

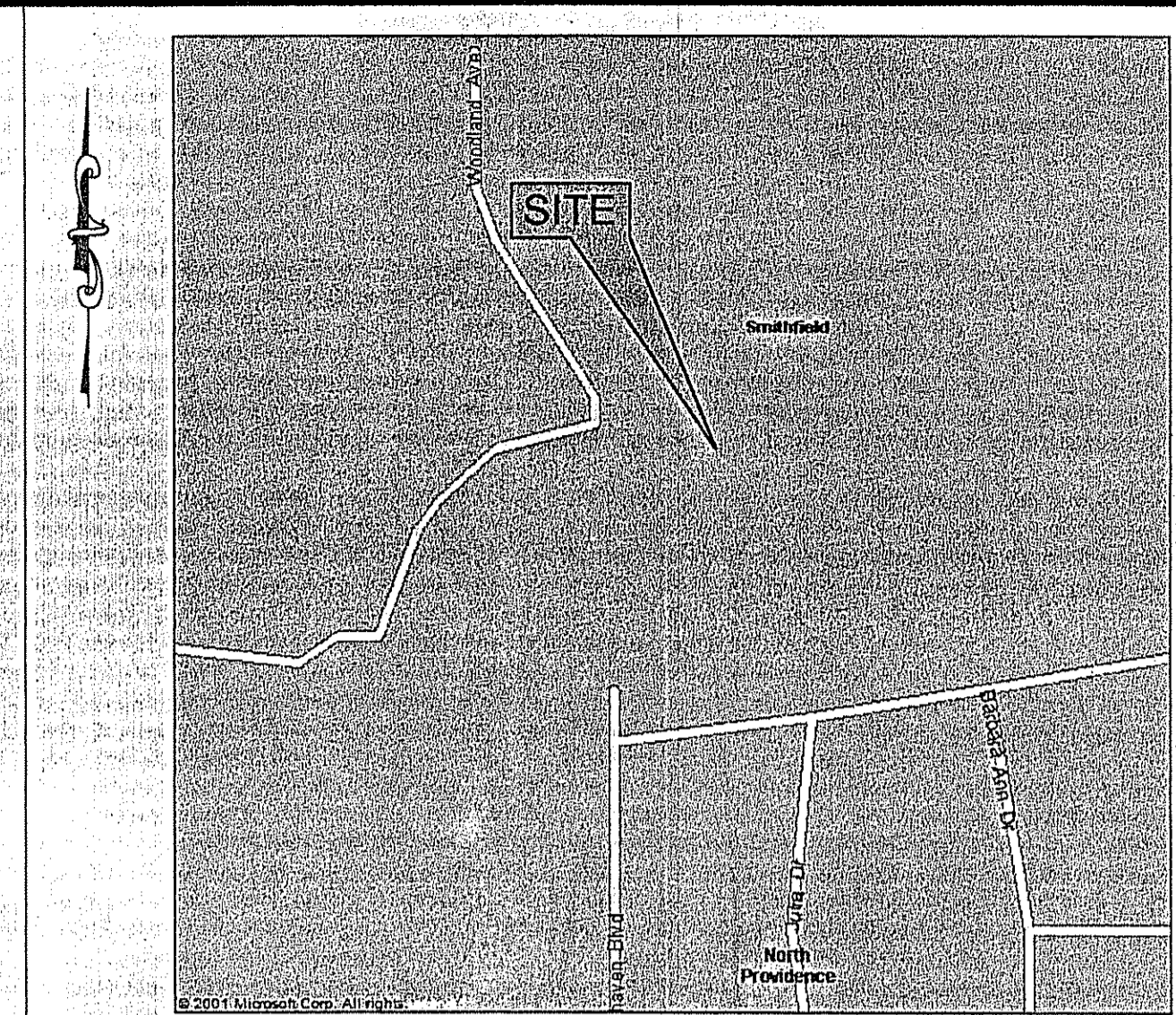
Preliminary Plan Submission

Woodland Estates

3-Lot Residential Subdivision
 Assessor's Plat 42 Lot 133
 Woodland Avenue, Smithfield, RI



RIGIS 2004 Orthophotography
 0 500' 1000' 1500'
 1" = 500'



Locus Map
 N.T.S.

Owner/Applicant:

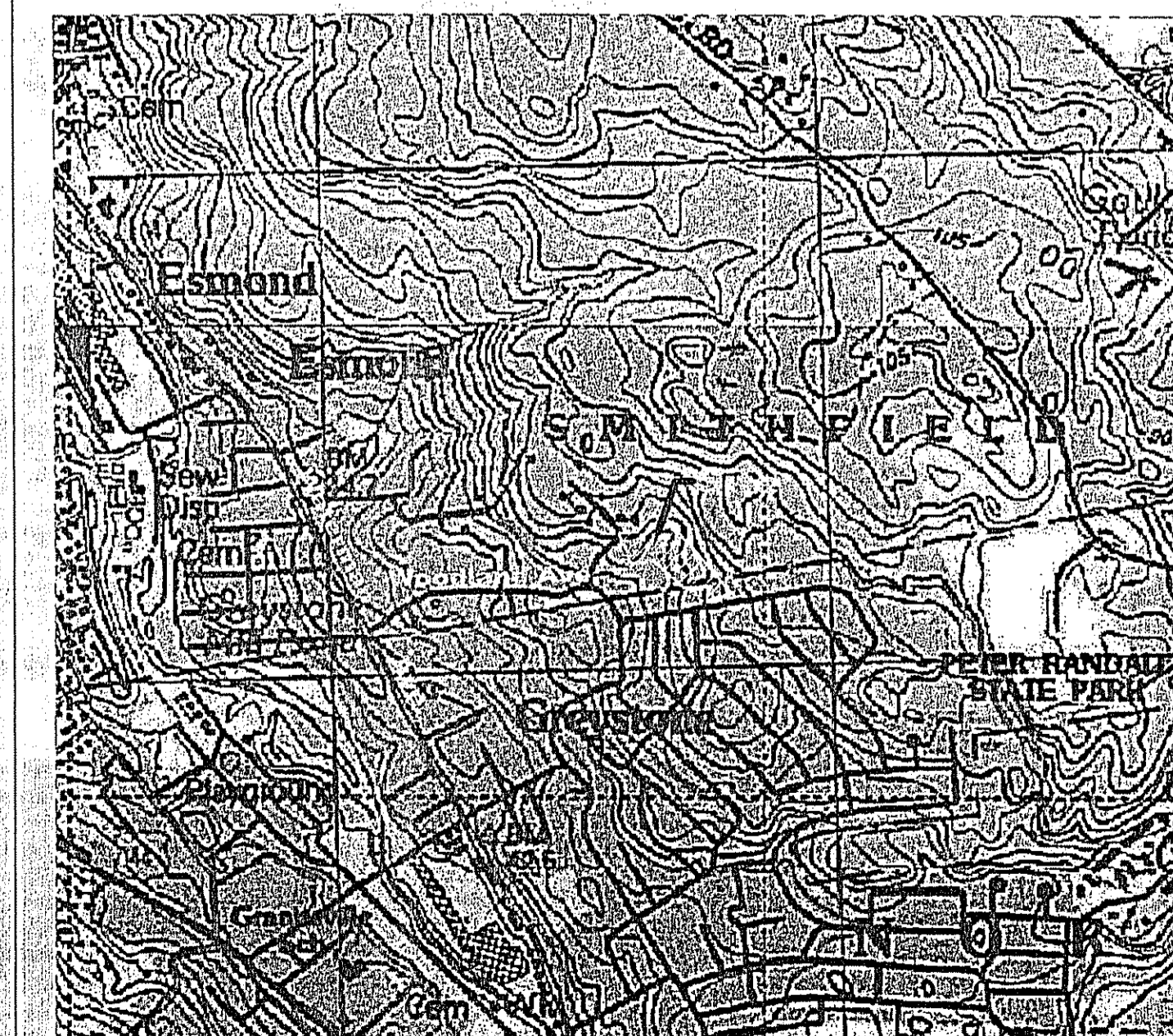
Robert Gaudette, Jr.
 69 Lower Road
 PO Box 295
 Lincoln, Rhode Island 02865

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUL 23 2008 FILE # 07-0443
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Nanley L. Freeman

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- Sheet 2 Existing
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- Sheet 4 Layout Plan
- Sheet 5 Grading and Utility Plan
- Sheet 6 Plan & Profile
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- Sheet 8 Details-2



USGS Quad Map 1"=1000'

NO.	DATE	REVISION	SHEET(S) #	BY
1	2/21/08	RESPONSE TO RIDEM COMMENTS	1 & 3-8	JEA
2	5/21/08	RESPONSE TO RIDEM COMMENTS	4,5,6 & 7	NJP

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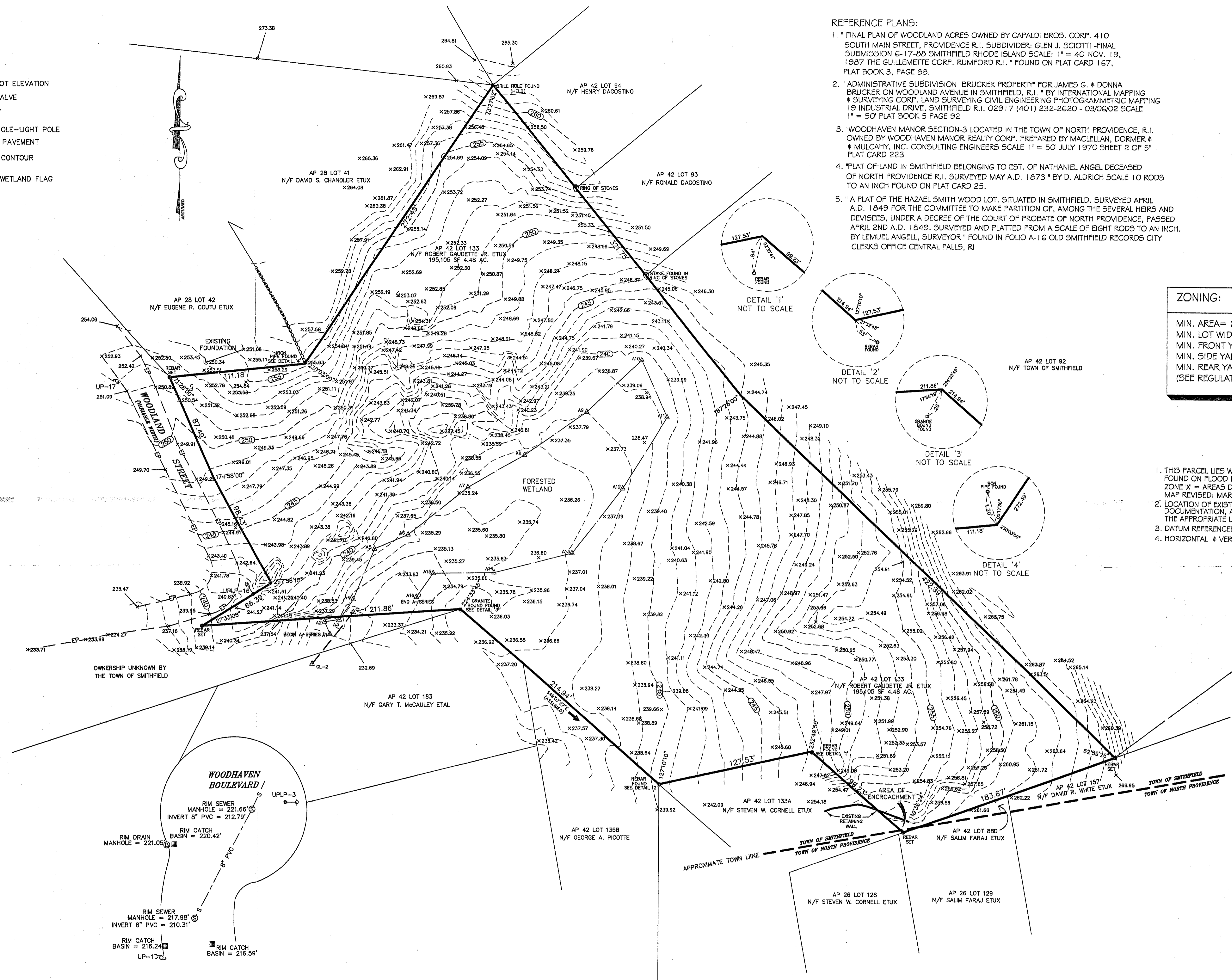
Cover Sheet
Woodland Estates
 Woodland Avenue
 Prepared for:
 Robert Gaudette
 69 Lower Road Lincoln, RI 02865
 date: Nov. 2007
 scale: As Noted

Drawn By: JEA
 Checked By: BPT
 Sheet
1
 of 8
 FILE NO.: 07.008

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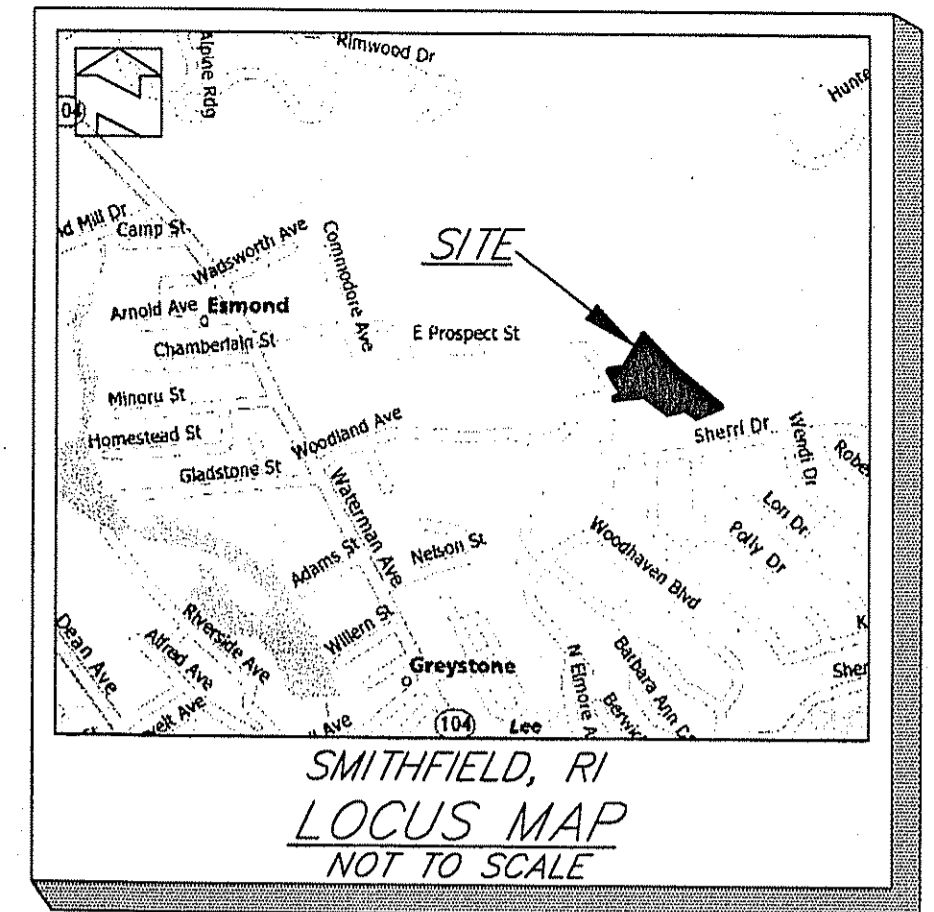
LEGEND

- x88.07 SPOT SHOT ELEVATION
- WV WATER VALVE
- HYDRANT
- UP/LP-9 UTILITY POLE-LIGHT POLE
- EP EDGE OF PAVEMENT
- EXISTING CONTOUR
- △ EXISTING WETLAND FLAG



REFERENCE PLANS:

1. " FINAL PLAN OF WOODLAND ACRES OWNED BY CAPALDI BROS. CORP. 410 SOUTH MAIN STREET, PROVIDENCE R.I. SUBDIVIDER: GLEN J. SCIOTTI - FINAL SUBMISSION G-17-88 SMITHFIELD RHODE ISLAND SCALE: 1" = 40' NOV. 19, 1987 THE GUILLEMETTE CORP. RUMFORD R.I. " FOUND ON PLAT CARD 167, PLAT BOOK 3, PAGE 88.
2. " ADMINISTRATIVE SUBDIVISION "BRUCKER PROPERTY" FOR JAMES G. & DONNA BRUCKER ON WOODLAND AVENUE IN SMITHFIELD, R.I. " BY INTERNATIONAL MAPPING & SURVEYING CORP. LAND SURVEYING CIVIL ENGINEERING PHOTOGRAMMETRIC MAPPING 19 INDUSTRIAL DRIVE, SMITHFIELD R.I. 02917 (401) 232-2620 - 03/06/02 SCALE 1" = 50' PLAT BOOK 5 PAGE 92
3. " WOODHAVEN MANOR SECTION-3 LOCATED IN THE TOWN OF NORTH PROVIDENCE, R.I. OWNED BY WOODHAVEN MANOR REALTY CORP. PREPARED BY MACLELLAN, DORMER & MULCAHY, INC. CONSULTING ENGINEERS SCALE 1" = 50' JULY 1970 SHEET 2 OF 5" PLAT CARD 223
4. " PLAT OF LAND IN SMITHFIELD BELONGING TO EST. OF NATHANIEL ANGEL DECEASED OF NORTH PROVIDENCE R.I. SURVEYED MAY A.D. 1873 " BY D. ALDRICH SCALE 10 RODS TO AN INCH FOUND ON PLAT CARD 25.
5. " A PLAT OF THE HAZEL SMITH WOOD LOT, SITUATED IN SMITHFIELD, SURVEYED APRIL A.D. 1849 FOR THE COMMITTEE TO MAKE PARTITION OF, AMONG THE SEVERAL HEIRS AND DEVISEES, UNDER A DECREE OF THE COURT OF PROBATE OF NORTH PROVIDENCE, PASSED APRIL 2ND A.D. 1849, SURVEYED AND PLATTED FROM A SCALE OF EIGHT RODS TO AN INCH. BY LEMUEL ANGELL, SURVEYOR " FOUND IN FOLIO A-1-6 OLD SMITHFIELD RECORDS CITY CLERKS OFFICE CENTRAL FALLS, RI



ZONING: R-20

MIN. AREA= 20,000 S.F.
 MIN. LOT WIDTH= 125 FT.
 MIN. FRONT YARD= 30 FT.
 MIN. SIDE YARD= 15 FT.
 MIN. REAR YARD= 30 FT.
 (SEE REGULATIONS FOR ADDITIONAL INF.)

NOTES:

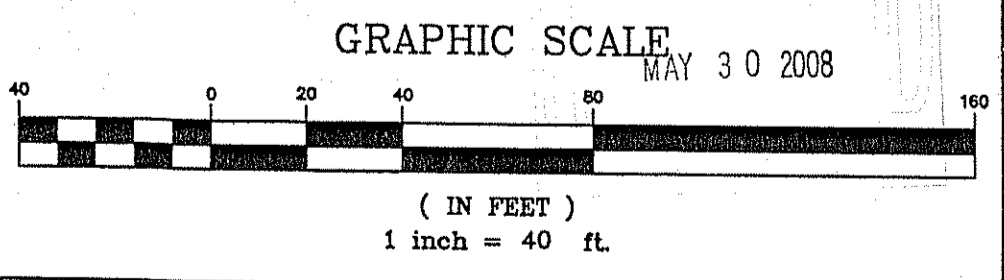
1. THIS PARCEL LIES WITHIN ZONE X FOUND ON FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 440025 0007 B ZONE X = AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAN. MAP REVISED: MARCH 4, 1991
2. LOCATION OF EXISTING UTILITIES SHOWN, ARE FROM GATE LOCATION AND EXISTING DOCUMENTATION, AND MAY NOT BE ACCURATE. EXACT LOCATION TO BE DONE BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY PRIOR TO EXCAVATION.
3. DATUM REFERENCED: NAVD 83 DESIGNATION CENTRAL / PID LW0418
4. HORIZONTAL & VERTICAL DATA ON THIS PLAN WERE OBTAINED BY FIELD SURVEY.

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Nancy L. Freeman

**SMITHFIELD, RI
 PLAN OF EXISTING CONDITIONS FOR
 ROBERT GAUDETTE, JR. ETUX**

CLASS I SURVEY OF
 A.P. 42 LOT 133
 WOODLAND STREET
 BY
 MARSH SURVEYING INC.
 640 GEO. WASH. HWY. LINCOLN, RI
 (401) 334-0800
 ZONE R-20
 JULY 3, 2007

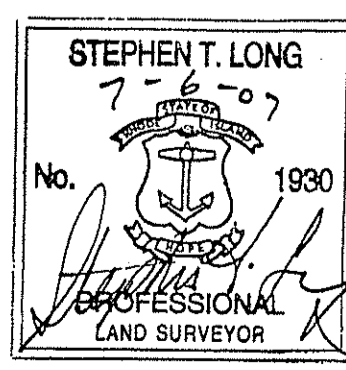


NO.	DATE	DESCRIPTION	BY

THIS PLAN TO BE INDEXED BY THE FOLLOWING:
 WOODLAND STREET

THIS SURVEY AND PLAN CONFORM TO THE FOLLOWING STANDARDS AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.
 HORIZONTAL: CLASS I
 TOPOGRAPHIC: CLASS III

BY: *Stephen T. Long* 7-6-07
 REGISTERED PROFESSIONAL LAND SURVEYOR DATE:



LAND PROJECT 85407-0301028 ANTI-VALENTIENS-46 7/6/2007 8:08:38 AM ET

Sequence & Staging of Land

Disturbing Activities

- SURVEY AND STAKE THE PROPOSED ROAD CENTERLINE, DETENTION PONDS, STRUCTURES, AND LIMIT OF DISTURBANCE.
- PLACE SEDIMENTATION BARRIERS (HAY BALES OR SILT FENCE) AS SHOWN ON THE PLANS AND AS STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS.
- EXCAVATE, LOAM, AND SEED DETENTION PONDS AS SHOWN ON PLAN.
- BEGIN ROAD WORK (CLEARING AND GRUBBING, EXCAVATING AND GRADING, ETC.). TOPSOIL IS TO STRIPPED AND STOCKPILED WITHIN DISTURBANCE LIMITS. THE STOCKPILES ARE TO BE PROTECTED BY A ROW OF SEDIMENTATION BARRIERS. STOCKPILES TO BE COVERED OR TEMPORARILY SEEDED. DIVERT ALL THE RUNOFF FROM DISTURBED AREAS TO THE PROPOSED POND.
- INSTALL UTILITIES AND DRAINAGE INCLUDING DRAINAGE PIPE. IMMEDIATELY PLACE THE RIP-RAP AT THE DISCHARGE POINTS. SEED ALL DISTURBED AREAS.
- BEGIN ROAD CONSTRUCTION.
- BEGIN LAYOUT OF HOUSES AND PROPOSED GRADING. LANDSCAPE WHILE HOMES ARE UNDER CONSTRUCTION.
- FINISH HOMES AND ROAD CONSTRUCTION.
- FINISH LANDSCAPING AND PERMANENT STABILIZATION.
- INSPECT AND REPAIR ALL DRAINAGE STRUCTURES INCLUDING PONDS AND DISCHARGE POINTS. REMOVE ANY DEBRIS (LEAVES, TREE LIMBS, BOULDERS, ETC.) FROM THE PONDS. FLUSH ALL SEDIMENTS FROM DRAINAGE PIPES AND SUMPS. APPLY TOPSOIL TO PONDS.
- REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE VEGETATION HAS BEEN ESTABLISHED TO ALL DISTURBED AREAS.

ADS Pipe Installation Notes:

- FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A STABLE DEPTH AND REPLACE WITH A FOUNDATION OF CLASS I OR II MATERIAL AS DEFINED IN ASTM D2321, "STANDARD PRACTICE FOR INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS," LATEST EDITION; AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A WOVEN GEOTEXTILE FABRIC.
- BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I, II, OR III AND INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" FOR 4" TO 24" DIA. & 6" FOR 30" TO 60" DIA.
- WARNINGING AND INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I, II, OR III AND INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
- UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MINIMUM TRENCH WIDTHS SHALL BE AS FOLLOWS:

NOMINAL DIA. (IN)	MIN. TRENCH WIDTH (IN)
6"	23"
8"	25"
10"	28"
12"	31"
15"	34"
18"	39"

- MINIMUM COVER:** RECOMMENDED DEPTHS OF COVER FOR VARIOUS LIVE LOADING CONDITIONS ARE SUMMARIZED IN THE FOLLOWING TABLE. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TAKEN FROM THE TOP OF PIPE TO THE GROUND SURFACE.

SURFACE LIVE LOADING CONDITION	MINIMUM RECOMMENDED COVER (IN)	
	RESIDENTIAL	COMMERCIAL
H25 (FLEXIBLE PAVEMENT)	12"	18"
H25 (RIGID PAVEMENT)	12"	18"
HEAVY CONSTRUCTION	48"	48"

Water Notes

- ALL INSTALLATION, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL BE ACCORDING TO TOWN OF EAST SMITHFIELD WATER DISTRICT REQUIREMENTS, AWWA STANDARDS AND GOVERNMENTAL REQUIREMENTS.
- ALL FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT CLASS 350 CEMENT MORTAR LINED COMPACT STYLE (BY AMERICAN MANUFACTURER ONLY). FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C153/A21.53. MECHANICAL JOINTS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C111/A21.11.
- WATER PIPE SHALL BE DOUBLE CEMENT MORTAR LINED DUCTILE IRON PIPE C152 AND SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C151/A21.51.
- CONSTRUCTION SHALL INCLUDE ALL PIPE, JOINTS, BENDS, TEES, FITTINGS, THROUGH BLOCKS, SERVICE CONNECTIONS AND ALL MISCELLANEOUS ITEMS REQUIRED TO CONSTRUCT THE PROPOSED SYSTEM.
- CONCRETE THRUST, ANCHOR, OR BEARING BLOCKS SHALL BE INSTALLED IN LOCATIONS INDICATED AND AT ALL BENDS, FITTINGS, TEES, ETC. WHEN A THRUST BLOCK CANNOT BE PLACED AGAINST UNDISTURBED EARTH, A REACTION BLOCK SUBSTITUTE SHALL BE DESIGNED AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
- PRESSURE AND LEAKAGE TESTS AND DISINFECTION TESTS SHALL BE PERFORMED BY THE CONTRACTOR IN CONFORMANCE TO AMERICAN WATER WORKS ASSOCIATION (AWWA) RECOMMENDATIONS, EAST SMITHFIELD WATER DISTRICT REQUIREMENTS, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION.
- ALL FITTINGS, PIPE, JOINTS, ETC. SHALL BE DESIGNED FOR 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 150 PSI. PIPE SIZES SHOWN ON THE PLANS ARE SUBJECT TO CHANGE UPON REVIEW BY THE EAST SMITHFIELD WATER DISTRICT.
- WATER PIPE SHALL TYPICALLY BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM SEWER PIPE, AND AT A MINIMUM DEPTH OF COVER EQUAL TO 5', WHERE A NEW WATER MAIN IS LESS THAN 18 INCHES CLEAR DISTANCE ABOVE A SEWER OR WHERE A WATER MAIN PASSES BENEATH A SEWER OR STORM DRAIN, EXPOSE THE SEWER OR DRAIN IN 2' OF CONCRETE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING WATER MAIN.
- ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS, SUCH AS PIPE, THRUST BLOCKS, FITTINGS, CASTINGS, ETC. SHALL BE SUBMITTED TO THE EAST SMITHFIELD WATER DISTRICT AND ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
- WATER LINE TRENCH TO BE AWWA TYPE 5. A METALLIZED DETECTABLE IDENTIFICATION TAPE 2" IN WIDTH, BLUE IN COLOR AND PRINTED WITH "CAUTION WATERLINE BURIED BELOW" SHALL BE UTILIZED OVER ALL MAINS. TAPE SHALL BE SET AT APPROXIMATELY 1'-0" BELOW FINISHED GRADE.

Sanitary Sewer Notes:

- ALL SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN SMITHFIELD SEWER AUTHORITY "STANDARD SPECIFICATIONS AND DETAILS FOR THE INSTALLATION OF SEWER AND APPURTENANCES BY PRIVATE DEVELOPERS."
- EXISTING SANITARY SEWER FLOWS SHALL BE MAINTAINED WITHOUT INTERRUPTION DURING CONSTRUCTION. DRAIN LAYERS SHALL ONLY INSTALL BUILDING SEWERS DURING THE NORMAL WORKING HOURS OF THE SMITHFIELD SEWER AUTHORITY.
- PRECAST CONCRETE SECTIONS AND APPURTENANCES SHALL CONFORM TO ASTM C478-79.
- GASKETS FOR PIPE TO MANHOLE CONNECTIONS SHALL CONFORM TO ASTM C923.
- EXTERIOR SURFACES OF MANHOLE STRUCTURES AND APPURTENANCES SHALL BE GIVEN TWO (2) COATS OF BITUMINOUS WATERPROOFING.
- MANHOLE BRICK TO CONFORM TO ASTM M32, AND ASHFO M91, RED BRICK.
- STANDARD MANHOLE FRAMES AND COVERS TO BE LEBARON FOUNDARY MODEL LC306-208, WITH THE WORD "SEWER" CAST IN THE COVER.
- ALL SEWER LATERALS ARE TO HAVE TEN (10) FEET OF HORIZONTAL CLEARANCE FROM WATER LINES, WHERE SEWER AND WATER CROSS, A MINIMUM OF EIGHTEEN (18) INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED.
- ALL SEWER LATERALS ARE TO BE INSTALLED TO PROVIDE BASEMENT SEWER SERVICE.
- ALL NON-PRESSURE SANITARY SEWER PIPES SHALL BE POLY VINYL CHLORIDE (PVC) PIPE AND SHALL CONFORM TO ASTM D-3034, SDR 35 & SCH 40 STANDARDS.
- ALL EXCAVATIONS FOR THE INSTALLATION OF A BUILDING SEWER SHALL BE OPEN TRENCH WORK. PIPE LAYING AND BACKFILL SHALL BE PERFORMED IN ACCORDANCE WITH ASTM SPECIFICATIONS (D12-72) EXCEPT THAT NO BACKFILL SHALL BE PLACED UNTIL WORK HAS BEEN INSPECTED.
- ALL BUILDING SEWER LINES SHALL BE OF 6-INCH DIAMETER AND BUILT WITH A MINIMUM DEPTH OF COVER OF 42 INCHES AND WIDTH OF TRENCH SHALL BE AT LEAST 24 INCHES.
- ALL SEWER PIPE SHALL BE CONSTRUCTED ON A BED OF CRUSHED STONE AT LEAST 6 INCHES IN DEPTH. STONE SHALL BE INSTALLED BEFORE THE PIPE IS PLACED IN THE TRENCH AND THE PIPE SHALL BE COVERED WITH AT LEAST 12 INCHES OF CRUSHED STONE. NO BLOCKS OR STONES SHALL BE USED TO SUPPORT THE PIPE.
- BUILDING SEWER JOINTS SHALL BE GASKETED AND WATERPROOF. NO CEMENT-MORTAR JOINTS WILL BE PERMITTED.
- ALL JOINTS POLYVINYL CHLORIDE (PVC) PIPE OR BETWEEN SUCH PIPE SHALL BE MADE WITH APPROVED PREMOLDED GASKET JOINTS.
- SEWER LATERALS SHALL BE INSTALLED TO THE PROPERTY LINES OF EACH LOT THE PROPOSED SEWER MAIN PASSES BY. THE ENDS OF ALL NEW SEWER SERVICES SHALL BE MARKED AT THE PROPERTY LINE WITH A 1 FT. SQUARE STEEL PLATE BURIED 1 FT. BELOW GRADE IF NOT CONNECTED IMMEDIATELY.
- THE SEWER AUTHORITY SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE BEGINNING OF ANY WORK ON SEWER OR HOSEY CONNECTIONS.
- INSPECTION OF ALL SEWER SERVICES ON PRIVATE PROPERTY MUST BE COORDINATED WITH WOLLA WATER PERSONNEL, 401-231-1506.
- APPLICANT SHALL PROVIDE FINAL AS-BUILT PLANS TO THE SEWER AUTHORITY AND ENGINEERING DEPARTMENT UPON COMPLETION OF CONSTRUCTION. AS-BUILT PLANS SHALL INCLUDE FIELD MEASUREMENTS OF ALL INSTALLED PIPE AND APPURTENANCES, INCLUDING LENGTH, SLOPE, MANHOLE INVERTS, AS WELL AS SWING TIES/MEASUREMENTS, TO ALL MANHOLES, SEWER STUBS, AND LATERAL SERVICE CONNECTIONS.

Structural Measures

- DETENTION POND SYSTEMS ARE USED TO CONTROL RUNOFF. DISCHARGE OUTLETS ARE PROTECTED WITH RIP-RAP APRONS AND/OR LEVEL SPREADERS.
- A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED IN THE BASIN IMMEDIATELY AFTER GRADING. THE SEEDING EXTENT TO AT LEAST THE DESIGN TOP WIDTH AND INCLUDE ANY OTHER AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. ACTIVITIES SHALL BE CONFINED TO WITHIN THE LIMIT OF WORK AS SHOWN ON THE PLANS.
- MOROUS VEGETATION SHALL BE MAINTAINED BY APPLYING LIME AND FERTILIZER. BARE OR BROOD AREAS SHALL BE IMMEDIATELY REPAIRED AND RESEEDED BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE PONDS DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION. THE TOWN OF SMITHFIELD IS RESPONSIBLE THEREAFTER. ANY UNDEVELOPED VEGETATION COVER IN THE PONDS WITHIN A YEAR OF THE PROJECT COMPLETION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL RESEED ANY UNSTABILIZED AREAS AFTER A FULL GROWING SEASON AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THE GRASS WITHIN THE PONDS SHALL BE ALLOWED TO GROW BETWEEN 10' TO 12'.
- THE DETENTION PONDS SHALL BE BUILT TO CONTROL RUNOFF FOR THE 2-YEAR THROUGH 100-YEAR STORM FREQUENCIES.
- SOE SLOPES OF THE PONDS SHALL BE SEEDED. THE SOE SLOPES SHALL BE 3:1 MAXIMUM.
- ALL EMBANKMENTS OF THE PONDS SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH R.I. STANDARD SPECIFICATION SECTION 202.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SEDIMENTATION BASINS DURING CONSTRUCTION AND THE DETENTION PONDS UP TO THE ACCEPTANCE BY THE OWNER. THE TOWN OF SMITHFIELD IS RESPONSIBLE THEREAFTER. THE TOWN OF SMITHFIELD SHALL INSPECT THE PONDS SEMIANNUALLY AND AFTER MAJOR STORMS.
- A GRADUATED GAGE IS TO BE SET WITHIN EACH POND TO MONITOR ACCUMULATED SEDIMENTS.
- RIP-RAP APRONS SHALL BE INSTALLED AT THE OUTLETS OF ALL CULVERTS. THE EMERGENCY SPILLWAY SHALL BE PROTECTED BY RIP RAP DOWNSTREAM AND UPSTREAM.
- RIP-RAP APRONS SHALL BE INSPECTED SEMIANNUALLY AND AFTER MAJOR STORMS. IF REPAIRS ARE NEEDED, THEY SHALL BE ACCOMPLISHED IMMEDIATELY.
- THE CONSTRUCTION SUPERINTENDENT SHALL HAVE THE OVERALL RESPONSIBILITY FOR STRUCTURAL MEASURES IMPLEMENTATION AND FOR SEEING THAT APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
- REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY USDA SOIL CONSERVATION SERVICE 1989, AS A GUIDE.

Sediment Control Program

- DISTURBED AREAS WHICH ARE PARTICULARLY SENSITIVE TO EROSION SHALL RECEIVE A CRUSHED STONE OR SHARP ANGULAR RIPRAP TREATMENT IF OTHER METHODS OF STABILIZATION ARE UNSUCCESSFUL.
- BANKS OR SLOPES NOT REGRADING RIP RAP SHALL BE SEEDED AND PROTECTED WITH FIBER MULCH.
- DURING CONSTRUCTION, THE CONTRACTOR AND OR THE DEVELOPER SHALL BE RESPONSIBLE FOR UTILIZING BEST MANAGEMENT PRACTICES TO CONTROL ENVIRONMENTAL DAMAGE THAT COULD RESULT FROM UNCHECKED STORMWATER RUNOFF.
- SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED REGULARLY. SPECIAL ATTENTION SHOULD BE GIVEN AFTER A HEAVY OR PROLONGED RAINFALL.
- CARE SHALL BE SO AS NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATERCOURSES OR THOSE AREAS SUBJECTED TO STORM WATER FLOWAGE.
- ADDITIONAL HAYBALES, SILT FENCE OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- SEDIMENTATION TRAPS SHALL BE PROVIDED AND MAINTAINED AT ALL DRAINAGE STRUCTURES DURING CONSTRUCTION.
- REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" (1989) PREPARED BY THE RI DEPT. OF ENVIRONMENTAL MANAGEMENT, RI STATE CONSERVATION COMMISSION AND THE U.S. DEPT. OF AGRICULTURE, SOIL CONSERVATION SERVICE AS A PRACTICAL

Establishment of Vegetative Cover

- SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
- ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED OR PROTECTED.
- THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH RHODE ISLAND'S STANDARD SPECIFICATION, M.20.
- THE GENERAL DESIGN MIX FOR REGRADING AREAS SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	AMOUNT (LBS./AC.)
CREeping REED FESCUE	15
KENTUCKY BLUE GRASS	15
COLONIAL BENT GRASS	5
PERENNIAL RYE GRASS	5
- EARLY SPRING OR LATE SUMMER SEEDING IS RECOMMENDED. LIME AND FERTILIZE AS REQUIRED BY SOIL TESTING TO COMPLYMENT OR UPGRADE EXISTING CONDITIONS. THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
- TEMPORARY TREATMENTS SHALL CONSIST OF NORTH AMERICAN GREEN ERGONIA CONTROL BLANKETS OR HAY, STRAW OR FIBER MULCH. THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 2 TONS/ACRE.
- ALL HAY BALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
- ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 202.
- STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAY. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 3:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED. STOCKPILE TO BE SURROUNDED BY HAYBALES.
- THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION AND FOR SEEING THAT APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN. THE CONTRACTOR MUST REPAIR AND RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE.
- ALL AREAS DISTURBED BY (POND(S)) CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. PERMANENTLY SEEDED AREAS SHALL BE PROTECTED DURING ESTABLISHMENT WITH MULCH. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDED AS NECESSARY.
- REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE 1989, AS A GUIDE.
- MAXIMUM GRADED SLOPE WITHIN SUBDIVISION TO BE 3:1, UNLESS SPECIFIED OTHERWISE BY WHICH ADDITIONAL STABILIZATION METHODS SHALL BE EMPLOYED.
- IF AND WHEN REQUIRED, TEMPORARY HAY MULCH TO BE TACKED IN PLACE WITH NYLON MESH NETTING.

Nonstructural Measures

- CONSTRUCTION TRAFFIC SHALL BE LIMITED TO ACCESS ROADS, DRAINAGE EASEMENTS AND AREAS TO BE GRADED.
- A STONE STABILIZATION PAD IS LOCATED AT THE SITE ENTRANCE TO REDUCE THE TRACKING OR FLOWING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY.
- THE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE ENGINEER. ALL SEDIMENTS SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY, MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
- TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATION SHALL BE SUBJECT TO APPROVAL BY THE PROJECT ENGINEER. A SEDIMENT BARRIER SHOULD SURROUND ALL TOPSOIL STOCKPILES.
- HAY BALES OR SILT FENCE SHALL BE INSTALLED DOWNSTREAM OUTSIDE THE LIMITS OF ANY PROPOSED CONSTRUCTION AS SHOWN ON THE SITE PLANS AND PRIOR TO THE COMMENCEMENT OF THE PROPOSED ALTERATIONS.
- SILT FENCE AND HAY BALES SHALL BE MAINTAINED BY THE CONTRACTOR. INSPECTIONS SHALL BE MADE AFTER EACH STORM EVENT AND REPAIRS OR REPLACEMENTS WHEN NECESSARY. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE BALES BECOMES FILLED.
- THE HAY BALES OR SILT FENCE SHALL BE CHECKED WEEKLY BY THE CONTRACTOR FOR UNDERMINING OR DETERIORATION.
- THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION OF NON-STRUCTURAL MEASURES AND FOR SEEING THAT APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
- REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY USDA SOIL CONSERVATION SERVICE 1989, AS A GUIDE.

Maintenance: Short Term / Long Term

- ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL CHECK REGULARLY ALL SEEDED AREAS TO SEE THAT A GOOD STAND IS MAINTAINED.
- THE CONTRACTOR MUST REPAIR OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE.
- ALL HAY BALES, TEMPORARY TREATMENTS (HAY, STRAW, ETC.) AND TEMPORARY PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
- THE CONTRACTOR SHALL MAINTAIN ALL TOP SOIL STOCKPILES AND SEDIMENT BARRIERS THROUGHOUT CONSTRUCTION. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT SPILL OVER THE SEDIMENT BARRIER.
- THE HAY BALES OR SILT FENCE SHALL BE CHECKED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM FOR UNDERMINING OR DETERIORATION. CONTRACTOR SHALL REPAIR OR REPLACE THE HAYBALES AS NECESSARY. CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE BALES BECOMES FILLED IN WITH SEDIMENTS.
- THE STONE STABILIZATION PADS AT THE SITE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE ENGINEER. ALL SEDIMENTS SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE PONDS DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION. MAINTENANCE SHALL INCLUDE RESEEDING ANY UNDEVELOPED AREAS AFTER A FULL GROWING SEASON AT NO ADDITIONAL EXPENSE. REMOVING ACCUMULATED SILT OVER 3" IN THE PONDS, AND MAINTAINING THE GRASS TO A GROWING HEIGHT BETWEEN 2" - 10". EXCAVATION OF SILT SHALL BE MANUAL WITH A SHOVEL AND WHEELBARROW ONLY. REMOVE ALL WOODY VEGETATION FROM POND EMBANKMENTS.

IF CONDITIONS ARE DIFFERENT THAN THOSE STATED IN THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR MUST CONTACT ENGINEER PRIOR TO PROCEEDING WITH THE CONSTRUCTION OF THE WALL.

General Contractor Notes & Requirements

- THE CONTRACTOR IS TO NOTIFY DIG SAFE PRIOR TO CONSTRUCTION.
- A PRE-CONSTRUCTION MEETING IS REQUIRED. THE TOWN ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION.
- CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS (IF APPLICABLE) PRIOR TO THE START OF CONSTRUCTION.
- ALL WORK PERFORMED HEREIN SHALL BE GOVERNED BY THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND THE TOWN OF SMITHFIELD STANDARD SPECIFICATIONS AND DETAILS.
- ALL DRAINAGE PIPR TO BE R.C.P. CLASS III UNDER ROADWAY AND ADS N-12 IN ALL OTHER AREAS, UNLESS SPECIFIED ON PLANS.
- ALL CATCH BASINS AND MANHOLES TO BE 4 FT DIAMETER UNLESS SPECIFIED OTHERWISE.
- COMPACT, LOAM & SEED ALL DISTURBED AREAS. ADDITIONAL EROSION CONTROLS MAY BE REQUIRED BY THE SITE OR TOWN ENGINEER.
- AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE. DEVIATIONS OR CHANGES WILL NOT BE ALLOWED UNLESS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. THE 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 OR PROCEEDING WITH WORK.
- METHODS AND MATERIALS USED IN THE CONSTRUCTION OF IMPROVEMENTS FOR THIS PROJECT SHALL CONFORM TO THE CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE TOWN OF SMITHFIELD AND THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE AND EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIALS SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
- CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. ALL WATER, GAS, SEWER AND OTHER UTILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, DRIVEWAYS, WALKS, CURBS, ETC., THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION.
- THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; 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 ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT, EXCEPTING FOR LIABILITY ARISING FROM "THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER."
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND TO TAKE WHATEVER STEPS NECESSARY TO PROVIDE FOR THEIR PROTECTION. THE ENGINEER HAS DILIGENTLY ATTEMPTED TO LOCATE AND INDICATE ALL EXISTING FACILITIES ON THESE PLANS; HOWEVER, THIS INFORMATION IS SHOWN FOR THE CONTRACTORS CONVENIENCE ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS OF UTILITIES SHOWN OR NOT SHOWN. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES FOR EXACT LOCATION OF THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND REPLACE ANY AND ALL DAMAGED MADE TO UTILITIES BY THE CONTRACTOR.

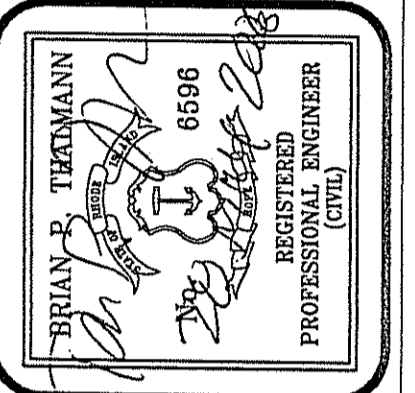
Legend:

- EXISTING PROPERTY LINE
- ABUTTER PROPERTY LINE
- BUILDING SETBACK
- 100 FT BUILDING SETBACK
- EXISTING STONE WALL
- EXISTING TREELINE
- SURVEYED RIVERBANK
- EXISTING WETLAND FLAG
- EXISTING UTILITY POLE
- EXISTING BOUND
- IRON PIN
- DRILL HOLE
- EXISTING WATER
- EXISTING SEWER
- EXISTING DRAINAGE
- EXISTING WATER GATE VALVE
- EXISTING HYDRANT
- EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- EXISTING DRAINAGE MANHOLE
- PROPOSED WATER GATE VALVE
- PROPOSED HYDRANT
- PROPOSED WATER SHUTOFF
- PROPOSED CATCH BASIN
- PROPOSED DRAINAGE MANHOLE
- PROPOSED SEWER MANHOLE
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE
- PROPOSED TOP OF WALL ELEVATION
- PROPOSED BOTTOM OF WALL ELEVATION
- PROPOSED PROPERTY LINE
- PROPOSED PAVEMENT
- PROPOSED BITUMINOUS CURB
- PROPOSED SEWER
- PROPOSED DRAINAGE
- PROPOSED EASEMENT
- SAW CUT
- PROPOSED EROSION CONTROLS
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED BOULDER WALL
- PROPOSED RIP RAP APRON
- TEST PIT ID AND LOCATION

03-01

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 23 2008 FILE # 07-0413
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

NO.	DATE	REVISION	RESPONSE TO RIDEW COMMENTS
1	2/21/08		



Thalmann Engineering Co., Inc.
Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
(401) 349-3040 • (401) 349-3041 (fax)

Thalmann
ENGINEERING CO., INC.

Notes & Legend
Woodland Estates
Woodland Avenue
Prepared for:
Robert Gaudette
69 Lower Road, P.O. Box 295, Lincoln
date: Nov-2007

Lot 133
Rhode Island
scale: 1"=30'

Design By: JEA
Checked By: BPT
Sheet
3
of 8
FILE NO.: 07.008

MAY 30 2008

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Sign Table

DESIGNATION	DESCRIPTION	SIZE	MOUNTING
R1-1	STOP SIGN	30"x30"	24.1.0

NOTE: ALL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION.

Zoning R-20

AREA 20,000 S.F.
FRONTAGE 125 FT.
SETBACKS:
FRONT 30 FT.
SIDE 15 FT.
REAR 30 FT.

*10,000 SF SUITABLE AREA REQUIRED IN R20 ZONE FOR LOTS WITH PUBLIC SEWER & WATER

Development Data	
OVERALL AREA	4.5± ACRES
AREA OF R-O-W	0.57± ACRES
SLOPES > 15%	0.2± ACRES
AREA OF PROP. LOTS	3.9± ACRES
# BUILDABLE LOTS	3
AVG. LOT AREA	1.30± ACRES
LENGTH OF ROADWAY	300± LF

Preliminary Submission

General Notes:

- STORMWATER RUNOFF WILL BE MITIGATED WITH THE USE OF CATCH BASINS, SWALES, AND DETENTION/RETENTION BASINS INCORPORATING THE BEST MANAGEMENT PRACTICES OF RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.
- THE LOTS ARE TO BE SERVICED BY PUBLIC SEWER AND WATER.
- ALL LOTS SHOWN HEREON PROVIDE THE MINIMUM 10,000 SQ. FT. USABLE AREA AS REQUIRED BY THE SMITHFIELD ZONING ORDINANCE.
- THERE ARE NO WAIVERS REQUESTED UNDER THE CONVENTIONAL PLAN.
- EXISTING UTILITIES HAVE BEEN PLOTTED FROM BEST AVAILABLE INFORMATION AND DATA. LOCATION AND DEPTHS OF UNDERGROUND PIPES, CONDUITS, AND STRUCTURES, AS SHOWN ARE APPROXIMATE ONLY, BASED ON FIELD SURVEY AND BEST AVAILABLE INFORMATION. CONTRACTOR TO VERIFY ALL EXISTING UTILITIES OR STRUCTURES.
- THE WETLAND EDGE WAS VERIFIED BY RIDEM (APPLICATION 07-0295)

Flood Note:

A REVIEW OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS (FIRM) COMMUNITY PANEL NUMBER 440025 0008B, REVISED MARCH 4, 1991 INDICATES THE SUBJECT PARCEL LIES IN ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD PLAIN.

NO.	DATE	REVISION	BY
1	2/21/08	RESPONSE TO RIDEM COMMENTS	JEA
2	2/29/08	LOT NUMBERS AND DIMENSION(S)	JEA

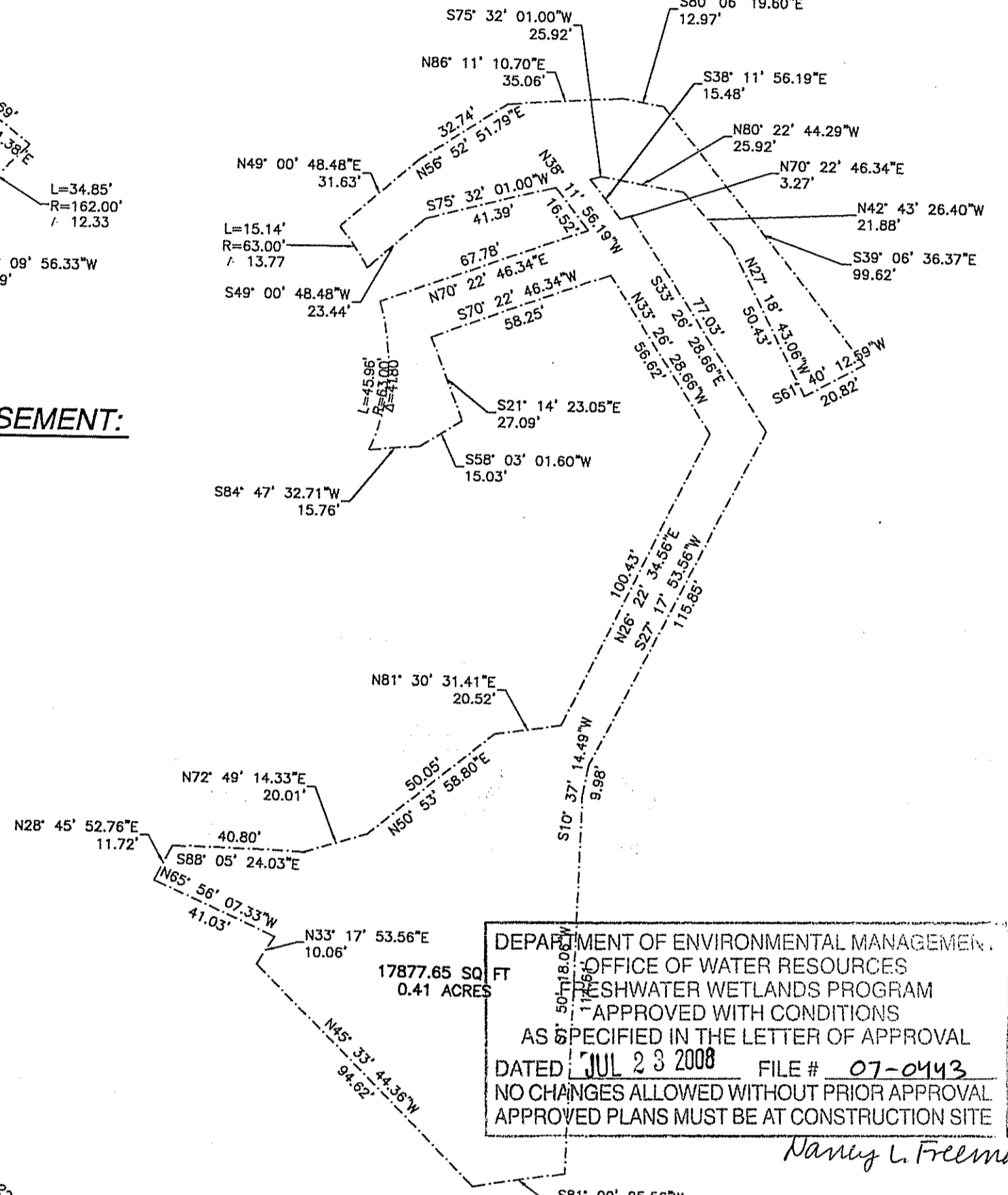
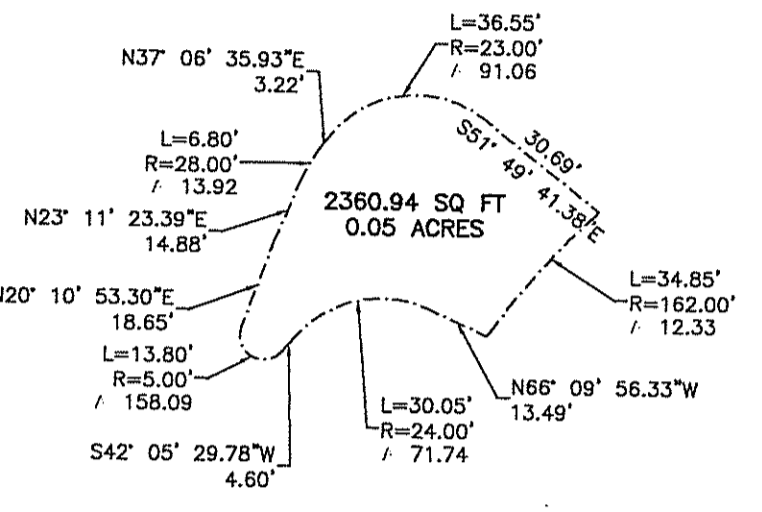
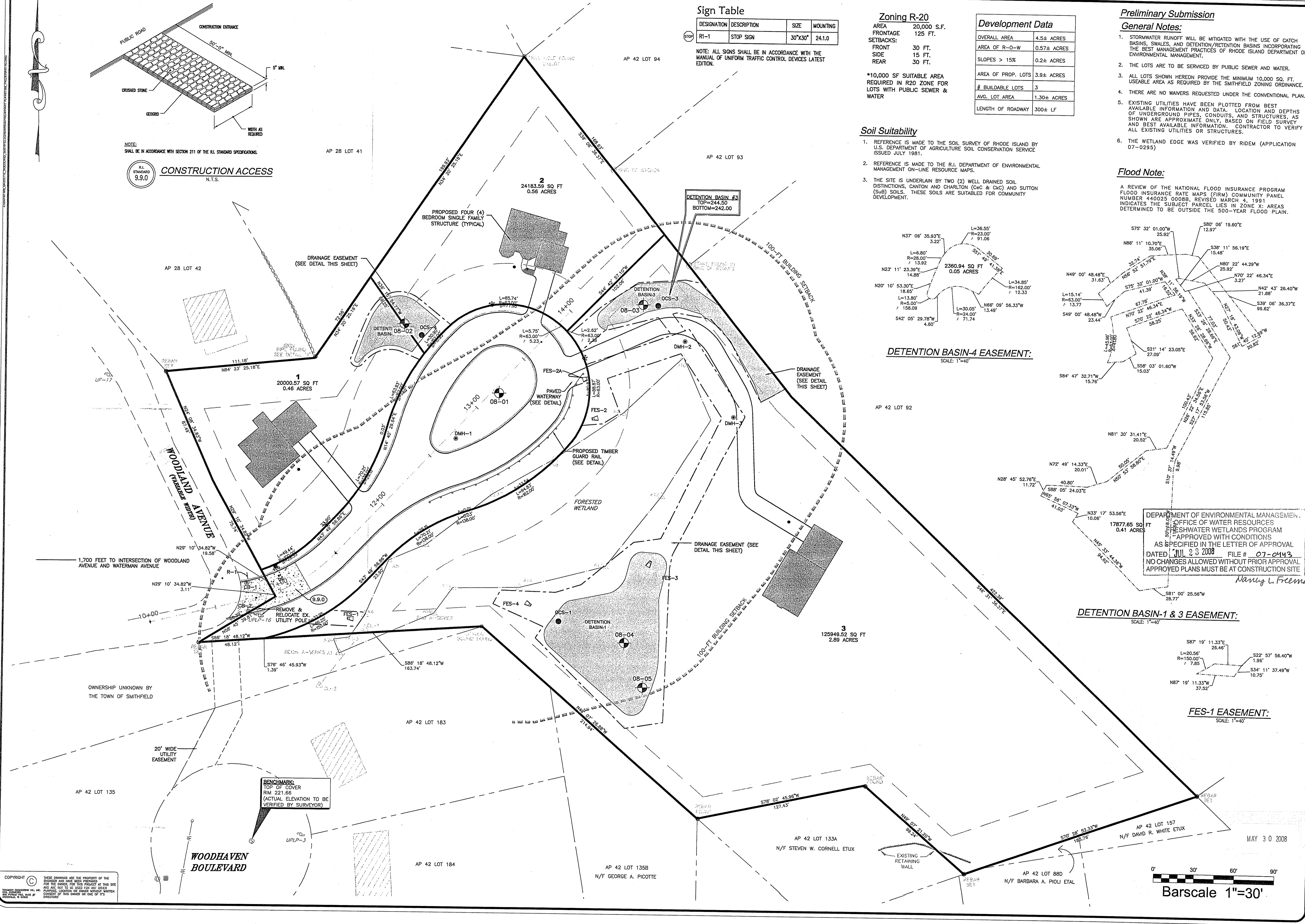
BRIAN P. THALMANN
No. 6596
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

Thalman Engineering Co., Inc.
Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
(401) 349-3040 • (401) 949-3041 (fax)

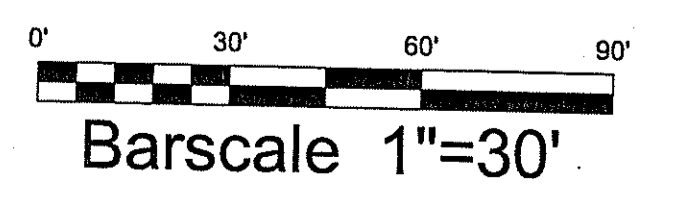
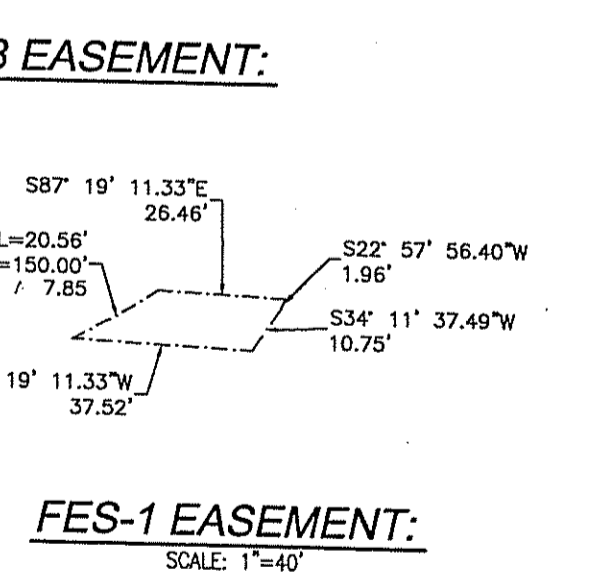
Thalman
ENGINEERING CO., INC.

Layout Plan
Woodland Estates
Woodland Avenue
Prepared for:
Robert Gaudette
69 Lower Road, P.O. Box 295, Lincoln
date: Nov.-2007
A.P. 42
Smithfield
Rhode Island
scale: 1"=30'

Design By: JEA
Checked By: BPT
Sheet
4
of 8
FILE NO.: 07.008

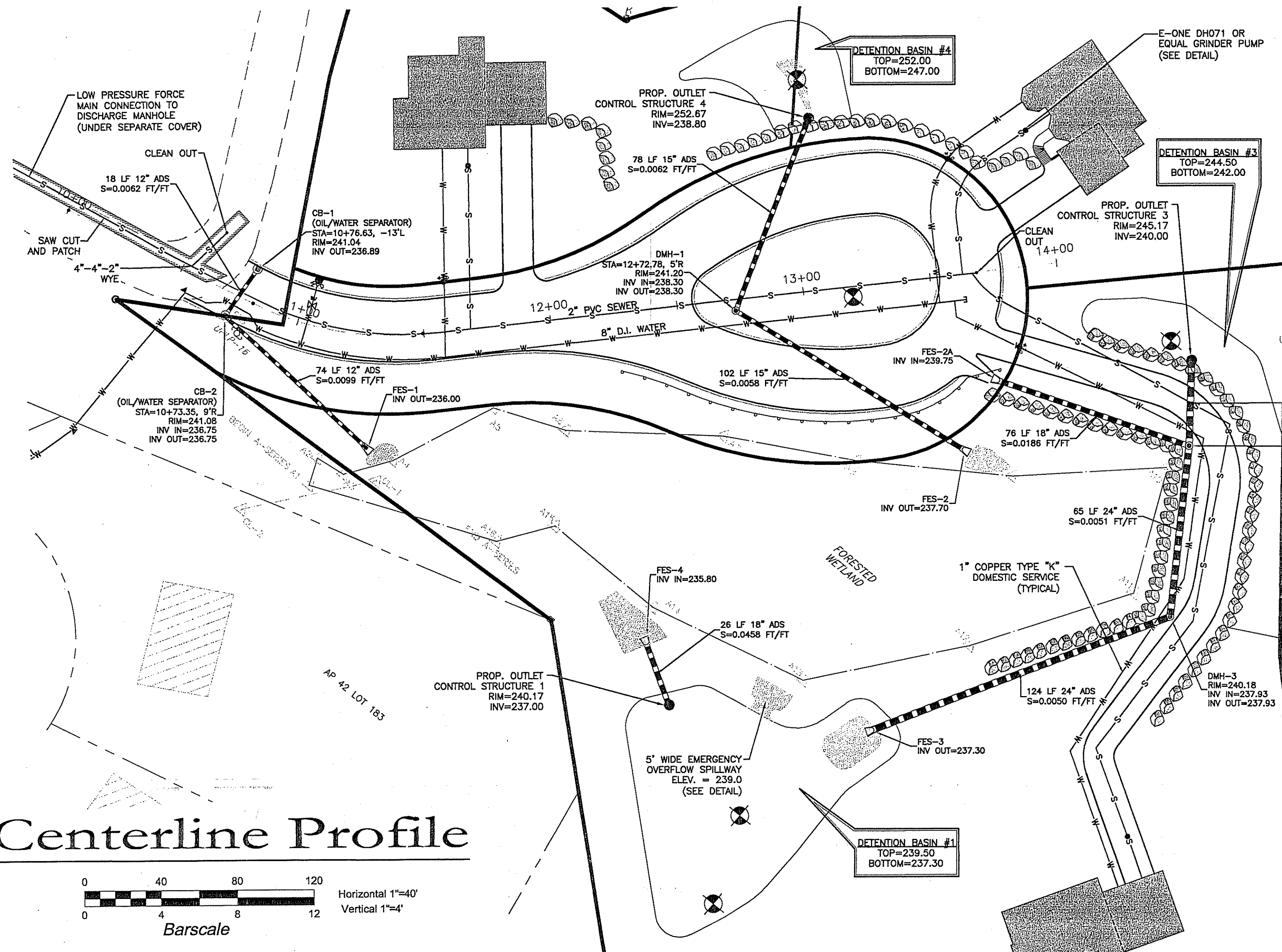


DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 23 2008 FILE # 07-0143
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

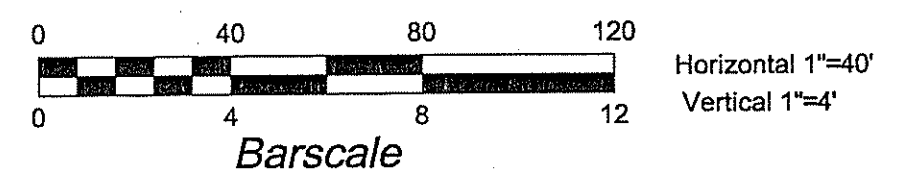


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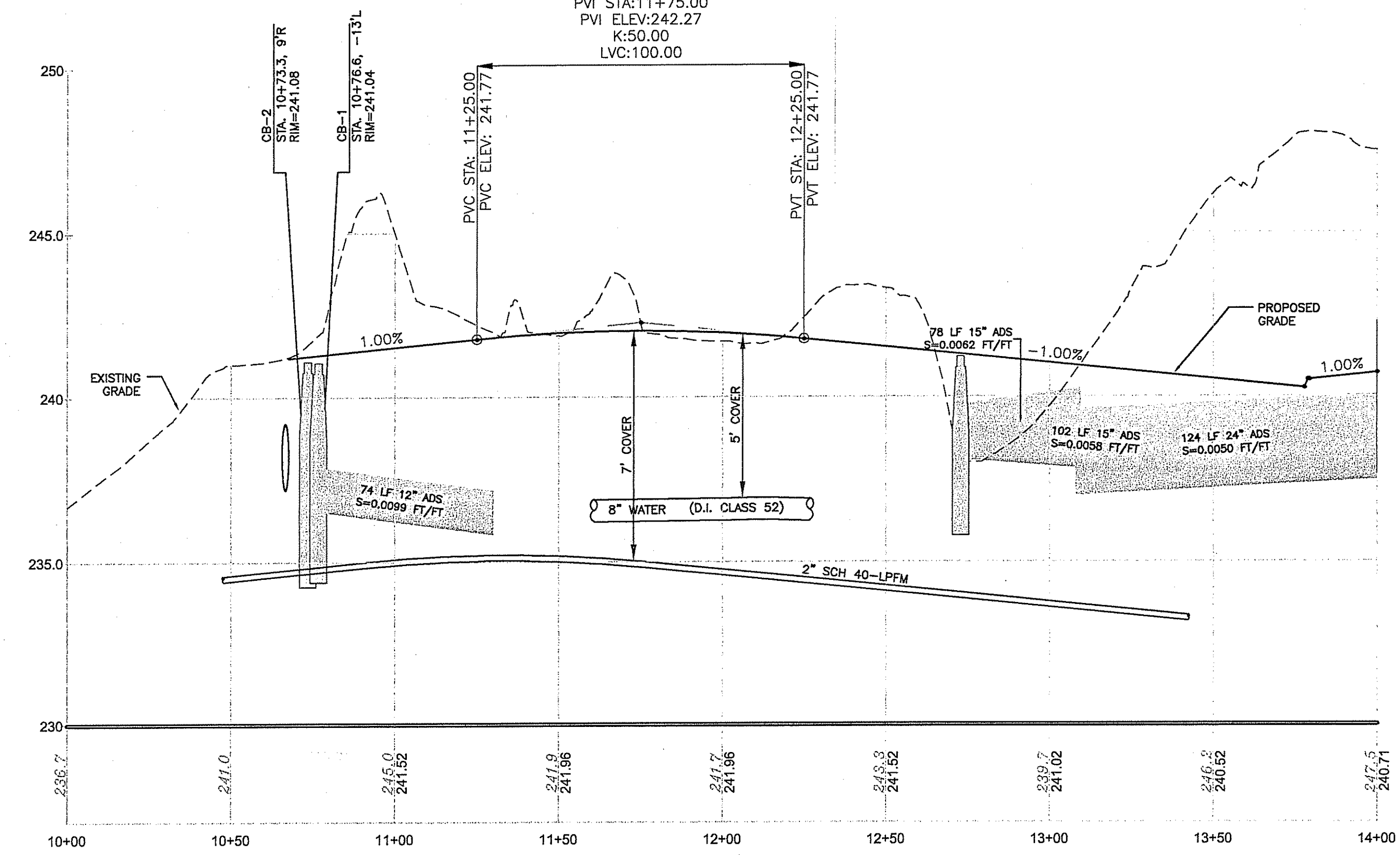
MAY 30 2008



Centerline Profile



HIGH PT STA: 11+75.00
HIGH PT ELEV: 242.02
PVI STA: 11+75.00
PVI ELEV: 242.27
K: 50.00
LVC: 100.00



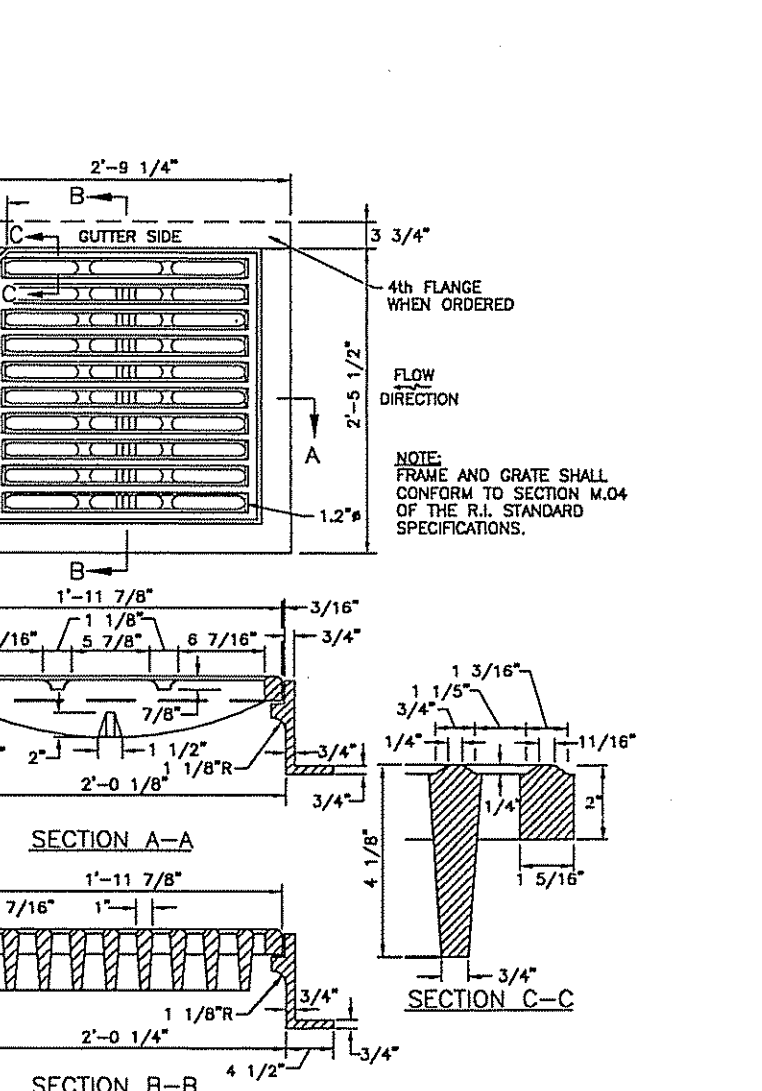
TYPICAL SEWER AND WATER LINE CROSSINGS

N.T.S.



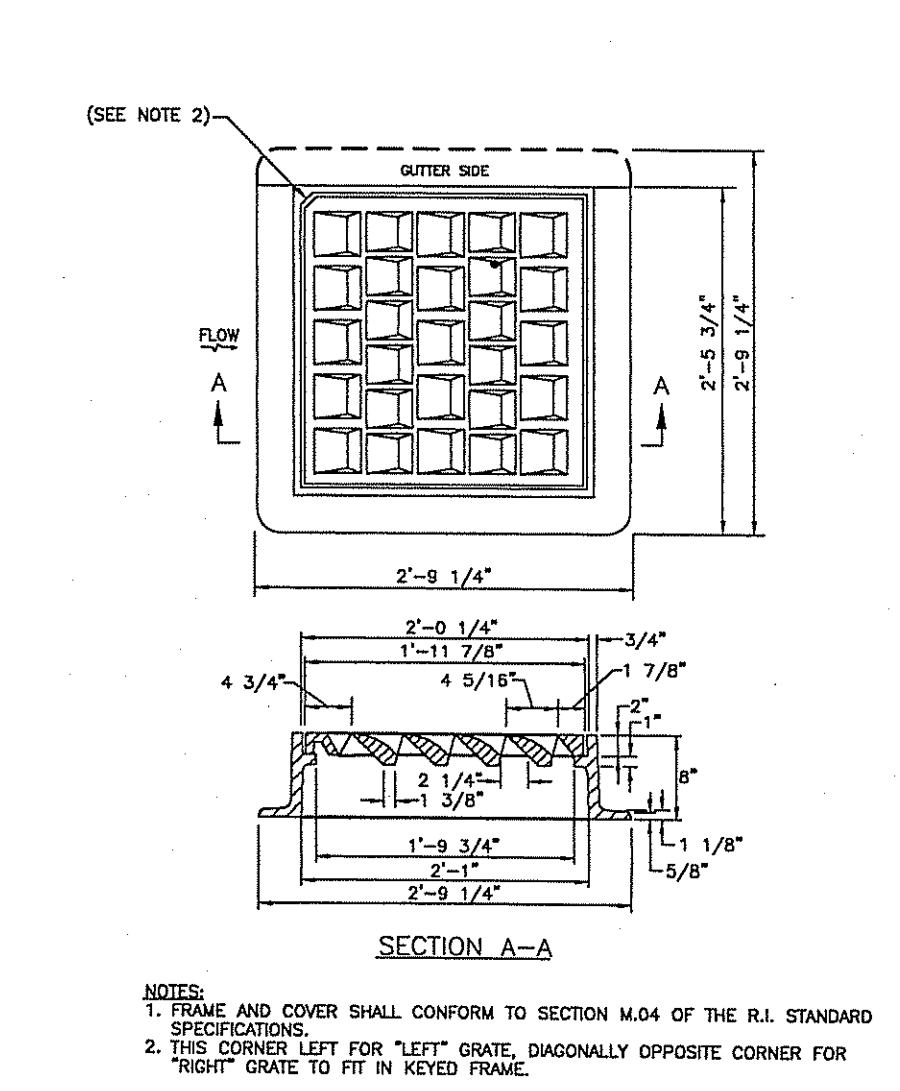
PRECAST 4'-0", 5'-0" OR 6'-0" ROUND CATCH BASIN

N.T.S.



PRECAST 4'-0" ROUND MANHOLE

N.T.S.



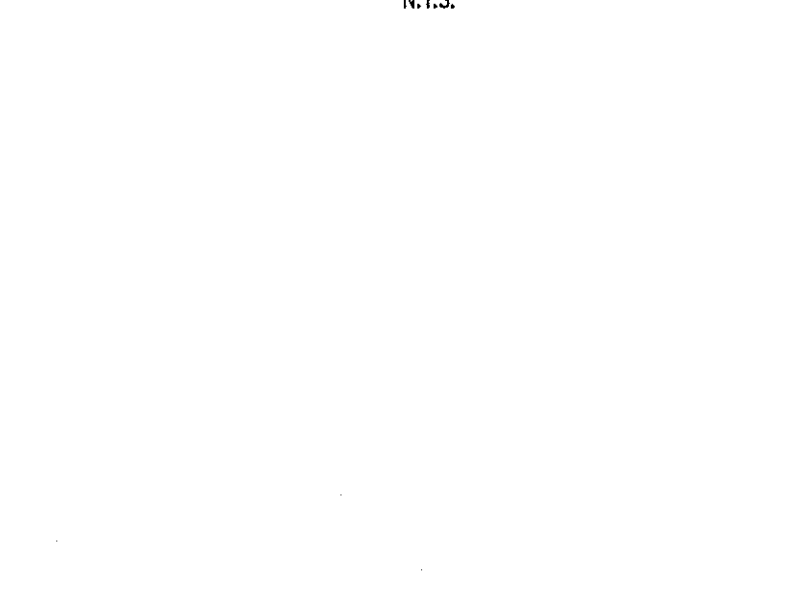
CATCH BASIN AND MANHOLE STEP

N.T.S.



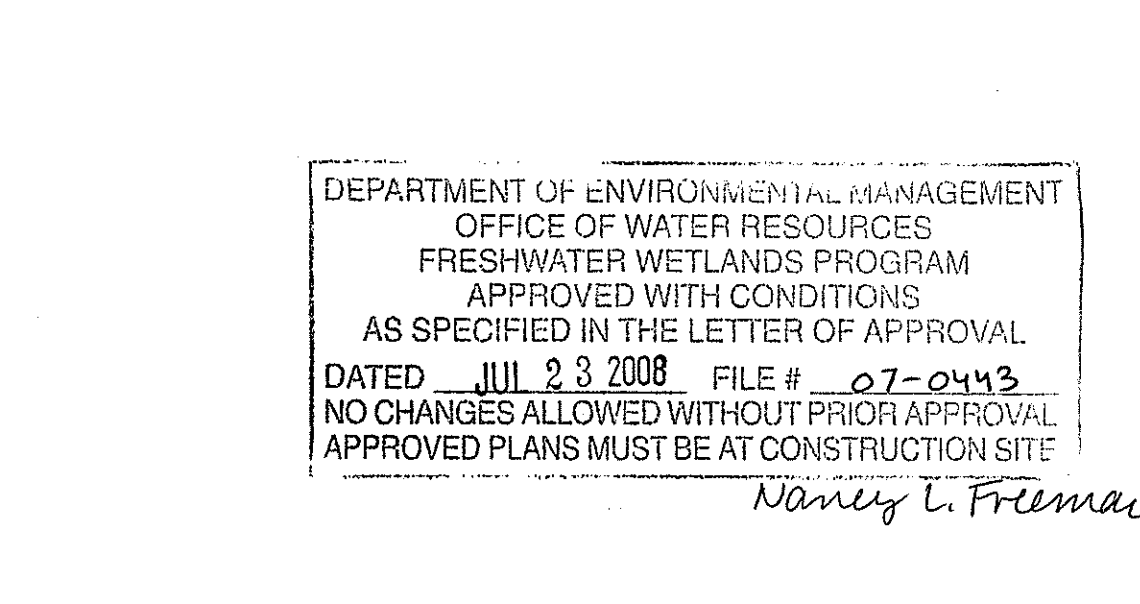
SQUARE FRAME AND GRATE (BICYCLE SAFE)

N.T.S.



HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)

N.T.S.



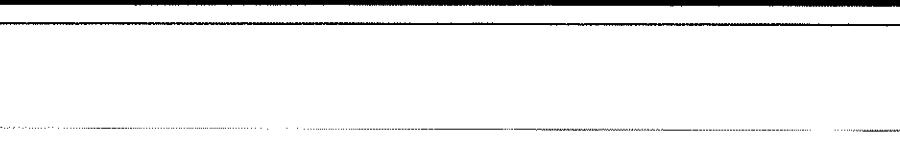
ALTERNATE TOP COVER FOR ROUND PRECAST MANHOLES AND CATCH BASINS

N.T.S.



HEAVY-DUTY ROUND FRAME AND COVER

N.T.S.



ROUND MANHOLES & CATCH BASINS MAXIMUM PIPE SIZE STANDARD

N.T.S.

	4 FT. MANHOLE OR CATCH BASIN	5 FT. MANHOLE OR CATCH BASIN	6 FT. MANHOLE OR CATCH BASIN
MAX. PIPE O.D. THROUGH 30° DEFLECTION	33 1/2" O.D. 27" R.C. PIPE	44" O.D. 36" R.C. PIPE	51" O.D. 42" R.C. PIPE
MAX. PIPE O.D. 60° DEFLECTION	27" O.D. 18" R.C. PIPE	33 1/2" O.D. 27" R.C. PIPE	40" O.D. 30" R.C. PIPE

NOTE: 1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS. 2. THE MINIMUM CLEARANCE BETWEEN PIPE, ENTRANCE MANHOLE AND CATCH BASIN MUST BE 1'-0". THE SIZE OF THE CATCH BASIN WILL BE DETERMINED BY THE PIPE SIZE AND ENTRY ANGLE. (SEE TABLE ABOVE)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 11/11/2008 FILE # 07-0443
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Nancy L. Freeman

NO.	DATE	REVISION
1	2/21/08	RESPONSE TO RIDEW COMMENTS
2	5/21/08	RESPONSE TO RIDEW COMMENTS

BRIAN P. THALMANN
6596
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

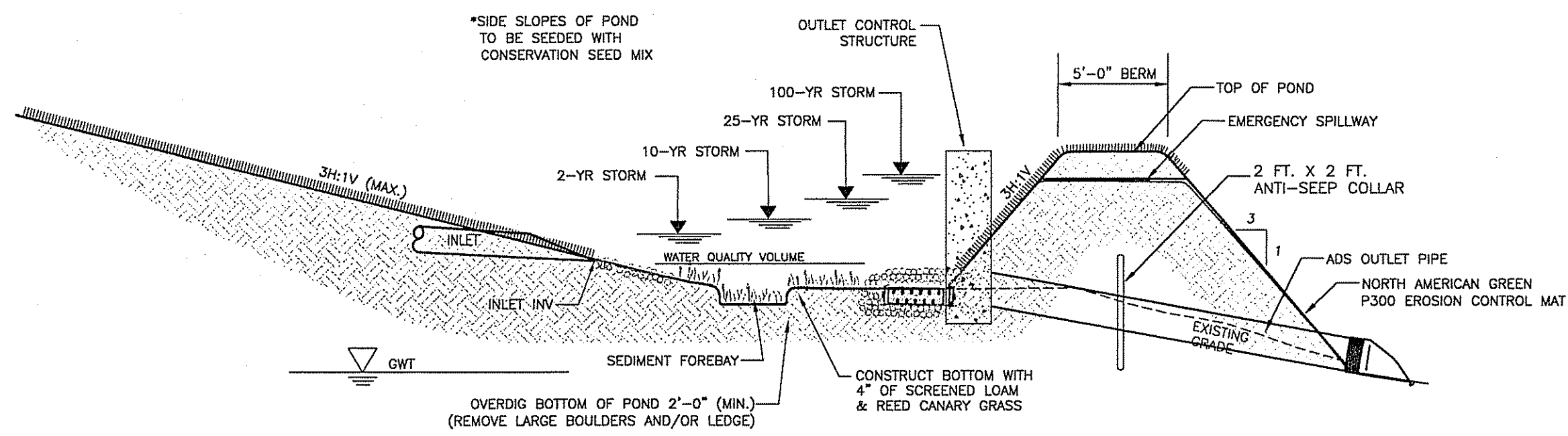
Thalman Engineering Co., Inc.
Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
(401) 349-3041 (fax)

Lot 133
Woodland Estates
Woodland Avenue
Smithfield
Rhode Island
Prepared for:
Robert Gaudette
69 Lower Road, RI
date: Nov-2007
scale: As Noted

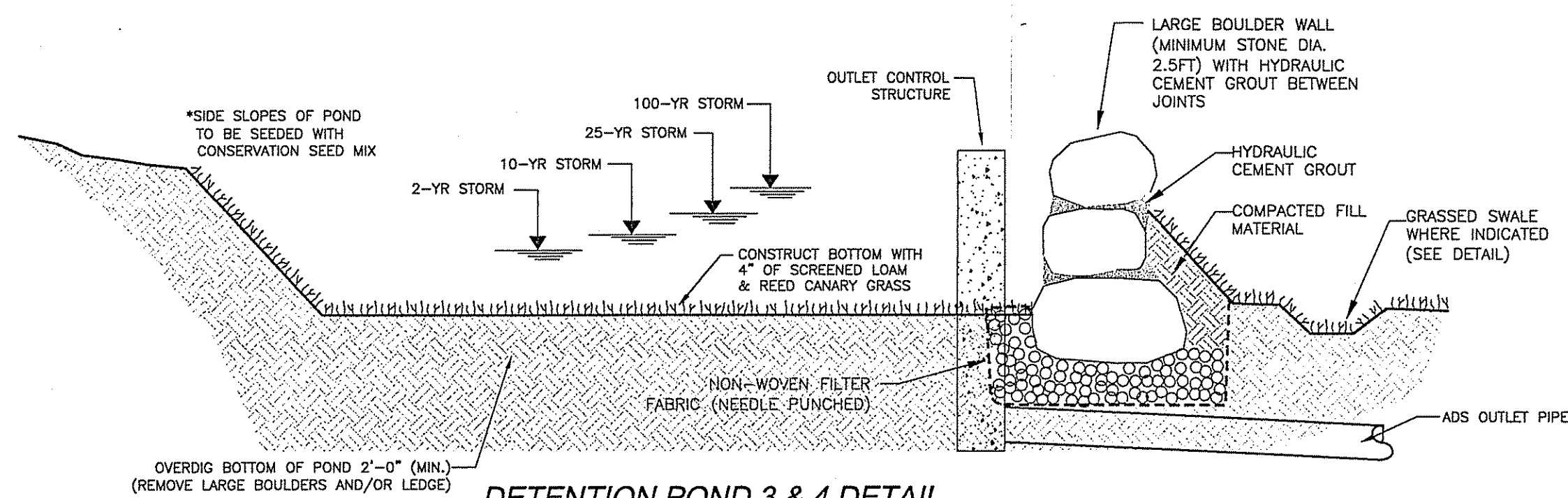
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6 of 8
FILE NO.: 07.008

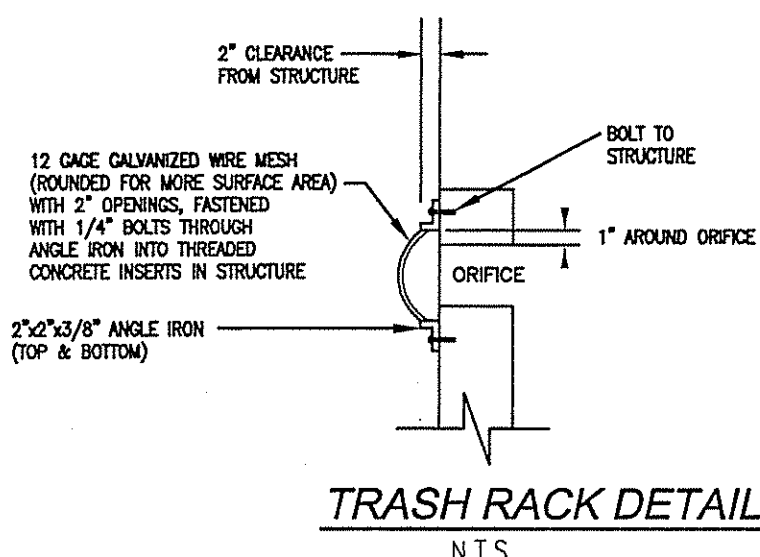
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DETENTION POND 1 DETAIL
N.T.S.



DETENTION POND 3 & 4 DETAIL
N.T.S.

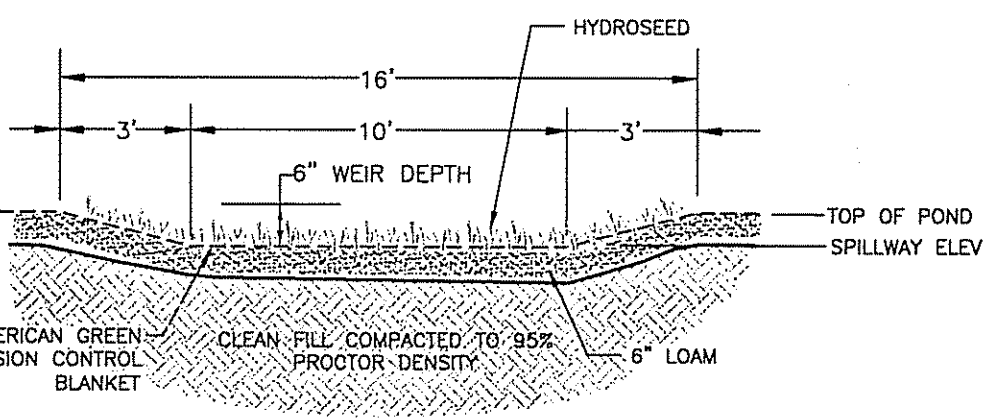


TRASH RACK DETAIL
N.T.S.

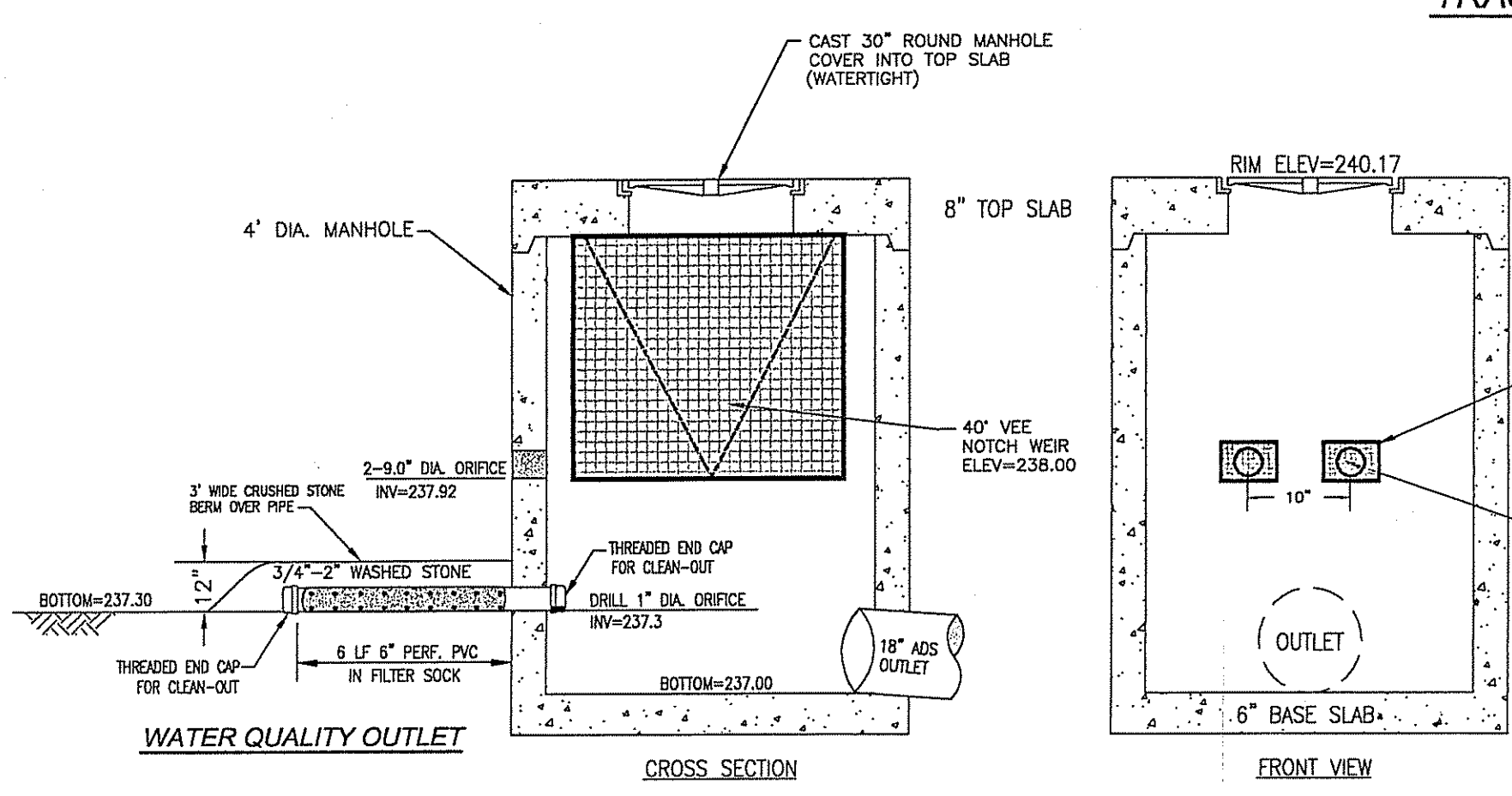
NOTES:

- (1) DETENTION POND 1 & 3 REQUIRE MINOR LEDGE CUTS.
- (2) ANTI-SLEEP COLLARS SHALL BE PROVIDED ON THE OUTLET PIPES FOR POND 3. THE ANTI-SLEEP COLLARS AND THEIR CONNECTIONS TO THE PIPE SHALL BE WATERTIGHT.
- (3) THE FOLLOWING AREAS SHALL BE PROVIDED FOR SEDIMENT STORAGE WITHIN POND(S):
DETENTION POND #1 1,630 SQ. FT.
- (4) THE ENGINEER MUST BE CONTACTED IMMEDIATELY IF UNDERLYING SOIL, LEDGE, AND/OR GROUNDWATER CONDITIONS VARY FROM THESE PLANS AS STATED.

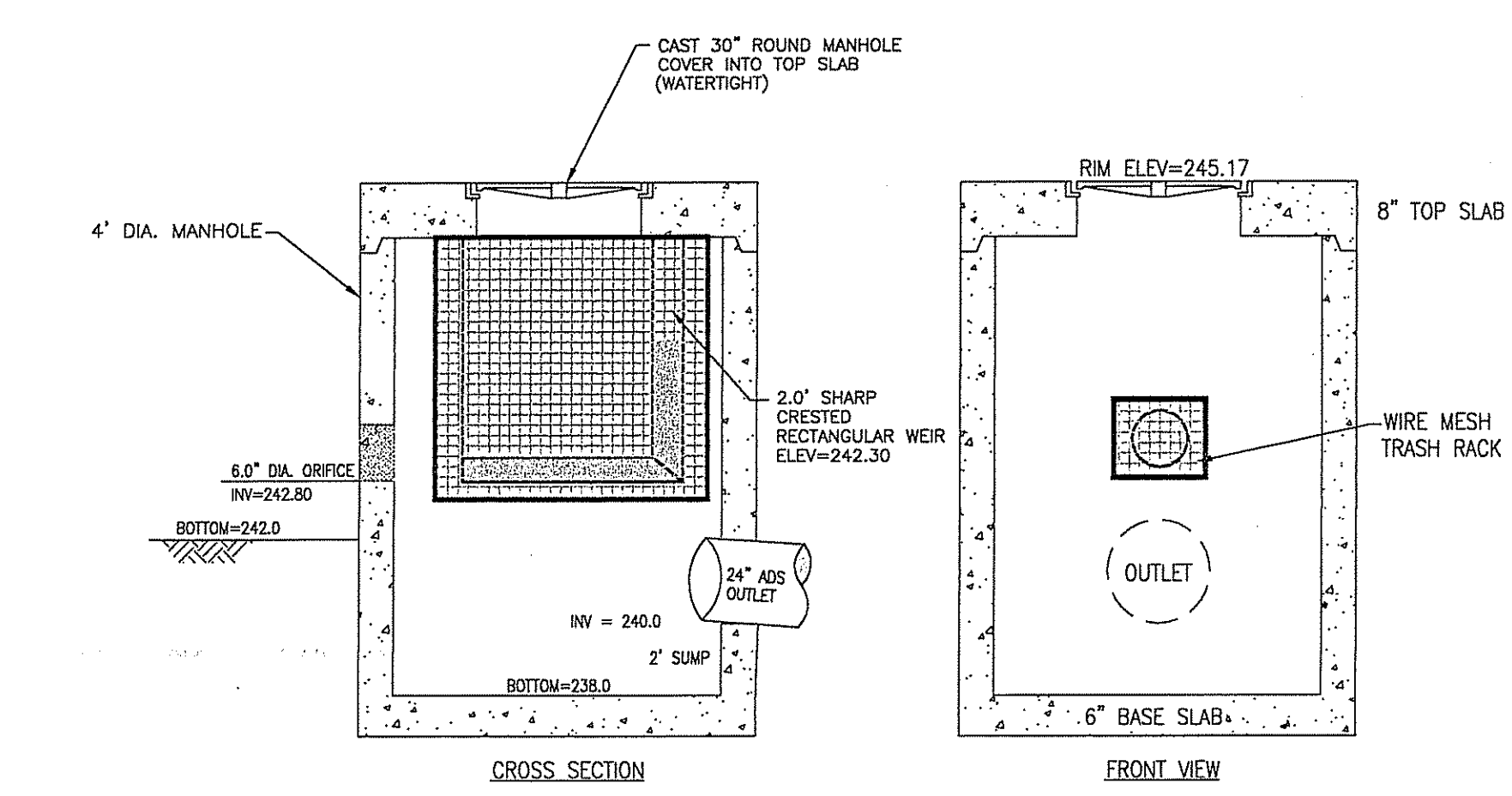
POND / BASIN	1	3	4
SEDIMENT FOREBAY EL.	----	----	----
BOTTOM OF POND ELEVATION	237.30	242.00	247.00
WATER QUALITY VOLUME EL.	237.80	----	----
2-YEAR STORM EL.	238.57	242.65	248.57
10-YEAR STORM EL.	239.18	243.16	251.31
25-YEAR STORM EL.	239.31	243.44	251.51
100-YEAR STORM EL.	239.50	243.97	251.67
EMERGENCY SPILLWAY	239.00	----	----
TOP OF POND ELEVATION	239.50	244.50	252.00



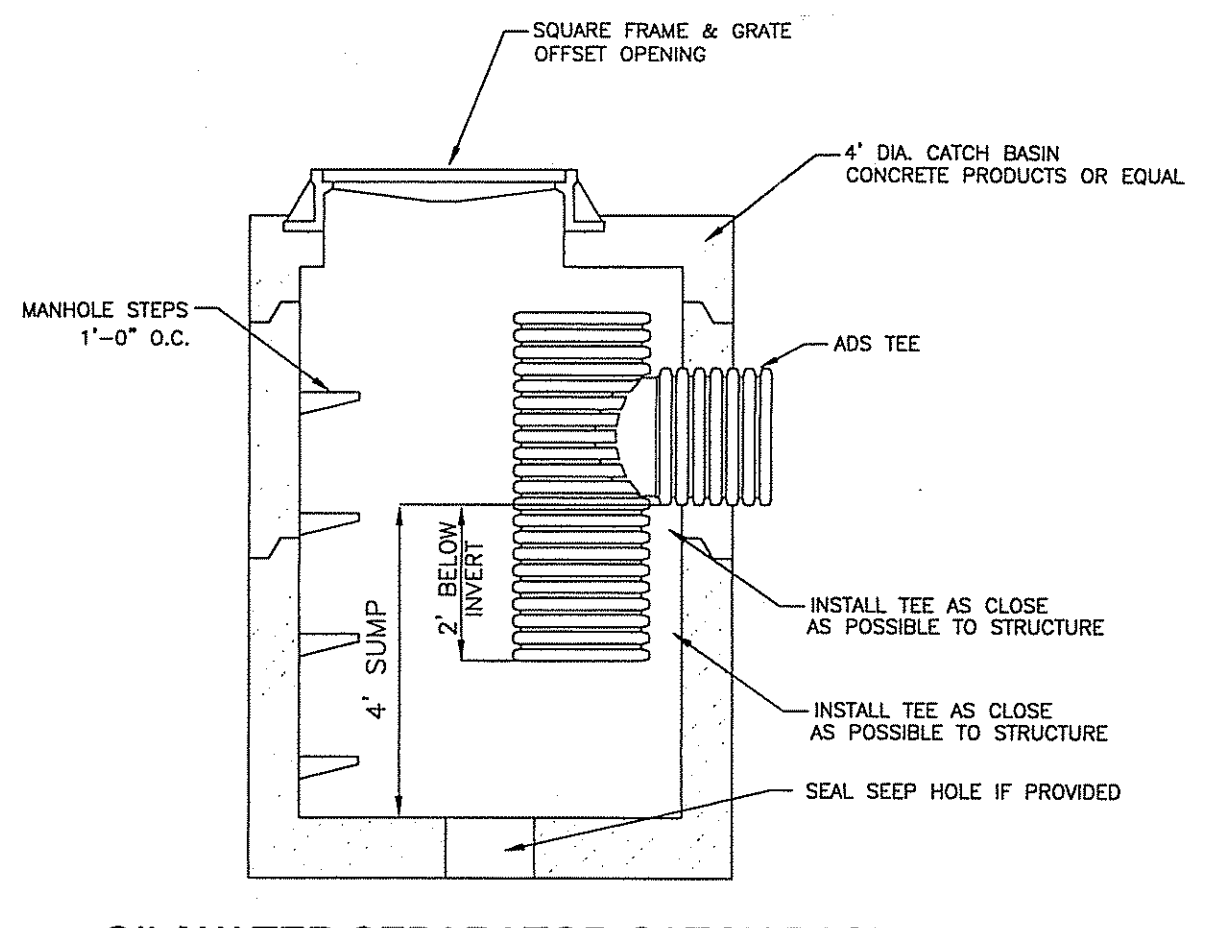
EMERGENCY SPILLWAY DETAIL
N.T.S.



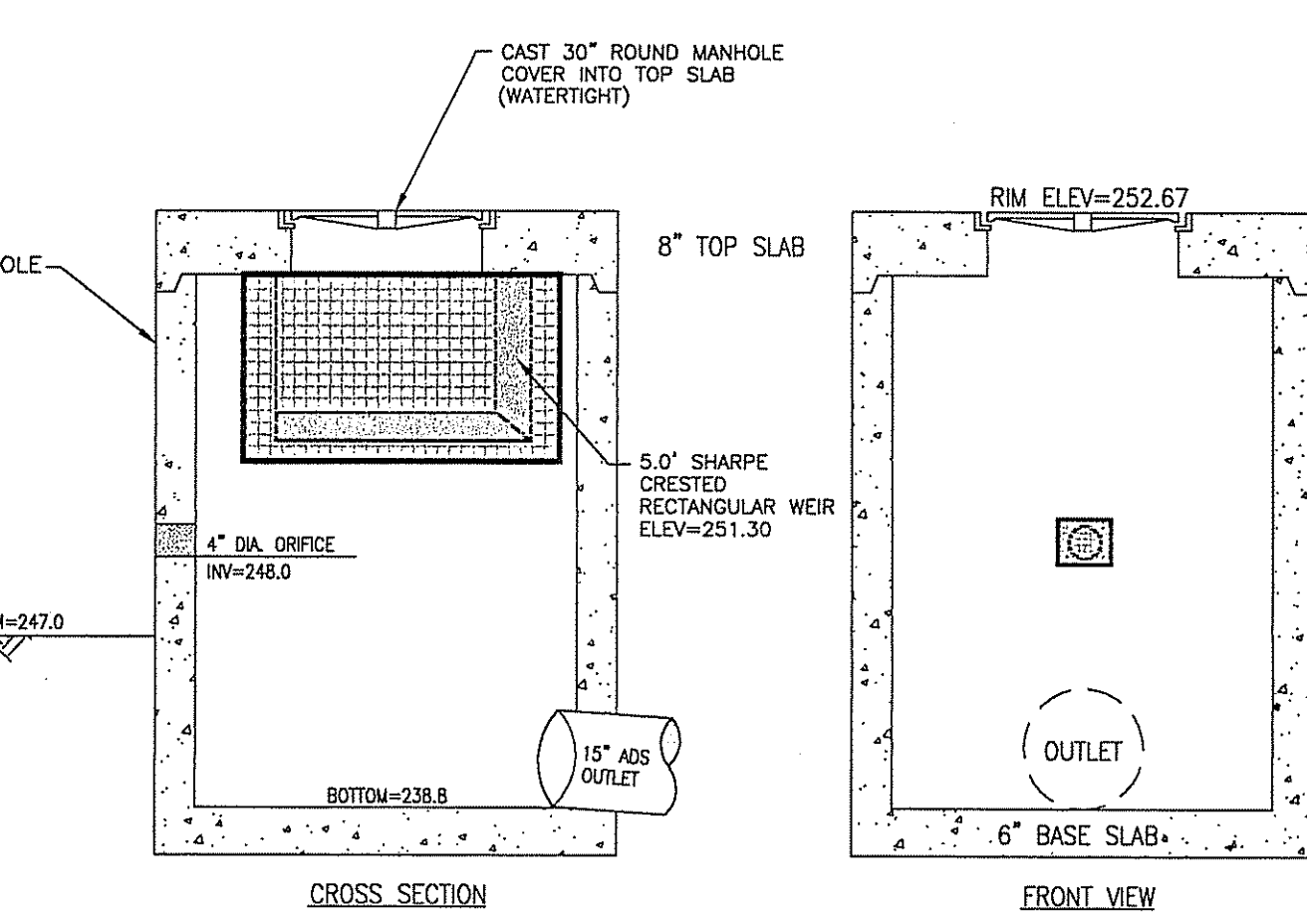
OUTLET CONTROL STRUCTURE #1
-DETENTION POND #1-
N.T.S.



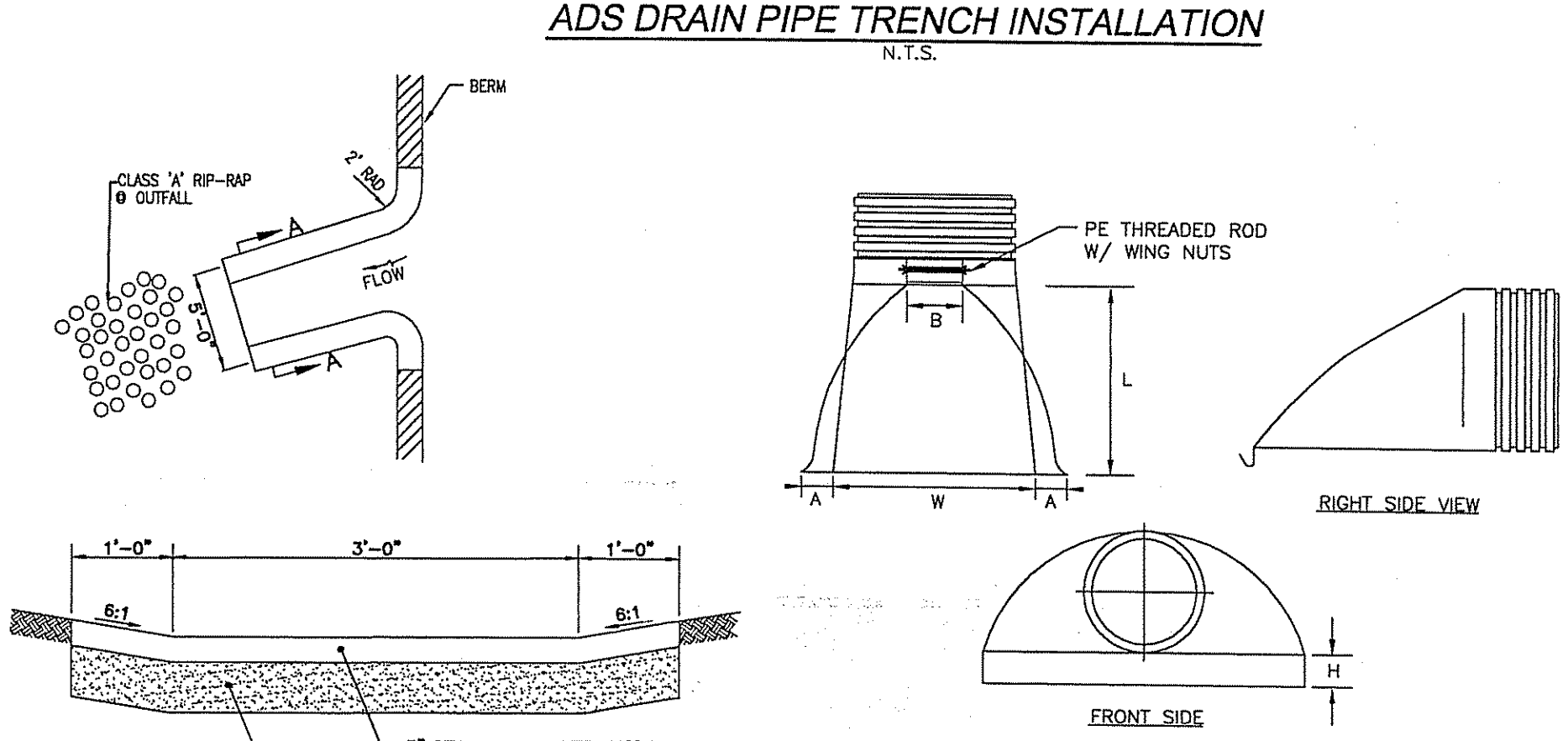
OUTLET CONTROL STRUCTURE #3
-DETENTION POND #3-
N.T.S.



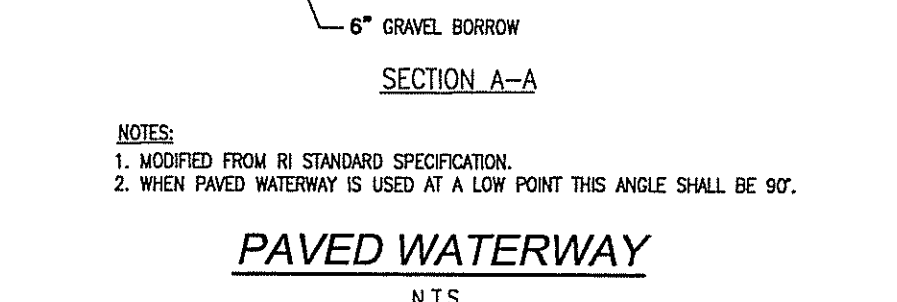
OIL/WATER SEPARATOR CATCH BASIN
N.T.S.



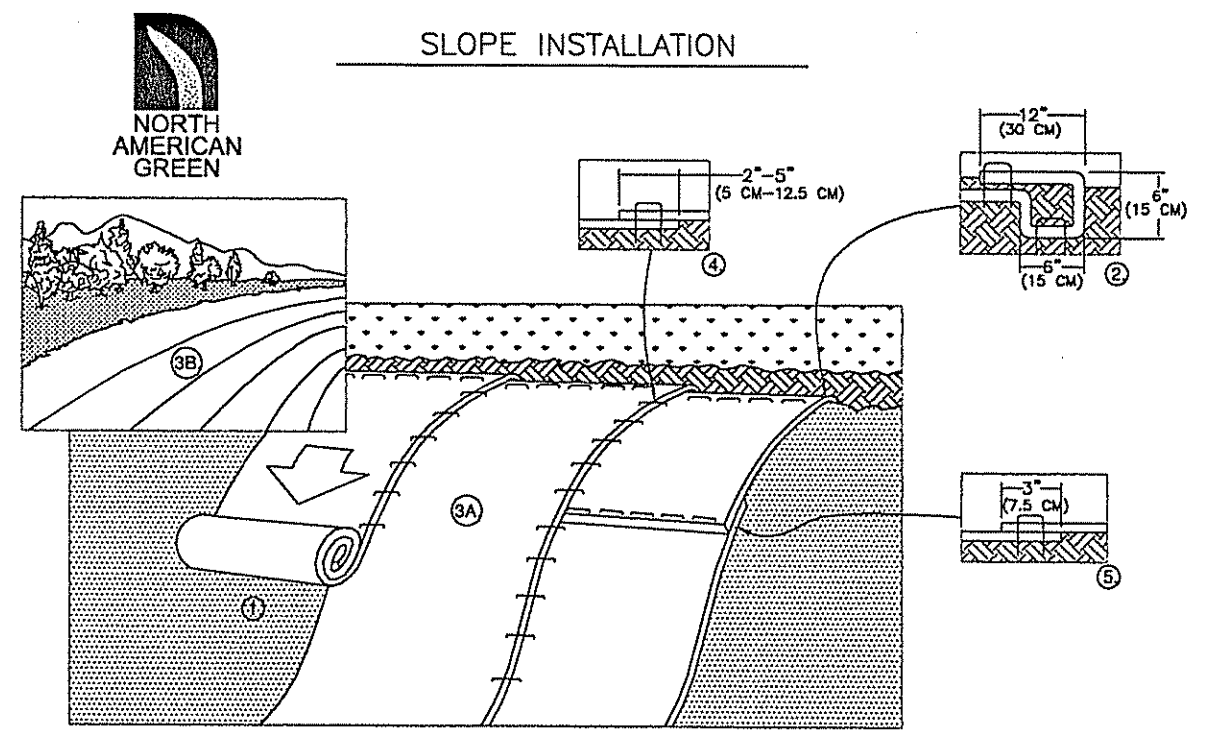
OUTLET CONTROL STRUCTURE #4
-DETENTION POND #4-
N.T.S.



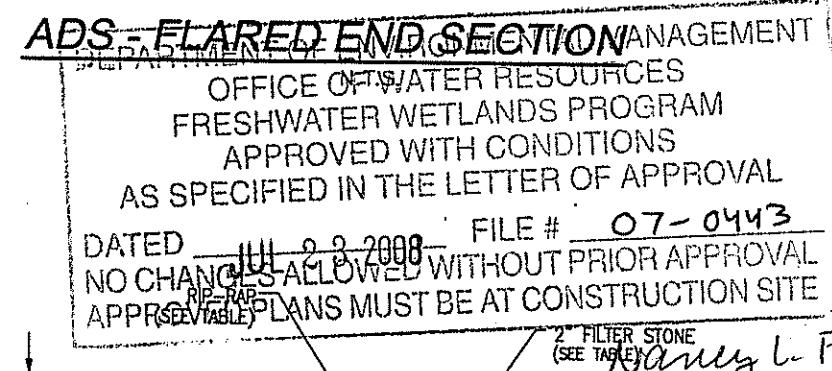
ADS DRAIN PIPE TRENCH INSTALLATION
N.T.S.



PAVED WATERWAY
N.T.S.

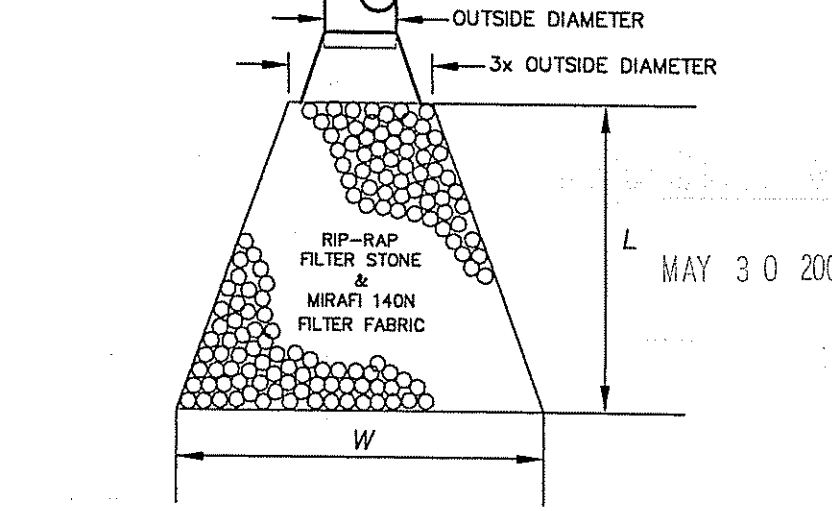


NORTH AMERICAN GREEN DETAIL
N.T.S.



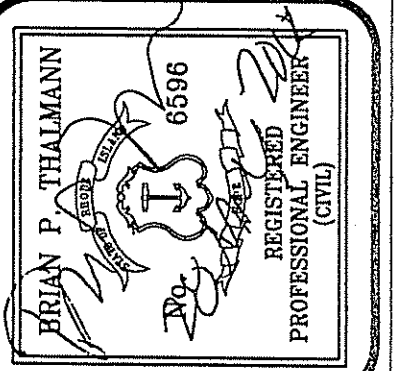
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 11/10/2008 FILE # 07-0443
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PIPE DIA.	A	B (MAX)	H	L	W
12"	6.5"	10"	6.5"	25"	29"
15"	6.5"	10"	6.5"	25"	29"
18"	7.5"	15"	6.5"	32"	35"



RIP-RAP APRON DETAIL
N.T.S.

NO.	DATE	REVISION
1	2/21/08	RESPONSE TO RIDEEM COMMENTS
2	5/21/08	RESPONSE TO RIDEEM COMMENTS

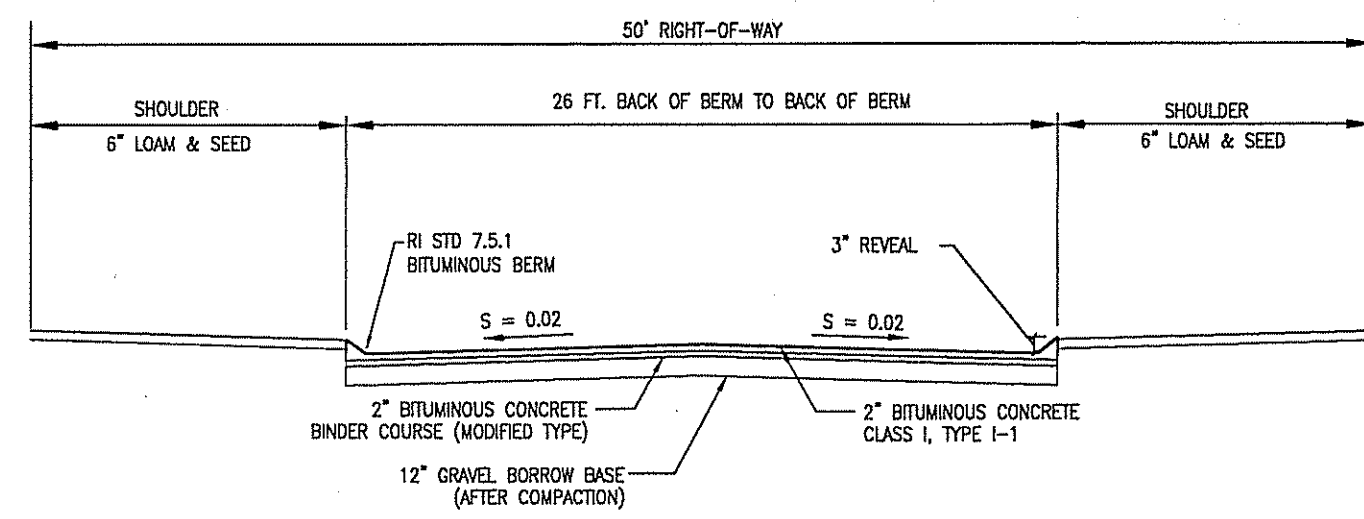


Thalman Engineering Co., Inc.
Site/Civil Engineers • Land Planners
600 Putnam Pike, Suite #7
Greenville, Rhode Island 02828
(401) 349-3040 • (401) 349-3041 (fax)

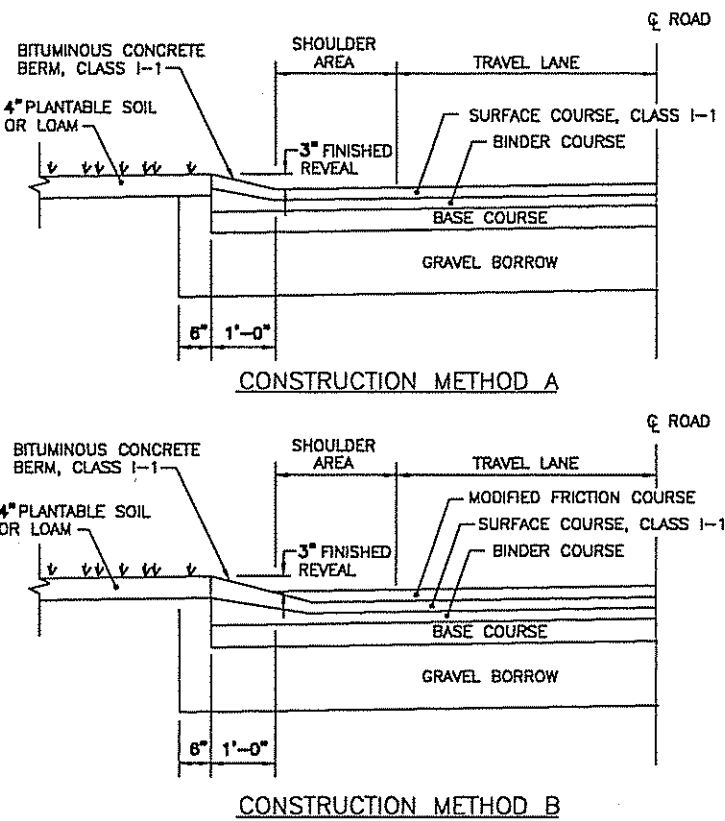
Lot 133
Rhode Island
Woodland Estates
Woodland Avenue
Prepared for:
Robert Gaudette
69 Lower Road, P.O. Box 295, Lincoln
date: Nov., 2007

Drawn By: JEA
Checked By: BPT
Sheet
7
of 8
FILE NO.: 07.008

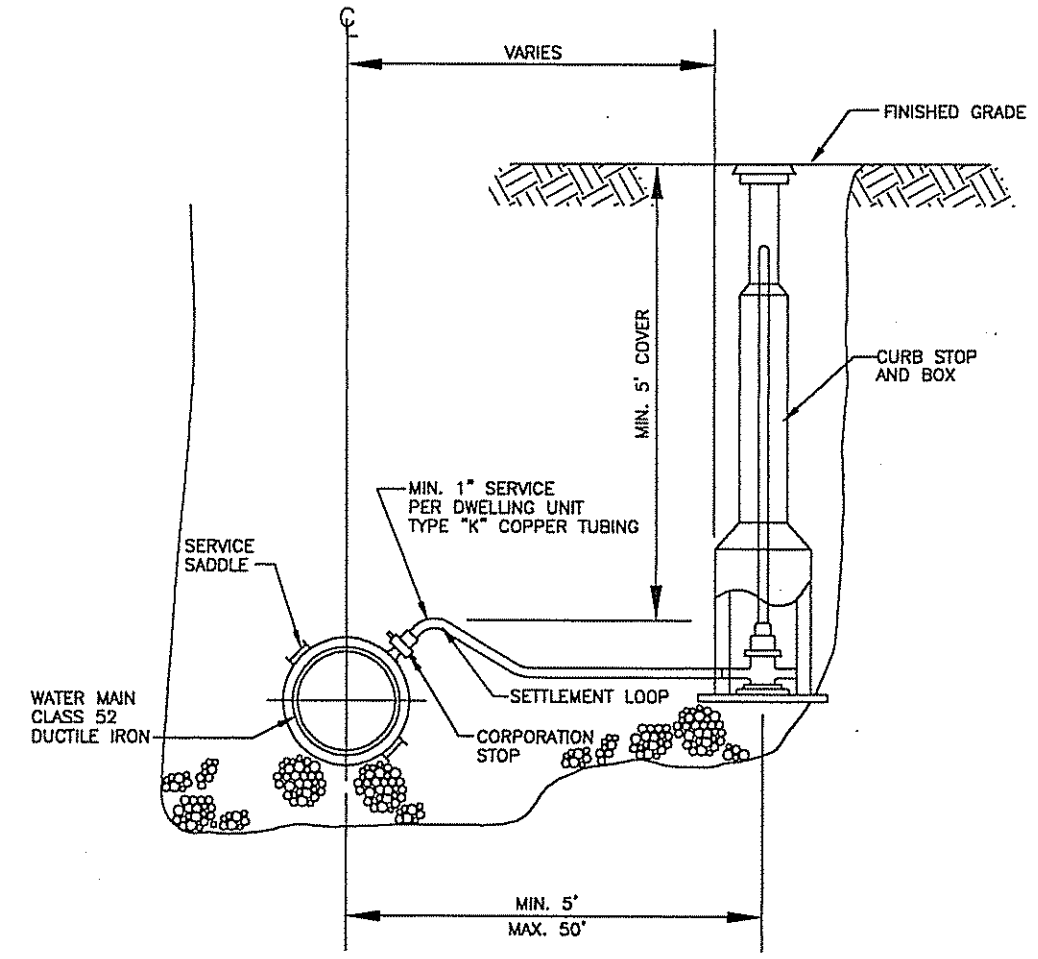
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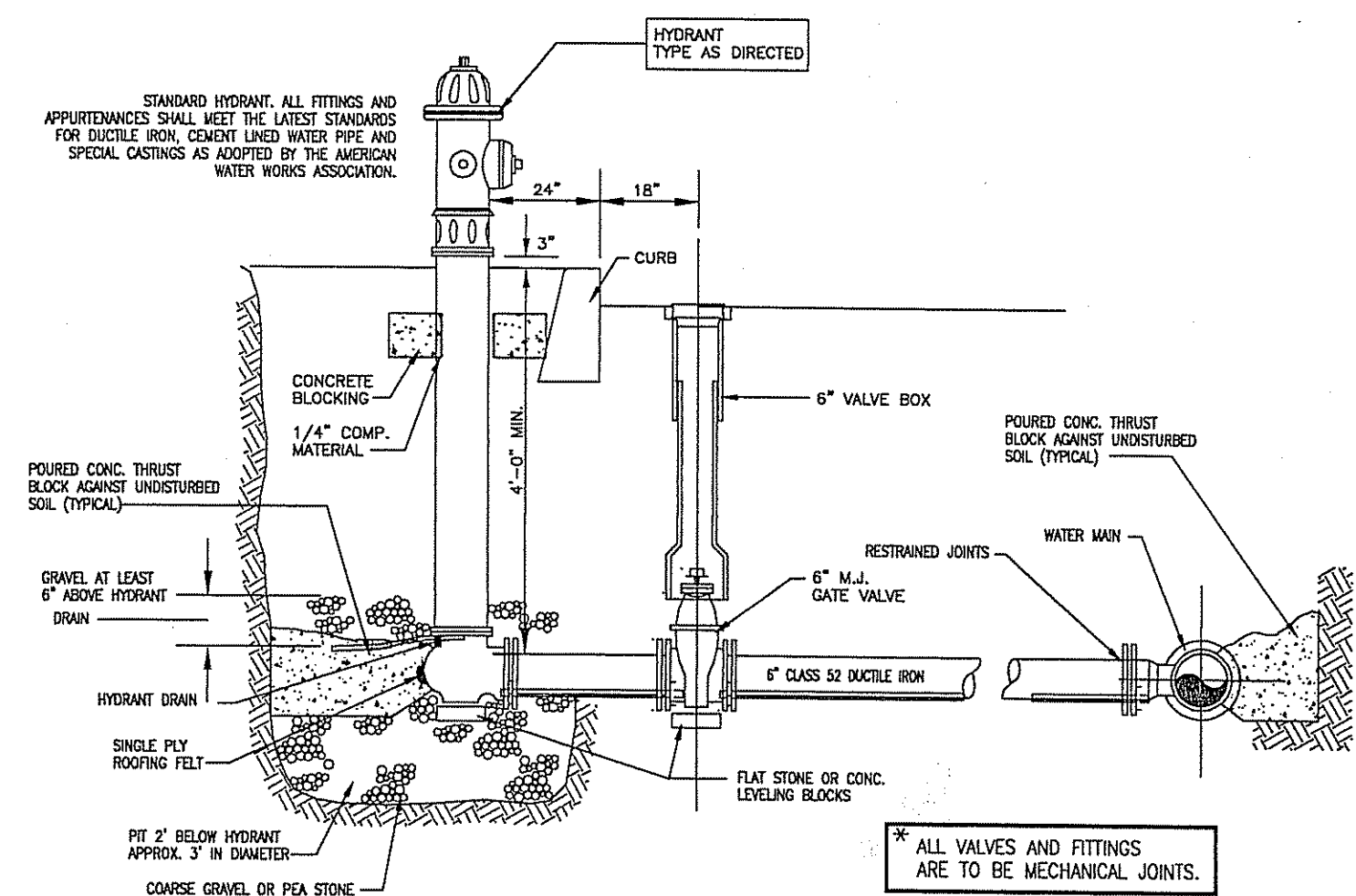
TYPICAL ROADWAY SECTION
N.T.S.



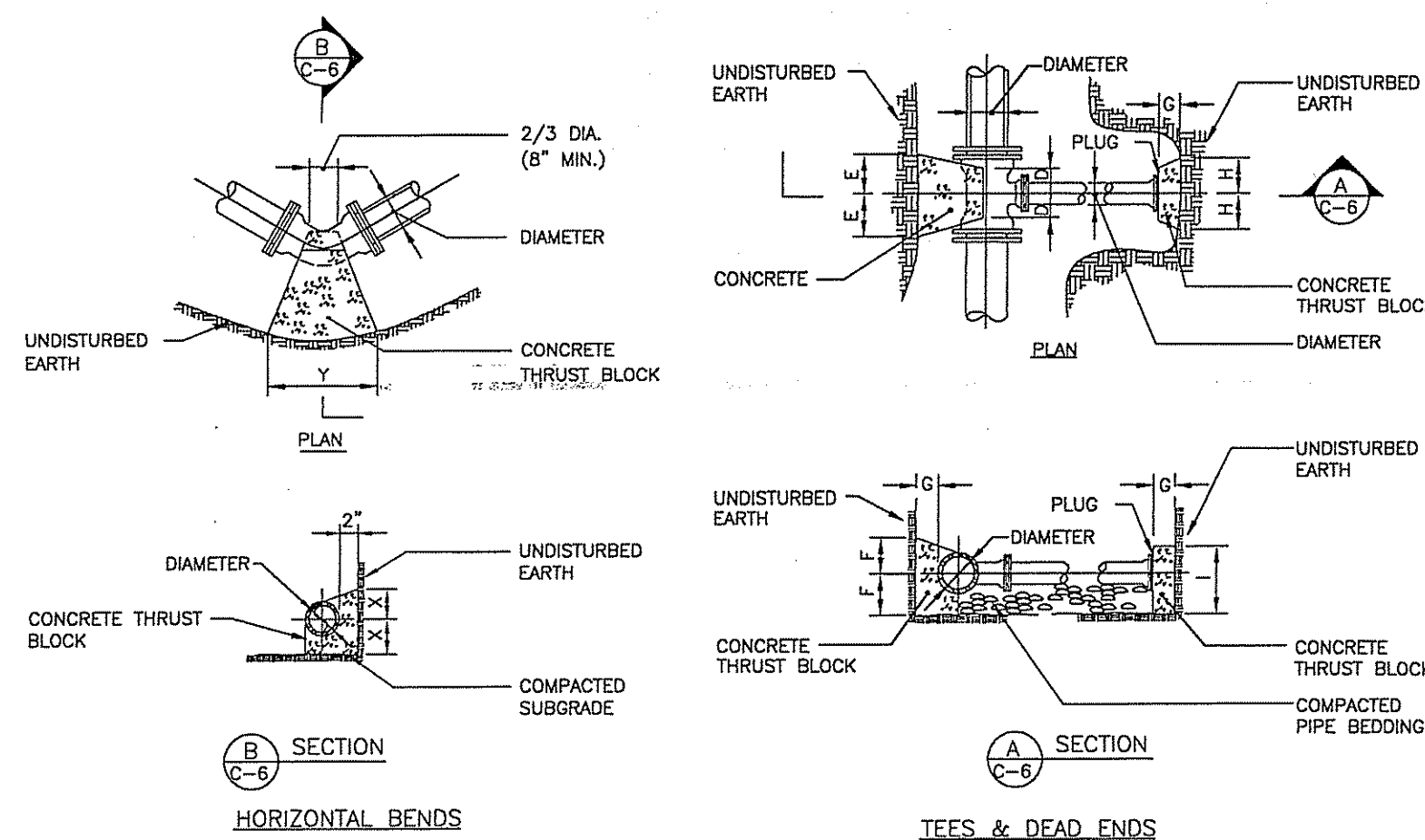
BITUMINOUS BERM
N.T.S.



TYP. PERMANENT WATER SERVICE
N.T.S.

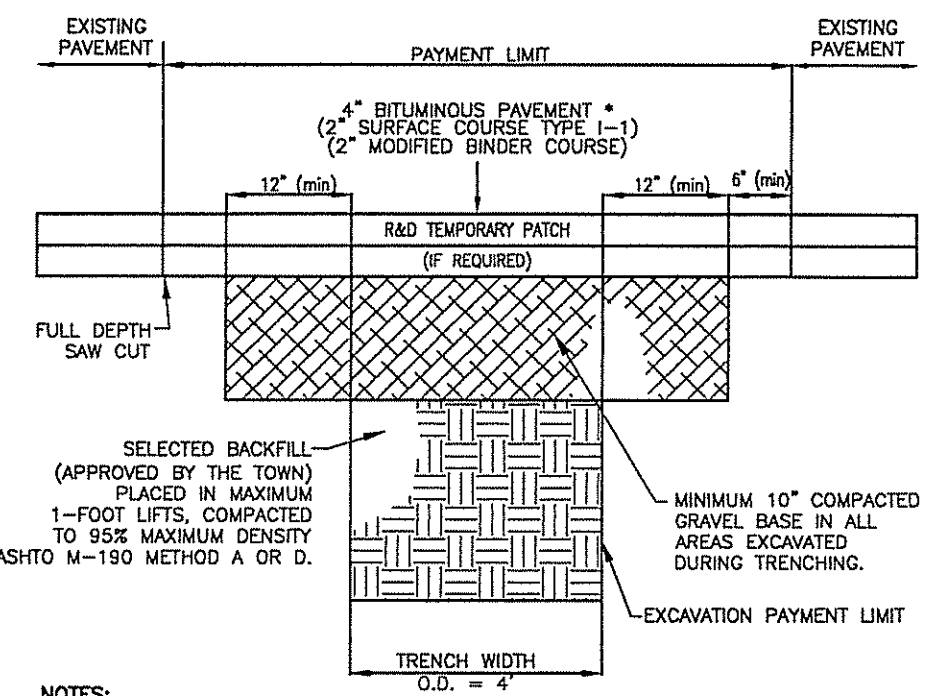


STANDARD HYDRANT DETAIL
N.T.S.

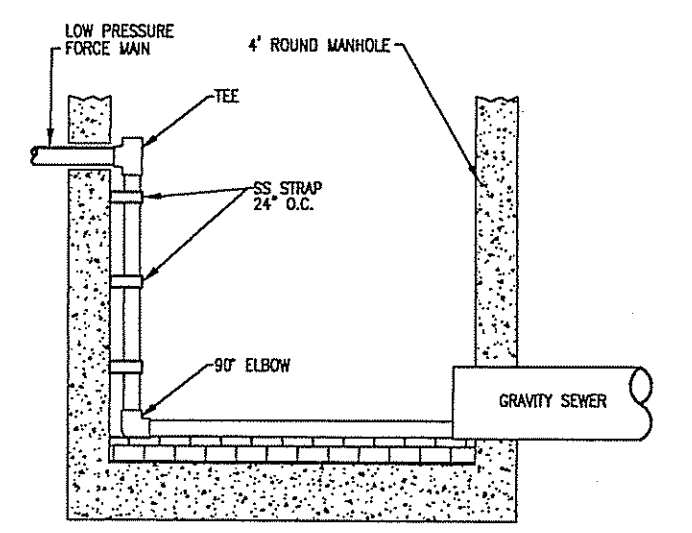


TYPE OF BEND		SIZE	
X	Y	X	Y
11-1/4"	11-0-11"	0-11"	0-11"
22-1/2"	11-0-11"	0-11"	0-11"
33"	11-0-11"	0-11"	0-11"
44"	11-0-11"	0-11"	0-11"

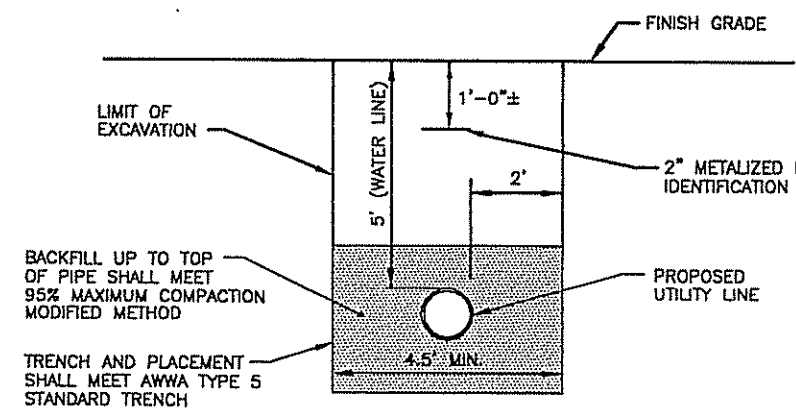
HORIZONTAL THRUST BLOCK DETAILS
N.T.S.



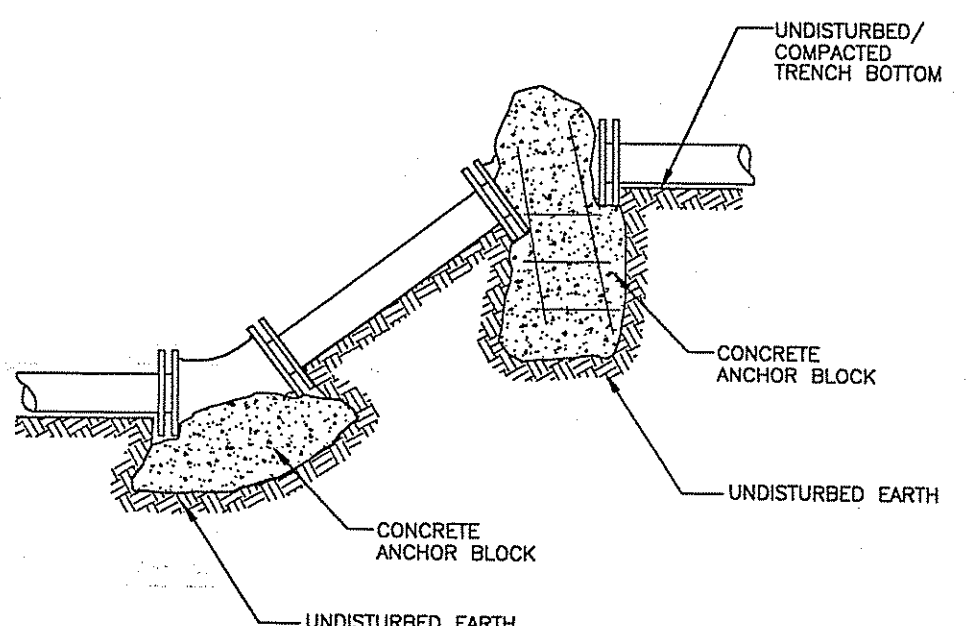
SAWCUT & PATCH DETAIL
N.T.S.



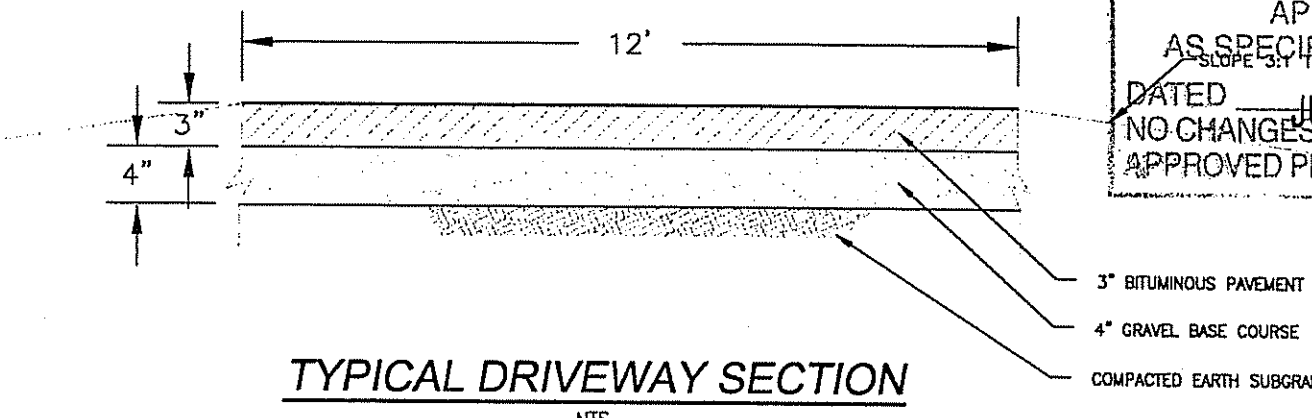
DROP CONNECTION FOR LPSS TO GRAVITY SEWER
N.T.S.



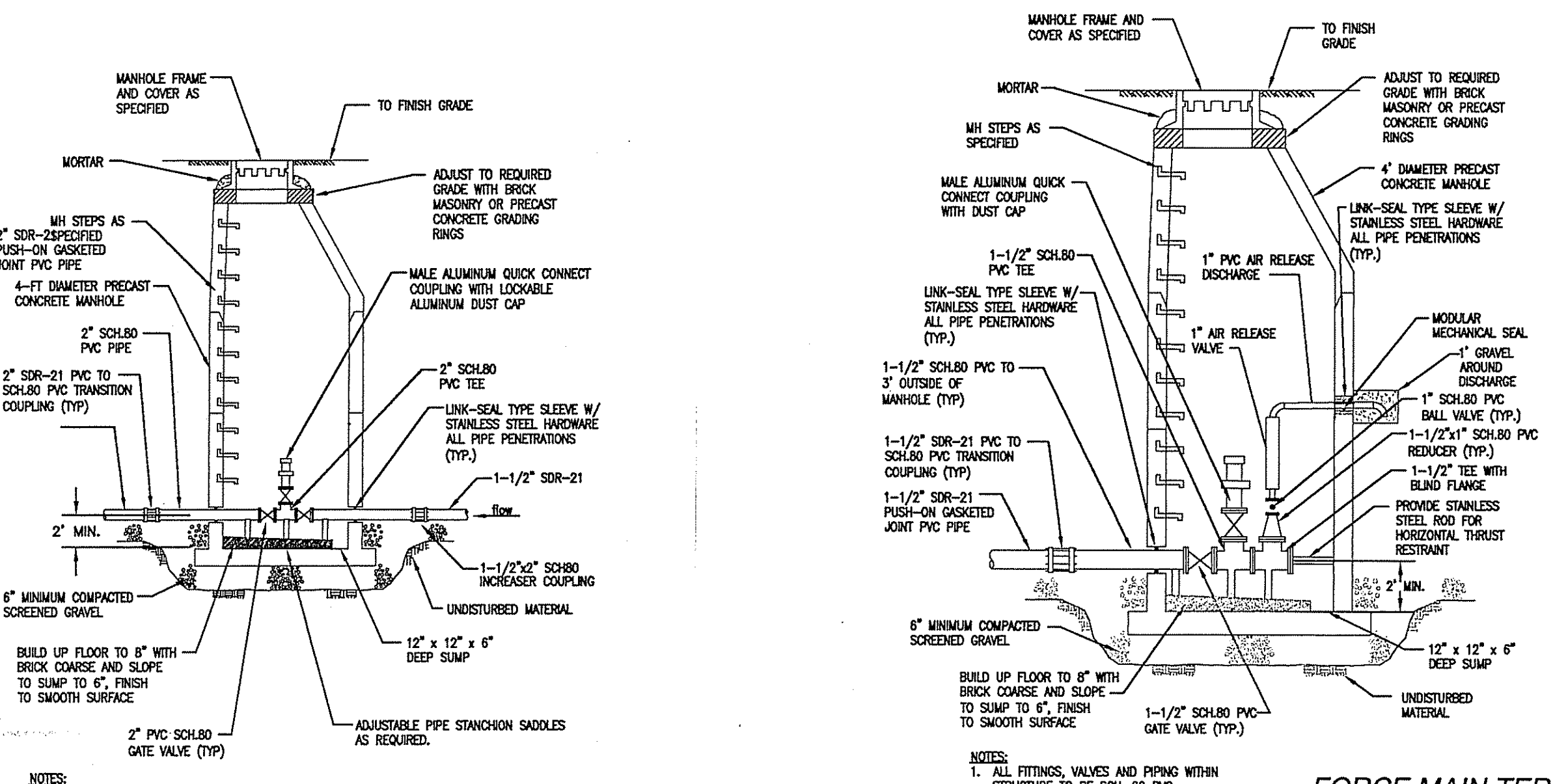
TYPICAL WATER LINE TRENCH
N.T.S.



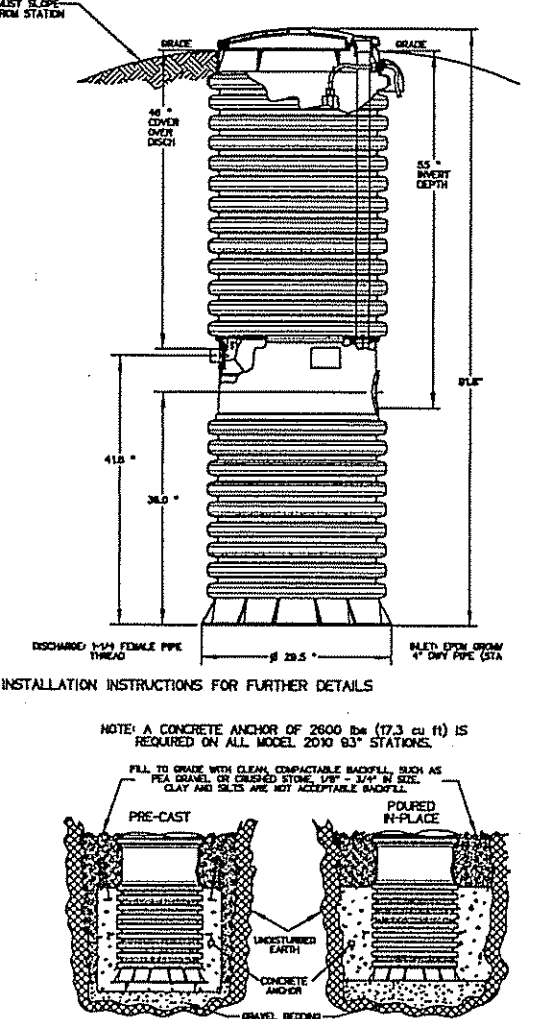
WATERMAIN ANCHORAGE DETAIL
N.T.S.



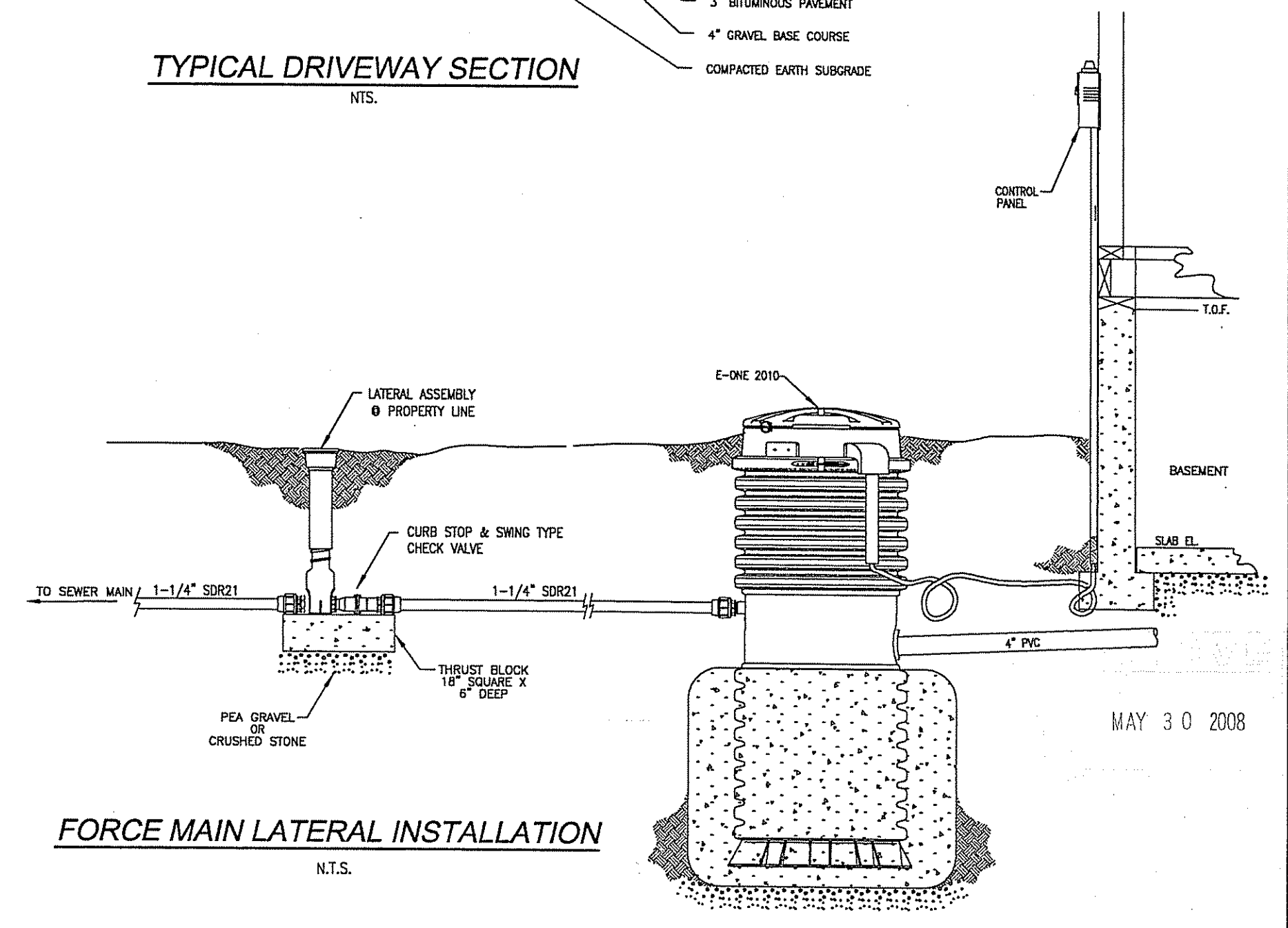
TYPICAL DRIVEWAY SECTION
N.T.S.



FORCE MAIN IN-LINE CLEANOUT STRUCTURE
FORCE MAIN TERMINAL CLEANOUT AND AIR RELEASE STRUCTURE
N.T.S.



E-O NE GRINDER PUMP
N.T.S.



FORCE MAIN LATERAL INSTALLATION
N.T.S.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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