

# SITE PLANS

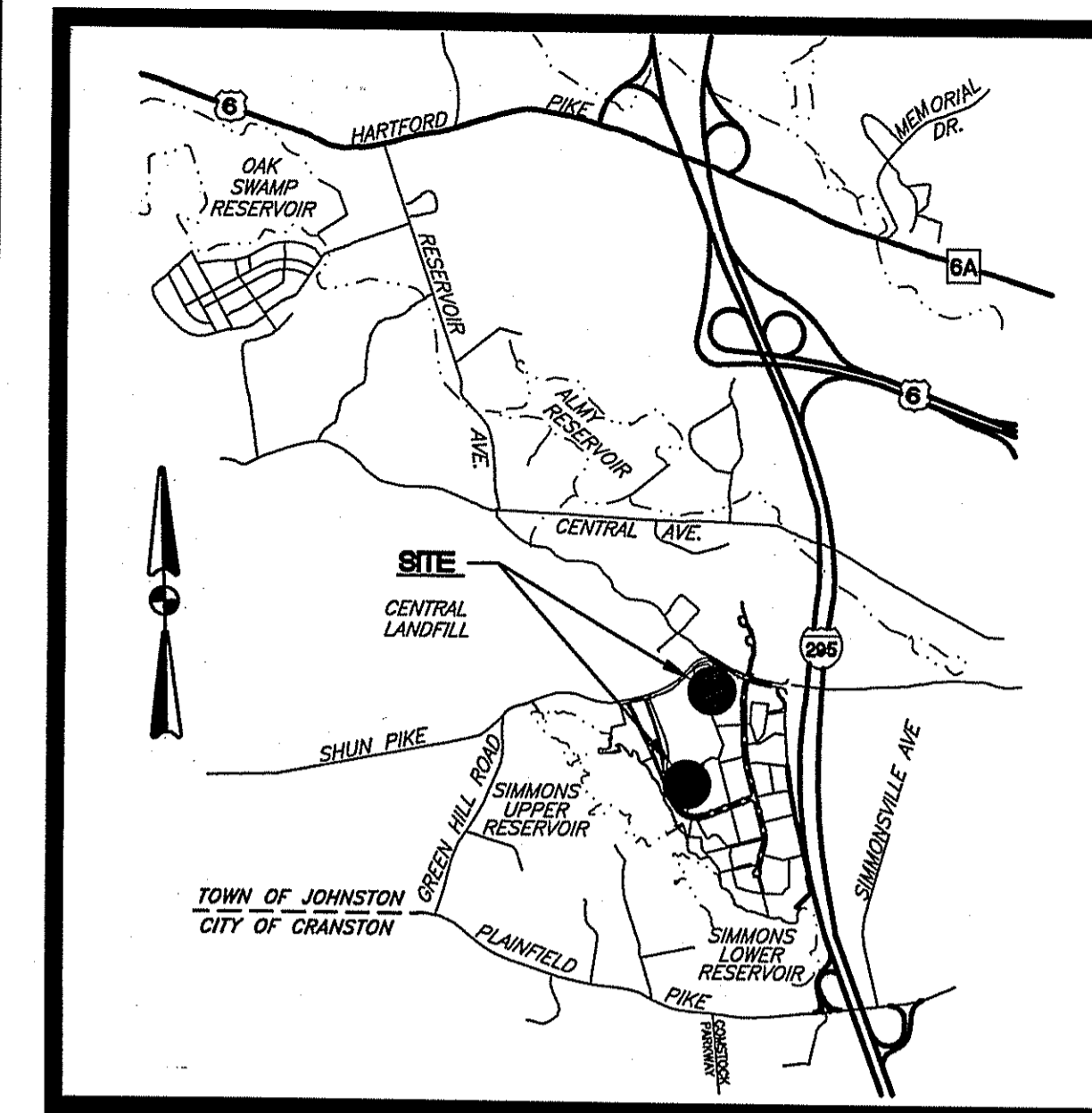
FOR THE

# PROPOSED MANUFACTURING FACILITY

# ON A PORTION OF

# ASSESSOR'S PLAT 31, LOT 61

LAKESIDE COMMERCE CENTER  
SHUN PIKE AND SCITUATE AVENUE  
JOHNSTON, RHODE ISLAND  
ZONING DISTRICT: INDUSTRIAL - I



**LOCATION MAP**  
NOT TO SCALE

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED FEB 27 2009 FILE # 03-0081  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Charles A. Hagerman*

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**LANDSCAPE ARCHITECT:**

**THE GIFFORD  
DESIGN GROUP, Inc.**  
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4086 MENDON ROAD, CUMBERLAND, RHODE ISLAND 02854  
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**CIVIL ENGINEERS AND SURVEYORS:**



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

**CROSSMAN  
ENGINEERING, INC.**

151 Centerville Road  
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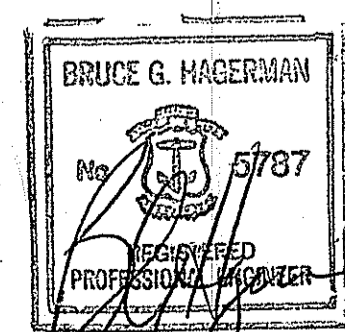
**APPLICANT / DEVELOPER:**

**MICHAEL V. D'AMBRA**  
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WARWICK, RI 02886

**PROPERTY OWNER:**

**R.I. RESOURCE RECOVERY CORPORATION**  
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**MARCH 2008**  
SHEET 1 OF 20



**AGENCY REVIEW SUBMISSION**

**REVISIONS:**

NO.	DATE	DESCRIPTION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

**GENERAL NOTES:**

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT PRIOR TO THE INITIATION OF WORK. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS, RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.
- ALL EXISTING UTILITIES HAVE BEEN PLOTTED BASED UPON BEST AVAILABLE INFORMATION AND REPRESENT APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE PROGRAM LAW" ENACTED BY LOCAL LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY TOWN, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- SPECIFICATIONS TO GOVERN THIS PROJECT ARE R.I.D.O.T. STANDARD SPECIFICATIONS AND LATEST COMPILATION OF APPROVED SPECIFICATIONS. FOR ALL EXCAVATION, PLACEMENT OF FILL, PIPE INSTALLATION, BITUMINOUS PAVEMENT, CUTTING INTO CATCH BASIN/MANHOLE, CONCRETE AND SAWCUTTING, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, WITH LATEST REVISIONS UNLESS OTHERWISE SHOWN ON PLANS. STANDARD DETAILS FOR THIS PROJECT ARE RHODE ISLAND STANDARD DETAILS. PROJECT SPECIFIC SPECIFICATIONS AND DETAILS SHOWN ON THE DESIGN PLANS SHALL SUPERCEDE THE RIDOT SPECIFICATIONS AND DETAILS.
- THE CONTRACTOR MUST VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS OF ANY SUBCONTRACTORS, AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ASPECTS OF ON-SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.
- WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE, AND THE BID PRICE SHALL INCLUDE ALL SERVICES AND MATERIALS NECESSARY TO COMPLETE THE PROJECT. ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND MUST BE ACCEPTABLE TO THE ENGINEER.
- ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN.
- ALL STUMPS AND ROOTS ARE TO BE REMOVED AND DISPOSED OF OFF THE SITE IN ACCORDANCE WITH STATE, FEDERAL AND LOCAL REGULATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY COORDINATION, UTILITIES INVOLVED INCLUDE:  
VERIZON  
NATIONAL GRID  
JOHNSTON PUBLIC WORKS  
JOHNSTON WATER DEPARTMENT  
CRANSTON SEWER DEPARTMENT
- ANY DAMAGED OR DETERIORATED EXISTING PIPE/STRUCTURE SHALL BE REPLACED IN KIND AND MATCH EXISTING HORIZONTAL AND VERTICAL LAYOUT.
- ALL PAVEMENT MARKINGS AND SIGNS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," (M.U.T.C.D.), LATEST EDITION.
- CROSSMAN ENGINEERING, INC. HAS NOT BEEN RETAINED TO OVERSEE CONSTRUCTION, THEREFORE, SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONSTRUCTION OPERATIONS, OR ANY ACTIONS OR OMISSIONS OF THE CONTRACTOR, ANY SUBCONTRACTORS, THEIR AGENTS OR EMPLOYEES. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS, AS WELL AS FEDERAL, STATE AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL ASPECTS OF ON-SITE SAFETY.
- EMBANKMENT SLOPES AND ALL DISTURBED AREAS ARE TO RECEIVE 4" LOAM AND SEED, UNLESS OTHERWISE SHOWN.
- THE DRAINAGE SYSTEM SHALL BE CLEANED BY THE CONTRACTOR PRIOR TO ACCEPTANCE OF THE PROJECT AT NO ADDITIONAL COST.
- THE SITE PLANS REPRESENT THE GENERAL SITE LAYOUT AND CONSTRUCTION REQUIREMENTS AND DOES NOT REPRESENT ALL DETAILS AND SPECIFICATIONS NECESSARY FOR CONSTRUCTION. REFER TO THE CONTRACT DOCUMENTS AND SUPPLEMENTAL SPECIFICATIONS.
- ASPHALT EMULSION TACK COAT SHALL BE PLACED PRIOR TO INSTALLING PAVEMENT ON ANY COURSE WHICH HAS BEEN OPEN TO TRAFFIC OR ANY NEW COURSE WHICH HAS BEEN EXPOSED FOR MORE THAN 3 DAYS. IT SHALL ALSO BE APPLIED TO VERTICAL PAVEMENT FACES BETWEEN ADJOINING PAVEMENT SECTIONS.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND GRADES ON SITE PRIOR TO CONSTRUCTION AND SHALL IMMEDIATELY REPORT ANY DISCREPANCIES OR DEVIATIONS FROM THE CONSTRUCTION PLANS TO THE OWNER AND ENGINEER. THE CONTRACTOR SHALL ALSO REPORT ANY CONDITIONS UNCOVERED IN THE WORK THAT ARE NOT REFLECTED WITHIN THE PLANS.
- THE CONTRACTOR SHALL UNDER THE DIRECTION OF THE OWNER, ESTABLISH CONSTRUCTION LIMITS ON THE SITE BY ACCEPTABLE VISIBLE MARKERS PLACED AT EYE LEVEL. ALL WORK AND EQUIPMENT SHALL BE CONFINED TO WITHIN THESE LIMITS. THE CONTRACTOR SHALL REMOVE ALL MARKERS WHEN DIRECTED BY OWNER.
- THE CONTRACTOR SHALL STRIP AND STOCKPILE EXISTING LOAM FROM THOSE AREAS THAT ARE TO BE EXCAVATED OR FILLED AND TO WITHIN THE PROJECT LIMITS. STOCKPILED LOAM SHALL NOT BE MIXED WITH ANY SUBSOIL OR OTHER UNSUITABLE MATERIAL UNLESS DIRECTED BY OWNER. ALL EXCESS SOIL REMAINS THE PROPERTY OF THE OWNER. EARTH EXCAVATION SHALL BE LIMITED TO THE DIMENSIONS AND REQUIREMENTS SHOWN ON THE DRAWINGS.
- THE INTENTION OF THE OWNER IS TO MAINTAIN THE BOUNDARIES OF THE SITE IN ITS EXISTING CONDITION AND THEREFORE THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFINING THE WORK TO WITHIN THE CONSTRUCTION LIMITS.
- ALL EXISTING VEGETATION (TREES, SHRUBS, GRASSES, ETC.) TO REMAIN SHALL BE PROTECTED FROM INJURY. INDIVIDUAL TREES AND SHRUBS TO BE SAVED WITHIN THE DESIGNATED WORK AREA SHALL BE ADEQUATELY PROTECTED BY THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE ALL PROTECTIVE BARRIERS AS DIRECTED BY THE OWNER.
- ALL EXISTING GRASSED AREAS NOT ADEQUATELY PROTECTED AND THEREFORE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL R.I.D.E.M., CITY/TOWN, AND STATE REGULATIONS AND PERMITS.
- SHOP DRAWINGS MUST BE PROVIDED BY THE CONTRACTOR TO THE ENGINEER FOR ALL PRECAST STRUCTURES AND CASTINGS. ENGINEER OR OWNER APPROVAL IS REQUIRED.

**EMBANKMENT NOTES:**

- THE EARTH EMBANKMENTS ARE TO BE CONSTRUCTED WITH APPROVED COMMON BORROW. NO SOIL/ROCK GREATER THAN 4" SHALL BE UTILIZED.
- UPON COMPLETION OF CLEARING AND GRUBBING OPERATIONS, THE EMBANKMENT AREAS ARE TO BE EXCAVATED, IF ANY ORGANIC OR UNSUITABLE MATERIAL IS ENCOUNTERED, THE DEPTH OF EXCAVATION WILL BE DETERMINED BY THE ENGINEER BASED UPON THE LOCAL CONDITIONS. NO FILL MATERIAL SHALL BE PLACED UNTIL THE FOUNDATION PREPARATION HAS BEEN COMPLETED. ALL WATER SHALL BE REMOVED FROM THE FOUNDATION PRIOR TO PLACING THE EMBANKMENT. ALL FILL/Common BORROW SHALL MEET OR EXCEED AN IN-PLACE DENSITY OF 100 LB./C.F. ALL MATERIAL SHALL BE PLACED IN 8 TO 12 INCH LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY. FILL MATERIAL WILL NOT CONTAIN FROZEN MATERIALS OR BE PLACED ON FROZEN SURFACES. COMMON BORROW SHALL MEET SPECIFICATION SECTION 202.02 IN THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- THE FILL MATERIAL MUST BE SPREAD IN UNIFORM LAYERS AND CONTAIN MOISTURE WITHIN THE SPECIFIED RANGE IN ORDER TO ACHIEVE THE REQUIRED COMPACTION. EACH LAYER IS TO BE COMPACTED PRIOR TO LAYING AN ADDITIONAL LAYER. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER HIS SELECTED METHOD OF COMPACTION, COMPACTION EQUIPMENT AND THE SEQUENCE OF OPERATIONS NECESSARY TO OBTAIN THE REQUIRED DENSITY. THE WATER CONTENT AT COMPACTION SHOULD BE IN THE RANGE BETWEEN ONE (1) PERCENTAGE POINT BELOW AND TWO (2) PERCENTAGE POINTS ABOVE STANDARD AASHTO OPTIMUM WATER CONTENT. THE MATERIAL SHALL BE PROCESSED TO A UNIFORM WATER CONTENT BY ADDING WATER TO THE MATERIAL IN ADVANCE OF THE FILL PLACEMENT.
- BACKFILL MATERIAL AROUND STRUCTURES AND PIPES IS TO BE PLACED TO PREVENT THE MOVEMENT OF WATER. THE MOISTURE CONTENT MUST BE MAINTAINED IN THE SAME RANGE AS IN THE EMBANKMENT. THE BACKFILL MUST BE PLACED IN LAYERS LESS THAN FOUR (4) INCHES IN THICKNESS AND DISTRIBUTED UNIFORMLY AROUND THE STRUCTURE/PIPE. ALL COMPACTION WILL BE TO 95% MAXIMUM DENSITY AND REQUIRES HAND TAMPERS OR SMALL POWER EQUIPMENT. WHERE FILL IS TO BE PLACED AGAINST WALLS, THE CONTRACTOR MUST ENSURE THAT NO DAMAGE TO THE STRUCTURE OCCURS.
- EMBANKMENT DAMAGE COMMONLY RESULTS FROM IMPROPER CONSTRUCTION OF CONDUIT AND STRUCTURAL BACKFILL WITHIN THE EMBANKMENT BECAUSE SEEPAGE WILL OCCUR WITH IMPROPER BACKFILL AND COMPACTION. THEREFORE, STRUCTURES AND PIPES ARE TO BE CONSTRUCTED AS THE EMBANKMENT CONSTRUCTION RISES TO THE RESPECTIVE PIPE OR STRUCTURE. THIS WILL PREVENT THE DISTURBANCE OF A CONSTRUCTED EMBANKMENT MATERIAL.

**FLOOD ZONE NOTE:**

THE SITE IS LOCATED IN FLOOD ZONE "X", AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP, TOWN OF JOHNSTON, RHODE ISLAND, COMMUNITY PANEL NUMBER 440018-0020-C, REVISED NOVEMBER 16, 1993.

**DRAINAGE SYSTEM MAINTENANCE SCHEDULE:**

**1.0 RESPONSIBILITY:**

THE OWNER, OR THEIR DESIGNEE, WILL BE RESPONSIBLE FOR MAINTENANCE TO THE PROPOSED DRAINAGE SYSTEMS FOR THE DOW CONNECTOR ROAD PROJECT AS NECESSARY.

**2.0 DETENTION BASIN:**

**2.1 MOWING:**

DETENTION BASIN SIDE SLOPES AND EMBANKMENT MUST BE MOWED ANNUALLY TO PREVENT WOODY GROWTH AND TO CONTROL WEEDS. AS A PART OF THE MOWING OPERATION, ALL LITTER AND DEBRIS MUST BE REMOVED FROM THE BASIN.

**2.2 INSPECTIONS:**

AN INSPECTION MUST OCCUR ON AN ANNUAL BASIS BY QUALIFIED PERSONNEL TO ENSURE PROPER OPERATION. THE INSPECTION SHOULD CONCENTRATE ON THE FOLLOWING:

- EMBANKMENT SUBSIDENCE
- EROSION
- CRACKING
- TREE GROWTH
- OUTLET & SPILLWAY CONDITION
- SEDIMENT ACCUMULATION
- SLOPE STABILITY

ANY DEFICIENCY NOTED DURING THE INSPECTION WILL BE IMMEDIATELY REPAIRED OR REPLACED.

**2.3 SEDIMENT REMOVAL:**

FOLLOWING CONSTRUCTION, THE DETENTION BASIN SHALL BE CLEANED OF ACCUMULATED SEDIMENT ONCE EVERY TEN (10) YEARS OR AS DEEMED NECESSARY FROM ANNUAL INSPECTIONS. THE SEDIMENT IS TO BE PROPERLY DISPOSED IN UPLAND AREAS BASED UPON THE TEST RESULTS AND LOCAL, STATE AND FEDERAL REGULATIONS.

**2.4 INFILTRATION:**

EVENTUALLY, THE INFILTRATION CAPACITY OF A BASIN WILL DECREASE REQUIRING DEEP TILLING OF THE BASIN FLOOR EVERY SEVERAL YEARS (2-5) TO RESTORE THE ORIGINAL INFILTRATION RATE. TILLING SHOULD BE DONE WHEN THERE IS AN OBVIOUS LOSS OF INFILTRATION; ESPECIALLY WHEN STANDING WATER IS PRESENT IN THE BASIN FOR MORE THAN 72 HOURS AFTER A RAINFALL EVENT. TILLING CAN BE ACCOMPLISHED WITH A ROTARY TILLER OR DISC HARROW, AND IN SOME CASES, THE ADDITION OF ORGANIC MATTER OR SAND WILL ASSIST IN RESTORING INFILTRATION CAPACITY. AFTER TILLING, BASIN FLOORS MUST BE RE-SEEDDED IMMEDIATELY TO PREVENT EROSION OF THE BASIN BOTTOM (DURING APPROPRIATE GROWING PERIOD).

**3.0 CATCH BASINS, MANHOLES AND DRAIN LINES:**

AN INSPECTION MUST OCCUR ON AN ANNUAL BASIS BY QUALIFIED PERSONNEL TO ENSURE PROPER OPERATION. THE INSPECTION SHOULD, AS A MINIMUM, CONCENTRATE ON THE FOLLOWING:

- DAMAGE TO GRATE/COVER
- EVIDENCE OF STANDING WATER
- DEBRIS REMOVAL
- STRUCTURAL ALIGNMENT/INTEGRITY
- SEDIMENT ACCUMULATION AND REMOVAL

ANY DEFICIENCY NOTED DURING THE INSPECTION WILL BE IMMEDIATELY REPAIRED OR REPLACED. CATCH BASINS MUST BE CLEANED ON AN ANNUAL BASIS. ALL REMOVED SEDIMENT IS TO BE TESTED TO DETERMINE POLLUTANT CONTENT. THE SEDIMENT IS TO BE PROPERLY DISPOSED IN UPLAND AREAS BASED UPON THE TEST RESULTS AND LOCAL, STATE AND FEDERAL REGULATIONS.

**4.0 GRASSED SWALE:**

**4.1 MOWING:**

THE SWALE SHALL BE MOWED AT LEAST ONCE PER GROWING SEASON TO PREVENT THE ESTABLISHMENT OF WOODY GROWTH AND OTHER UNDESIRABLE PLANTS THAT INHIBIT PROPER PERFORMANCE. GRASS VEGETATION SHOULD NOT BE CUT SHORTER THAN 4 INCHES.

**4.2 INSPECTIONS:**

AN INSPECTION MUST OCCUR ON AN ANNUAL BASIS BY QUALIFIED PERSONNEL TO ENSURE PROPER OPERATION. THE INSPECTION SHOULD CONCENTRATE ON THE FOLLOWING:

- EROSION
- WOODY AND UNDESIRABLE PLANT GROWTH
- INLET AND OUTLET CONDITIONS
- SEDIMENT ACCUMULATION

BARE SPOTS AND ERODED AREAS MUST BE RESEEDDED IMMEDIATELY FOLLOWING OBSERVATIONS. ALL LITTER AND DEBRIS MUST BE REMOVED DURING THE INSPECTIONS.

**4.3 SEDIMENT REMOVAL:**

FOLLOWING CONSTRUCTION, THE SWALES SHALL BE CLEANED OF ACCUMULATED SEDIMENT AS DEEMED NECESSARY FROM THE ANNUAL INSPECTIONS. THE SEDIMENT IS TO BE PROPERLY DISPOSED IN UPLAND AREAS BASED UPON THE TEST RESULTS AND LOCAL, STATE, AND FEDERAL REGULATIONS.

**DRAINAGE SYSTEM NOTES:**

- CPP DRAINAGE LINES SHALL BE "ADS N-12" OR "HANCOR" HIGH DENSITY POLYETHYLENE PIPE. RCP SHALL BE CLASS IV. CPP CAN BE SUBSTITUTED FOR RCP. ALL PIPE JOINTS SHALL BE WATER-TIGHT AND SHALL CONFORM TO WATER LOADING REQUIREMENTS.
- ALL MANHOLE RIM ELEVATIONS SHOWN ARE APPROXIMATE AND ARE TO BE SET FLUSH WITH FINAL GRADES.
- ALL FRAME AND GRATES ARE TO BE 4-FLANGE UNLESS NOTED OTHERWISE.

**LAYOUT NOTE:**

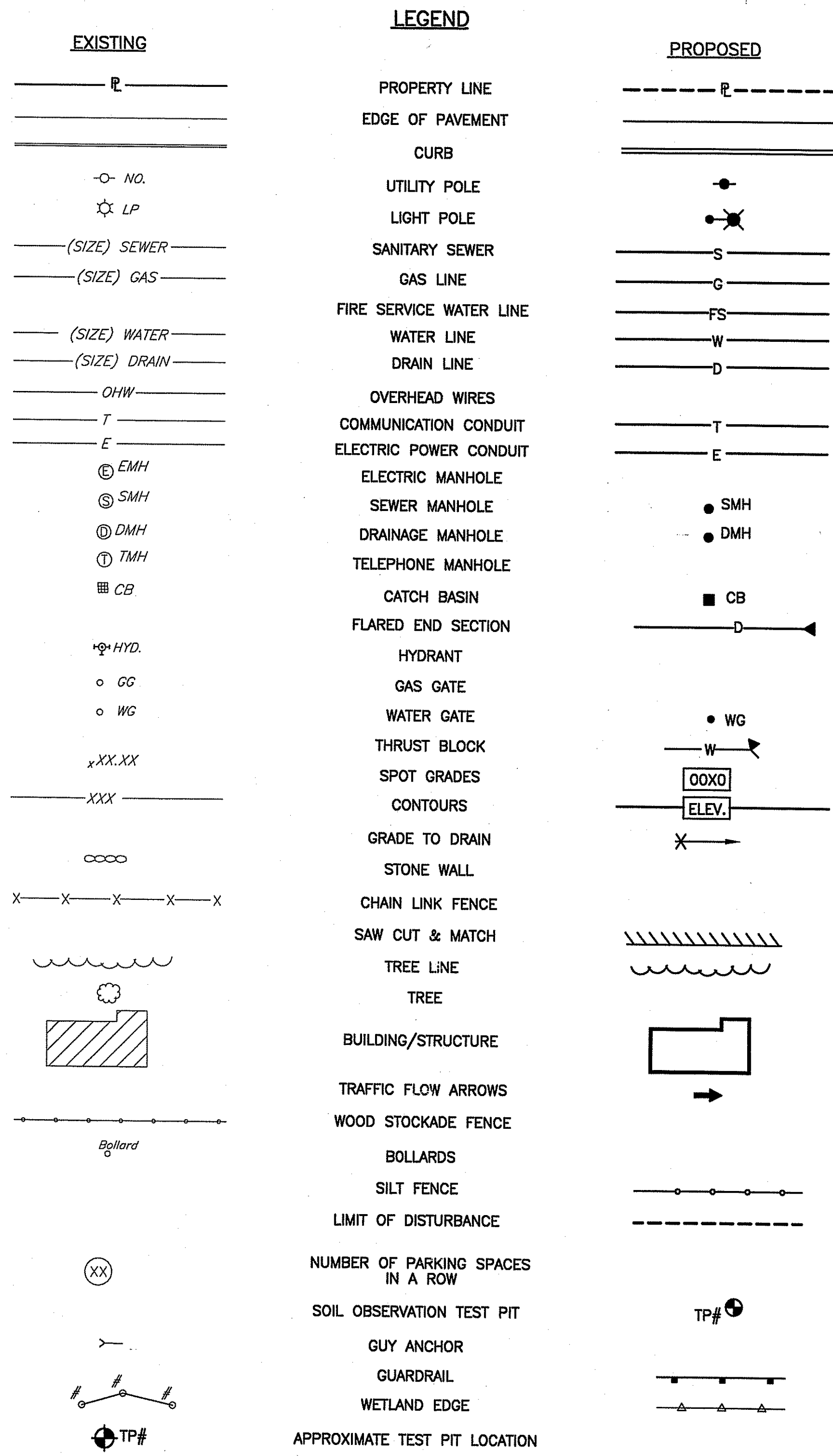
THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN, AND PRIOR TO THE CONSTRUCTION, THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL LAND SURVEYOR (PLS) REGISTERED IN THE STATE OF RHODE ISLAND TO SET AND VERIFY ALL LINES AND GRADES. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEM FOUND WHICH DOES NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.

**CONSTRUCTION NOTES:**

- THE CONTRACTOR IS REQUIRED TO OBTAIN AND REVIEW ALL ENGINEERING DOCUMENTS COMPLETED FOR FINAL DESIGN.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO INSTALLATION OF UTILITIES ON SITE. THE COORDINATION IS NECESSARY FOR THE ENGINEER TO SCHEDULE SITE INSPECTIONS AS REQUIRED.
- THE CONTRACTOR IS REQUIRED TO MAINTAIN DETAILED AS-BUILT INFORMATION FOR ALL UTILITY INSTALLATION. AS-BUILT INFORMATION INCLUDES MATERIAL LIST, PIPE DEPTH NOTATIONS AND SWING TIE LOCATIONS (2 MINIMUM) FROM NEW PIPE TO BUILDING CORNERS. ALL PIPE BEND/ELBOW LOCATIONS SHALL BE DIMENSIONED.

**MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION. ALL TEMPORARY CONSTRUCTION SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
- TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.
- THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS WILL NOT BE PARKED IN THE ROAD RIGHT-OF-WAY.
- ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE STATE D.O.T. SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.



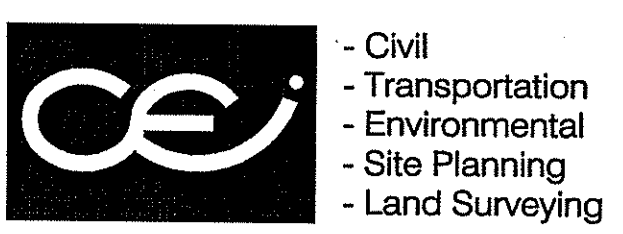
SECTION NUMBER 9  
SHEET NUMBER 24

**ABBREVIATIONS**

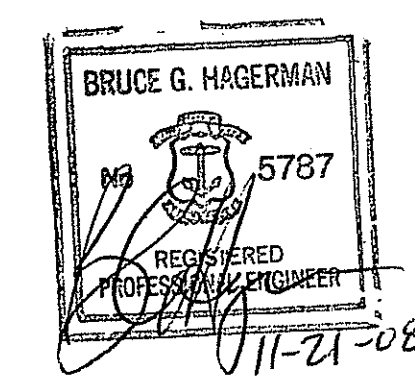
- RCP - REINFORCED CONCRETE PIPE
- CPP - CORRUGATED POLYETHYLENE PIPE
- DIP - DUCTILE IRON PIPE
- PVC - POLYVINYL CHLORIDE PIPE
- FE - FLARED END SECTION
- NCSA - NATIONAL CRUSHED STONE ASSOCIATION
- RIDOT - RHODE ISLAND DEPARTMENT OF TRANSPORTATION
- RIDEM - RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
- G.B. Fnd. - GRANITE BOUND FOUND
- TYP. - TYPICAL
- MIN. - MINIMUM
- MAX. - MAXIMUM
- R= - RADIUS
- S= - SLOPE
- INV. - INVERT
- S.F. - SQUARE FOOT
- Ac. - ACRES
- C.F. - CUBIC FEET
- C.Y. - CUBIC YARDS
- R&D - REMOVE AND DISPOSE
- EXIST. - EXISTING
- S.Y. - SQUARE YARD
- DIA. - DIAMETER
- M.J. - MECHANICAL JOINT
- O.C. - ON CENTER
- STD. - STANDARD
- GALV. - GALVANIZED
- HDW - CONCRETE HEADWALL
- ESHGWT - ESTIMATED SEASONAL HIGH GROUNDWATER TABLE
- DWG C-# - DRAWING NUMBER

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED FEB 21 2008 FILE # 05-0081  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Haber



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PROPERTY OWNER:  
**N/F**  
**RI RESOURCE RECOVERY CORPORATION**  
65 SHUN PIKE  
JOHNSTON, RHODE ISLAND  
02919

PROJECT TITLE:  
**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCIAL CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

PREPARED FOR:  
MICHAEL V. D'AMBRA  
800 JEFFERSON BOULEVARD  
WARWICK, RHODE ISLAND 02886

DRAWING TITLE:  
**GENERAL NOTES AND LEGEND**

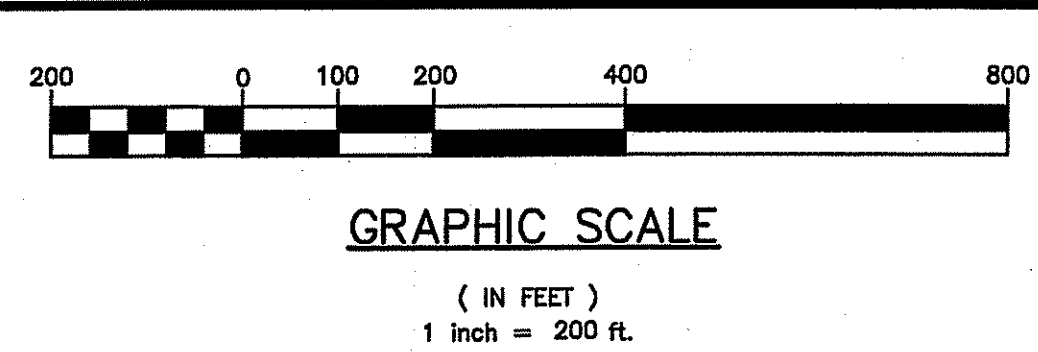
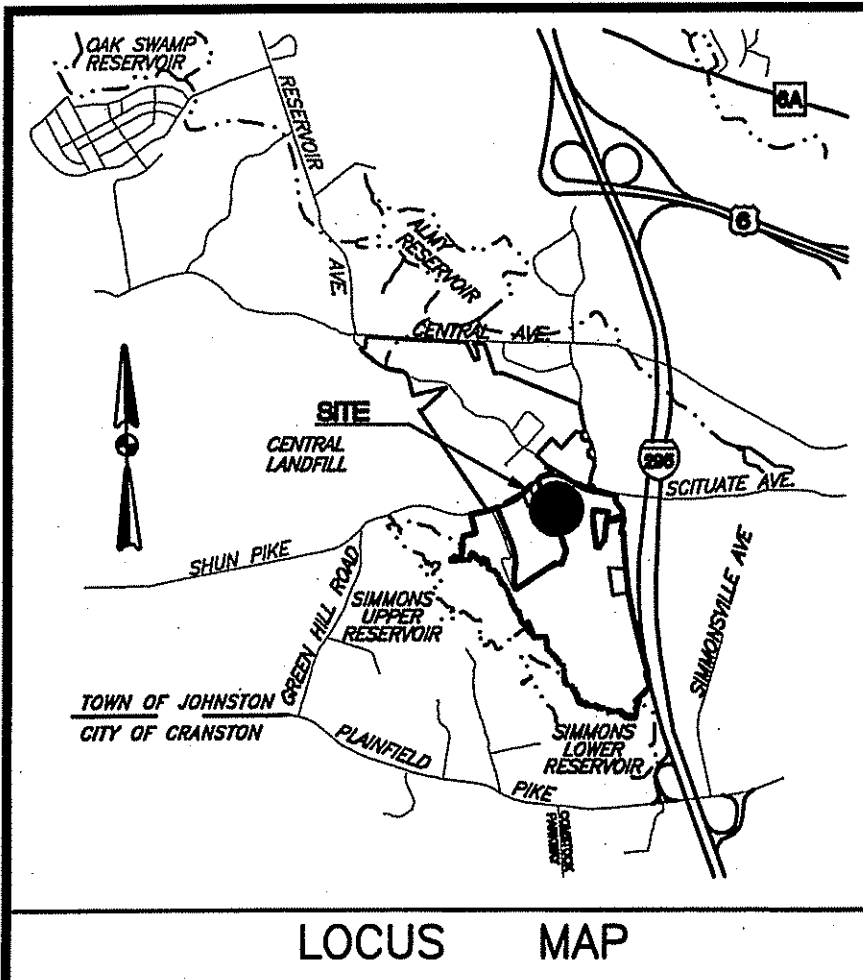
DATE: MARCH 2008  
SCALE: NO SCALE  
DWG. NAME: 1451-02-NOTE.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DRAWING NUMBER:  
**C-1**  
SHEET: 2 OF 20

AGENCY REVIEW SUBMISSION

1451 - D'Ambro Construction\AC AD Dwg\RIDEM Wetlands Submission\Revised RIDEM Submission 11-08\1451-02-NOTE-REV1.dwg, 11/21/2008 8:54:39 AM, Cce TDS600 3.x.pc3

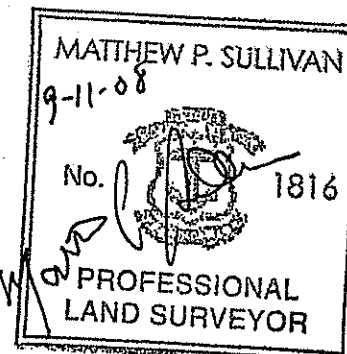


**ZONING REQUIREMENTS:**

ZONE: INDUSTRIAL-1 DISTRICT  
 DIMENSIONAL REGULATIONS:  
 MINIMUM DISTANCE OF STRUCTURE FROM RESIDENTIAL ZONE BOUNDARY = 100'  
 FRONT YARD SETBACK = 50'  
 SIDE YARD SETBACK = 50'  
 REAR YARD SETBACK = 50'  
 MAXIMUM BUILDING COVERAGE = 40%  
 MAXIMUM BUILDING HEIGHT = 40'

**LEGEND**

- 43/30 PROPERTY LINE
- N/F ASSESSORS PLAT/LOT NO.
- N/F NOW OR FORMERLY
- D.B., PG. DEED BOOK, PAGE
- ☆ LIGHT POLE
- GUY ANCHOR
- UTILITY POLE
- SIGN
- TREE
- P.G.B. PERMANENT GUY EASEMENT BOUNDARY
- T.E.B. TEMPORARY EASEMENT BOUNDARY
- S.H.L. STATE HIGHWAY LINE
- S.F.L. STATE FREEWAY LINE
- REF. REFERENCES
- CA CHORD ANGLE



**CERTIFICATION:**

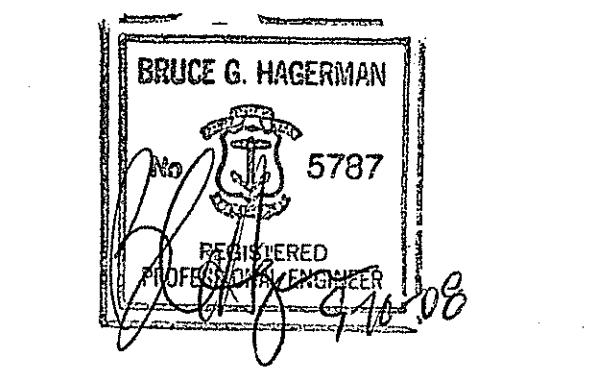
THIS SURVEY AND PLAN CONFORMS TO A CLASS 4 STANDARD, AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS, EFFECTIVE APRIL 1, 1994.

PROFESSIONAL LAND SURVEYOR REG. NO. DATE

**NOTES:**

- PRIOR TO THE FILING OF REFERENCE PLAN NO. 17, A.P. 31 LOT 61 CONTAINED EXISTING PARCELS: PLAT 31, LOTS 7, 10, 13 THRU 34, 43, 44, 50, 53, 54 AND 56; PLAT 29, LOT 32, PORTION OF LOT 33 AND PORTION OF LOT 66.
- PRIOR TO THE FILING OF REFERENCE PLAN NO. 17, A.P. 31 LOT 62 CONTAINED A PORTION OF PLAT 29, LOT 33 AND A PORTION OF PLAT 29, LOT 66.
- PRIOR TO THE FILING OF REFERENCE PLAN NO. 17, A.P. 31 LOT 63 CONTAINED A PORTION OF PLAT 29, LOT 33 AND A PORTION OF PLAT 29, LOT 66 AND A PORTION OF PLAT 31 LOT 10.

**CROSSMAN ENGINEERING, INC.**  
 151 Centerville Road  
 Warwick, Rhode Island 02886  
 Phone: (401) 738-5660 - Fax: (401) 738-8157  
 Email: cel@crossmaneng.com  
 Web Page: www.crossmaneng.com



PROPERTY OWNER:  
 N/F  
**RI RESOURCE RECOVERY CORPORATION**  
 65 SHUN PIKE  
 JOHNSTON, RHODE ISLAND  
 02919

PROJECT TITLE:  
**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

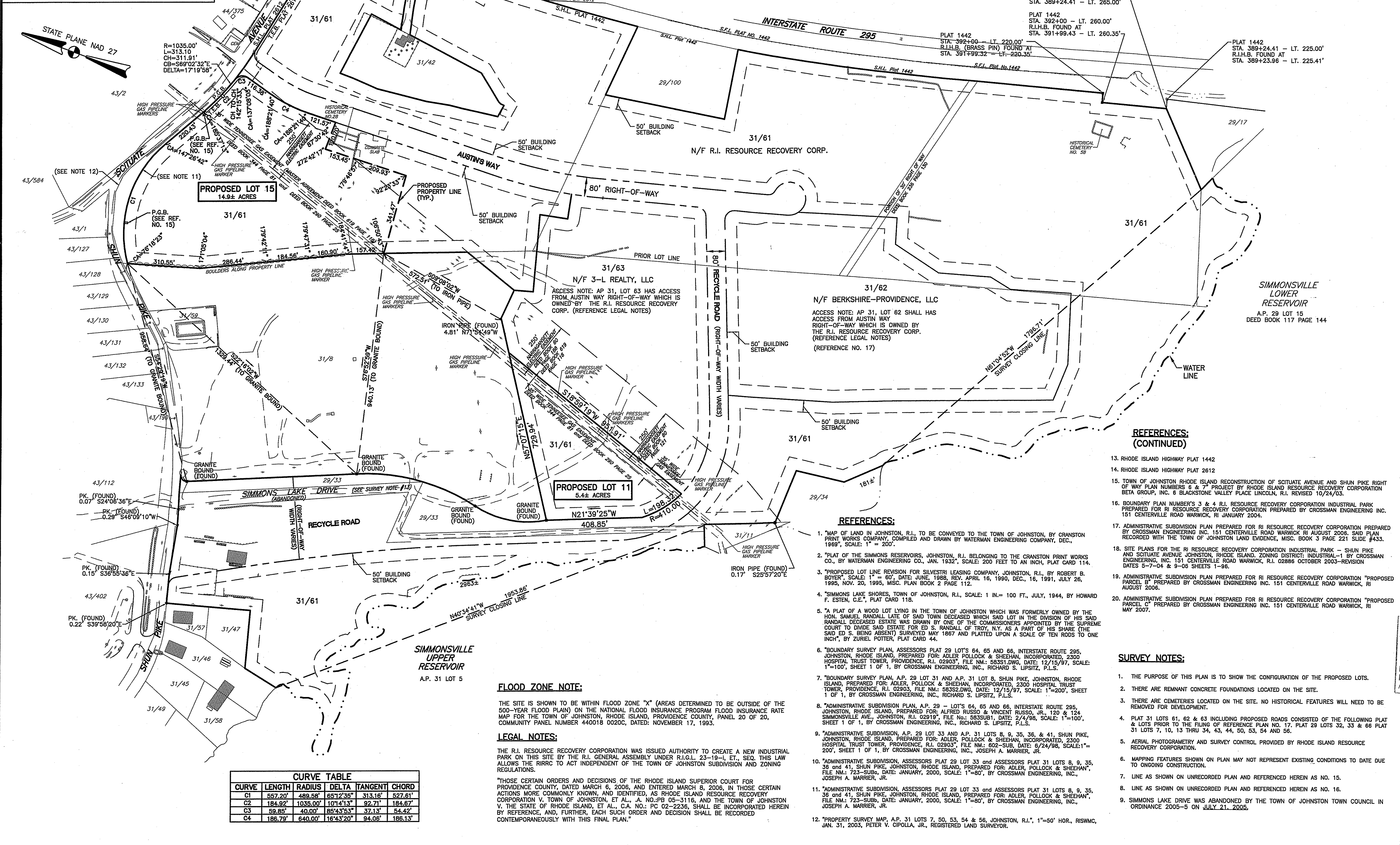
APPLICANT:  
  
**MICHAEL V. D'AMBRA**  
 800 JEFFERSON BOULEVARD  
 WARWICK, RHODE ISLAND 02886

DRAWING TITLE:  
**PLOT PLAN**

DATE:	MARCH 2008	SCALE:	1"=200'
DWG. NAME:	1451-04-SURVEY-PLOT.dwg		
NO.	DATE	REVISION	
1	9-08	RIDEM COMMENTS	

DRAWING NUMBER:  
**C-2**  
 SHEET: 3 OF 20

AGENCY REVIEW SUBMISSION



**PROPOSED LOT 15**  
 14.9± ACRES

**PROPOSED LOT 11**  
 5.4± ACRES

**CURVE TABLE**

CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD
C1	557.20	489.58'	85°12'35"	313.18'	527.61'
C2	184.82	1035.90'	10°14'13"	92.71'	184.82'
C3	59.85	40.00'	18°43'53"	37.13'	54.42'
C4	186.79	640.00'	18°43'20"	94.08'	186.13'

**FLOOD ZONE NOTE:**

THE SITE IS SHOWN TO BE WITHIN FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 500-YEAR FLOOD PLAIN) ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR THE TOWN OF JOHNSTON, RHODE ISLAND, PROVIDENCE COUNTY, PANEL 20 OF 20, COMMUNITY PANEL NUMBER 440018 0202C, DATED: NOVEMBER 17, 1993.

**LEGAL NOTES:**

THE R.I. RESOURCE RECOVERY CORPORATION HAS ISSUED AUTHORITY TO CREATE A NEW INDUSTRIAL PARK ON THIS SITE BY THE R.I. GENERAL ASSEMBLY UNDER R.I.G.L. 23-19-1, ET. SEQ. THIS LAW ALLOWS THE RIRRC TO ACT INDEPENDENT OF THE TOWN OF JOHNSTON SUBDIVISION AND ZONING REGULATIONS.  
 "THOSE CERTAIN ORDERS AND DECISIONS OF THE RHODE ISLAND SUPERIOR COURT FOR PROVIDENCE COUNTY, DATED MARCH 6, 2006, AND ENTERED MARCH 8, 2006, IN THOSE CERTAIN ACTIONS MORE COMMONLY KNOWN AND IDENTIFIED, AS RHODE ISLAND RESOURCE RECOVERY CORPORATION V. TOWN OF JOHNSTON, ET AL., A. NO. PB 05-3116, AND THE TOWN OF JOHNSTON V. THE STATE OF RHODE ISLAND, ET AL., C.A. NO.: PC 02-2236, SHALL BE INCORPORATED HEREIN BY REFERENCE, AND, FURTHER, EACH SUCH ORDER AND DECISION SHALL BE RECORDED CONTEMPORANEOUSLY WITH THIS FINAL PLAN."

**REFERENCES:**

- "MAP OF LAND IN JOHNSTON, R.I., TO BE CONVEYED TO THE TOWN OF JOHNSTON, BY CRANSTON PRINT WORKS COMPANY, COMPILED AND DRAWN BY WATERMAN ENGINEERING COMPANY, DEC., 1969; SCALE: 1" = 200'.
- "PLAT OF THE SIMMONS RESERVOIRS, JOHNSTON, R.I. BELONGING TO THE CRANSTON PRINT WORKS CO., BY WATERMAN ENGINEERING CO., JAN. 1832; SCALE: 200 FEET TO AN INCH. PLAT CARD 114.
- "PROPOSED LOT LINE REVISION FOR SILVESTRI LEASING COMPANY, JOHNSTON, R.I., BY ROBERT B. BOYER, SCALE: 1" = 60', DATE: JUNE, 1988, REV. APRIL 15, 1990, DEC. 15, 1991, JULY 25, 1995, NOV. 20, 1995, MISC. PLAN BOOK 2 PAGE 112.
- "SIMMONS LAKE SHORES, TOWN OF JOHNSTON, R.I., SCALE: 1 IN. = 100 FT., JULY, 1944, BY HOWARD F. ESTEN, C.E.T., PLAT CARD 118.
- "A PLAT OF A WOOD LOT LYING IN THE TOWN OF JOHNSTON WHICH WAS FORMERLY OWNED BY THE HON. SAMUEL RANDALL LATE OF SAID TOWN DECEASED WHICH SAID LOT IN THE DIVISION OF HIS SAID RANDALL DECEASED ESTATE WAS DRAWN BY ONE OF THE COMMISSIONERS APPOINTED BY THE SUPREME COURT TO DIVIDE SAID ESTATE FOR ED S. RANDALL OF TROY, N.Y. AS A PART OF HIS SHARE (THE SAID ED S. BEING ABSENT) SURVEYED MAY 1867 AND PLATTED UPON A SCALE OF TEN RODS TO ONE INCH", BY ZURIEL POTTER, PLAT CARD 44.
- "BOUNDARY SURVEY PLAN, ASSESSORS PLAT 29 LOTS 64, 65 AND 66, INTERSTATE ROUTE 295, JOHNSTON, RHODE ISLAND, PREPARED FOR: ADLER POLLOCK & SHEEHAN, INCORPORATED, 2300 HOSPITAL TRUST TOWER, PROVIDENCE, R.I. 02903, FILE NO.: 58351-DWG, DATE: 12/15/97, SCALE: 1"=100', SHEET 1 OF 1, BY CROSSMAN ENGINEERING, INC., RICHARD S. LIPSITZ, P.L.S.
- "BOUNDARY SURVEY PLAN, A.P. 29 LOT 31 AND A.P. 31 LOT 8, SHUN PIKE, JOHNSTON, RHODE ISLAND, PREPARED FOR: ADLER POLLOCK & SHEEHAN, INCORPORATED, 2300 HOSPITAL TRUST TOWER, PROVIDENCE, R.I. 02903, FILE NO.: 58352-DWG, DATE: 12/15/97, SCALE: 1"=200', SHEET 1 OF 1, BY CROSSMAN ENGINEERING, INC., RICHARD S. LIPSITZ, P.L.S.
- "ADMINISTRATIVE SUBDIVISION PLAN, A.P. 29 - LOTS 64, 65 AND 66, INTERSTATE ROUTE 295, JOHNSTON, RHODE ISLAND, PREPARED FOR: ADLER POLLOCK & SHEEHAN, INCORPORATED, 2300 HOSPITAL TRUST TOWER, PROVIDENCE, R.I. 02903, FILE NO.: 58351-DWG, DATE: 2/4/98, SCALE: 1"=100', SHEET 1 OF 1, BY CROSSMAN ENGINEERING, INC., RICHARD S. LIPSITZ, P.L.S.
- "ADMINISTRATIVE SUBDIVISION PLAN, A.P. 29 LOT 33 AND A.P. 31 LOTS 8, 9, 35, 36, & 41, SHUN PIKE, JOHNSTON, RHODE ISLAND, PREPARED FOR: ADLER POLLOCK & SHEEHAN, INCORPORATED, 2300 HOSPITAL TRUST TOWER, PROVIDENCE, R.I. 02903, FILE NO.: 58352-DWG, DATE: 6/24/98, SCALE: 1"=200', SHEET 1 OF 1, BY CROSSMAN ENGINEERING, INC., JOSEPH A. MARRIER, JR.
- "ADMINISTRATIVE SUBDIVISION, ASSESSORS PLAT 29 LOT 33 AND ASSESSORS PLAT 31 LOTS 8, 9, 35, 36 AND 41, SHUN PIKE, JOHNSTON, RHODE ISLAND, PREPARED FOR: ADLER POLLOCK & SHEEHAN, INCORPORATED, 2300 HOSPITAL TRUST TOWER, PROVIDENCE, R.I. 02903, FILE NO.: 723-SUB, DATE: JANUARY, 2000, SCALE: 1"=60', BY CROSSMAN ENGINEERING, INC., JOSEPH A. MARRIER, JR.
- "ADMINISTRATIVE SUBDIVISION, ASSESSORS PLAT 29 LOT 33 AND ASSESSORS PLAT 31 LOTS 8, 9, 35, 36 AND 41, SHUN PIKE, JOHNSTON, RHODE ISLAND, PREPARED FOR: ADLER POLLOCK & SHEEHAN, INCORPORATED, 2300 HOSPITAL TRUST TOWER, PROVIDENCE, R.I. 02903, FILE NO.: 723-SUB, DATE: JANUARY, 2000, SCALE: 1"=60', BY CROSSMAN ENGINEERING, INC., JOSEPH A. MARRIER, JR.
- "PROPERTY SURVEY MAP, A.P. 31 LOTS 7, 50, 53, 54 & 56, JOHNSTON, R.I., 1"=50' HOR., RISHWC, JAN. 31, 2003, PETER V. CIPOLLA, JR., REGISTERED LAND SURVEYOR.

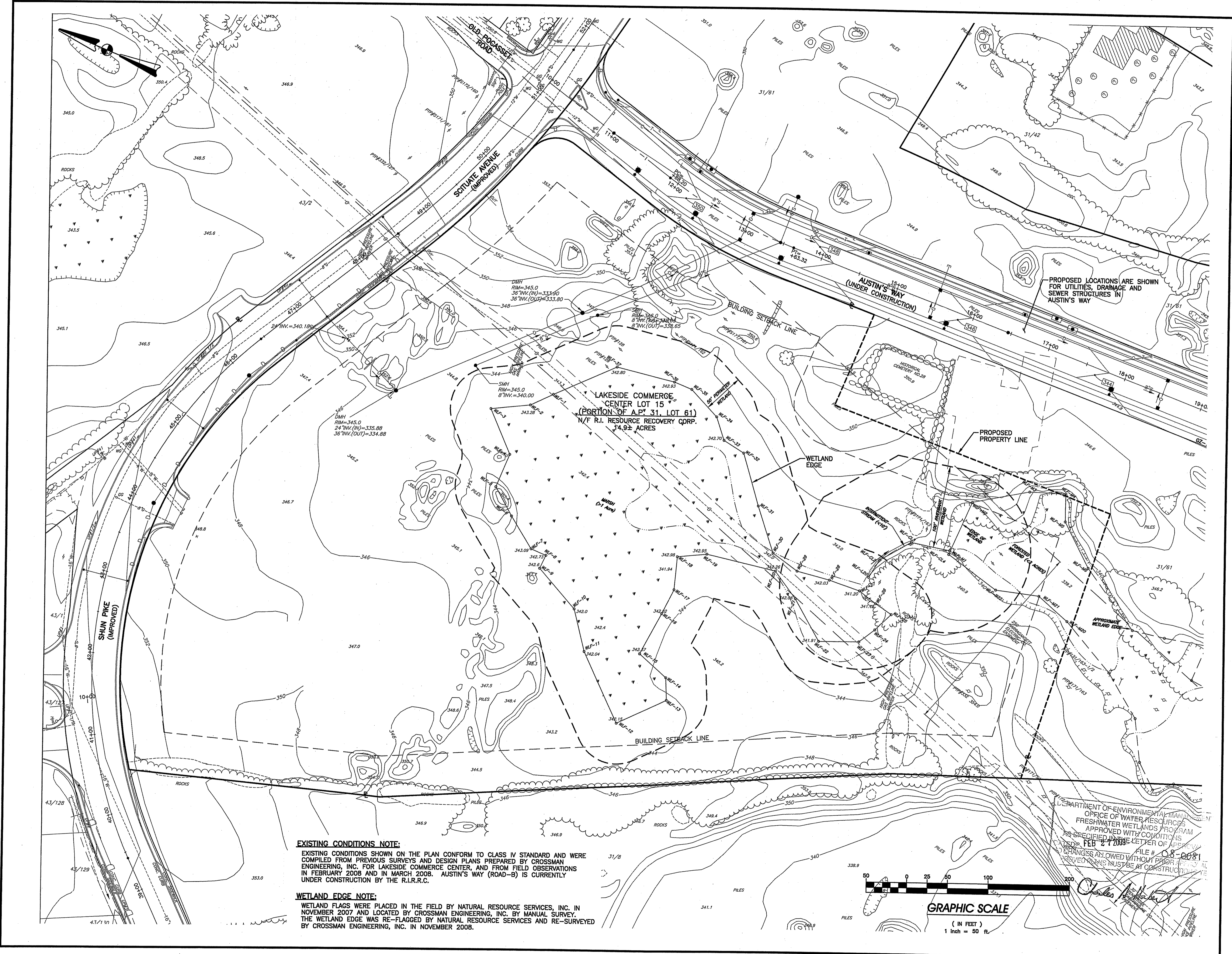
**REFERENCES:**  
 (CONTINUED)

- RHODE ISLAND HIGHWAY PLAT 1442
- RHODE ISLAND HIGHWAY PLAT 2612
- TOWN OF JOHNSTON RHODE ISLAND RECONSTRUCTION OF SCITUATE AVENUE AND SHUN PIKE RIGHT OF WAY PLAN NUMBERS 6 & 7 PROJECT BY RHODE ISLAND RESOURCE RECOVERY CORPORATION BETA GROUP, INC. 6 BLACKSTONE VALLEY PLACE LINCOLN, R.I. REVISED 10/24/03.
- BOUNDARY PLAN NUMBER'S 3 & 4 R.I. RESOURCE RECOVERY CORPORATION INDUSTRIAL PARK PREPARED FOR RI RESOURCE RECOVERY CORPORATION PREPARED BY CROSSMAN ENGINEERING INC. 151 CENTERVILLE ROAD WARWICK, RI JANUARY 2004.
- ADMINISTRATIVE SUBDIVISION PLAN PREPARED FOR RI RESOURCE RECOVERY CORPORATION PREPARED BY CROSSMAN ENGINEERING INC. 151 CENTERVILLE ROAD WARWICK RI AUGUST 2006. SAID PLAN RECORDED WITH THE TOWN OF JOHNSTON LAND EVIDENCE, MISC. BOOK 3 PAGE 221 SLIDE #433.
- SITE PLANS FOR THE RI RESOURCE RECOVERY CORPORATION INDUSTRIAL PARK - SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND, ZONING DISTRICT: INDUSTRIAL-1 BY CROSSMAN ENGINEERING, INC. 151 CENTERVILLE ROAD WARWICK, R.I. 02886 OCTOBER 2003-REVISION DATES 5-7-04 & 9-06 SHEETS 1-96.
- ADMINISTRATIVE SUBDIVISION PLAN PREPARED FOR RI RESOURCE RECOVERY CORPORATION "PROPOSED PARCEL B" PREPARED BY CROSSMAN ENGINEERING INC. 151 CENTERVILLE ROAD WARWICK, RI AUGUST 2006.
- ADMINISTRATIVE SUBDIVISION PLAN PREPARED FOR RI RESOURCE RECOVERY CORPORATION "PROPOSED PARCEL C" PREPARED BY CROSSMAN ENGINEERING INC. 151 CENTERVILLE ROAD WARWICK, RI MAY 2007.

**SURVEY NOTES:**

- THE PURPOSE OF THIS PLAN IS TO SHOW THE CONFIGURATION OF THE PROPOSED LOTS.
- THERE ARE REMNANT CONCRETE FOUNDATIONS LOCATED ON THE SITE.
- THERE ARE CEMETERIES LOCATED ON THE SITE. NO HISTORICAL FEATURES WILL NEED TO BE REMOVED FOR DEVELOPMENT.
- PLAT 31 LOTS 61, 62 & 63 INCLUDING PROPOSED ROADS CONSISTED OF THE FOLLOWING PLAT & LOTS PRIOR TO THE FILING OF REFERENCE PLAN NO. 17, PLAT 29 LOTS 32, 33 & 66 PLAT 31 LOTS 7, 10, 13 THRU 34, 43, 44, 50, 53, 54 AND 56.
- AERIAL PHOTOGRAPHY AND SURVEY CONTROL PROVIDED BY RHODE ISLAND RESOURCE RECOVERY CORPORATION.
- MAPPING FEATURES SHOWN ON PLAN MAY NOT REPRESENT EXISTING CONDITIONS TO DATE DUE TO ONGOING CONSTRUCTION.
- LINE AS SHOWN ON UNRECORDED PLAN AND REFERENCED HEREIN AS NO. 15.
- LINE AS SHOWN ON UNRECORDED PLAN AND REFERENCED HEREIN AS NO. 16.
- SIMMONS LAKE DRIVE WAS ABANDONED BY THE TOWN OF JOHNSTON TOWN COUNCIL IN ORDINANCE 2005-5 ON JULY 21, 2005.

1451 - D'Ambra Construction/AC-AD Dwg/VIDEM Wetlands Submission/Revised RIDEM Submission 08/14/11-04-SURVEY-PLOT-REVI.dwg, Model, 9/11/2008 9:47:50 AM, 1:20

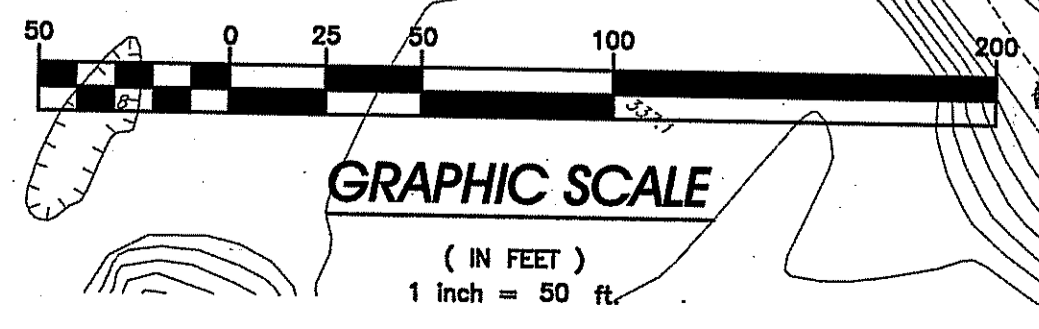


**EXISTING CONDITIONS NOTE:**

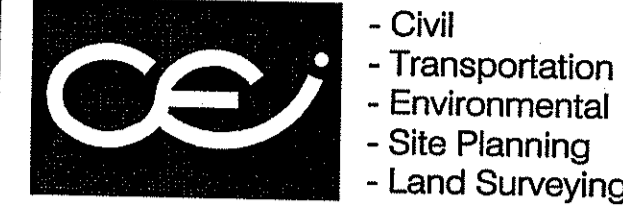
EXISTING CONDITIONS SHOWN ON THE PLAN CONFORM TO CLASS IV STANDARD AND WERE COMPILED FROM PREVIOUS SURVEYS AND DESIGN PLANS PREPARED BY CROSSMAN ENGINEERING, INC. FOR LAKESIDE COMMERCE CENTER, AND FROM FIELD OBSERVATIONS IN FEBRUARY 2008 AND IN MARCH 2008. AUSTIN'S WAY (ROAD-B) IS CURRENTLY UNDER CONSTRUCTION BY THE R.I.R.C.

**WETLAND EDGE NOTE:**

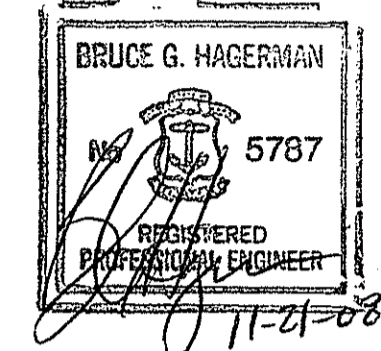
WETLAND FLAGS WERE PLACED IN THE FIELD BY NATURAL RESOURCE SERVICES, INC. IN NOVEMBER 2007 AND LOCATED BY CROSSMAN ENGINEERING, INC. BY MANUAL SURVEY. THE WETLAND EDGE WAS RE-FLAGGED BY NATURAL RESOURCE SERVICES AND RE-SURVEYED BY CROSSMAN ENGINEERING, INC. IN NOVEMBER 2008.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
FEB 27 2009  
FILE # 08-0081  
CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED CHANGES MUST BE AT CONSTRUCTION



**CROSSMAN ENGINEERING, INC.**  
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Phone: (401) 738-5660 - Fax: (401) 738-8157  
Email: ce@crossmaneng.com  
Web Page: www.crossmaneng.com



PROPERTY OWNER:  
**N/F RI RESOURCE RECOVERY CORPORATION**  
65 SHUN PIKE  
JOHNSTON, RHODE ISLAND  
02919

PROJECT TITLE:  
**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61**  
ZONING DISTRICT - INDUSTRIAL  
LAKESIDE COMMERCE CENTER  
SHUN PIKE AND SCITUATE AVENUE  
JOHNSTON, RHODE ISLAND

PREPARED FOR:  
**MICHAEL V. D'AMBRA**  
800 JEFFERSON BOULEVARD  
WARWICK, RHODE ISLAND 02886

DRAWING TITLE:  
**EXISTING CONDITIONS PLAN**

DATE: MARCH 2008 SCALE: 1" = 50'

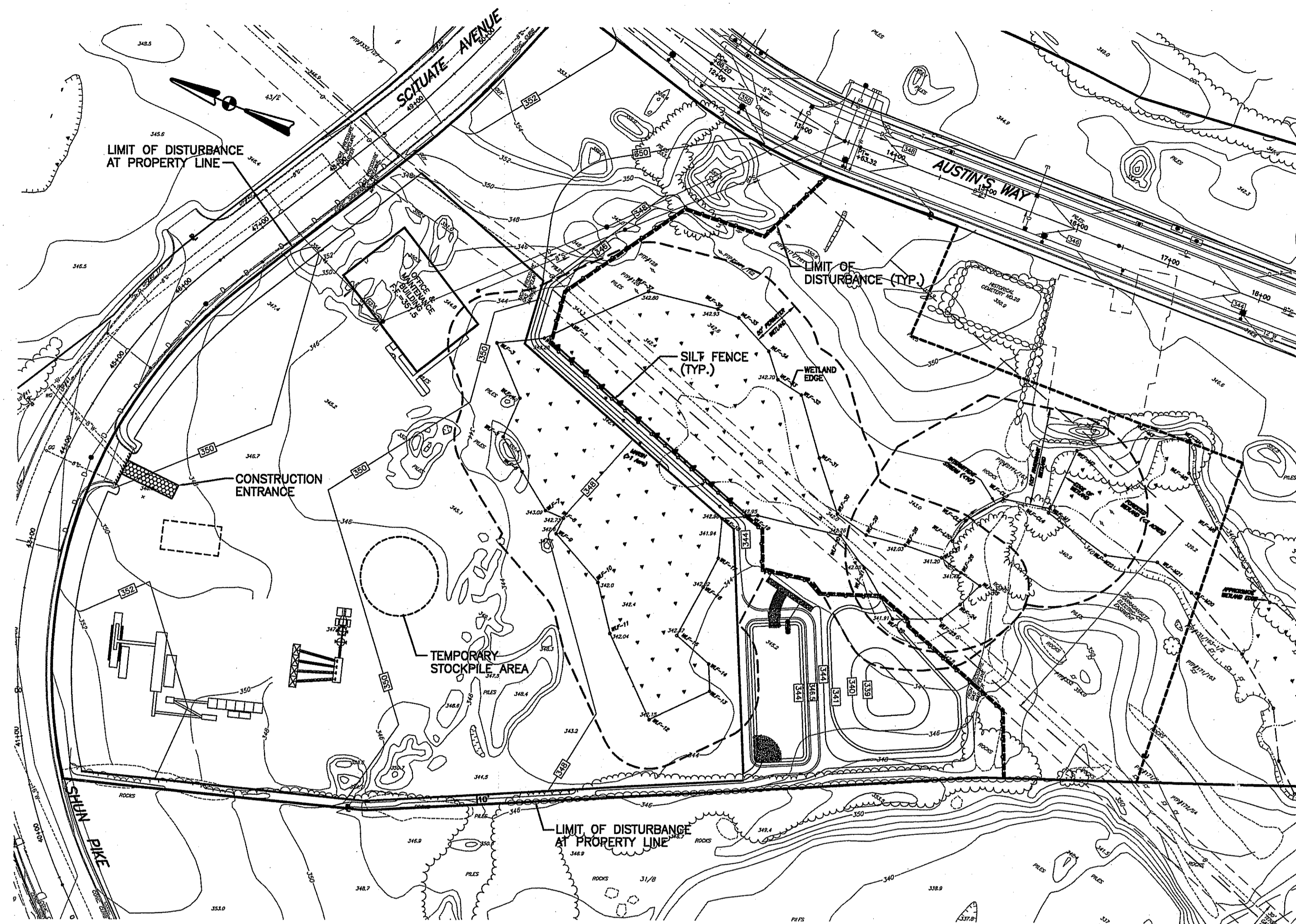
DWG. NAME: 1451-07-EXCN-REV1.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DRAWING NUMBER:  
**C-3**  
SHEET: 4 OF 20

AGENCY REVIEW SUBMISSION

1451 - D'Ambra Construction\ACAD Dwg\RIDEM Wetlands Submission\1451-07-EXCN-REV1.dwg, 11/21/2008 1:29:25 PM, Cce TDS600\_3.x.pc3



**PROPOSED LOT 15 PLAN**  
SCALE: 1"=80'

**EROSION CONTROL AND SOIL STABILIZATION PROGRAM:**

1. SILT FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTY AND REGULATED WETLANDS.
2. THE CONTRACTOR MUST REPLACE AND/OR RESEED ANY VEGETATION THAT DOES NOT DEVELOP/SURVIVE WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.
3. ALL SILT FENCES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
4. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODDED, RESEEDDED, OR OTHERWISE RESTORED AT THE CONTRACTOR'S EXPENSE.
5. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM, ADJACENT PROPERTY AND ROADWAYS.
6. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW OR FIBER MULCH OR PROTECTIVE COVERS, SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, OR EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE OWNER.
7. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
8. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED HAY BALES OR SILT FENCING.
9. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS (ONE MONTH) SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
11. ADDITIONAL HAY BALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER, MUNICIPAL REPRESENTATIVES OR R.I.D.E.M.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL COST TO THE OWNER.
13. ALL PROPOSED CATCH BASINS SHALL BE PROTECTED BY STAKED HAY BALES, R.I. STD. 9.8.0.
14. THE CONTRACTOR SHALL REFERENCE THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1989, AS A GUIDE.
15. A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AT THE ENTRANCE OF THE SITE TO PREVENT TRANSPORTATION OF SOILS OFF-SITE.
16. THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1 - OCTOBER 15.
17. ALL TYPES OF WASTE GENERATED FROM THE SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND/OR REGULATIONS.
18. THE AUSTIN'S WAY DRAINAGE SYSTEM OUTFLOWS INTO THE PAWTUXET RIVER WATERSHED.

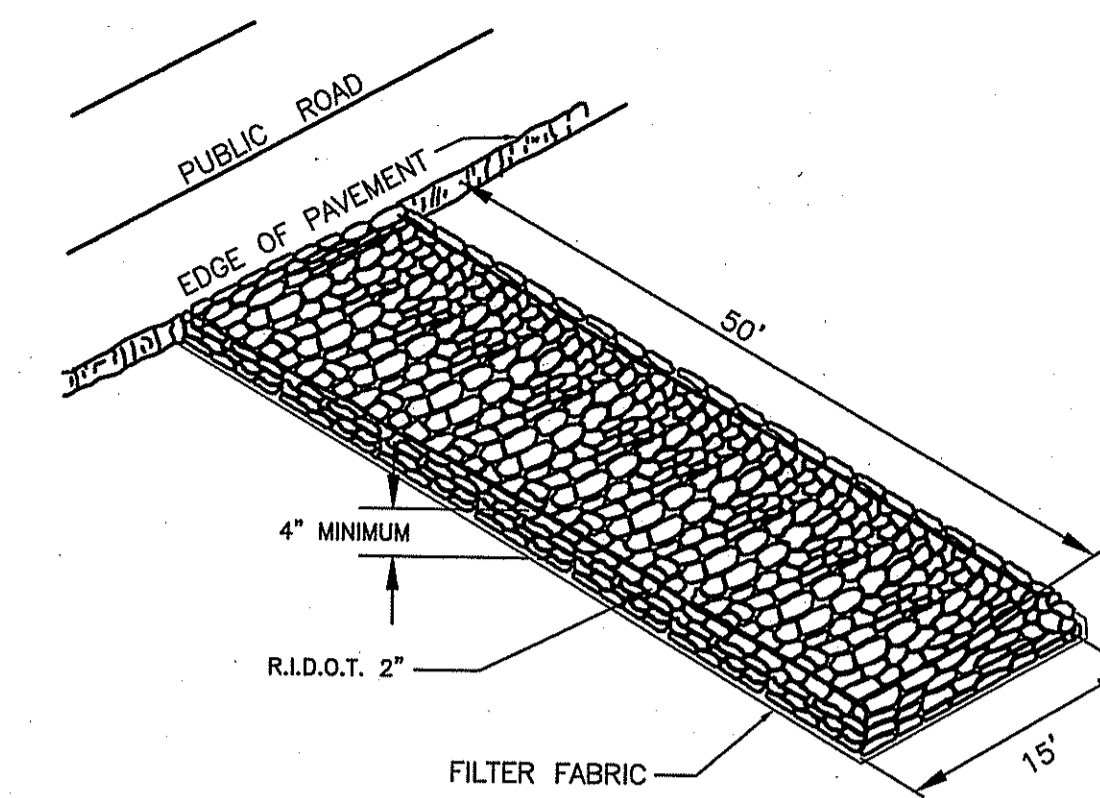
**CONSTRUCTION SEQUENCE AND SCHEDULE:**

1. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO ANY SOIL DISTURBANCE.
2. PRIOR TO CONSTRUCTION CLEARLY MARK AREAS TO BE LEFT UNDISTURBED.
3. CLEAR AND GRUB WORK AREA AS SHOWN ON THE SITE PLANS, WITHIN APPROVED LIMITS OF DISTURBANCE.
4. TOP SOIL TO BE STRIPPED AND STOCKPILED. ESTABLISH EROSION CONTROLS AROUND PILES (HAYBALES). ESTABLISH COVER IF STOCKPILES WILL REMAIN FOR LONGER THAN ONE (1) MONTH.
5. ROUGH GRADING OF DETENTION BASIN TO CONTAIN ANY EROSION AND SEDIMENTATION DURING CONSTRUCTION. CLEAN AND MAINTAIN SEDIMENT CONTROL MEASURES TO ENSURE PROPER OPERATION.
6. ROUGH GRADING OF SITE AND INSTALLATION OF STRUCTURES, DRAINAGE, AND UTILITIES.
7. INSTALL BERM, SIDEWALKS, FINAL GRADING, AND SITE PAVING.
8. ESTABLISH PERMANENT GROUND COVER.
9. CLEANING OF ALL EROSION AND SEDIMENT CONTROLS, BASIN, AND SWALE. CLEANING OF SITE DRAINAGE SYSTEM.
10. ESTIMATED DURATION OF SOIL EXPOSURE=TWELVE (12) MONTHS.

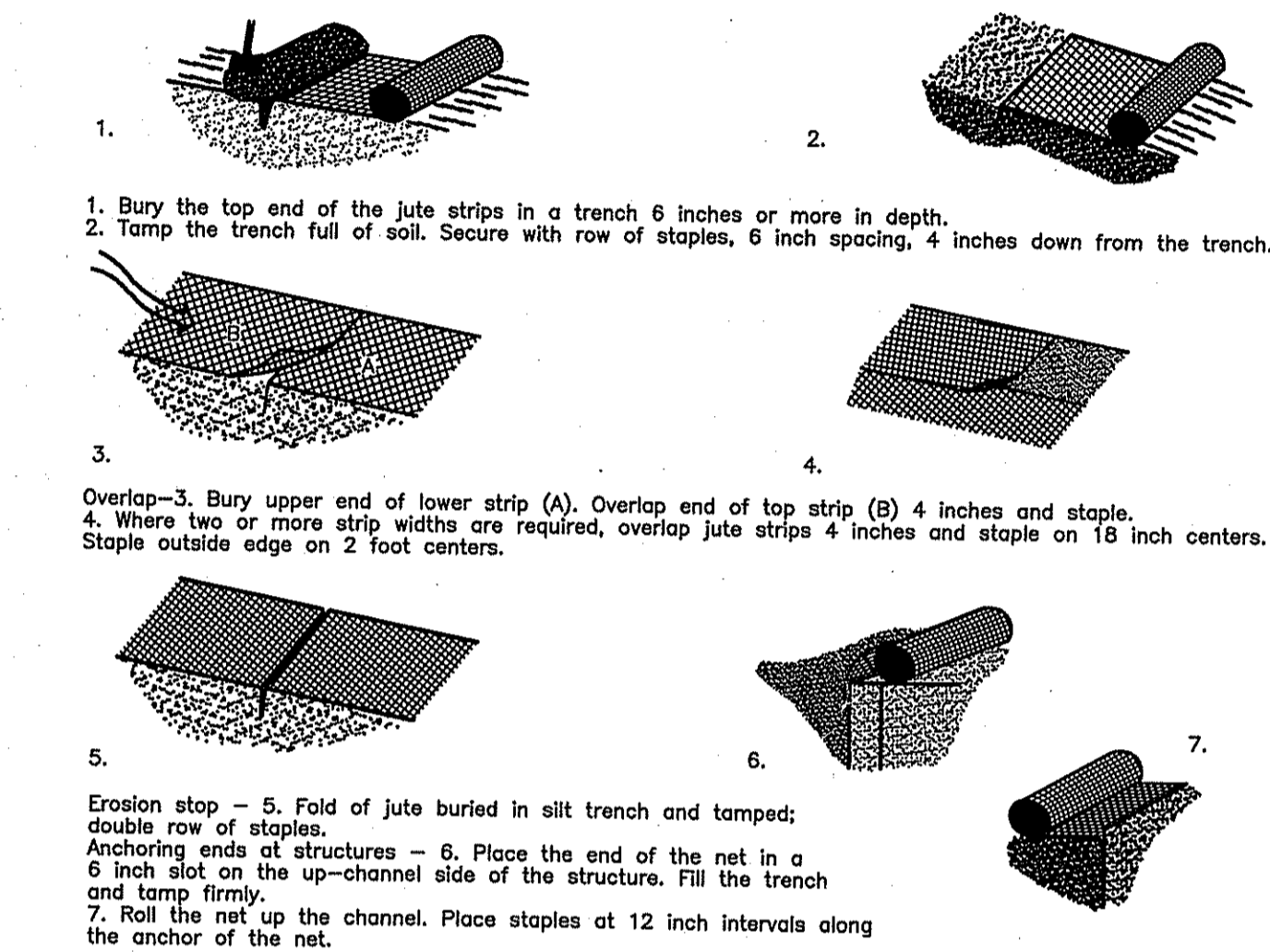
**ESTIMATED TIME OF SOIL EXPOSURE:**  
MAY 2008 - MAY 2009

**SITE DATA:**

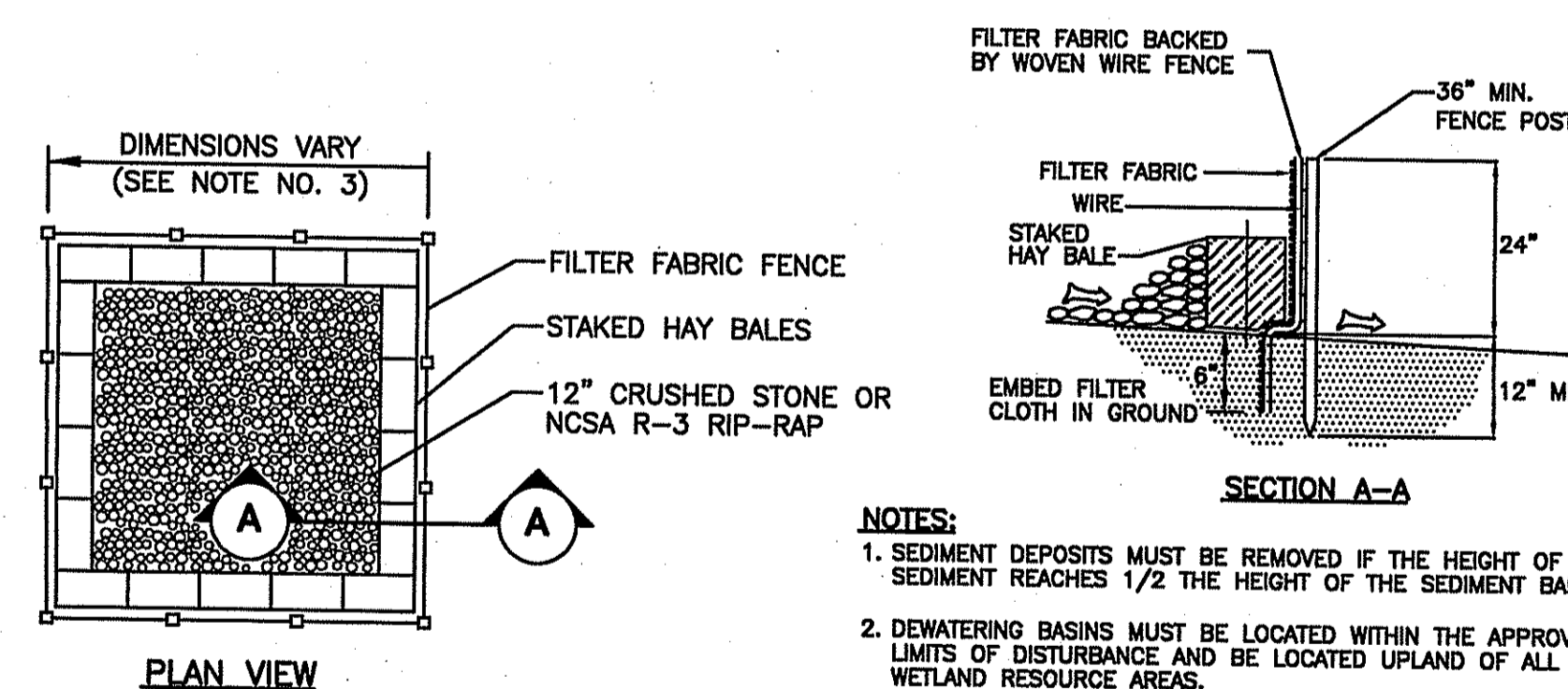
TOTAL AREA OF DISTURBANCE= 10.0± ACRES (LOT 15)  
TOTAL AREA OF DISTURBANCE= 2.7± ACRES (LOT 11)



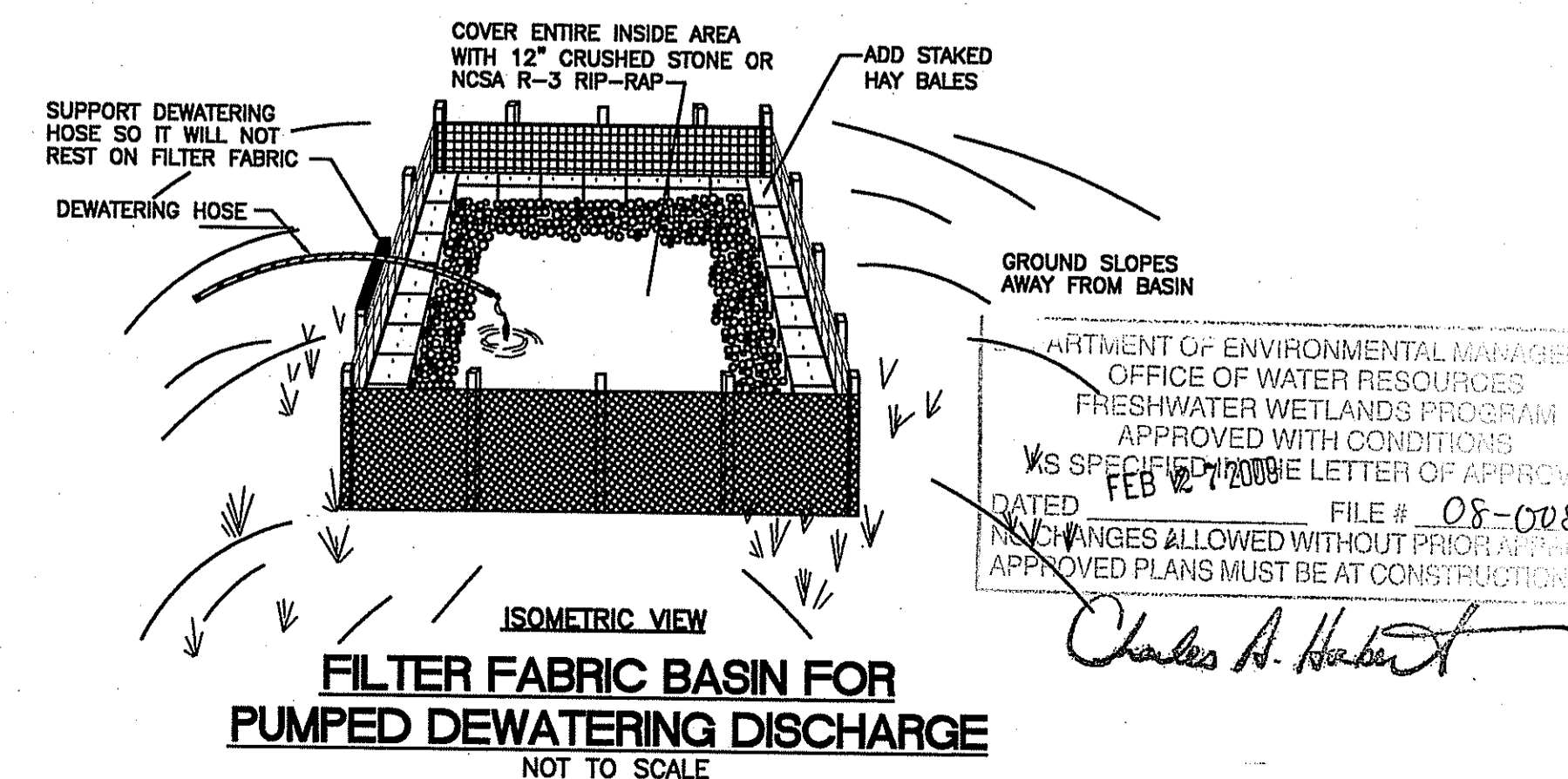
**CONSTRUCTION ENTRANCE DETAIL**  
NOT TO SCALE



**FIGURE 5-1 DETAIL FOR INSTALLATION OF JUTE NETTING**  
**R.I. SOIL EROSION and SEDIMENT CONTROL HANDBOOK**  
NOT TO SCALE

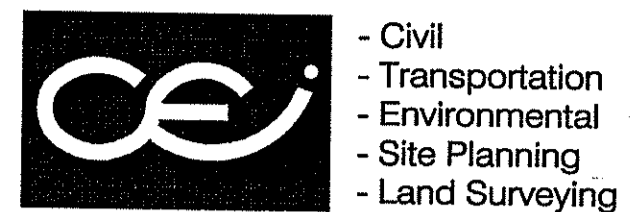


- NOTES:**
1. SEDIMENT DEPOSITS MUST BE REMOVED IF THE HEIGHT OF THE SEDIMENT REACHES 1/2 THE HEIGHT OF THE SEDIMENT BARRIER.
  2. DEWATERING BASINS MUST BE LOCATED WITHIN THE APPROVED LIMITS OF DISTURBANCE AND BE LOCATED UPLAND OF ALL WETLAND RESOURCE AREAS.
  3. CONTRACTOR IS REQUIRED TO SIZE EACH DEWATERING BASIN AND PROVIDE SUPPORTING ENGINEERING CALCULATIONS TO THE ENGINEER.

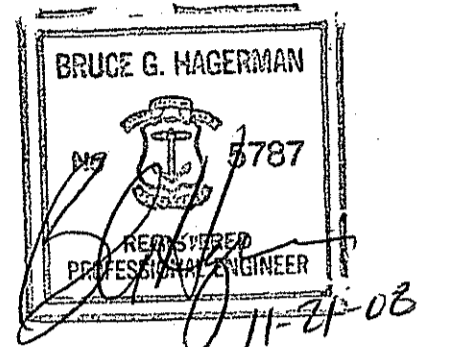


**ISOMETRIC VIEW**  
**FILTER FABRIC BASIN FOR PUMPED DEWATERING DISCHARGE**  
NOT TO SCALE

APPROVED BY:  
OFFICE OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED FEB 27, 2008  
FILE # 08-008  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
*Charles A. Haber*



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PROPERTY OWNER:

N/F  
**RI RESOURCE RECOVERY CORPORATION**  
65 SHUN PIKE  
JOHNSTON, RHODE ISLAND  
02919

PROJECT TITLE:

**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61**  
ZONING DISTRICT - INDUSTRIAL  
**LAKESIDE COMMERCE CENTER**  
SHUN PIKE AND SCITUATE AVENUE  
JOHNSTON, RHODE ISLAND

PREPARED FOR:

DEC 17 2008  
**MICHAEL V. D'AMBRA**  
800 JEFFERSON BOULEVARD  
WARWICK, RHODE ISLAND 02886

DRAWING TITLE:

**SOIL EROSION AND SEDIMENT CONTROL PLAN NO. 1**

DATE: MARCH 2008 SCALE: AS NOTED

DWG. NAME: 1451-08-EROS1-REV1.dwg

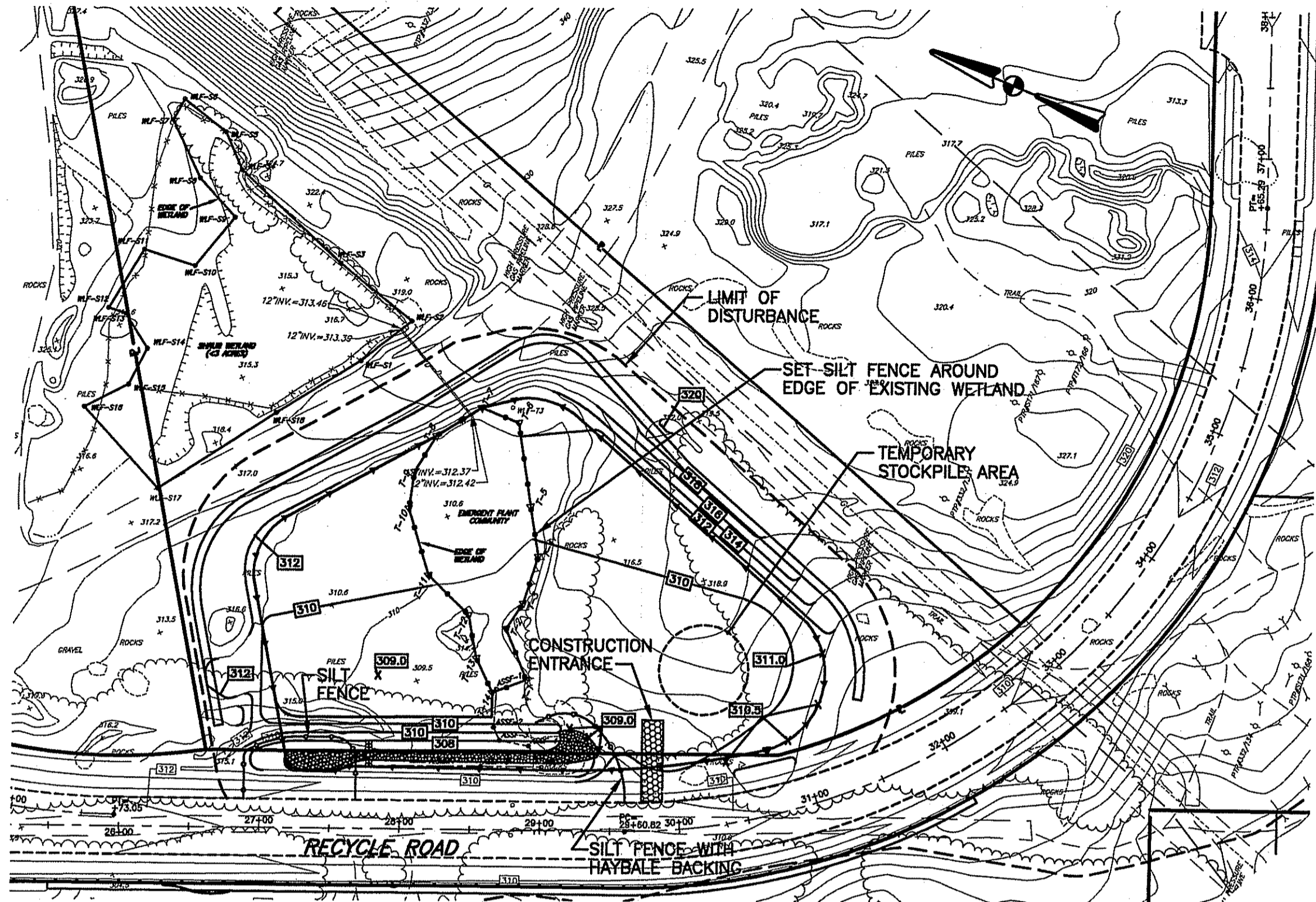
NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DRAWING NUMBER:

**C-4**

SHEET: 5 OF 20

AGENCY REVIEW SUBMISSION



**PROPOSED LOT 11 PLAN**  
SCALE: 1"=80'

**SITE SPECIFIC NOTES FOR AREAS OF CRITICAL CONCERN:**

1. FINISHED SLOPES ARE NOT TO EXCEED 2:1.
2. DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED.
3. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS).
4. HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
5. THE FINISHED SLOPES SHALL RECEIVE 4" OF LOAM AND SEED.
6. THE SEED MIXTURE SHALL BE:
 

	LBS/ACRES
FINE RYE	66
K-31 FESCUE	34

 OR AN ALTERNATIVE APPROVED BY THE SCS DISTRICT OFFICE.
7. ALL 2:1 SLOPES ARE TO BE LINED WITH CURLEX EXCELSIOR EROSION CONTROL BLANKET (AMERICAN EXCELSIOR COMPANY), OR EQUAL.

**TEMPORARY MULCH MATERIALS AND APPLICATION RATES**  
(REF. R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK)

MULCHES	RATES	NOTES
	PER ACRE      PER 1000 FT	
STRAW OR HAY	2 TONS      90 LBS	FREE FROM WEEDS AND COARSE MATTER. MUST BE ANCHORED. SPREAD WITH MULCH BLOWER OR BY HAND.
WOOD FIBER	1500-2000 LBS      37-50 LBS	FIBERS 4 MM OR LONGER. SHOULD BE DERIVED FROM PURE, WHOLE, NATURAL WOOD. DO NOT USE ALONE IN WINTER OR DURING HOT, DRY WEATHER. APPLY AS SLURRY.
CORN STALKS	4-6 TONS      185-275 LBS	CUT OR SHREDDED IN 4-6 INCH LENGTHS. AIR-DRIED. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER OR BY HAND.
WOOD CHIPS	4-6 TONS      185-275 LBS	FREE OF COARSE MATTER. AIR-DRIED. TREAT WITH 12 LBS NITROGEN PER TON. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER, CHIP HANDLER OR BY HAND.
BARK CHIPS SHREDDED BARK	50-70 YD <sup>3</sup> 1-2 YD <sup>3</sup>	FREE OF COARSE MATTER. AIR-DRIED. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER, CHIP HANDLER OR BY HAND.

**DUST CONTROL NOTES:**

- ON AN AS-NEEDED BASIS OR AS DIRECTED BY THE TOWN OR OWNER, THE CONTRACTOR SHALL UTILIZE ONE OF THE FOLLOWING METHODS (AS RECOMMENDED BY THE "R.I. EROSION AND SEDIMENT CONTROL HANDBOOK") TO CONTROL DUST:
1. WATER THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.
  2. CALCIUM CHLORIDE SHOULD BE EITHER LOOSE DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH A SPREADER AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE.
- THE METHODS SHOULD BE REPEATED AS NEEDED, AND SPECIAL ATTENTION MUST BE GIVEN TO THE ACCESS DRIVES.

**INSPECTION/MAINTENANCE NOTES:**

1. PRIOR TO COMMENCING CLEARING AND GRUBBING OPERATIONS, SILT FENCING SHALL BE PLACED SO AS TO PREVENT SEDIMENT FROM ENTERING EXISTING ROADWAY DRAINAGE SYSTEM AND ADJUTING PROPERTIES.
2. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE ROADWAY DRAINAGE SYSTEM OR ADJACENT PROPERTIES.
3. ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSION TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION - SUCH AS RIP-RAP.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT / REPLACE DAILY DURING CONSTRUCTION, FOLLOWING RAINFALL AND WEEKLY DURING NON CONSTRUCTION PERIODS.
6. ADDITIONAL SILT FENCING, HAY BALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE TOWN, ENGINEER.
7. THE "R.I. EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1989, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION, INCLUDING TEMPORARY SHUT-DOWN PERIODS, MUST MONITOR AND REPAIR, AS NEEDED, ALL SLOPES TO ENSURE A STABLE PRODUCT.
9. FINISHED SLOPES ARE NOT TO EXCEED 2:1.
10. DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED.
11. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS).
12. HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
13. THE FINISHED SLOPES SHALL CONFORM TO THE GRADES SHOWN ON THE GRADING PLAN.
14. ALL 2:1 SLOPES ARE TO BE LINED WITH CURLEX EXCELSIOR EROSION CONTROL BLANKET (AMERICAN EXCELSIOR COMPANY), OR EQUAL, LAST INSTALLATION MUST CONFORM TO MANUFACTURER'S SPECIFICATIONS.
15. DURING CONSTRUCTION THE CONTRACTOR SHALL RE-SEED THE DETENTION BASIN ACTING AS TEMPORARY SEDIMENT BASINS AS REQUIRED.
16. THE CONTRACTOR SHALL REMOVE SEDIMENT DEPOSITS ON ALL HAYBALES AND SILT FENCE WHEN DEPOSITS ARE AT ONE-HALF THE HEIGHT OF THE BARRIER.
17. DURING CONSTRUCTION, THE OPERATOR AND CONTRACTOR ARE REQUIRED TO INSPECT ALL EROSION CONTROLS ON THE SITE AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN TWENTY FOUR (24) HOURS AFTER AN EVENT WHICH GENERATES 0.25 INCHES OF RAIN IN A TWENTY FOUR (24) HOUR PERIOD AND/OR AFTER A SIGNIFICANT AMOUNT OF RUNOFF.

BASED ON THE RESULTS OF THE INSPECTIONS, IF THE SITE DESCRIPTION AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THIS PLAN SET MUST BE REVISED, SUCH MODIFICATIONS MUST BE ACCOMPLISHED AND IMPLEMENTED WITHIN SEVEN (7) CALENDAR DAYS OF THE INSPECTION.

A REPORT SUMMARIZING THE SCOPE OF INSPECTION, NAME(S), AND TITLES OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AND ACTIONS TAKEN AS A RESULT OF THE INSPECTION MUST BE RETAINED AS PART OF THE SWPPP FOR AT LEAST FIVE (5) YEARS FROM THE DATE THAT THE SITE HAS UNDERGONE FINAL STABILIZATION. SUCH REPORTS MUST IDENTIFY ANY INCIDENTS OF NONCOMPLIANCE. WHERE A REPORT DOES NOT IDENTIFY ANY INCIDENTS OF NONCOMPLIANCE, THE REPORT MUST CONTAIN A CERTIFICATION THAT THE SITE IS IN COMPLIANCE WITH THE SWPPP AND THE PERMIT. THE REPORT MUST BE SIGNED USING THE FOLLOWING STATEMENT:

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER THE DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS".

**GENERAL PROJECT WIDE NOTES:**

1. SILT FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTY AND REGULATED WETLANDS.
2. THE CONTRACTOR MUST REPLACE AND/OR RESEED ANY VEGETATION THAT DOES NOT DEVELOP/SURVIVE WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.
3. THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1 - OCTOBER 15.
4. ALL SILT FENCES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
5. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHENEVER FEASIBLE; THE AREA BEYOND THE DROPLINE SHALL BE FENCED OR ROPED OFF TO PROTECT TREES FROM CONSTRUCTION EQUIPMENT.
6. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODED, RESEED, OR OTHERWISE RESTORED AT THE CONTRACTOR'S EXPENSE.
7. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED HAY BALES OR SILT FENCING.
8. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
9. A TEMPORARY CONSTRUCTION MAT SHALL BE MAINTAINED THROUGH OUT CONSTRUCTION AT THE DESIGNATED AREAS TO PREVENT TRANSPORT OF SOILS OFF-SITE.
10. CONTRACTOR MAY USE STACKED HAYBALES IN LIEU OF SILT FENCE ALONG LIMIT OF DISTURBANCE LOCATIONS.
11. DURING CONSTRUCTION STOCKPILE LOCATIONS MAY VARY.
12. THE SITE IS LOCATED WITHIN THE WOONASQUATUCKET RIVER WATERSHED.
13. ALL LANDSCAPED AND SEEDED AREAS SHALL BE APPROPRIATELY WATERED AFTER INSTALLATION. THE CONTRACTOR IS REQUIRED TO INSTALL APPROPRIATE MULCHING METHODS TO AVOID POSSIBLE EROSION DURING THESE WATERING PROCEDURES.
15. ALL TYPES OF WASTE GENERATED FROM THE SITE SHALL BE DISPOSED OF IN A MANNER CONSISTANT WITH STATE LAW AND/OR REGULATIONS.
16. DURING CONSTRUCTION, THE DETENTION BASIN SHALL PROVIDE A FINAL COLLECTION AREA IF A HAZARDOUS MATERIAL SPILL SHOULD OCCUR. THE CONTRACTOR IS REQUIRED TO NOTIFY LOCAL AUTHORITIES INCLUDING THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WASTE MANAGEMENT AND THE JOHNSTON FIRE DEPARTMENT OF ANY HAZARDOUS MATERIAL SPILL. CLEAN-UP METHODS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS.

**SITE SPECIFIC NOTES FOR AREAS OF CRITICAL CONCERN:**

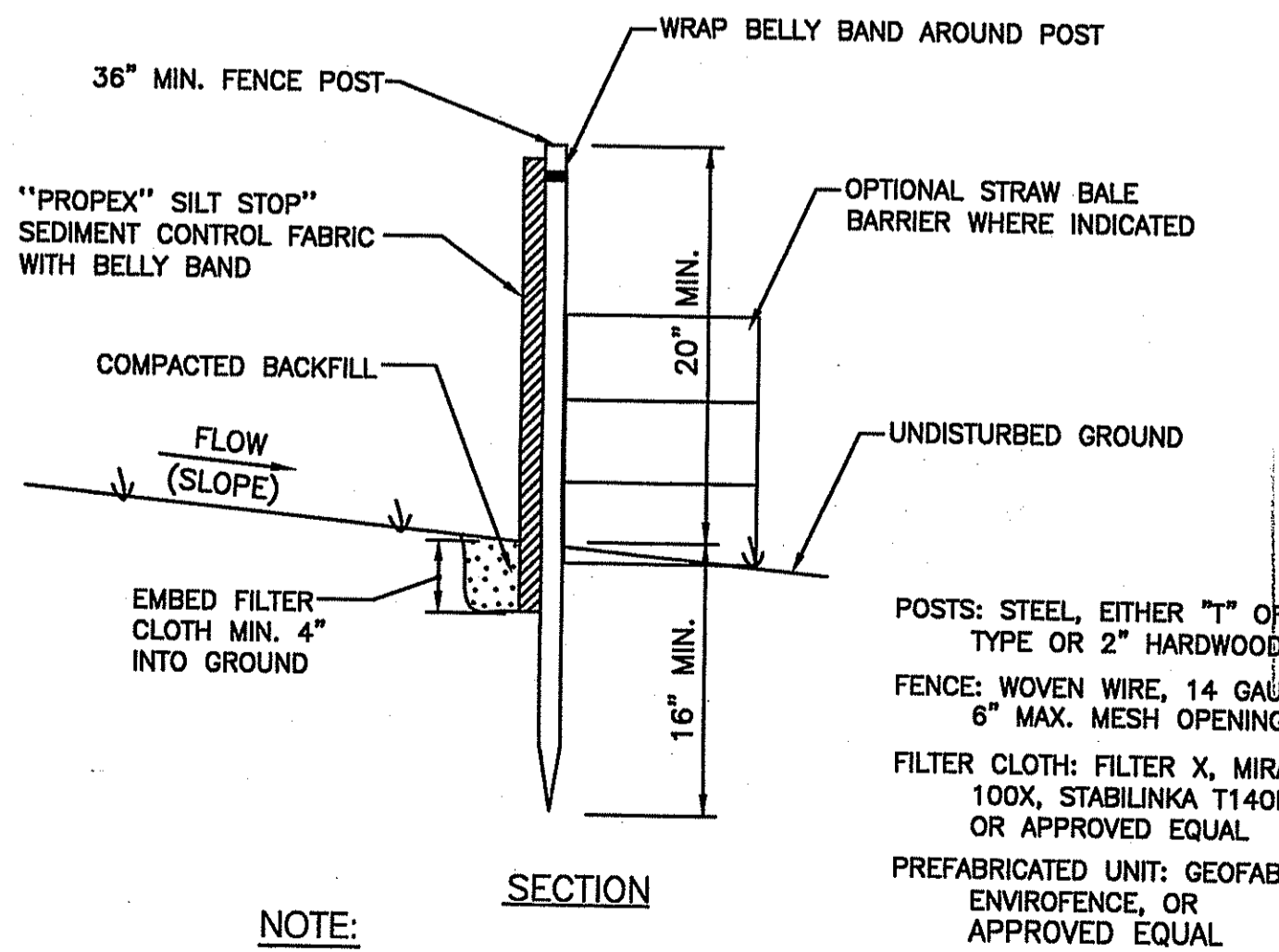
1. FINISHED SLOPES ARE NOT TO EXCEED 2:1.
2. DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED.
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4. HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
5. THE FINISHED SLOPES SHALL RECEIVE 4" OF LOAM AND SEED.
6. THE SEED MIXTURE SHALL BE:
 

	LBS/ACRES
FINE RYE	66
K-31 FESCUE	34

 OR AN ALTERNATIVE APPROVED BY THE SCS DISTRICT OFFICE.
7. ALL 2:1 SLOPES ARE TO BE LINED WITH CURLEX EXCELSIOR EROSION CONTROL BLANKET (AMERICAN EXCELSIOR COMPANY), OR EQUAL.

**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE OR DEPTH OF ACCUMULATED SEDIMENT REACHES 6".

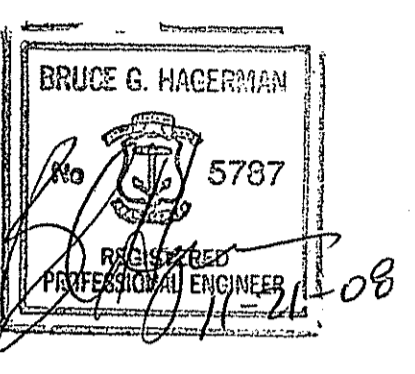


**NOTE:**  
PAVEMENT PATCHING TO BE DONE WHERE CONTRACTOR HAS DISTURBED ROAD PAVEMENT. ALL OTHER AREAS MUST RECEIVE 4" LOAM AND SEED.

**SILT FENCE DETAIL**  
NOT TO SCALE



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Web Page: www.crossmaneng.com



PROPERTY OWNER:  
  
N/F  
**RI RESOURCE RECOVERY CORPORATION**  
65 SHUN PIKE  
JOHNSTON, RHODE ISLAND  
02919

PROJECT TITLE:  
  
**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

PREPARED FOR:  
  
**MICHAEL V. D'AMBRA**  
800 JEFFERSON BOULEVARD  
WARWICK, RHODE ISLAND 02886

DRAWING TITLE:  
**SOIL EROSION AND SEDIMENT CONTROL PLAN NO. 2**

DATE: MARCH 2008      SCALE: AS NOTED

DWG. NAME: 1451-09-EROS2-REV1.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WETLANDS  
FRESHWATER WETLANDS PERMIT  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN PERMIT  
NO CHANGE ALLOWED WITHOUT PERMIT  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DATE: FEB 27 2009  
FILE: 08-0081

Signature: *Charles A. ...*

DRAWING NUMBER

**C-5**

SHEET: 6 OF 20

AGENCY REVIEW SUBMISSION

1451 - D'Ambra Construction\ACAD Dwg\RIDEM Wetlands Submission\Revised RIDEM Submission 11-08\1451-09-EROS2-REV1.dwg, 11/21/2008 8:57:49 AM, Dec 15 2008 3:40:33 PM

**ZONING TABLE**

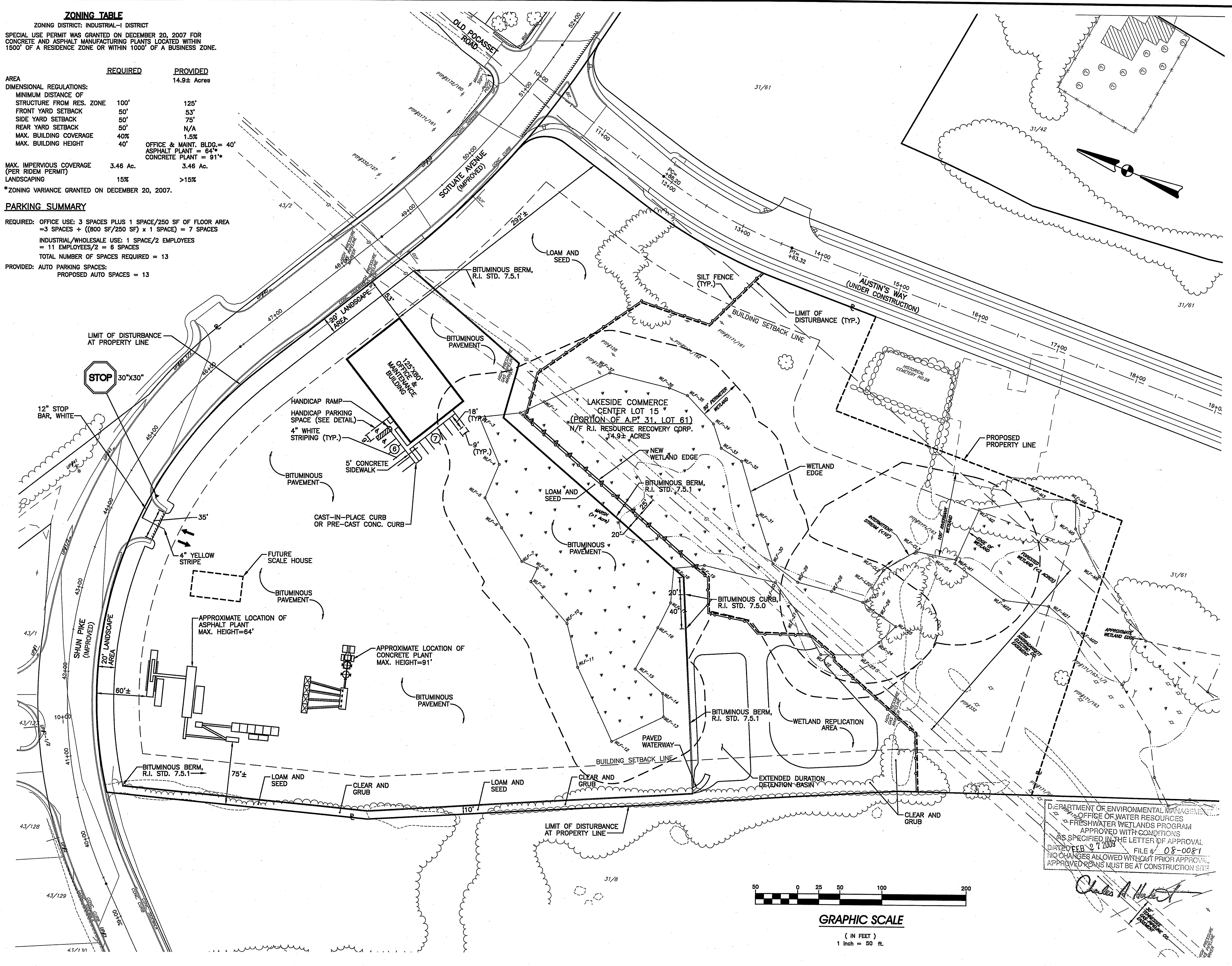
ZONING DISTRICT: INDUSTRIAL-1 DISTRICT  
 SPECIAL USE PERMIT WAS GRANTED ON DECEMBER 20, 2007 FOR CONCRETE AND ASPHALT MANUFACTURING PLANTS LOCATED WITHIN 1500' OF A RESIDENCE ZONE OR WITHIN 1000' OF A BUSINESS ZONE.

AREA	REQUIRED	PROVIDED
14.9± Acres		
DIMENSIONAL REGULATIONS:		
MINIMUM DISTANCE OF STRUCTURE FROM RES. ZONE	100'	125'
FRONT YARD SETBACK	50'	53'
SIDE YARD SETBACK	50'	75'
REAR YARD SETBACK	50'	N/A
MAX. BUILDING COVERAGE	40%	1.5%
MAX. BUILDING HEIGHT	40'	OFFICE & MAINT. BLDG. = 40' ASPHALT PLANT = 64' CONCRETE PLANT = 91'
MAX. IMPERVIOUS COVERAGE (PER RIDEM PERMIT)	3.46 Ac.	3.46 Ac.
LANDSCAPING	15%	>15%

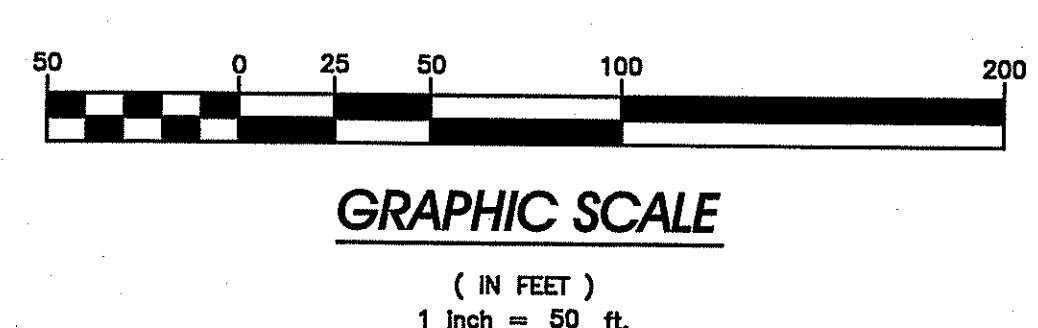
\*ZONING VARIANCE GRANTED ON DECEMBER 20, 2007.

**PARKING SUMMARY**

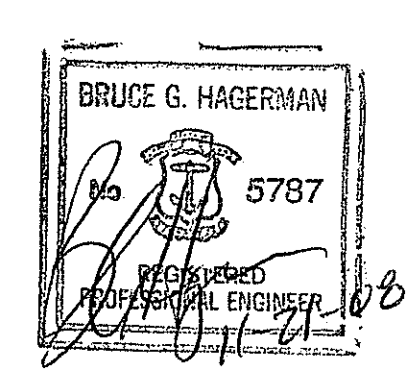
REQUIRED: OFFICE USE: 3 SPACES PLUS 1 SPACE/250 SF OF FLOOR AREA = 3 SPACES + ((800 SF/250 SF) x 1 SPACE) = 7 SPACES  
 INDUSTRIAL/WHOLESALE USE: 1 SPACE/2 EMPLOYEES = 11 EMPLOYEES/2 = 6 SPACES  
 TOTAL NUMBER OF SPACES REQUIRED = 13  
 PROVIDED: AUTO PARKING SPACES: PROPOSED AUTO SPACES = 13



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED FEB 9 7 2008 FILE # 08-0081  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED REVISIONS MUST BE AT CONSTRUCTION SITE



**CROSSMAN ENGINEERING, INC.**  
 151 Centerville Road  
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 Web Page: www.crossmaneng.com



PROPERTY OWNER:  
**N/F RI RESOURCE RECOVERY CORPORATION**  
 65 SHUN PIKE  
 JOHNSTON, RHODE ISLAND 02919

PROJECT TITLE:  
**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

PREPARED FOR:  
**MICHAEL V. D'AMBRA**  
 800 JEFFERSON BOULEVARD  
 WARWICK, RHODE ISLAND 02886

DRAWING TITLE:  
**SITE LAYOUT PLAN**

DATE: MARCH 2008 SCALE: 1" = 50'

DWG. NAME: 1451-10-SITE-REV1.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DRAWING NUMBER:  
**C-6**  
 SHEET: 7 OF 20

AGENCY REVIEW SUBMISSION

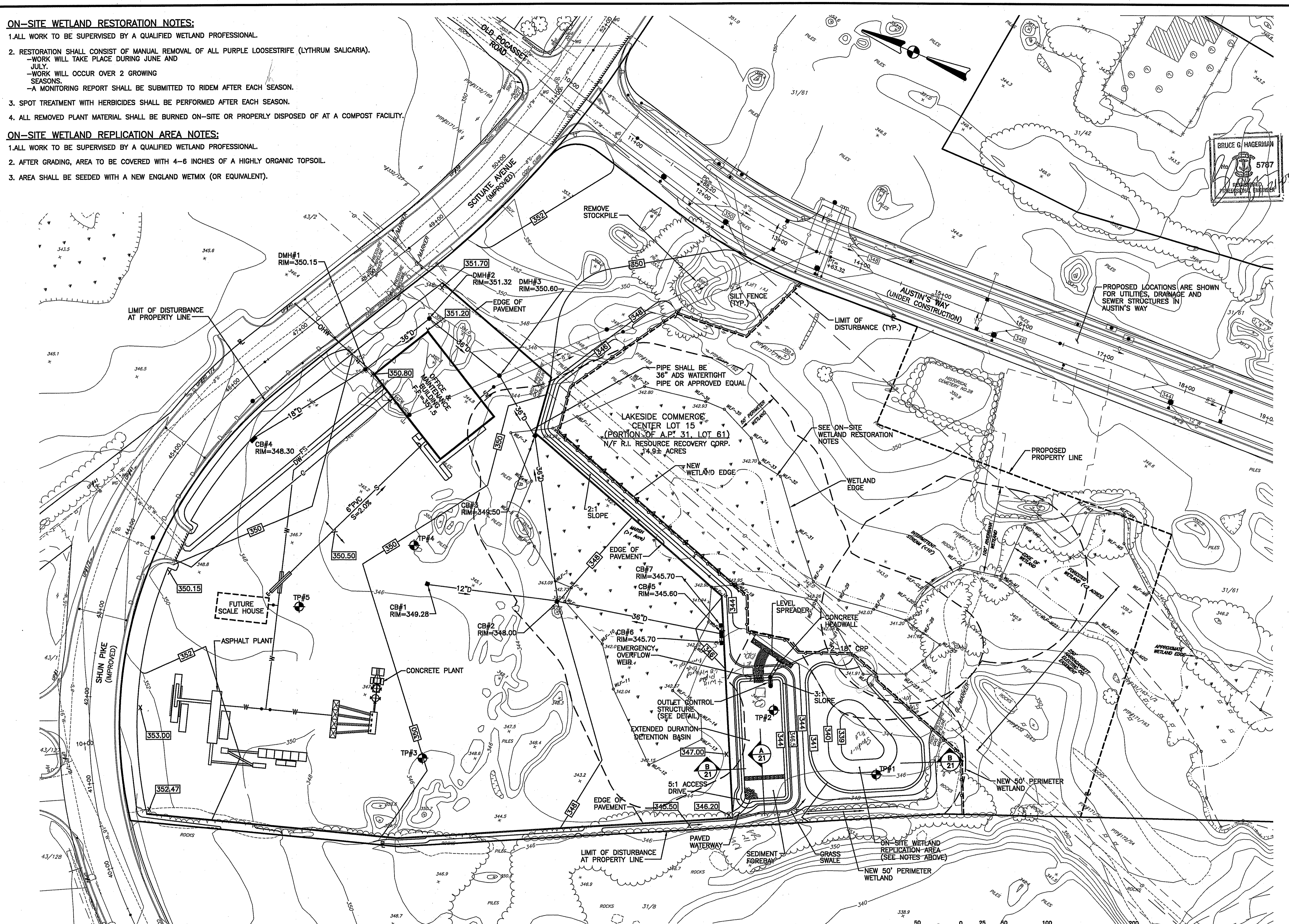
I:\1451 - D'Ambra Construction\AC AD Dwg\RIDEM Wetlands Submission\Revised RIDEM Submission\11-08\1451-10-SITE-REV1.dwg, 11/21/2008 8:58:36 AM, Cee TDS600 3.x.pcd

**ON-SITE WETLAND RESTORATION NOTES:**

1. ALL WORK TO BE SUPERVISED BY A QUALIFIED WETLAND PROFESSIONAL.
2. RESTORATION SHALL CONSIST OF MANUAL REMOVAL OF ALL PURPLE LOOSESTRIFE (LYTHRUM SALICARIA).  
-WORK WILL TAKE PLACE DURING JUNE AND JULY.  
-WORK WILL OCCUR OVER 2 GROWING SEASONS.  
-A MONITORING REPORT SHALL BE SUBMITTED TO RIDEM AFTER EACH SEASON.
3. SPOT TREATMENT WITH HERBICIDES SHALL BE PERFORMED AFTER EACH SEASON.
4. ALL REMOVED PLANT MATERIAL SHALL BE BURNED ON-SITE OR PROPERLY DISPOSED OF AT A COMPOST FACILITY.

**ON-SITE WETLAND REPLICATION AREA NOTES:**

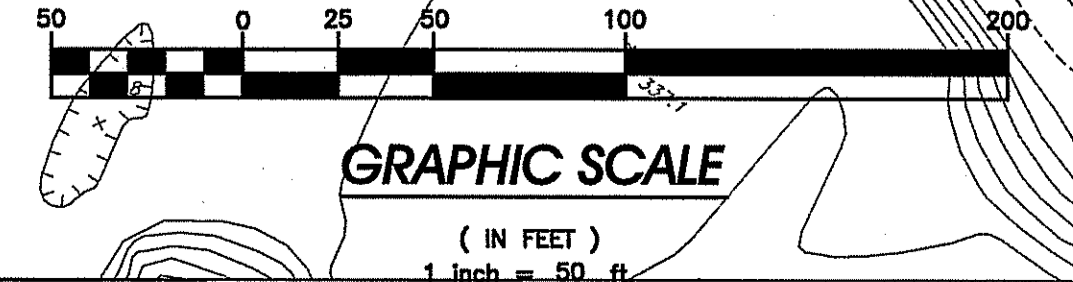
1. ALL WORK TO BE SUPERVISED BY A QUALIFIED WETLAND PROFESSIONAL.
2. AFTER GRADING, AREA TO BE COVERED WITH 4-6 INCHES OF A HIGHLY ORGANIC TOPSOIL.
3. AREA SHALL BE SEEDED WITH A NEW ENGLAND WETMIX (OR EQUIVALENT).



**WETLAND REPLICATION SUMMARY**

RESOURCE	IMPACT AREA (S.F.) ON LOT 15	REPLACEMENT AREA (S.F.) ON LOT 15	REPLACEMENT AREA (S.F.) ON LOT 11	TOTAL REPLACEMENT AREA (S.F.)
MARSH	45,437	14,069*	66,613	80,682
50' PERIMETER WETLAND	61,334	10,400**	62,409	72,809

\*MARSH REPLACEMENT AREA EQUALS AREA OF PROPOSED "341" CONTOUR.  
 \*\*NEW 50' PERIMETER WETLAND AREA EQUALS AREAS WITHIN 50' OF THE PROPOSED "341" CONTOUR BUT NOT WITHIN EXISTING REGULATED AREAS, NOT WITHIN AREAS PROPOSED TO BE MAINTAINED AND NOT ON ABUTTING PROPERTY.



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 Web Page: www.crossmaneng.com

**WETLAND CONSULTANT:**  
  
 Natural Resource Services, Inc.  
 86 Harrisville Main Street  
 Harrisville, Rhode Island 02830  
 Phone: (401) 568-7390 - Fax: (401) 568-7490

**PROPERTY OWNER:**  
 N/F  
**RI RESOURCE RECOVERY CORPORATION**  
 65 SHUN PIKE  
 JOHNSTON, RHODE ISLAND  
 02919

**PROJECT TITLE:**  
**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSessor'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

**PREPARED FOR:**  
 DEC 17 2008  
**MICHAEL V. D'AMBRA**  
 800 JEFFERSON BOULEVARD  
 WARWICK, RHODE ISLAND 02886

**DRAWING TITLE:**  
**GRADING PLAN**

**DATE:** MARCH 2008 **SCALE:** 1" = 50'  
**DWG. NAME:** 1451-11-GRADING-REV1.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATE: FEB 27 2009 FILE # 08-0061  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Charles A. Herbert*

**DRAWING NUMBER:**  
**C-7**  
 SHEET: 8 OF 20

**AGENCY REVIEW SUBMISSION**

STRUCTURE NUMBER	RIDOT STANDARDS		ELEVATIONS		
	STRUC TURE	FRME & GRT OR FRME & CVR	RIM	INVERT IN	INVERT OUT
CB #1	4.4.0(4' DIA.)	6.3.0	349.28	-	345.28-12"
CB #2	4.3.0(6' SQ.)	6.3.0	348.00	343.80-12" 338.43-36"	338.33-36"
CB #3	4.4.0(6' DIA.)	6.3.0	348.50	338.36-36"	335.28-36"
CB #4	4.4.0(4' DIA.)	6.3.0(2)	348.30	-	343.80-18"
CB #5	4.3.0(6' SQ.)	6.3.0(2)	345.60	338.00-18" 338.00-18"	337.38-36"
CB #6	4.4.0(4' DIA.)	6.3.0	345.70	-	338.12-18"
CB #7	4.4.0(4' DIA.)	6.3.0	345.70	-	338.12-18"
DMH #1	4.2.1	6.2.1	350.15	339.54-24"(EX) 342.34-18"	338.54-36"
DMH #2	SEE NOTE BELOW	6.2.1	351.32	337.36-36"	337.28-36"
DMH #3	SEE NOTE BELOW	6.2.1	350.60	334.53-36" 334.53-36"	334.43-36"(EX)

NOTE: USE 8" DIAMETER PRECAST CONCRETE MANHOLE (OR EQUAL). SEE MISCELLANEOUS DETAILS

**GRADING NOTES:**

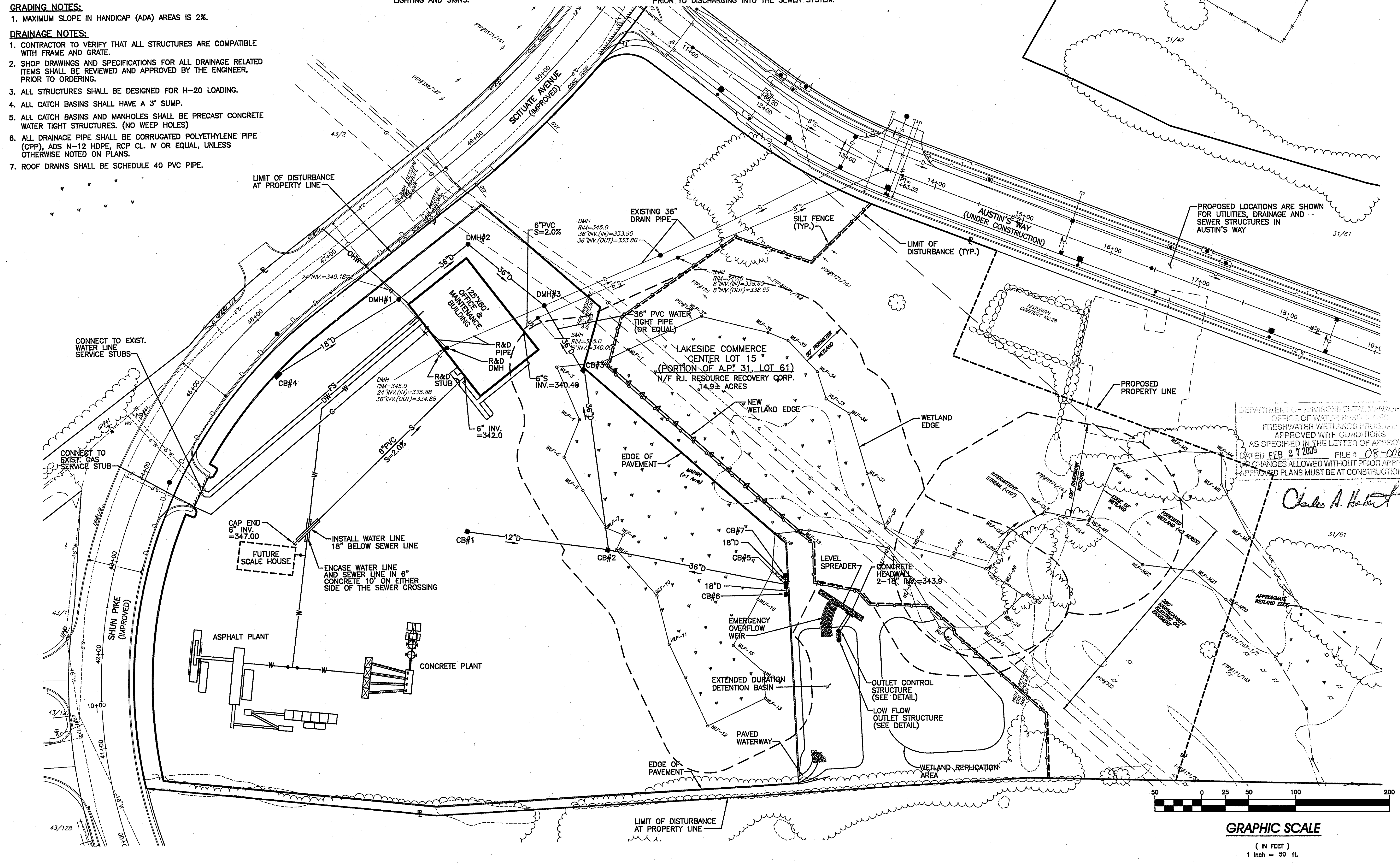
1. MAXIMUM SLOPE IN HANDICAP (ADA) AREAS IS 2%.

**DRAINAGE NOTES:**

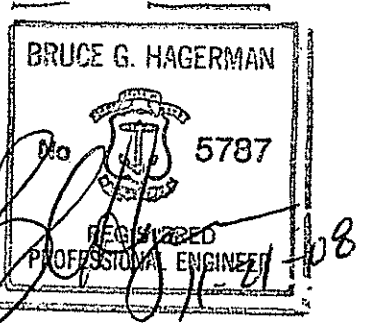
1. CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE.
2. SHOP DRAWINGS AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER, PRIOR TO ORDERING.
3. ALL STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING.
4. ALL CATCH BASINS SHALL HAVE A 3' SUMP.
5. ALL CATCH BASINS AND MANHOLES SHALL BE PRECAST CONCRETE WATER TIGHT STRUCTURES. (NO WEEP HOLES)
6. ALL DRAINAGE PIPE SHALL BE CORRUGATED POLYETHYLENE PIPE (CPP), ADS N-12 HDPE, RCP CL. IV OR EQUAL, UNLESS OTHERWISE NOTED ON PLANS.
7. ROOF DRAINS SHALL BE SCHEDULE 40 PVC PIPE.

**UTILITY NOTES:**

1. PRIOR TO ANY UTILITY CONSTRUCTION, THE CONTRACTOR MUST PERFORM ADDITIONAL TESTS TO:
  - A. CONFIRM THE EXISTING DEPTHS OF UTILITIES AT ALL PROPOSED CONNECTION POINTS AND POTENTIAL CROSSOVER (CONFLICT) POINTS.
  - B. CONFIRM THE EXTENT OF LEDGE WHICH MAY EXIST IN ALL ANTICIPATED UTILITY TRENCH AREAS. PRIOR TO CONSTRUCTION, THE FINDINGS ARE TO BE REVIEWED BY THE OWNER AND THE ENGINEER. IF NECESSARY, ALTERNATIVES TO MINIMIZE LEDGE REMOVAL AND UTILITY CONFLICTS WILL BE DEVELOPED. NO CONSTRUCTION WILL BE ALLOWED WITHOUT THE OWNERS AUTHORIZATION.
  - C. THE CONTRACTOR SHALL DIG TEST HOLES TO VERIFY THE ELEVATIONS AND PIPE MATERIAL OF THE EXISTING SANITARY SERVICE LATERAL AT THE PROPOSED TIE-IN LOCATION.
2. ANY MODIFICATIONS TO THE PROPOSED UTILITIES TO AVOID CONFLICTS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. NO EXTRA PAYMENT TO THE CONTRACTOR DUE TO RELOCATIONS WILL BE AUTHORIZED.
3. THE UTILITY PLAN DOES NOT DEPICT THE NECESSARY ELECTRICAL CONDUIT/WIRING TO SERVICE THE PROPOSED LIGHTING AND SIGNS.
4. THE CONTRACTOR MUST LOCATE THE EXISTING WATER MAIN TO OBTAIN THE PROPER OUTSIDE DIAMETER TO SIZE THE TAPPING SLEEVE AND VALVE.
5. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL UTILITY PIPE SIZES INCLUDING WATER, SEWER AND GAS ARE VERIFIED BY THE ARCHITECT PRIOR TO ORDERING PIPE OR RELATED MATERIAL.
6. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING GAS MAIN AND COORDINATE WITH GAS COMPANY TO PROVIDE SERVICE. ALL EXCAVATION, TRENCHING, BACKFILL AND ROAD REPAIR SHALL BE INCLUDED IN THE CONTRACT BID PRICE.
7. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE THE UTILITY POLE RELOCATION PROCESS WITH ALL APPLICABLE UTILITY COMPANIES. AN ON-SITE MEETING SHALL TAKE PLACE AS SOON AS POSSIBLE TO DETERMINE PERMIT REQUIREMENTS AND RELOCATION SCHEDULES.
8. THE CONTRACTOR IS REQUIRED TO CONTACT THE JOHNSTON WATER DEPARTMENT FOR METERING AND BACKFLOW PREVENTION DEVICE REQUIREMENTS.
9. IF THE MAINTENANCE BUILDING INCLUDES FLOOR DRAINS THEY MUST DRAIN TO AN APPROPRIATELY SIZED OIL/WATER SEPARATOR PRIOR TO DISCHARGING INTO THE SEWER SYSTEM.



**CROSSMAN ENGINEERING, INC.**  
 151 Centerville Road  
 Warwick, Rhode Island 02886  
 Phone: (401) 738-6660 - Fax: (401) 738-8157  
 Email: ce@crossmaneng.com  
 Web Page: www.crossmaneng.com



PROPERTY OWNER:  
**N/F RI RESOURCE RECOVERY CORPORATION**  
 65 SHUN PIKE  
 JOHNSTON, RHODE ISLAND 02919

PROJECT TITLE:  
**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S LOT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

PREPARED FOR:  
**MICHAEL V. D'AMBRA**  
 800 JEFFERSON BOULEVARD  
 WARWICK, RHODE ISLAND 02886

DRAWING TITLE:  
**DRAINAGE AND UTILITY PLAN**

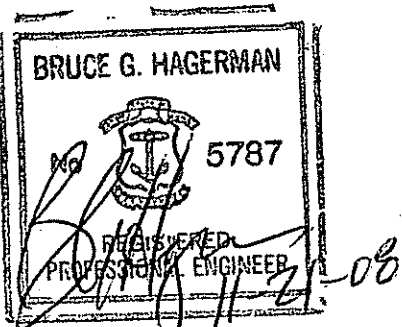
DATE: MARCH 2008 SCALE: 1" = 50'

DWG. NAME: 1451-12-UTIL-REV1.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DRAWING NUMBER  
**C-8**  
 SHEET: 9 OF 20  
 AGENCY REVIEW SUBMISSION

\1451 - D'Ambra Construction\ACAD Dwg\RIDEM Wetlands Submission 11-08\1451-12-UTIL-REV1.dwg, 11/21/2008 9:00:06 AM, Oce IDS600 3.x.pc3



PROPERTY OWNER:  
**N/F  
 RI RESOURCE RECOVERY CORPORATION**  
 65 SHUN PIKE  
 JOHNSTON, RHODE ISLAND  
 02919

PROJECT TITLE:  
**PROPOSED  
 MANUFACTURING FACILITY  
 ON A PORTION OF  
 ASSessor'S PLAT 31, LOT 61  
 ZONING DISTRICT - INDUSTRIAL  
 LAKESIDE COMMERCE CENTER  
 SHUN PIKE AND SCITUATE AVENUE  
 JOHNSTON, RHODE ISLAND**

PREPARED FOR:  
 DEC 17 2008  
**MICHAEL V. D'AMBRA**  
 800 JEFFERSON BOULEVARD  
 WARWICK, RHODE ISLAND 02886

DRAWING TITLE:  
**SITE LIGHTING PLAN**

DATE: MARCH 2008 SCALE: 1" = 50'

DWG. NAME: 1451-13-LIGHT-REV1.dwg

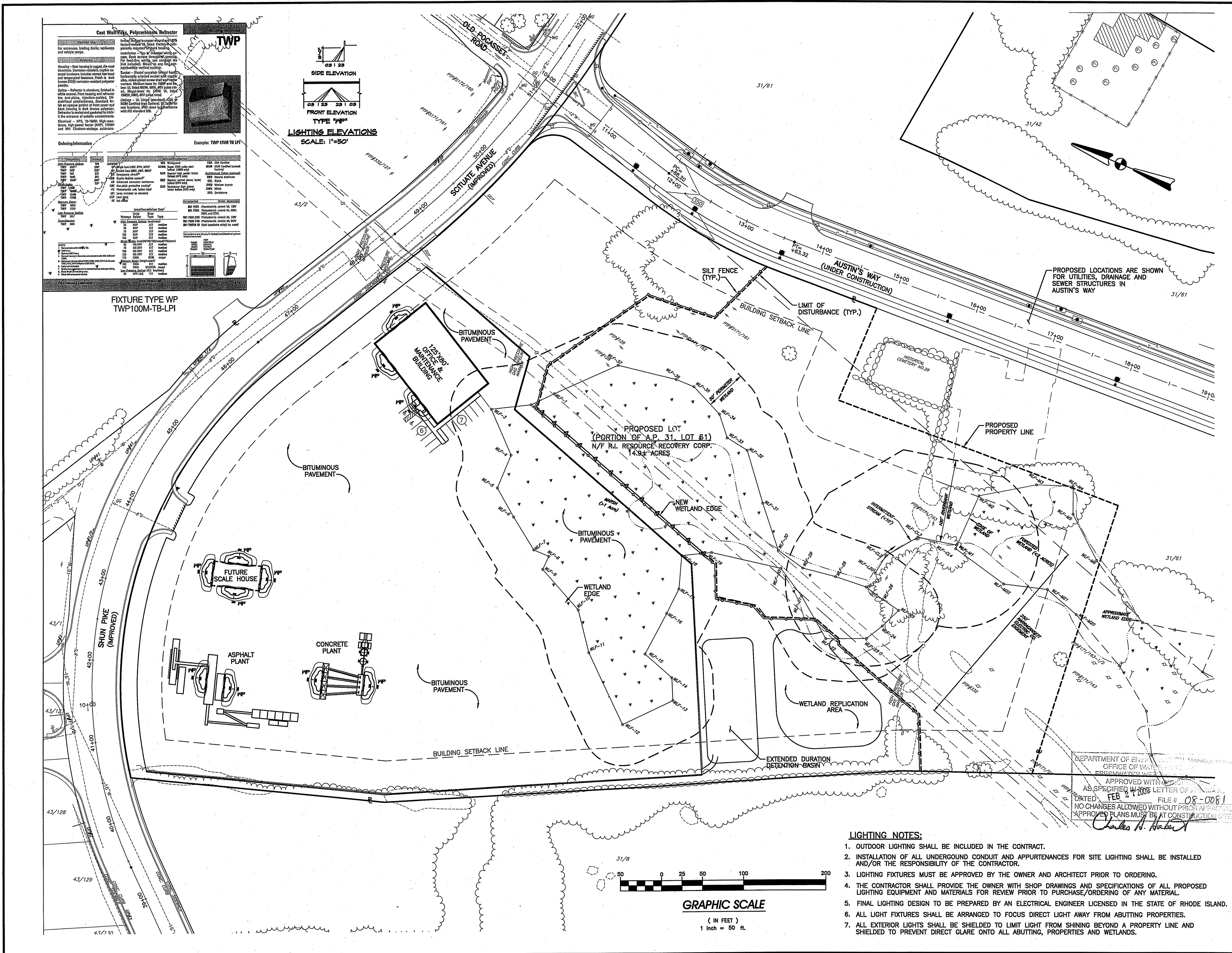
NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DRAWING NUMBER

**C-9**

SHEET: 10 OF 20

AGENCY REVIEW SUBMISSION



231644 D:\Ambra L-1\Johnston\_Landing

**LANDSCAPE PLANNING DATA**  
 ZONING DISTRICT: INDUSTRIAL - 1  
 ARTICLE III, SECTION G OF THE JOHNSTON ZONING ORDINANCE, ADOPTED 11-10-2003

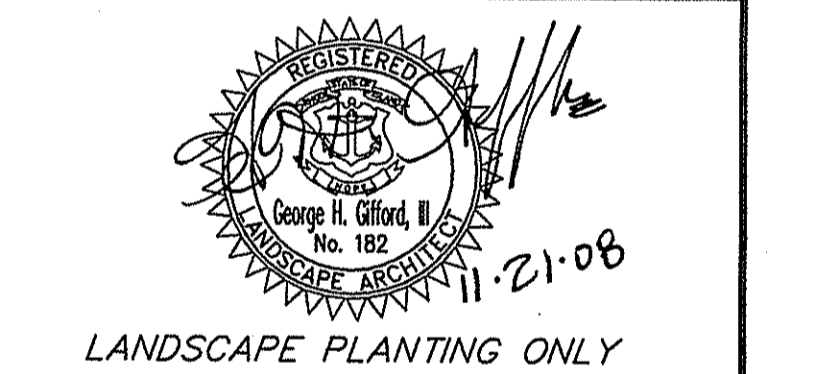
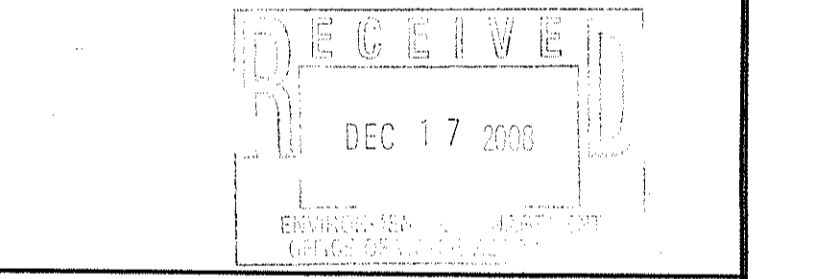
ZONING CRITERIA	REQUIRED	PROPOSED	REGULATION
General Requirements	Landscape shall constitute a minimum of fifteen percent (15%) of the entire site	Greater than fifteen percent 15% of entire site landscaped	Section G, Supplementary Regulations: (14)(b)(1)(c)
Shades Trees	Shade trees shall be planted at intervals of no more than thirty-five (35) feet along streets abutting a development site	Development site limited to south side of Shun Pike and Scituate Avenue.  Twenty (20) trees thirty-five (35) feet on center along frontage of development site	Section G, Supplementary Regulations: (14)(b)(7)(c)
Parking Area Landscape Requirements	Trees shall be planted within the planting strip at intervals of no more than thirty-five (35) feet	Shade trees planted 35' o.c. within north planting strip (along Shun Pike & Scituate Ave.) Evergreen trees planted 10' o.c. within southeast planting strip. East planting strip located within electric easement - Planting of shade trees not allowed.	Section G, Supplementary Regulations: (14)(b)(9)(c)
Interior Parking Landscape Area	A minimum of ten (10) square feet of landscaping for each Parking Space shall be provided in any off-street automobile parking area. 13 total auto spaces X 10 SF = 130 SF of landscape area	224 SF of landscape area provided at Parking Area	Section G, Supplementary Regulations: (14)(b)(9)(b)
Percentage of Parking Area Shading	Presuming each tree having a mature radius of 15' there shall be sufficient trees so that 20% of Parking Area shall be shaded (2,268 sq. ft. of parking area X 20% / 707 Sq. Ft. (area of one tree) = .64 or 1 Tree	1 Tree (1-Tilia cordata 'Greenspire')	Section G, Supplementary Regulations: (14)(b)(9)(c)

No.	Revision:	Date:
1	RIDEM Comments	9-9-08
2	RIDEM Comments	11-21-08

**REFERENCES:**  
 Plan Entitled: 'PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61, ZONING DISTRICT - INDUSTRIAL, LAKESIDE COMMERCE CENTER, SHUN PIKE AND SCITUATE AVENUE, JOHNSTON, RHODE ISLAND; SITE LAYOUT PLAN';  
 PREPARED FOR: Micheal V. D'Ambr  
 PREPARED BY: Crossman Engineering, Inc.  
 SCALE: 1"=50', DATED: March 2008 WITH REVISIONS THROUGH 9-08.

**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61**  
 ZONING DISTRICT - INDUSTRIAL  
 LAKESIDE COMMERCE CENTER  
 SHUN PIKE AND SCITUATE AVENUE  
 JOHNSTON, RHODE ISLAND

AGENCY REVIEW SUBMISSION



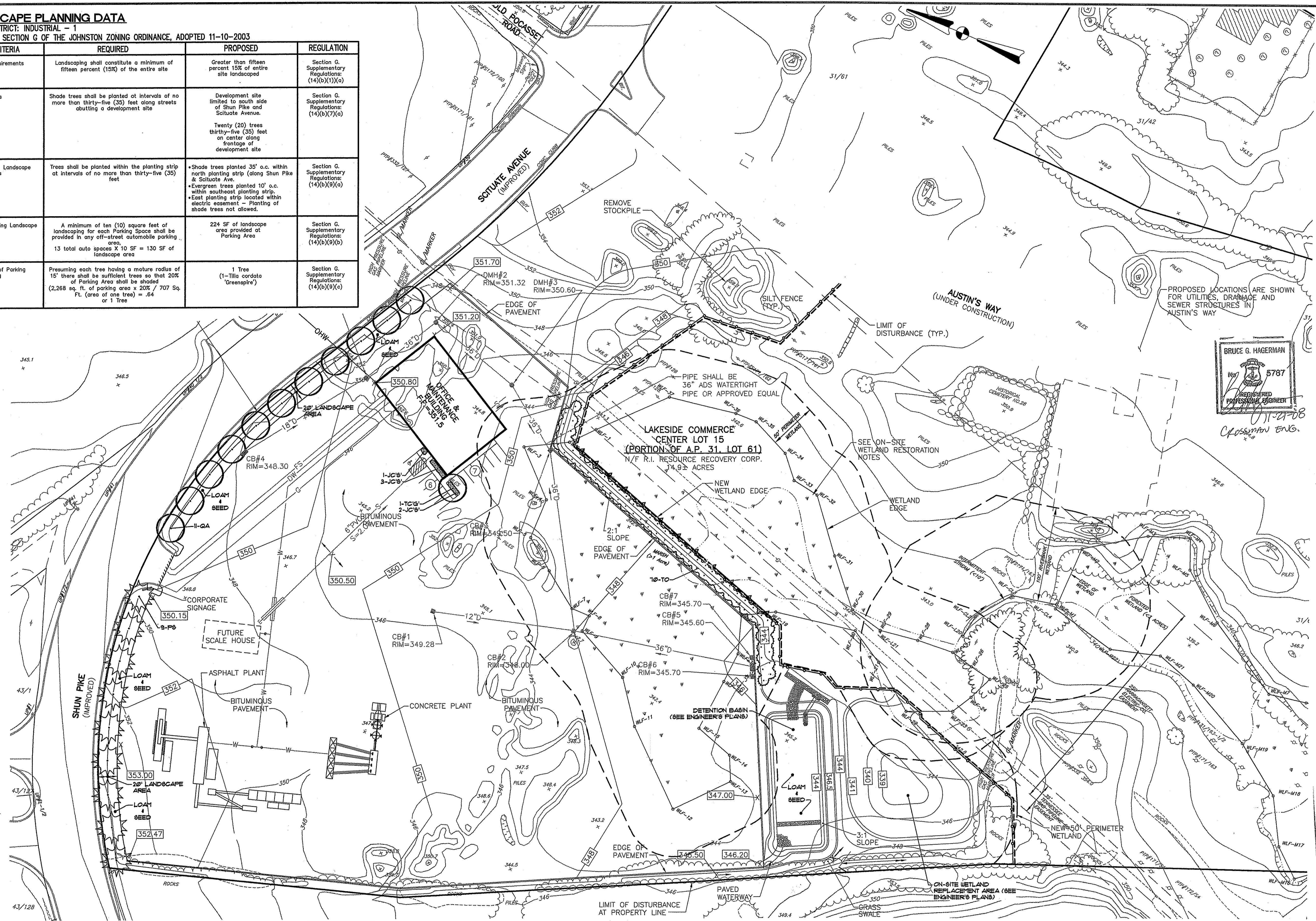
**THE GIFFORD DESIGN GROUP, Inc.**  
 LANDSCAPE ARCHITECTURE  
 ENVIRONMENTAL PLANNING  
 4096 MENDON ROAD, CUMBERLAND, RHODE ISLAND 02854  
 PHONE (401) 671-6336 FAX (401) 671-6466

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WETLANDS  
 FRESHWATER WETLANDS  
 APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED FEB 27 2009 FILE # 08-0081  
 NO CHANGES ALLOWED WITHOUT PRE-APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION

*Charles A. Haber*

**LANDSCAPE PLAN**

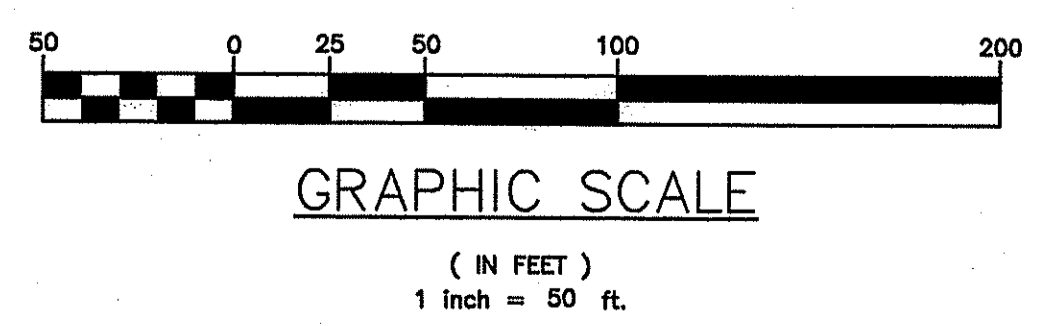
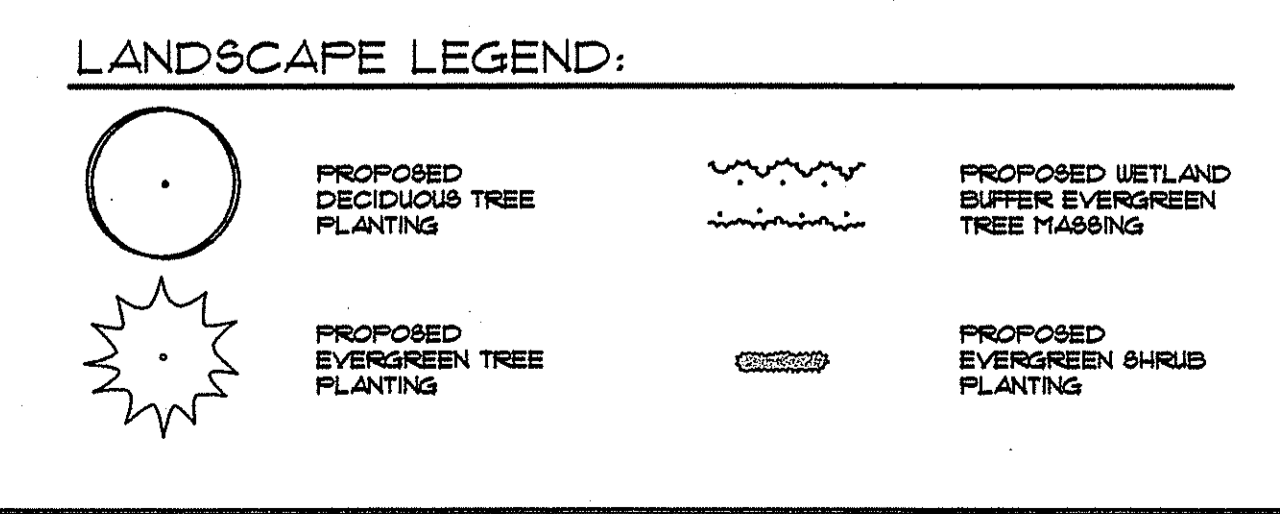
PROJECT NO. 231.644 DRAWING 11 OF 20  
 DATE: MARCH 2008 DRAWING NO:  
 SCALE: 1" = 50'  
 DRAWN BY: WS  
 CHECKED BY: GHG



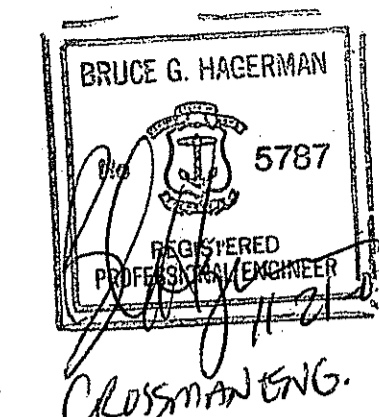
**PLANT SCHEDULE:**

Key	Botanical Name/ Common Name	Size	Qty	Comment
JC's	JUNIPERUS CHINENSIS 'Bargentii' Green Sargent's Juniper	2' (2 Gal)	6	Container
PS	PINUS STROBUS White Pine	1'-8"	9	B4B
QA	QUERCUS ALBA White Oak	2.5"-3" Cal.	11	B4B
TC's	TILIA CORDATA 'Greenspire' Greenspire Linden	2.5"-3" Cal.	1	B4B
TO	TALIA OCCIDENTALIS Northern White Cedar	4'-5"	10	B4B

**LANDSCAPE NOTES:**  
 1) SEE DRAWING NUMBER L-2, SHEET 11 OF 20 FOR ALL STANDARD PLANTING INSTALLATION DETAILS  
 2) SEE DRAWING NUMBER L-2, SHEET 12 OF 20 FOR ALL GENERAL LANDSCAPE NOTES.



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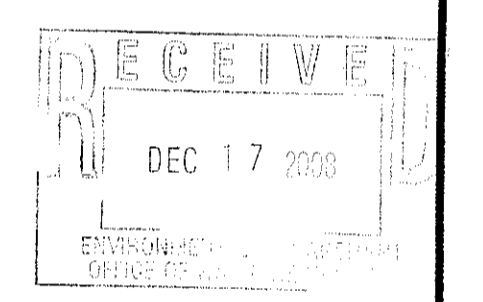


No.	Revision:	Date:
1	Sheet number/ Shrub planting detail	9-9-08

REFERENCES:  
 Plan Entitled: 'PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61, ZONING DISTRICT - INDUSTRIAL, LAKESIDE COMMERCE CENTER, SHUN PIKE AND SCITUATE AVENUE, JOHNSTON, RHODE ISLAND; SITE LAYOUT PLAN';  
 PREPARED FOR: Michael V. D'Ambr  
 PREPARED BY: Crossman Engineering, Inc.  
 SCALE: 1"=50', DATED: March 2008 WITH REVISIONS THROUGH 9-08.

**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61**  
**ZONING DISTRICT - INDUSTRIAL**  
**LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

AGENCY REVIEW SUBMISSION



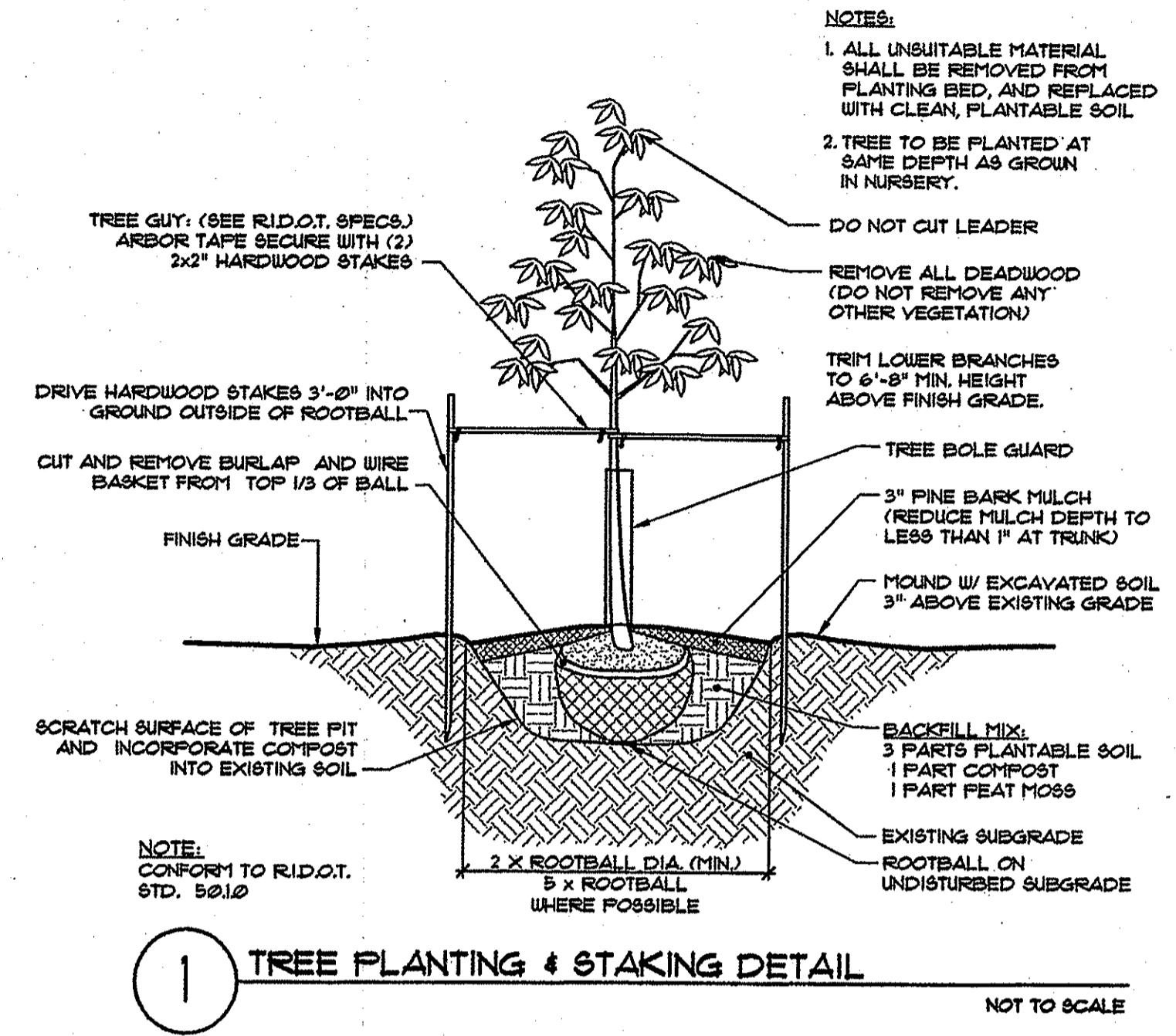
**THE GIFFORD DESIGN GROUP, Inc.**  
 LANDSCAPE ARCHITECTURE  
 ENVIRONMENTAL PLANNING  
 4096 MENDON ROAD, CUMBERLAND, RHODE ISLAND 02864  
 PHONE (401) 671-6336 FAX (401) 671-6466

**LANDSCAPE NOTES AND INSTALLATION DETAILS**

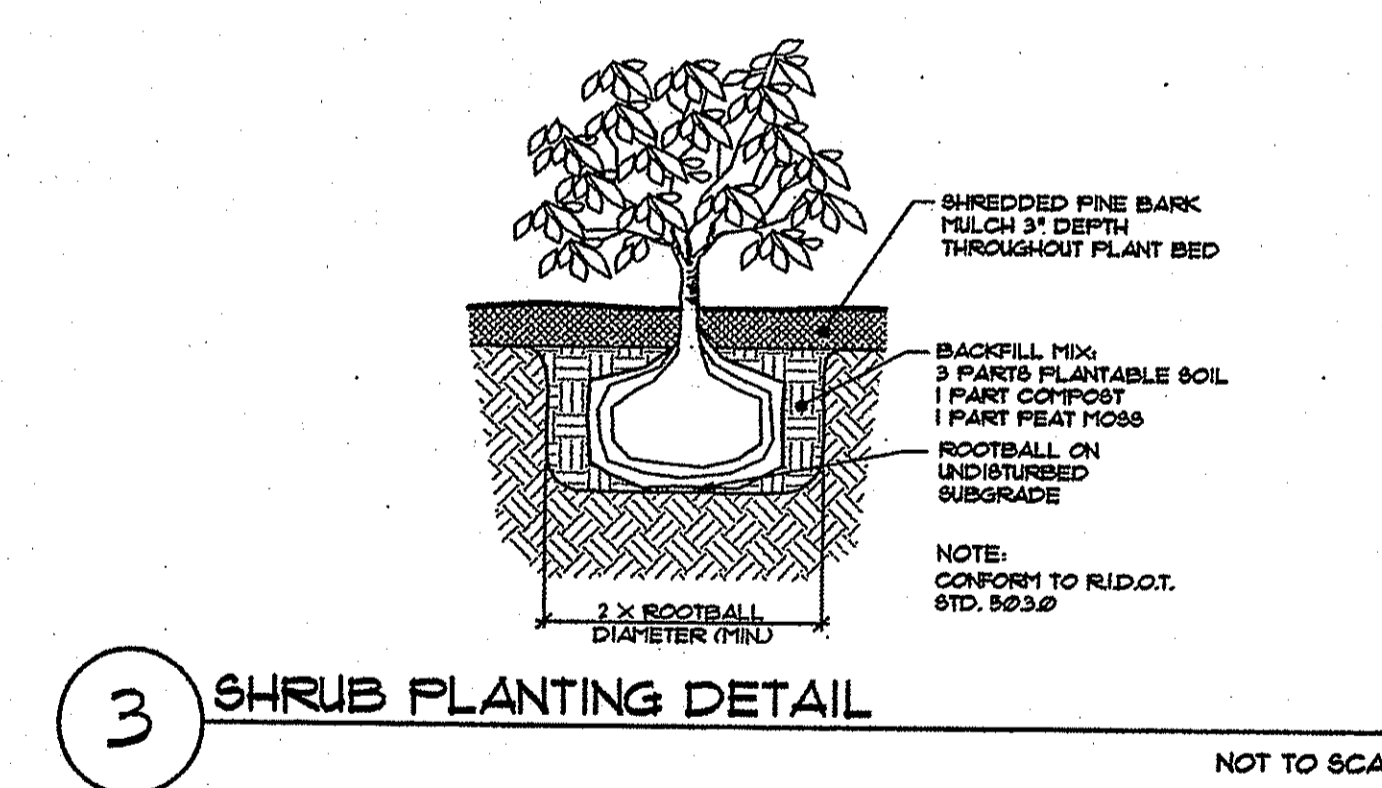
PROJECT NO. 231.644 DRAWING 12 OF 20  
 DATE: MARCH 2008 DRAWING NO:  
 SCALE: 1" = 50'  
 DRAWN BY: WS  
 CHECKED BY: GHG  
**L-2**

**LANDSCAPE NOTES:**

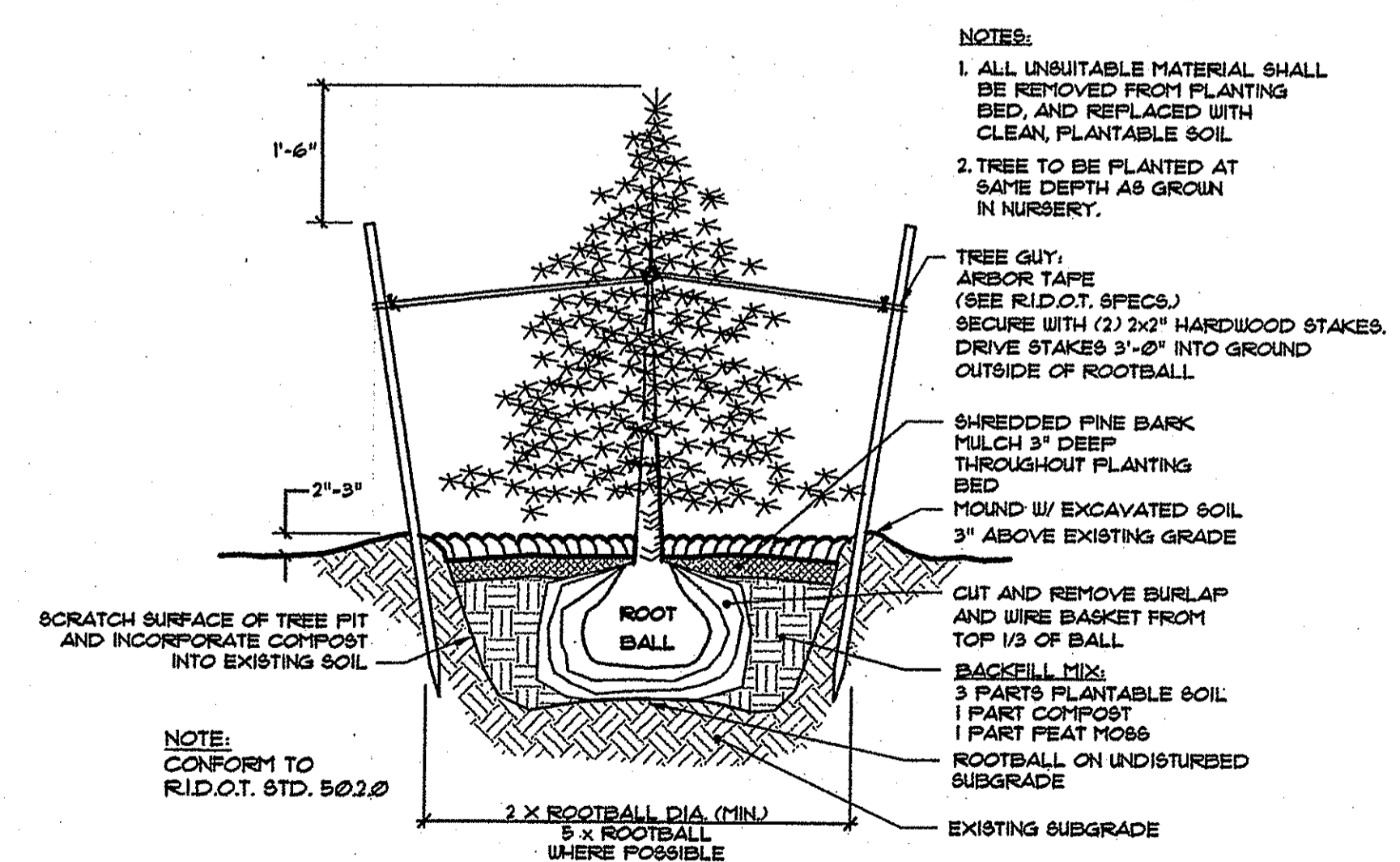
1. PROVIDE A WARRANTY FOR TREE AND SHRUB PLANTINGS FOR A MINIMUM OF ONE (1) YEAR INCLUDING ONE (1) CONTINUOUS GROWING SEASON. COMMENCE WARRANTY ON DATE IDENTIFIED IN THE 'CERTIFICATE OF FINAL COMPLETION'.  
 REPLACEMENTS: PLANTS OF SAME SIZE AND SPECIES AS SPECIFIED, PLANTED IN THE NEXT GROWING SEASON, WITH NEW WARRANTY AND EXTENDED MAINTENANCE SERVICE COMMENCING ON THE DATE OF REPLACEMENT.
2. PLANT MATERIALS SHALL BE OF SIZE AND CALIPER REQUIRED AND COMPLY WITH THE HORTICULTURAL STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERY - MEN (ANSI Z260-1) IN ALL RESPECTS.
3. PLANTS OF OTHER KINDS THAN THOSE NAMED IN THE PLANT SCHEDULE SHALL NOT BE ACCEPTED WITHOUT APPROVAL. REPLACEMENT PLANTS LARGER IN SIZE THAN EXISTING MAY BE USED IF APPROVED BY THE A/E, PROVIDED USE OF LARGER PLANTS DOES NOT INCREASE CONTRACT PRICE.
4. UNLESS OTHERWISE APPROVED BY THE A/E, ALL PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES AND SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS.
5. SET PLANTS FLIMS AND AT SUCH A LEVEL THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATION TO THE SURROUNDING GROUND AS THEY BORE TO THE GROUND FROM WHICH THEY WERE DUG. SETTLE BACKFILL MATERIAL FOR PLANTS, THOROUGHLY & PROPERLY, BY FIRING OR TAMPING. ACCOMPANY BACKFILLING WITH THOROUGH WATERING UNLESS OTHERWISE APPROVED. FORM SAUCER CAPABLE OF HOLDING WATER AROUND INDIVIDUAL PLANTS.
6. FERTILIZE SHRUB BEDS WITH 10-6-4 FERTILIZER AT THE RATE OF 9 POUNDS PER 100 SQUARE FEET OF SURFACE AREA, BROADCAST. APPLY THE FERTILIZER UNIFORMLY TO THE SURFACE BEDS AND WORK INTO THE UPPER TWO (2) INCHES OF SOIL. FERTILIZE INDIVIDUAL TREES AT THE RATE OF ONE (1) AGRIFORM PELLETT PER INCH OF TREE DIAMETER (FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS). APPLY A SECOND APPLICATION OF FERTILIZER TO ALL PLANT ITEMS AT THE SAME SPECIFIED RATES OVER THE MULCH AT THE END OF AN EIGHT WEEK PERIOD.
7. CONTAINER GROWN MATERIALS: REMOVE PLANT FROM CONTAINER AND "BUTTERFLY" ROOT BALL OR OTHERWISE SPREAD OUT ROOTS ON SETTING MOUND. BACKFILL SHALL BE SIFTED THROUGH THEM AND SOLIDLY FIRMED.
8. AFTER PLANTING PRUNE ONLY BROKEN OR DEFORMED BRANCHES AND IN SUCH MANNER AS TO PRESERVE NATURAL CHARACTER OF PLANT.
9. IMMEDIATELY AFTER PLANTING, STAKE TREES OVER FIVE (5) FEET AS INDICATED ON DETAIL DRAWING INDICATED OR APPROVED BY THE OWNER'S REPRESENTATIVE. REMOVE STAKES AT THE END OF GUARANTEE PERIOD.
10. MULCH SHALL BE APPLIED A MINIMUM OF THREE (3) INCHES IN DEPTH IN ALL PLANTING BEDS, AS INDICATED ON THE DRAWINGS.
11. THE PLANTS SHALL BE WATERED IMMEDIATELY FOLLOWING PLANTING, PREFERABLY WHEN TWO THIRDS OF THE BACKFILL HAS BEEN PLACED SO ALL AIR POCKETS ARE REMOVED AND THE PLANT PROPERLY SET. ADDITIONAL WATERING SHALL BE MADE AT LEAST ONCE EVERY THREE (3) WEEKS UNLESS OTHERWISE DIRECTED UNTIL FINAL ACCEPTANCE OF THE PLANT MATERIAL.
12. INSTALL WHITE MESH EROSION CONTROL FABRIC WHERE FINAL GRADES ARE 3:1 (33%) OR GREATER PER MANUFACTURER'S INSTRUCTIONS.
13. CONTRACTOR TO LOAM AND SEED ALL DISTURBED AREAS.
14. SEEDING NOTE: USE UNIVERSITY OF RHODE ISLAND IMPROVED SEED MIX NO. 2 OR EQUAL WITHIN ALL MAINTAINED LAWN AREAS.
15. FINAL PLACEMENT OF PLANTINGS TO BE COORDINATED WITH FINAL UTILITY LOCATIONS.



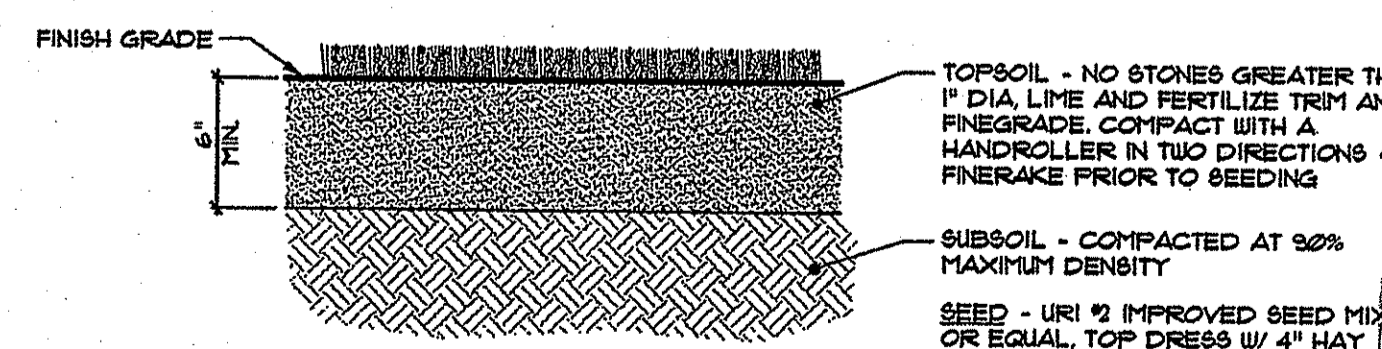
**1 TREE PLANTING & STAKING DETAIL**  
 NOT TO SCALE



**3 SHRUB PLANTING DETAIL**  
 NOT TO SCALE

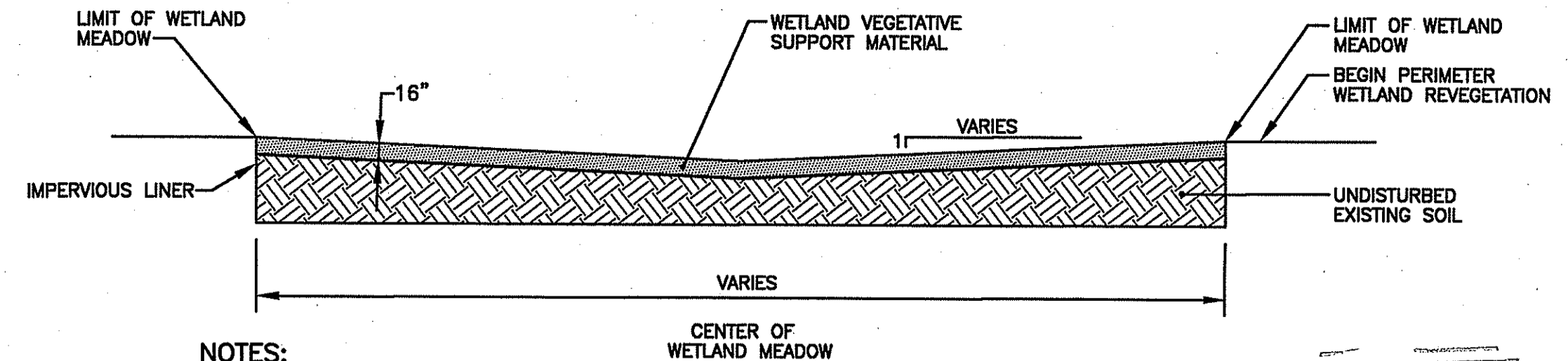
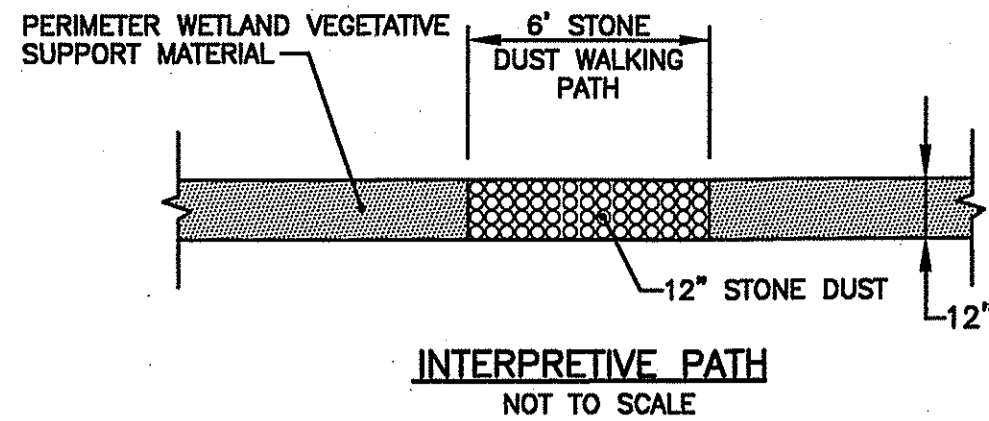
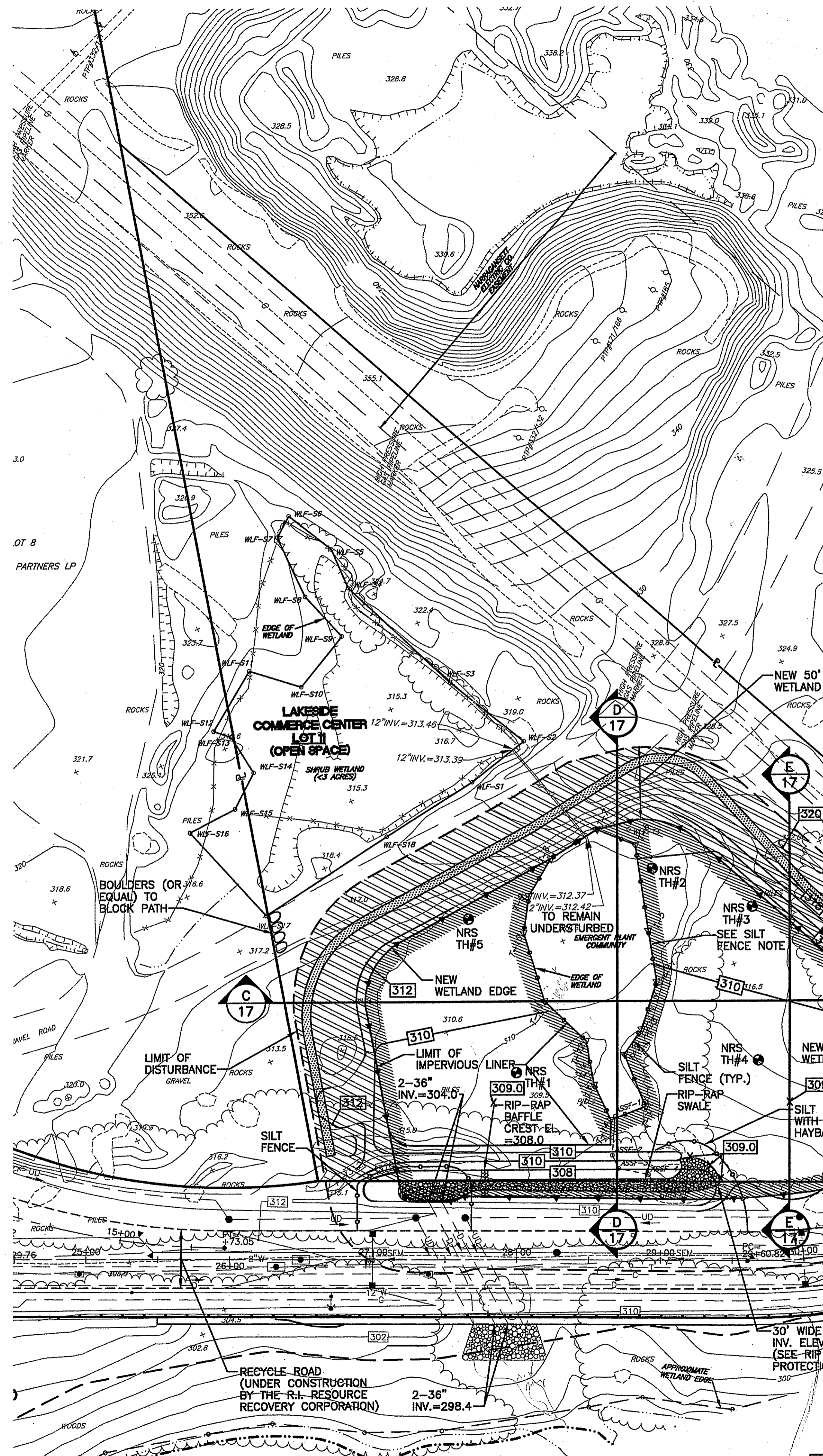


**2 EVERGREEN PLANTING & STAKING DETAIL**  
 NOT TO SCALE



**4 LOAM & SEED**  
 NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PERMIT  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED FEB 27 2009  
 FILE # 08-0081  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 THIS MUST BE AT THE END OF THE LETTER OF APPROVAL  
 Charles H. [Signature]



- LEGEND**
- EROSION CONTROLS
  - 6" INTERPRETIVE ACCESS PATH
  - CONSTRUCTED WET MEADOW (SEE WET MEADOW SEED MIX)
  - NEW ENGLAND ROADSIDE MATRIX WET MEADOW SEED MIX SPECIES:
    - GRASSES: CREEPING BENTGRASS (AGROSTIS STOLONIFERA), RIVERBANK WILD RYE (ELYMUS RIPARIUS), VIRGINIA WILD RYE (ELYMUS VIRGINICUS), CREEPING RED FESCUE (FESTUCA RUBRA), DEER TONGUE (PANICUM CLANDESTINUM), SWITCH GRASS (PANICUM VIRGATUM).
    - WILDFLOWERS: FLAT-TOP ASTER (ASTER UMBELLATUS), NODDING BUR-MARIGOLD (BIDENS CERNUA), JOE-PYE WEED (EUPATORIUM MACULATUM), BONESET (EUPATORIUM PERFORIATUM), BLUE VERVAIN (VERBENA HASTATA).
    - SHRUBS: SILKY DOGWOOD (CORNUS AMOMUM), STEEPLE BUSH (SPIRAEA TOMENTOSA), ARROWWOOD (VIBURNUM DENTATUM).
  - APPLICATION RATE: 35 LBS / ACRE OR 1,250 S.F. / LB.
  - RESTORED 50' PERIMETER WETLAND (SEE UPLAND SEED MIX)
  - NEW ENGLAND ROADSIDE MATRIX UPLAND SEED MIX SPECIES:
    - GRASSES: BIG BLUESTEM (ANDROPOGON GERARDII), VIRGINIA WILD RYE (ELYMUS VIRGINICUS), CREEPING RED FESCUE (FESTUCA RUBRA), SWITCH GRASS (PANICUM VIRGATUM), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), INDIANGRASS (SORGHASTRUM NUTANS).
    - WILDFLOWERS: BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA), NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE), PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), ROUND-HEADED BUSH CLOVER (LESPEDeza CAPITATA), WILD BLUE LUPINE (LUPINUS PERENNIS), EARLY GOLDENROD (SOLIDAGO JUNCEA), WHITE VERVAIN (VERBENA URTICIFOLIA), GOLDEN ALEXANDERS (ZIZIA AUREA).
    - SHRUBS: GRAY DOGWOOD (CORNUS RACEMOSA), STAGHORN SUMAC (RHUS TYPHINA).
  - APPLICATION RATE: 35 LBS / ACRE OR 1,250 S.F. / LB.

- NOTES:**
- WETLAND VEGETATIVE SUPPORT MATERIAL: 4" OF BIOSOLIDS COMPOST OR ORGANIC TOPSOIL BLENDED WITH 12" OF EXISTING SAND (24" OF EXISTING SAND OVER LINER).
  - PERIMETER WETLAND VEGETATIVE SUPPORT MATERIAL: 2" OF BIOSOLIDS COMPOST OR ORGANIC TOPSOIL BLENDED WITH 10" OF EXISTING SAND.
  - IMPERVIOUS LINER TO CONSIST OF ONE OF THE FOLLOWING SYSTEMS:
    - GEOSYNTHETIC CLAY LINER
    - 12" LAYER OF COMPACTED SILT OR CLAY

**TYPICAL WETLAND MEADOW CROSS-SECTION**  
NOT TO SCALE

**EXISTING CONDITIONS NOTE:**

EXISTING CONDITIONS SHOWN ON THE PLAN CONFORM TO CLASS IV STANDARD AND WERE COMPILED FROM PREVIOUS SURVEYS AND DESIGN PLANS PREPARED BY CROSSMAN ENGINEERING, INC. FOR LAKESIDE COMMERCE CENTER, AND FROM FIELD OBSERVATIONS IN MARCH 2008. RECYCLE ROAD (ROAD-A) IS CURRENTLY UNDER CONSTRUCTION BY THE R.I.R.C.

**WETLAND EDGE NOTE:**

WETLAND FLAGS WERE PLACED IN THE FIELD BY NATURAL RESOURCE SERVICES, INC. IN NOVEMBER 2007 AND LOCATED BY CROSSMAN ENGINEERING, INC. BY MANUAL SURVEY.

**NOTES FOR CONSTRUCTION OF WET MEADOW**

- REMOVE ALL DEBRIS AND OTHER INORGANIC MATERIALS ON ANY PREPARED SUBGRADES, AND RESHAPE AND DRESS ANY DAMAGED OR ERODED SLOPES, SWALES, AND OTHER AREAS. SCARIFY AND LOOSEN SUBGRADE TO A FRIABLE CONDITION IN ANY AREAS WHERE COMPACTION MAY HAVE OCCURRED. PLACE IMPERVIOUS LINER IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS OR ENGINEER'S DETAILS.
- WETLAND VEGETATIVE SUPPORT MATERIAL
  - SPREAD 6 INCHES OF COMPOST MIXTURE ON ALL DISTURBED AND BARE AREAS TO PRODUCE THE REQUIRED DEPTH SHOWN ON THE PLANS.
- PERIMETER WETLAND VEGETATIVE SUPPORT MATERIAL
  - SPREAD 2 INCHES OF COMPOST ON ALL DISTURBED AND BARE AREAS TO PRODUCE THE REQUIRED DEPTH SHOWN ON THE PLANS. FILL ALL DEPRESSIONS IN EXISTING GRADES WITH SUITABLE FILL MATERIAL AS REQUIRED PRIOR TO SPREADING COMPOST, THEN NARROW/TILL COMPOST INTO EXISTING MATERIAL TO A DEPTH OF 4 INCHES BELOW ORIGINAL SUBGRADE ELEVATIONS.
  - AREAS SHALL BE PROGRESSIVELY FINE GRADED AND MACHINE AND HAND RAKED, WITH COMPOST ADDED AS REQUIRED TO CORRECT DEPRESSIONS AND OTHER IRREGULARITIES, TO PRODUCE SMOOTH AND UNBROKEN FINISH GRADES AND THE DEPTH REQUIRED.
- DRAWINGS SHOW GRADING DESIGN INTENT TO ACHIEVE A UNIFORM GRADE NOT LESS THAN 0.5% SLOPE. FINISH GRADES SHALL CONFORM TO LINES, GRADES, SECTIONS, AND SHAPES OF AREAS AS REQUIRED. PROVIDE POSITIVE DRAINAGE. PROVIDE SMOOTH, UNIFORM, ROUNDED TRANSITIONS AT ALL CHANGES AND BREAK IN GRADE.
- THE WHOLE SURFACE SHALL THEN BE ROLLED WITH A HAND ROLLER WEIGHING NOT MORE THAN 100 POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT OR ROLLING SHALL BE FILLED WITH ADDITIONAL VEGETATIVE SUPPORT MATERIAL AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL A SMOOTH AND EVEN FINISHED GRADE IS CREATED.
- ALL RUTS OR OTHER VARIATIONS OF THE GROUND SURFACE RESULTING FROM EQUIPMENT ACCESS SHALL BE SMOOTHED AND PROVIDE A UNIFORM SURFACE THAT DOES NOT RESULT IN CHANNELIZED STORMWATER FLOW OUTSIDE OF DESIGNED DRAINAGE STRUCTURES. ALL TRUCKS AND EQUIPMENT NOT REQUIRED FOR SEEDING OPERATIONS SHALL BE PROHIBITED FROM GRADED AND SHAPED AREAS TO PREVENT DAMAGE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO RESTORE TO THE LINE, GRADE AND SURFACE DAMAGED, RUTTED OR ERODED AREAS WITH APPROVED MATERIAL AND TO KEEP PREPARED AREAS IN ACCEPTABLE CONDITION UNTIL THE ACCEPTANCE OF THE CONSTRUCTION WORK.

**PREPARATION OF AREAS FOR SEEDING**

- AREAS SHALL BE FINELY RAKED TO A FINISHED GRADE. SUBSTANTIALLY, ALL STICKS, LITTER, WIRE, WEEDS, CABLE OR STONES LARGER THAN ONE (1) INCH IN GREATER DIMENSION SHALL BE REMOVED AND DISPOSED OF AS DIRECTED.
- SLOPES 3:1 AND GREATER (WITH THE EXCEPTION OF THE SLOPE STABILIZATION SEEDING AREA) SHALL BE TRACKED WITH A DOZER, WITH TRACKS ORIENTED PERPENDICULAR TO THE DIRECTION OF WATER FLOW.
- NO SEEDING WILL BE PERMITTED ON AREAS WHERE THE SEED BED HAS NOT BEEN PROPERLY PREPARED.
- REQUEST INSPECTION OF THE WORK FOR APPROVAL BEFORE PROCEEDING WITH SEEDING.

**APPLICATION OF SEED**

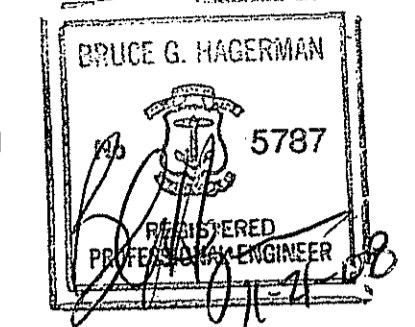
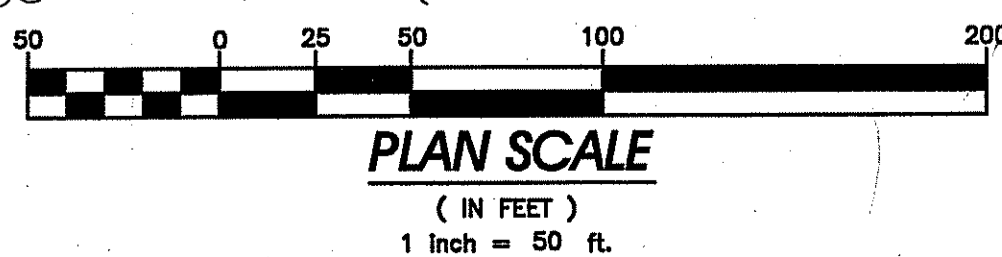
- THE APPROVED SEED MIXTURE SHALL BE PLANTED BY MEANS OF SEEDER DEVICE PENETRATING GROUND TO A DEPTH OF 1/4 INCH. SEEDER MACHINE SHALL BE EQUIPPED WITH DISC-TYPE PENETRATING ACTION AND SEEDER TUBES WHICH PLANT SEEDS. SEEDER MACHINE SHALL BE SIMILAR TO JACOBSON MODEL 524-100, 548100 OR APPROVED EQUAL.
- SEED SHALL BE APPLIED AS FOLLOWS:
  - WETLAND MEADOW: 35 LBS / ACRE
  - PERIMETER WETLAND: 35 LBS / ACRE
- WETLAND AND UPLAND SEEDING: DISTRIBUTE SEED OVER AREA IN TWO SEPARATE PASSES, EACH ONE PERPENDICULAR TO THE OTHER. EACH PASS SHALL BE IN A LINEAR PROGRESSION, AND SHALL CONFORM TO THE FIELD DIRECTION THAT PERMITS THE LONGEST STRAIGHT LINE APPLICATION PROCEDURE.
- SLOPE STABILIZATION SEEDING: APPLY SEED BY HYDROSEEDING. HYDROSEEDING SHALL BE BROADCAST DOWN INTO TWO APPLICATIONS; THE FIRST APPLICATION SHALL BE APPROXIMATELY 10% OF THE TOTAL PRODUCT AND SHALL CONSIST OF SEED AND TACK ONLY. THE SECOND APPLICATION SHALL BE THE REMAINING 90% OF THE PRODUCT AND CONSIST OF TACK AND MULCH.

**APPLICATION OF WEED CONTROL**

- POST-EMERGENT WEED CONTROL WILL BE PERMITTED ONLY IF DEEMED NECESSARY BY THE SUPERVISING WETLAND BIOLOGIST.
- APPLY POST-EMERGENT WEED CONTROL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

**WETLAND REPLICATION SUMMARY**

RESOURCE	IMPACT AREA (S.F.) ON LOT 15	REPLICATION AREA (S.F.) ON LOT 15	REPLICATION AREA (S.F.) ON LOT-11	TOTAL REPLICATION AREA (S.F.)
MARSH	45,437	14,069	66,613	80,682
50' PERIMETER WETLAND	61,334	10,400	62,409	72,809



**CROSSMAN ENGINEERING, INC.**  
151 Centerville Road  
Warwick, Rhode Island 02886  
Phone: (401) 738-5660 - Fax: (401) 738-8157  
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Web Page: www.crosmaneng.com

**Natural Resource Services, Inc.**  
86 Harrisville Main Street  
Harrisville, Rhode Island 02830  
Phone: (401) 568-7390 - Fax: (401) 568-7490

**RI RESOURCE RECOVERY CORPORATION**  
65 SHUN PIKE  
JOHNSTON, RHODE ISLAND 02919

**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

**MICHAEL V. D'AMBRA**  
800 JEFFERSON BOULEVARD  
WARWICK, RHODE ISLAND 02886

**WETLAND REPLICATION PLAN**

DATE: MARCH 2008 SCALE: AS NOTED

DWG. NAME: 1451-16-REPLICATION-REV1.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
APPROVED FOR WETLAND REPLICATION PLAN  
AS SPECIFIED IN THE PERMITS  
DATED FEB 27 2008 FILE # 08-0051  
NO CHANGES TO BE MADE WITHOUT APPROVAL  
APPROVED: [Signature]

**C-10**  
SHEET: 13 OF 20  
**AGENCY REVIEW SUBMISSION**



**CROSSMAN ENGINEERING, INC.**  
 151 Centerville Road  
 Warwick, Rhode Island 02886  
 Phone: (401) 738-5660 - Fax: (401) 738-8157  
 Email: ce@crossmaneng.com  
 Web Page: www.crossmaneng.com

WETLAND BIOLOGIST:



**Natural Resource Services, Inc.**  
 86 Harrisville Main Street  
 Harrisville, Rhode Island 02830  
 Phone: (401) 568-7390 - Fax: (401) 568-7490

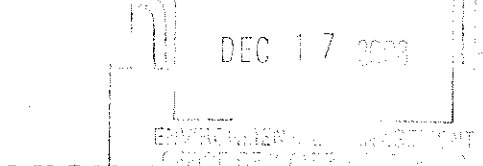
PROPERTY OWNER:

N/F  
**RI RESOURCE RECOVERY CORPORATION**  
 65 SHUN PIKE  
 JOHNSTON, RHODE ISLAND  
 02919

PROJECT TITLE:

**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

PREPARED FOR:



**MICHAEL V. D'AMBRA**  
 800 JEFFERSON BOULEVARD  
 WARWICK, RHODE ISLAND 02886

DRAWING TITLE:

**WETLAND REPLICATION CROSS SECTIONS PLAN**

DATE: MARCH 2008 SCALE: AS NOTED

DWG. NAME: 1451-17-X-SECT-REV1.dwg

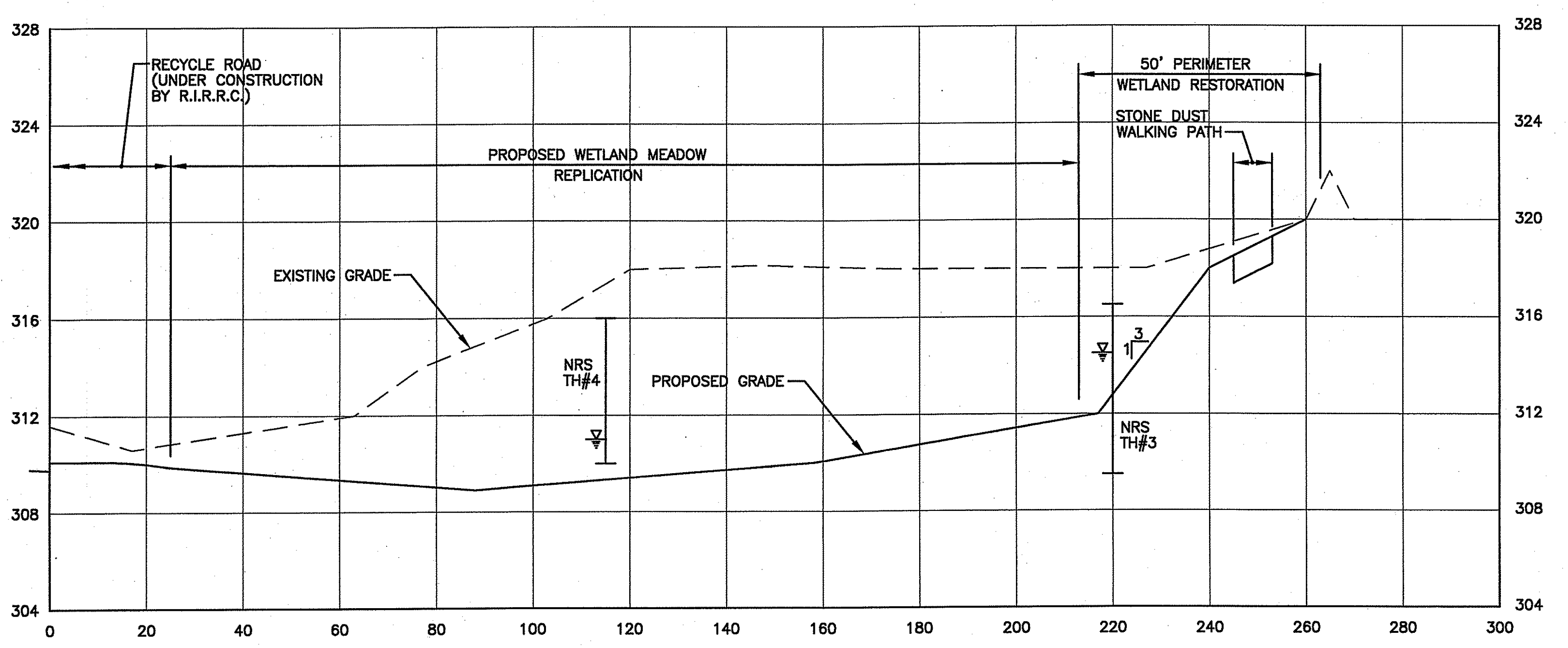
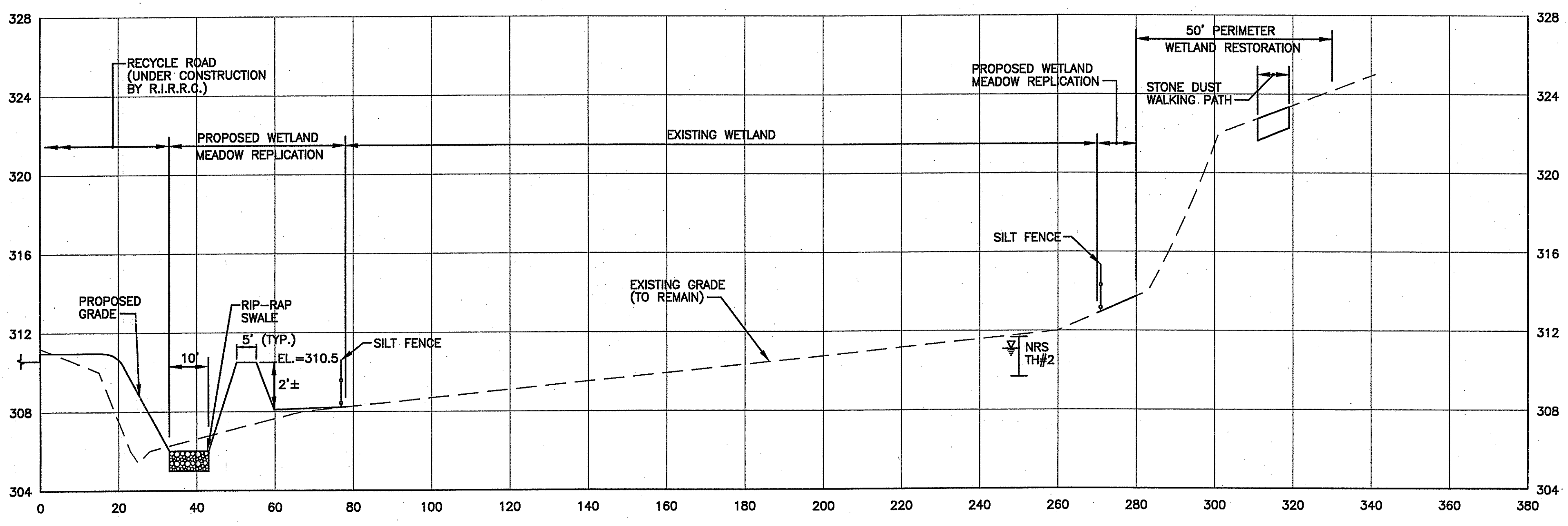
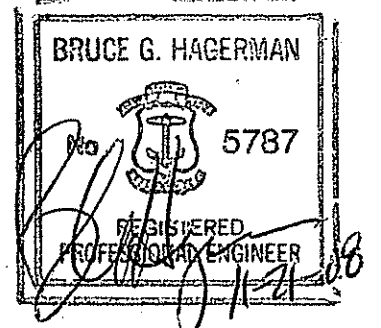
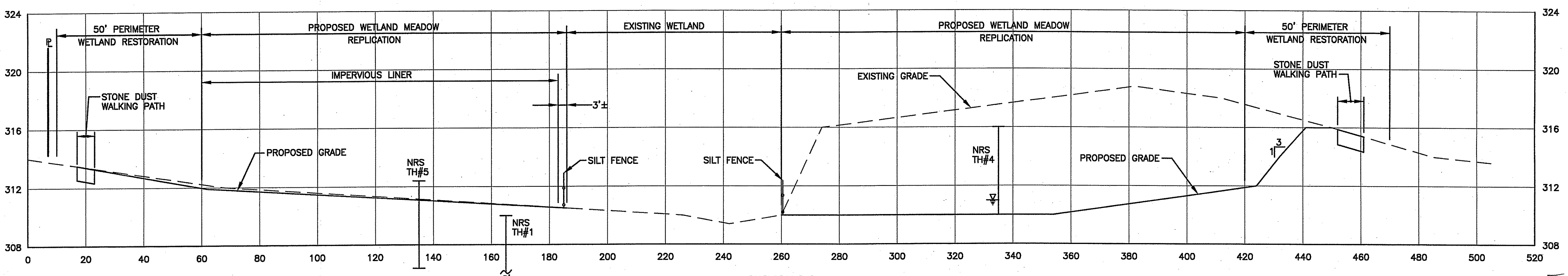
NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DRAWING NUMBER

**C-11**

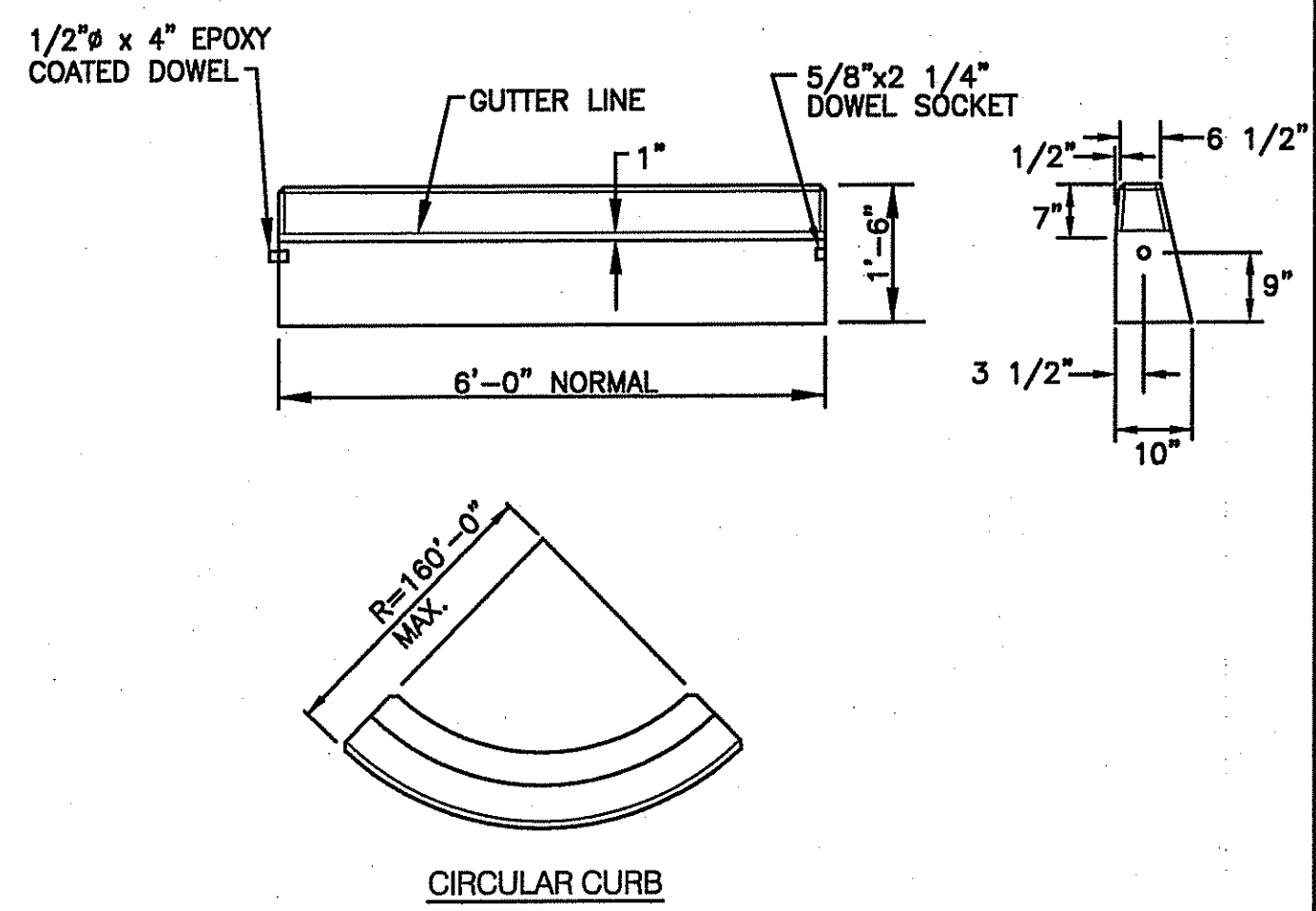
SHEET: 14 OF 20

AGENCY REVIEW SUBMISSION

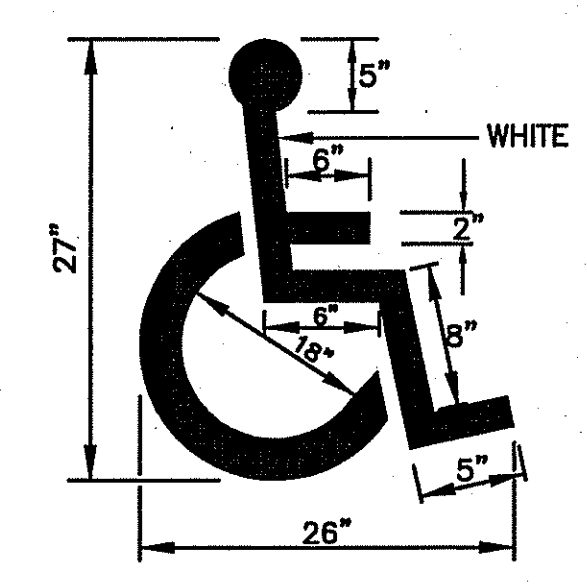


DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED FEB 27 2009 FILE # 08-0081  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
*Charles A. Hagerman*

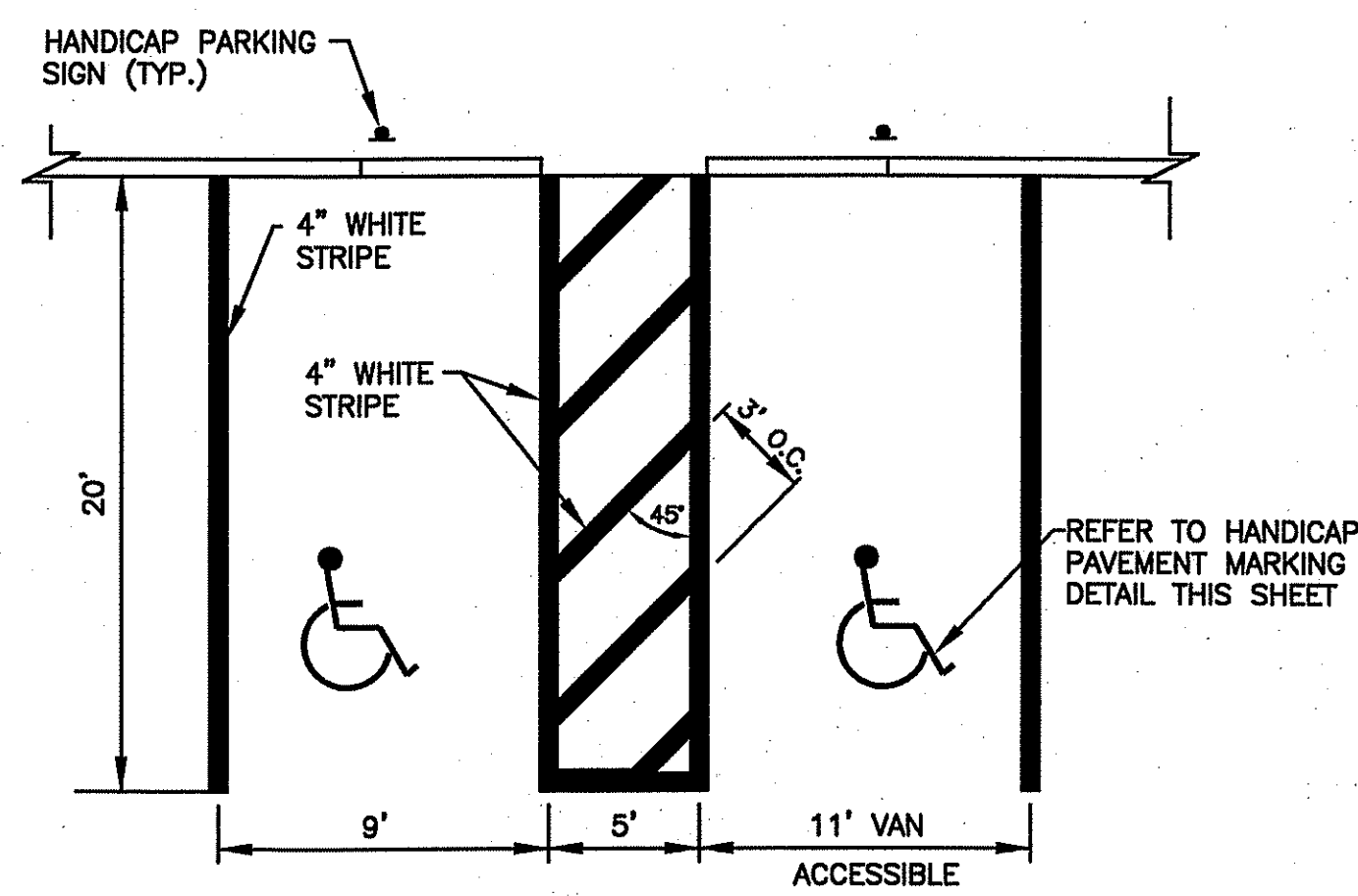
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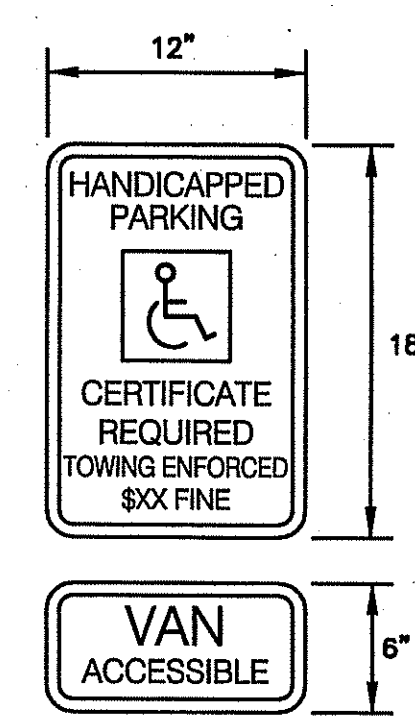
**PRECAST CONCRETE CURB**  
NOT TO SCALE



**HANDICAP PAVEMENT MARKING**  
NOT TO SCALE



**HANDICAP PARKING STALLS**  
NOT TO SCALE

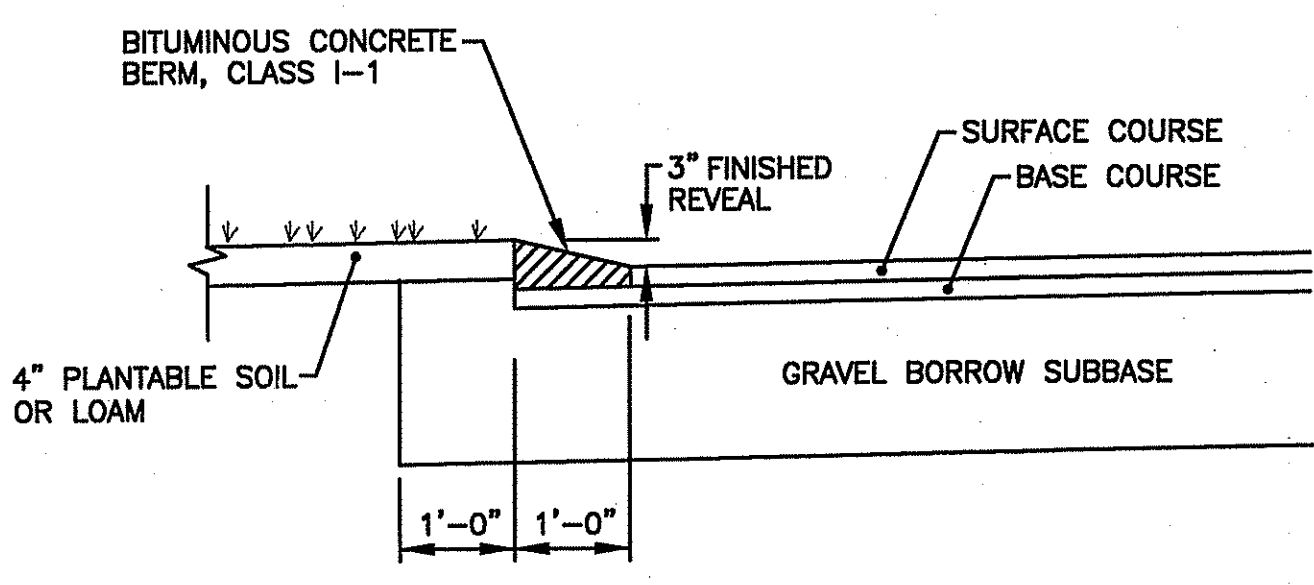


**PROPOSED HANDICAPPED PARKING SIGNS**  
NOT TO SCALE

- NOTES:**
- ALL LETTERS ARE 1" SERIES "C" PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
  - SIGN SHALL BE REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
  - CONTRACTOR SHALL VERIFY THE POSTED "FINE" AMOUNT WITH THE BUILDING OFFICIAL PRIOR TO INSTALLATION.
  - ONE (1) SIGN REQUIRED FOR EACH PARKING SPACE.
  - INSTALLED HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MUTCD.
  - SIGN MAY BE MOUNTED ON BUILDING/WALL, AT PROPER HEIGHT, ALIGNED WITHIN 12" OF CENTER OF THE PARKING SPACE.
  - ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE.

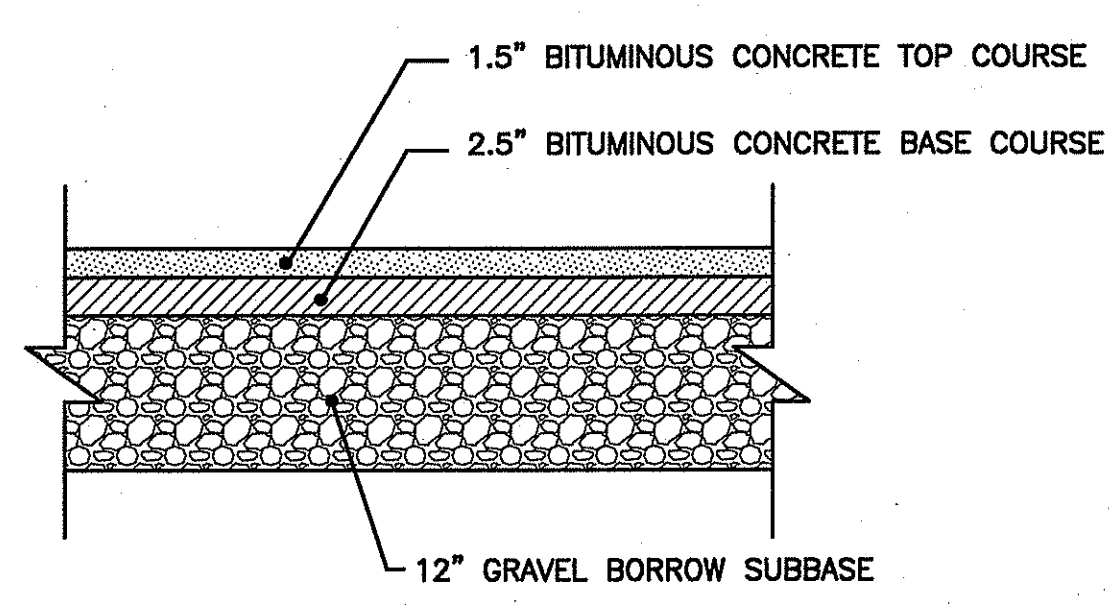
**SIGN NOTES:**

- SIGN POSTS SHALL BE GALVANIZED STEEL U-CHANNEL (3 1/2" WIDE-MIN.) AND INSTALLED IN CONFORMANCE WITH MUTCD AND LOCAL STANDARDS AND SPECIFICATIONS.
- POSTS SHALL BE DRIVEN TO A DEPTH OF 4 FEET (MIN.)
- THE EDGE OF THE SIGN SHALL BE 18" FROM THE FACE OF THE CURB.
- WITHIN SIDEWALK LOCATIONS THE SIGN POST WILL BE INSTALLED WITHIN A 8"x8"x6" SQUARE BOX FORM.



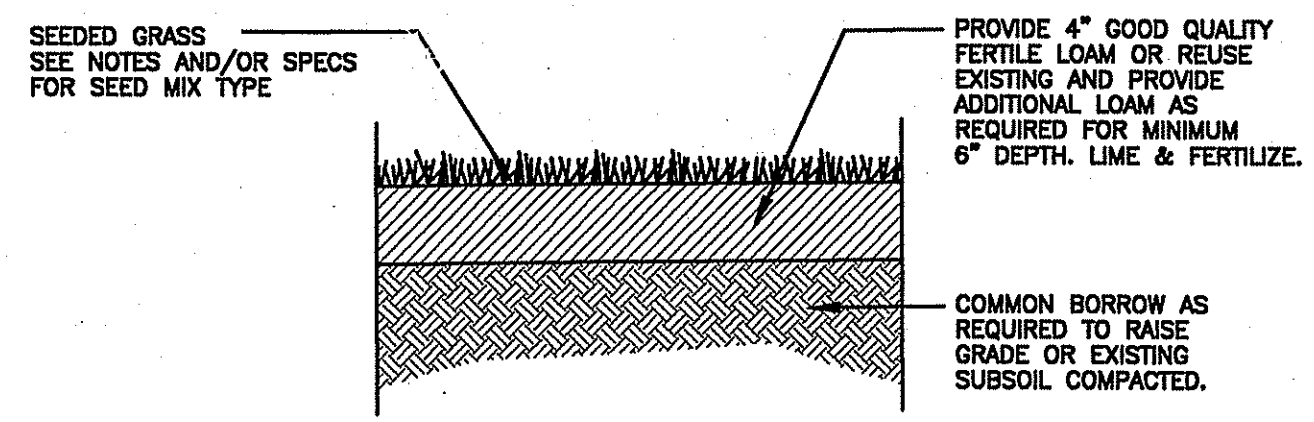
**BITUMINOUS CONCRETE BERM**  
NOT TO SCALE

**NOTE:**  
BERM SHALL BE MONOLITHIC PLACED WITH TOP COURSE OF BITUMINOUS PAVEMENT.



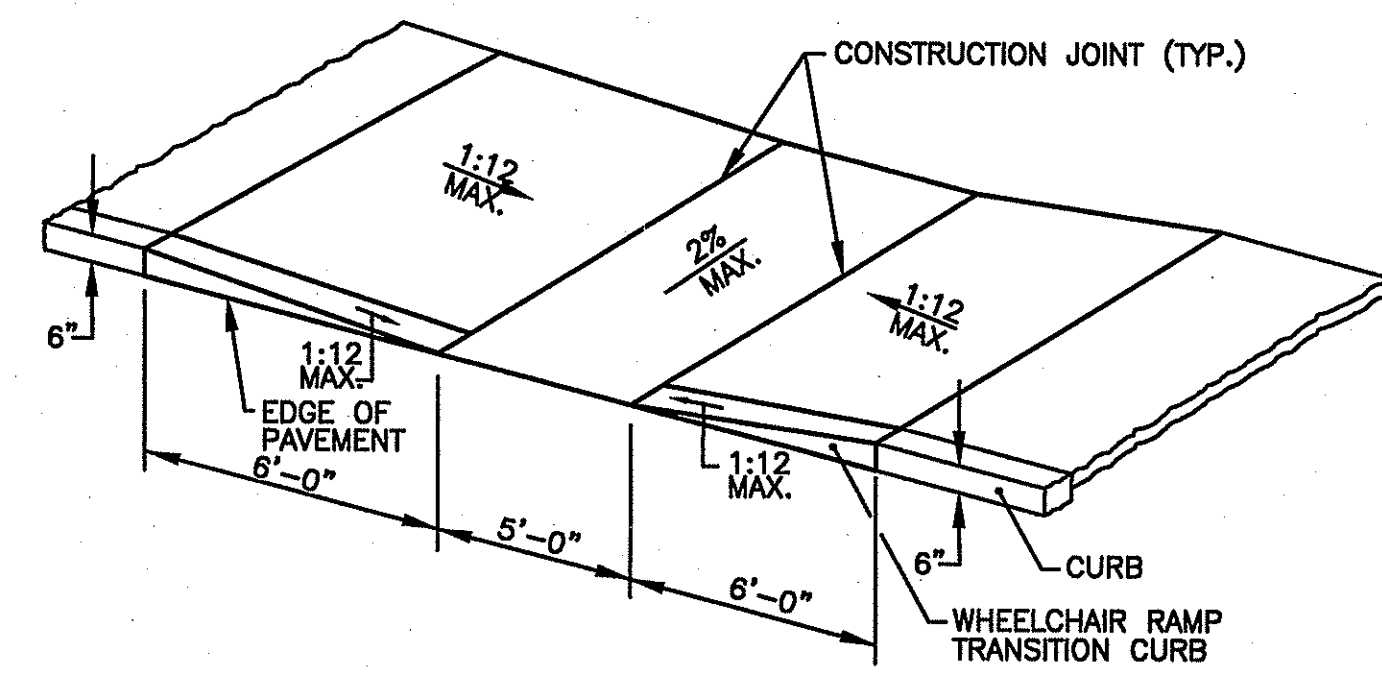
**TYPICAL PAVEMENT STRUCTURE DETAIL**  
NOT TO SCALE

**NOTE:**  
PAVEMENT DEPTH TO BE CONFIRMED BY A GEOTECHNICAL ENGINEER BASED UPON SITE SPECIFIC SOIL CONDITIONS AND EXPECTED TRAFFIC LOADS.



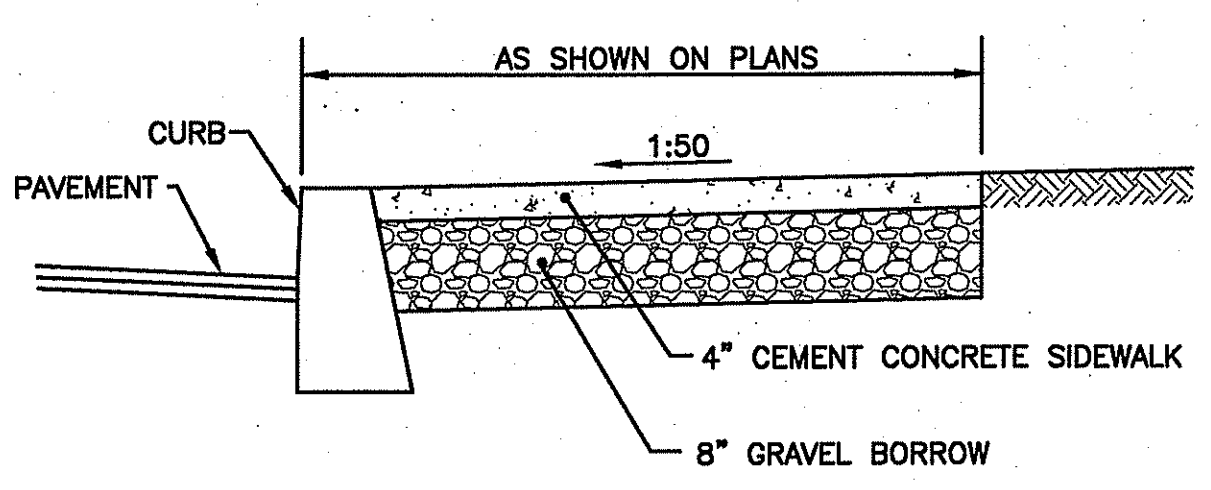
**LOAM-SEED DETAIL**  
NOT TO SCALE

**NOTE:**  
MAINTENANCE PERSONEL WILL BE RESPONSIBLE FOR WATERING LAWN DURING THE COURSE OF THE GROWING SEASON.

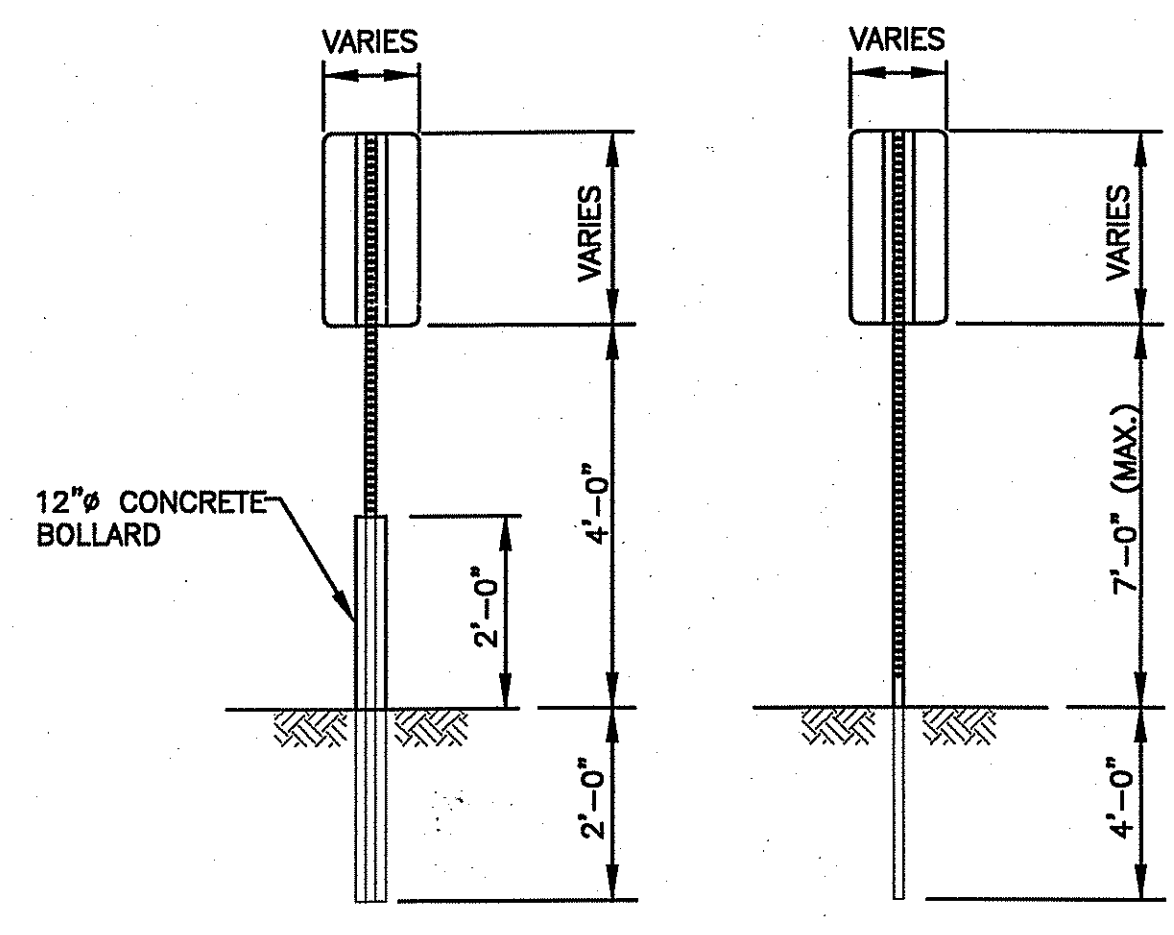


**WHEELCHAIR RAMP DETAIL**  
NOT TO SCALE

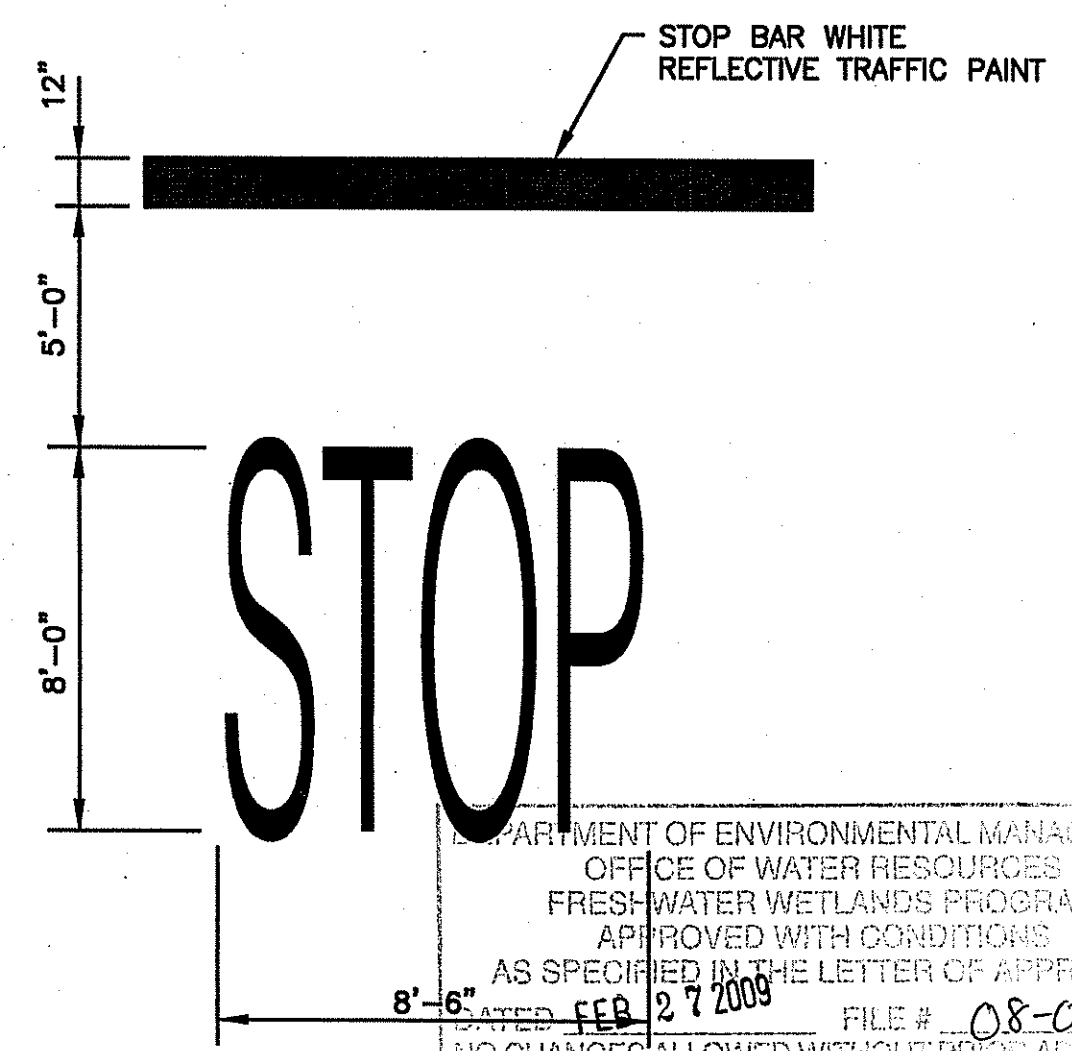
**NOTE:**  
ALL WHEELCHAIR RAMPS SHALL BE IN ACCORDANCE WITH THE LOCAL DOT STANDARDS, STATE BUILDING CODE AND ADA REQUIREMENTS.



**CEMENT CONCRETE SIDEWALK DETAIL**  
NOT TO SCALE

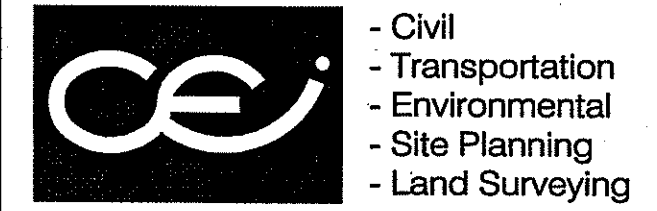


**SIGN MOUNTING DETAIL**  
NOT TO SCALE

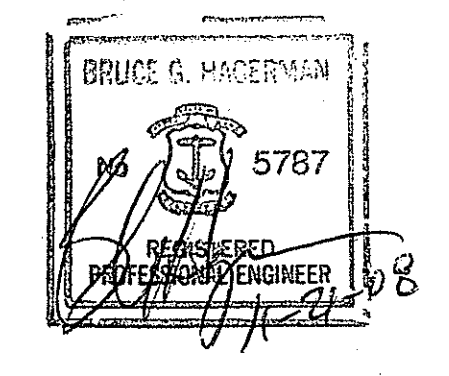


**STOP BAR DETAIL**  
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESH WATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED FEB 27 2009 FILE # 08-0081  
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE



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Email: ce@crossmaneng.com  
Web Page: www.crossmaneng.com



**PROPERTY OWNER:**  
N/F  
**RI RESOURCE RECOVERY CORPORATION**  
65 SHUN PIKE  
JOHNSTON, RHODE ISLAND  
02919

**PROJECT TITLE:**  
**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

**PREPARED FOR:** RECEIVED  
DEC 17 2008  
**MICHAEL V. D'AMBRA**  
800 JEFFERSON BOULEVARD  
WARWICK, RHODE ISLAND 02886

**DRAWING TITLE:**  
**MISCELLANEOUS DETAIL PLAN No. 1**

**DATE:** MARCH 2008 **SCALE:** NO SCALE

**DWG. NAME:** 1451-18-DET1-REV1.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

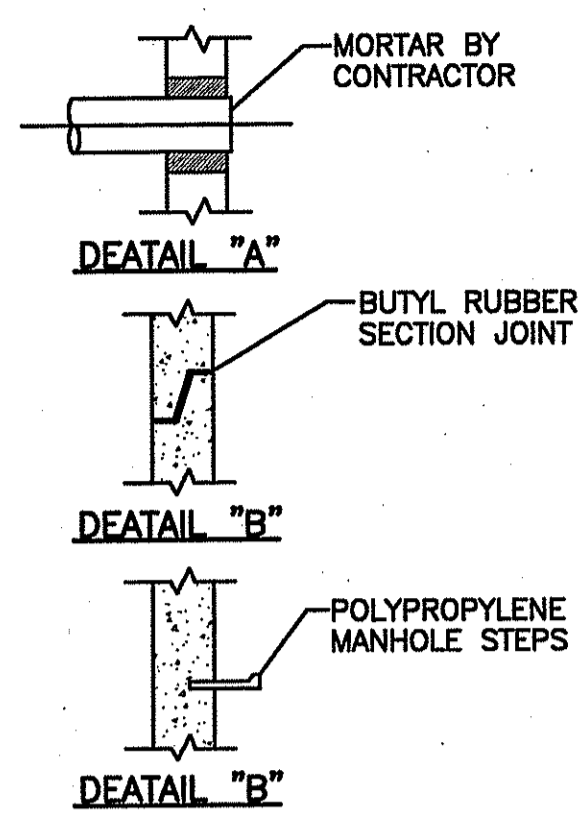
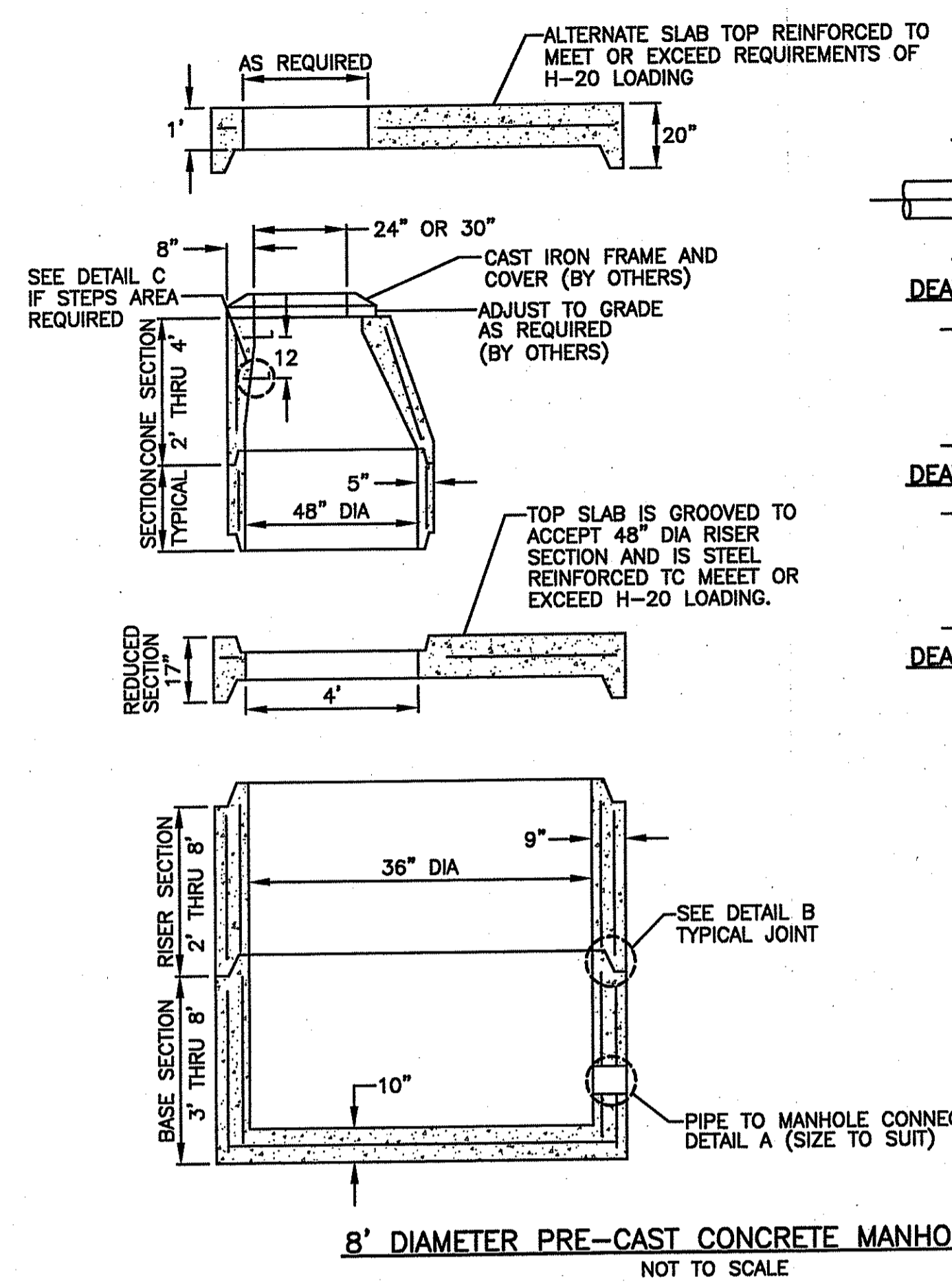
**DRAWING NUMBER**

**C-12**

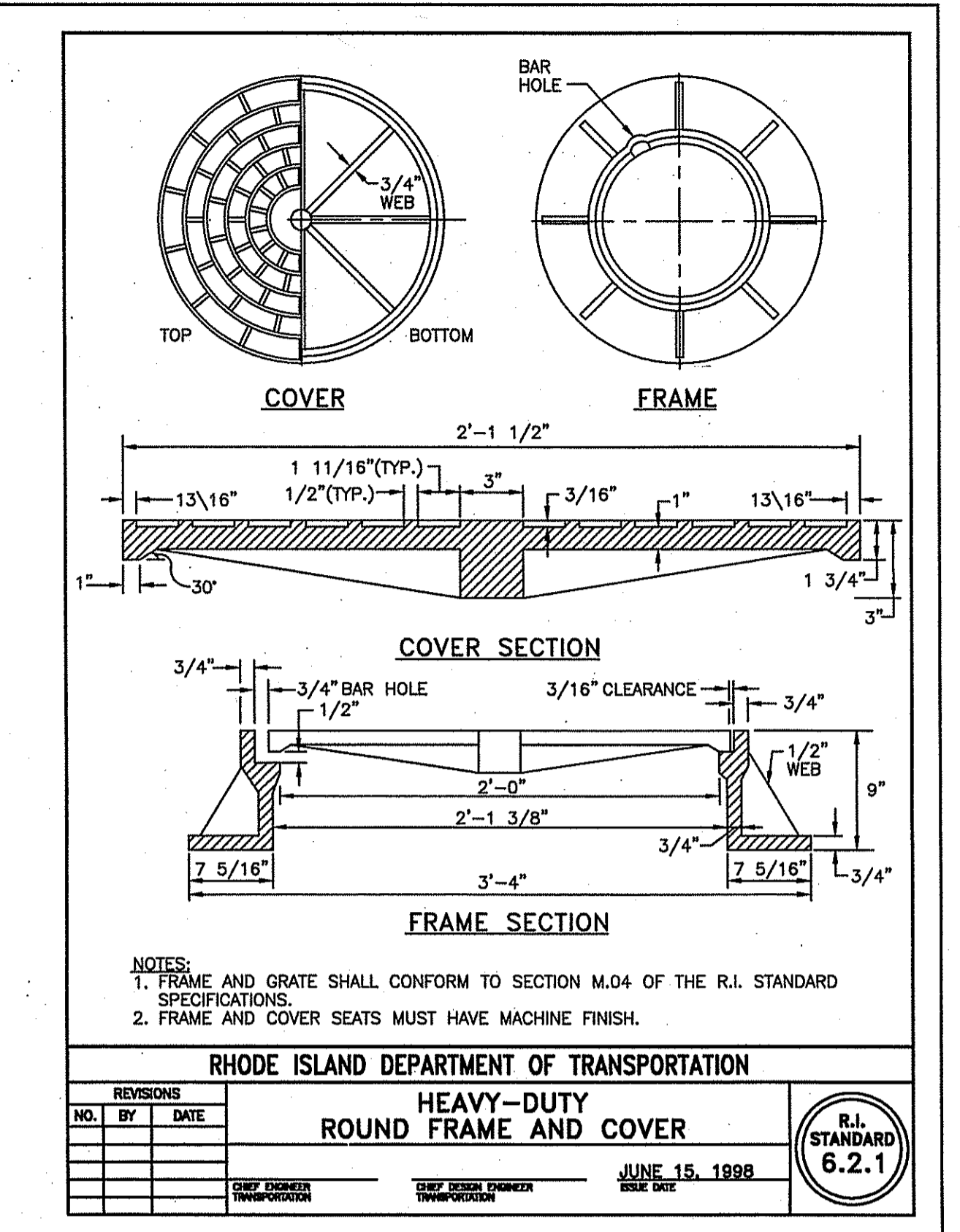
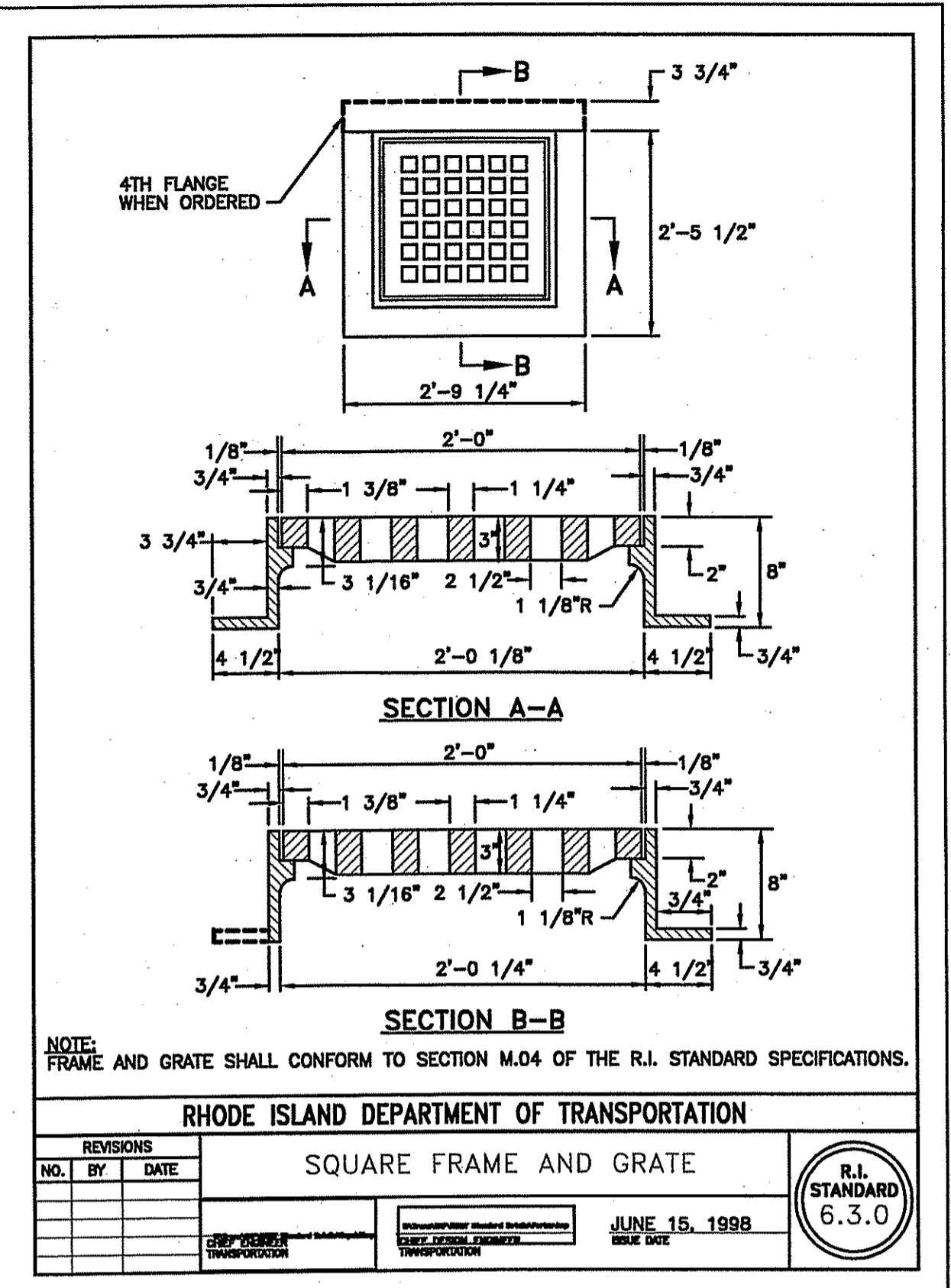
SHEET 15 OF 20

**AGENCY REVIEW SUBMISSION**

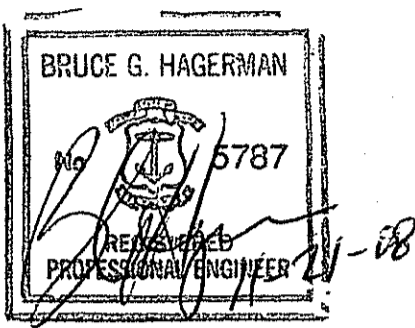
\\1451 - D'Ambra Construction\ACAD Dwg\RIDEM Wetlands Submission\11-08\1451-18-DET1-REV1.dwg, 11/21/2008 9:02:41 AM, Oce TDS600 3.x.pc3



- NOTES:**
1. MANUFACTURED TO MEET OR EXCEED ASTM C-478 AND AASHTO M 199 SPECS.
  2. REINFORCED STEEL CONFIRMS TO LATEST ASTM A 185 SPECS, 0.24 SQ. IN./LINEAL FT. AND 0.24 SQ. IN. (BOTH WAYS) BASE BOTTOM.
  3. CONCRETE=4000 PSI MINIMUM. CEMENT PER ASTM C-478(6.1).
  4. MANHOLE STEPS-POLYPROPYLENE COATED GRADE 60 REINFORCING BAR, PER ASTM C-478 AND O.S.H.A.(STD 1-1.9).
  5. BUTYL RUBBER JOINT SEALANT PER ASTM C-990 AND FED SS-S-210A.
  6. WATER PROOFING PER CONTRACT SPEC. AS REQUIRED.
  7. STEEL REINFORCEMENT TO MEET OR EXCEED H-20 LOADING.
  8. ONE POUR MONOLITHIC BASE SECTION.
  9. MANHOLE TO BE SCITUATE-RAY PRECAST MODEL OR EQUAL.



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Web Page: www.crossmaneng.com



**PROPERTY OWNER:**  
N/F  
**RI RESOURCE RECOVERY CORPORATION**  
65 SHUN PIKE  
JOHNSTON, RHODE ISLAND  
02919

**PROJECT TITLE:**  
**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

**PREPARED FOR:**  
MICHAEL V. D'AMBRA  
800 JEFFERSON BOULEVARD  
WARWICK, RHODE ISLAND 02886

**DRAWING TITLE:**  
MISCELLANEOUS DETAIL  
PLAN No. 2

**DATE:** MARCH 2008  
**SCALE:** NO SCALE

**DWG. NAME:** 1451-19-DET2-REV1.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

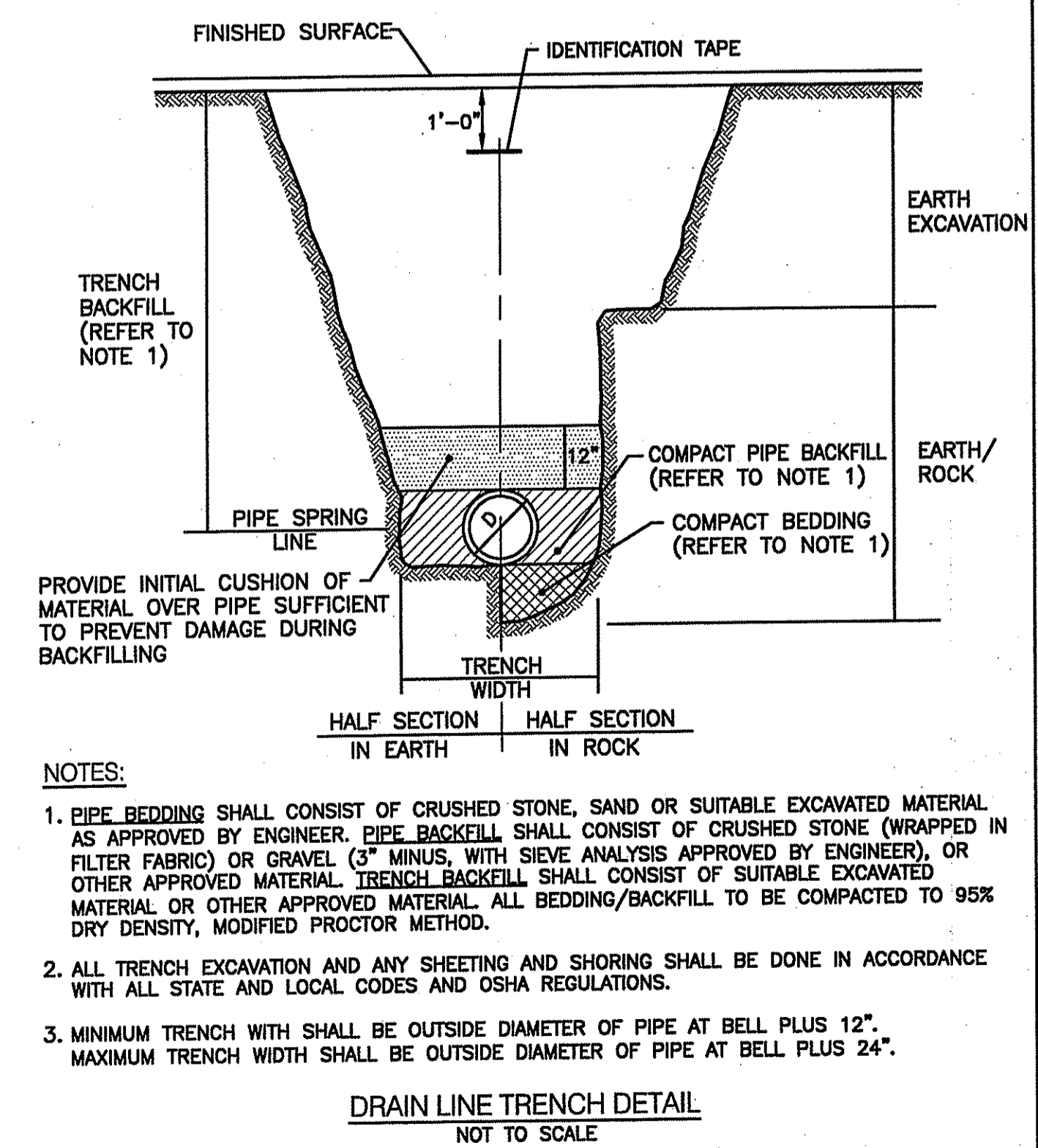
APPROVED FOR CONSTRUCTION  
DATE: 2/7/2009  
FILE # 08-0081

**DRAWING NUMBER:**

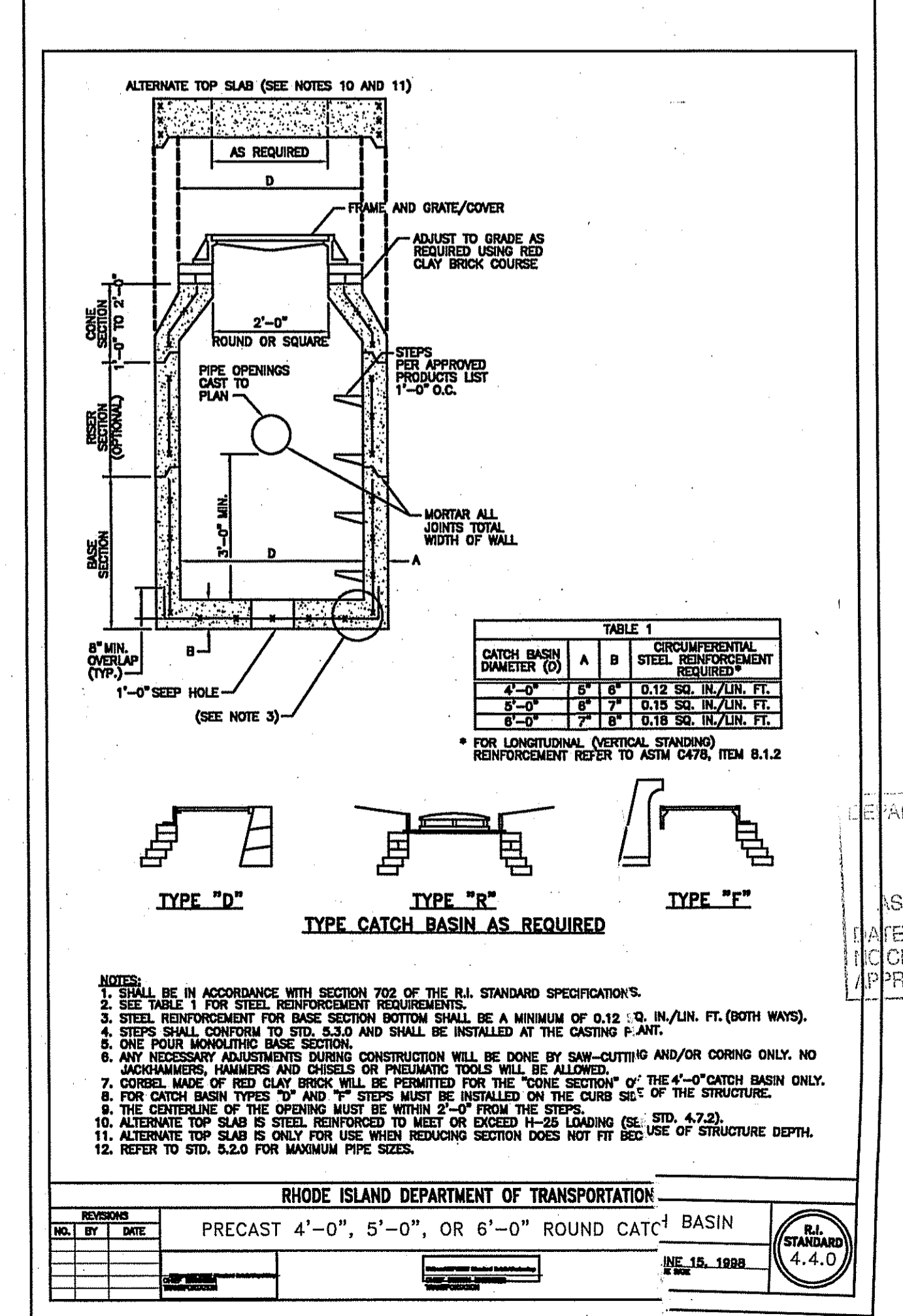
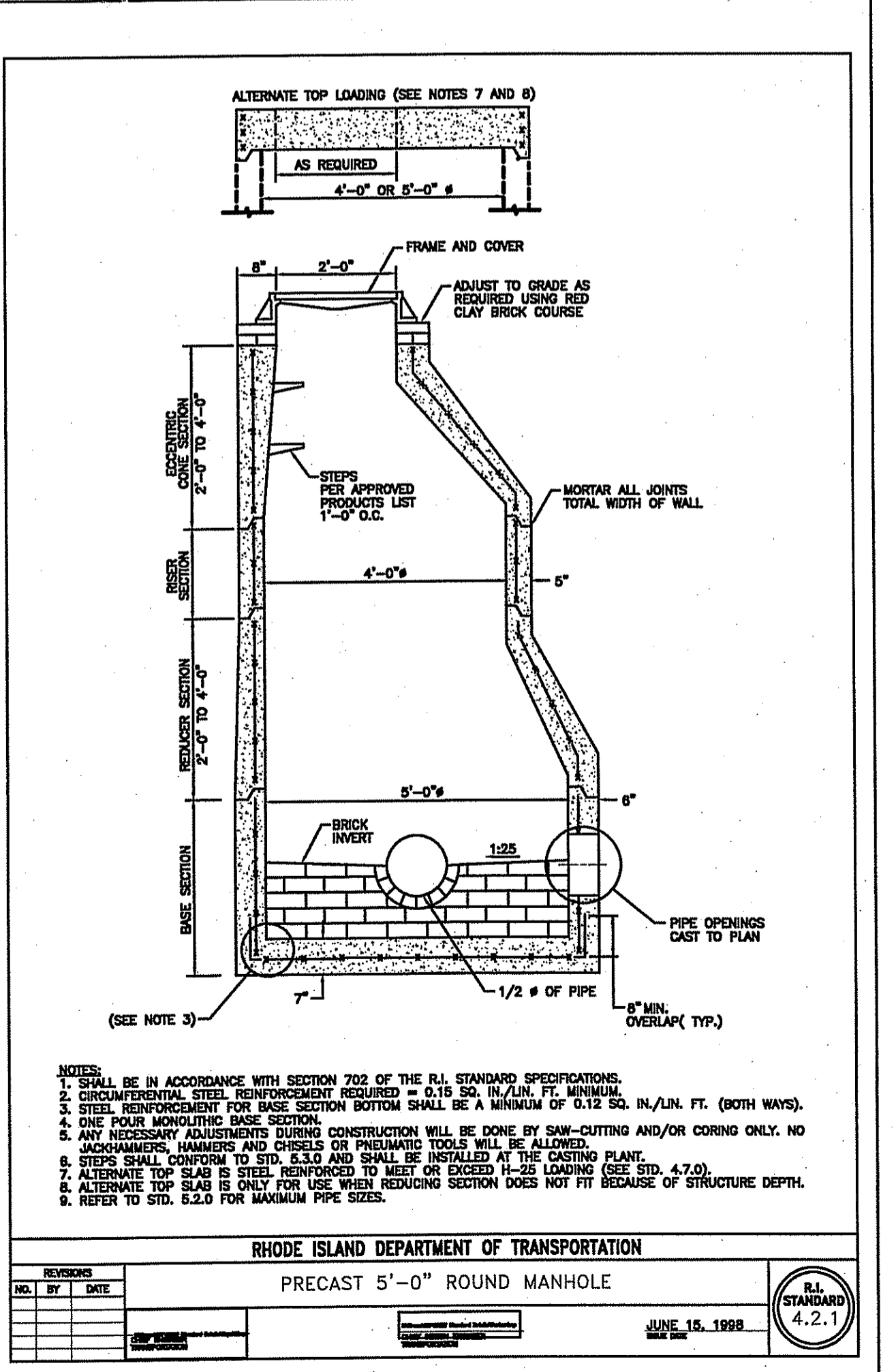
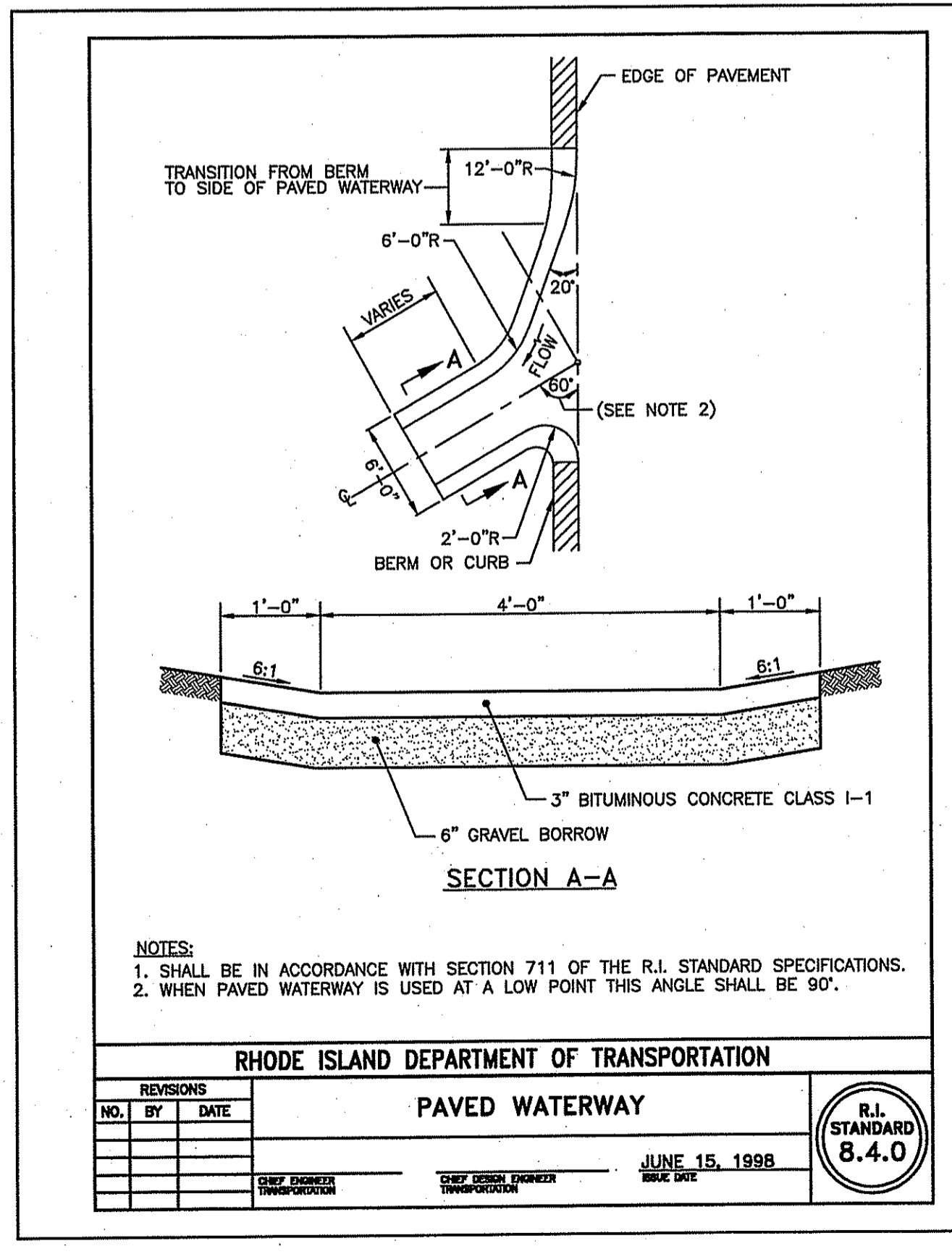
**C-13**

SHEET 16 OF 20

**AGENCY REVIEW SUBMISSION**



- NOTES:**
1. PIPE BEDDING SHALL CONSIST OF CRUSHED STONE, SAND OR SUITABLE EXCAVATED MATERIAL AS APPROVED BY ENGINEER. PIPE BACKFILL SHALL CONSIST OF CRUSHED STONE (WRAPPED IN FILTER FABRIC) OR GRAVEL (3" MINUS, WITH SIEVE ANALYSIS APPROVED BY ENGINEER), OR OTHER APPROVED MATERIAL. TRENCH BACKFILL SHALL CONSIST OF SUITABLE EXCAVATED MATERIAL OR OTHER APPROVED MATERIAL. ALL BEDDING/BACKFILL TO BE COMPACTED TO 95% DRY DENSITY, MODIFIED PROCTOR METHOD.
  2. ALL TRENCH EXCAVATION AND ANY SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND OSHA REGULATIONS.
  3. MINIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 12". MAXIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 24".



APPROVED FOR CONSTRUCTION  
DATE: 2/7/2009  
FILE # 08-0081

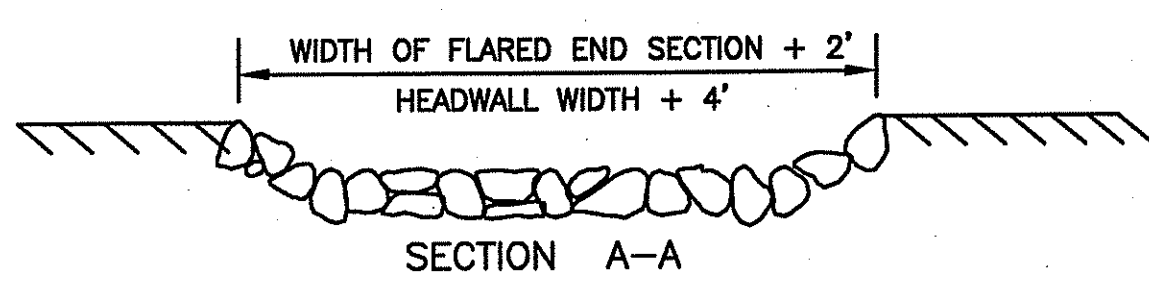
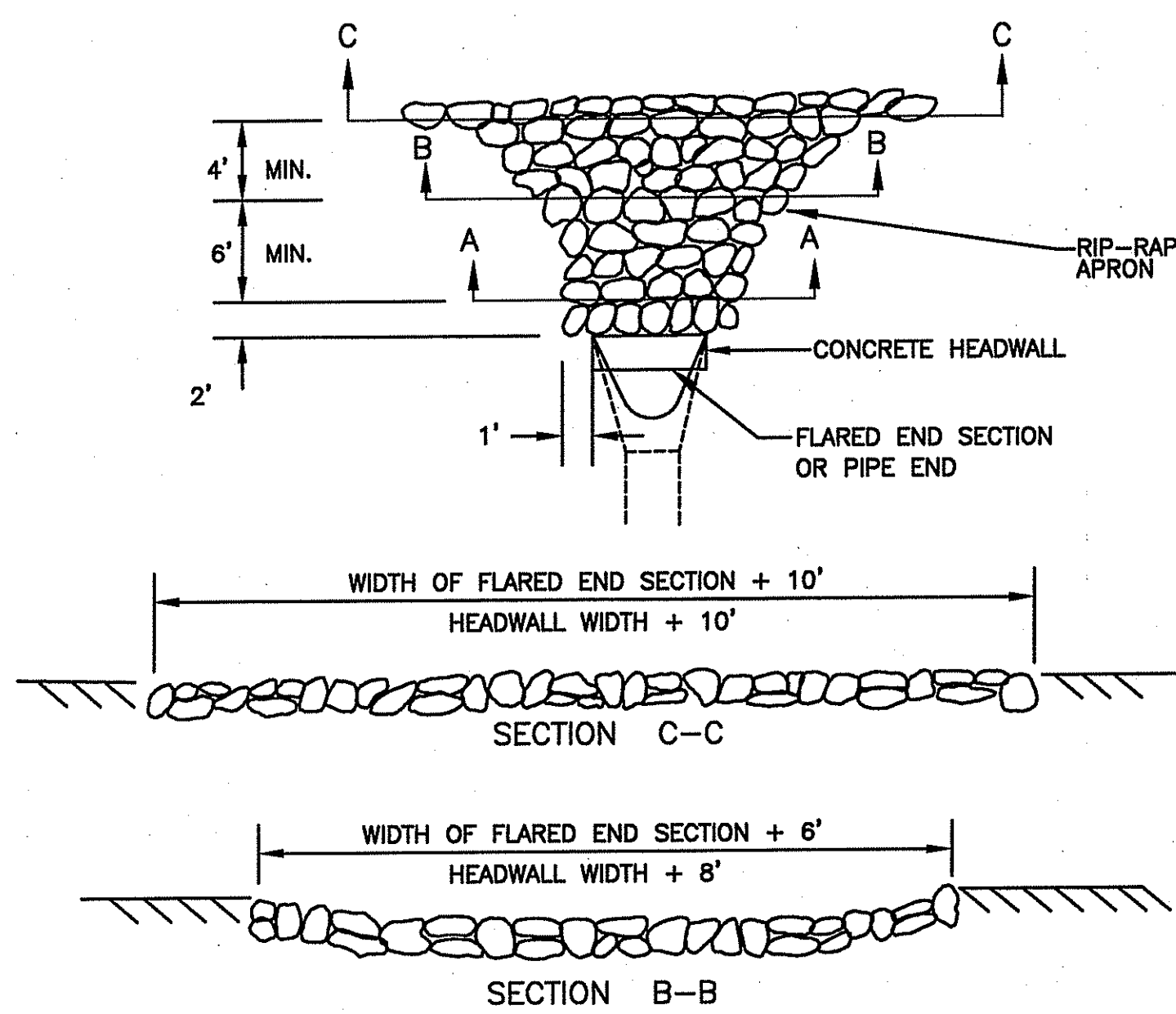
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**C-13**

SHEET 16 OF 20

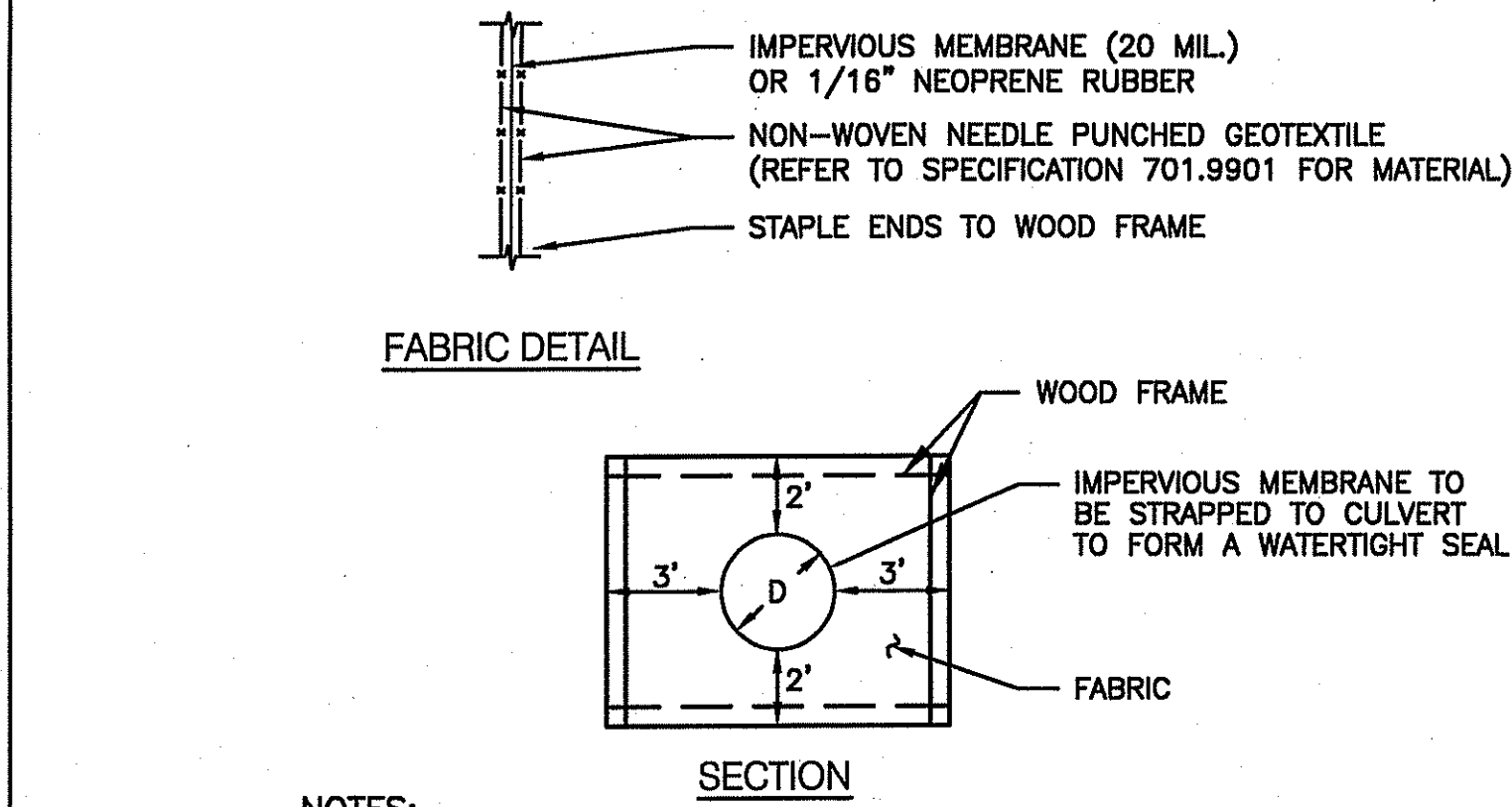
**AGENCY REVIEW SUBMISSION**

D:\1451 - D'Ambra Construction\ACAD Dwg\RIDEM Wetlands Submissions\RIDEM Submission 11-08\1451-19-DET2-REV1.dwg, 11/21/2008 9:03:15 AM, Cee TDS600 3.x.pcs



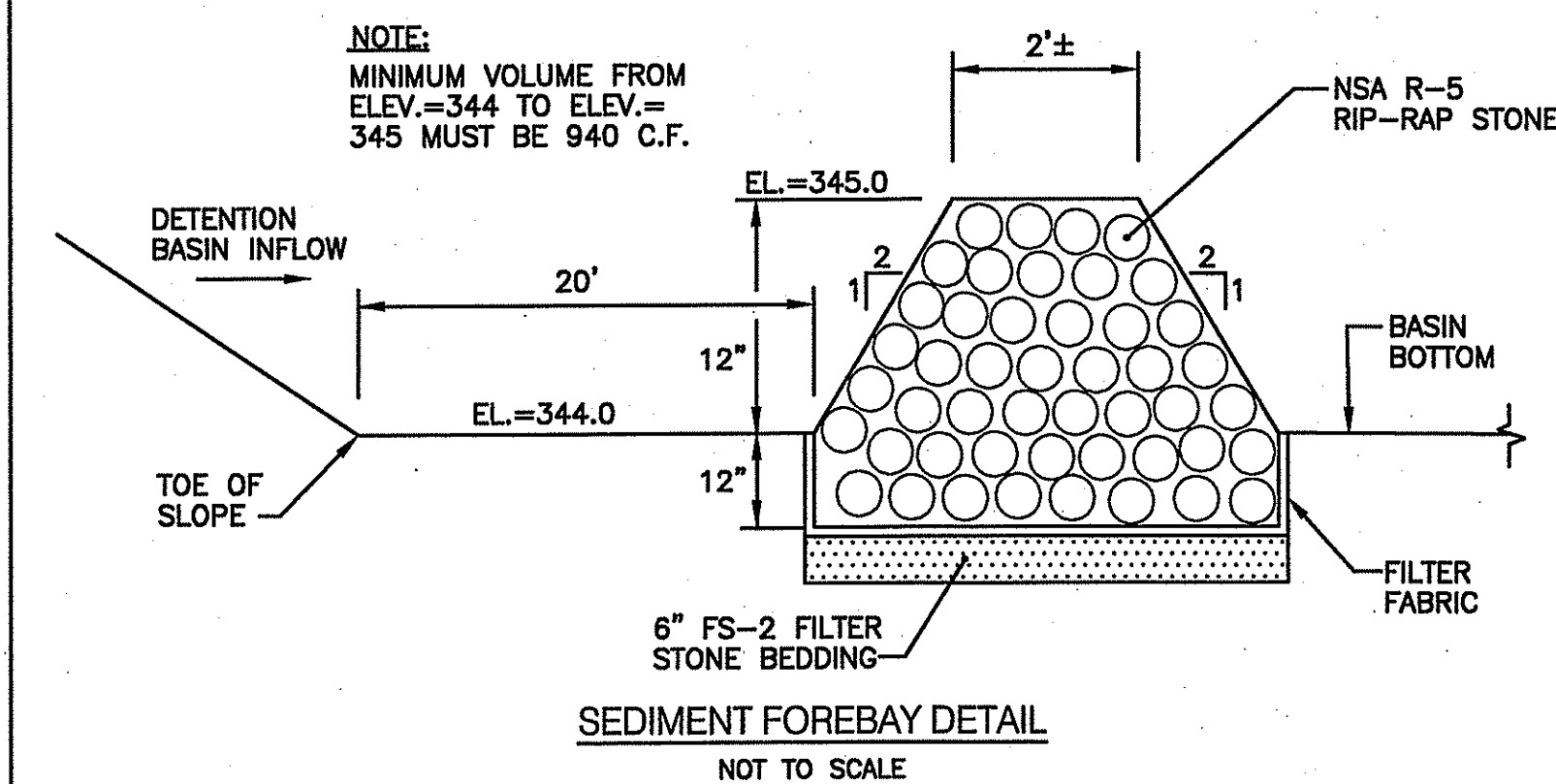
- NOTES:**
- UNLESS OTHERWISE SPECIFIED, DUMPED RIP-RAP SHALL BE USED.
  - DIMENSIONS MAY BE MODIFIED BY ENGINEER TO MEET FIELD CONDITIONS, OR AS SHOWN ON THE PLANS.
  - SEE TYPICAL SECTION DETAIL.

TYPICAL LAYOUT OF RIP-RAP OUTLET PROTECTION  
NOT TO SCALE

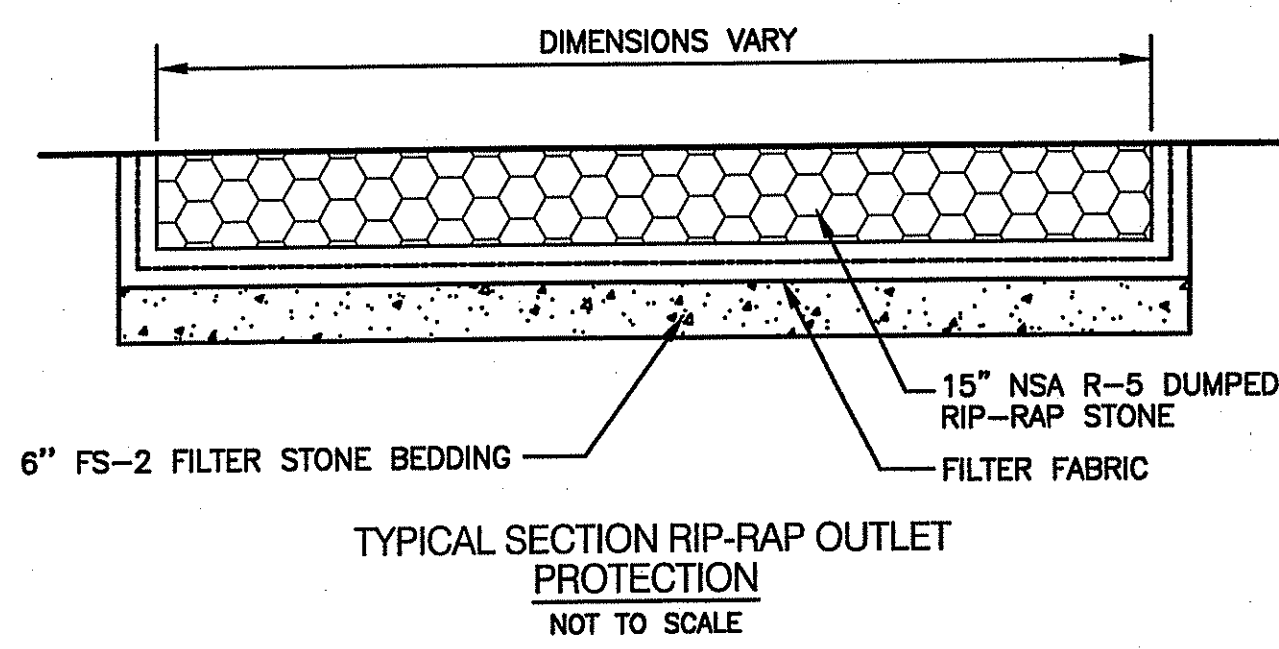


- NOTES:**
- ALL CULVERTS EXITING THE DETENTION POND SHALL HAVE AN "ANTI-SEEP COLLAR" INSTALLED AT THEIR MID LENGTH.
  - THE STRAP SHALL BE SUBJECT TO ENGINEER'S APPROVAL. THE STRAP MAY BE A POLYPROPYLENE CORD WITH A TENSILE STRENGTH OF 200 POUNDS AND SHALL PROVIDE A PERMANENT, NON-SLIP, TIE.

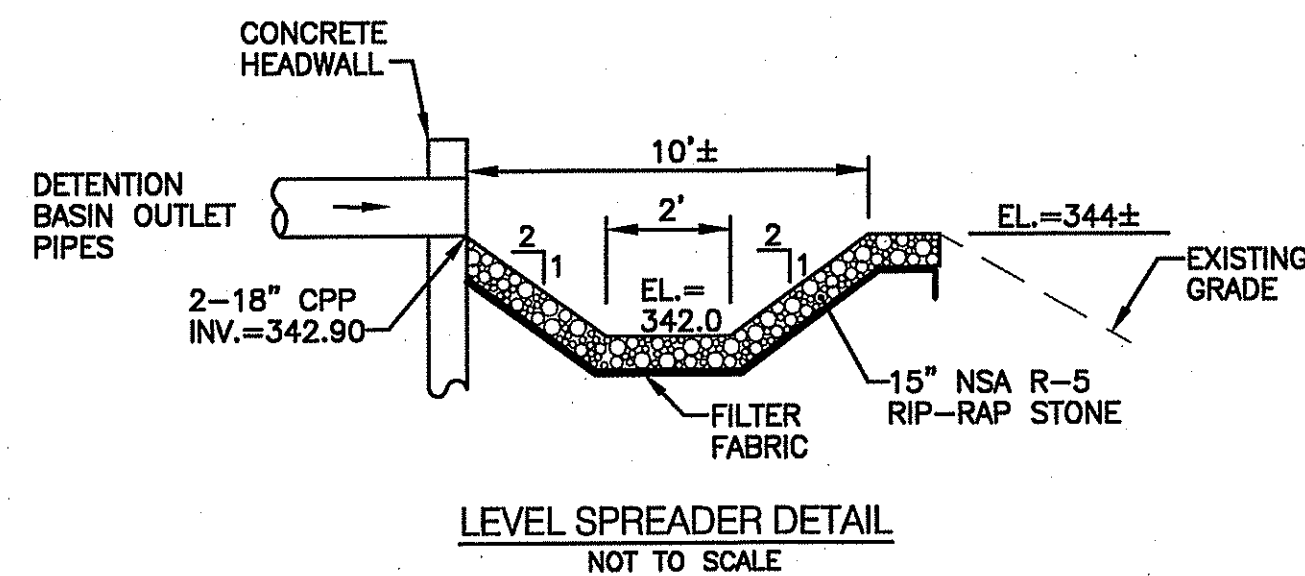
ANTI-SEEP COLLAR DETAILS  
NOT TO SCALE



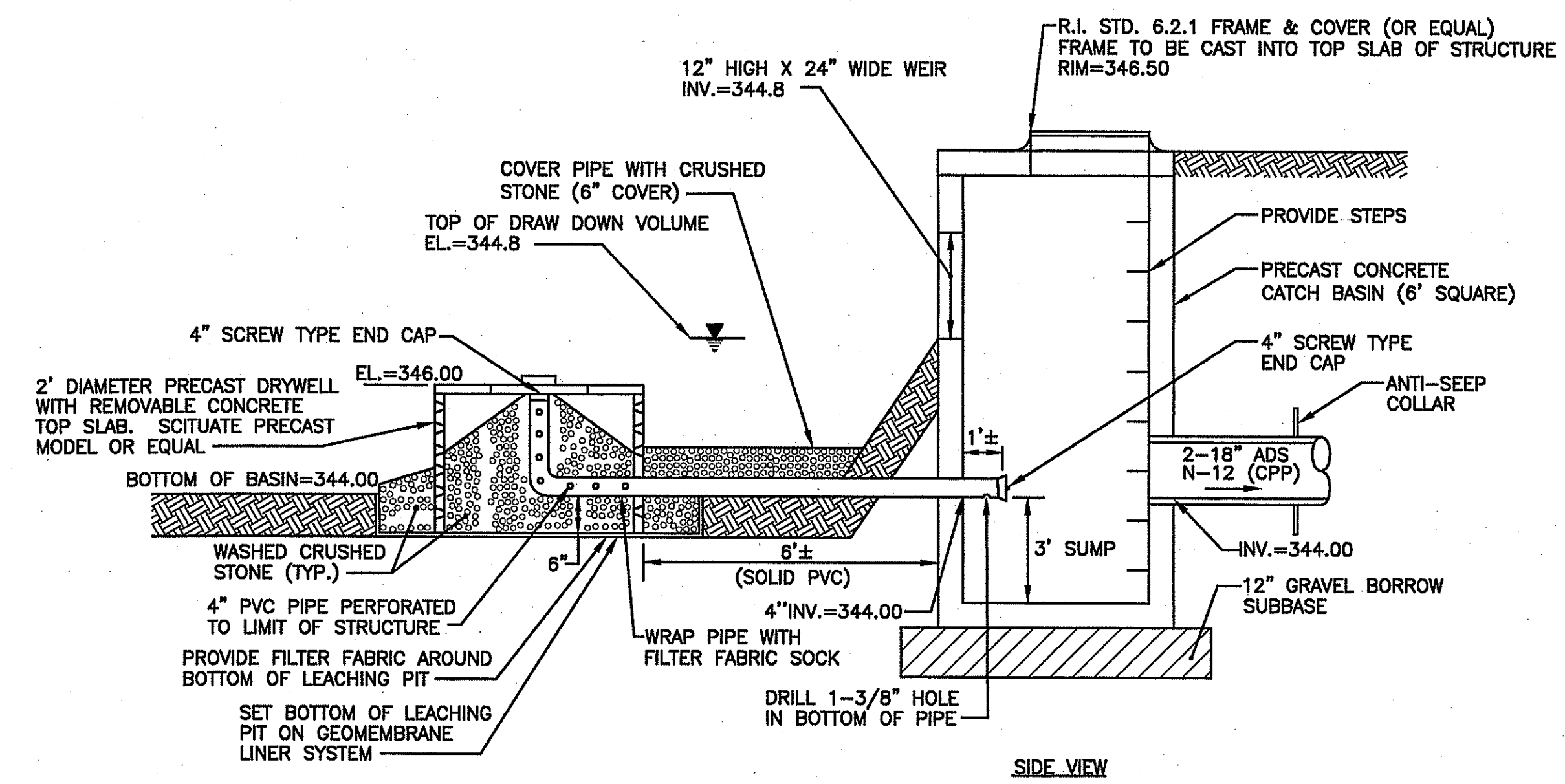
SEDIMENT FOREBAY DETAIL  
NOT TO SCALE



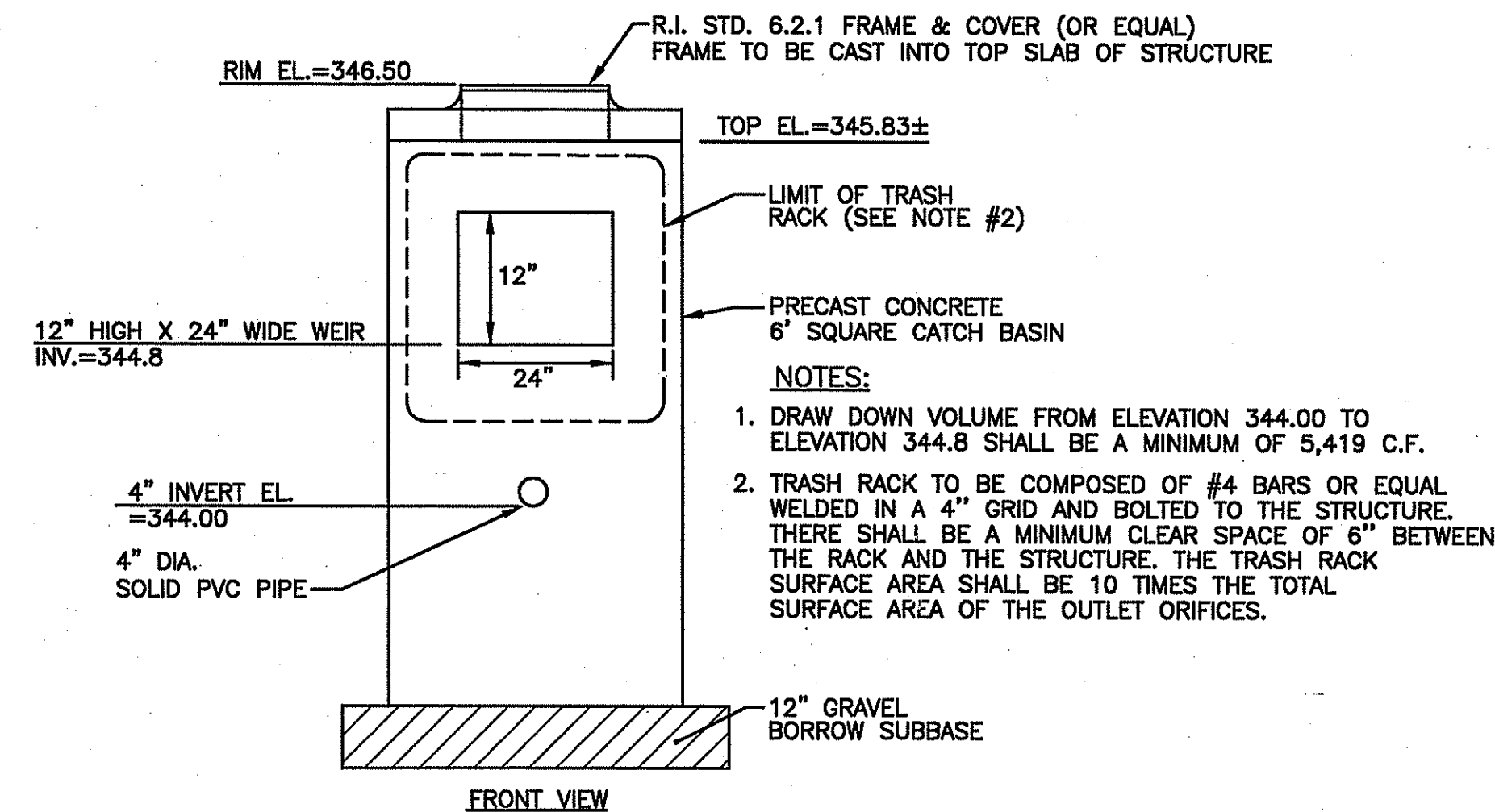
TYPICAL SECTION RIP-RAP OUTLET PROTECTION  
NOT TO SCALE



LEVEL SPREADER DETAIL  
NOT TO SCALE

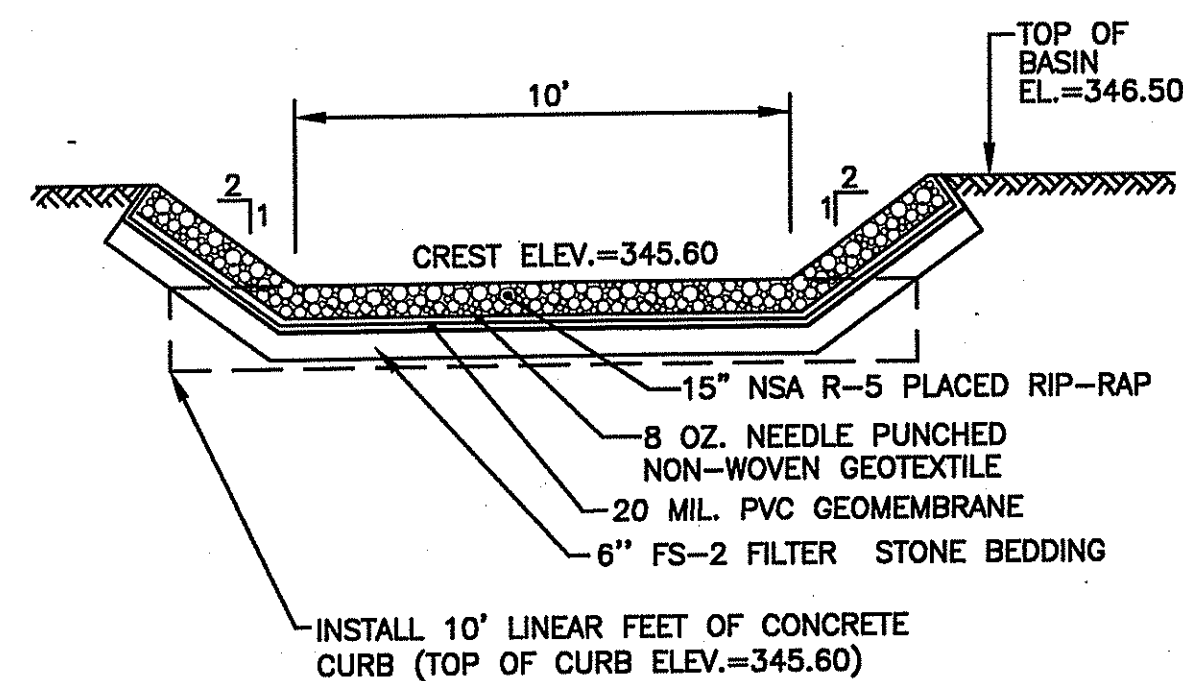


SIDE VIEW



FRONT VIEW

EXTENDED DURATION DETENTION BASIN  
OUTLET CONTROL STRUCTURE DETAIL  
NOT TO SCALE



EMERGENCY OVERFLOW WEIR DETAIL  
NOT TO SCALE

**SOIL TEST HOLE PROFILE DESCRIPTIONS**  
SOIL TESTS PERFORMED BY BRIAN KING (D 4010),  
CROSSMAN ENGINEERING, INC. ON FEBRUARY 5, 2008.

TEST HOLE 1	TEST HOLE 2	TEST HOLE 3	TEST HOLE 4	TEST HOLE 5
SURFACE EL.=346.0	SURFACE EL.=345.2	SURFACE EL.=346.0	SURFACE EL.=345.2	SURFACE EL.=347.0
0" Brown Sandy Loam Topsoil Ap	0" Brown Sandy Loam Topsoil Ap	0" Brown Sandy Loam Topsoil Ap	0" Brown Sandy Loam Topsoil Ap	0" Brown Sandy Loam Topsoil Ap
3" Lt. Brown Sandy Loam Subsoil Bc	3" Lt. Brown Sandy Loam Subsoil Bc	3" FILL FILL	7" FILL FILL	3" FILL FILL
23" Olive Grey Silt 1C1	8" Grey Gravely Loamy Sand 2C1	48" Lt. Grey Fine Sand 1C1	60" Grey Fine Sand 1C1	12"/48" Grey Very Fine Sandy Loam with some Bldg. Debris 1C1
36" Grey Gravely Loamy Sand 2C1	72" Grey Loamy Sand 2C2	60" Grey Gravely Loamy Sand 2C1	108" ESHGWT = ELEV. OF ADJACENT WETLAND EDGE.	108" ESHGWT = 80"
70" Grey Loamy Sand 2C2	122" ESHGWT = ELEV. OF ADJACENT WETLAND EDGE.	120" ESHGWT = ELEV. OF ADJACENT WETLAND EDGE.		
108" BOULDER AT 108"				

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED FEB 9 2009 FILE # 08-0081  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Charles A. Hester*

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Web Page: www.crossmaneng.com

- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

BRUCE G. HAGERMAN  
Professional Engineer  
No. 5787

PROPERTY OWNER:  
N/F  
RI RESOURCE RECOVERY CORPORATION  
65 SHUN PIKE  
JOHNSTON, RHODE ISLAND 02919

PROJECT TITLE:  
PROPOSED  
MANUFACTURING FACILITY  
ON A PORTION OF  
ASSESSOR'S LOT 31, LOT 61  
ZONING DISTRICT - INDUSTRIAL  
LAKESIDE COMMERCE CENTER  
SHUN PIKE AND SCITUATE AVENUE  
JOHNSTON, RHODE ISLAND

PREPARED FOR:  
RECEIVED  
DEC 17 2008  
MICHAEL V. D'AMBRA  
800 JEFFERSON BOULEVARD  
WARWICK, RHODE ISLAND 02886

DRAWING TITLE:  
MISCELLANEOUS DETAIL  
PLAN No. 3

DATE: MARCH 2008 SCALE: NO SCALE

DWG. NAME: 1451-20-DET3-REV1.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DRAWING NUMBER

**C-14**

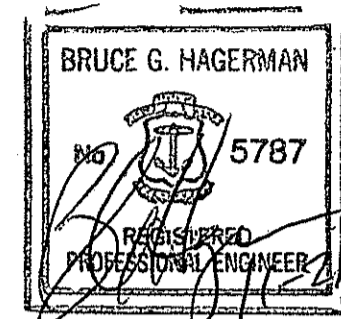
SHEET: 17 OF 20

AGENCY REVIEW SUBMISSION

\\1451 - D'Ambra Construction\ACAD Dwg\RIDEM Wetlands Submission\Revised RIDEM Submission 11-08\1451-20-DET3-REV1.dwg, 11/21/2008 9:03:55 AM, Oce TDS600 3.x.pcc



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PROPERTY OWNER:

N/F  
 RI RESOURCE RECOVERY CORPORATION  
 65 SHUN PIKE  
 JOHNSTON, RHODE ISLAND  
 02919

PROJECT TITLE:

PROPOSED  
 MANUFACTURING FACILITY  
 ON A PORTION OF  
 ASSESSOR'S PLAT 31, LOT 61  
 ZONING DISTRICT - INDUSTRIAL  
 LAKESIDE COMMERCE CENTER  
 SHUN PIKE AND SCITUATE AVENUE  
 JOHNSTON, RHODE ISLAND

PREPARED FOR:

RECEIVED  
 DEC 17 2008  
 MICHAEL V. D'AMBRA  
 800 JEFFERSON BOULEVARD  
 WARWICK, RHODE ISLAND 02886

DRAWING TITLE:

MISCELLANEOUS DETAIL  
 PLAN No. 4

DATE: MARCH 2008 SCALE: AS NOTED

DWG. NAME: 1451-21-DET4-REV1.dwg

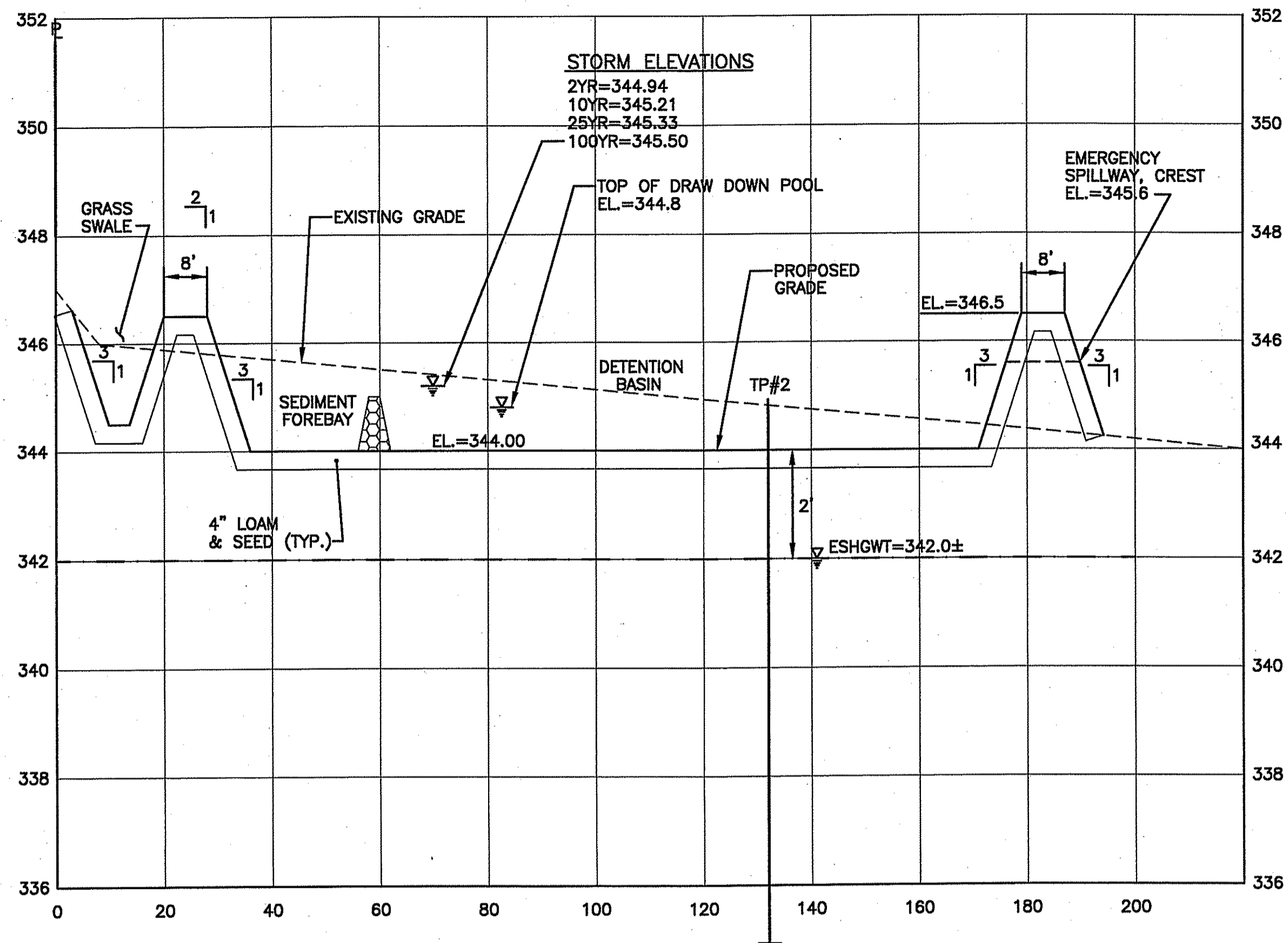
NO.	DATE	REVISION
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2	11-08	RIDEM COMMENTS

DRAWING NUMBER

**C-15**

SHEET: 18 OF 20

AGENCY REVIEW SUBMISSION

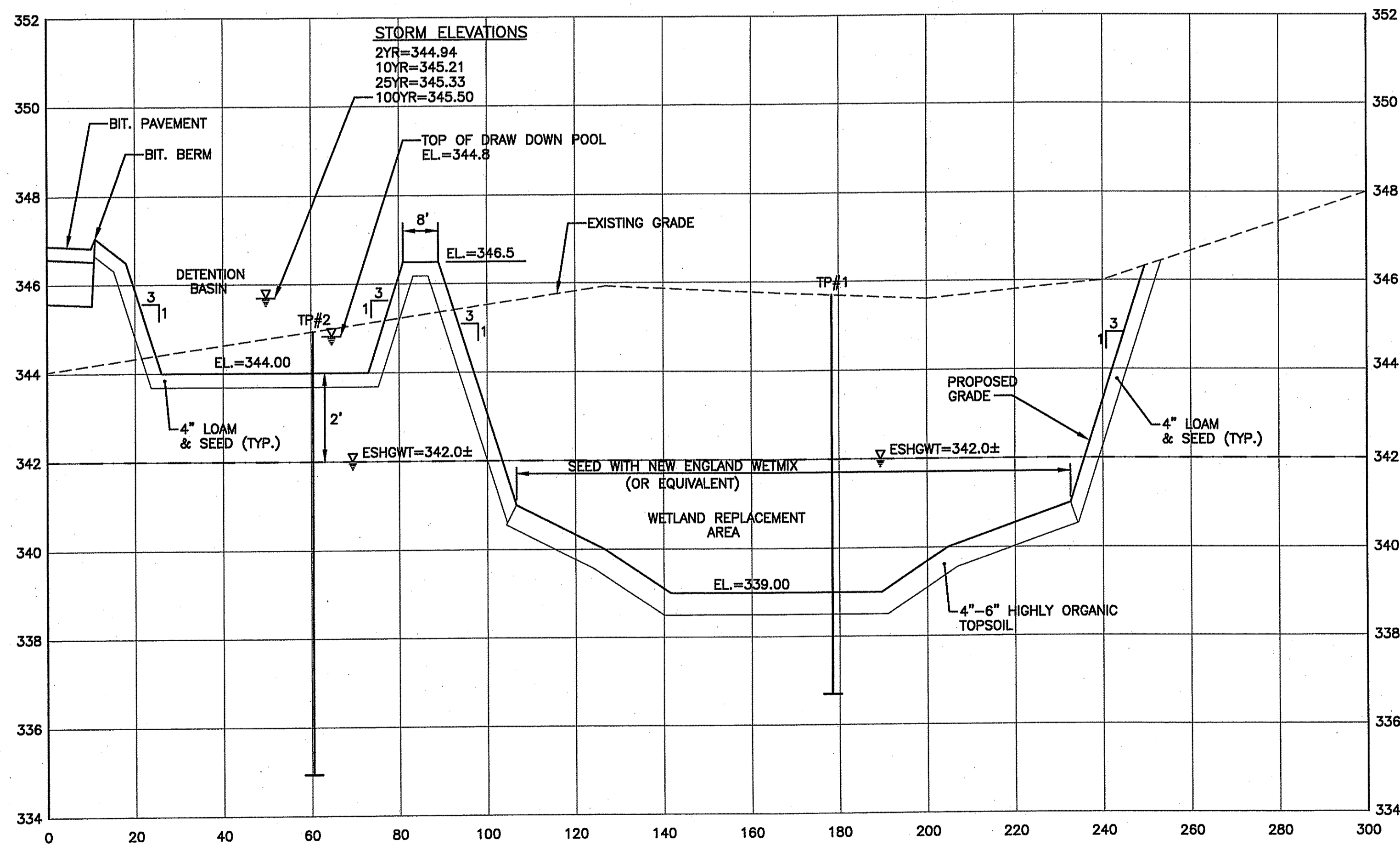


SECTION A-A  
 SCALE: HORIZ. 1"=20'  
 VERT. 1"=2'

DETENTION BASIN  
 STAGE/STORAGE TABLE

ELEV.	CONTOUR AREA (S.F.)	TOTAL STORAGE (C.F.)
344	6,345	0
345	7,473	6,903
346	8,673	14,970
346.5	9,300	19,463

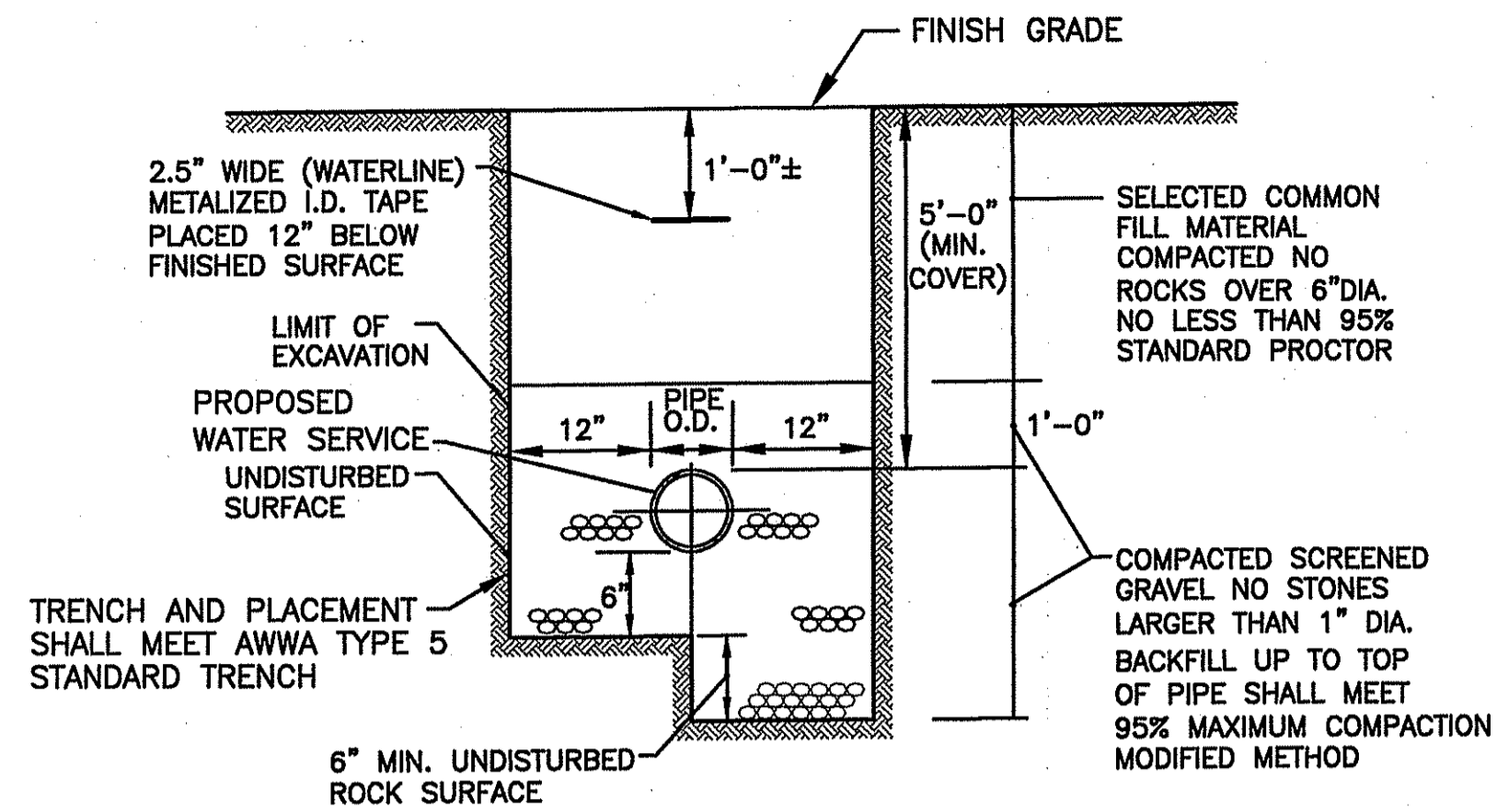
NOTE: THE MINIMUM STORAGE VOLUME FROM ELEVATION 344 TO ELEVATION 344.8 MUST BE 5,419 CUBIC FEET.



SECTION B-B  
 SCALE: HORIZ. 1"=20'  
 VERT. 1"=2'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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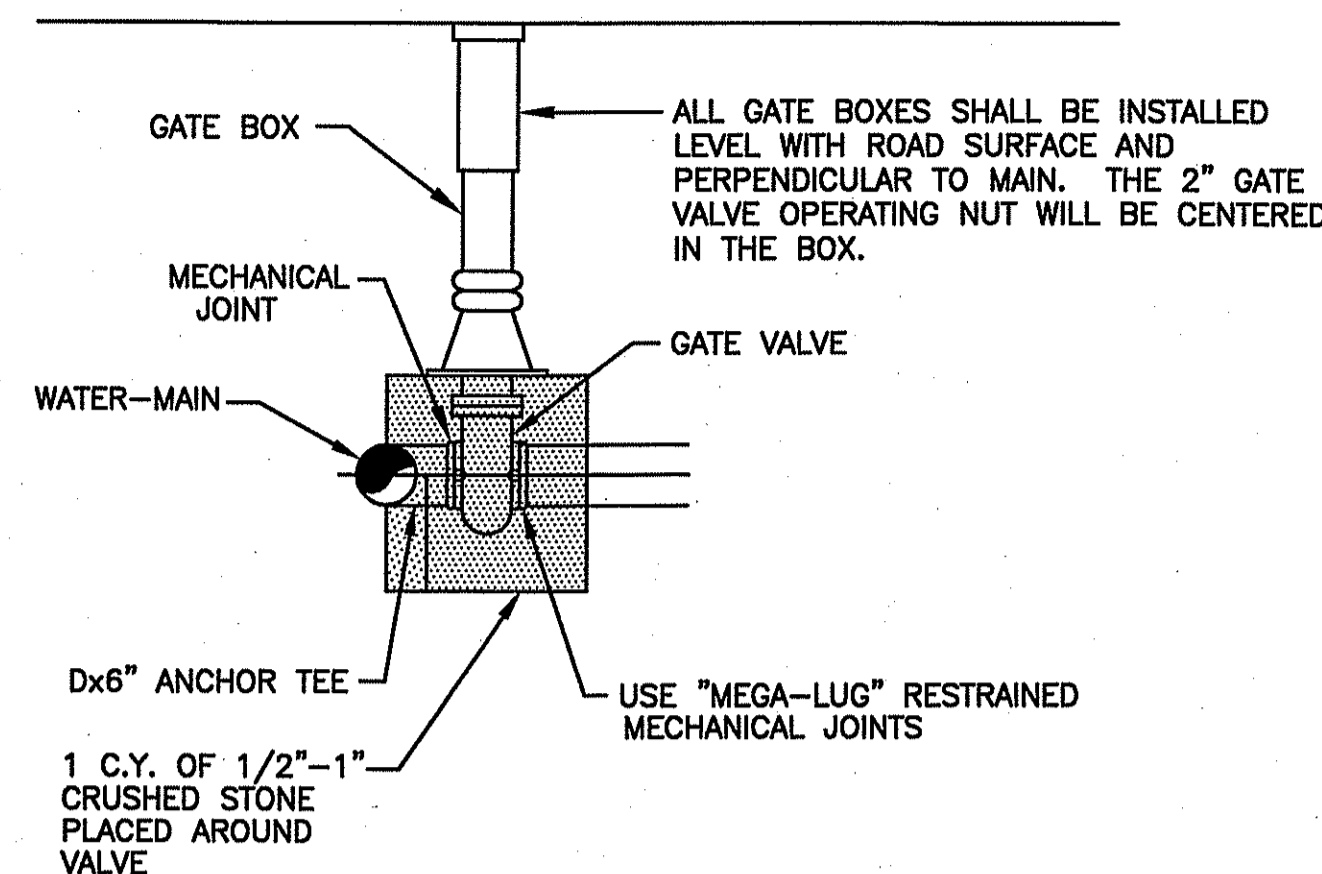
*Charles A. Hagerman*



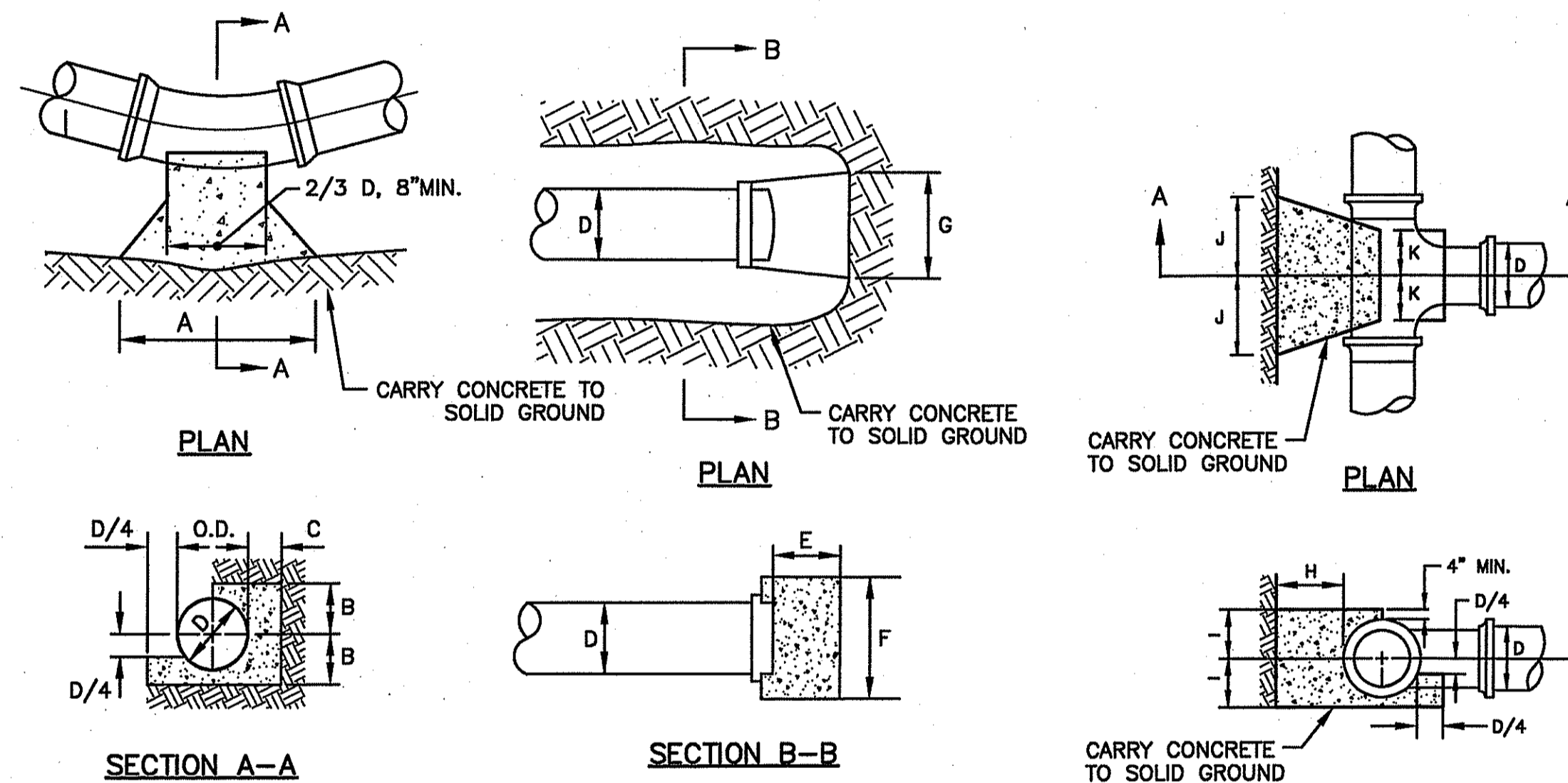
**NOTE:**

1. ROADWAY RESTORATION IN ACCORDANCE WITH COMMUNITY OR R.I.D.O.T.

**TYPICAL WATER LINE TRENCH DETAIL**  
NOT TO SCALE



**TYPICAL GATE VALVE DETAIL**  
NOT TO SCALE



THRUST BLOCK FOR HORIZONTAL BENDS				
BEND	16"	12" & 10"	8"	4" & 6"
1/8 (45°)	A 3'-6"	3'-0"	2'-6"	2'-0"
	B 16"	14"	12"	10"
	C 1'-6"	1'-6"	1'-6"	1'-6"
1/4 (90°)	A 4'-0"	3'-6"	3'-0"	2'-6"
	B 2'-3"	1'-11"	1'-7"	1'-3"
	C 1'-6"	1'-6"	1'-6"	1'-6"

**THRUST BLOCKS FOR CAPS AND HORIZONTAL BENDS**  
NOT TO SCALE

THRUST BLOCKS FOR CAPS			
D	16"	12" & 10"	8" & 4" & 6"
E	1'-6"	1'-6"	1'-6"
F	4'-8"	3'-11"	3'-2" & 2'-5"
G	4'-8"	3'-11"	3'-2" & 2'-5"

THRUST BLOCK FOR TEES			
SIZE OF BRANCH			
D	16"	12" & 10"	8" & 4" & 6"
H	1'-6"	1'-6"	1'-6"
I	2'-3"	1'-11"	1'-7" & 1'-3"
J	2'-3"	1'-11"	1'-7" & 1'-3"
K	12"	10"	8" & 6"

**THRUST BLOCKS FOR TEES**  
NOT TO SCALE

**THRUST BLOCK NOTES:**

1. ALL CONCRETE SHALL CONFORM TO SECTION 600 "PORTLAND CEMENT CONCRETE" OF R.I.D.O.T. SPECIFICATIONS.
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON SOIL BEARING PRESSURE OF 1500 P.S.F. LATERAL AND STATIC WATER PRESSURE OF 150 P.S.I. WHERE PRESSURE EXCEEDS 150 P.S.I. OR WHERE SOIL BEARING PRESSURE IS LESS THAN 1500 P.S.F. LATERAL; OR SOIL CONDITIONS OR EXCAVATION LIMITS ENCOUNTERED DURING CONSTRUCTION MAKE IT UNFEASIBLE TO PLACE THRUST BLOCKS AGAINST UNDISTURBED EARTH OF THE PROPER BEARING CAPACITY. THE CONTRACTOR SHALL DESIGN, GET APPROVAL OF, AND PLACE SPECIAL REACTION BLOCKS OF SUFFICIENT WEIGHT TO RESIST THE FULL THRUST OF THE LINE UNDER TEST AND OPERATING PRESSURES. THE DESIGN OF SUCH BLOCKS SHALL BE SUBJECT TO THE APPROVAL OF THE TOWN OF JOHNSTON AND THE OWNER BEFORE ACTUAL INSTALLATION TAKES PLACE.
3. ALL THRUST BLOCKS SHALL BE CLASS B CONCRETE, 3,000 P.S.I. @ 28 DAYS AND BEARING AGAINST UNDISTURBED EARTH.

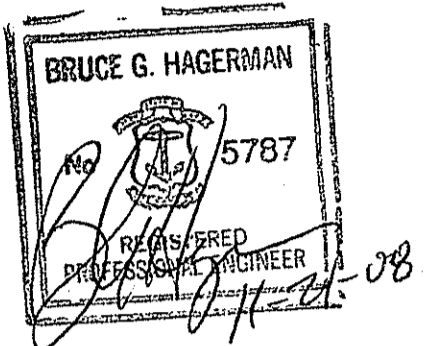
**WATER NOTES:**

1. ALL INSTALLATION, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CURRENT RULES AND REGULATIONS OF THE JOHNSTON WATER DEPARTMENT, AWWA STANDARDS AND GOVERNMENTAL REQUIREMENTS.
2. 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.
3. WATER PIPE SHALL BE DOUBLE CEMENT MORTAR LINED DUCTILE IRON PIPE CLASS 52 (AMERICAN MANUFACTURER ONLY) AND SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C151/A21.51.
4. CONSTRUCTION SHALL INCLUDE ALL PIPE, JOINTS, BENDS, TEES, FITTINGS, THRUST BLOCKS, GATE VALVES, GATE BOXES, SERVICE CONNECTIONS AND ALL MISCELLANEOUS ITEMS REQUIRED TO CONSTRUCT THE PROPOSED SYSTEM.
5. CONCRETE THRUST, ANCHOR, OR BEARING BLOCKS SHALL BE INSTALLED IN LOCATIONS INDICATED AND AT ALL BENDS, FITTINGS, PLUGS, ETC. WHEN A THRUST BLOCK CANNOT BE PLACED AGAINST UNDISTURBED EARTH, A MECHANICAL RESTRAINED JOINT PIPE MAY BE UTILIZED.
6. PRESSURE AND LEAKAGE TESTS AND DISINFECTING PIPES SHALL BE PERFORMED BY THE CONTRACTOR IN CONFORMANCE TO THE LATEST RULES AND REGULATIONS OF THE JOHNSTON WATER DEPARTMENT REQUIREMENTS, AMERICAN WATER WORKS ASSOCIATION (AWWA) RECOMMENDATIONS, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION.
7. ALL GATE VALVES, FITTINGS, PIPE, JOINTS, ETC. SHALL BE DESIGNED FOR 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 200 PSI.
8. WATER PIPE SHALL BE LOCATED AT A DEPTH OF COVER EQUAL TO 5'-0". A MINIMUM OF 10-FOOT HORIZONTAL OR 18-INCH VERTICAL SEPARATION SHALL BE MAINTAINED IN THE PLACEMENT OF WATER MAINS, SERVICES, OR APPURTENANCES WITHIN THE VICINITY OF SEWER FACILITIES, OR VICE VERSA. WHERE THE ABOVE SEPARATION DISTANCES CANNOT BE ACHIEVED, THE SANITARY SEWER/STORM DRAIN PIPE SHALL BE ENCASED WITHIN A DUCTILE IRON CARRIER PIPE FOR A DISTANCE EQUAL TO 10-FOOT ON EITHER SIDE OF THE AREA OF CONCERN. CONCRETE ENCASUREMENT IS NOT ALLOWED. UTILITY SEPARATION SHALL CONFORM TO THE LATEST RULES AND REGULATIONS OF THE JOHNSTON WATER DEPARTMENT.
9. ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS, SUCH AS GATE VALVE, PIPE, THRUST BLOCKS, FITTINGS, CASTINGS, ETC. SHALL BE SUBMITTED TO THE JOHNSTON WATER DEPARTMENT FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
10. WATER LINE TRENCH TO BE AWWA TYPE 5. COMPACTION MUST BE ACCOMPLISHED IN 6" LIFTS. A METALIZED DETECTABLE IDENTIFICATION TAPE 2.5" 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.
11. GATE VALVES TO BE MUELLER IRON BODY BRONZE MOUNTED DOUBLE DISC PARALLEL SEAT TYPE AMERICAN DARLING RESILIENT VALVE SEAT MODEL CRS-80, OR APPROVED EQUAL.
12. THE FINAL LOCATIONS FOR ALL INTERIOR PIPING, BACK FLOW PREVENTORS AND VALVES SHALL BE VERIFIED WITH THE PLUMBING AND FIRE SPRINKLER SYSTEM SUB-CONTRACTORS.
13. THE MANUFACTURER AND MODEL OF BACK FLOW PREVENTORS ARE TO BE VERIFIED BY THE APPROPRIATE PLUMBING AND FIRE SPRINKLER SUB-CONTRACTORS; AND MUST BE APPROVED FOR USE BY THE JOHNSTON WATER DEPARTMENT PRIOR TO ORDERING.
14. AS-BUILT DRAWINGS MUST BE FURNISHED BY THE CONTRACTOR TO, AND APPROVED BY, THE JOHNSTON WATER DEPARTMENT PRIOR TO WATER SERVICE ACTIVATION.
15. THE CONTRACTOR MUST INSTALL TEMPORARY BLOW-OFFS AT ALL DEAD-ENDS INSIDE THE PROPOSED BUILDINGS. THE BLOW-OFFS ARE TO BE USED FOR FLUSHING AND SAMPLES. THE CONTRACTOR MUST FLUSH THE FIRE LINE TO EACH BUILDING USING A 4-INCH TEMPORARY FLUSHING CONNECTION.
16. ALL VALVES MUST OPEN RIGHT.
17. WATER UTILIZED FOR DISINFECTION, PRESSURE TESTING AND FLUSHING WHICH IS OBTAINED DIRECTLY FROM THE JOHNSTON WATER SUPPLY SYSTEM, MUST FLOW THROUGH AN ISOLATED CONNECTION TO THE JOHNSTON WATER SUPPLY SYSTEM VIA AN APPROVED METER, TESTABLE BACK FLOW PREVENTION DEVICE AND JUMPER LINE.
18. THE CONTRACTOR SHALL FURNISH AND INSTALL SUITABLE TEMPORARY TESTING PLUGS, CAPS, PUMPS, PIPE CONNECTIONS, AND OTHER APPURTENANCES, AS NECESSARY, TO OBTAIN SAMPLES AT POINTS NO FURTHER THAN 1,000 FEET APART.



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**PROPERTY OWNER:**

N/F  
**RI RESOURCE RECOVERY CORPORATION**  
65 SHUN PIKE  
JOHNSTON, RHODE ISLAND  
02919

**PROJECT TITLE:**

**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCITUATE AVENUE JOHNSTON, RHODE ISLAND**

**PREPARED FOR:**

RECEIVED  
DEC 17 2008  
**MICHAEL V. D'AMBRA**  
800 JEFFERSON BOULEVARD  
WARWICK, RHODE ISLAND 02886

**DRAWING TITLE:**

**MISCELLANEOUS DETAIL PLAN No. 5**

DATE: MARCH 2008 SCALE: NO SCALE

DWG. NAME: 1451-22-DET5-REV1.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

**DRAWING NUMBER**

**C-16**

SHEET: 19 OF 20

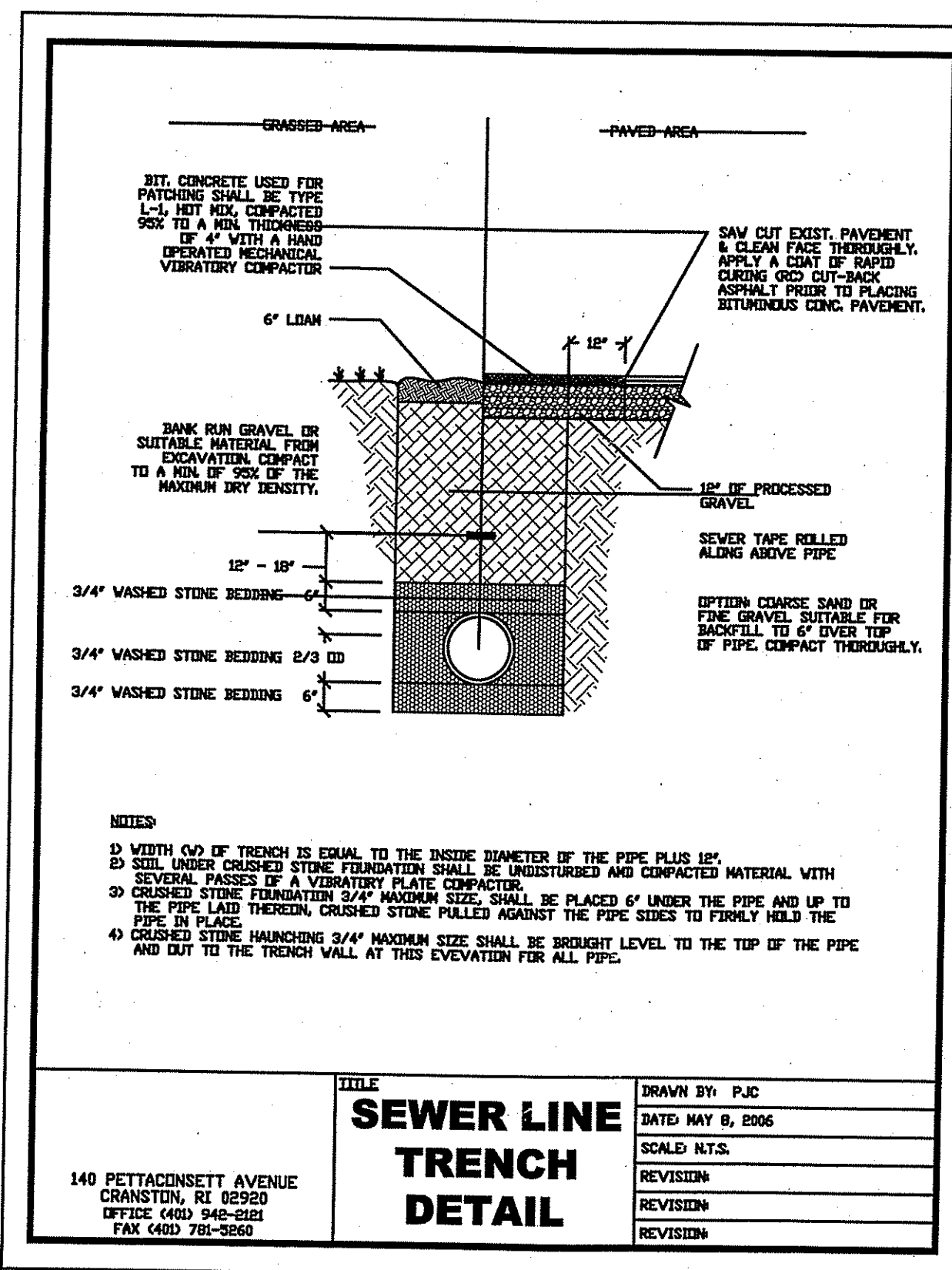
**AGENCY REVIEW SUBMISSION**

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN LETTER OF APPROVAL  
FEB 27 2009  
DATED: FEB 27 2009 FILE # 08-0081  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
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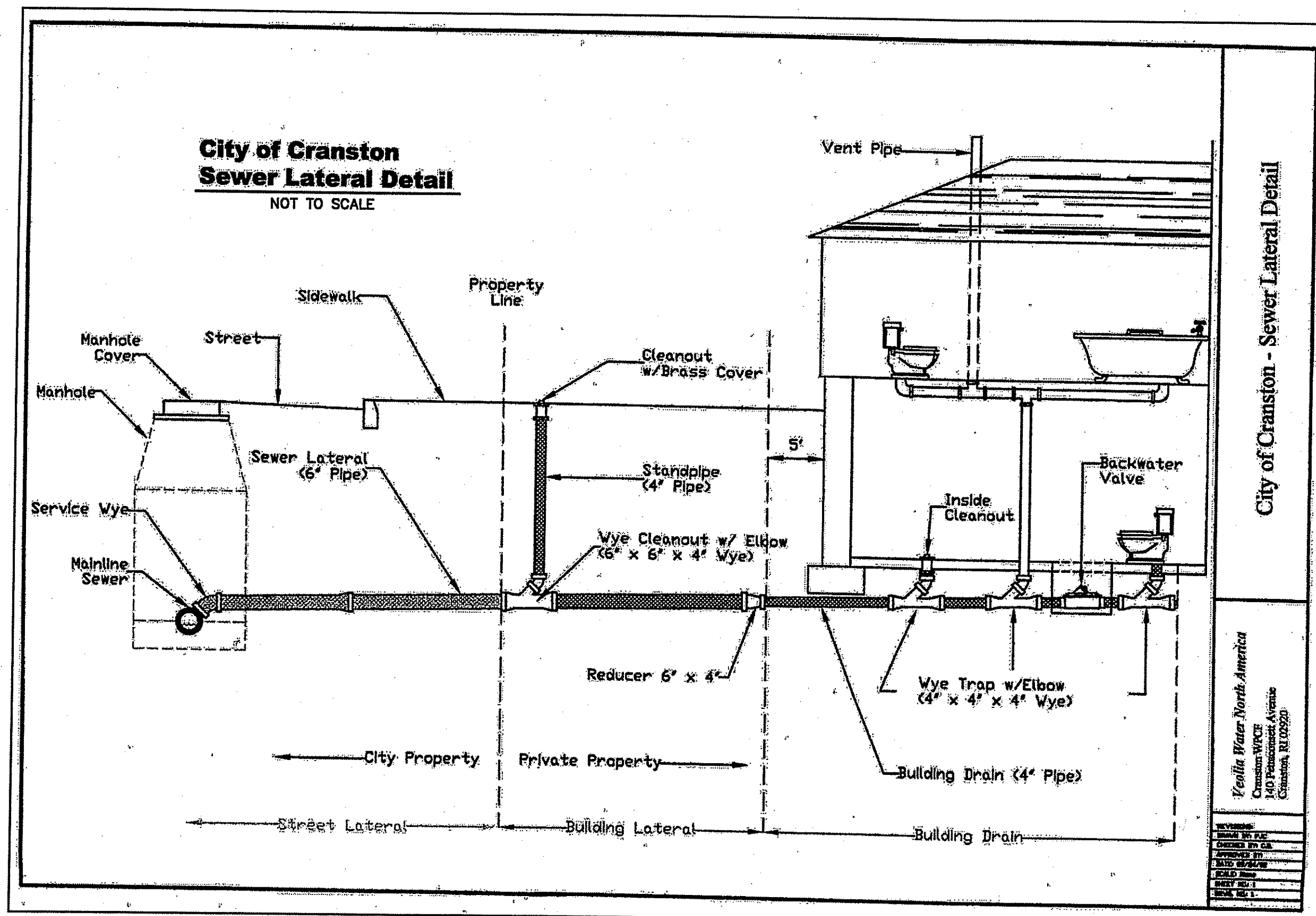
*Charles A. Humber*

**WATER SERVICE NOTE:**

ANY CONFLICT WITH THE PROPOSED WATER SYSTEM MUST BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO ANY CONSTRUCTION.



**TYPICAL SEWER LINE TRENCH DETAIL**  
NOT TO SCALE



**SEWER MAIN CONSTRUCTION NOTES:**

- FOR GENERAL SPECIFICATIONS REGARDING SANITARY SEWERS, THE CONTRACTOR SHALL REFERENCE THE CITY OF CRANSTON'S BOOK, "THE CODE OF THE CITY OF CRANSTON RHODE ISLAND", CHAPTER 28, SEWERS, AND THE DEPARTMENT OF PUBLIC WORKS ANNEX A-DESIGN OF SEWERS (PROMULGATED 6/15/02) FOR HIGHWAYS COVERING RESIDENTIAL AND INDUSTRIAL PLAT DEVELOPMENTS, CHAPTER 27.
- PRIVATE SEWERS AND SEWER EXTENSION INTO ADJACENT COMMUNITIES, WHICH CONNECT TO THE CITY SEWER SYSTEM, SHALL BE INSTALLED IN CONFORMANCE WITH THE CITY SEWER USE ORDINANCE AND THESE REGULATIONS UNLESS OTHERWISE APPROVED BY THE CITY OF PUBLIC WORKS DIRECTOR.
- ALL SANITARY SEWER CONSTRUCTION SHALL BE INSPECTED BY THE VEOLIA WATER NORTH AMERICA COLLECTIONS SYSTEM DEPARTMENT. (VEOLIA-CRANSTON WPCF).
- NO PERSON SHALL MAKE A CONNECTION OF ROOF DOWNSPOUTS, FLOOR DRAINS, SUMP PUMPS, EXTERIOR FOUNDATION DRAINS, AREAWAY DRAINS, OR OTHER SOURCES OF SURFACE RUNOFF OR GROUNDWATER TO ANY COMPONENT OF THE SANITARY SEWER SYSTEM.
- NO GRAVITY SEWER MAIN SHALL BE LESS THEN EIGHT (8) INCHES (20.3cm) DIAMETER.
- GRAVITY SEWER PIPE SHALL BE ASTM RIGID SDR-35 PVC OR HEAVY PVC PIPE FOR SEWER USE CONFORMING TO ASTM SPECIFICATIONS D-3034; OR CEMENT LINED DUCTILE IRON MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C151/A21.51, C111/A21.11, AND C150/A21.50, OR AS APPROVED BY THE CITY PUBLIC WORKS DIRECTOR. ALL PIPES SHALL HAVE COMPRESSION JOINTS WITH AN ELASTOMERIC GASKET TYPE CONFORMING TO ASTM D-3212; OR AS APPROVED BY THE CITY PUBLIC WORKS DIRECTOR.
- MAIN GRAVITY SEWER PIPE SHALL BE INSTALLED BY USING A LASER INVERT THAT SETS UP IN AN INVERT IN THE DOWNSTREAM MANHOLE. A TARGET WILL BE PLACED AT THE END OF EACH PIPE THAT IS INSTALLED TO ENSURE PROPER ALIGNMENT AND SLOPE.
- ALL SANITARY SEWER CONNECTIONS SHALL BE GASKETED TIGHT.
- THE MINIMUM COVER SHALL BE FOUR (4) FEET OVER THE CROWN OF THE PIPE FOR ALL MAINS AND LATERALS EXCEPT THAT INSULATION MAY BE PROVIDED FOR SEWERS THAT CANNOT BE PLACED AT A DEPTH SUFFICIENT TO PREVENT FREEZING UPON THE APPROVAL OF THE PUBLIC WORKS DIRECTOR.
- UNDERGROUND DETECTABLE TAPE STATING "CAUTION: BURIED SEWER BELOW" WILL BE PLACED IN THE TRENCH BETWEEN THE TOP OF PIPE AND 12" FROM FINISHED GRADE.
- SEWER LATERALS SHALL BE 6" SDR-35 PVC AND BE INSTALLED AT THE MINIMUM SLOPE OF AT LEAST ONE-QUARTER INCH PER FOOT (2.1" CIV. FT.). ALL PIPES SHALL HAVE COMPRESSION JOINTS.
- WHERE PRACTICAL, SEWER LATERALS SHALL BE TIED INTO A MANHOLE. A BORING MACHINE SHALL BE USED TO MAKE A HOLE THROUGH ANY MANHOLE STRUCTURE. A FLEXIBLE WATER TIGHT GASKET SHALL BE USED TO CONNECT THE STRUCTURE TO THE PIPE OR AN APPROVED WATER TIGHT FLEXIBLE SLEEVE. THE PIPE SHALL BE PARGED ON THE INSIDE OF THE MANHOLE TO MAKE THE INVERT CLEAN.
- WHERE SEWER LATERALS CONNECT TO A SEWER MAIN, AN 8"x6" WYE SHALL BE INSTALLED IN THE MAIN TO MAKE THE CONNECTION. A 6" SDR-35 ANGLE, NOT GREATER THAN 45°, IS TO BE USED TO PROVIDE THE PROPER FLOW ALIGNMENT.
- NO LATERAL MAY SERVICE MORE THAN ONE BUILDING OR PRIVATELY OWNED BUILDING UNITS.
- MINIMUM BEDDING MATERIAL REQUIREMENTS FOR SEWER PIPE INSTALLATION SHALL BE CLASS "B" AS DESCRIBED IN ASTM-C12, WITH A MINIMUM DEPTH OF SIX (6) INCHES.
- BEDDING MATERIAL SHALL BE COMPACTED EVENLY UNDER AND ON BOTH SIDES OF THE PIPE SO THAT THE PIPE REMAINS ALIGNED AND TRUE.
- BACKFILL SHALL BE INSTALLED IN LAYERS NO MORE THAN 8" THICK AFTER COMPACTION AND SHALL BE COMPACTED TO NOT LESS THAN 85% MAXIMUM DRY DENSITY ACCORDING TO ASTM D1557.
- BACKFILL MATERIAL SHALL NOT CONTAIN FROZEN MATERIAL, LARGE DIRT CLODS, STONES, ORGANIC MATTER, OR UNSUITABLE MATERIALS. ADDITIONAL BACKFILL DETAILS, FOR CITY STANDARDS CR-10/S-1, WHICH ARE AVAILABLE IN THE DIVISION OF ENGINEERING.
- MANHOLES SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, ASTM DESIGNATION: C-478, LATEST EDITION; OR BEDDING OF COMPACTED 3/4" WASHED STONE SHALL BE PLACED UNDER ALL MANHOLE STRUCTURES. THE MINIMUM INTERNAL DIAMETER SHALL BE FORTY-EIGHT INCHES (48") (1.2m). ALL MANHOLE JOINTS AND PINHOLES SHALL BE PARGED ON THE ENTIRE EXTERIOR. INLET AND OUTLET PIPES SHALL BE JOINED TO THE MANHOLE WITH A GASKETED, FLEXIBLE WATER TIGHT CONNECTION OR WITH ANOTHER WATER TIGHT CONNECTION ARRANGEMENT THAT ALLOWS FOR DIFFERENTIAL SETTLEMENT OF THE PIPE AND THE MANHOLE. ALL INVERTS AND TABLES SHALL BE CONSTRUCTED WITH SMOOTH RED SEWER BRICKS. AT LEAST ONE ROW OF RED SEWER BRICKS SHALL BE INSTALLED BETWEEN THE MANHOLE STRUCTURE AND CEMENT BRICKS ALLOWED ON THE FACE OF THE BRICKS.
- 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 CITY PUBLIC WORKS DIRECTOR.
- THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY TO ALL WORKERS AND VISITORS.
- PRESSURE SEWER MAINS - A PRESSURE SEWER MAIN SHALL BE DESIGNED TO PROVIDE A VELOCITY OF 2 FEET PER SECOND AT THE AVERAGE DAILY FLOW OF THE INSTALLED SYSTEM. ALL PRESSURE LATERALS SHALL ENTER VIA A WYE. ALL BENDS SHALL BE LONG RADIUS SWEEPS. THE PIPE MATERIAL SHALL BE CLASS 200, SDR21 PVC OR GREATER OR APPROVED EQUIVALENT. ALL BURIAL AND DETECTION BY METAL OR PIPE LOCATORS. THRUST BLOCKS SHALL BE INSTALLED AT ALL BENDS, TEES, END CAPS, CLEANOUTS, AIR/VACUUM VALVES AND OTHER APPURTENANCES SHALL BE OF CORROSION RESISTANT MATERIALS AND APPROPRIATE TO THE APPLICATION ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. THE LOW PRESSURE SEWER SYSTEM SHALL BE PRESSURE AND LEAKAGE TESTED USING WATER AT ONE HOUR AT 150 LBS. (SEE ANNEX A-DESIGN OF SEWERS FOR OTHER INFORMATION).

**SEWER MAIN ORDER OF PROCEDURE:**

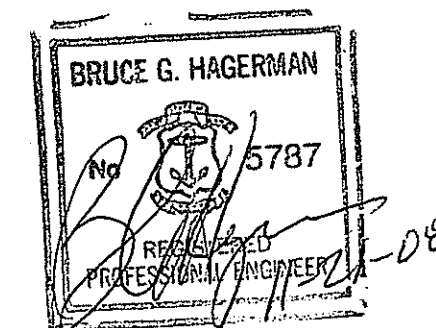
- THE OWNER OR THE DEVELOPER SHALL SUBMIT TO THE CITY OF CRANSTON'S DIRECTOR OF PUBLIC WORKS THE NAME OF THE QUALIFIED SEWER CONTRACTOR THAT WILL BE RESPONSIBLE FOR THE INSTALLATION OF THE SANITARY SEWER SYSTEM, TOGETHER WITH A BREAKDOWN OF ITEMS, QUANTITIES AND UNIT PRICES FOR THE PROJECT.
- NO WORK CAN COMMENCE OF ANY SEWER INSTALLATION WITHOUT THE DIRECTOR'S APPROVAL OF THE PLANS AND CONTRACTOR.
- THE CONTRACTOR THAT WAS APPROVED SHALL NOTIFY VEOLIA WATER OR NORTH AMERICA COLLECTIONS SYSTEM DEPARTMENT AND THE DIRECTOR OF PUBLIC WORKS FIVE (5) WORKING DAYS PRIOR TO COMMENCING ANY SEWER RELATED EXCAVATION. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION: COMPANY NAME, PHONE NUMBER AND ADDRESS OF BOTH THE DEVELOPER AND CONTRACTOR ALONG WITH THE NAME AND PHONE NUMBER OF THE SEWER CONTRACTOR'S FOREMAN.
- VEOLIA WATER SHALL INSPECT THE NEW PLAT CONSTRUCTION CONSISTING OF EXCAVATION, INSTALLATION OF SEWER MAINS AND STREET LATERALS, INSTALLATION OF MANHOLES, AND BACKFILLING TO THE ELEVATION OF THE EXISTING GROUND. THE PIPES WILL BE CAMERA INSPECTED, PRESSURE TESTED AND FLOW TESTED. THE CONTRACTOR, AT HIS CHOICE AND EXPENSE, HAS THE OPTION OF USING A PRIVATE CONTRACTOR OR HIRING VEOLIA WATER TO CAMERA AND VIDEOTAPE THE SEWER SYSTEM. IF THE CONTRACTOR CHOOSES TO USE A PRIVATE CAMERA CONTRACTOR TO VIDEOTAPE THE SEWER SYSTEM, AN INSPECTOR FROM VEOLIA WATER SHALL BE PRESENT FOR THE VIDEOTAPE.
- AFTER THE SEWER SYSTEM HAS BEEN INSTALLED, THE CONTRACTOR SHALL HAVE ALL THE MANHOLES VACUUM TESTED AT TEN-INCHES (10") OF VACUUM FOR SIXTY (60) SECONDS. THE GRAVITY SEWER PIPES SHALL BE TESTED FOR FIVE (5) LBS OF PRESSURE FOR TEN (10) MINUTES. VEOLIA'S INSPECTOR SHALL BE PRESENT FOR ALL TESTING OF MANHOLES AND PIPES.
- AFTER THE TESTING OF THE MANHOLES AND PIPES, THE CONTRACTOR SHALL HAVE THE ENTIRE SEWER SYSTEM FLUSHED AND CLEANED.
- THE ENTIRE SYSTEM SHALL BE CAMERA INSPECTED AND VIDEOTAPE.
- VEOLIA WATER SHALL REVIEW THE VIDEOTAPES AND PRODUCE A PUNCH LIST OF ALL OR ANY ITEMS THAT REQUIRE ATTENTION.
- AS A CONDITION OF THE FINAL ACCEPTANCE OF THE SANITARY SEWER SYSTEM, THE CONTRACTOR SHALL FORMALY REQUEST, THROUGH THE CITY ENGINEERING DIVISION, A FINAL INSPECTION BE VEOLIA.
- BEFORE FINAL APPROVAL OF THE SEWER SYSTEM CAN BE GRANTED AND CERTIFICATES OF OCCUPANCY ARE ISSUED, THE CONTRACTOR SHALL SUBMIT TO VEOLIA TWO (2) SETS OF SEWER AS-BUILT PLANS WITH GIS COORDINATES FOR EACH MANHOLE. THE AS-BUILTS SHALL BE ON "COPY-TO-FILE" MEDIA AND IN COMPUTER .DWF OR AUTOCAD R14 OR AUTOCAD LT 2002 VERSION FILE FORMAT AND MEET THE FOLLOWING CRITERIA:
  - ALL RECORD PLANS ARE REQUIRED TO BE THE UNIFORM SIZE OF 20"x40".
  - SCALE FOR THE PLANS: HORIZONTAL 1"=40' AND VERTICAL 1"=10'.
  - STATION FIGURES ARE TO BE SHOWN ON ALL MANHOLES AND WYE LATERALS.
  - DISTANCES OF LATERALS ARE TO BE SHOWN WITH DEPTHS OF THE END OF THE PIPE AT THE STREET LINE.
  - TIES TO THE "Y's", MANHOLES, AND ENDS OF LATERALS ARE TO BE SHOWN FROM PERMANENT STRUCTURES.
  - LEDGE AND SELECT MATERIALS ARE TO BE SHOWN ON THE PROFILE.
  - SLOPE, SIZE, LENGTH, AND TYPE OF PIPE ARE TO BE SHOWN ON THE PLAN AND PROFILE VIEW.
  - ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO BE SHOWN ON THE PROFILE.
  - SEWER RECORD AND STORM DRAIN PLANS ARE TO BE DRAWN SEPARATELY.
  - THE RECORD PLAN SHALL BE DRAWN SO THAT THE NORTH DESIGNATION IS POINTING IN THE UPPER QUADRANT.
  - AN ID TABLE NEEDS TO BE PROVIDED ON THE PLANS.
  - THE X AND Y COORDINATE SHALL BE THE NAD 83 R.I. STATE PLANE FEET COORDINATES AND THE COORDINATES WILL BE WITHIN ONE-FOOT (1'). ALL X AND Y COORDINATES ARE TO BE LABELED AT EACH MANHOLE ON BOTH THE PLAN AND PROFILE VIEW. IN ADDITION, A TABLE WITH THE SAME INFORMATION IS TO BE PLACED ON EACH AS-BUILT SHEET.
  - ELEVATIONS SHALL BE BASED ON THE CITY OF CRANSTON'S MEAN HIGH WATER (MHW) DATA OR IN A NAD 88 FOR THE VERTICAL COORDINATES.

**SEWER RELATION TO WATER MAINS**

- HORIZONTAL SEPARATION: WHENEVER POSSIBLE, SEWERS SHALL BE LAID AT A MINIMUM OF 10 FEET (EDGE-TO-EDGE), HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET, A SEWER MAY BE LAID CLOSER THAN 10 FEET TO A WATER MAIN IF:
  - IT IS LAID IN A SEPARATE TRENCH, OR IF
  - IT IS LAID IN THE SAME TRENCH WITH THE WATER MAINS LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND IF
  - IN EITHER CASE THE ELEVATION OF THE TOP (CROWN) OF THE SEWER IS AT LEAST 18 INCHES (46cm) BELOW THE BOTTOM (INVERT) OF THE WATER MAIN.
- VERTICAL SEPARATION: WHENEVER SEWER MUST CROSS UNDER WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES (46cm) BELOW THE BOTTOM OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR RECONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET (6.0m) ON EACH SIDE OF THE SEWER. SEWER AS POSSIBLE.
- WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL AND/OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF MECHANICAL-JOINT DUCTILE IRON PIPE OR OTHER EQUIVALENT BASED ON WATER TIGHTNESS AND STRUCTURAL SOUNDNESS. BOTH PIPES SHALL BE PRESSURE TESTED BY AN APPROVED METHOD TO ASSURE WATER TIGHTNESS. ALTERNATIVELY, THE SEWER LINES SHALL BE ENCASED IN CONCRETE (MIN. 6" THICKNESS) FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER LINE.
- THE CONTRACTOR IS REQUIRED TO ENSURE THAT THE ABOVE MENTIONED SEPARATION DISTANCES OR CONDITIONS ARE MET AND IN ACCORDANCE WITH THE RIDEM POLICY ON SEWER/WATER MAIN SEPARATION.



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PROPERTY OWNER:

N/F  
**RI RESOURCE RECOVERY CORPORATION**  
65 SHUN PIKE  
JOHNSTON, RHODE ISLAND  
02919

PROJECT TITLE:

**PROPOSED MANUFACTURING FACILITY ON A PORTION OF ASSESSOR'S PLAT 31, LOT 61 ZONING DISTRICT - INDUSTRIAL LAKESIDE COMMERCE CENTER SHUN PIKE AND SCIUTATE AVENUE JOHNSTON, RHODE ISLAND**

PREPARED FOR:

**MICHAEL V. D'AMBRA**  
800 JEFFERSON BOULEVARD  
WARWICK, RHODE ISLAND 02886

DRAWING TITLE:

**MISCELLANEOUS DETAIL PLAN No. 6**

DATE: MARCH 2008 SCALE: NO SCALE

DWG. NAME: 1451-23-DET6.dwg

NO.	DATE	REVISION
1	9-08	RIDEM COMMENTS
2	11-08	RIDEM COMMENTS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESH WATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
FILE # 08-0081  
NO CHANGES ALLOWED WITHOUT APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Charles A. Hester*

DRAWING NUMBER

**C-17**

SHEET: 20 OF 20

AGENCY REVIEW SUBMISSION