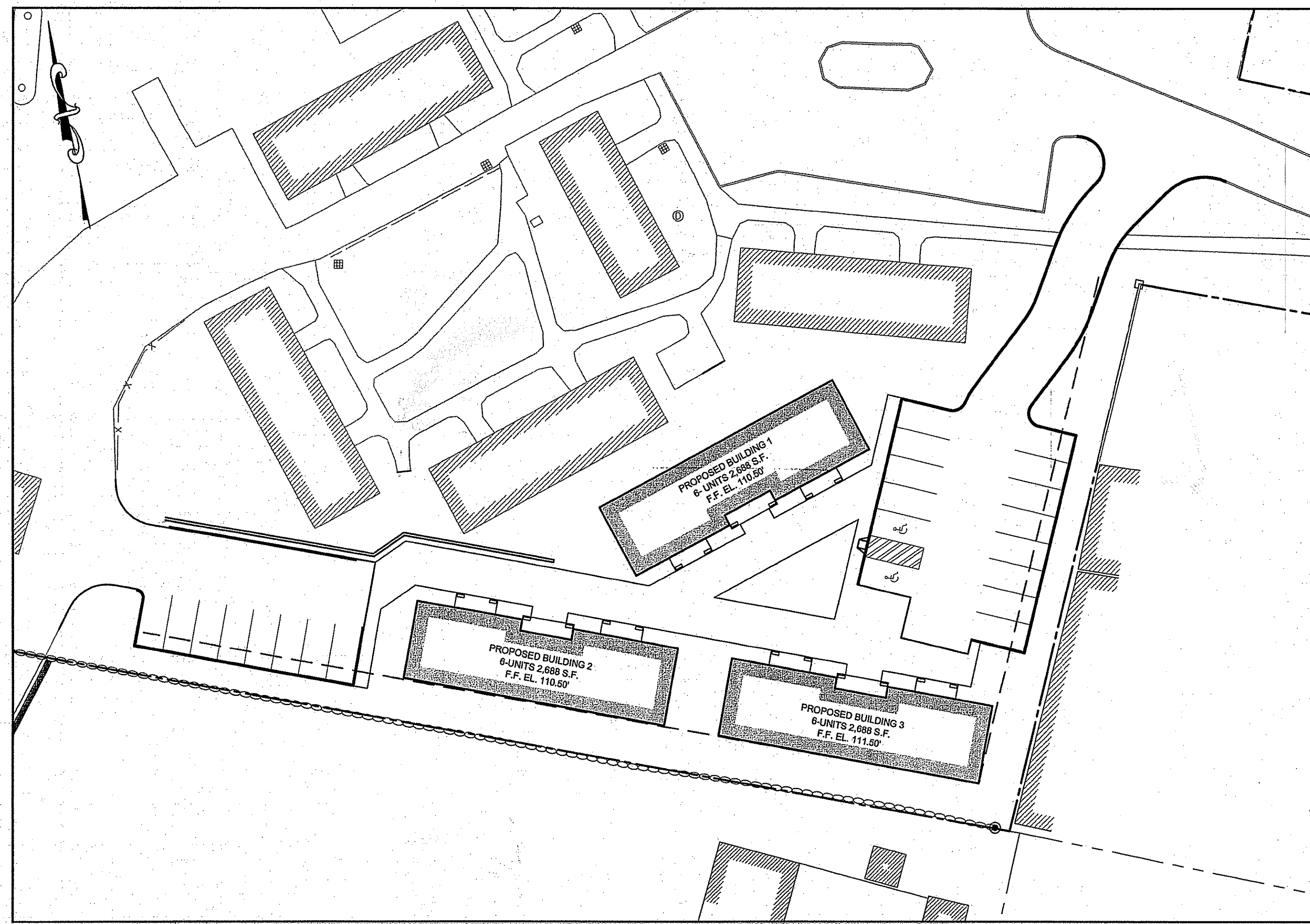


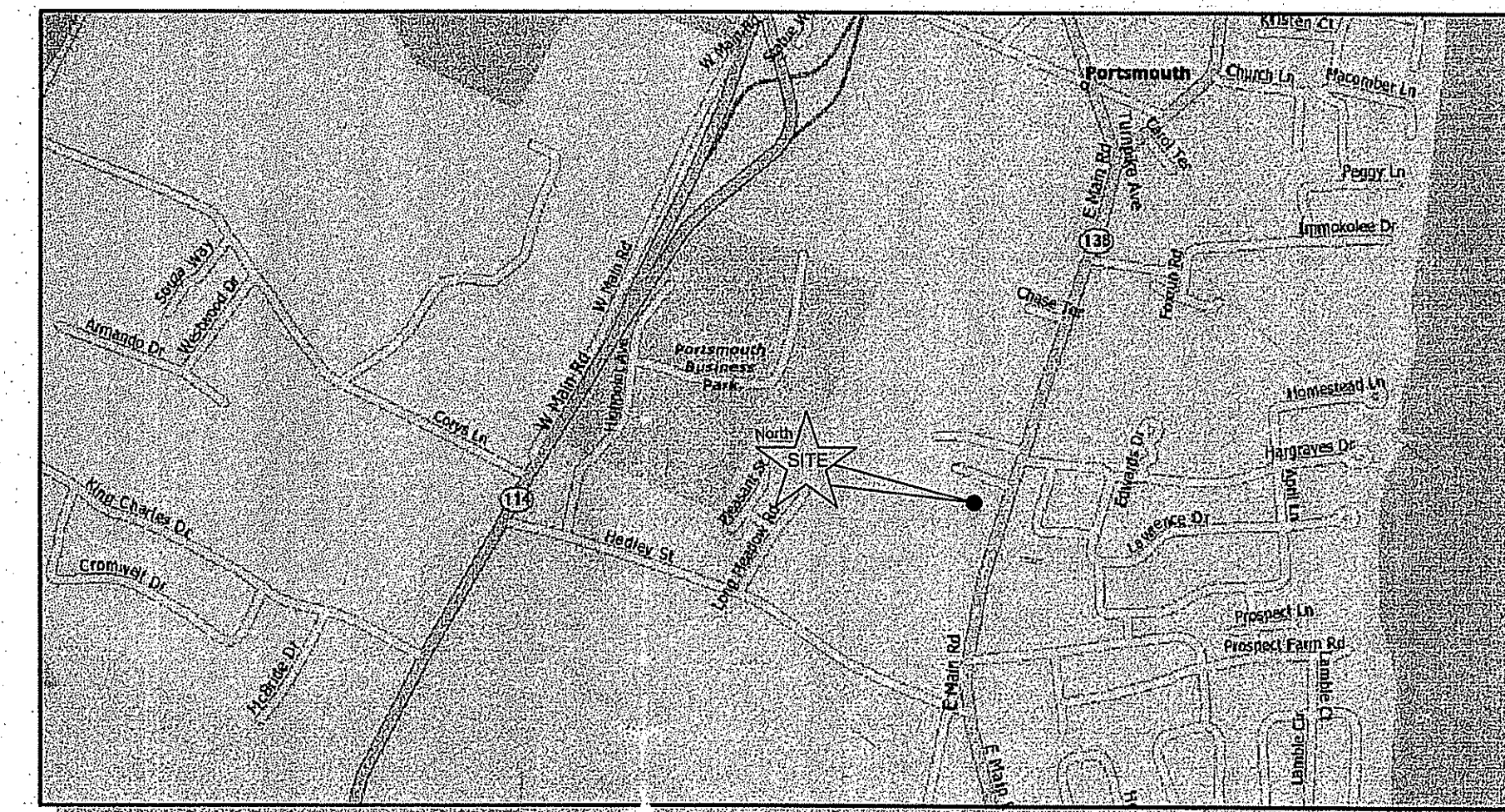
COASTAL HOUSING CORPORATION QUAKER ESTATES OF PORTSMOUTH IV, INC.

PORTSMOUTH, RHODE ISLAND
ISSUED FOR PERMITTING

EXCELLENCE IN ENGINEERING



SITE PLAN
1" = 30'



LOCUS MAP

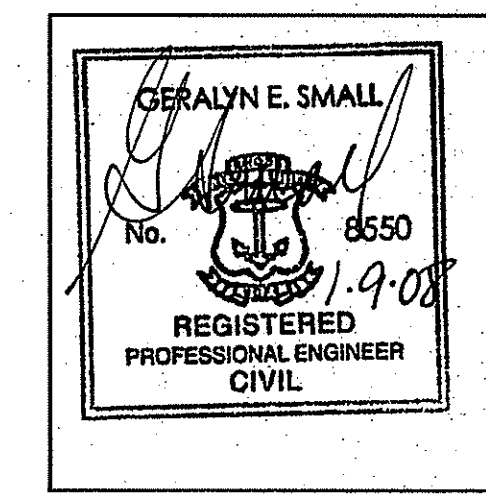
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAY 13 2008 FILE # 07-0479
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

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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.

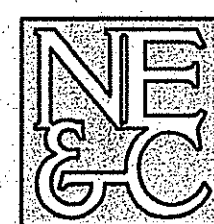
CLIENT / OWNER:
QUAKER ESTATES OF PORTSMOUTH IV, INC.
AT COASTAL HOUSING CORPORATION
2358 EAST MAIN ROAD
PORTSMOUTH, RI 02871



SUBMISSION SUMMARY

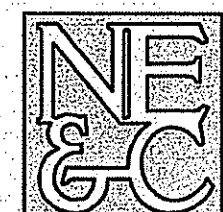
AGENCY:	DATE:	COMMENTS:
RIDEM FRESHWATER WETLANDS PRELIMINARY TOWN SUBMISSION	NOV 2007 JAN 2008	PERMITTING PERMITTING

MAR - 5 2008



NORTHEAST ENGINEERS & CONSULTANTS, INC.
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PORTSMOUTH DEVELOPMENT CONSTRUCTION STANDARDS

- A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE DIRECTOR OF PUBLIC WORKS AND THE INSPECTOR, IF ANY, HIRED BY THE TOWN TO INSPECT THE JOB AT LEAST SEVEN (7) DAYS PRIOR TO THE START OF ANY IMPROVEMENTS. THE APPLICANT (OR HIS DULY AUTHORIZED REPRESENTATIVE) AND THE ON-SITE PROJECT MANAGER SHALL ATTEND THIS MEETING.
- WHENEVER AN INSPECTION IS REQUIRED, THE DEVELOPER SHALL REQUEST THE DIRECTOR OF PUBLIC WORKS TO MAKE SUCH AN INSPECTION. THE DIRECTOR OF PUBLIC WORKS OR HIS REPRESENTATIVE SHALL WITHIN 48 HOURS, EXCLUSIVE OF SATURDAYS, SUNDAYS AND HOLIDAYS, MAKE SUCH INSPECTION AND GIVE TO THE DEVELOPER WRITTEN APPROVAL OR DISAPPROVAL OF THE IMPROVEMENTS INSPECTED BY HIM. NO SUBSEQUENT STEP OR PHASE SHALL COMMENCE UNTIL AN INSPECTION HAS BEEN MADE AND APPROVAL GRANTED.
- THE FOLLOWING ACTIONS CONSTITUTE MANDATORY INSPECTIONS:
 - DURING AND FOLLOWING INSTALLATION OF ALL UNDERGROUND DRAINAGE AND UTILITIES PRIOR TO BACKFILLING.
 - DURING AND FOLLOWING PREPARATION OF THE SUB-BASE, BACKFILLING AND THE INSTALLATION OF CURBING OR SHOULDERS, PRIOR TO THE APPLICATION OF THE BASE COURSE. A COMPACTION TEST BY A COMPETENT INDEPENDENT INSPECTION LAB SHALL BE PROVIDED AFTER THE INSTALLATION OF THE SUB-BASE, THE LOCATIONS OF WHICH DETERMINED BY THE DIRECTOR OF PUBLIC WORKS. BOTTOM INSPECTION IS REQUIRED BEFORE PLACING GRAVEL. GRADE STAKES WITH ELEVATION SHALL BE IN PLACE AND APPROVED BY THE DIRECTOR OF PUBLIC WORKS PRIOR TO INSTALLATION OF GRAVEL.
 - DURING AND FOLLOWING SPREADING AND COMPACTION OF THE BASE COURSE OF THE ROADWAY, PRIOR TO THE APPLICATION OF THE BINDER COURSE.
 - IMMEDIATELY PRIOR TO AND DURING THE APPLICATION AND COMPACTION OF THE SURFACE COURSE ON THE ROADWAY AND SIDEWALKS. A BORE CORE BY A COMPETENT INDEPENDENT INSPECTION LAB SHALL BE PROVIDED AFTER THE INSTALLATION OF THE SURFACE COURSE, IN LOCATIONS INDICATED BY THE DIRECTOR OF PUBLIC WORKS.
 - DURING AND FOLLOWING COMPLETION OF ALL IMPROVEMENTS AND INSTALLATION OF MONUMENTS.
 - AT PERIODIC INTERVALS AS REQUIRED TO ENSURE COMPLIANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
 - FINAL INSPECTION IMMEDIATELY PRIOR TO RELEASE OF ANY AND ALL BONDS OR PORTIONS THEREOF.
- THE PLANNING BOARD, AS PART OF ITS APPROVAL CONDITIONS, OR THE DIRECTOR OF PUBLIC WORKS, AT THEIR DISCRETION, MAY REQUIRE INSPECTION AT SUCH OTHER INTERVALS OR FOR INSTALLATION OF OTHER IMPROVEMENTS WHICH THEY MAY DEEM NECESSARY TO ASSURE PROPER CONSTRUCTION AND INSTALLATION OF IMPROVEMENTS.
- THE DEVELOPER (OR HIS DULY AUTHORIZED REPRESENTATIVE) SHALL BE RESPONSIBLE FOR VERIFYING ALL FIELD ELEVATIONS AND GRADES, PLUS LOCATIONS OF MANHOLES, UNDERGROUND UTILITIES AND PIPING.
- THE DIRECTOR OF PUBLIC WORKS SHALL HAVE THE AUTHORITY TO ISSUE A "CEASE AND DESIST ORDER" ON CONSTRUCTION OF REQUIRED IMPROVEMENTS IF HE FINDS THAT WORK IS NOT BEING PERFORMED IN A SATISFACTORY MANNER OR ACCORDING TO APPROVED PLANS. THE RESULTS OF ALL INSPECTIONS SHALL BE REPORTED TO THE PLANNING BOARD IN WRITING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, INSPECTIONS, BONDS, ETC. AND OTHER APPROVAL RELATED ITEMS WITH THE TOWN OF PORTSMOUTH. NO CONSTRUCTION IS TO COMMENCE UNTIL SUCH PERMITS HAVE BEEN SECURED.

GENERAL CONSTRUCTION NOTES

- THE CONTRACTOR SHALL PROVIDE ACCESS TO AND FROM PUBLIC STREETS AT ALL TIMES.
- 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, CAVE-INS AND SETTLEMENT AND FOR PROPERLY SUPPORTING EXISTING STRUCTURES AND FACILITIES WITH BEAMS, STRUTS OR UNDERPINNING TO FULLY PROTECT THEM FROM DAMAGE.
- BACKFILL UNDER EXISTING STRUCTURES OR FACILITIES SHALL BE SANDY OR GRANULAR MATERIAL COMPLETELY PLACED AS SOON AS THE PIPE IS LAID AND TESTED. THE BACKFILL MATERIAL SHALL BE RAMMED WITH PROPER TOOLS UNTIL COMPACTED TO A MINIMUM OF 90 PERCENT OF ITS MAXIMUM DENSITY.
- ALL EXCAVATION WORK CALLED FOR ON THE PLANS AND NOT ITEMIZED IN THE PROPOSAL AND ALL EXCAVATION WORK NOT CALLED FOR BUT REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE CONSIDERED INCIDENTAL TO UNCLASSIFIED TRENCH EXCAVATION.
- 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.
- THE UNDERGROUND PIPES, CABLES OR DUCTLINES 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 EXIST 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.)
- THE CONTRACTOR SHALL NOTIFY ALL AGENCIES TO VERIFY THE ACTUAL LOCATIONS OF ALL UTILITIES IN THE PROJECT AREA PRIOR TO EXCAVATING.
- 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.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO PRESERVE STREET MONUMENTS.
- STREET MONUMENTS THAT ARE DISTURBED SHALL BE RESTORED UNDER THE LICENSED LAND SURVEYOR'S DIRECTION. ANY NEW DATA SUCH AS ELEVATIONS SHALL BE CERTIFIED BY THE SURVEYOR, AND SUBMITTED TO THE TOWN OF PORTSMOUTH.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING/ RECONSTRUCTING ALL CONCRETE CURBS AND GUTTERS, CONCRETE SWALES, DRIVEWAYS AND SIDEWALKS DAMAGED DURING CONSTRUCTION.
- DURING NON-WORKING HOURS, THE TRENCHES ON PUBLIC STREETS SHALL BE COVERED WITH NON-SKID PLATES AND ALL LANES MAINTAINED OPEN FOR TRAFFIC.
- THE EXISTING TOPOGRAPHIC DATA WAS TAKEN FROM TOPOGRAPHIC MAP PREPARED BY NORTHEAST ENGINEERS & CONSULTANTS, DATED NOVEMBER, 2005. ALL ELEVATIONS ARE ON AN ASSUMED DATUM. FOR BENCH MARK, SEE C-3 EXISTING CONDITIONS PLAN.
- ALL ELEVATIONS SHOWN ARE ON AN ASSUMED DATUM. REFER TO EXISTING CONDITIONS PLAN FOR BENCHMARK.
- PROPERTY LINE SURVEYED BY NORTHEAST ENGINEERS & CONSULTANTS, INC. ON JUNE 26, 2007.
- WETLAND VERIFICATION WAS PERFORMED BY NATURAL RESOURCES SERVICES ON JULY 2, 2007.
- THE SITE IS LOCATED IN 'ZONE C', OUTSIDE THE 100 YEAR FLOOD PLAIN PER FIRM PANEL #445405 C, REVISED MARCH 2, 1983. 5.
- THE SITE IS NOT WITHIN A CRITICAL RESOURCE AREA OF WATERSHED PROTECTION DISTRICT.
- EXISTING DRAINS WITHIN 100 FEET OF THE SITE ARE SHOWN ON THESE PLANS.
- NO EXISTING OR PROPOSED PUBLIC WATER SUPPLY WELLS ARE WITHIN 400 FT OF THE SITE.
- DEVIATIONS OR CHANGES FROM THESE PLANS WILL NOT BE ALLOWED UNLESS APPROVED BY THE PROJECT ENGINEER, APPROPRIATE AGENCY AND OWNER.
- 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.

GENERAL CONSTRUCTION NOTES CONTINUED

- AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
- 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 TO 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."
- WATER AND SEWER MAINS SHALL MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF 10' AT ALL TIMES. CONSULT RIDEM RULES AND REGULATIONS FOR ANY DEVIATIONS FROM THIS REQUIREMENT.
- NORTH ARROW WAS SCALED FROM THE ASSESSOR'S PLAT MAP.
- THE EXISTING SEPTIC SYSTEM WAS SCALED FROM PLAN PREPARED BY NORTHEAST ENGINEERS & CONSULTANT, INC., TITLED "EXISTING CONDITIONS (OVERALL SITE PLAN)" DATED JULY 2005.
- EAST MAIN ROAD WAS NOT PART OF THE SURVEY BY NORTHEAST ENGINEERS & CONSULTANTS, INC. EAST MAIN ROAD HAS BEEN SCALED VIA TAX ASSESSORS MAP 39.
- THE DEVELOPMENT PARCEL IS NOT WITHIN A NATURAL HERITAGE AREA NOR A WATERSHED PROTECTION OVERLY DISTRICT.

GRADING NOTES

- NO CONTRACTOR SHALL PERFORM ANY GRADING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL 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 BY THE TOWN AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.
- 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.
- ALL GRADED AREAS SHALL BE SODDED OR PLANTED IMMEDIATELY AFTER THE GRUBBING WORK HAS BEEN COMPLETED.
- THE TOWN SHALL BE INFORMED OF THE LOCATION OF THE DISPOSAL SITE FOR THE PROJECT.
- NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE TOWN OF PORTSMOUTH, PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY NOISE CONTROL STANDARDS.
- THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
- ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.
- WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE GRADING WORK IS INITIATED.
- TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
- IF THE GRADING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.
- 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 SUBJECTED TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES.

SEWER NOTES

- ALL BRUSH AND TREES WILL BE CLEARED WITHIN 10 FT OF THE SYSTEM.
- NO DRAINS OR PRESSURE WATER SUPPLY LINES EXIST OR ARE TO BE CONSTRUCTED WITHIN 25 FT. OF THE SYSTEM
- THE SYSTEM FOR THE SUBSURFACE DISPOSAL OF SANITARY SEWAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE STATE OF RHODE ISLAND, DEPARTMENT ENVIRONMENTAL MANAGEMENT, "RULES AND REGULATIONS ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION, AND MAINTENANCE OF INDIVIDUAL SEWAGE SYSTEMS" (SD 1.00 THROUGH SD 21.03).
- THE DESIGN INTENT IS TO MEET THE STATE STANDARDS. SINCE THIS PLAN HAS BEEN CREATED TO GAIN THE NECESSARY PERMITTING, NO CONSTRUCTION INSTALLATIONS HAVE COMMENCED. BECAUSE THIS IS NOT A "RECORD DRAWING OF AS-BUILT CONDITIONS" & NOTHING HAS BEEN INSTALLED, THE ENGINEER SIGNING & STAMPING THIS PLAN IS NOT GUARANTEEING THE OPERATION OF THE INSTALLED SEPTIC SYSTEM. UPON THE APPROVED SYSTEM INSTALLATION THE DESIGN ENGINEER WILL SUPERVISE, VERIFY, & CERTIFY THAT THE SYSTEM WAS INSTALLED AS SPECIFIED ON THE APPROVED PLAN.
- ALL PUMPED LINES SHALL DRAIN BACK TO THE PUMP CHAMBER. PROPER COMPACTION AND FORCE MAIN INSTALLATION SHALL BE PERFORMED TO ENSURE THAT NO LOW POINTS FORM BETWEEN PUMP ORIGIN COMPONENT AND DISCHARGE DESTINATION. IF THIS CANNOT BE ENSURED, INSTALLATION OF HEAT TAPE SHALL BE USED AS NEEDED TO PREVENT FREEZING.
- NO GARBAGE DISPOSAL UNITS SHALL BE TIED INTO THE PROPOSED PLUMBING NETWORK AS THEY ARE NOT ALLOWED TO DISCHARGE INTO THE PROPOSED SEPTIC SYSTEMS, PER THE MANUFACTURER.

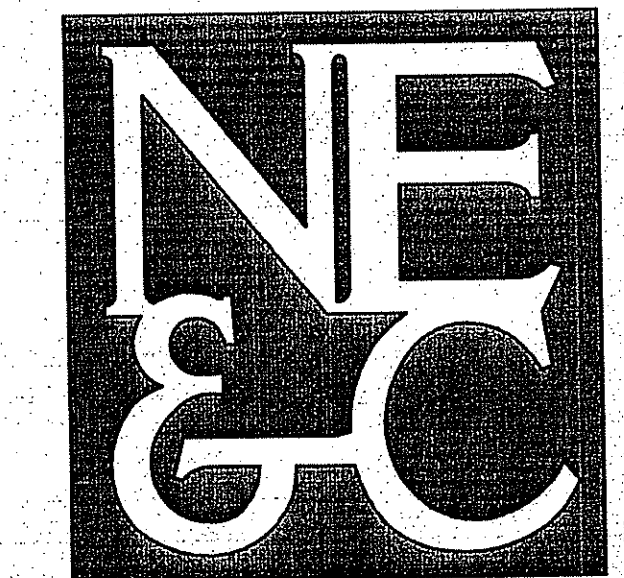
PUBLIC HEALTH SAFETY AND CONVENIENCE NOTES

- CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY AND ENVIRONMENTAL QUALITY.
- 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.
- 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.
- 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.

UTILITY NOTES

- THE LOCATIONS OF PROPOSED ELECTRICAL CONDUITS AND CONNECTIONS TO THE EXISTING SERVICE ALONG HENRY DANIS ROAD ARE PRELIMINARY. FINAL DESIGN OF THE ELECTRICAL SERVICES ARE SUBJECT TO DESIGN REVIEW AND APPROVAL OF NATIONAL GRID.
- EXISTING GAS LINE INFORMATION PROVIDED BY NATIONAL GRID. THE LOCATION OF PROPOSED GAS SERVICES ARE PRELIMINARY. FINAL DESIGN OF THE ELECTRICAL SERVICES ARE SUBJECT TO DESIGN REVIEW AND APPROVAL OF NATIONAL GRID.
- THE LOCATIONS OF WATER LINES AND SERVICES ARE PRELIMINARY AND SUBJECT TO REVIEW AND APPROVAL BY PORTSMOUTH FIRE AND WATER DISTRICT.
- TEMPORARY MARKERS FOR SERVICE LOCATIONS SHALL BE 4"x4" WOODEN POSTS OR SIMILAR, PAINTED YELLOW (GAS), BLUE (WATER), OR GREEN (SEWER).
- ELECTRIC, TELEPHONE AND CABLE SERVICES SHALL BE INSTALLED UNDERGROUND.
- PAYMENT FOR ITEMS OF WORK CALLED FOR IN THE PLANS, SPECIAL PROVISIONS AND SPECIFICATIONS FOR WHICH PAYMENT IS NOT SPECIFIED SHALL NOT BE MADE DIRECTLY BUT SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS ITEMS OF THE PROPOSAL AND NO ADDITIONAL COMPENSATION SHALL BE MADE.
- 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.
- 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.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL EFFLUENT ASSOCIATED WITH THE CONSTRUCTION ACTIVITY AND THE DISINFECTION AND HYDROTASTING 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.
- DURING NON-WORKING HOURS, ANY TRENCHES SHALL BE COVERED WITH NON-SKID STEEL PLATES AND ALL LANES MAINTAINED OPEN FOR TRAFFIC.
- UNLESS OTHERWISE SPECIFIED, ALL ABANDONED LINES SHALL BE CUT AND PLUGGED WITH CONCRETE. PAYMENT FOR CUTTING AND PLUGGING WILL NOT BE MADE DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE VARIOUS ITEMS OF THE PROPOSAL. THE CONTRACTOR SHALL VERIFY THE SIZE AND TYPE OF LINE TO BE PLUGGED.
- ALL AIR RELIEF VALVES SHALL HAVE A MINIMUM WORKING PRESSURE RANGE OF 0 TO 200 PSI OR AS SPECIFIED BY PORTSMOUTH FIRE AND WATER DISTRICT.

NORTHEAST ENGINEERS & CONSULTANTS, INC.



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- LAND PLANNING
- WATERFRONT
- SURVEYING
- GEOTECHNICAL
- ENVIRONMENTAL
- TRANSPORTATION
- STRUCTURAL
- MATERIALS TESTING

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 MAY 13 2008 FILE # 17-0477
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Conroy

No.	Revision	Date	App.
Designed By:	Drawn by:	Checked by:	
Scale:	N/A	Date:	NOVEMBER 2007
Project Title: QUAKER ESTATES IV A.P. 39, LOT 47A EAST MAIN ROAD PORTSMOUTH, RI			
Client/Owner: COASTAL HOUSING CORP. 2358 EAST MAIN ROAD PORTSMOUTH, RI			
Issued for: PERMITTING			
Drawing Title: NOTES			
Drawing Number: C-01		Sheet 2 of 10	
Project Number: 07116.0		Survey Index: 12 - 39 - 47A	
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.			

MAR - 5 2008

ABBREVIATIONS

AC	ASPHALT PAVEMENT
ADJ	ADJACENT
AP	ASSESSOR'S PLAT
ACCESS	ACCESSIBLE
ARCH	ARCHITECT
BC	BOTTOM OF CURB
BH	BORING HOLE
BIT	BITUMINOUS
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONN	CONNECT
COTG	CLEAN OUT TO GRADE
CF	CUBIC FOOT
DEMO	DEMOLISH
DI	DRAIN INLET
DIA	DIAMETER
DMH	DRAIN MANHOLE
DS	DOWN SPOUT
DWG	DRAWING
E	ELECTRIC
ELEV/EL	ELEVATION
EMH	ELECTRIC MANHOLE
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EXIST	EXISTING
EXP	EXPANSION
FFE	FINISH FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FT	FEET
G	GAS
GAL	GALLON
GV	GATE VALVE
INV	INVERT
JT	JOINT
L	LENGTH
LAND	LANDSCAPE
NTS	NOT TO SCALE
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
PAVT	PAVEMENT
PVC	POLYVINYLCHLORIDE
R	RADIUS
RC	REINFORCED CONCRETE
RECONN	RECONNECT
RIHB	RHODE ISLAND HIGHWAY BOUND
RIDOT	RHODE ISLAND DEPARTMENT OF TRANSPORTATION
ROW	RIGHT OF WAY
S	SLOPE, SEWER
SF	SQUARE FEET
SHT	SHEET
SMH	SEWER MANHOLE
STA	STATION
STRUCT	STRUCTURAL
TC	TOP OF CURB
TOP	TOP OF SURFACE
UGT	UNDERGROUND TELEPHONE
TYP	TYPICAL
W	WATER
WW	WITH

STORM WATER SYSTEM MAINTENANCE SCHEDULE

- GRASSES AND/OR SPECIFIED VEGETATION SHALL BE PLANTED AROUND AND WITHIN THE BASINS IMMEDIATELY FOLLOWING CONSTRUCTION TO STABILIZE SLOPES AND PREVENT EROSION.
- ALL INLET / OUTFLOW STRUCTURES ARE TO BE INSPECTED AFTER 2, 4 AND 6 MONTHS OF OPERATION (FOR A TOTAL OF THREE (3) INSPECTIONS), EVIDENCE OF CLOGGING, OR RAPID RELEASE OF FLOW SHALL BE REPORTED TO THE PROJECT ENGINEER, AND REMEDIED IMMEDIATELY.
- ALL INLET STRUCTURES SHALL HAVE SEDIMENTS REMOVED AND PROPERLY DISPOSED OF IMMEDIATELY FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES AND/OR, WHEN SUMP SHOW A SEDIMENT DEPTH AT 75% OF THEIR CAPACITY OR ON AN ANNUAL BASIS, WHICH EVER COMES FIRST.
- THE SIDE SLOPES, EMBANKMENTS, AND BASIN AREAS SHALL BE MOWED AT LEAST AT THE START OF, THE MIDDLE OF AND THE END OF THE GROWING SEASON (FOR A TOTAL OF THREE (3) MOWINGS) TO PREVENT UNWANTED GROWTH, AND TO MAINTAIN THE INTEGRITY OF THE STRUCTURES.
- THE BASIN SHALL BE INSPECTED AT LEAST EVERY SIX (6) MONTHS FOR EVIDENCE OF EROSION. AREAS WHERE EROSION PROBLEMS ARE OBSERVED SHALL BE RE-SEEDED AND, IF DEEMED NECESSARY BY THE DESIGN ENGINEER, AN EROSION CONTROL BLANKET SHALL BE INSTALLED TO PREVENT FURTHER DAMAGE.
- TRASH, LITTER AND DEBRIS SHALL BE REMOVED FROM ALL SURFACE STORM WATER FACILITIES AT LEAST EVERY THREE (3) MONTHS TO PREVENT BLOCKAGE OF OUTLET STRUCTURES. IN LOCATIONS WHERE SIGNIFICANT VOLUMES OF DEBRIS ARE OBSERVED, THE ADJACENT STRUCTURES SHALL BE CAREFULLY INSPECTED TO IDENTIFY IF ANY DAMAGE HAS OCCURRED.
- ALL DRAINAGE STRUCTURES SHALL BE INSPECTED AT LEAST EVERY SIX (6) MONTHS. ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED FROM ALL STRUCTURES DURING THE SCHEDULED MAINTENANCE INSPECTIONS. ALL REMOVED MATTER SHALL BE DISPOSED OF AT A LICENSED OFF-SITE FACILITY.
- THE STRUCTURAL INTEGRITY OF ALL CATCH BASINS, INLET STRUCTURES, OUTLET STRUCTURES AND MANHOLES SHALL BE CHECKED AT LEAST EVERY SIX (6) MONTHS. STRUCTURAL FAULTS SHALL BE REPAIRED IMMEDIATELY.
- IF A BLOCKAGE OCCURS TO A BASIN, IT MAY BE NECESSARY TO DRAIN THE SYSTEMS TO AFFECT A REPAIR. ALL WATER DRAINED FROM STRUCTURES SHALL BE ADEQUATELY TREATED BEFORE ALLOWING IT TO DISCHARGE TO DOWNSTREAM AREAS. THIS TREATMENT SHALL INCLUDE SEDIMENT REMOVAL AT A MINIMUM, AS WELL AS OIL AND VOLATILES SEPARATION SHOULD ANY UPSTREAM STRUCTURE CAPTURE RUNOFF FROM A VEHICLE TRAVELWAY. IF A TEMPORARY DEWATERING/SEDIMENTATION AREA IS NECESSARY TO COMPLETE THIS TREATMENT, ANY SUCH AREA MUST BE LOCATED OUTSIDE THE FRESHWATER WETLAND OR PERIMETER WETLAND AREAS.
- MAINTENANCE OF THE STORM WATER SYSTEM DURING CONSTRUCTION OF THE PROJECT SHALL BE THE RESPONSIBILITY OF SITE CONTRACTOR.
- UPON COMPLETION OF THE CONSTRUCTION, MAINTENANCE OF THE STORM WATER SYSTEM SHALL BECOME THE RESPONSIBILITY OF THE OWNER.

SOIL EROSION & SEDIMENT CONTROL NOTES

- CONSTRUCTION SEQUENCE:
 - DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE, AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
 - CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE LOCATED AS SHOWN ON PLANS. CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THE SITE VIA THIS ENTRANCE.
 - INSTALL SILT FENCES, SILT SACKS, CHECK DAMS AND/OR HAY BALES AS INDICATED ON THE DRAWINGS TO CONTROL EROSION AND PREVENT SEDIMENT CONTAMINATION OF STREAMS AND WETLANDS PRIOR TO ANY EARTH MOVING ACTIVITIES.
 - REMOVE TREES ONLY WHERE NECESSARY. ALL STUMPS TO BE GROUND OR DISPOSED OF OFF SITE.
 - EXCAVATE BASINS/PONDS IN ACCORDANCE WITH THE PLANS AND DETAILS AND ESTABLISH A VEGETATIVE GROWTH THAT MEETS THE APPROVAL OF THE TOWN ENGINEER.
 - START BUILDING AND MAIN DRIVEWAY CONSTRUCTION.
 - CONSTRUCT THE REQUIRED DRAINAGE CONTROL MEASURES AND UTILITIES.
 - CONSTRUCT LANDSCAPED AREAS. MAINTAIN SITE IN ACCORDANCE WITH THE MAINTENANCE NOTES.
- NOTES:
 - 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.
 - NO ISDS AREAS SHALL BE USED FOR STOCKPILES OR STORAGE OF MATERIALS OR EQUIPMENT.
 - 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.
 - AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOP SOIL TO REMOVE VEGETATION, ROOTS, AND ANY OTHER OBJECTIONABLE MATERIAL.
 - ALL FILL SHALL BE COMPACTED TO 95% MAX. DENSITY TO REDUCE EROSION, SLIPPAGE, SETTLEMENT SUBSIDENCE, OR OTHER RELATED PROBLEMS.
 - FILL INTENDED TO SUPPORT BUILDING STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL CODES AND SPECIFICATIONS.
 - ALL FILL SHALL BE PLACED AND COMPACTED TO 95% MAX. DENSITY IN LAYERS NOT TO EXCEED 12" IN THICKNESS FILLS.
 - 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.
 - FROZEN, SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIAL SHALL NOT BE INCORPORATED INTO
 - FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION SUBGRADE.
 - SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.
 - ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 14 DAYS OF FINISH GRADING IN ACCORDANCE WITH THE VEGETATIVE PRACTICE NOTES.
 - REMOVE TEMPORARY EROSION CONTROL MEASURES ONCE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED AND VEGETATED AREAS HAVE RECEIVED TWO CUTTINGS.
- VEGETATIVE PRACTICE:

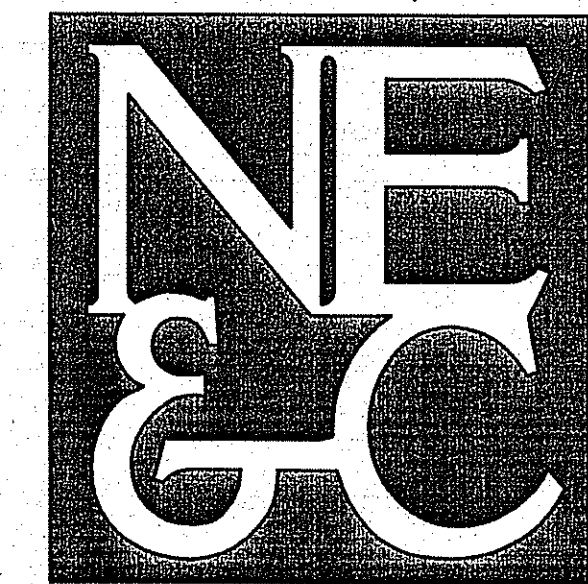
PERMANENT MEASURES:

 - SLOPES SHALL NOT BE STEEPER THAN 1 VERTICAL TO 3 HORIZONTAL UNLESS OTHERWISE SPECIFIED.
 - LOAM AND SEED REQUIREMENTS ARE SPECIFIED IN RIDOT L.01 & L.02.
 - A MINIMUM OF 4 INCHES OF LOAM SHALL BE INSTALLED. THE LOAM SHALL BE GRADED TO A SMOOTH CONDITION AND STONES AND OTHER OBJECTS LARGER THAN 2 INCHES SHALL BE REMOVED. TEMPORARY MEASURES (FOR TEMPORARY PROTECTION OF DISTURBED AREAS)
 - LIMESTONE AND FERTILIZER SHALL BE APPLIED AT THE FOLLOWING RATE:
 LIMESTONE: 3 TONS/ACRE
 FERTILIZER: (10-10-10): 800 LBS/ACRE E.
 SEED SHALL BE APPLIED AT THE FOLLOWING RATE:
 WINTER RYE: 112 LB/ACRE F.
 HAY MULCH SHALL BE APPLIED AT THE RATE OF 1.5 TONS/ACRE.
- MAINTENANCE

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

 - SILT FENCES AND HAY BALES SHALL BE INSPECTED AS INDICATED IN THE DETAILS. AT A MINIMUM THE SILT FENCINGS AND HAY BALES 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.
 - EXCELSIOR MATTING SHALL BE INSPECTED ON A WEEKLY BASIS.
 - STONE APRONS SHALL BE INSPECTED MONTHLY FOR EXCESSIVE ACCUMULATION OF SEDIMENT. IT MAY BE NECESSARY TO REMOVE STONES, EXCAVATE SEDIMENT, AND REPLACE STONES.
 - THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE REMOVED PRIOR TO PAVING. DURING CONSTRUCTION THE ENTRANCE SHALL BE INSPECTED WEEKLY, AND REESTABLISHED AS NECESSARY.
 - SEEDED AREAS WILL BE FERTILIZED AND RESEEDED AS NECESSARY TO INSURE ESTABLISHMENT OF A VEGETATIVE GROWTH THAT MEETS THE APPROVAL OF THE TOWN ENGINEER.

NORTHEAST ENGINEERS & CONSULTANTS, INC.



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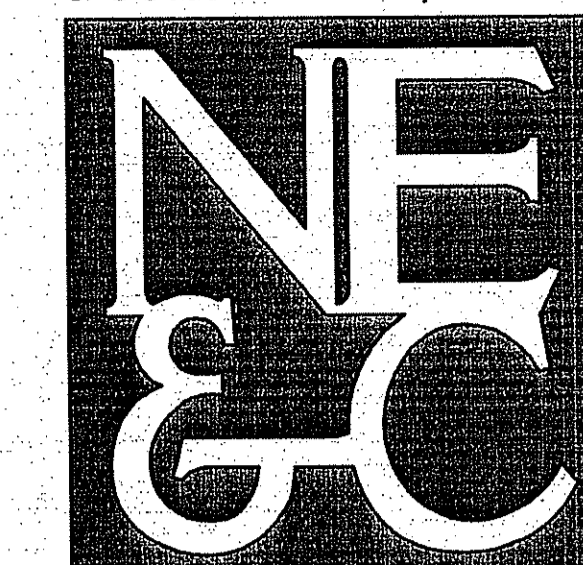
- SITE/CIVIL
- LAND PLANNING
- WATERFRONT
- SURVEYING
- GEOTECHNICAL
- ENVIRONMENTAL
- TRANSPORTATION
- STRUCTURAL
- MATERIALS TESTING

1	REVISED PER RIDEM COMMENT	FEB08	
No.	Revision	Date	App.
Designed By:	Drawn by:	Checked by:	
Scale:	N/A	Date:	NOVEMBER 2007
Project Title:			
QUAKER ESTATES IV A.P. 39, LOT 47A EAST MAIN ROAD PORTSMOUTH, RI			
Client/Owner:			
COASTAL HOUSING CORP. 2358 EAST MAIN ROAD PORTSMOUTH, RI			
Issued for:			
PERMITTING			
Drawing Title:			
NOTES			
Drawing Number:		C-02	
Sheet		3 of 10	
Project Number:		07116.0	
Survey Index:		12 - 39 - 47A	
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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
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 DATED **MAY 13 2008** FILE # **27-2479**
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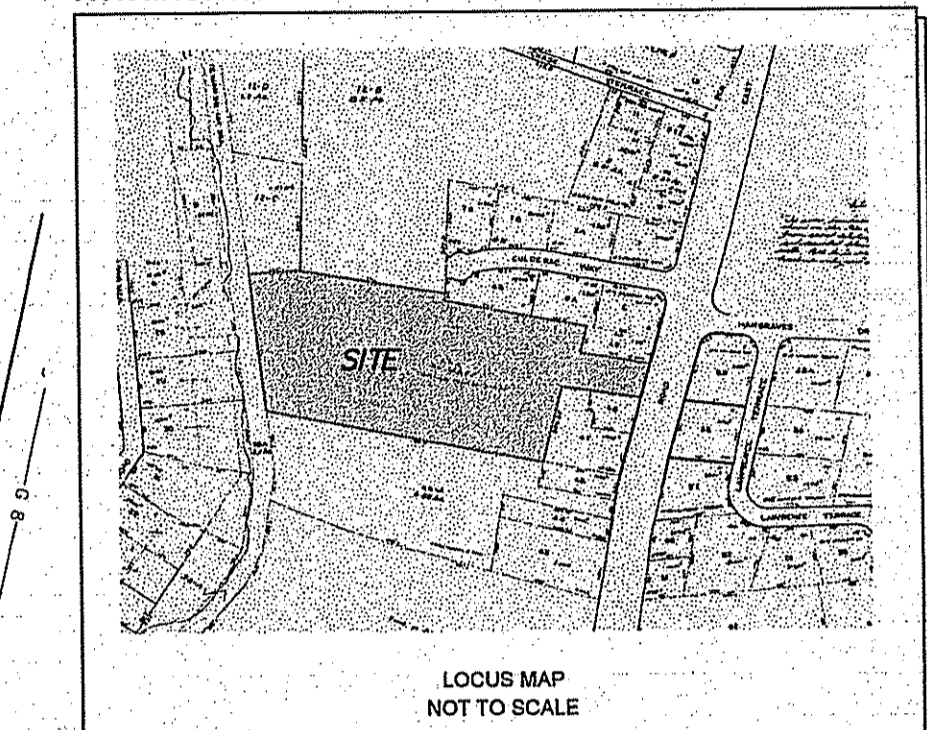
W. Joseph Conroy



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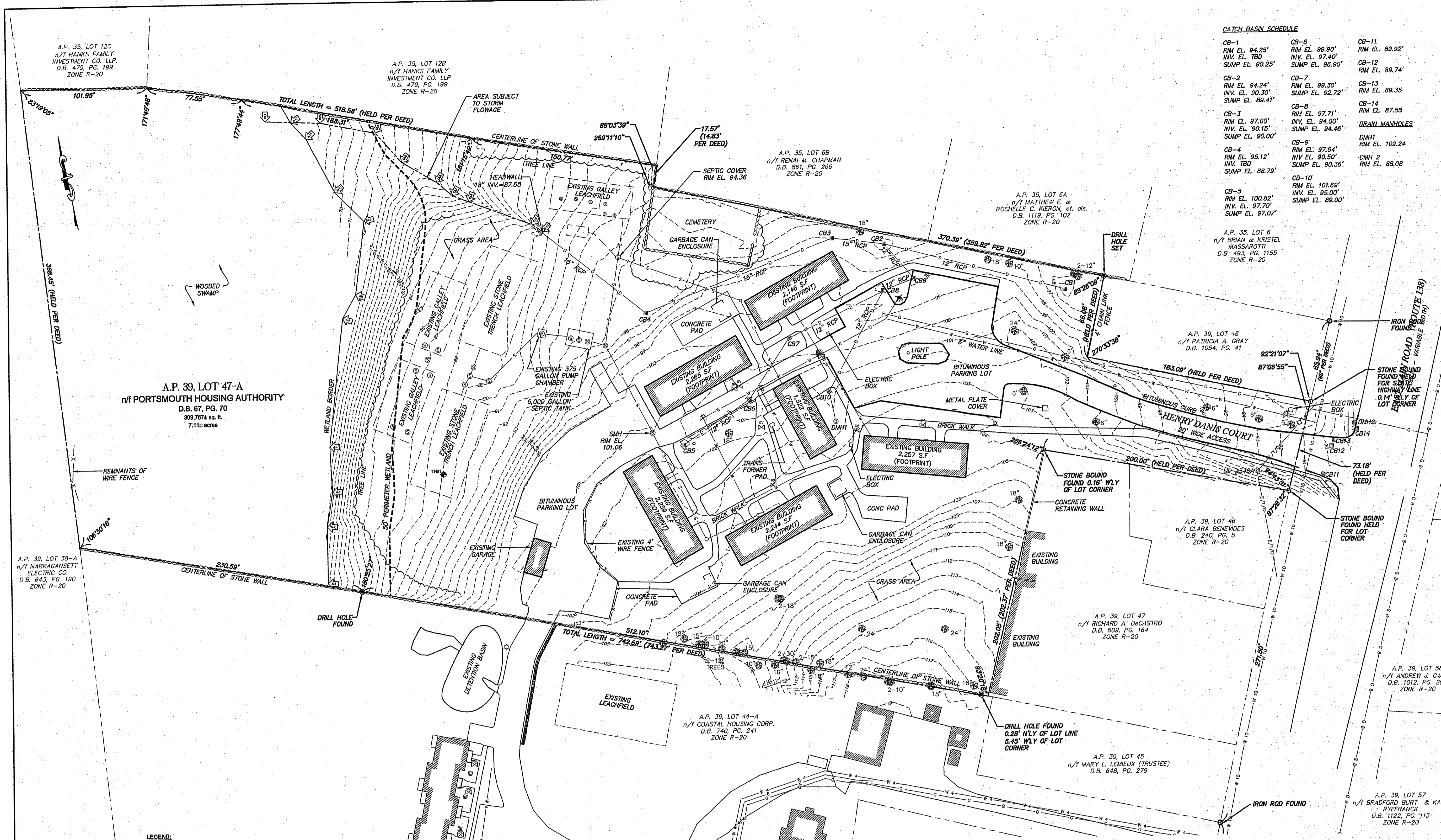
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- TRANSPORTATION
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- MATERIALS TESTING



CATCH BASIN SCHEDULE

CB-1 RIM EL. 94.25' INV. EL. TBD SUMP EL. 90.25'	CB-6 RIM EL. 99.90' INV. EL. 97.40' SUMP EL. 96.90'	CB-11 RIM EL. 89.92'
CB-2 RIM EL. 94.24' INV. EL. 90.30' SUMP EL. 89.41'	CB-7 RIM EL. 99.30' INV. EL. 92.72' SUMP EL. 89.41'	CB-12 RIM EL. 89.74'
CB-3 RIM EL. 97.00' INV. EL. 90.15' SUMP EL. 90.00'	CB-8 RIM EL. 97.71' INV. EL. 94.00' SUMP EL. 94.46'	CB-13 RIM EL. 89.35'
CB-4 RIM EL. 95.12' INV. EL. TBD SUMP EL. 88.79'	CB-9 RIM EL. 97.64' INV. EL. 90.50' SUMP EL. 90.36'	CB-14 RIM EL. 87.55'
CB-5 RIM EL. 100.82' INV. EL. 97.70' SUMP EL. 97.07'	DMH1 RIM EL. 102.24'	DMH 2 RIM EL. 88.08'



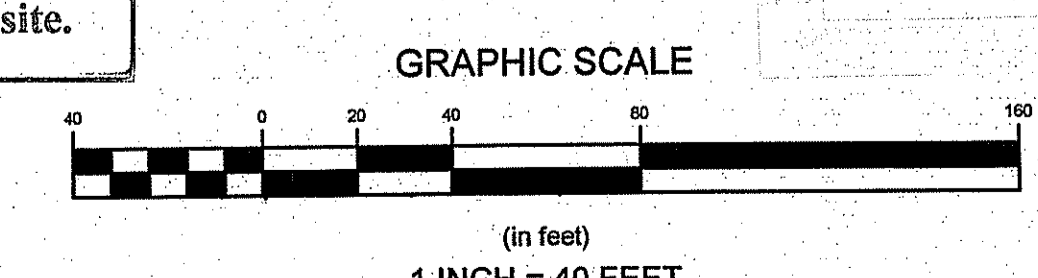
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---	ADJUTER'S PROPERTY LINE
---	EXISTING STONE WALL
---	EXISTING STOCKADE FENCE
---	EXISTING WIRE FENCE
---	EXISTING CONCRETE RETAINING WALL
---	EXISTING CONTOUR
---	EXISTING WATER LINE
---	EXISTING 10" WATER MAIN
---	EXISTING SEWER LINE
---	EXISTING DRAIN LINE
---	EXISTING GAS LINE
---	EXISTING ELECTRICAL/TELEPHONE/CABLE LINE
---	EXISTING DRAIN MANHOLE
---	EXISTING DRAIN CATCH BASIN
---	EXISTING SEWER MANHOLE
---	EXISTING WATER VALVE
---	EXISTING GAS VALVE
---	HYDRANT
---	LIGHT POLE
---	A.S.S.F. CENTERLINE
---	PERIMETER WETLAND LINE
---	WETLAND BORDER
---	WETLAND FLAG
---	EXISTING TREE LINE
---	TESTHOLE

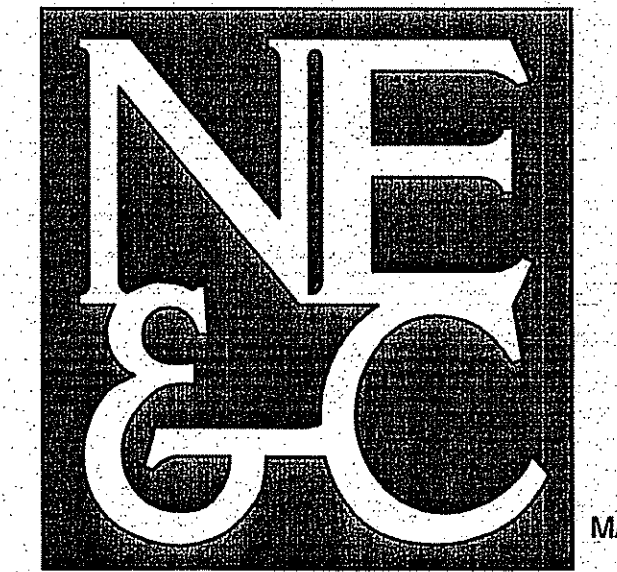
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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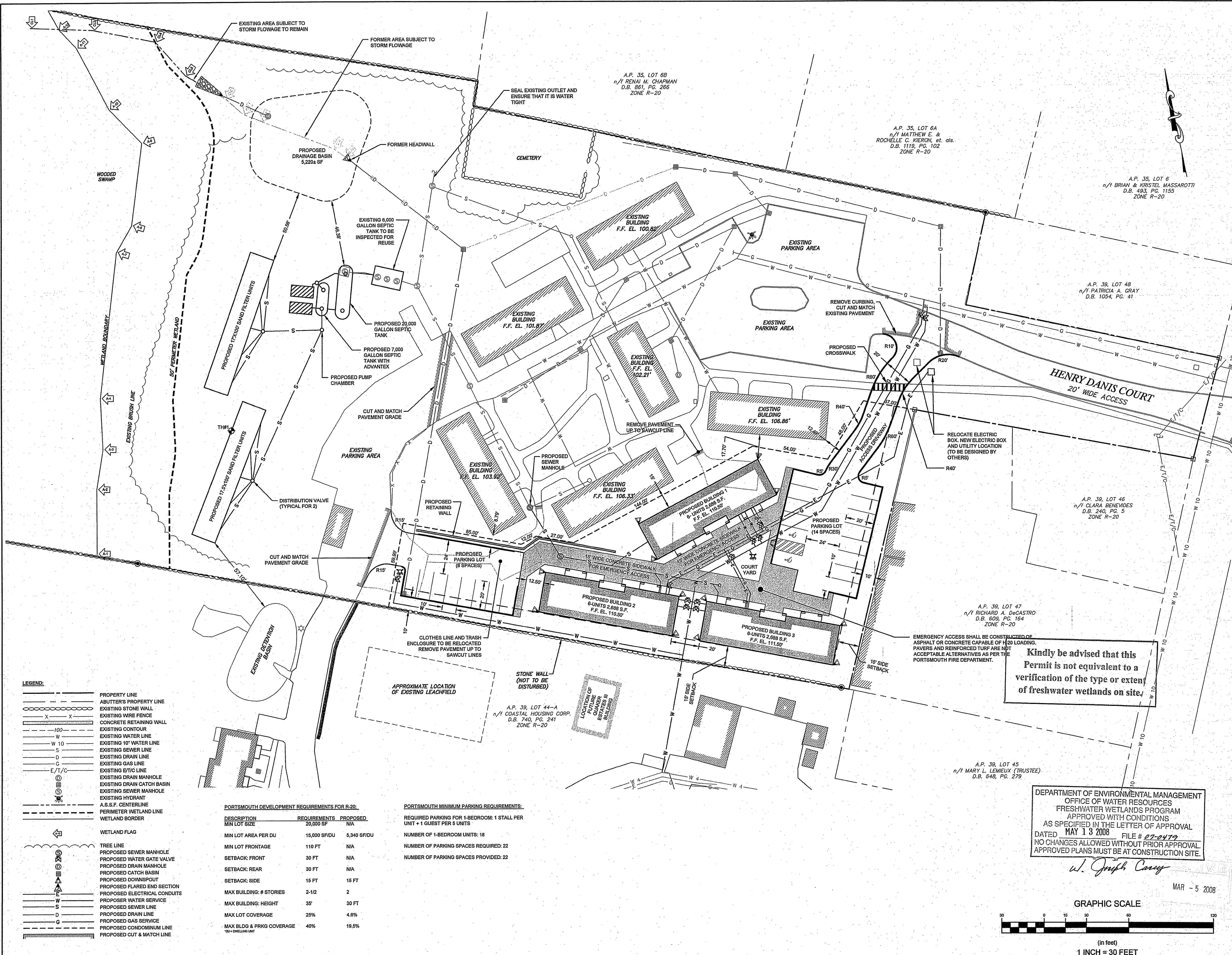


No.	Revision	Date	App.
Designed by:	Drawn by: SMP	Checked by:	
Scale:	1"=40'	Date:	NOVEMBER 2007
Project Title:			
QUAKER ESTATES IV			
A.P. 39, LOT 47A			
EAST MAIN ROAD PORTSMOUTH, RI			
Client/Owner:			
COASTAL HOUSING CORP. 2358 EAST MAIN ROAD PORTSMOUTH, RI			
Issued for:			
PERMITTING			
Drawing Title:			
EXISTING CONDITIONS			
PLAN			
Drawing Number:	C-03		
Sheet:	4 of 10		
Project Number:	07116.0		
Survey Index:	12 - 39 - 47A		
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1	REVISED PER TOWN COMMENT	JAN08
No.	Revision	Date
Designed By:	Drawn by: MJC	Checked by:
Scale:	1" = 30'	Date: NOVEMBER 2007

Project Title:
QUAKER ESTATES IV
A.P. 39, LOT 47A
EAST MAIN ROAD
PORTSMOUTH, RI

Client/Owner:
COASTAL HOUSING CORP.
2358 EAST MAIN ROAD
PORTSMOUTH, RI

Issued for:
PERMITTING

Drawing Title:
LAYOUT AND UTILITIES PLAN

	Drawing Number:	C-04
	Sheet	5 of 10
	Project Number:	07116.0
	Survey Index:	12 - 39 - 47A

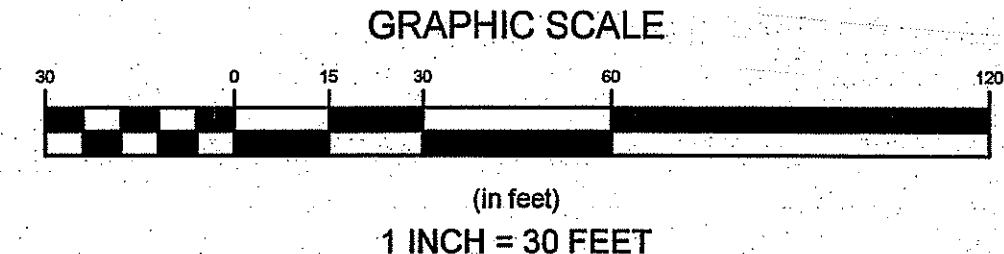
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OFFICE OF WATER RESOURCES
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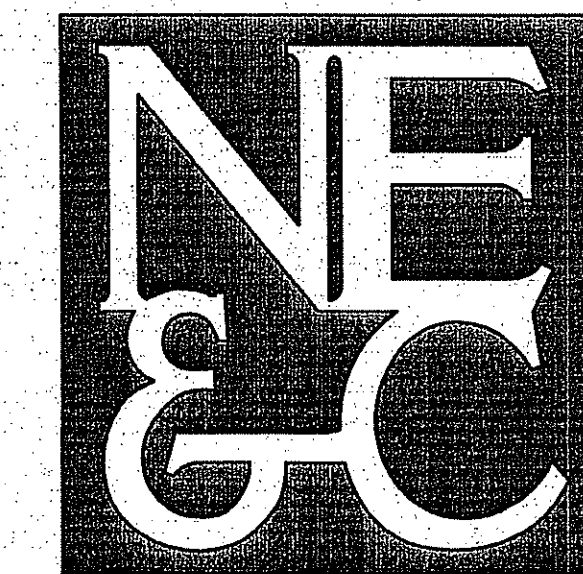
---	PROPERTY LINE
- - -	ABUTTER'S PROPERTY LINE
—●—	EXISTING STONE WALL
—x—x—	EXISTING WIRE FENCE
—	CONCRETE RETAINING WALL
—	EXISTING CONTOUR
—	EXISTING WATER LINE
W 10	EXISTING 10" WATER LINE
S	EXISTING SEWER LINE
D	EXISTING DRAIN LINE
—	EXISTING GAS LINE
—	EXISTING 6" TO 12" LINE
—	EXISTING DRAIN MANHOLE
—	EXISTING DRAIN CATCH BASIN
—	EXISTING SEWER MANHOLE
—	EXISTING HYDRANT
—	A.S.S.F. CENTERLINE
—	PERIMETER WETLAND LINE
—	WETLAND BORDER
—	WETLAND FLAG
—	TREE LINE
—	PROPOSED SEWER MANHOLE
—	PROPOSED WATER GATE VALVE
—	PROPOSED DRAIN MANHOLE
—	PROPOSED CATCH BASIN
—	PROPOSED DOWNSPOUT
—	PROPOSED FLARED END SECTION
—	PROPOSED ELECTRICAL CONDUITS
—	PROPOSED WATER SERVICE
—	PROPOSED SEWER LINE
—	PROPOSED DRAIN LINE
—	PROPOSED GAS SERVICE
—	PROPOSED CONDOMINIUM LINE
—	PROPOSED CUT & MATCH LINE

PORTSMOUTH DEVELOPMENT REQUIREMENTS FOR R-20:

DESCRIPTION	REQUIREMENTS	PROPOSED
MIN LOT SIZE	20,000 SF	N/A
MIN LOT AREA PER DU	15,000 SF/DU	5,340 SF/DU
MIN LOT FRONTAGE	110 FT	N/A
SETBACK FRONT	30 FT	N/A
SETBACK REAR	30 FT	N/A
SETBACK SIDE	15 FT	15 FT
MAX BUILDING: # STORIES	2-1/2	2
MAX BUILDING: HEIGHT	35'	30 FT
MAX LOT COVERAGE	25%	4.6%
MAX BLDG & PRKG COVERAGE	40%	19.8%

PORTSMOUTH MINIMUM PARKING REQUIREMENTS:

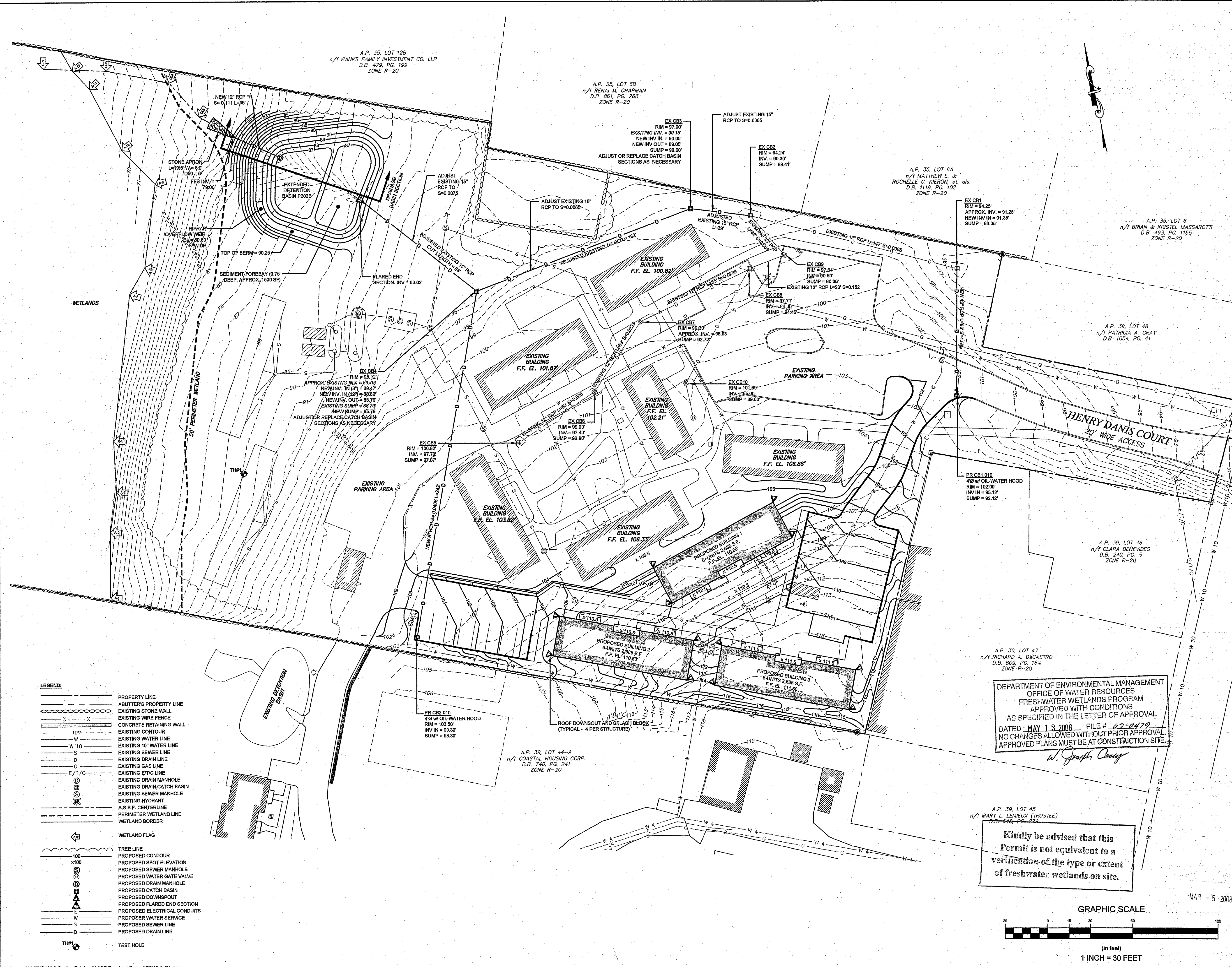
REQUIRED PARKING FOR 1-BEDROOM: 1 STALL PER UNIT + 1 GUEST PER 5 UNITS
NUMBER OF 1-BEDROOM UNITS: 18
NUMBER OF PARKING SPACES REQUIRED: 22
NUMBER OF PARKING SPACES PROVIDED: 22



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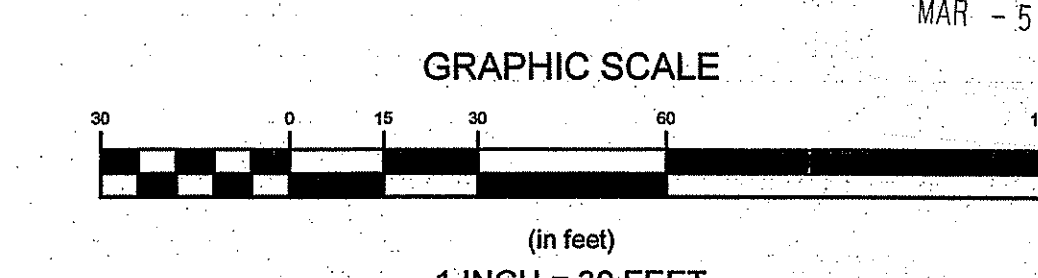


LEGEND:

	PROPERTY LINE
	ABUTTER'S PROPERTY LINE
	EXISTING STONE WALL
	EXISTING WIRE FENCE
	CONCRETE RETAINING WALL
	EXISTING CONTOUR
	EXISTING WATER LINE
	EXISTING SEWER LINE
	EXISTING DRAIN LINE
	EXISTING GAS LINE
	EXISTING E/T/C LINE
	EXISTING DRAIN MANHOLE
	EXISTING DRAIN CATCH BASIN
	EXISTING SEWER MANHOLE
	EXISTING HYDRANT
	A.S.S.F. CENTERLINE
	PERIMETER WETLAND LINE
	WETLAND BORDER
	WETLAND FLAG
	TREE LINE
	PROPOSED CONTOUR
	PROPOSED SPOT ELEVATION
	PROPOSED SEWER MANHOLE
	PROPOSED WATER GATE VALVE
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED DOWNSPOUT
	PROPOSED FLARED END SECTION
	PROPOSED ELECTRICAL CONDUITS
	PROPOSED WATER SERVICE
	PROPOSED SEWER LINE
	PROPOSED DRAIN LINE
	TEST HOLE

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W. Joseph Casey

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No.	REVISED PER TOWN COMMENT	JAN08
1		

Designed By: _____ Drawn by: **MJC** Checked by: _____
Scale: 1"=30' Date: **NOVEMBER 2007**
Project Title:
QUAKER ESTATES IV
A.P. 39, LOT 47A
EAST MAIN ROAD
PORTSMOUTH, RI

Client/Owner:
COASTAL HOUSING CORP.
2358 EAST MAIN ROAD
PORTSMOUTH, RI

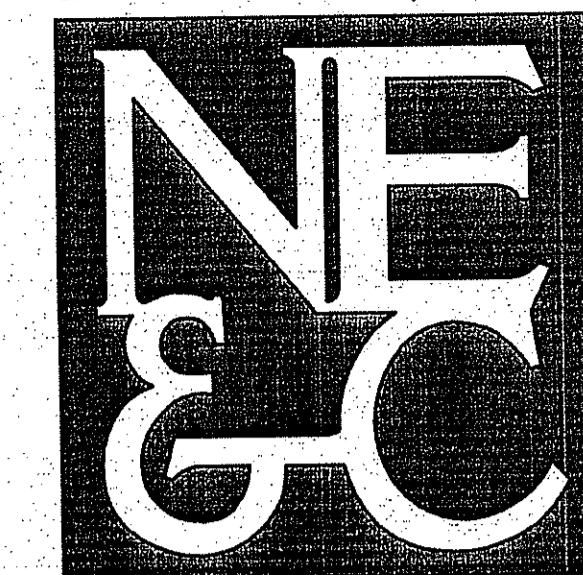
Issued for:
PERMITTING

Drawing Title:
**GRADING AND DRAINAGE
PLAN**

Drawing Number:
C-5
Sheet **6** of **10**
Project Number:
07116.0
Survey Index:
12 - 39 - 47A

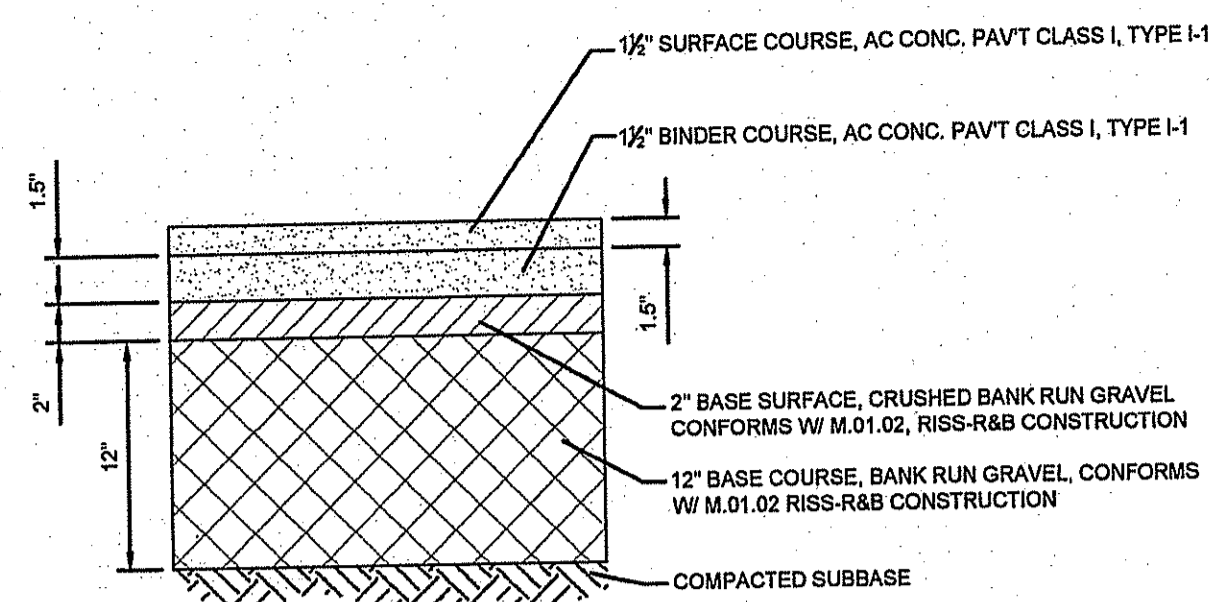
GERAWN E. SMALL
Gerawn E. Small
No. **8550**
Date **1/9/08**
**REGISTERED
PROFESSIONAL ENGINEER
CIVIL**

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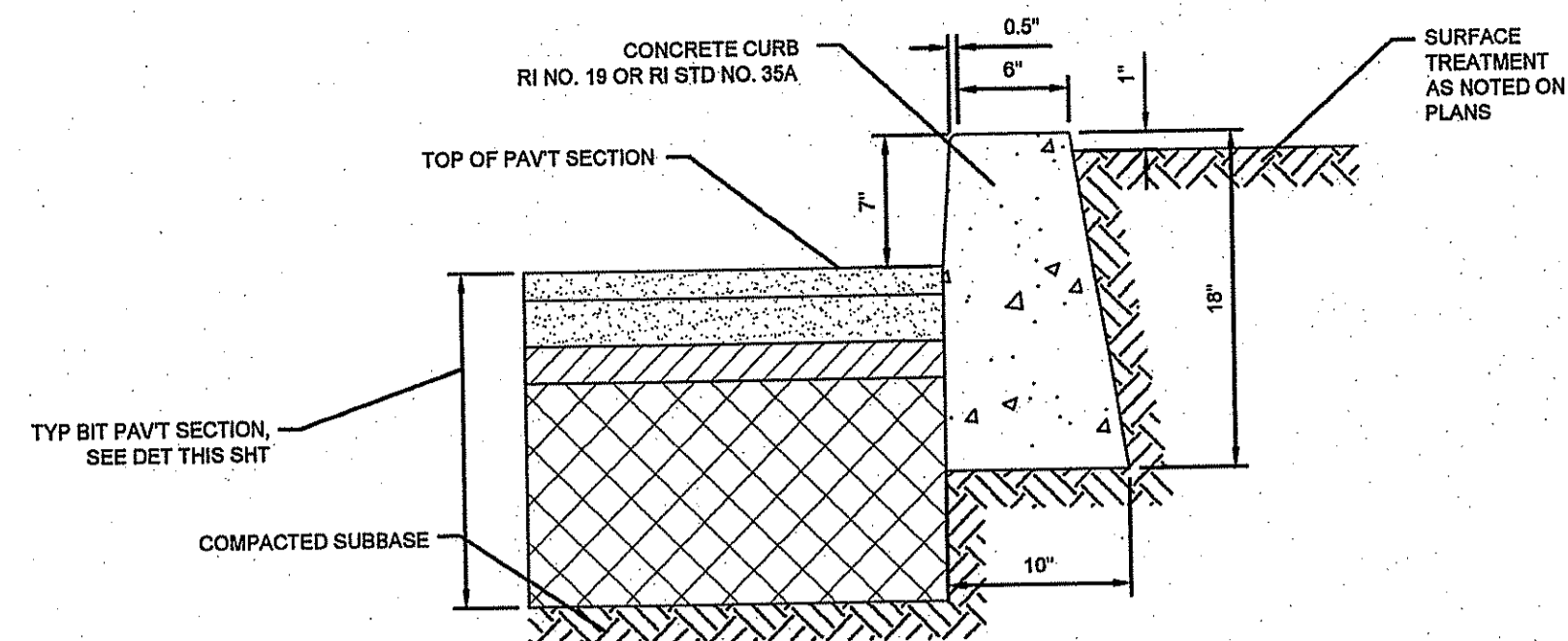


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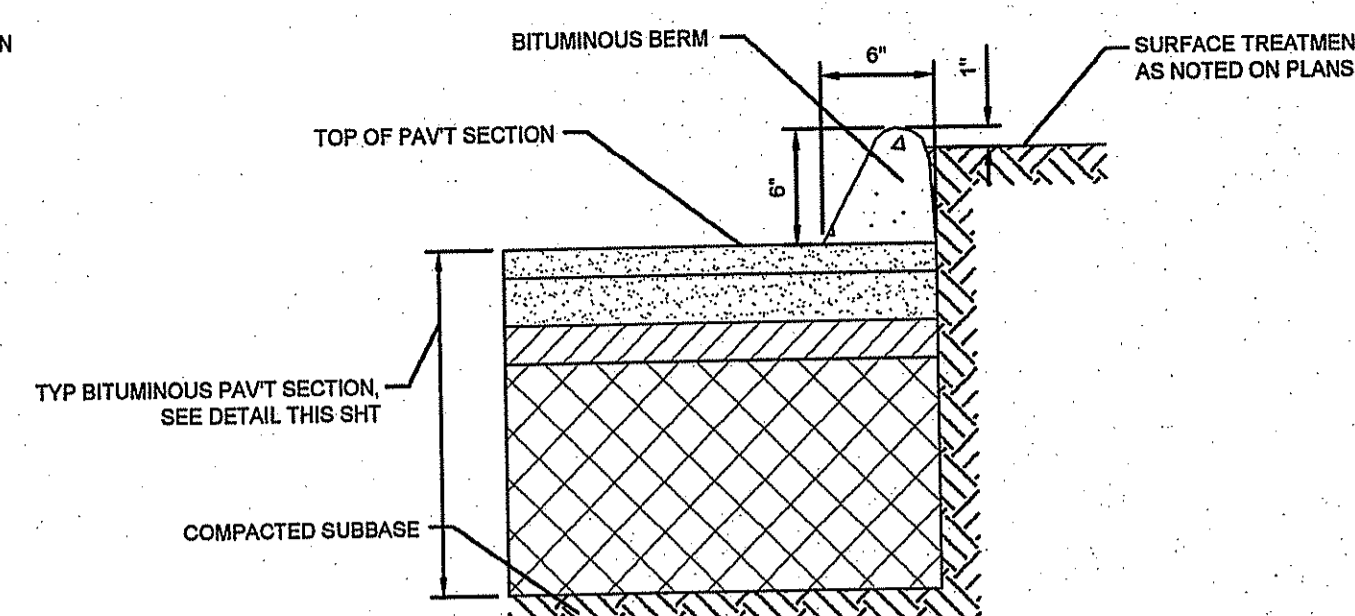
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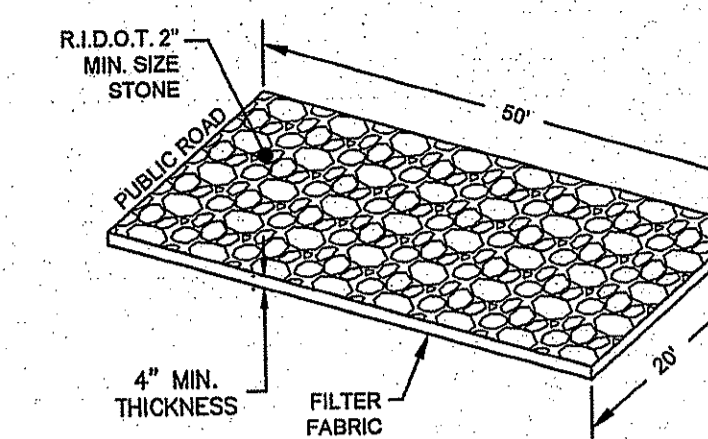
TYPICAL BITUMINOUS PAVEMENT SECTION
SCALE: NOT TO SCALE



TYPICAL CONCRETE CURB
SCALE: NOT TO SCALE

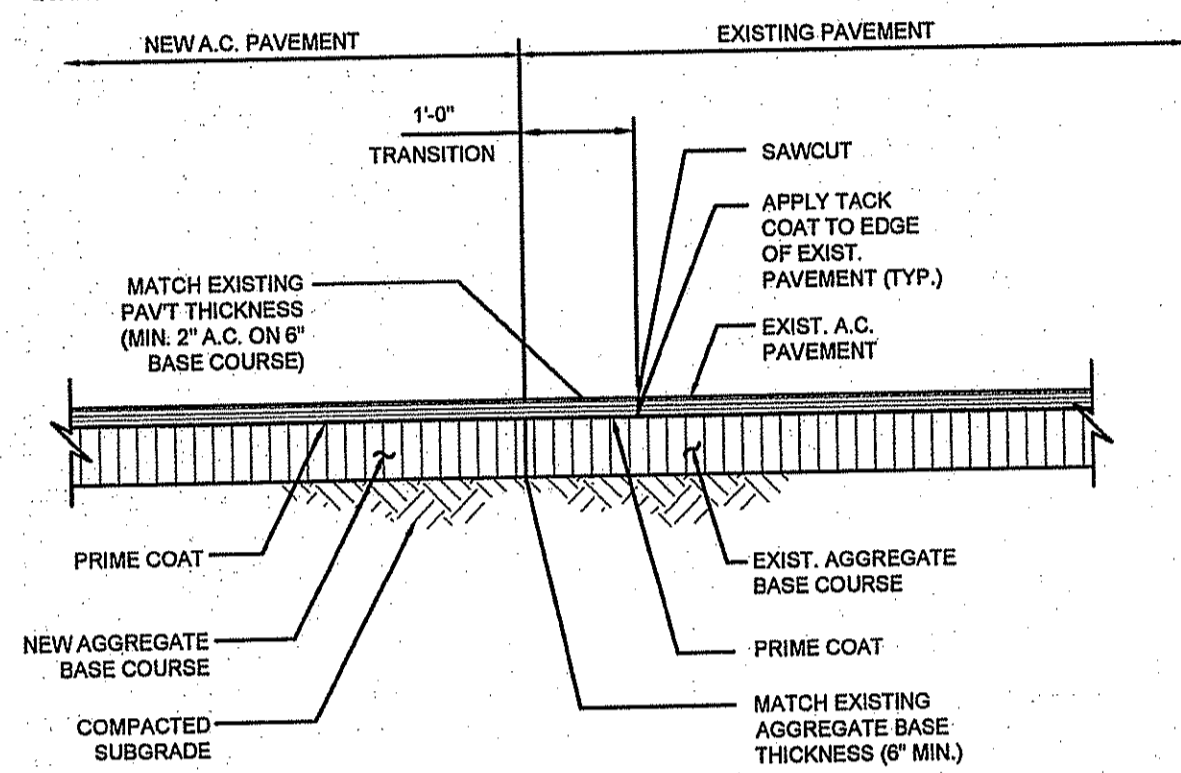


TYPICAL BITUMINOUS BERM
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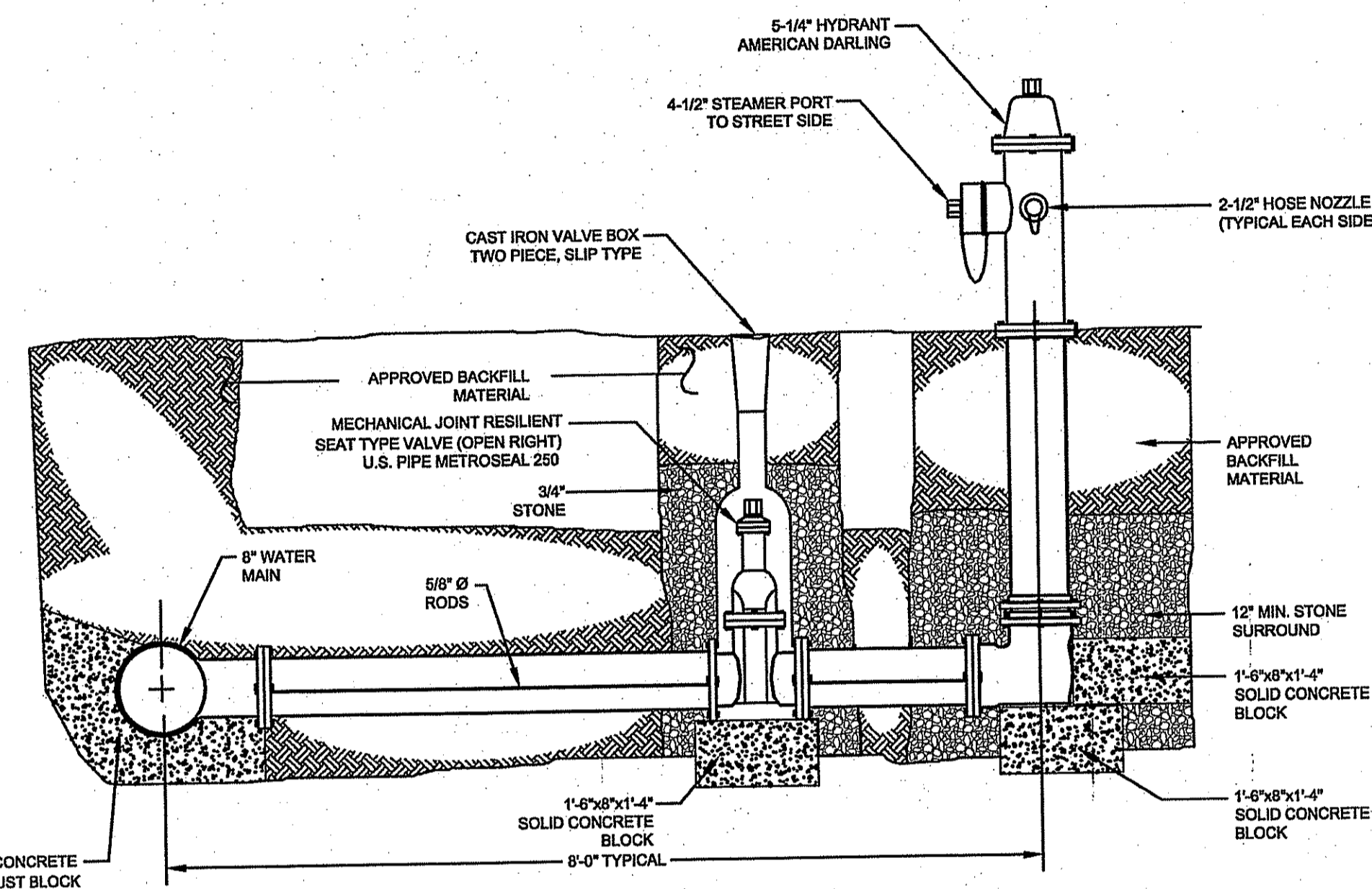


CONSTRUCTION ENTRANCE
SCALE: NOT TO SCALE

NOTE: PAVEMENT STRUCTURE SHALL BE RESTORED TO EQUAL OR BETTER THAN EXISTING IN THICKNESS AND QUALITY.



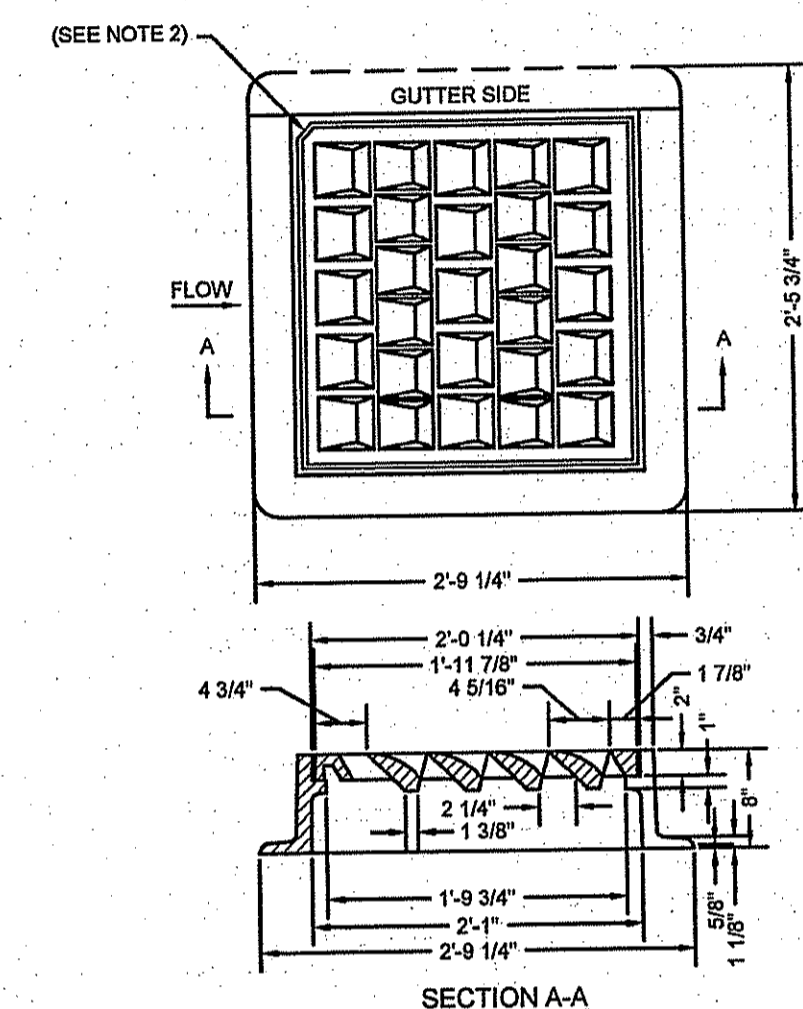
SMOOTH RIDING CONNECTION DETAIL
SCALE: NOT TO SCALE



FIRE HYDRANT DETAIL
(N.T.S.)

PIPE SIZE	FIXTURE	REQ'D RESTRAINED LENGTH
8"	CAP	40'
8"	90° BEND	10' IN EACH DIRECTION
8"	45° BEND	8' IN EACH DIRECTION
8"	22.5° BEND	4' IN EACH DIRECTION
8"	11.25° BEND	2' IN EACH DIRECTION

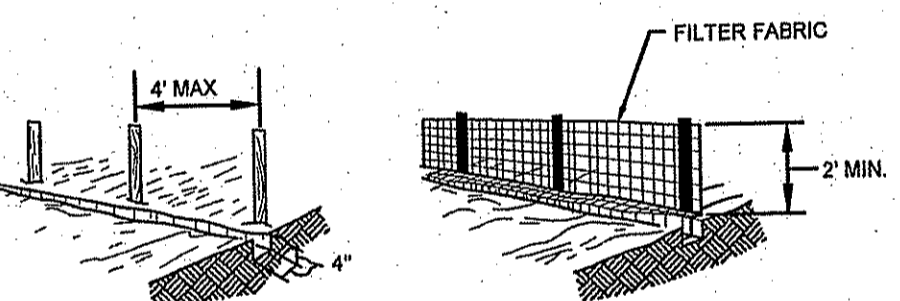
- NOTES:
- HYDRANT INSTALLATION AND OPERATION TO CONFORM TO REGULATIONS OF THE TOWN OF PORTSMOUTH FIRE AND WATER DISTRICT.
 - HYDRANT SHALL BE AMERICAN DARLING OR SIMILAR APPROVED (OPEN RIGHT).
 - HYDRANT NOZZLES SHALL BE SET AT A STANDARD HEIGHT ABOVE FINISHED GRADE (PER TOWN REQUIREMENTS).
 - MEGALIG RESTRAINED JOINTS MAY BE USED IN LIEU OF THRUST BLOCKS.



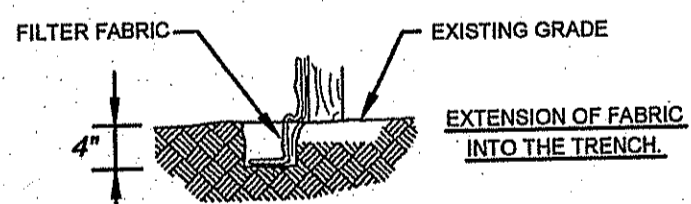
- NOTES:
- FRAME AND COVER SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
 - THIS CORNER LEFT FOR "LEFT" GRATE, DIAGONALLY OPPOSITE CORNER FOR "RIGHT" GRATE TO FIT IN KEVED FRAME.

HIGH CAPACITY FRAME & GRATE (RIDOT 6.4)
SCALE: NOT TO SCALE

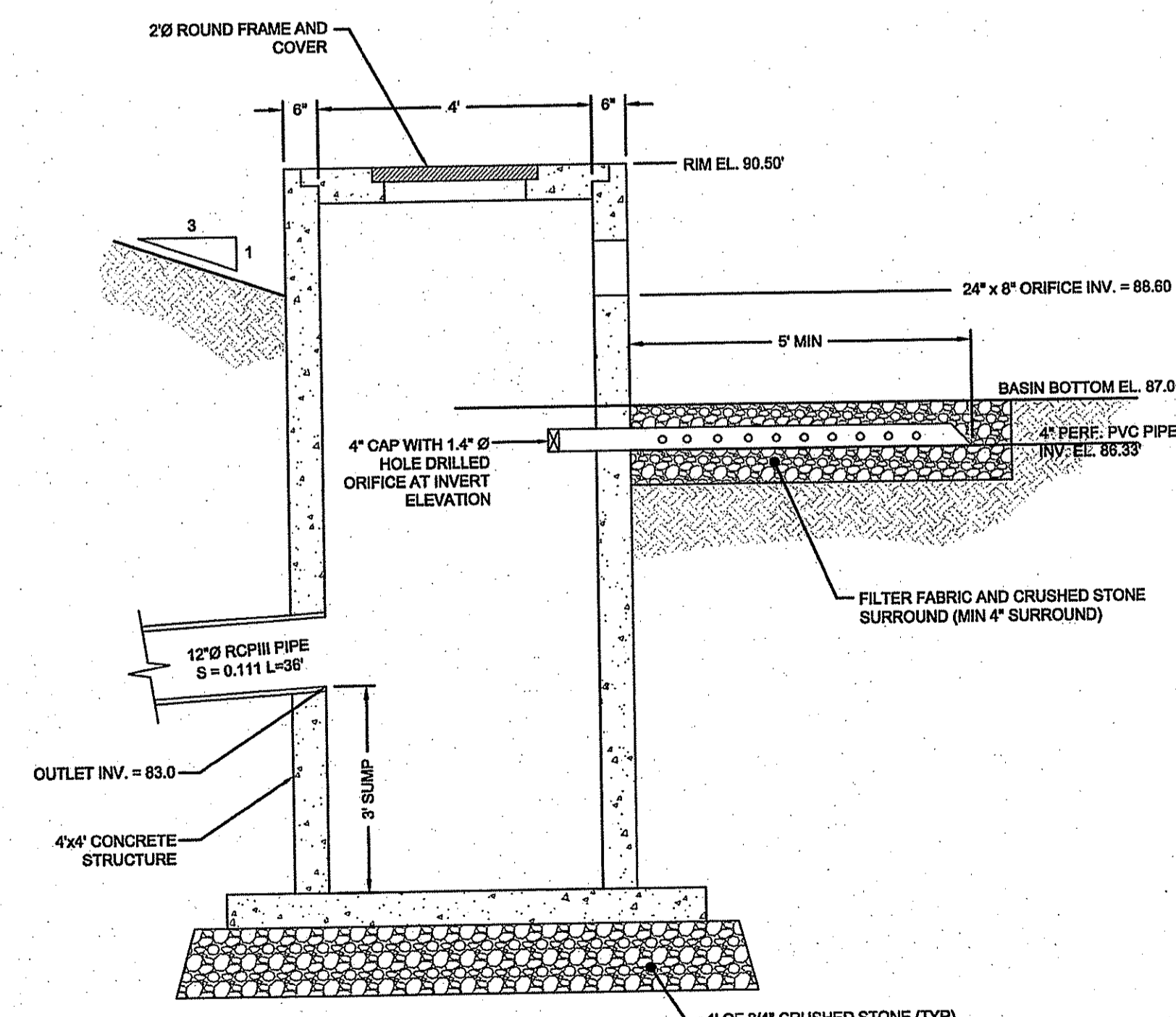
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAY 13 2008 FILE # 07-0479
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.



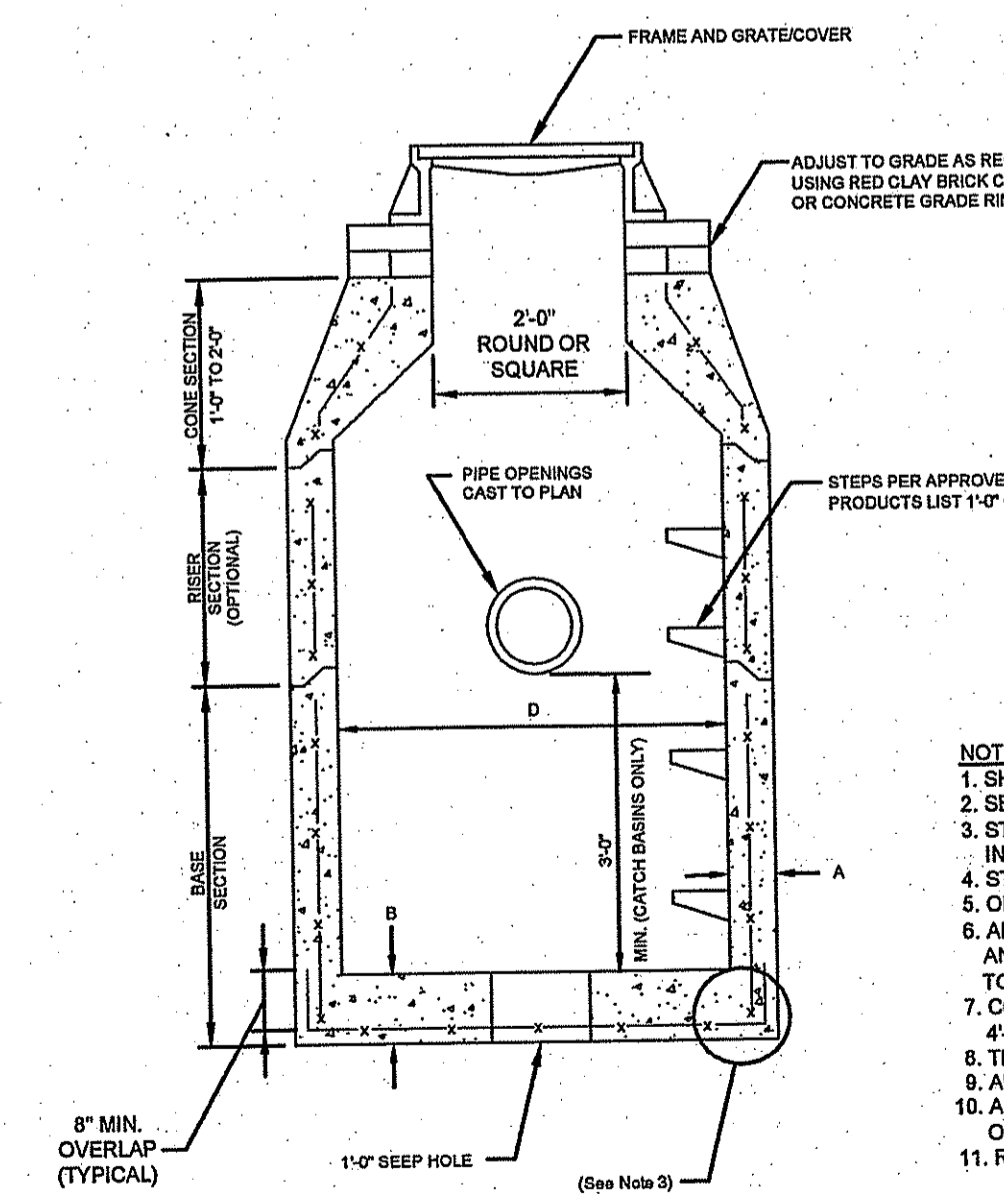
- NOTES:
- SET POSTS AND EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.
 - STAPLE FILTER FABRIC TO THE POSTS AND EXTEND INTO TRENCH.
 - BACK FILL AND COMPACT THE EXCAVATED SOIL INTO THE TRENCH.



SILT FENCE
SCALE: NOT TO SCALE



OUTLET STRUCTURE DETAIL
SCALE: 1"=2'



PRECAST ROUND CATCH BASIN & DRAIN MANHOLE (RIDOT 4.4.0)
SCALE: NOT TO SCALE

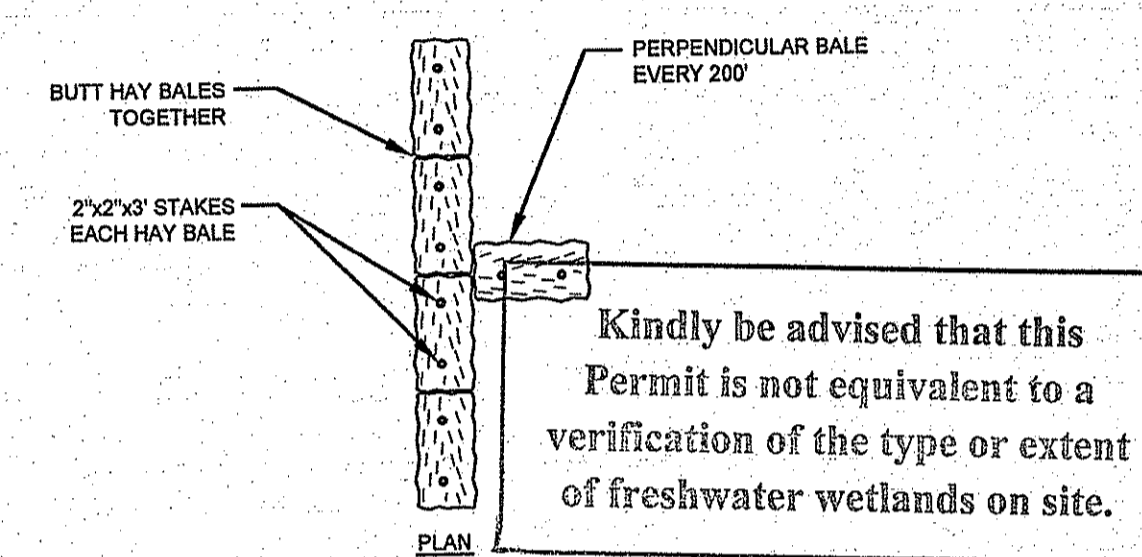
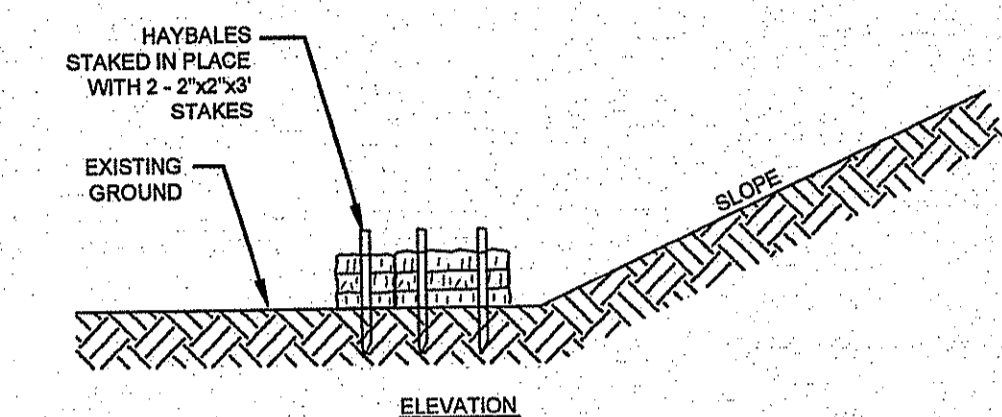
CATCH BASIN DIAMETER (D)	A	B	CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED*
4'-0"	6"	6"	0.12 SQ. IN./LN. FT.
5'-0"	6"	7"	0.15 SQ. IN./LN. FT.
6'-0"	7"	8"	0.18 SQ. IN./LN. FT.

* FOR LONGITUDINAL (VERTICAL STANDING) REINFORCEMENT REFER TO ASTM C478, ITEM 5.1.2

- NOTES:
- SHALL BE ACCORDANCE WITH SECTION T02 OF THE R.I. STANDARD SPECIFICATION.
 - SEE TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.
 - STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LN. FT. (BOTH WAYS).
 - STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
 - ONE POUR MONOLITHIC BASE SECTION.
 - ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
 - CORBEL MADE OF RED CLAY BRICK WILL BE PERMITTED FOR THE "CONE SECTION" OF THE 4'-0" CATCH BASIN ONLY.
 - THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS.
 - ALTERNATIVE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
 - REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

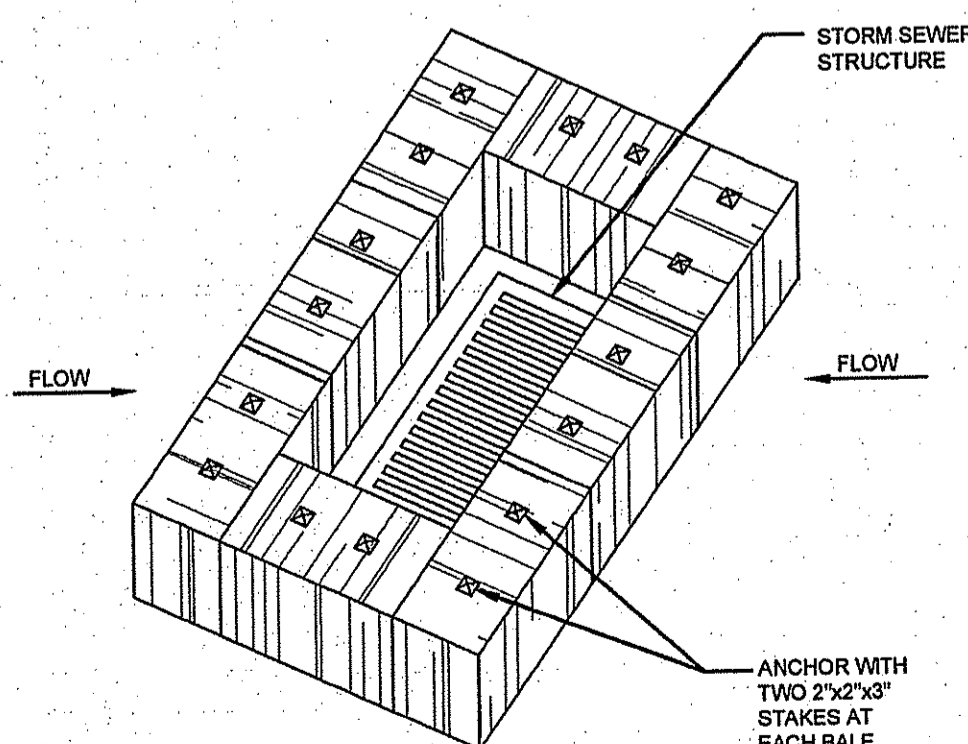
REVISED PER DEM!
12. SEEP HOLES TO BE SEALED FILE PROPOSED CATCH BASINS 1.010 & 2.010 AND EXISTING CATCH BASINS 8 & 9.

MAR - 5 2008



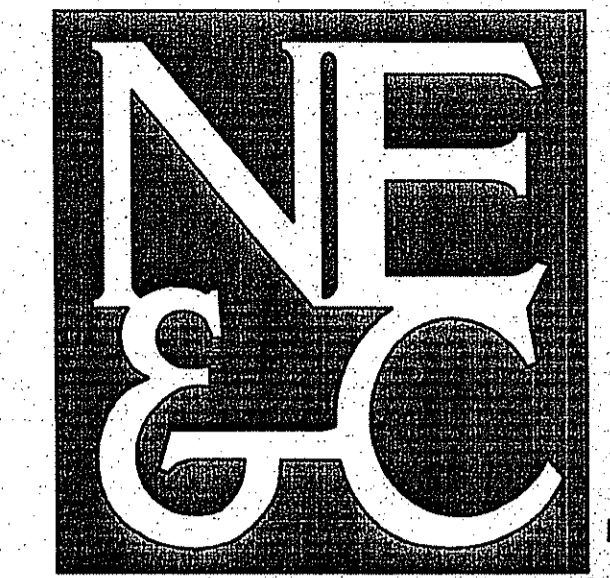
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

HAYBALE SEDIMENT BARRIER
SCALE: NOT TO SCALE



HAYBALE CATCH BASIN PROTECTION
SCALE: NOT TO SCALE

1	REVISED PER TOWN COMMENT	JAN08	
No.	Revision	Date	App.
Designed By:	Drawn by: JJR	Checked by:	
Scale:	AS SHOWN	Date:	NOVEMBER 2007
Project Title:	<p>QUAKER ESTATES IV A.P. 39, LOT 47A EAST MAIN ROAD PORTSMOUTH, RI</p>		
Client/Owner:	<p>COASTAL HOUSING CORP. 2358 EAST MAIN ROAD PORTSMOUTH, RI</p>		
Issued for:	PERMITTING		
Drawing Title:	<p>DETAILS</p>		
Drawing Number:	C-07		
Sheet	8 of 10		
Project Number:	07116.0		
Survey Index:	12 - 39 - 47A		
<p>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.</p>			



A KNOWLEDGE CORPORATION®
55 JOHN CLARKE ROAD MIDDLETOWN RHODE ISLAND 02842
PHONE (401) 849-0810 FAX (401) 846-4169
WWW.NORTHEASTENGINEERS.COM

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 **MAY 13 2008** FILE # **07-2478**
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Cooney

1	REVISED PER TOWN COMMENT	JAN08	
No.	Revision	Date	App.
Designed By:	Drawn by: JJR	Checked by:	
Scale:	AS SHOWN	Date:	NOVEMBER 2007
Project Title:			
QUAKER ESTATES IV			
A.P. 39, LOT 47A			
EAST MAIN ROAD			
PORTSMOUTH, RI			
Client/Owner:			
COASTAL HOUSING CORP.			
2358 EAST MAIN ROAD			
PORTSMOUTH, RI			
Issued for:			
PERMITTING			
Drawing Title:			
DETAILS			

Client/Owner:
COASTAL HOUSING CORP.
2358 EAST MAIN ROAD
PORTSMOUTH, RI

Issued for:
PERMITTING

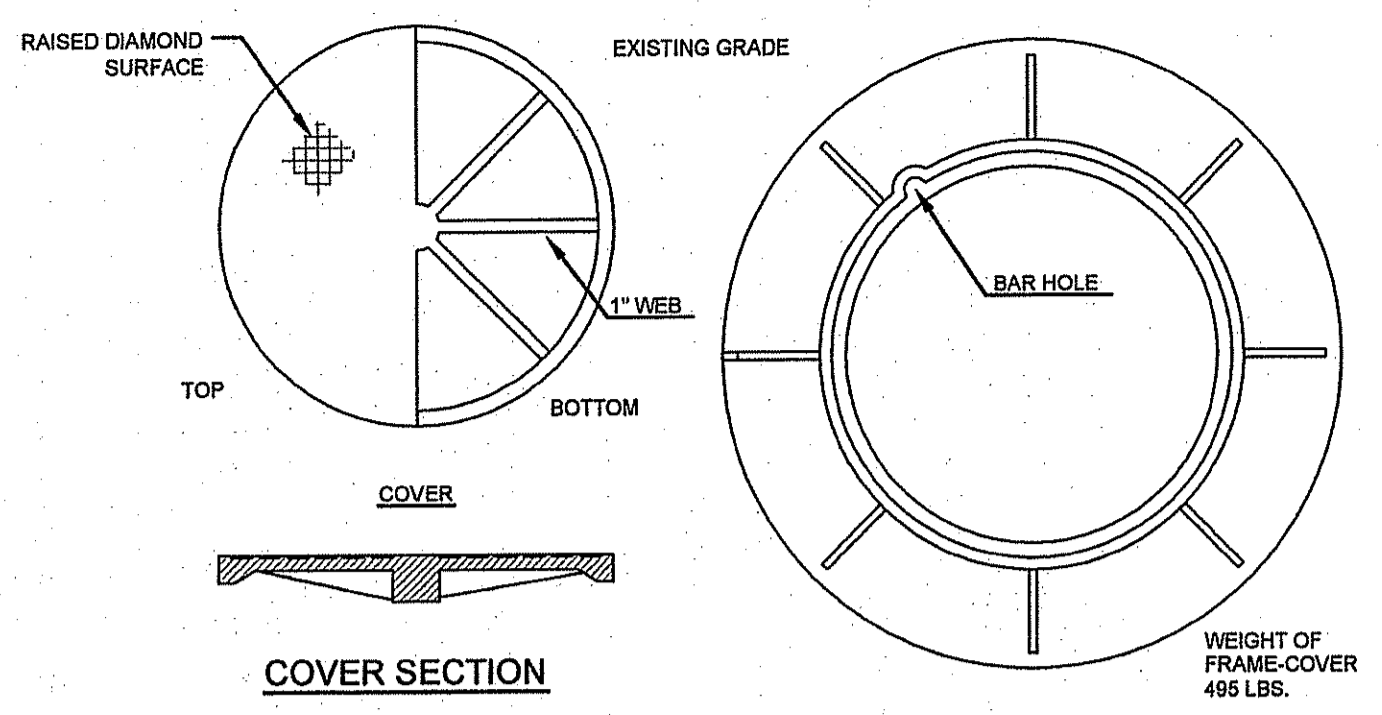
Drawing Title:
DETAILS

Drawing Number: **C-08**
Sheet **9** of **10**
Project Number: **07116.0**
Survey Index: **12-39-47A**

CATALYN E. SMALL
No. **8550**
REGISTERED PROFESSIONAL ENGINEER CIVIL

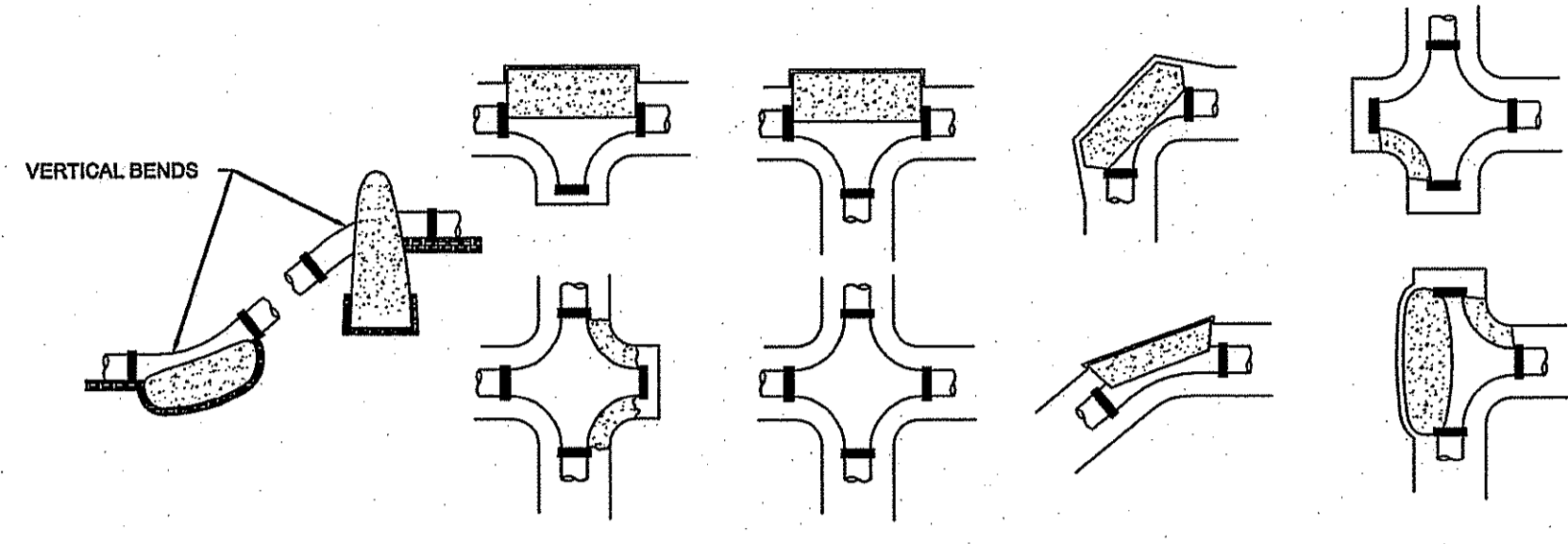
OWNERSHIP AND USE OF DOCUMENTS: DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER. THESE DOCUMENTS ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECTS OR PURPOSES, OR BY ANY OTHER PARTIES, THAN THOSE PROPERLY AUTHORIZED BY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

MAR - 5 2008

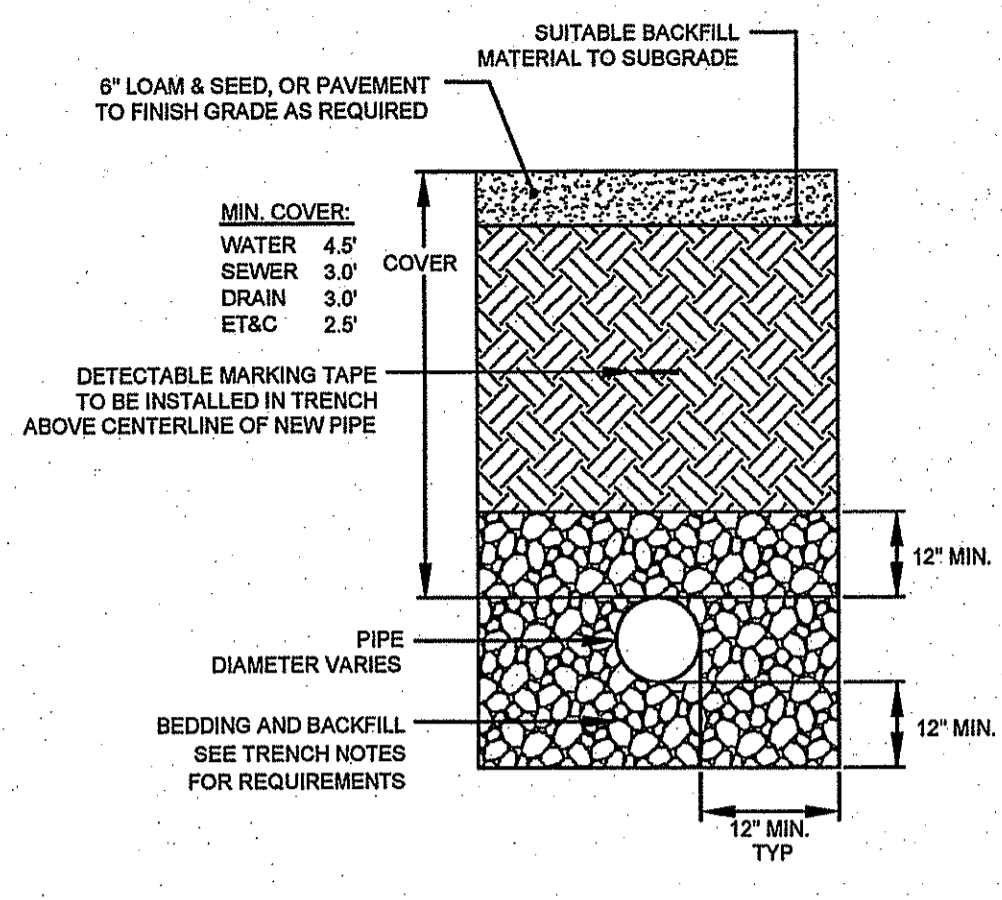


REACTION TYPE	PIPE SIZE	
	6"	8"
A 90°	5.5	21.6
B 180°	3.9	15.0
C 45°	3.0	11.7
D 22-1/2°	1.5	5.9
E 11-1/4°	0.8	3.0

- NOTES:
- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
 - ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
 - PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
 - WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKING.

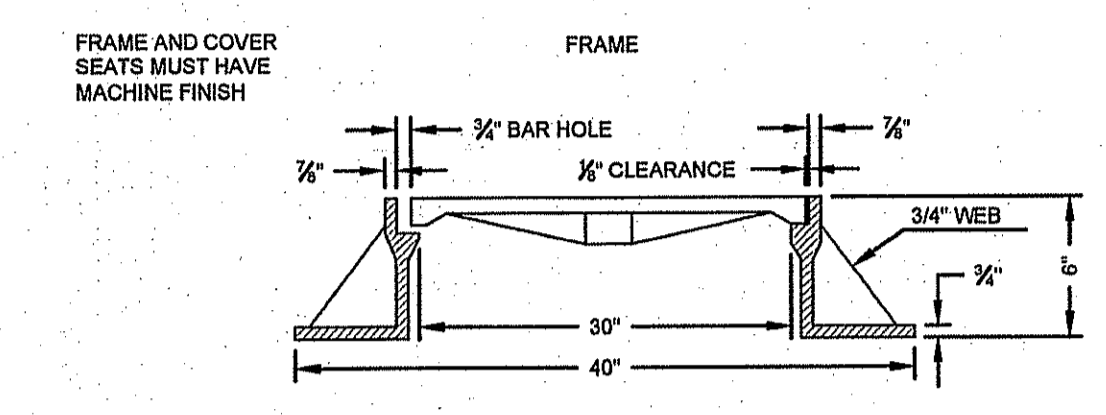


THRUST BLOCKING DETAIL
SCALE: NOT TO SCALE

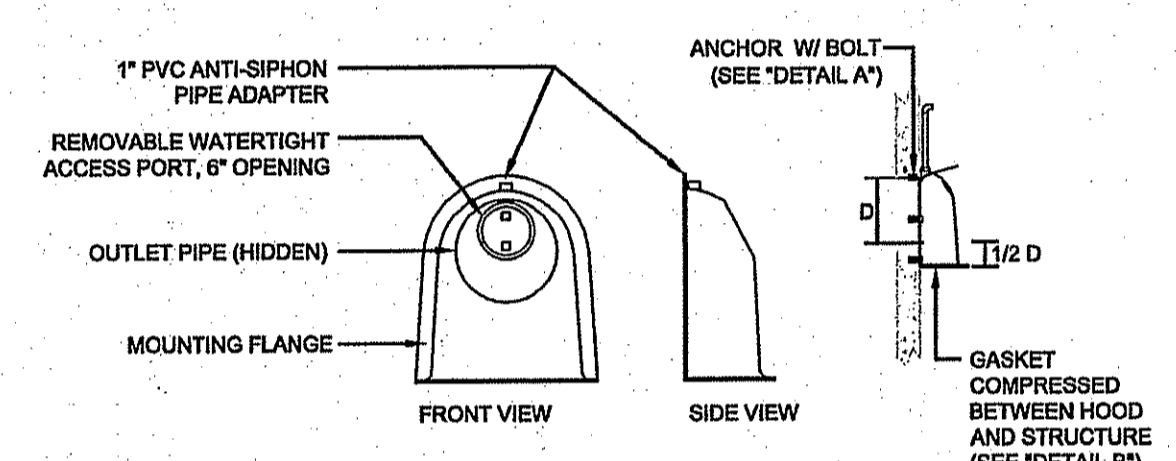


- TRENCH NOTES:
- UNSUITABLE MATERIAL SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 12-INCHES BELOW THE DESIGN INVERT ELEVATION.
 - TRENCH PROTECTION SHALL BE REQUIRED IN ACCORDANCE WITH OSHA REGULATIONS, AND AS OTHERWISE REQUIRED TO PROTECT UTILITIES, ROADWAYS, AND ADJACENT STRUCTURES.
 - SEWER AND DRAIN PIPES SHALL BE LAYED BEGINNING AT THE DOWNSTREAM END OF THE PIPE LINE.
 - ALL PVC SEWER PIPES SHALL BE IPEX RING-TITE SDR 35, OR SIMILAR APPROVED. 8" DIA MAINS - 8" DIA SERVICES.
 - ALL DRAIN PIPES UNDER VEHICLE TRAVEL SURFACES SHALL BE RCP. CLASS III PIPING SHALL BE USED WITH PIPE COVER 3 FEET OR GREATER. ELSE CLASS IV SHALL BE USED. ADS N-12 (SMOOTH BORE) SHALL BE USED IN ALL OTHER INSTANCES.
 - ALL SEWER PIPE AND GASKETS SHALL CONFORM TO ASTM 3034 AND ASTM F876.
 - BACKFILL MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED 12" IN HEIGHT. THESE LAYERS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (ASHTO T180). SUITABLE BACKFILL SHALL BE FREE OF LOAM, CLAY, ORGANIC MATTER AND PARTICLES LARGER THAN 2 INCHES IN DIAMETER.
 - SEWER AND DRAINAGE PIPE TRENCHES SHALL BE BEDDED WITH CRUSHED STONE OR SCREENED GRAVEL. THESE MATERIALS MUST CONFORM TO RIDOT STANDARD M.D.1.09 TYPE II MATERIAL.
 - WATER PIPE TRENCHES MUST BE BEDDED WITH SAND CONTAINING NO PARTICLES LARGER THAN #30. THIS MATERIAL MUST CONFORM TO ASHTO M6 REQUIREMENTS.
 - UTILITY INSTALLATIONS SHALL CONFORM TO ALL REQUIREMENTS OF THE TOWN OF PORTSMOUTH PUBLIC WORKS RULES AND REGULATIONS.

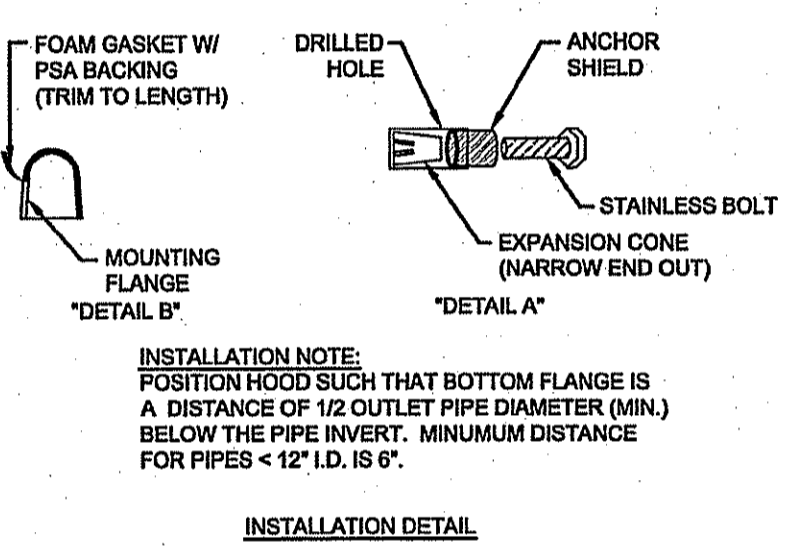
UTILITY TRENCH DETAIL AND NOTES
SCALE: NOT TO SCALE



ROUND FRAME AND COVER
SCALE: NOT TO SCALE



CONFIGURATION DETAIL



INSTALLATION DETAIL

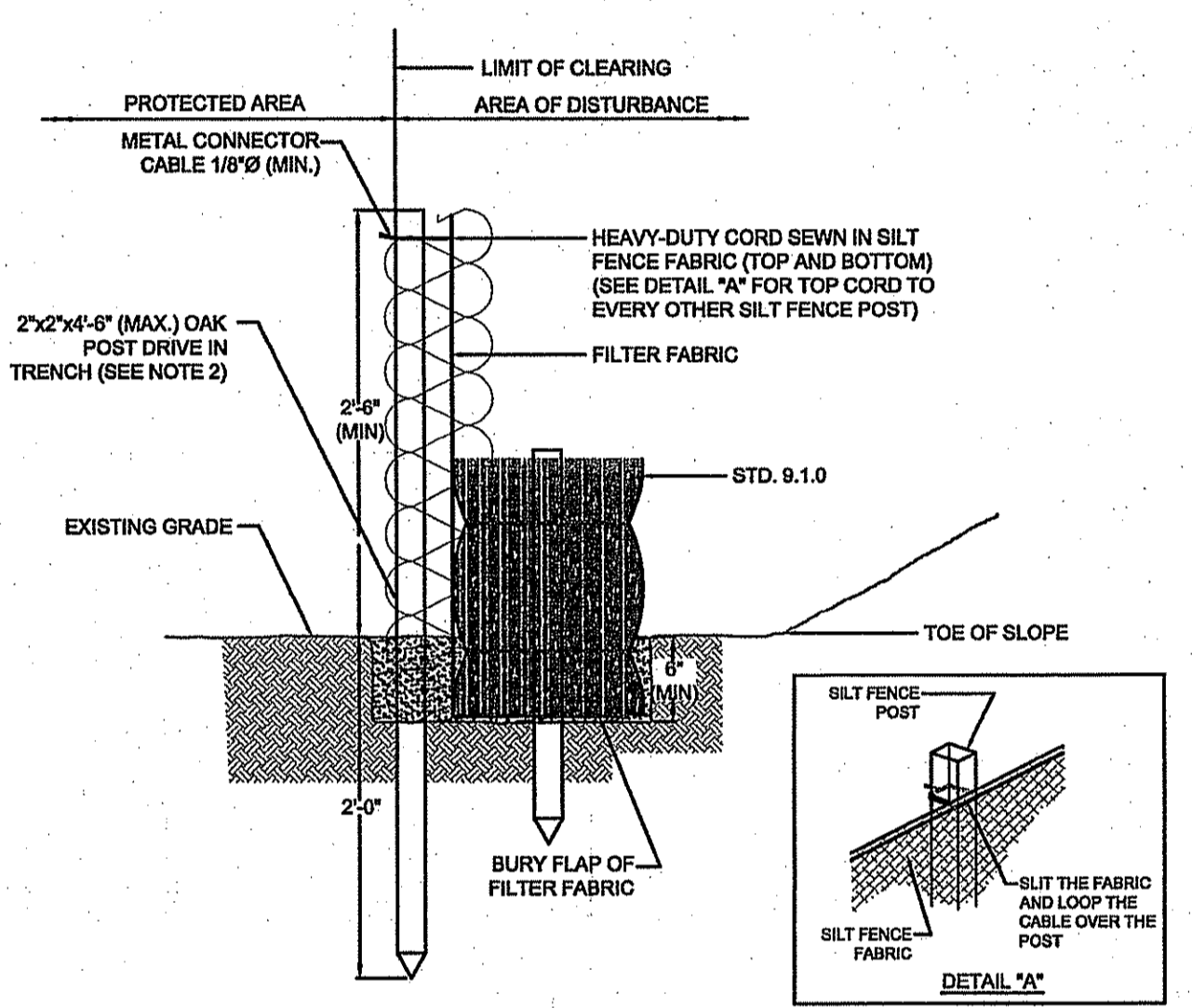
- NOTES:
- ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY: BEST MANAGEMENT PRODUCTS, INC. 53 MT. ARCHER RD. LYME, CT 06371 (603) 434-1277, (800) 434-3165 FAX (603) 434-1277, (800) 554-8008 OR (860) 354-7585 WEB SITE: www.bmpinc.com OR PRE-APPROVED EQUAL.
 - ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
 - ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL).
 - THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
 - THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE OF 24" BELOW THE OUTLET PIPE INVERT. INSTALL PVC RISER AS NECESSARY.
 - THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
 - THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
 - THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL).
 - INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE: A. INSTALLATION INSTRUCTIONS B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING D. 3/8" STAINLESS STEEL BOLTS E. ANCHOR SHIELDS
 - SIZE AND INVERTS OF INLET AND OUTLET PIPES VARIES. REFER TO FOLLOWING SIZING TABLE FOR SNOOT DIMENSIONS.

STRUCTURE OUTLET HOLE SIZE	SNOOT SIZE
11.9" O.D. OR LESS	12 R
12.0"-17.9" O.D.	18 R
18.0"-23.9" O.D.	24 R
24.0"-28.9" O.D.	30 R

** OIL/WATER SEPARATOR HOODS ARE TO BE INSTALLED IN ALL STRUCTURES NOTED.

OIL / WATER SEPARATOR HOOD DETAILS
SCALE: NOT TO SCALE

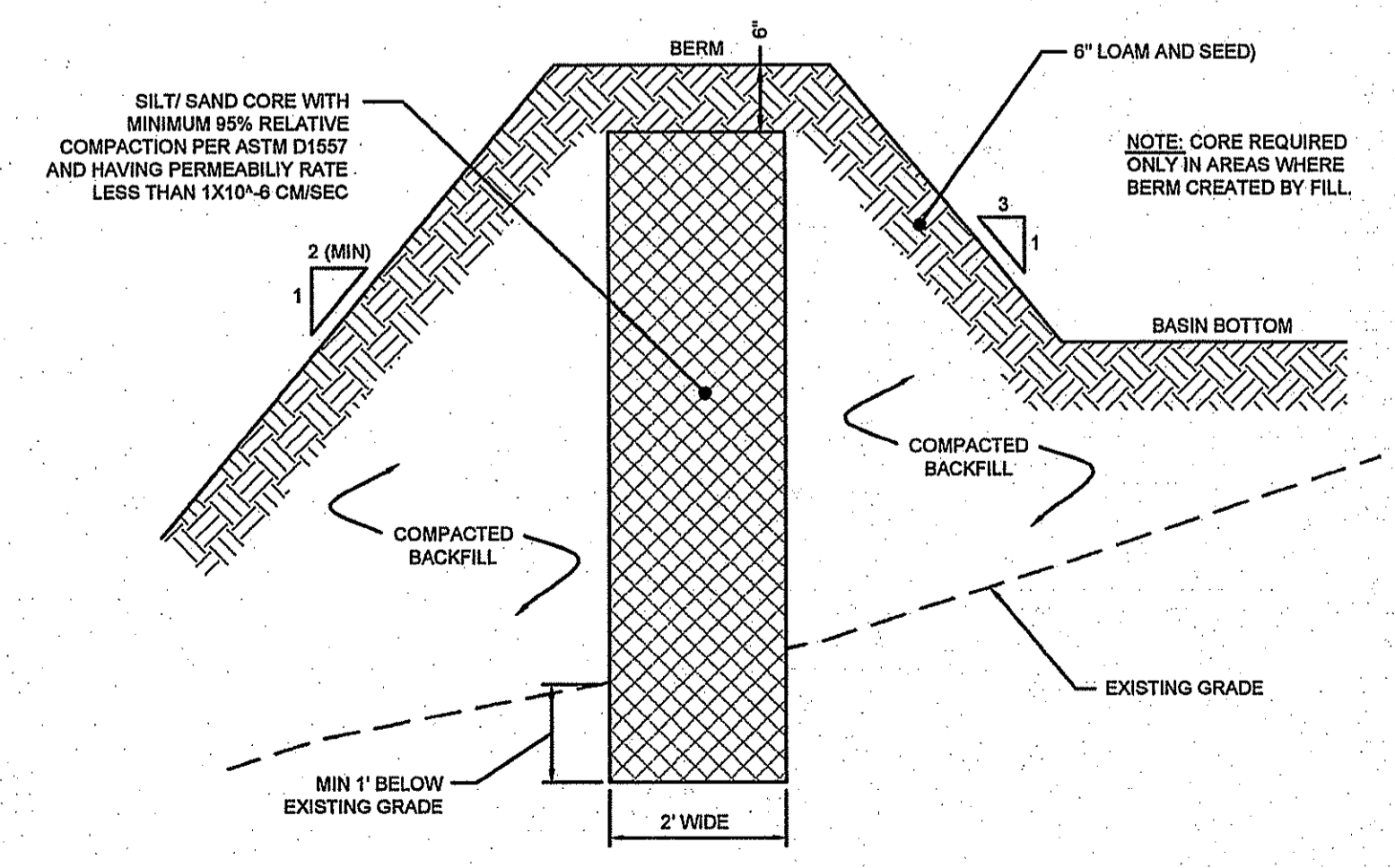
REVISED PER DEM.
HOODS ARE TO BE INSTALLED ON PROPOSED CATCH BASINS 1, 010 & 2, 010 AND EXISTING CATCH BASINS 8 & 9.



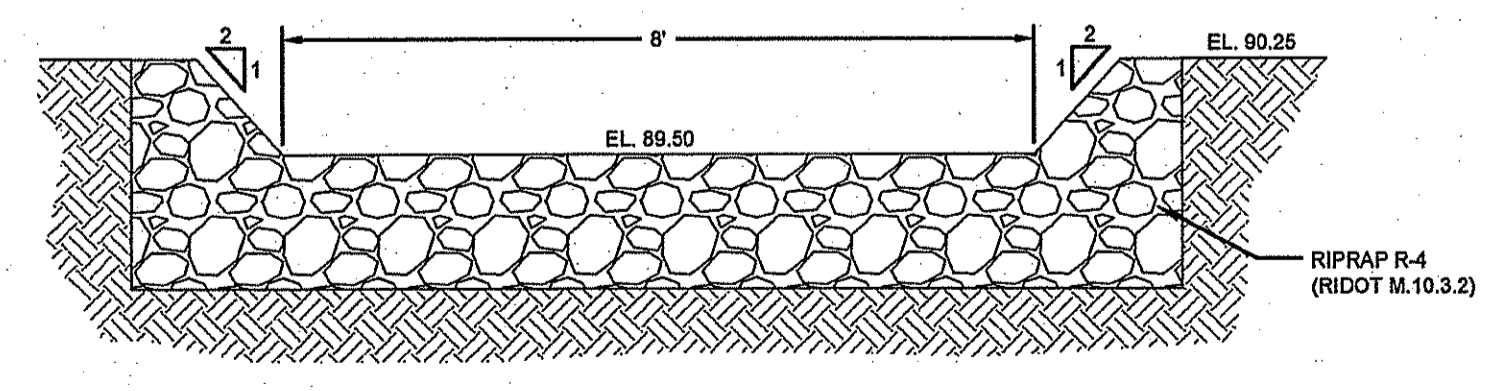
- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
 - STD. 9.1.0 IS INSTALLED "TIGHT" AGAINST SILT FENCE. THOROUGHLY COMPACT EXCAVATED SOILS BACK INTO TRENCH AFTER INSTALLATION OF EROSION CONTROL DEVICE. SILT FENCE FABRIC SHALL NOT BE SLIT. STD. 9.1.0 POST SHALL BE DRIVEN THROUGH SILT FENCE FABRIC. 2"x2"x4" (MAX.) OAK POST FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAX.) O.C. IN WETLAND AREAS AND 4'-0" (MAX.) O.C. IN WETLAND RAVINE, GULLY OR DROP OFF AREAS AS SHOWN ON PLANS.
 - 1"x1"x4" (MIN.) POSTS ARE PERMITTED FOR PRE-FABRICATED SILT FENCE.
 - SILT FENCE AND BALED HAY SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.

EROSION CONTROL BARRIER
SCALE: NOT TO SCALE

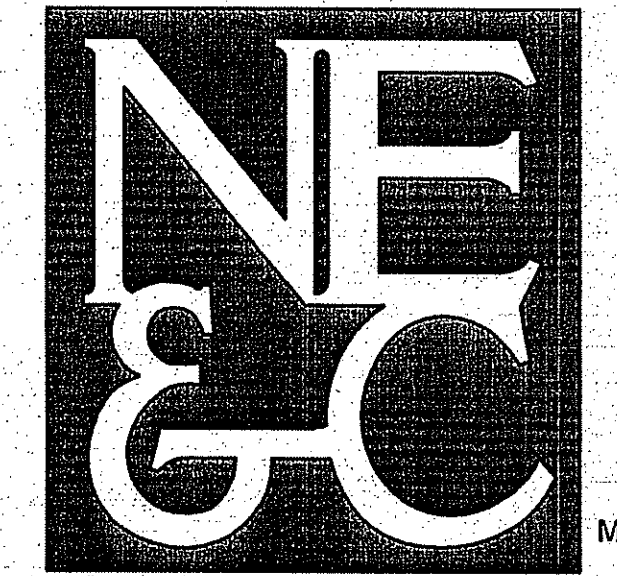
PRECAST CONCRETE FLARED END SECTION (RIDOT 2.3.0)
SCALE: NOT TO SCALE



BERM CORE DETAIL
SCALE: NOT TO SCALE

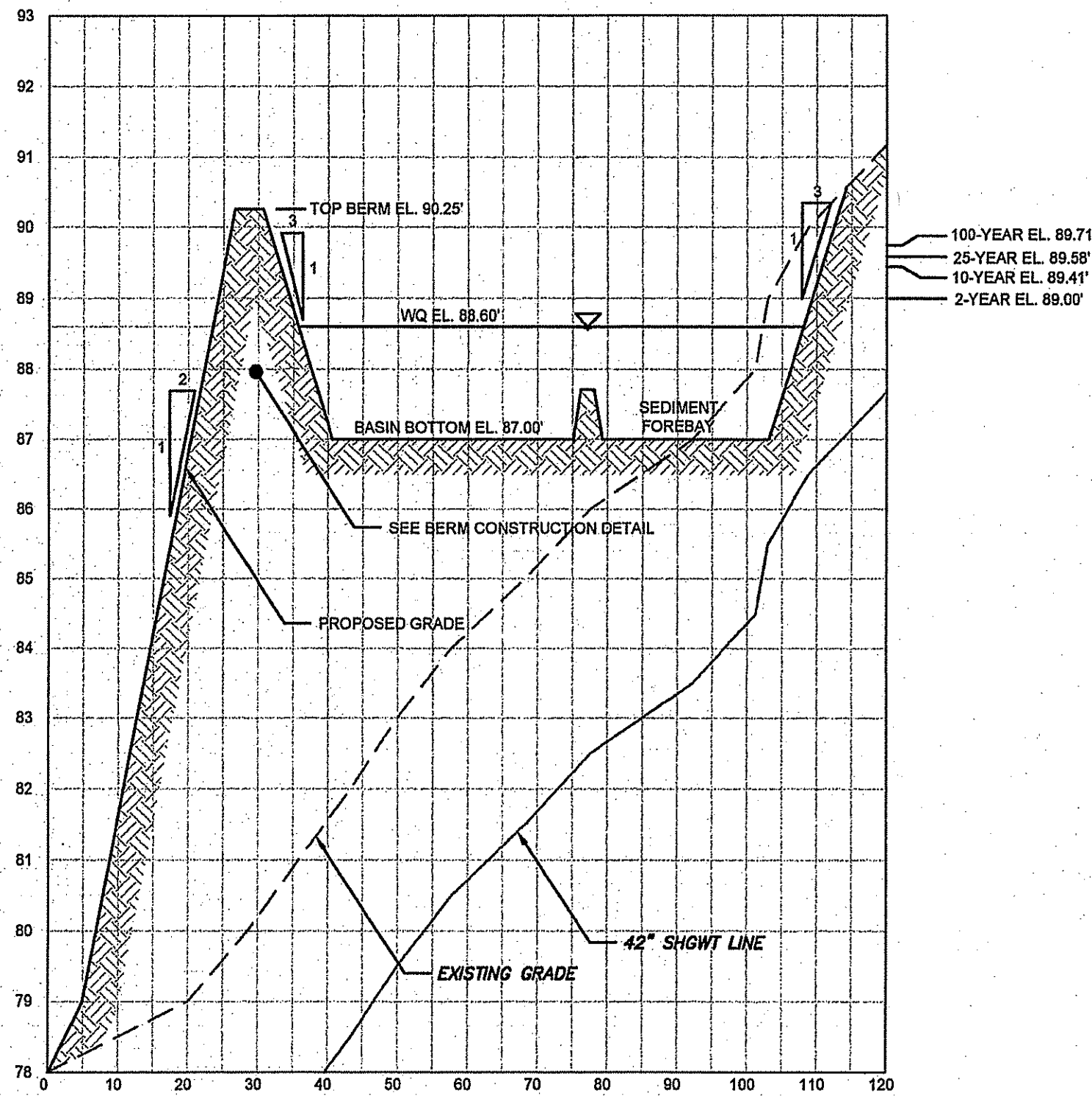


OVERFLOW WEIR DETAIL
SCALE: 1"=2'

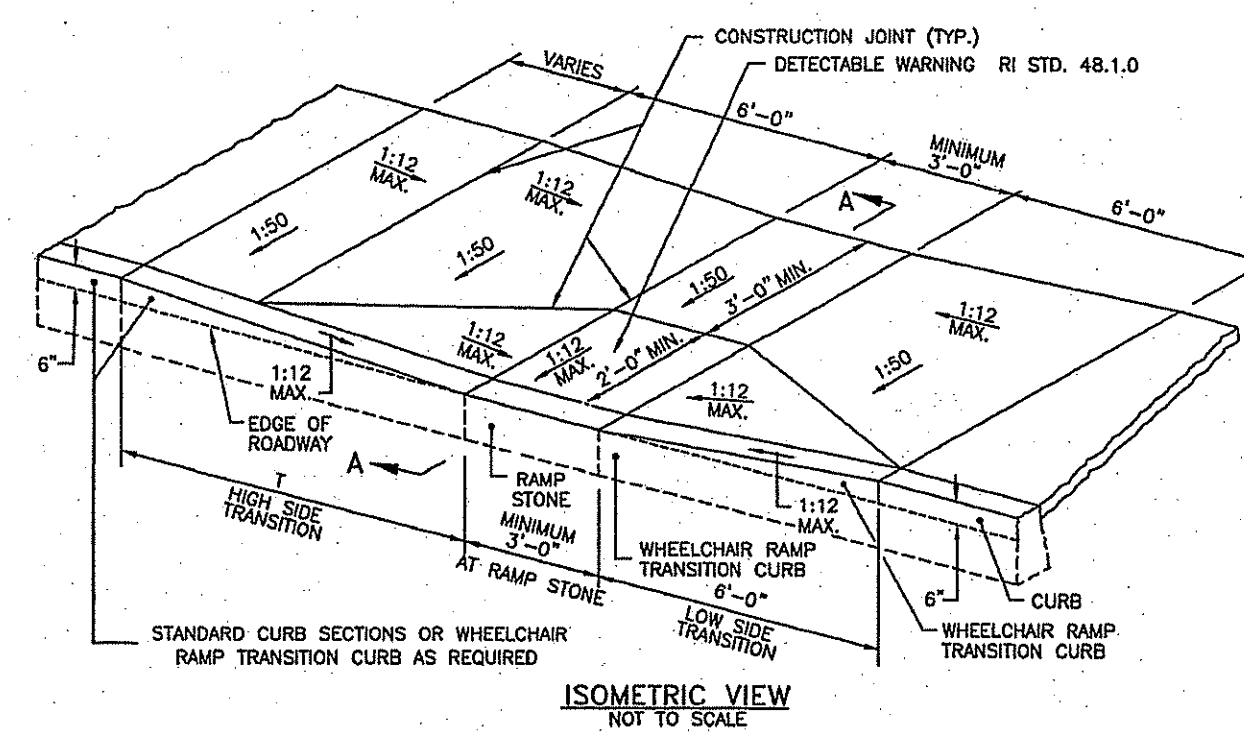


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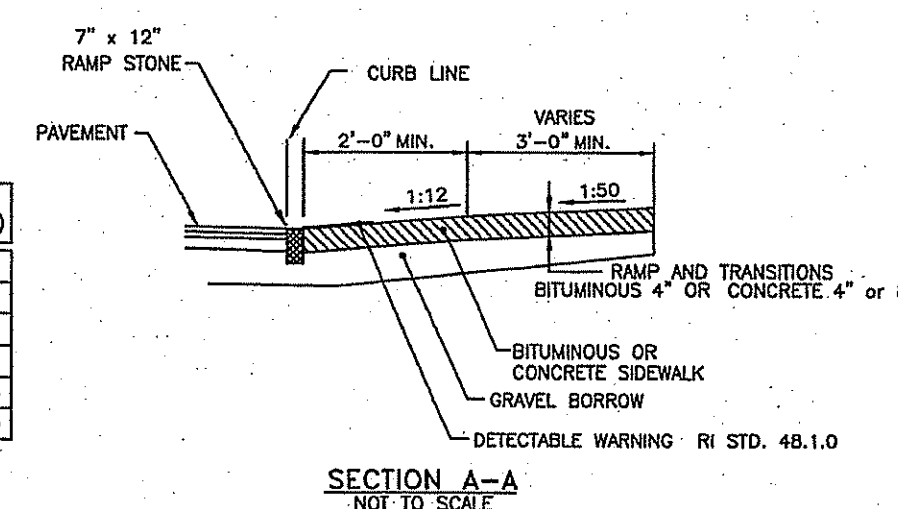
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BASIN SECTION A-A
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'

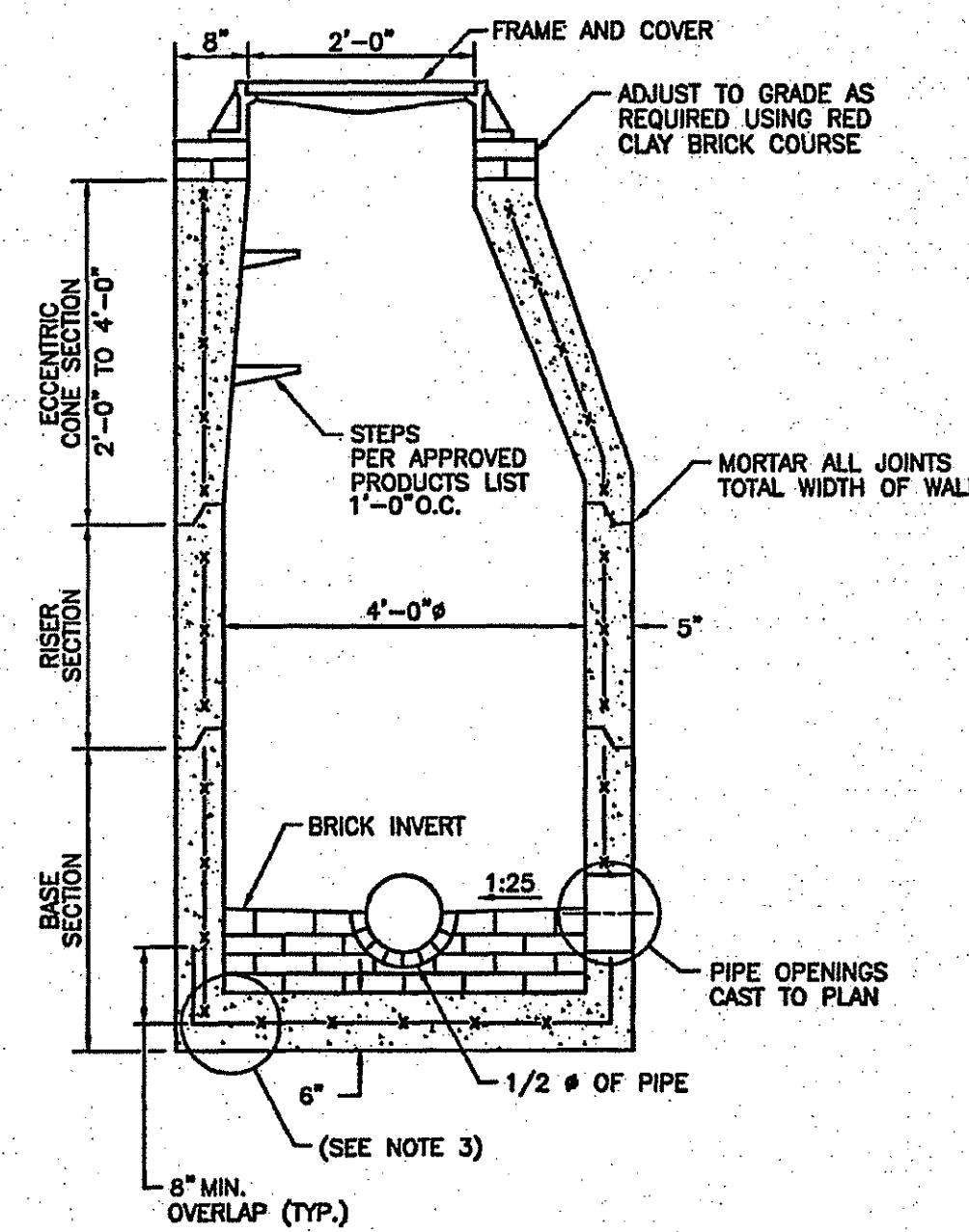
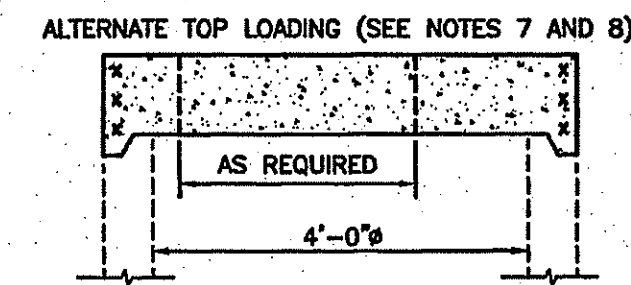


ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0



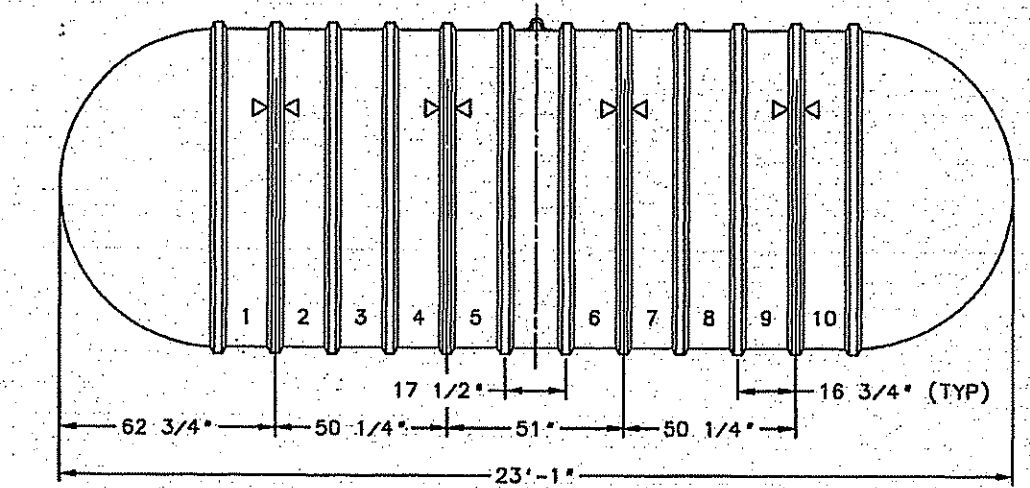
- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
 - WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, THE WHEELCHAIR RAMP WILL BE PLACED SUCH THAT THE OBSTRUCTION FALLS OUTSIDE OF THE RAMP.
 - AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
 - DRAINAGE FACILITIES ARE TO BE LOCATED UP-GRADE OF ALL WHEELCHAIR RAMPS.
 - LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
 - IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 1:50 EXCEPT WITHIN THE RAMP AREA.
 - AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 3'-0" SHALL BE MAINTAINED.
 - THE WHEELCHAIR RAMP SLOPE AND SIDE SLOPES (TRANSITIONS), MUST NOT EXCEED 1:12. HOWEVER, THESE SLOPES MAY BE FLATTER THAN 1:12 WHEN WARRANTED BY SURROUNDING CONDITIONS.
 - WHERE THE ROAD PROFILE EXCEEDS SIX THE HIGH SIDE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'-0").
 - IN NO CASE, WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED BEHIND THE STOP LINE.
 - THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
 - THE WHEELCHAIR RAMP SHALL BE CENTERED PARALLEL OPPOSITE THE RADIUS POINT WHEN POSSIBLE.
 - MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
 - ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
 - DETECTABLE WARNING TO BE PAID FOR UNDER SECTION 842 OF THE R.I. STANDARD SPECIFICATIONS.
 - 8" CONCRETE DEPTH FOR RADIUS WHEELCHAIR RAMPS ONLY. USE 4" DEPTH FOR TANGENT (MID-BLOCK) LOCATIONS.

WHEELCHAIR RAMP (RIDOT 43.3.0)
SCALE: NOT TO SCALE

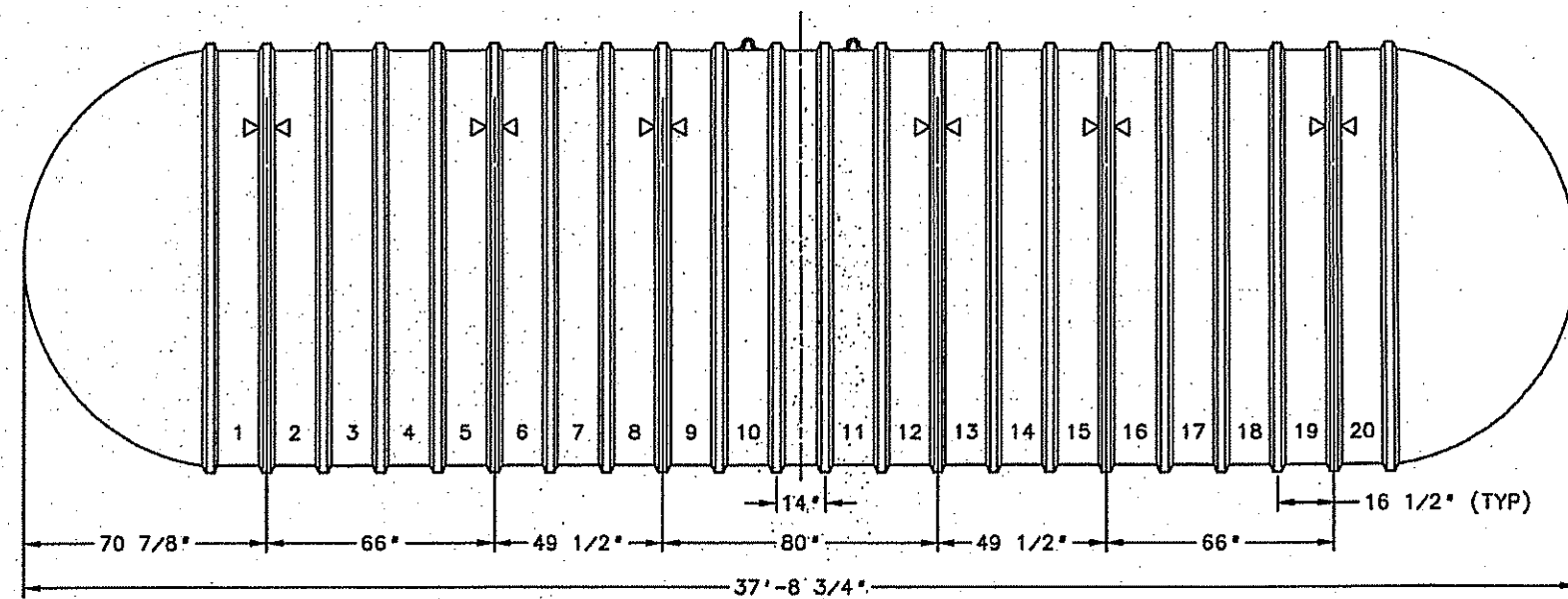


- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
 - CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.12 SQ. IN. / LIN. FT. MINIMUM.
 - STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
 - ONE FOUR MONOLITHIC BASE SECTION.
 - ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
 - STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
 - ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
 - ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
 - REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

PRECAST 4\"/>



8\"/>



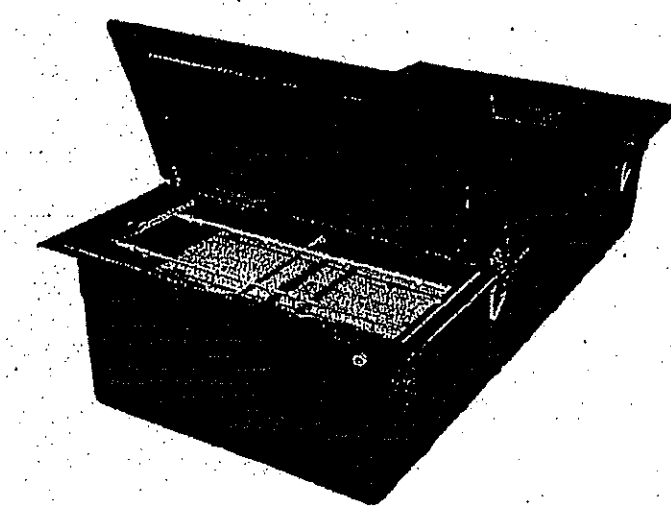
10\"/>

Applications

Orenco's AdvanTex® Treatment System® is an innovative technology for onsite treatment of domestic-strength wastewater. The heart of the system is the AdvanTex Filter, a sturdy, water-tight fiberglass basin filled with an engineered textile material. This lightweight, highly absorbent textile material treats a tremendous amount of wastewater in a small space. The AdvanTex Treatment System is ideal for:

- Small sites
- System upgrades and repairs
- New construction
- Poor soils
- Nitrogen reduction
- Price-sensitive markets
- Pretreatment

For sizing, see AdvanTex® Design Criteria (NDA-ATX-COMM-2).



* Covered by U.S. patent numbers 6,540,920; 6,372,130; 6,880,748; 5,531,894; 5,492,635; 5,490,591; 5,360,550; and 4,433,323. Additional patents pending.

ADVANTEX AX100 FILTER (ORENCO SYSTEMS)
SCALE: NOT TO SCALE

Features/Unique Specifications

- To specify this product, require the following:
- Wastewater treatment to better than "Secondary" Treatment Standards
 - Consistent treatment, even during peak flows
 - Timer operation for flow monitoring, flow modulation, and surge control
 - Fixed film textile media (a polyester plastic), operated in an unsaturated condition
 - Consistent media quality
 - Low maintenance requirements
 - Low energy consumption
 - Complete pre-manufactured package, ready-to-install
 - Water-tight construction, corrosion-proof materials, lid bolts
 - Quiet operation

Standard Models

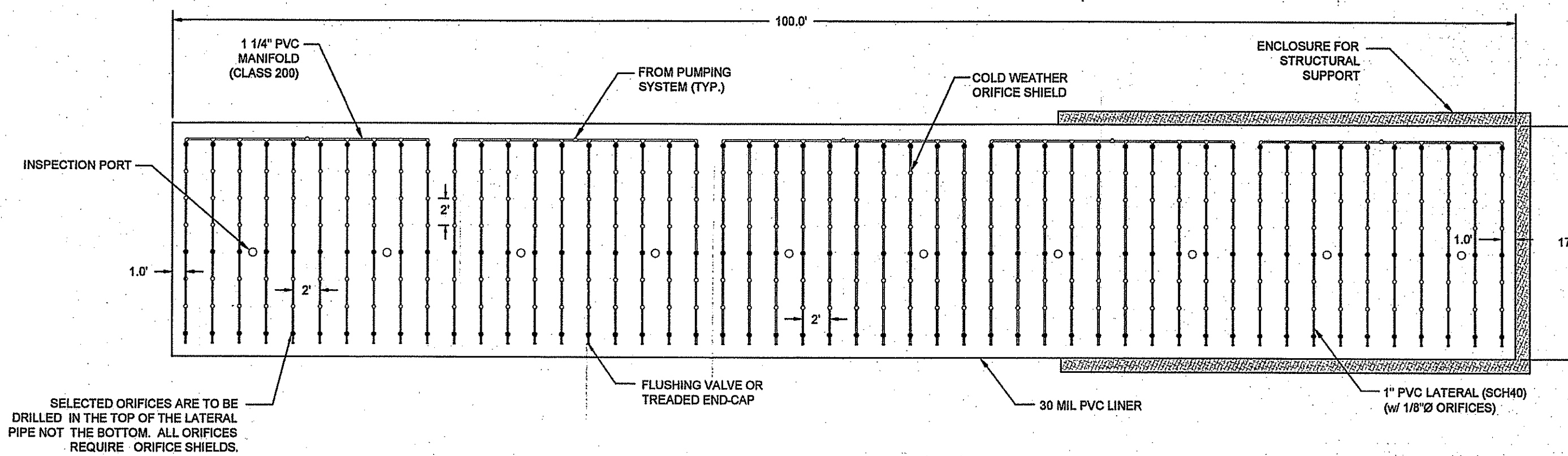
AX100

Physical Specifications

Approximate Dimensions**

Filter Basin Length	191 in.
Width	94.5 in.
Height	42.5 in.
Area (Rectangular)	128 sq. ft.
Filter Dry Weight	1,650 lbs.

** See AdvanTex Treatment System drawings for exact dimensions.



BOTTOMLESS SAND FILTER FIELD (TYPICAL FOR 2)
SCALE: 1"=8'

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 MAY 13 2008 FILE # 27-0479
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Carey

1	REVISED PER TOWN COMMENT	JAN08
No.	Revision	Date
Designed By:	Drawn by: JJR	Checked by:
Scale:	AS SHOWN	Date: NOVEMBER 2007

Project Title:
QUAKER ESTATES IV
A.P. 39, LOT 47A
EAST MAIN ROAD
PORTSMOUTH, RI

Client/Owner:
COASTAL HOUSING CORP.
2358 EAST MAIN ROAD
PORTSMOUTH, RI

Issued for:
PERMITTING

Drawing Title:

DETAILS

Drawing Number:	C-09
Sheet	10 of 10
Project Number:	07116.0
Survey Index:	12 - 39 - 47A

CERALYN E. SMALL
No. 8550
1.9.07
REGISTERED PROFESSIONAL ENGINEER
CIVIL

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MAR - 5 2008