  
WETLANDS = 79,148± S.F.  
DEVELOPABLE = 93,690± S.F.  
TOTAL AREA = 172,838± S.F.  
4.0 AC

**SUB LOT 3**  
AREA = 88,818± S.F.  
2.0 AC

**SUB LOT 2**  
AREA = 61,218± S.F.  
1.4 AC

**SUB LOT 1**  
(EXISTING RESIDENCE)  
AREA = 71,774± S.F.  
1.8 AC

**SUB LOT 5**  
WETLANDS = 101,028± S.F.  
DEVELOPABLE = 42,802± S.F.  
TOTAL AREA = 143,830± S.F.  
3.3 AC

**SUB LOT 9**  
AREA = 59,232± S.F.  
1.3 AC

**SUB LOT 10**  
AREA = 62,872± S.F.  
1.4 AC

**SUB LOT 11**  
AREA = 63,852± S.F.  
1.5 AC

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**PROJECT TITLE:**  
**MIDDLE CREEK FARM SUBDIVISION**  
 A.P. 128 LOT 73 (MIDDLETOWN)  
 A.P. 68 LOT 71 (PORTSMOUTH)  
 CORNELIUS DRIVE  
 PORTSMOUTH, RI 02871

**CLIENT/OWNER:**  
 MIDDLE CREEK FARM, LLC  
 C/O MICHAEL BEHAN  
 975 AQUIDNECK AVENUE  
 MIDDLETOWN  
 RHODE ISLAND  
 02842

**DESIGNED BY:** GES/JJR  
**DRAWN BY:** JJR  
**CHECKED BY:**  
**DATE:** 07/JUL/15

**REVISION HISTORY:**

DATE	ISSUED FOR
24NOV15	RIDEM WETLANDS
30DEC15	RIDEM WETLANDS

**CERTIFICATION:**  
 C. ALYCE E. SMALL  
 No. 8550  
 1514  
 REGISTERED PROFESSIONAL ENGINEER CIVIL  
 D3089

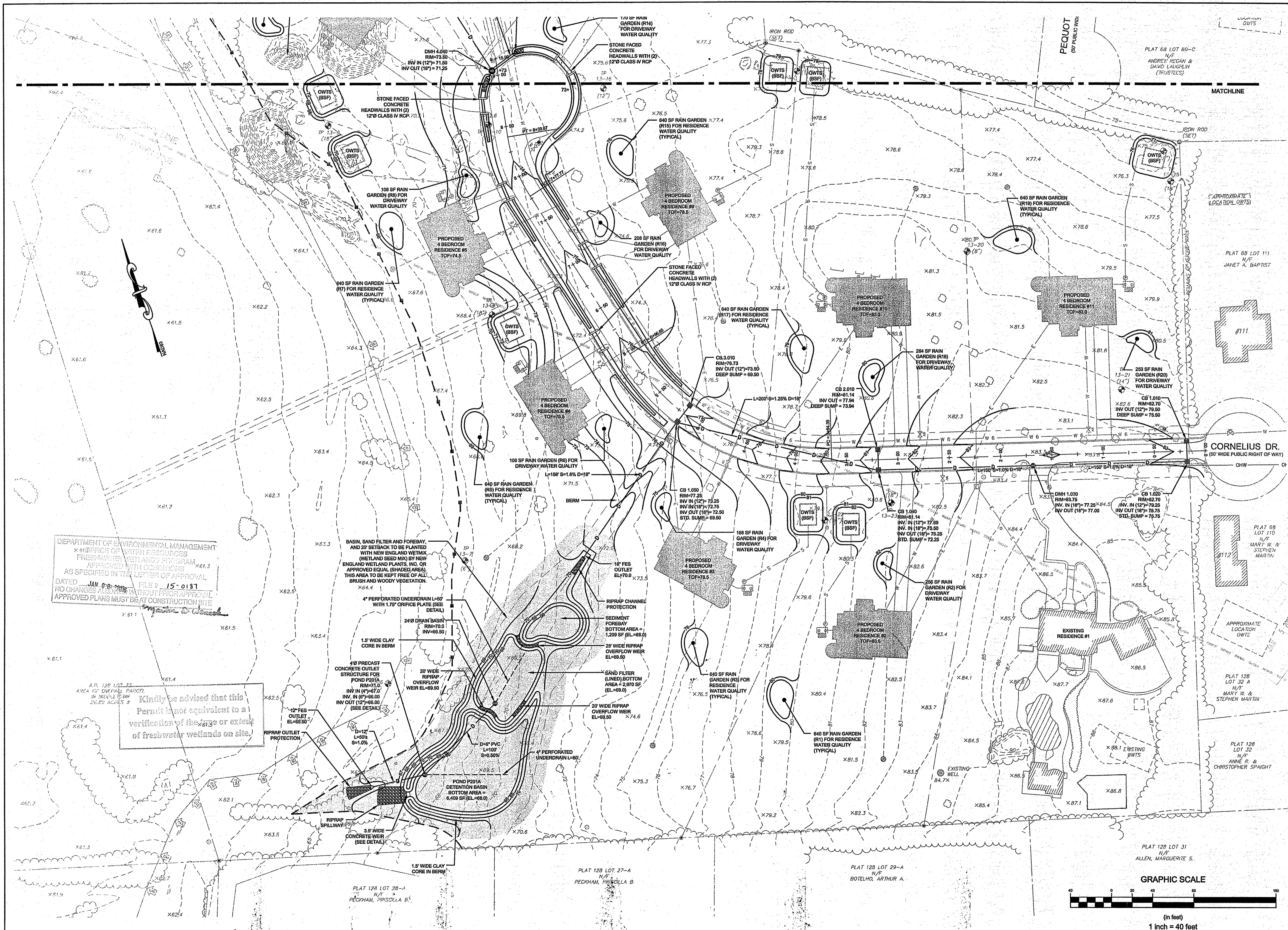
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**13172.1**

**SCALE:** 1" = 40'

**DRAWING TITLE:**  
**GRADING & DRAINAGE**

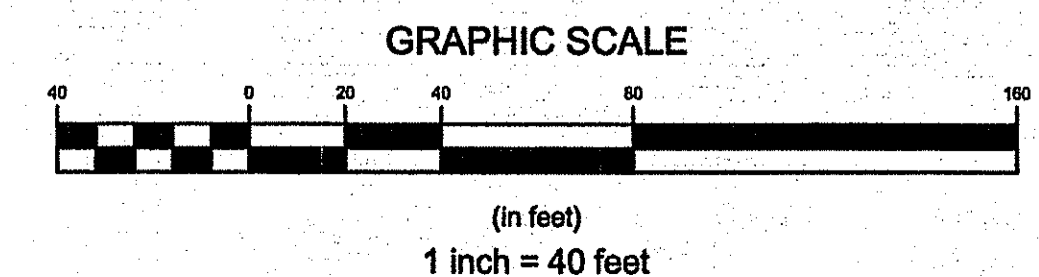
**DRAWING NUMBER:**  
**C-8**  
**SHEET 8 OF 18**

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 FRESHWATER WETLANDS PROGRAM  
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 A.P. 128 LOT 73 (MIDDLETOWN)  
 A.P. 68 LOT 71 (PORTSMOUTH)  
 CORNELIUS DRIVE  
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**CLIENT/OWNER:**  
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 975 AQUIDNECK AVENUE  
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 RHODE ISLAND  
 02842

**DESIGNED BY:** GES/JJR  
**DRAWN BY:** JJR

**CHECKED BY:**  
**DATE:** 07JUL15

**REVISION HISTORY:**

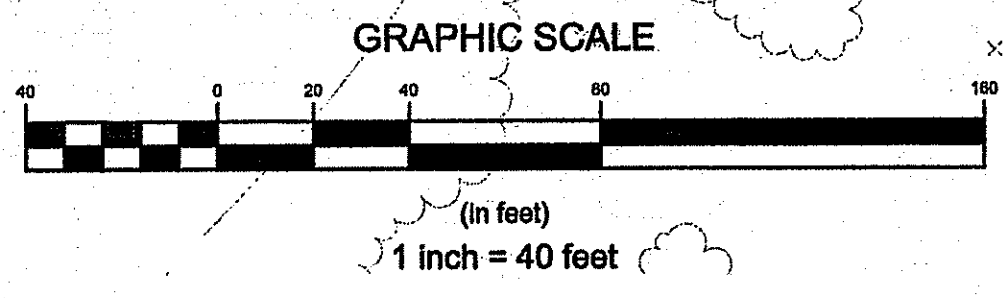
DATE	ISSUED FOR
24NOV15	RIDEM WETLANDS
30DEC15	RIDEM WETLANDS

**CERTIFICATION:**  
 GERALD E. SMALL  
 No. 8550  
 1-15-16  
 REGISTERED PROFESSIONAL ENGINEER CIVIL  
 D 3084

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESH WATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JAN 08 2016 FILE # 15-0187  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE



MATCHLINE  
 Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.



**DRAWING TITLE:**  
**GRADING & DRAINAGE**

**DRAWING NUMBER:**  
**C-9**

**SHEET 9 OF 18**

OWNERSHIP AND USE OF DOCUMENTS: DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER. THESE DOCUMENTS ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECTS OR PURPOSES, OR BY ANY OTHER PARTIES, THAN THOSE PROPERLY AUTHORIZED BY CONTRACT, WITHOUT THE EXPRESS AUTHORIZATION OF THE ENGINEER.

PROJECT TITLE:

**MIDDLE CREEK FARM SUBDIVISION**  
 A.P. 128 LOT 73 (MIDDLETOWN)  
 A.P. 68 LOT 71 (PORTSMOUTH)  
 CORNELIUS DRIVE  
 PORTSMOUTH, RI 02871

CLIENT/TOWNER:

MIDDLE CREEK FARM, LLC  
 C/O MICHAEL BEHAN  
 975 AQUIDNECK AVENUE  
 MIDDLETOWN  
 RHODE ISLAND  
 02842

DESIGNED BY: GES/JJR

DRAWN BY: JJR

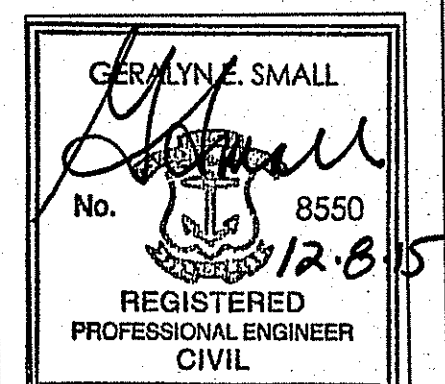
CHECKED BY:

DATE: 06JUL15

REVISION HISTORY:

DATE	ISSUED FOR
24NOV15	RIDEM WETLANDS
08DEC15	RIDEM SUBDIVISION SUITABILITY

CERTIFICATION:



PROJECT NUMBER:  
**13172.1**

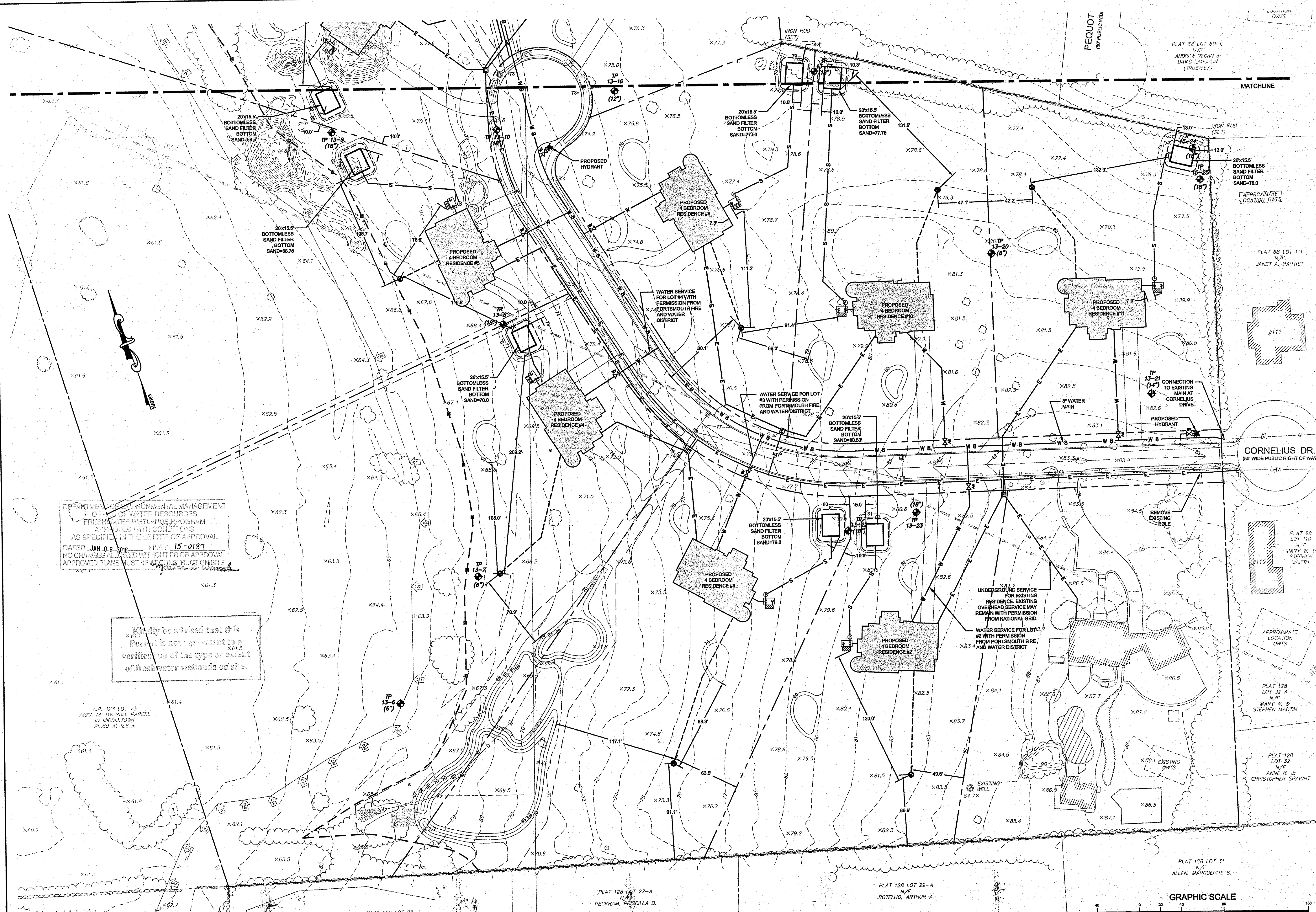
SCALE: 1" = 40'

DRAWING TITLE:  
**UTILITY AND OWTS PLAN**

DRAWING NUMBER:  
**C-10**

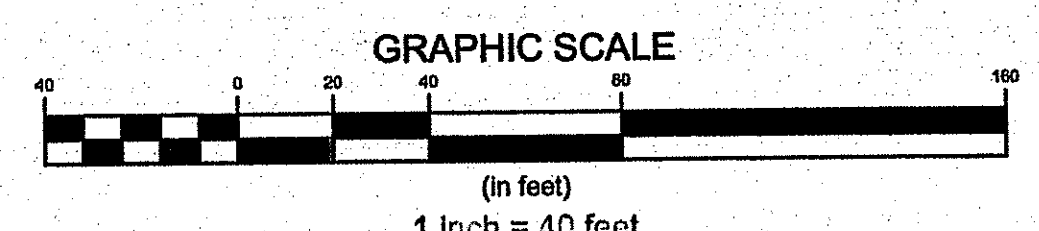
SHEET 10 OF 18

OWNERSHIP AND USE OF DOCUMENTS: DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER. THESE DOCUMENTS ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECTS OR PURPOSES, OR BY ANY OTHER PARTIES, THAN THOSE PROPERLY AUTHORIZED BY CONTRACT, WITHOUT THE EXPRESS AUTHORIZATION OF THE ENGINEER.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
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 DATED JAN. 08, 2016 FILE # 15-0187  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.



PROJECT TITLE:  
**MIDDLE CREEK FARM SUBDIVISION**  
 A.P. 128 LOT 73 (MIDDLETOWN)  
 A.P. 68 LOT 71 (PORTSMOUTH)  
 CORNELIUS DRIVE  
 PORTSMOUTH, RI 02871

CLIENT/OWNER:  
 MIDDLE CREEK FARM, LLC  
 C/O MICHAEL BEHAN  
 975 AQUIDNECK AVENUE  
 MIDDLETOWN  
 RHODE ISLAND  
 02842

DESIGNED BY: GES/JJR  
 DRAWN BY: JJR  
 CHECKED BY:

DATE: 06JUL15

REVISION HISTORY:

DATE	ISSUED FOR
24NOV15	RIDEM WETLANDS
08DEC15	RIDEM SUBDIVISION SUITABILITY

CERTIFICATION:  
 SEAL: ALYSE E. SMALL  
 No. 8550  
 12-8-15  
 REGISTERED PROFESSIONAL ENGINEER CIVIL  
 D3081

PROJECT NUMBER:  
**13172.1**

SCALE: 1" = 40'

DRAWING TITLE:  
**UTILITY AND OWTS PLAN**

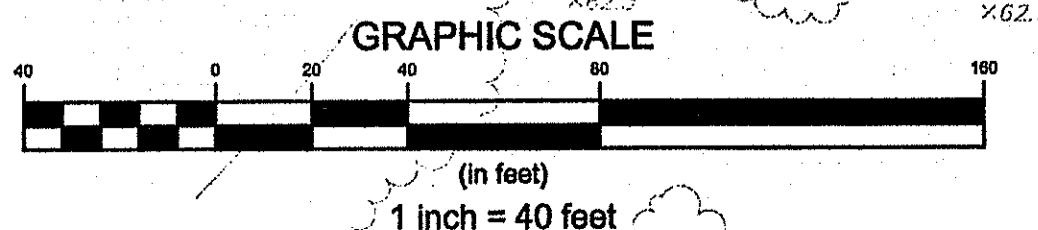
DRAWING NUMBER:  
**C-11**  
 SHEET 11 OF 18

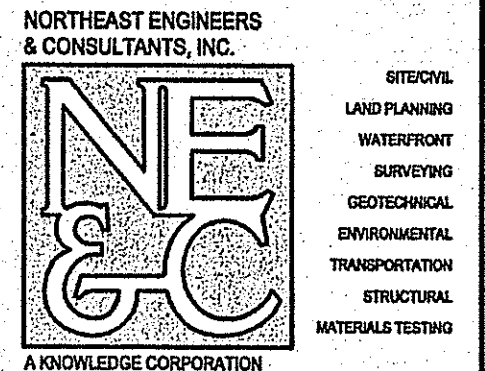
OWNERSHIP AND USE OF DOCUMENTS: DRAWINGS AND SPECIFICATIONS AS INSTRUMENTS OF PROFESSIONAL SERVICE ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER. THESE DOCUMENTS ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECTS OR PURPOSES, OR BY ANY OTHER PARTIES, THAN THOSE PROPERLY AUTHORIZED BY CONTRACT, WITHOUT THE EXPRESS AUTHORIZATION OF THE ENGINEER.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
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 DATED JAN 09 2015 FILE # 15-0181  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Kindly be advised that 8'x63.6' is not equivalent to a notification of the type or extent of freshwater wetlands on site.





NORTHEAST ENGINEERS & CONSULTANTS, INC.  
 A KNOWLEDGE CORPORATION  
 55 JOHN CLARE ROAD MIDDLETOWN, RI 02842  
 PHONE (401) 842-0170 FAX (401) 842-4189  
 WWW.NORTHEASTENGINEERS.COM

PROJECT TITLE:  
**MIDDLE CREEK FARM SUBDIVISION**  
 A.P. 128 LOT 73 (MIDDLETOWN)  
 A.P. 68 LOT 71 (PORTSMOUTH)  
 CORNELIUS DRIVE  
 PORTSMOUTH, RI 02871

CLIENT/OWNER:  
 MIDDLE CREEK FARM, LLC  
 C/O MICHAEL BEHAN  
 975 AQUIDNECK AVENUE  
 MIDDLETOWN  
 RHODE ISLAND  
 02842

DESIGNED BY: GES/JJR  
 DRAWN BY: JJR  
 CHECKED BY:  
 DATE: 06/15/15

REVISION HISTORY:

DATE	ISSUED FOR
24NOV15	RIDEM WETLANDS

CERTIFICATION:  
 CHERYL E. SMALL  
 No. 8550  
 12-4-15  
 REGISTERED PROFESSIONAL ENGINEER CIVIL  
 D3079

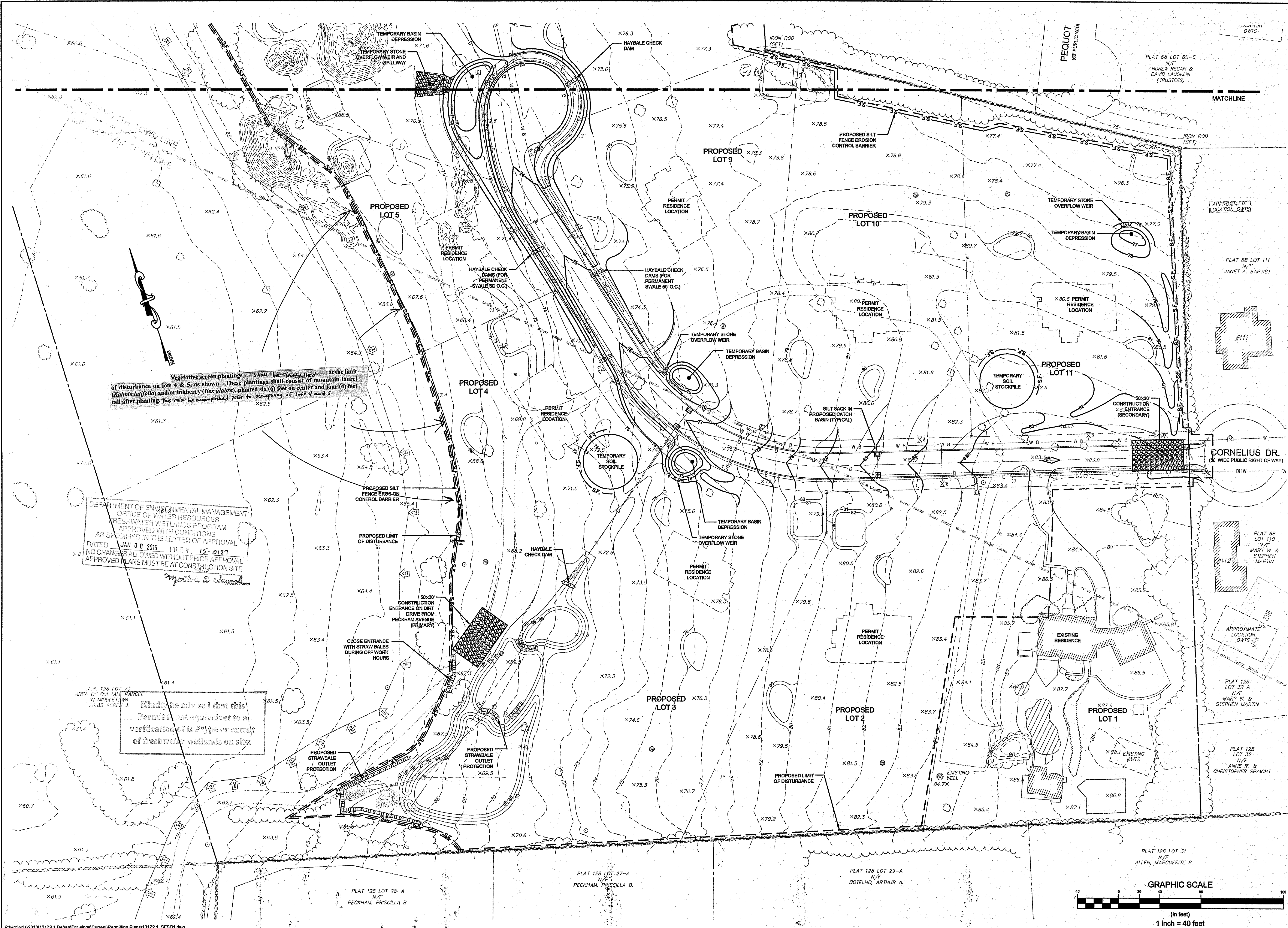
PROJECT NUMBER:  
**13172.1**

SCALE: 1" = 40'

DRAWING TITLE:  
**TEMPORARY CONSTRUCTION GRADING AND SOIL EROSION CONTROL**

DRAWING NUMBER:  
**C-12**  
 SHEET 12 OF 18

OWNERSHIP AND USE OF DOCUMENTS: DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER. THESE DOCUMENTS ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECTS OR PURPOSES, OR BY ANY OTHER PARTIES, THAN THOSE PROPERLY AUTHORIZED BY CONTRACT, WITHOUT THE EXPRESS AUTHORIZATION OF THE ENGINEER.



Vegetative screen plantings shall be installed at the limit of disturbance on lots 4 & 5, as shown. These plantings shall consist of mountain laurel (*Kalmia latifolia*) and/or inkberry (*Ilex glabra*), planted six (6) feet on center and four (4) feet tall after planting. This must be accomplished prior to occupancy of lots 4 and 5.

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PROJECT TITLE:

**MIDDLE CREEK FARM SUBDIVISION**  
 A.P. 128 LOT 73 (MIDDLETOWN)  
 A.P. 68 LOT 71 (PORTSMOUTH)  
 CORNELIUS DRIVE  
 PORTSMOUTH, RI 02871

CLIENT/OWNER:

MIDDLE CREEK FARM, LLC  
 C/O MICHAEL BEHAN  
 975 AQUIDNECK AVENUE  
 MIDDLETOWN  
 RHODE ISLAND  
 02842

DESIGNED BY: GES/JJR  
 DRAWN BY: JJR  
 CHECKED BY:

DATE: 06JUL15

REVISION HISTORY:

DATE	ISSUED FOR
24NOV15	RIDEM WETLANDS

CERTIFICATION:

GERALD E. SMALL  
 No. 8550  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL

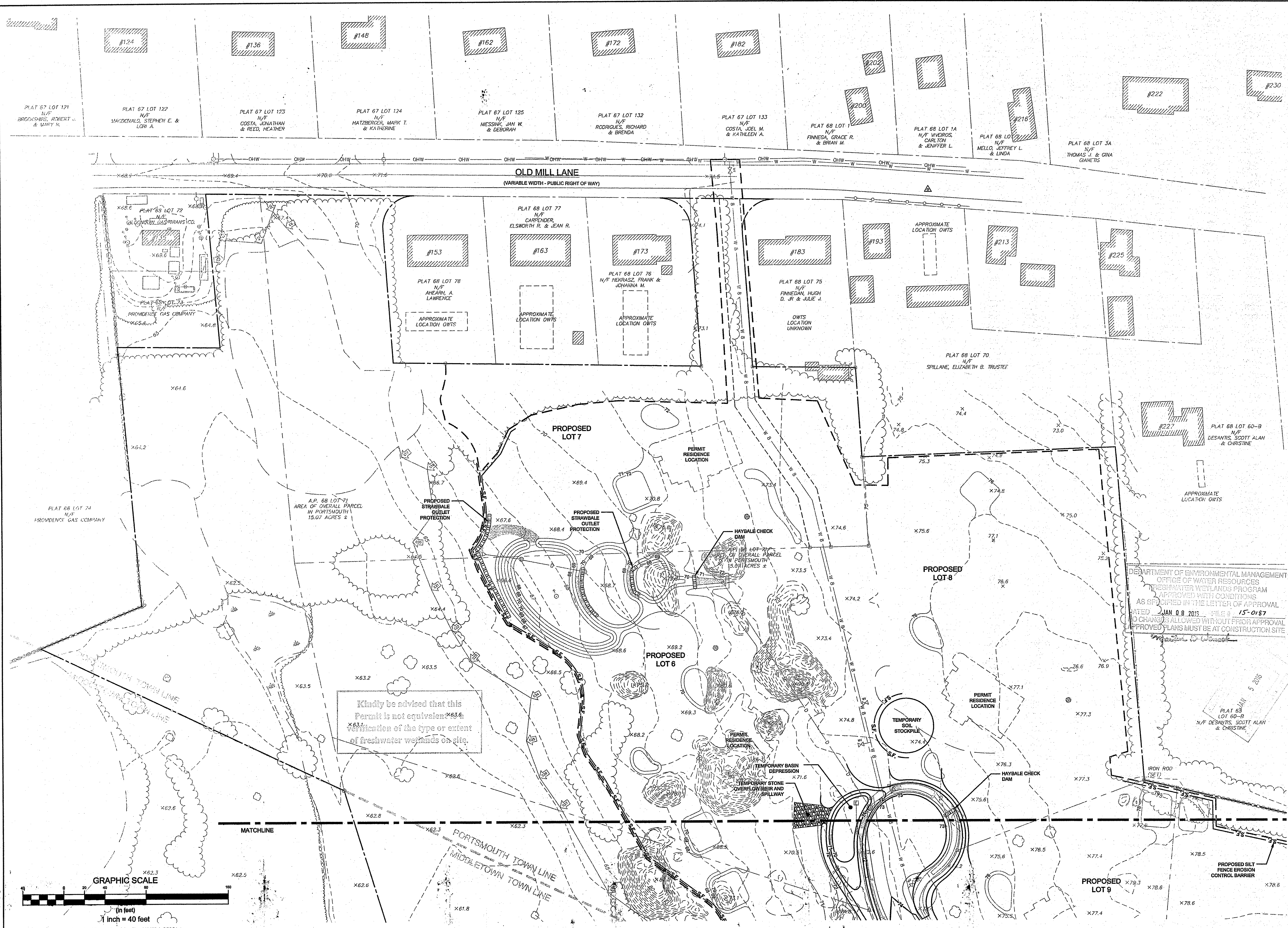
PROJECT NUMBER:  
**13172.1**

SCALE: 1" = 40'

DRAWING TITLE:  
**TEMPORARY CONSTRUCTION GRADING AND SOIL EROSION CONTROL**

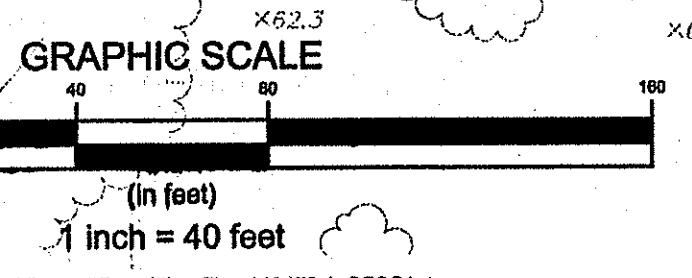
DRAWING NUMBER:  
**C-13**  
 SHEET 13 OF 18

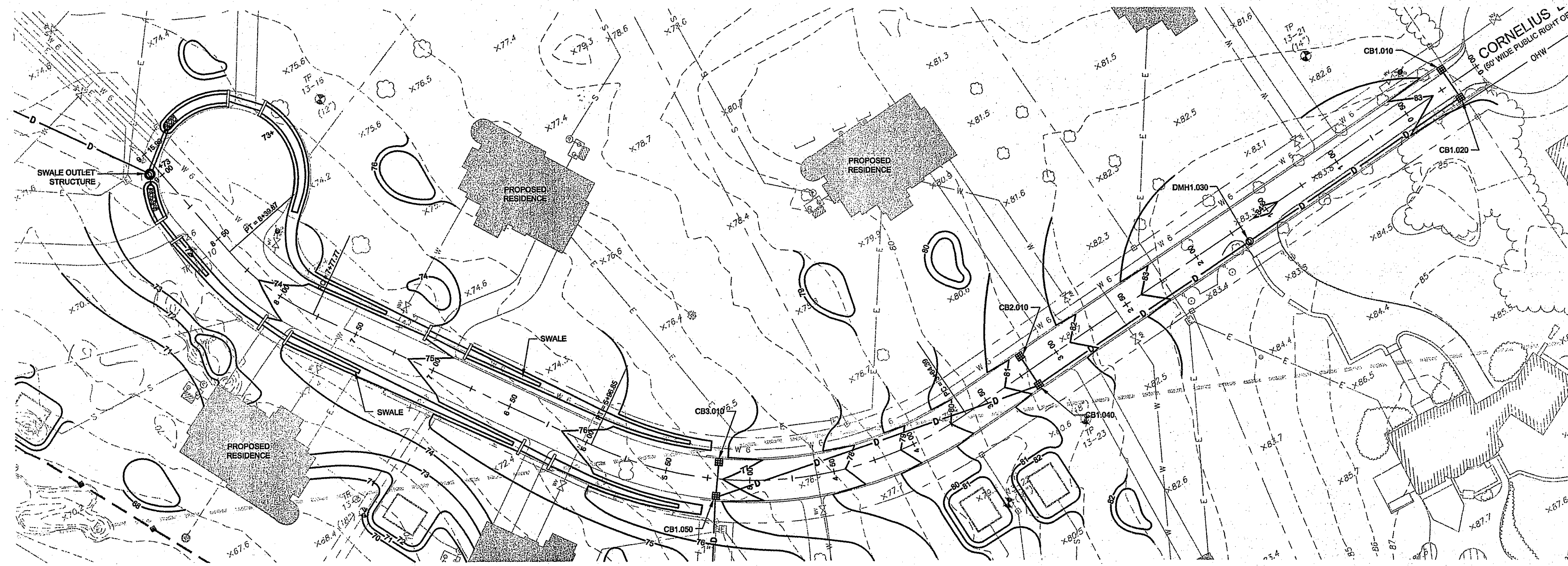
OWNERSHIP AND USE OF DOCUMENTS: DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER. THESE DOCUMENTS ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECTS OR PURPOSES, OR BY ANY OTHER PARTIES, THAN THOSE PROPERLY AUTHORIZED BY CONTRACT, WITHOUT THE EXPRESS AUTHORIZATION OF THE ENGINEER.



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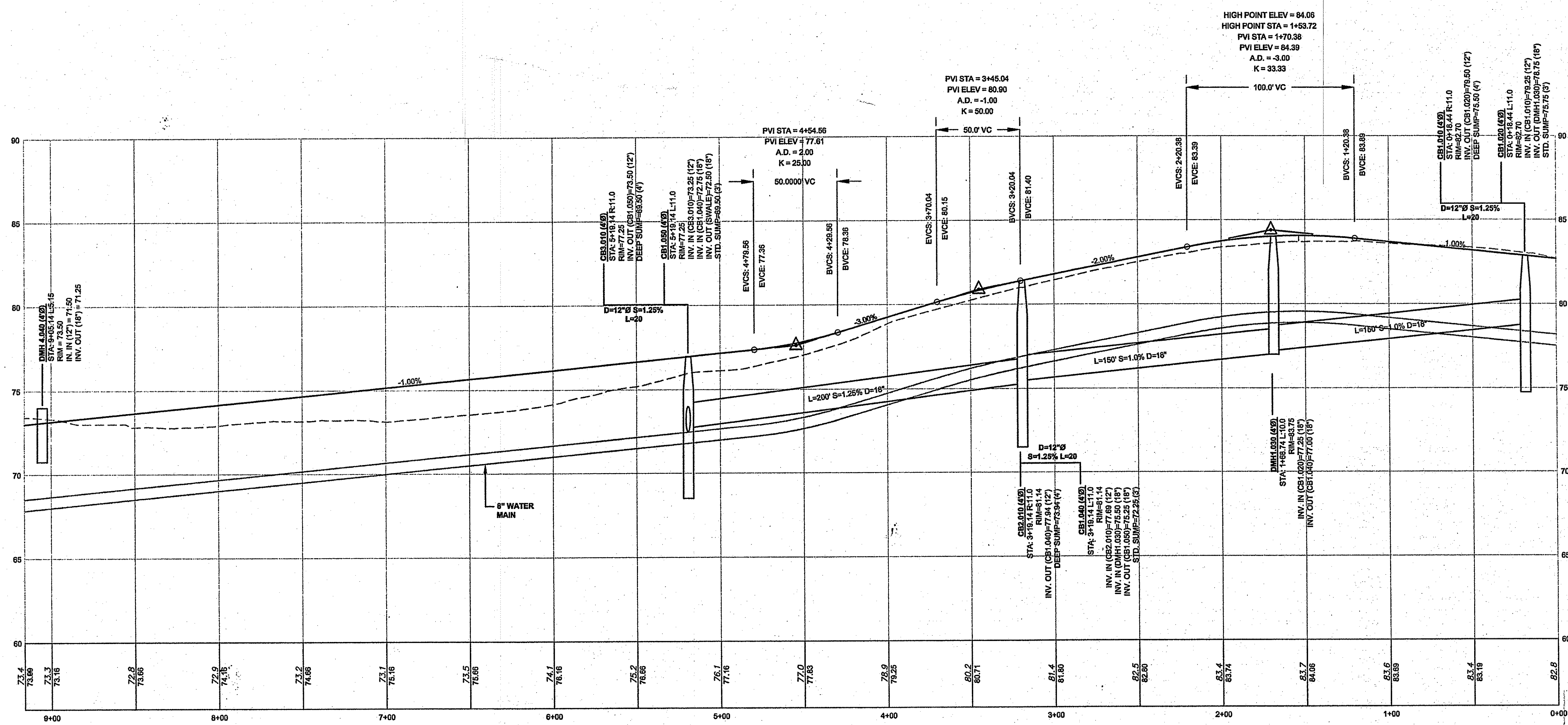
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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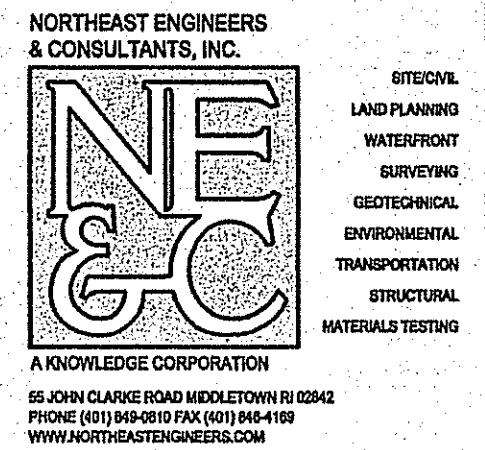
ROAD PLAN VIEW STA 0+00 - 9+6 (END)

HORIZONTAL SCALE: 1"= 40'



ROAD PROFILE STA 0+00 - 9+6 (END)

HORIZONTAL SCALE: 1"= 40'  
VERTICAL SCALE: 1"= 4'



PROJECT TITLE:  
**MIDDLE CREEK FARM SUBDIVISION**  
A.P. 128 LOT 73 (MIDDLETOWN)  
A.P. 68 LOT 71 (PORTSMOUTH)  
CORNELIUS DRIVE  
PORTSMOUTH, RI 02871

CLIENT/OWNER:  
MIDDLE CREEK FARM, LLC  
C/O MICHAEL BEHAN  
975 AQUIDNECK AVENUE  
MIDDLETOWN  
RHODE ISLAND  
02842

DESIGNED BY: GES/JJR

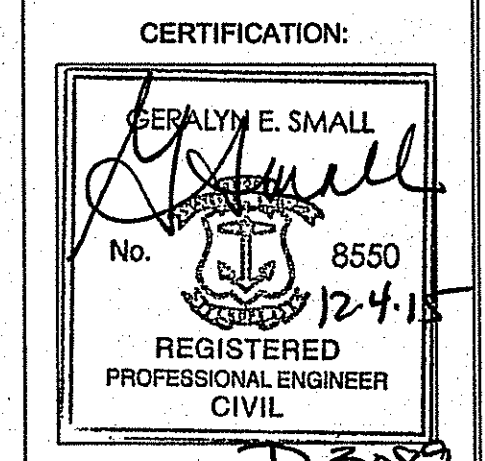
DRAWN BY: JJR

CHECKED BY: GES

DATE: 25JUN15

REVISION HISTORY:

DATE	ISSUED FOR
24NOV15	RIDEM WETLANDS



PROJECT NUMBER:  
**13172.1**

SCALE: AS SHOWN

DRAWING TITLE:  
**ROADWAY PROFILE**

DRAWING NUMBER:  
**C-14**  
SHEET 14 OF 18

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
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JAN 5 2016

PROJECT TITLE:  
**MIDDLE CREEK FARM SUBDIVISION**  
 A.P. 128 LOT 73 (MIDDLETOWN)  
 A.P. 68 LOT 71 (PORTSMOUTH)  
 CORNELIUS DRIVE  
 PORTSMOUTH, RI 02871

CLIENT/TOWNER:  
 MIDDLE CREEK FARM, LLC  
 C/O MICHAEL BEHAN  
 975 AQUIDNECK AVENUE  
 MIDDLETOWN  
 RHODE ISLAND  
 02842

DESIGNED BY: GES/JJR  
 DRAWN BY: JJR  
 CHECKED BY:  
 DATE: 07JUL15

REVISION HISTORY:

DATE	ISSUED FOR
24NOV15	RIDEM REVISIONS
30DEC15	RIDEM REVISIONS

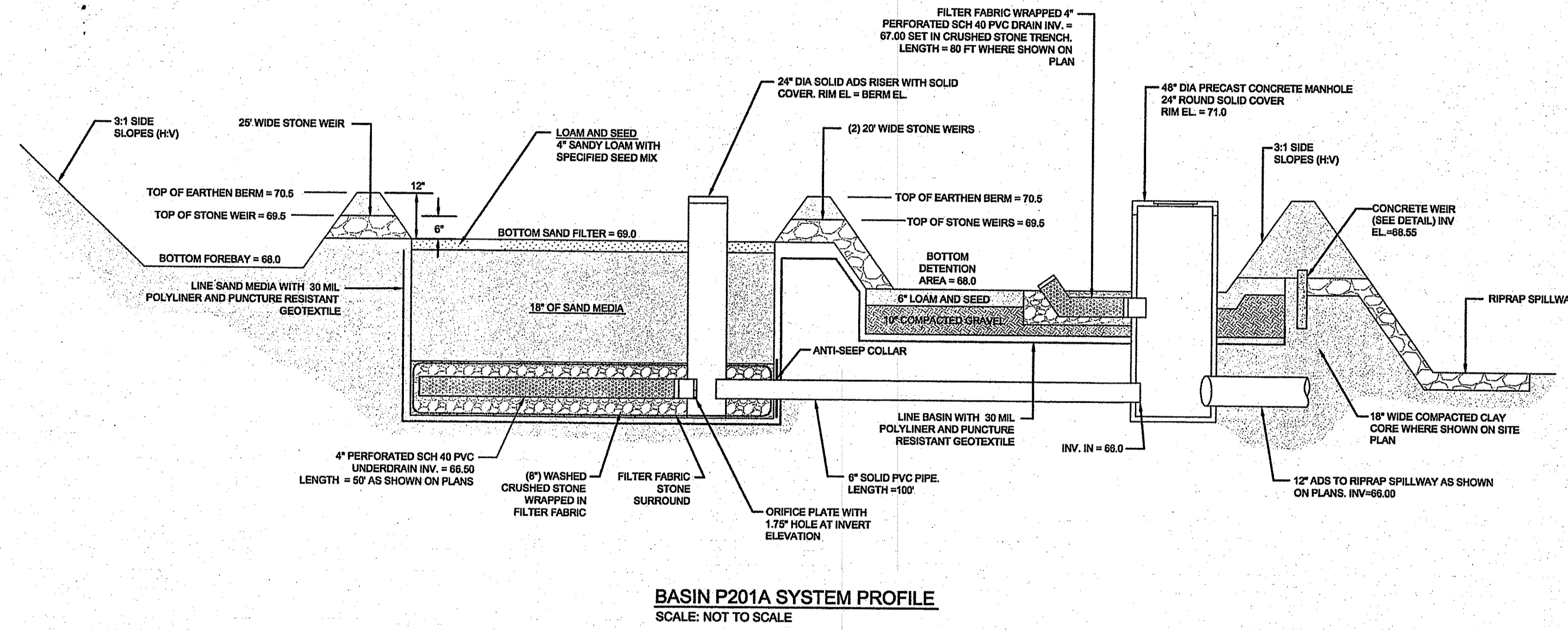
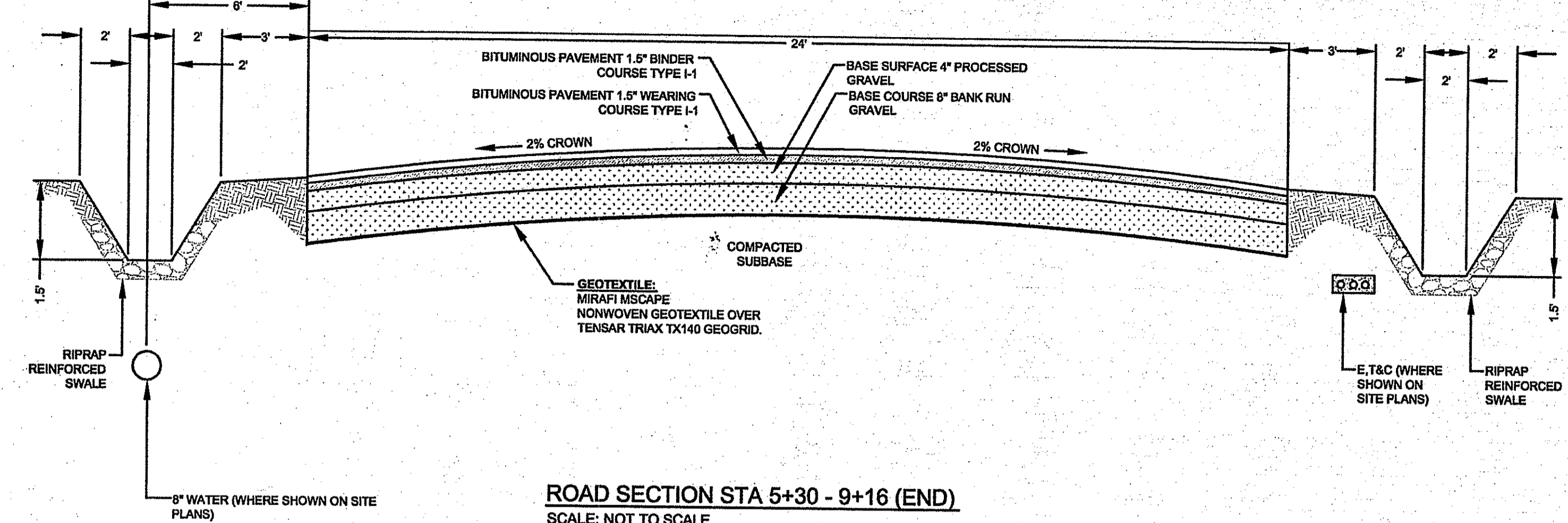
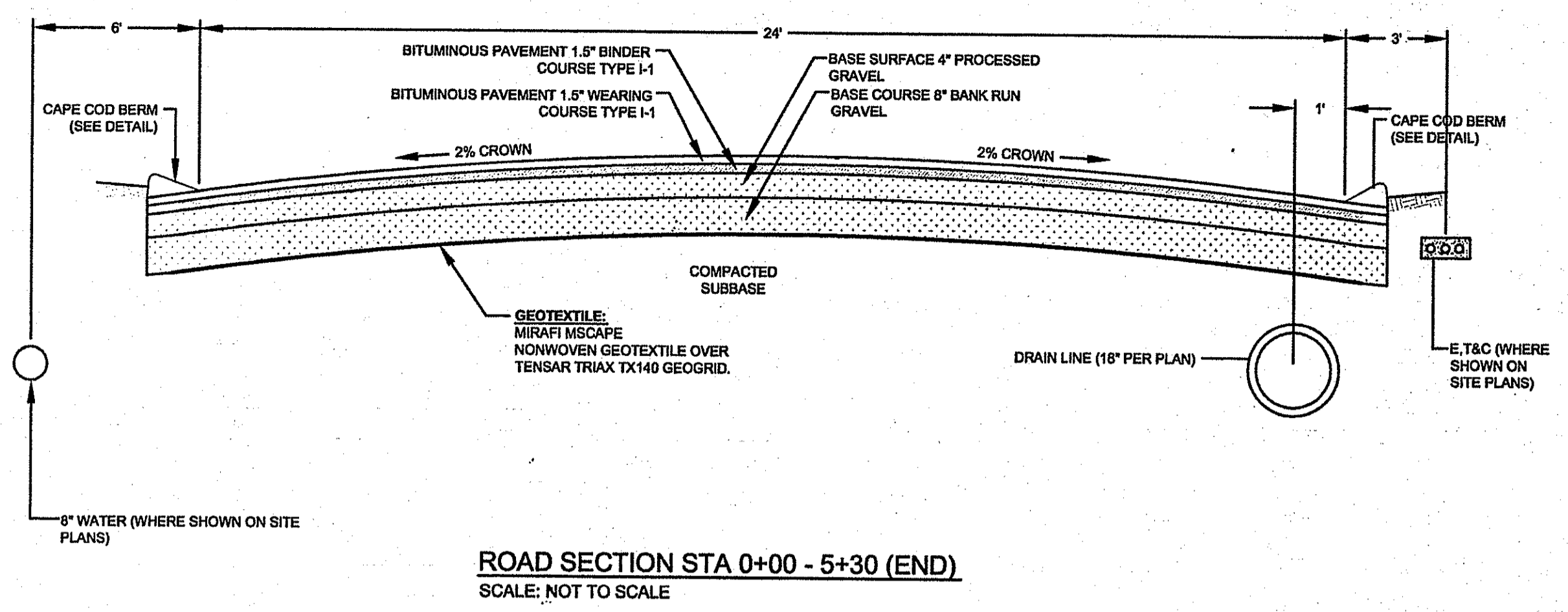
CERTIFICATION:  
 GERALYN E. SMALL  
 No. 8550  
 1-5-16  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL  
 J 5084

PROJECT NUMBER:  
**13172.1**

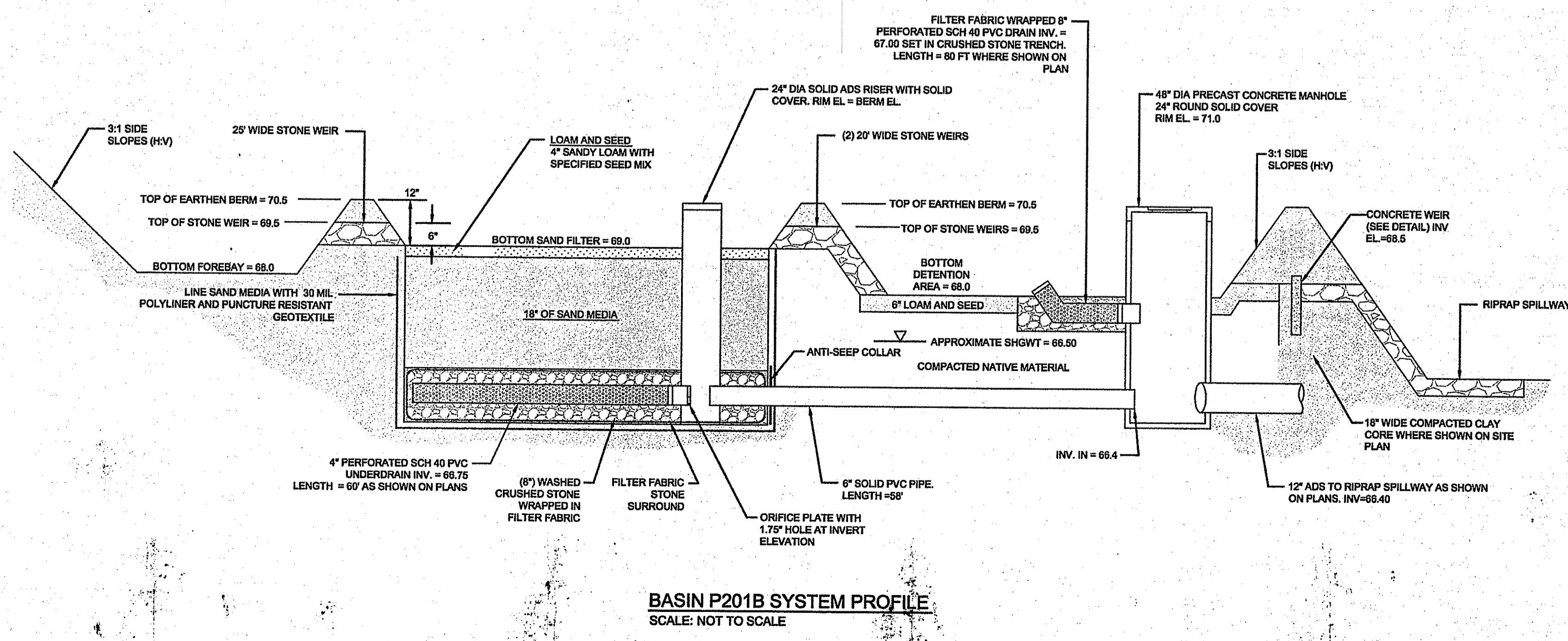
SCALE: AS SHOWN

DRAWING TITLE:  
**SITE DETAILS**

DRAWING NUMBER:  
**C-15**  
 SHEET 15 OF 18



- NOTES:
- SAND FILTER SHALL BE PLANTED WITH NEW ENGLAND WETMIX (WETLAND SEED MIX) BY NEW ENGLAND WETLAND PLANTS, INC. OR APPROVED EQUAL.
  - PLANTINGS MUST BE DENSE AND COVER THE ENTIRETY OF THE FILTER SURFACE.
  - SAND FILTER SAND TO BE CLEAN AASHTO M-6 OR ASTM C-33 CONCRETE SAND (0.02" TO 0.04"). SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO ROCK DUST CAN BE USED AS SAND.
  - UNDERDRAIN STONE SHALL CONFORM TO AASHTO M-43, 0.25" TO 0.75". MATERIAL MUST BE WASHED CLEAN CRUSHED STONE. STONE SHALL BE WRAPPED IN GEOTEXTILE CONFORMING TO MATERIAL NOTED IN 5 BELOW.
  - POLYLINER SHALL BE 30 MIL IN THICKNESS (ASTM D 751), SHALL HAVE A TENSILE STRENGTH OF 1,100 LBS AND AN ELONGATION OF 200% (ASTM D 412) A TEAR RESISTANCE OF 150 LBS/IN (ASTM D 624) AND WATER ADSORPTION OF +8 TO -2% MASS (ASTM D 471). LINER SHALL BE ULTRAVIOLET RESISTANT. GEOTEXTILE FABRIC SHALL HAVE A PUNCTURE STRENGTH OF 125 LBS, A BURST STRENGTH OF 400 PSI (ASTM D 1117) AND A TENSILE STRENGTH OF 300 LBS (ASTM D 1682). FABRIC SHALL BE MIN 0.08" THICK WITH AN EQUIVALENT OPENING SIZE OF #90 SIEVE AND A MINIMUM FLOW RATE OF 125 GPM PER SQUARE FOOT.
  - UNDERDRAIN SHALL BE SCHEDULE 40 PVC PIPE CONFORMING TO ASTM D-1785 OR AASHTO M-278. PERFORATIONS SHALL BE 3/8" @ 6" ON CENTER. PIPE SHALL HAVE 3" OF STONE OVER PIPE.



- NOTES:
- SAND FILTER SHALL BE PLANTED WITH NEW ENGLAND WETMIX (WETLAND SEED MIX) BY NEW ENGLAND WETLAND PLANTS, INC. OR APPROVED EQUAL.
  - PLANTINGS MUST BE DENSE AND COVER THE ENTIRETY OF THE FILTER SURFACE.
  - SAND FILTER SAND TO BE CLEAN AASHTO M-6 OR ASTM C-33 CONCRETE SAND (0.02" TO 0.04"). SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO ROCK DUST CAN BE USED AS SAND.
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JAN 5 2016

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
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 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

**PROJECT TITLE:**

**MIDDLE CREEK FARM SUBDIVISION**

A.P. 128 LOT 73 (MIDDLETOWN)  
 A.P. 68 LOT 71 (PORTSMOUTH)  
 CORNELIUS DRIVE  
 PORTSMOUTH, RI 02871

**CLIENT/OWNER:**

MIDDLE CREEK FARM, LLC  
 C/O MICHAEL BEHAN  
 975 AQUIDNECK AVENUE  
 MIDDLETOWN  
 RHODE ISLAND  
 02842

**DESIGNED BY:** GES/JJR

**DRAWN BY:** JJR

**CHECKED BY:**

**DATE:** 07JUL15

**REVISION HISTORY:**

DATE	ISSUED FOR
24NOV15	RIDEM REVISIONS
30DEC15	RIDEM REVISIONS

**CERTIFICATION:**

GERALD E. SMALL  
 No. 8550  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL

D3089

**PROJECT NUMBER:**

13172.1

**SCALE:** AS SHOWN

**DRAWING TITLE:**

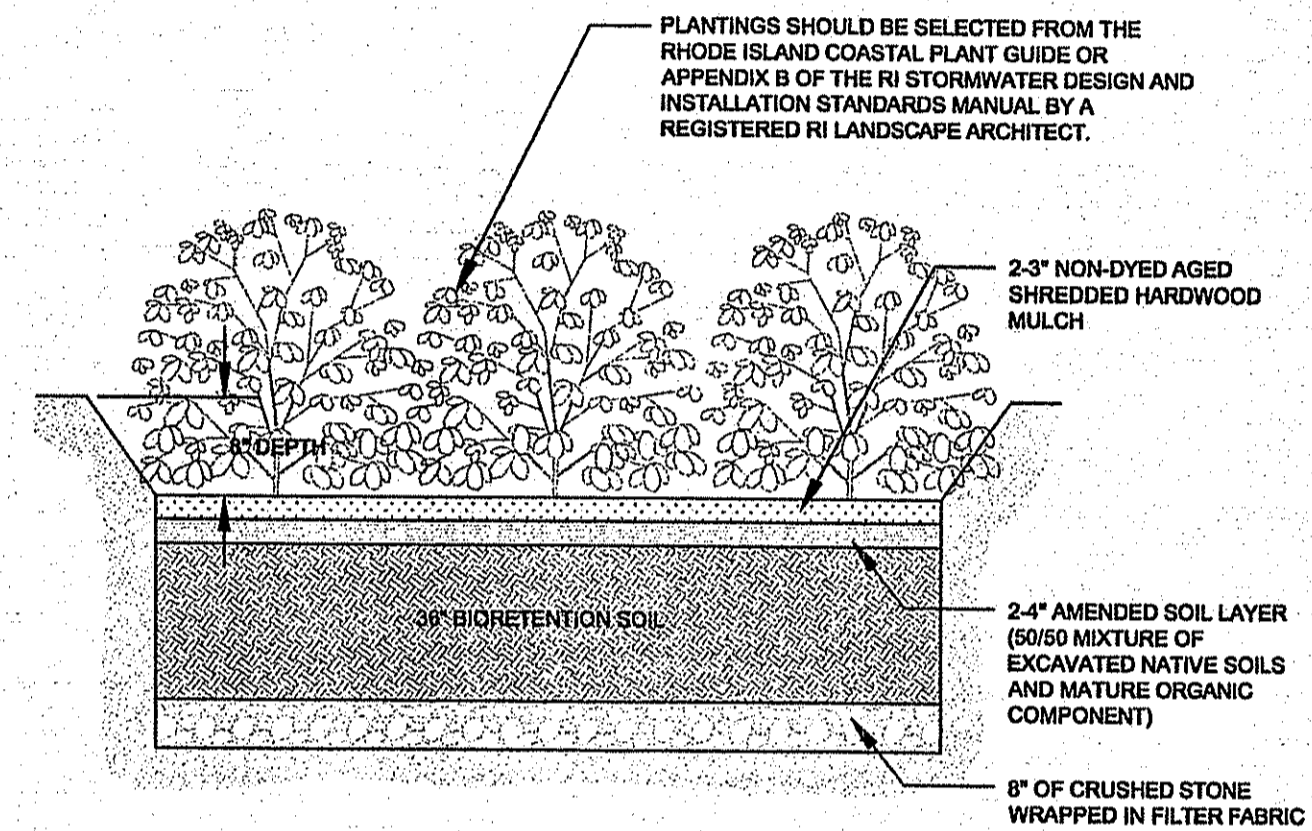
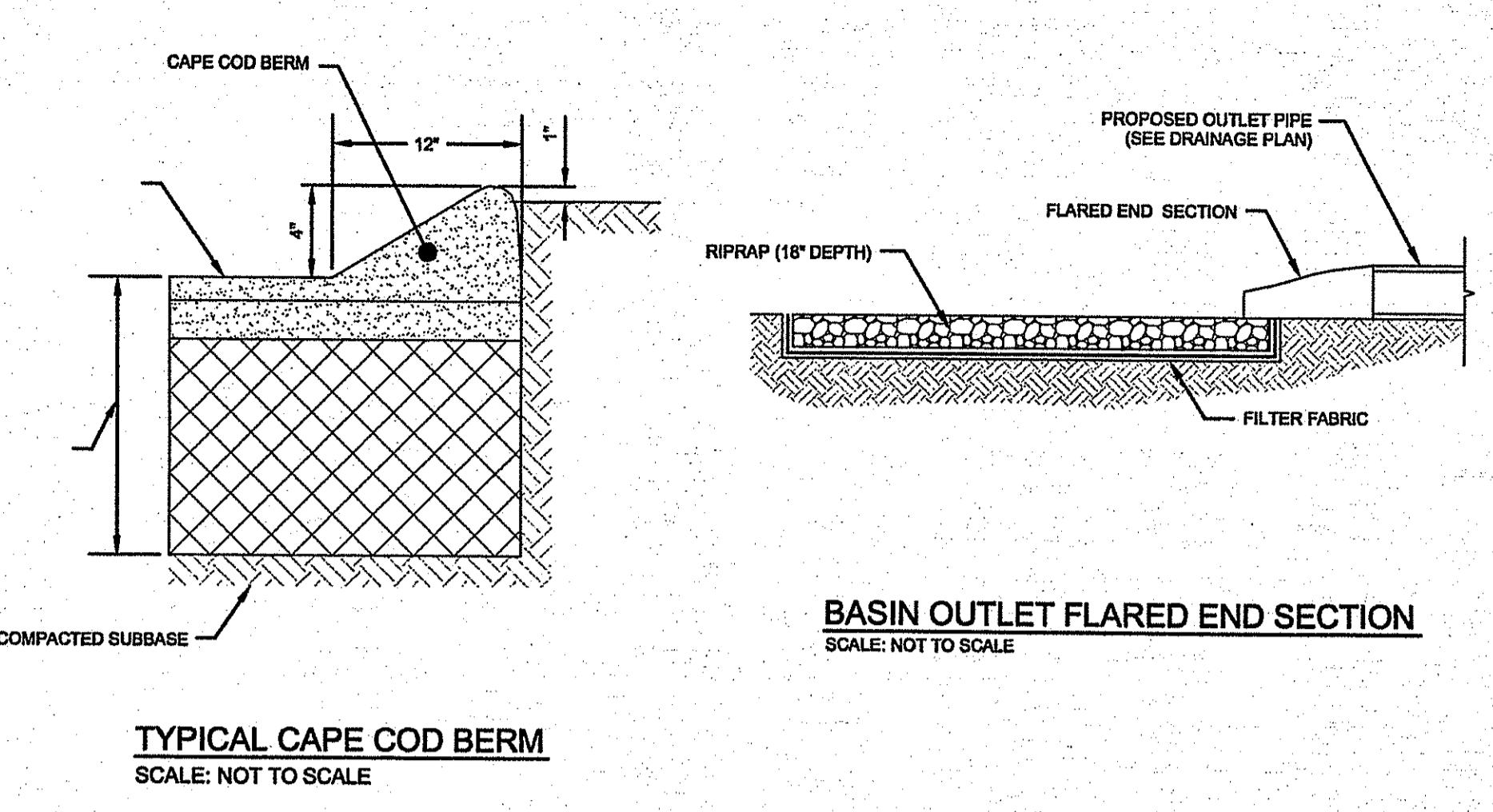
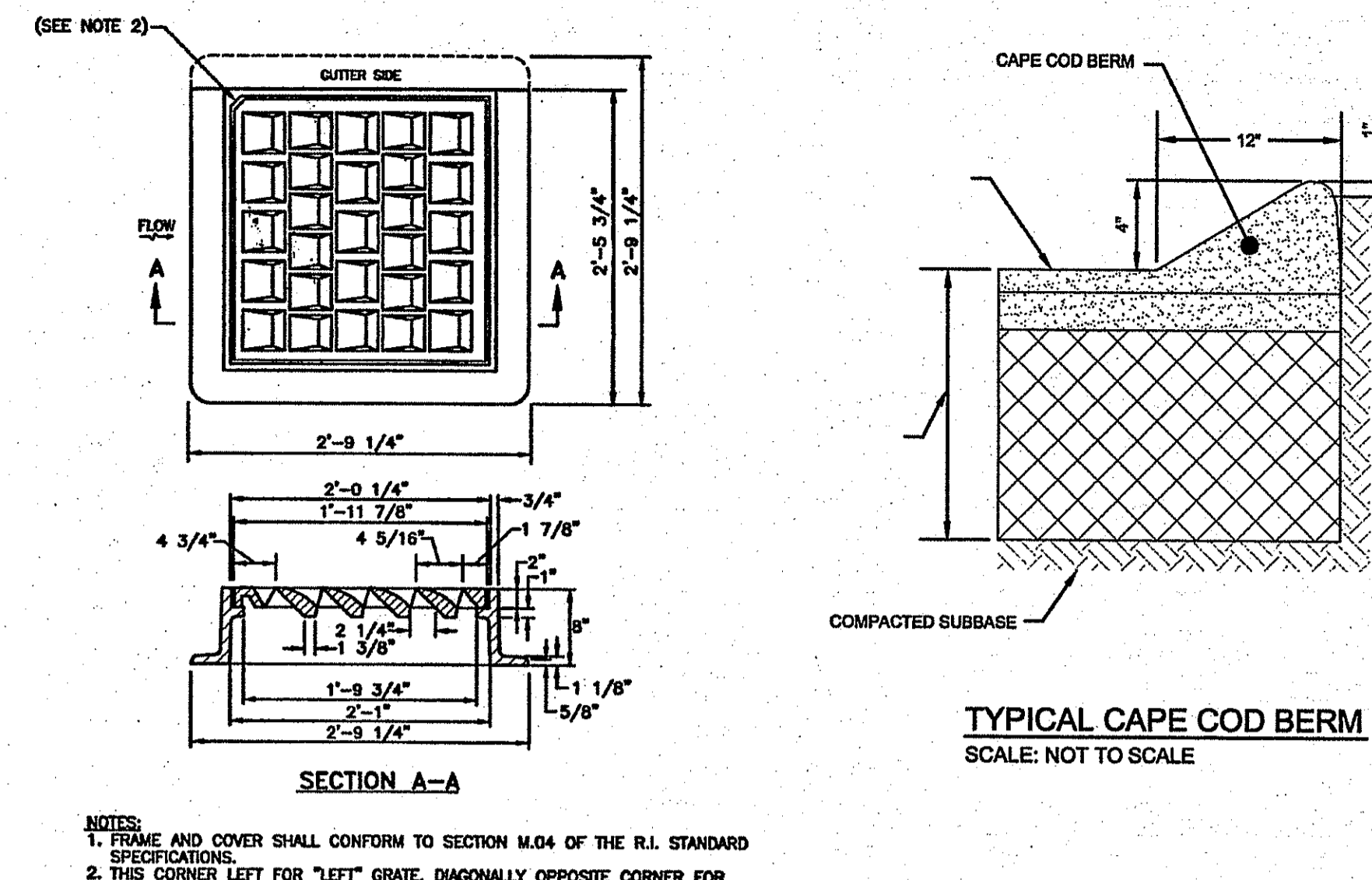
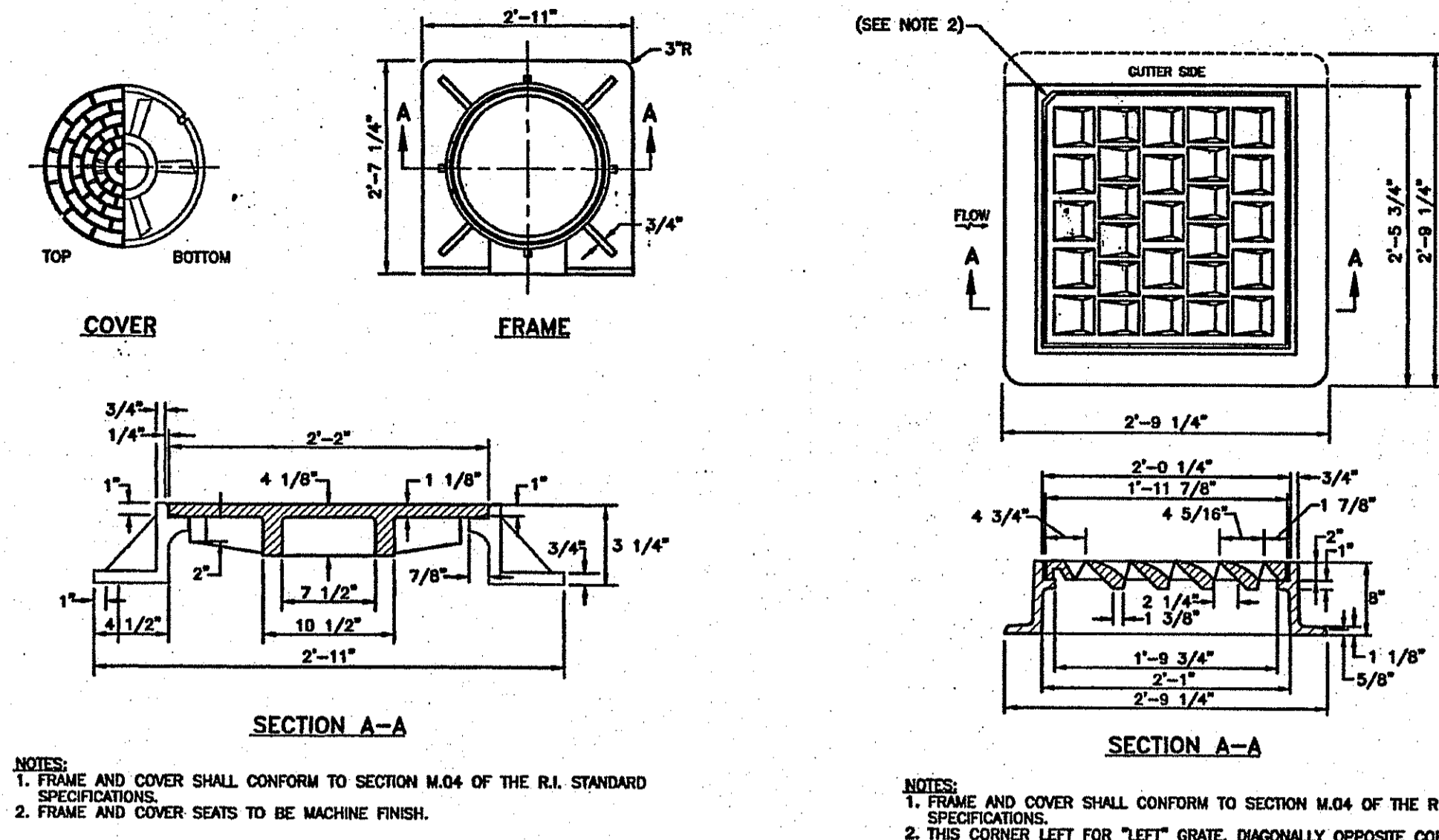
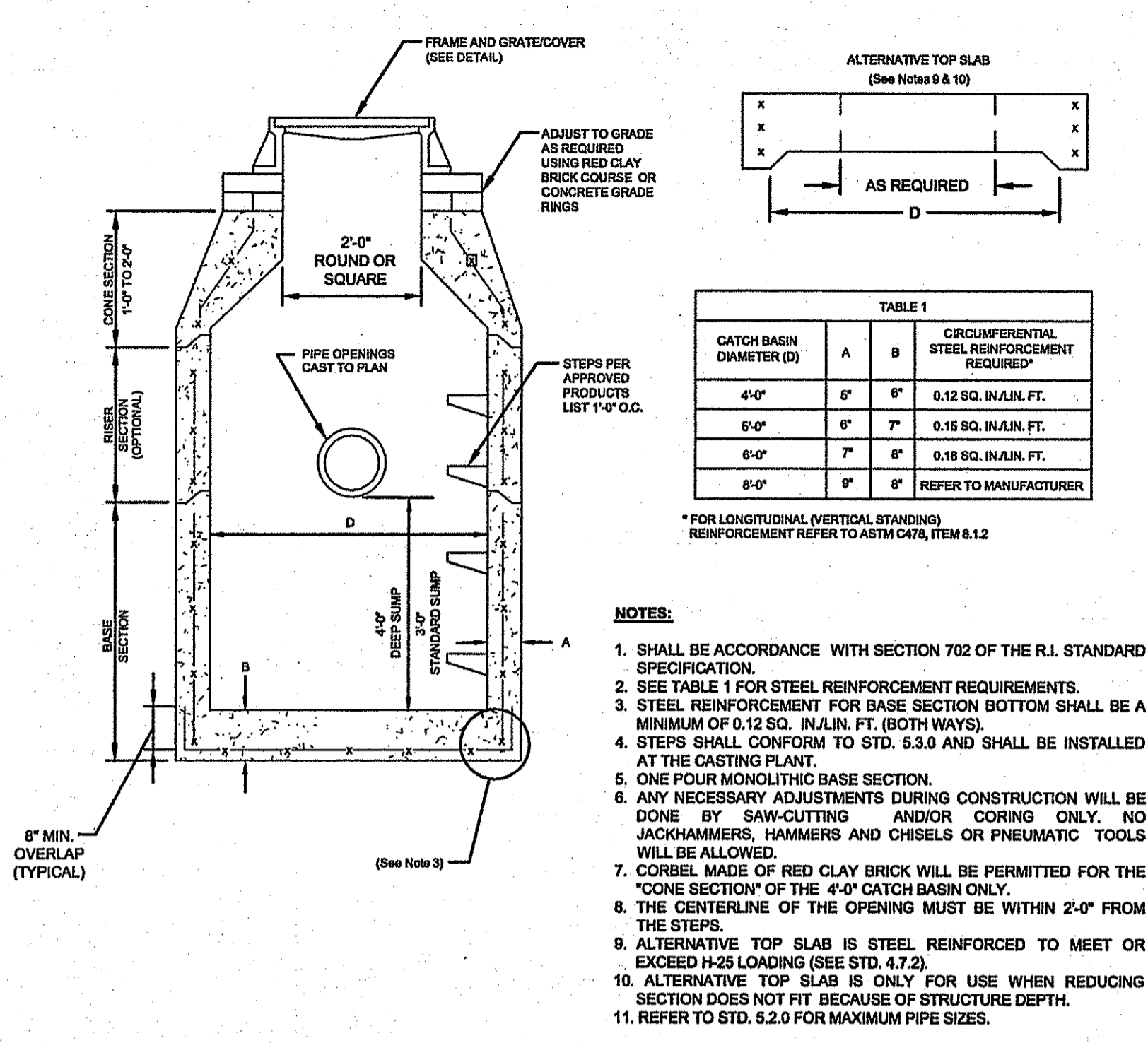
**SITE DETAILS**

**DRAWING NUMBER:**

**C-16**

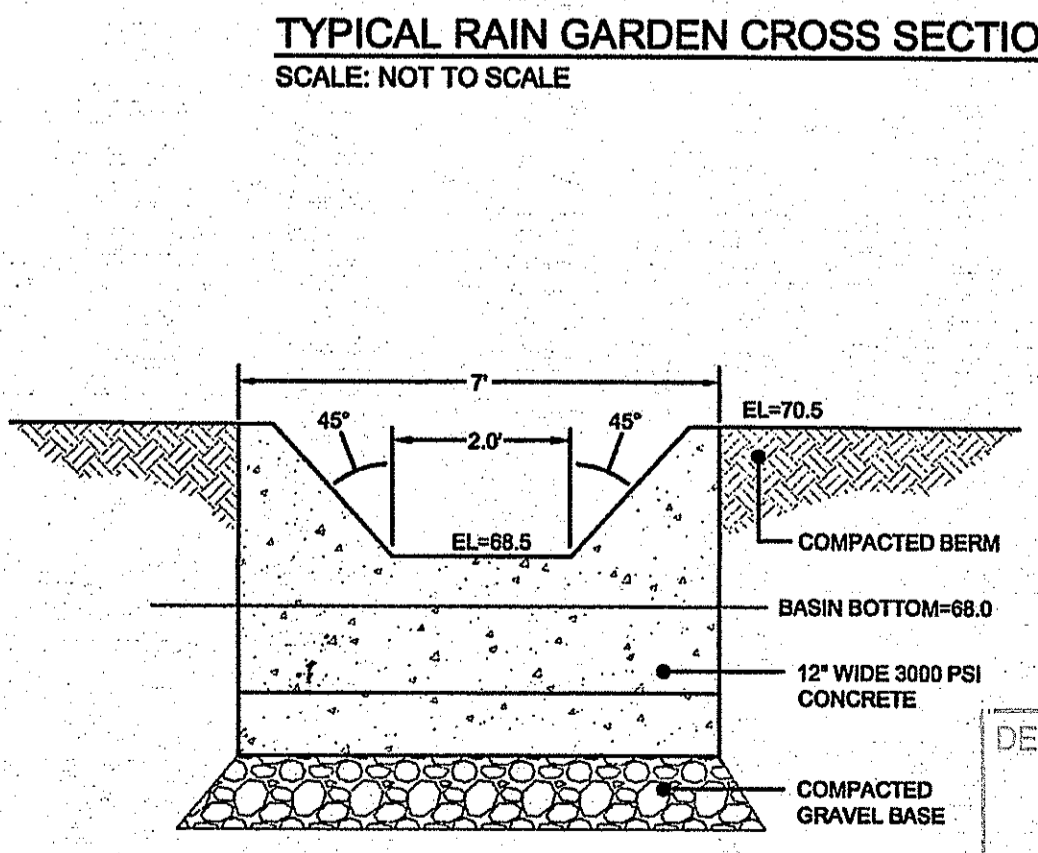
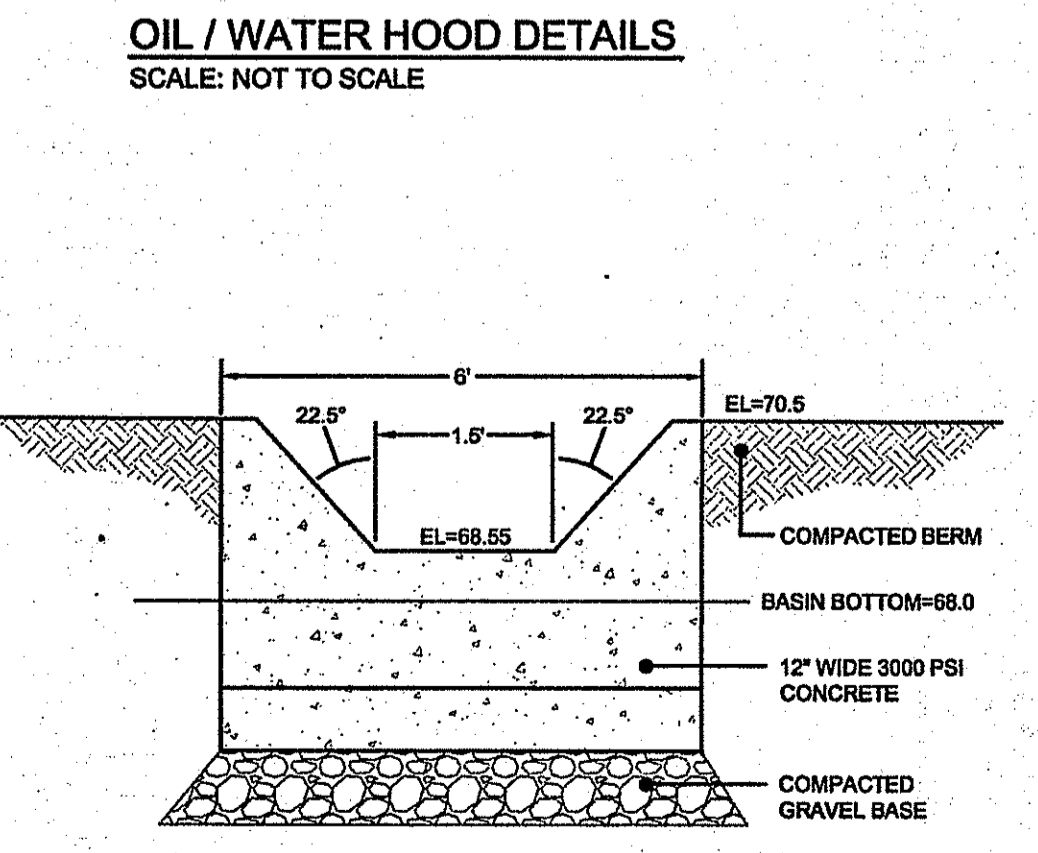
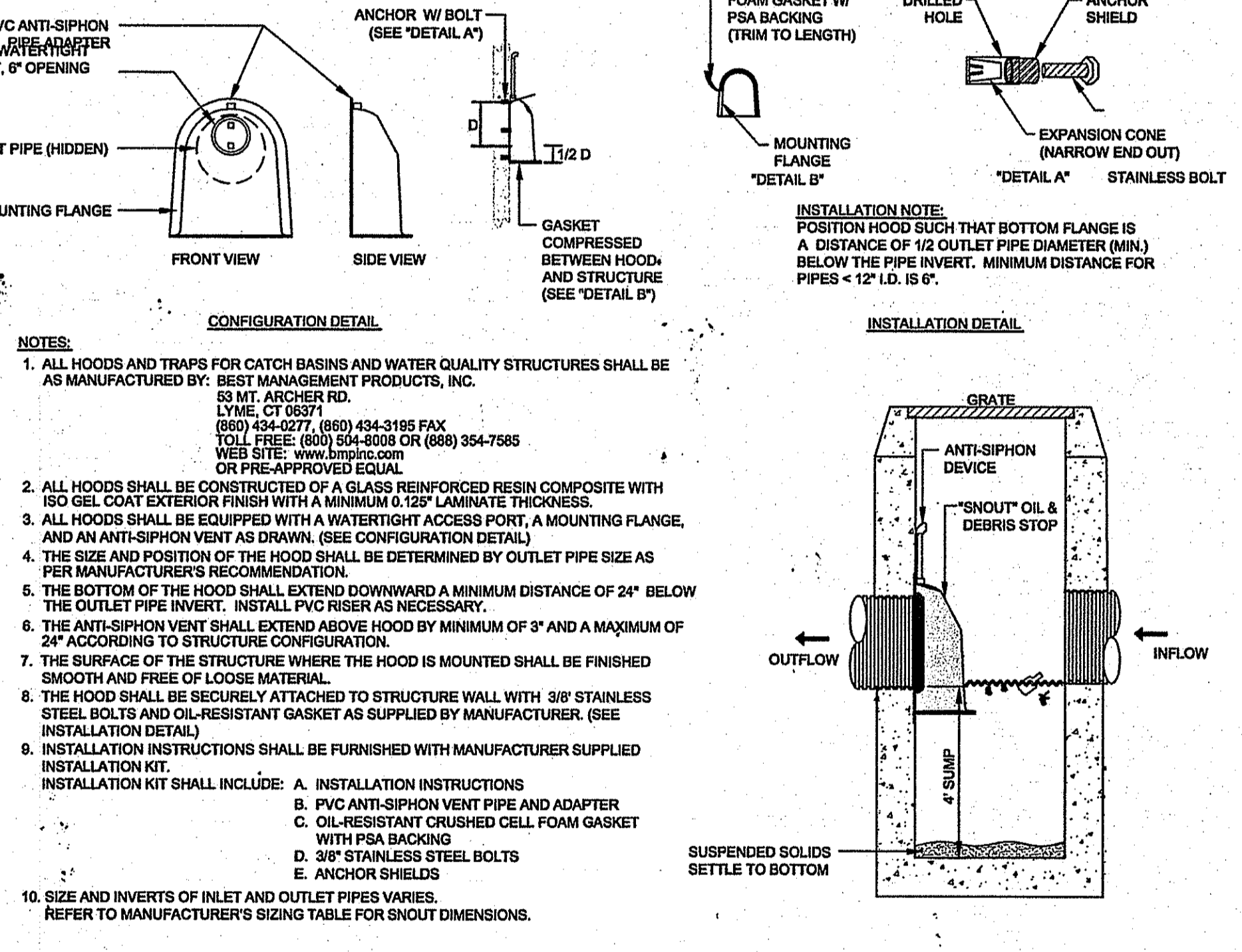
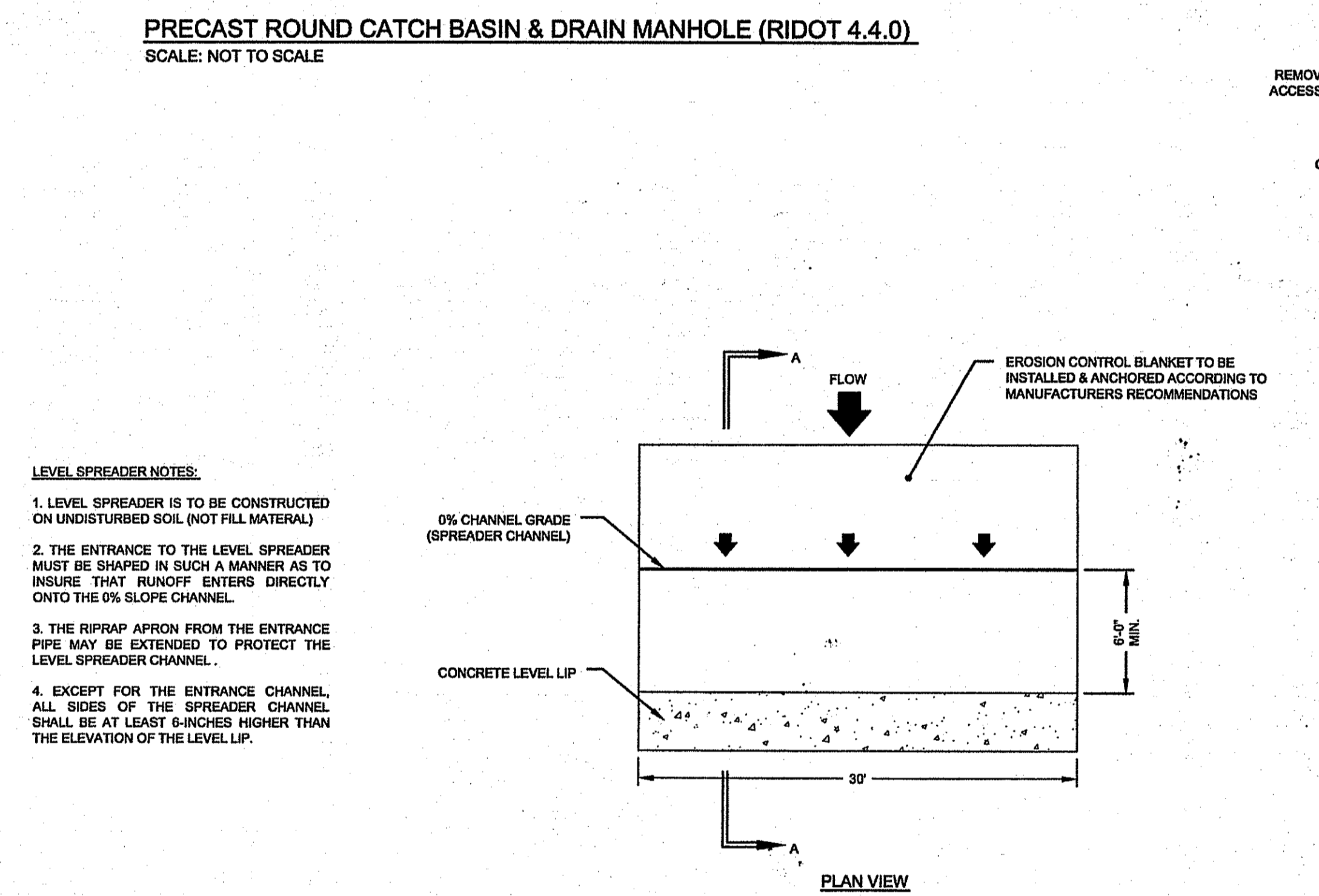
**SHEET 16 OF 18**

OWNERSHIP AND USE OF DOCUMENTS: DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER. THESE DOCUMENTS ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECTS OR PURPOSES, OR BY ANY OTHER PARTIES, THAN THOSE PROPERLY AUTHORIZED BY CONTRACT, WITHOUT THE EXPRESS AUTHORIZATION OF THE ENGINEER.



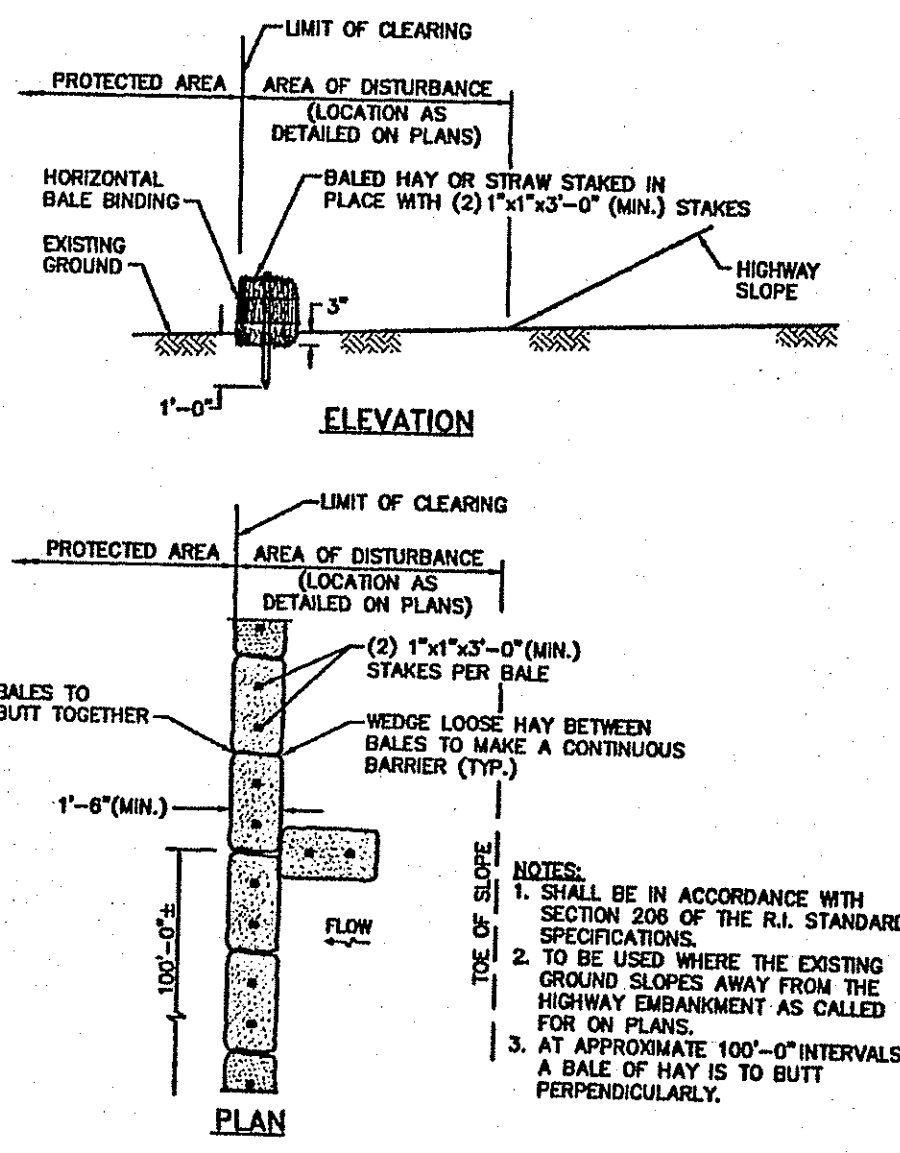
LOT NUMBER	RESIDENCE AREA (SF)	GARDEN AREA REQUIRED (SF)	RESIDENCE GARDEN ID#	DRIVEWAY AREA (SF)	GARDEN AREA REQUIRED (SF)	DRIVEWAY GARDEN ID#
1	3,729	NONE	N/A	3,051	N/A	N/A
2	4,000	640	R1	1,600	256	R2
3	4,000	640	R3	1,050	168	R4
4	4,000	640	R5	662	106	R6
5	4,000	640	R7	662	106	R8
6	4,000	640	R9	1,726	276	R10
7	4,000	640	R11	5,700	912	R12
8	4,000	640	R13	1,060	170	R14
9	4,000	640	R15	1,300	208	R16
10	4,000	640	R17	1,647	264	R18
11	4,000	640	R19	1,578	253	R20

\*BASED ON 160 SQ. FT. OF 8 INCH DEEP RAIN GARDEN PER 1,000 SQ. FT. OF CONTRIBUTING IMPERVIOUS AREA

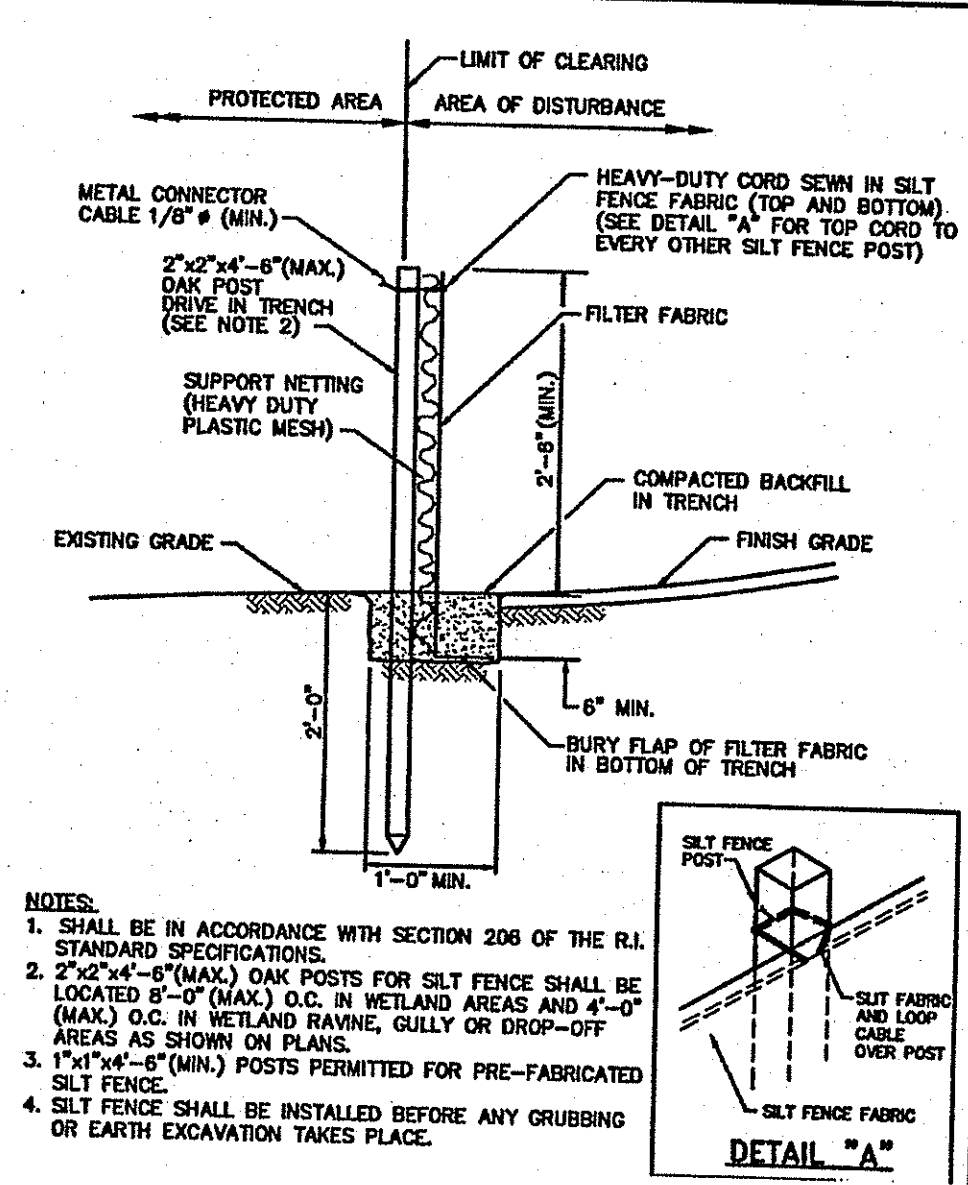


DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JAN 08 2016 FILE # 15-0187  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

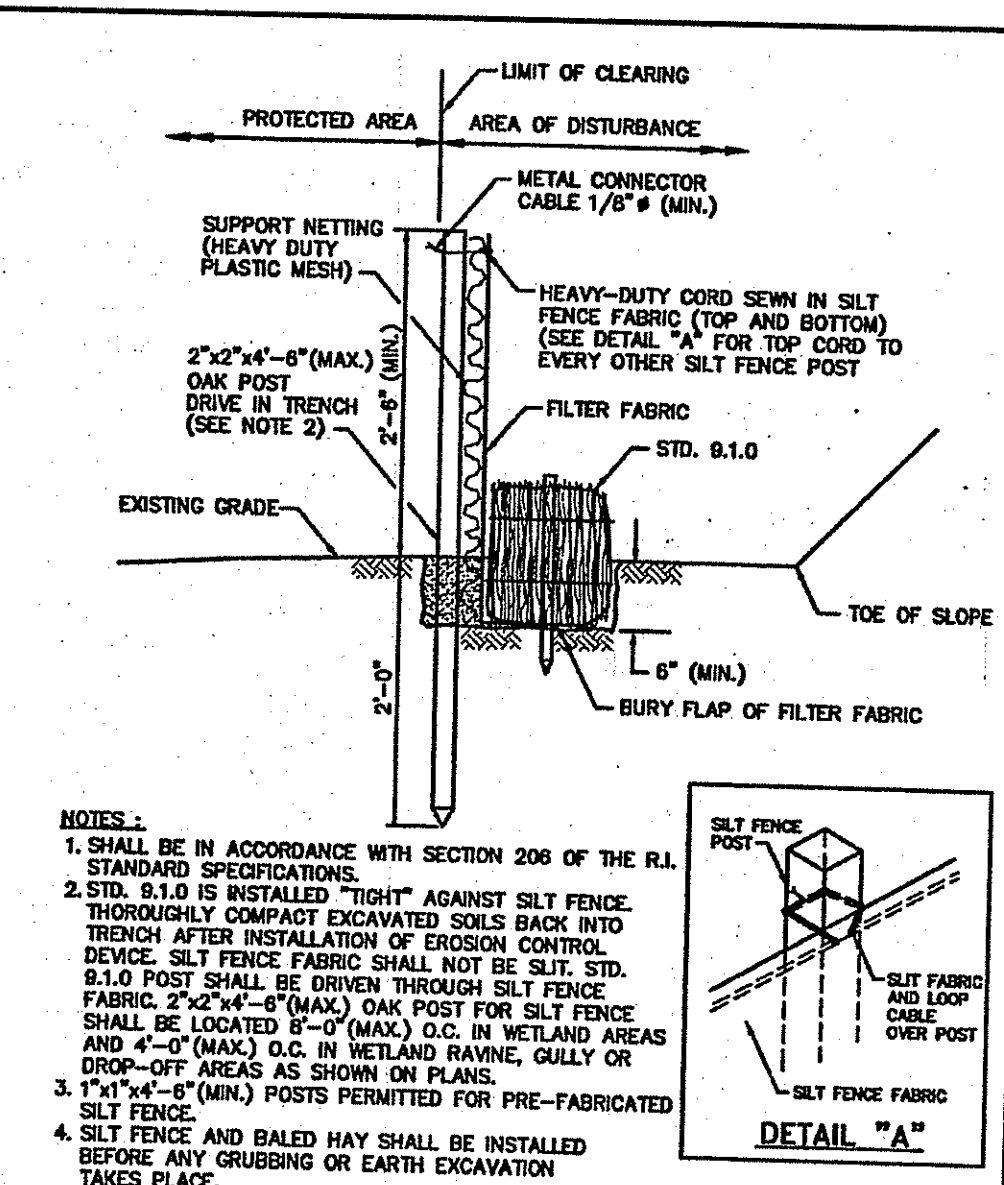




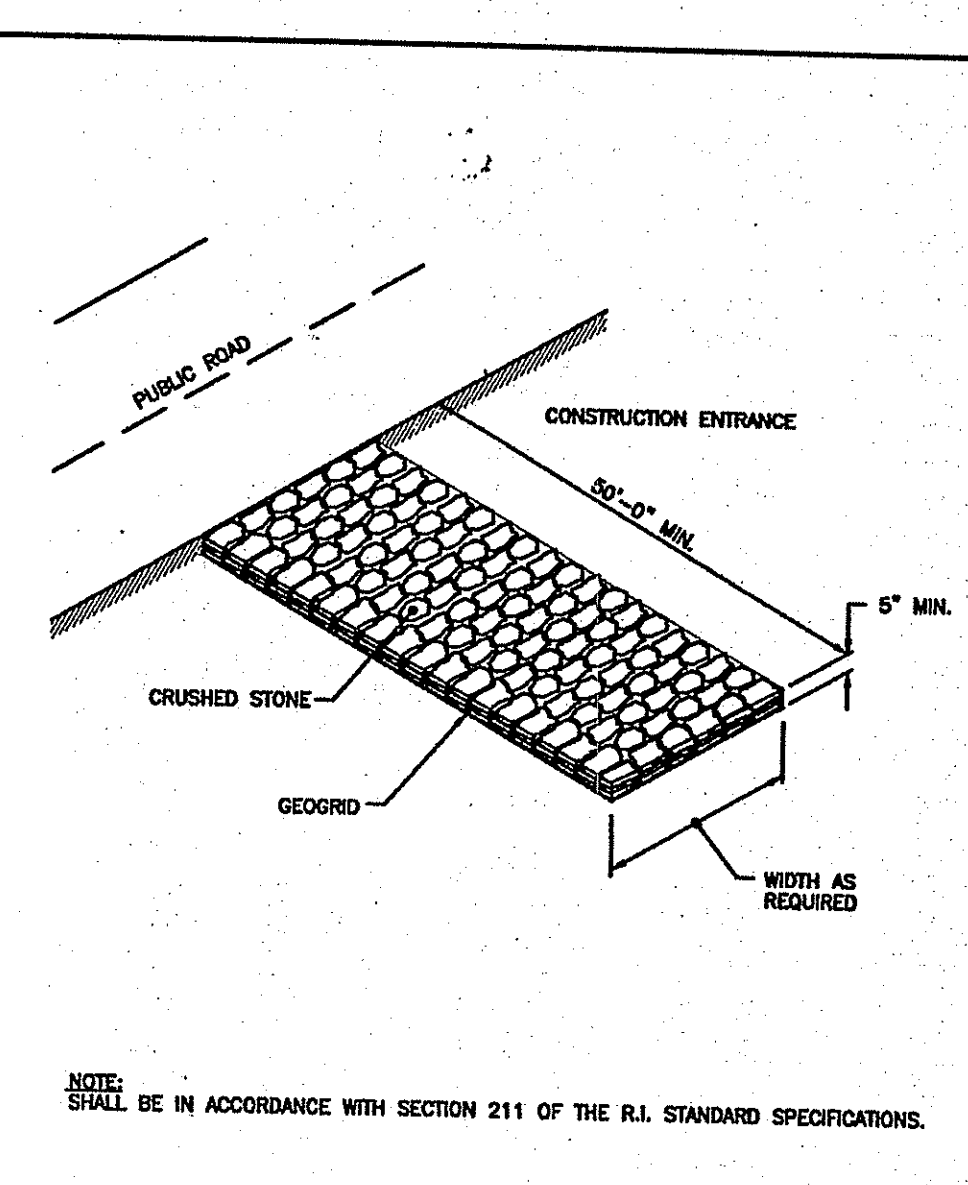
**BALED HAY EROSION CHECK (RIDOT 9.1.0)**  
SCALE: NOT TO SCALE



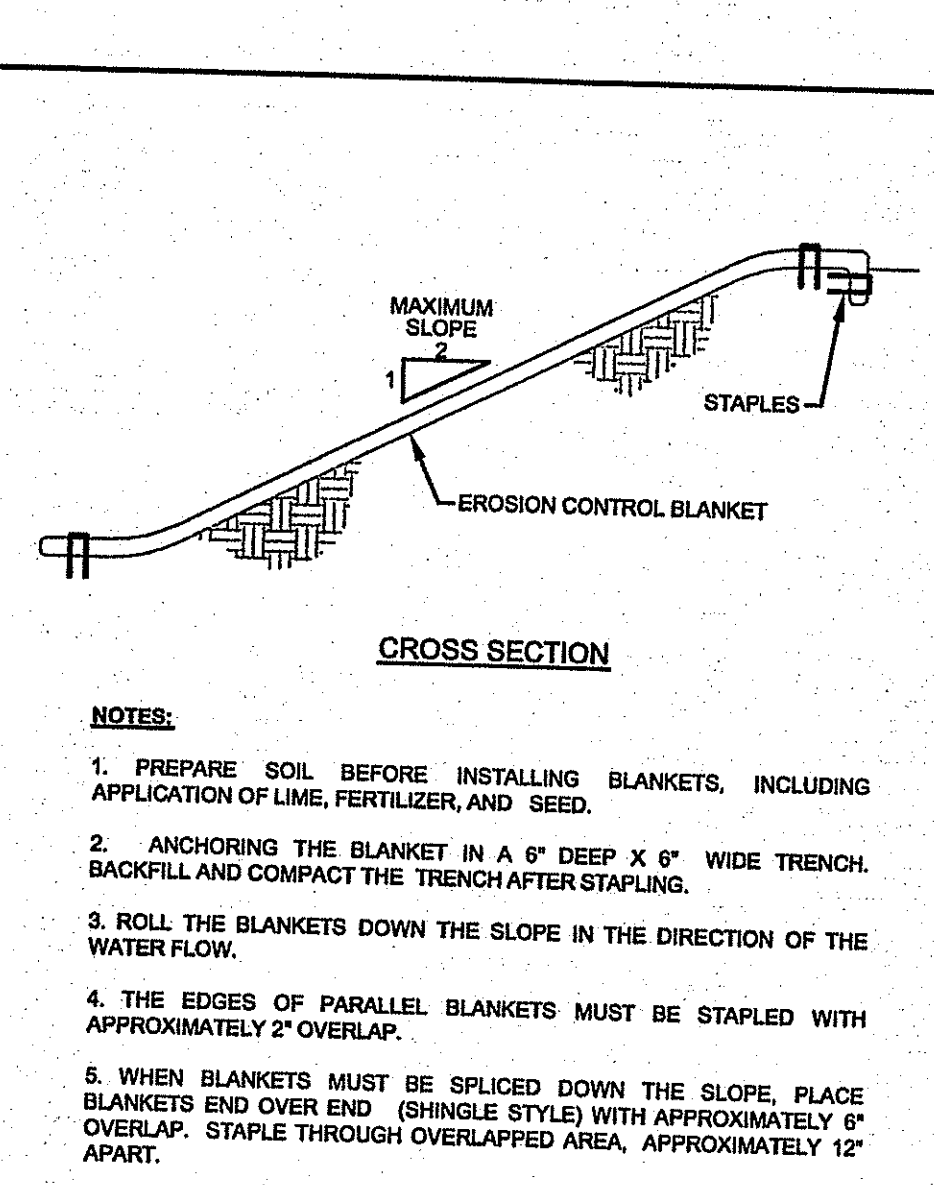
**SILT FENCE EROSION CHECK (RIDOT 9.2.0)**  
SCALE: NOT TO SCALE



**BALED HAY EROSION CHECK AND SILT FENCE COMBINED (RIDOT 9.3.0)**  
SCALE: NOT TO SCALE

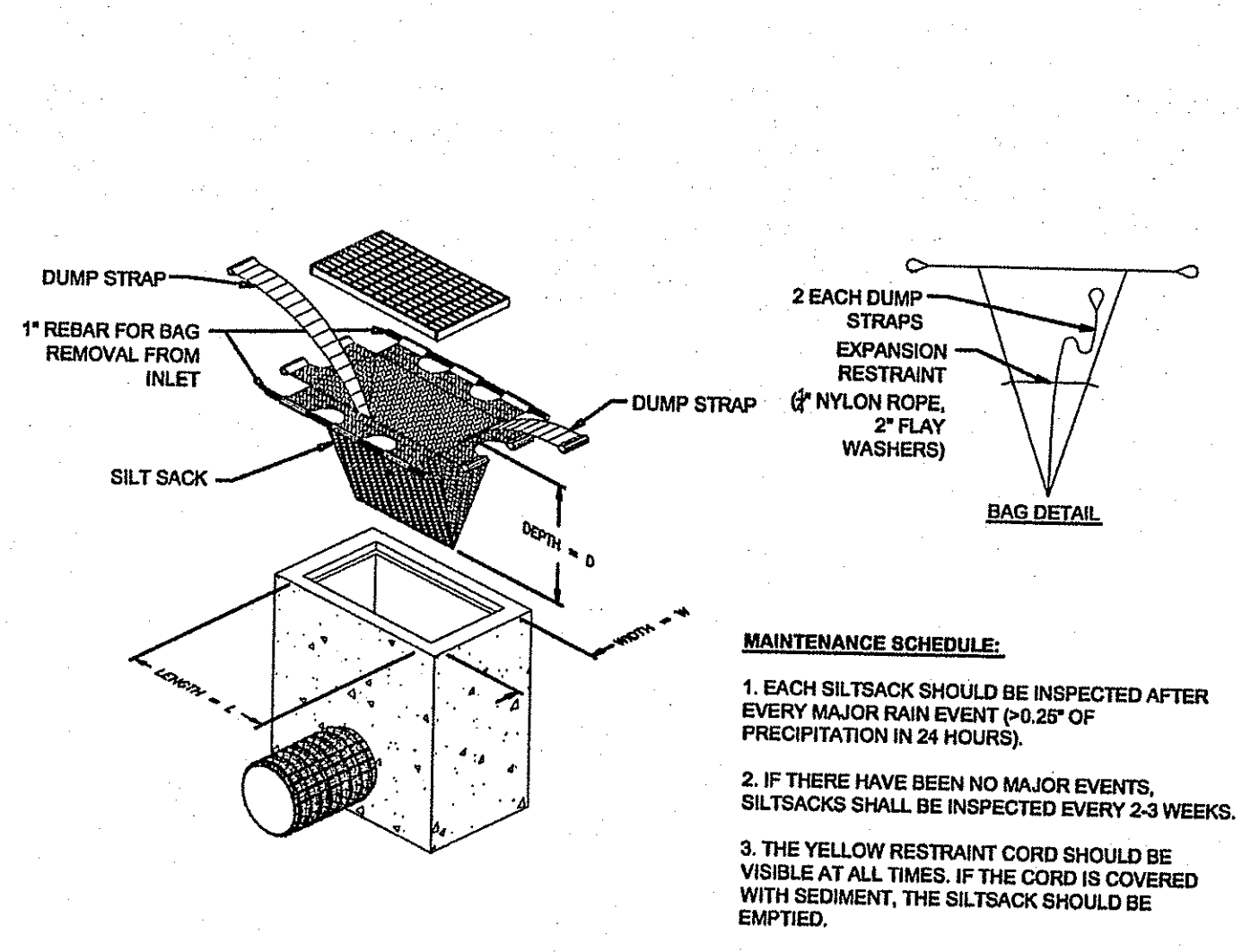


**STONE CONSTRUCTION ACCESS (RIDOT 9.9.0)**  
SCALE: NOT TO SCALE



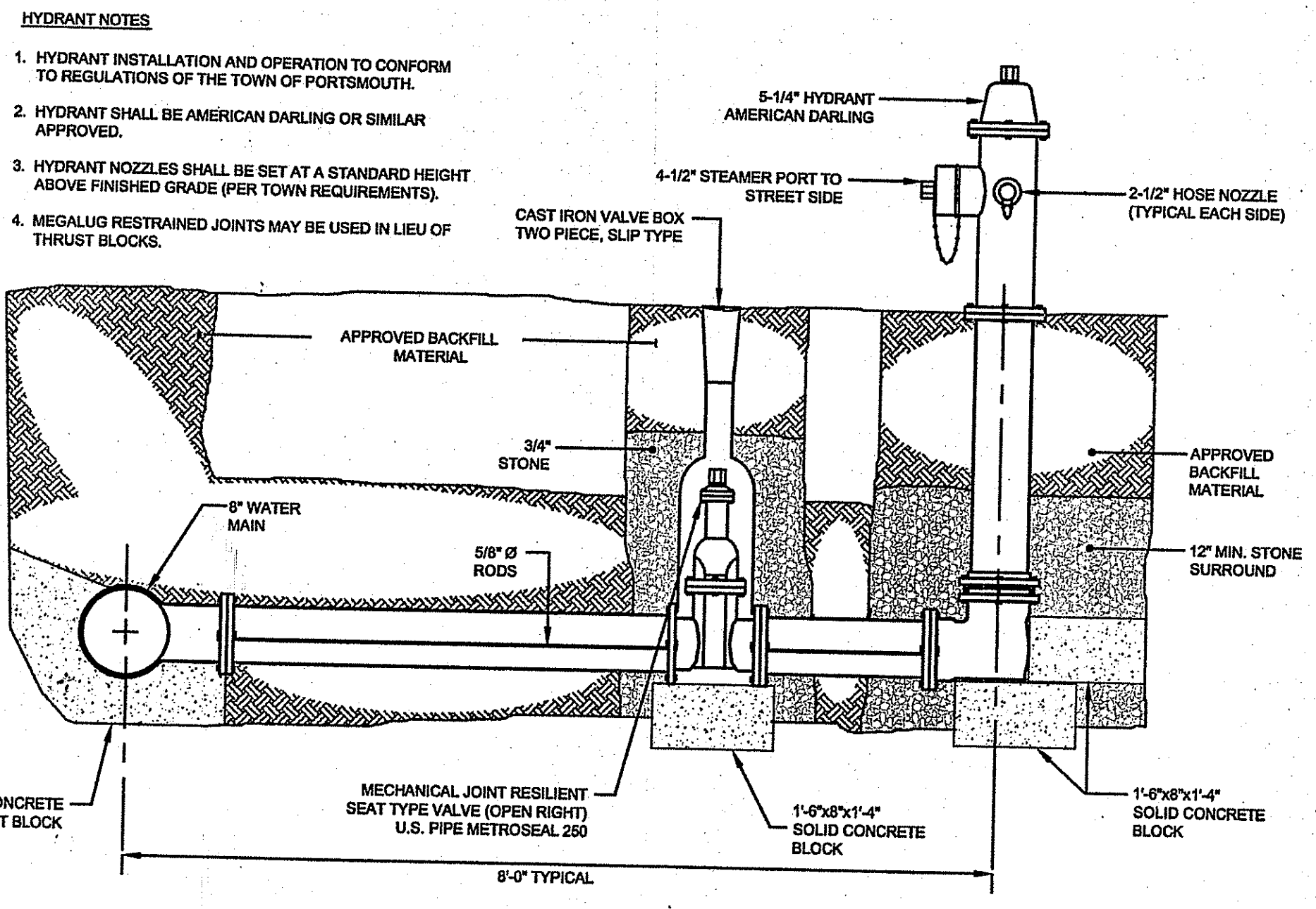
**EROSION CONTROL BLANKET**  
SCALE: NOT TO SCALE

- NOTES:**
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
  2. ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
  3. ROLL THE BLANKETS DOWN THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
  4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
  5. WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

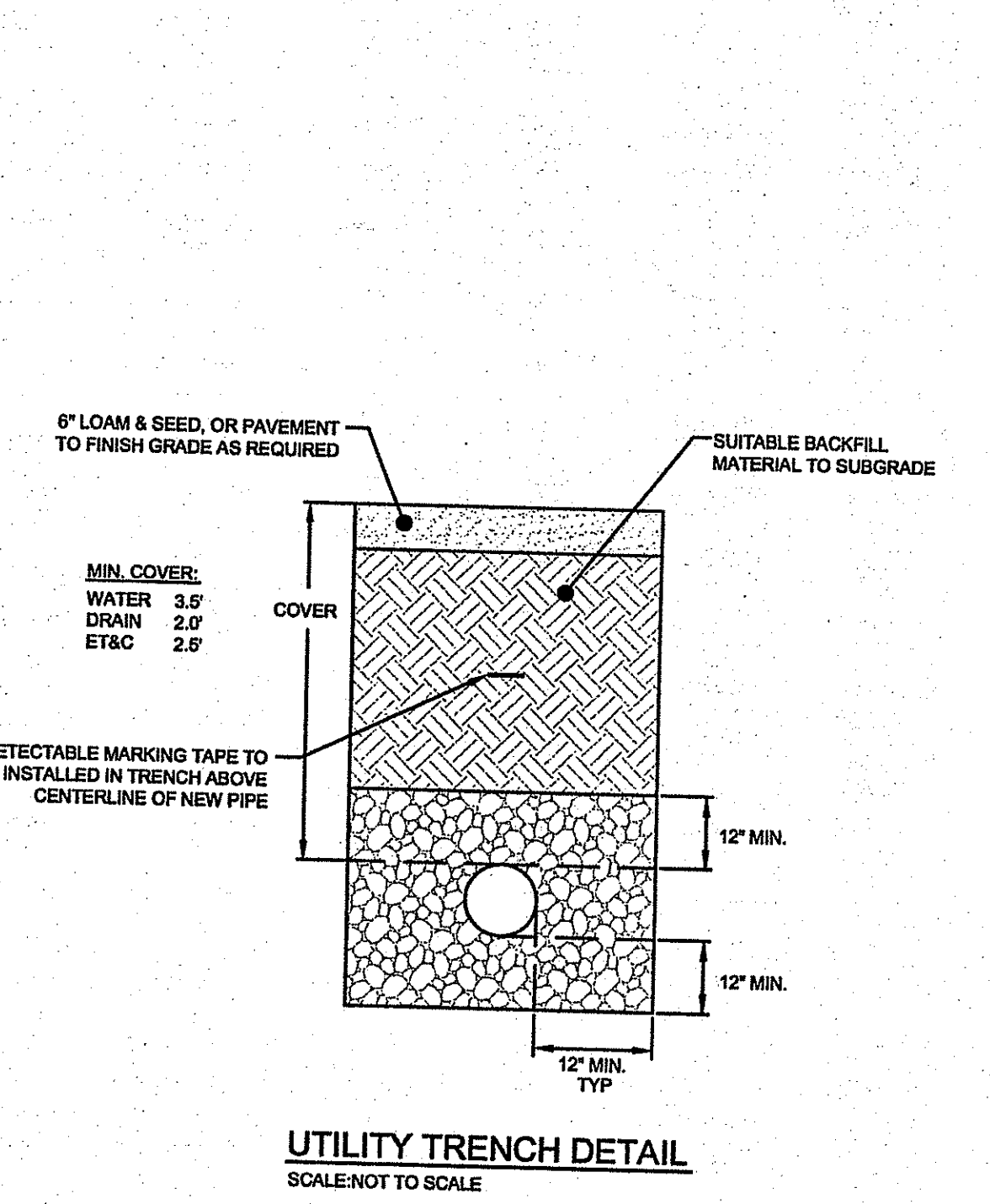


**SILT SACK DETAIL**  
SCALE: NOT TO SCALE

- MAINTENANCE SCHEDULE:**
1. EACH SILT SACK SHOULD BE INSPECTED AFTER EVERY MAJOR RAIN EVENT (>0.25" OF PRECIPITATION IN 24 HOURS).
  2. IF THERE HAVE BEEN NO MAJOR EVENTS, SILT SACKS SHALL BE INSPECTED EVERY 2-3 WEEKS.
  3. THE YELLOW RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF THE CORD IS COVERED WITH SEDIMENT, THE SILT SACK SHOULD BE EMPTIED.



**HYDRANT DETAIL**  
SCALE: NOT TO SCALE



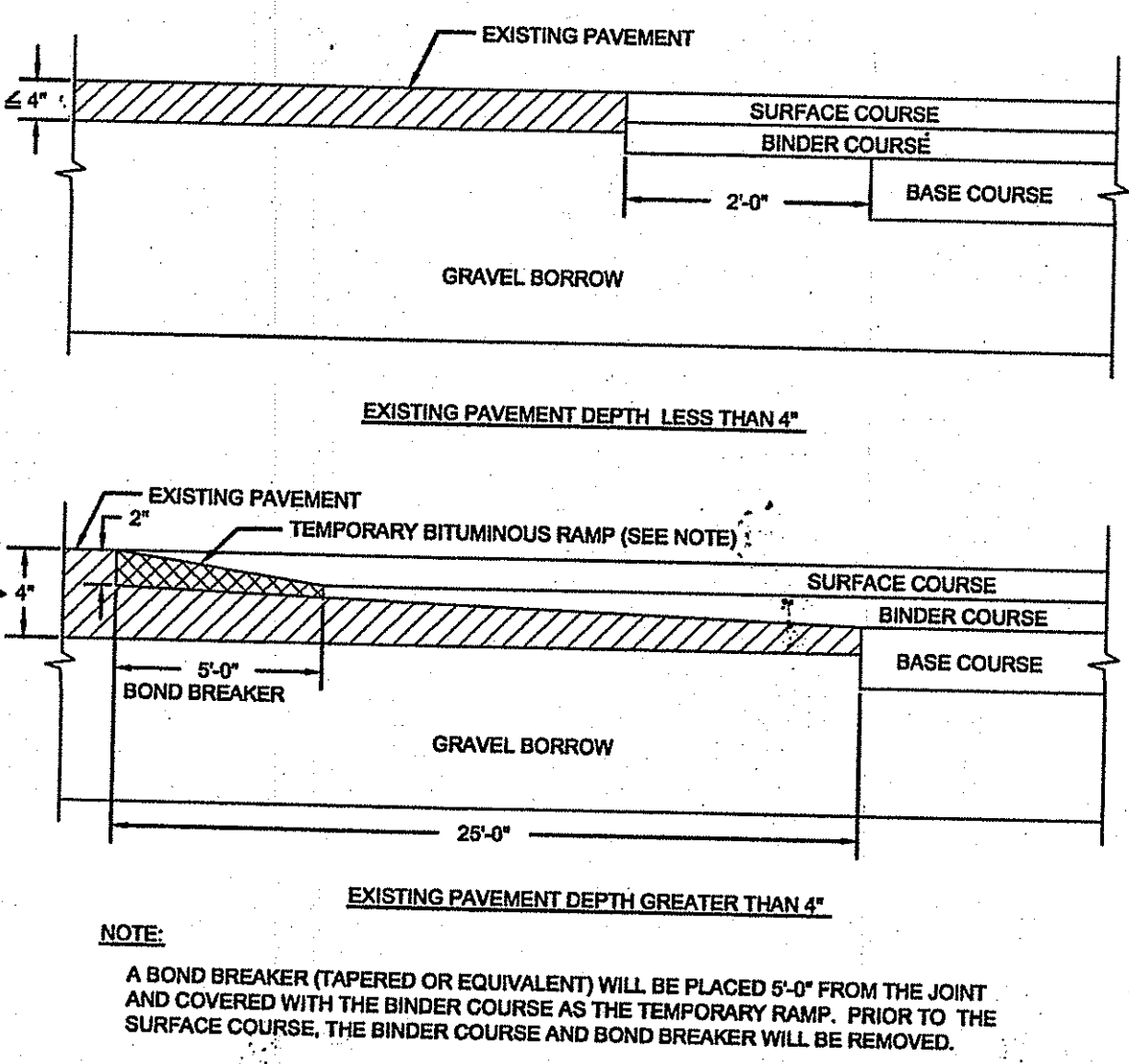
**UTILITY TRENCH DETAIL**  
SCALE: NOT TO SCALE

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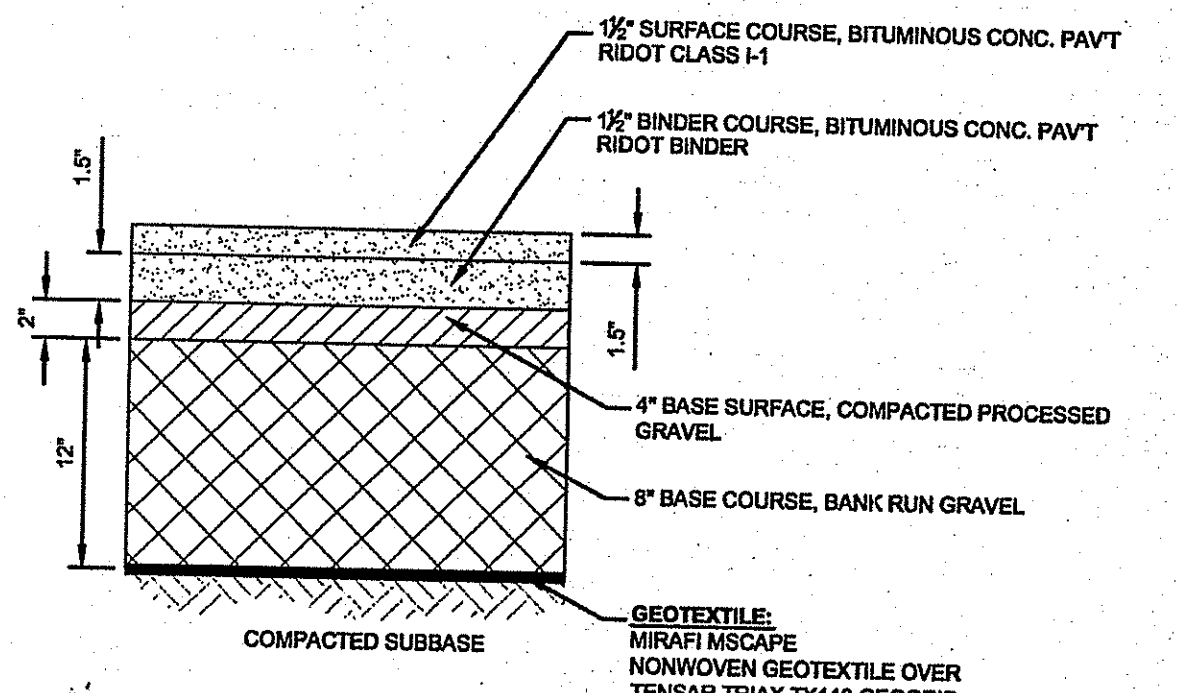
- TRENCH NOTES:**
1. UNSUITABLE MATERIAL SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 12-INCHES BELOW THE DESIGN INVERT ELEVATION.
  2. TRENCH PROTECTION SHALL BE REQUIRED IN ACCORDANCE WITH OSHA REGULATIONS, AND AS OTHERWISE REQUIRED TO PROTECT UTILITIES, ROADWAYS, AND ADJACENT STRUCTURES.
  3. SEWER AND DRAIN PIPES SHALL BE LAID BEGINNING AT THE DOWNSTREAM END OF THE PIPE LINE.
  4. ALL PVC SEWER PIPES SHALL BE IPEX RING-TITE SDR 35, OR SIMILAR APPROVED.
  5. ALL DRAIN PIPES SHALL BE ADS N-12 TYPE IB (SOLITIGHT) UNLESS OTHERWISE INDICATED.
  6. ALL SEWER PIPE AND GASKETS SHALL CONFORM TO ASTM 3034 AND ASTM F679.
  7. BACKFILL MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED 12" IN HEIGHT WHEN INSTALLED UNDER LANDSCAPED AREAS ONLY. INSTALLATIONS NOT TO EXCEED 6" IN HEIGHT. THESE LAYERS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (AASHTO T168). SUITABLE BACKFILL SHALL BE FREE OF LOAM, CLAY, ORGANIC MATTER AND PARTICLES LARGER THAN 2 INCHES IN DIAMETER.
  8. SEWER AND DRAINAGE PIPE TRENCHES SHALL BE BEDDED WITH CRUSHED STONE OR SCREENED GRAVEL. THESE MATERIALS MUST CONFORM TO RIDOT STANDARD M.O.I.92 TYPE II MATERIAL.
  9. WATER PIPE TRENCHES MUST BE BEDDED WITH SAND CONTAINING NO PARTICLES LARGER THAN 3/8". THIS MATERIAL MUST CONFORM TO AASHTO M6 REQUIREMENTS.
  10. UTILITY INSTALLATIONS SHALL CONFORM TO ALL REQUIREMENTS OF THE TOWN OF PORTSMOUTH PUBLIC WORKS DEPARTMENT AND PORTSMOUTH FIRE AND WATER DISTRICT RULES AND REGULATIONS.
  11. WHEN TRENCH EXCAVATION IS ADJACENT TO OR UNDER EXISTING STRUCTURES OR FACILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY SHEETING AND BRACING THE EXCAVATION AND STABILIZING THE EXISTING GROUND TO RENDER IT SAFE AND SECURE FROM POSSIBLE SLIDES, CAVES AND SETTLEMENT AND FOR PROPERLY SUPPORTING EXISTING STRUCTURES AND FACILITIES WITH BEAMS, STRUTS OR UNDERPINNING TO FULLY PROTECT THEM FROM DAMAGE.

CERTIFICATION:  
GERALDINE SMALL  
No. 8550  
12-4-15  
REGISTERED PROFESSIONAL ENGINEER CIVIL

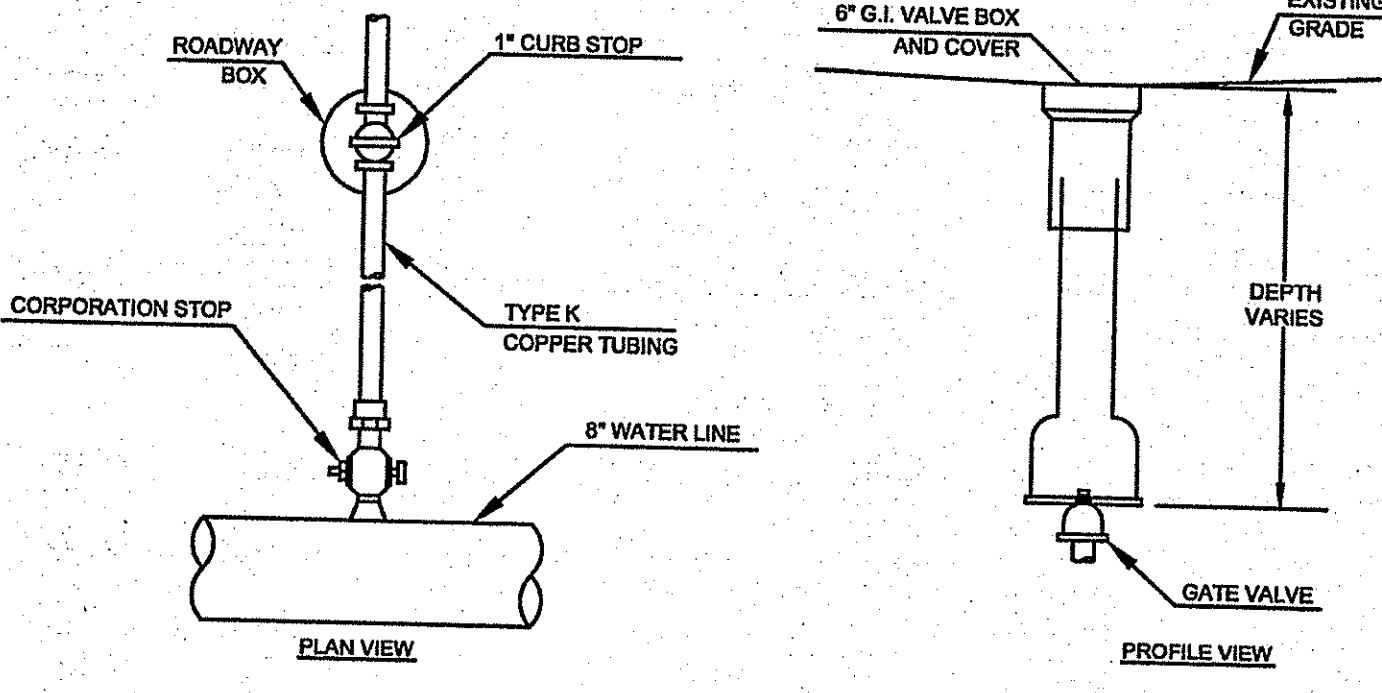
PROJECT NUMBER:  
**13172.1**  
SCALE: AS SHOWN  
DRAWING TITLE:  
**SITE DETAILS**  
DRAWING NUMBER:  
**C-18**  
SHEET 18 OF 18



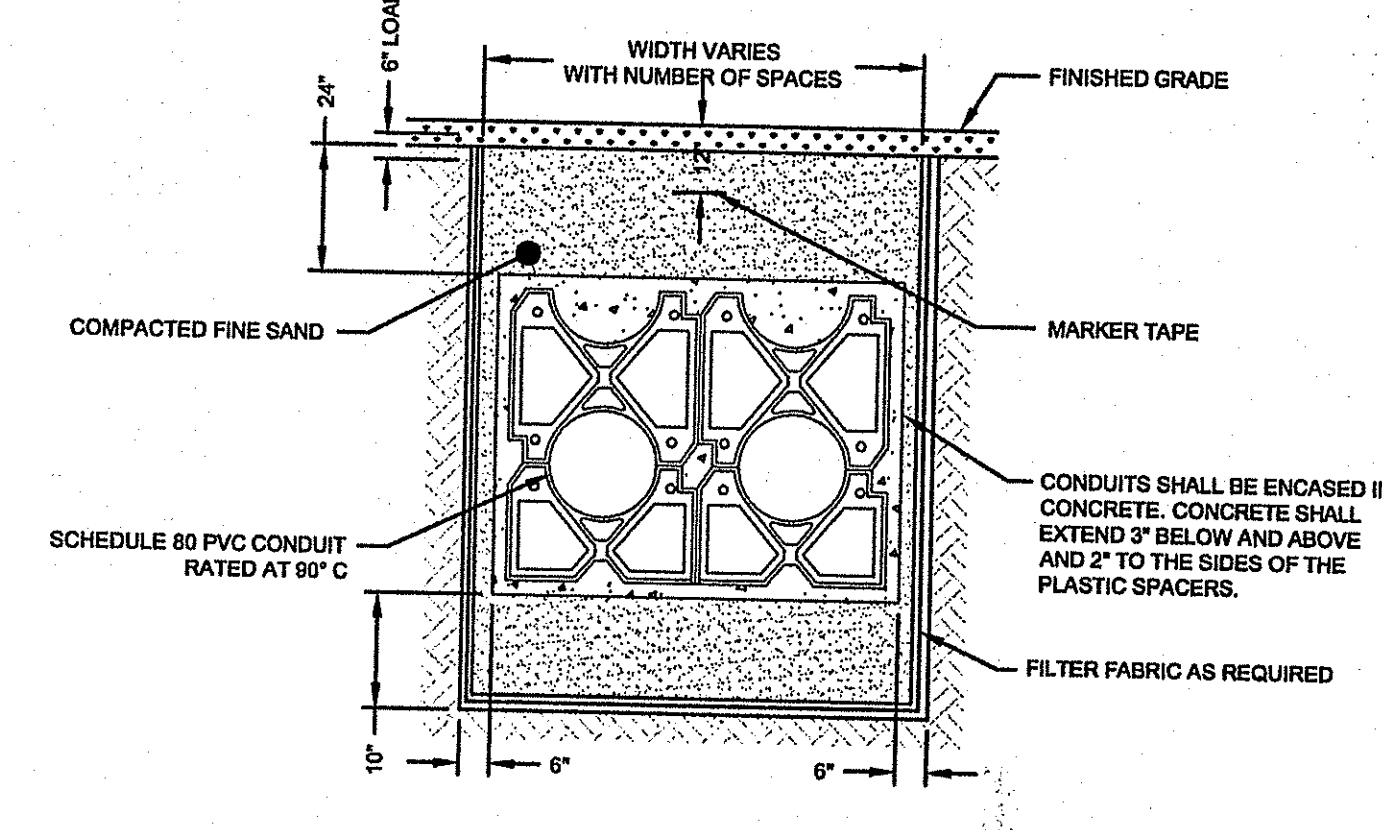
**TYPICAL CUT AND MATCH PAVEMENT DETAIL (RIDOT 47.1.1)**  
SCALE: NOT TO SCALE



**TYPICAL BITUMINOUS PAVEMENT SECTION**  
SCALE: NOT TO SCALE



**WATER GATE VALVE/SERVICE CURB STOP**  
SCALE: NOT TO SCALE



**CONDUIT TRENCH CROSS SECTION**  
SCALE: NOT TO SCALE