

A PROPOSED COMMERCIAL BUILDING ADDITION

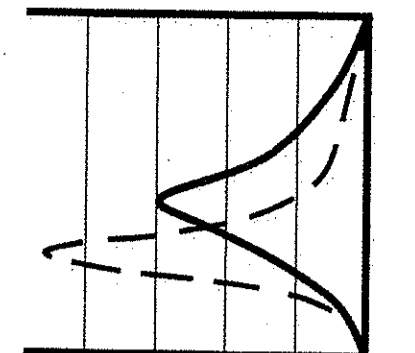
FOR

KERISSA CREATIONS

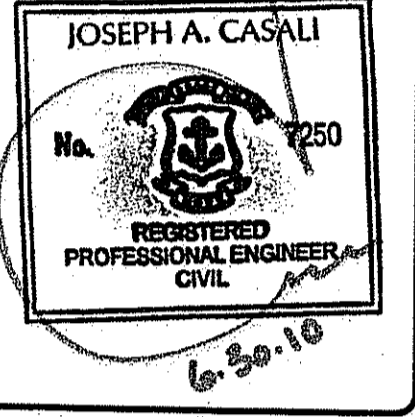
AP 43 LOT 97A

15 LARK INDUSTRIAL PARKWAY
SMITHFIELD, RHODE ISLAND

ZONING DISTRICT: INDUSTRIAL CLUSTER (I)



JCE
JOE CASALI ENGINEERING, INC.
CIVIL - SITE DEVELOPMENT - TRANSPORTATION
PLANNING - TRAFFIC - TRAFFIC FLOORPLAN
DESIGN - 300
PHONE: 401-944-1300 FAX: 401-944-1313 WWW.JCEONLINE.COM



KERISSA CREATIONS
15 LARK INDUSTRIAL PARKWAY
SMITHFIELD, RHODE ISLAND
AP 43 LOT 97A

PROJECT TEAM

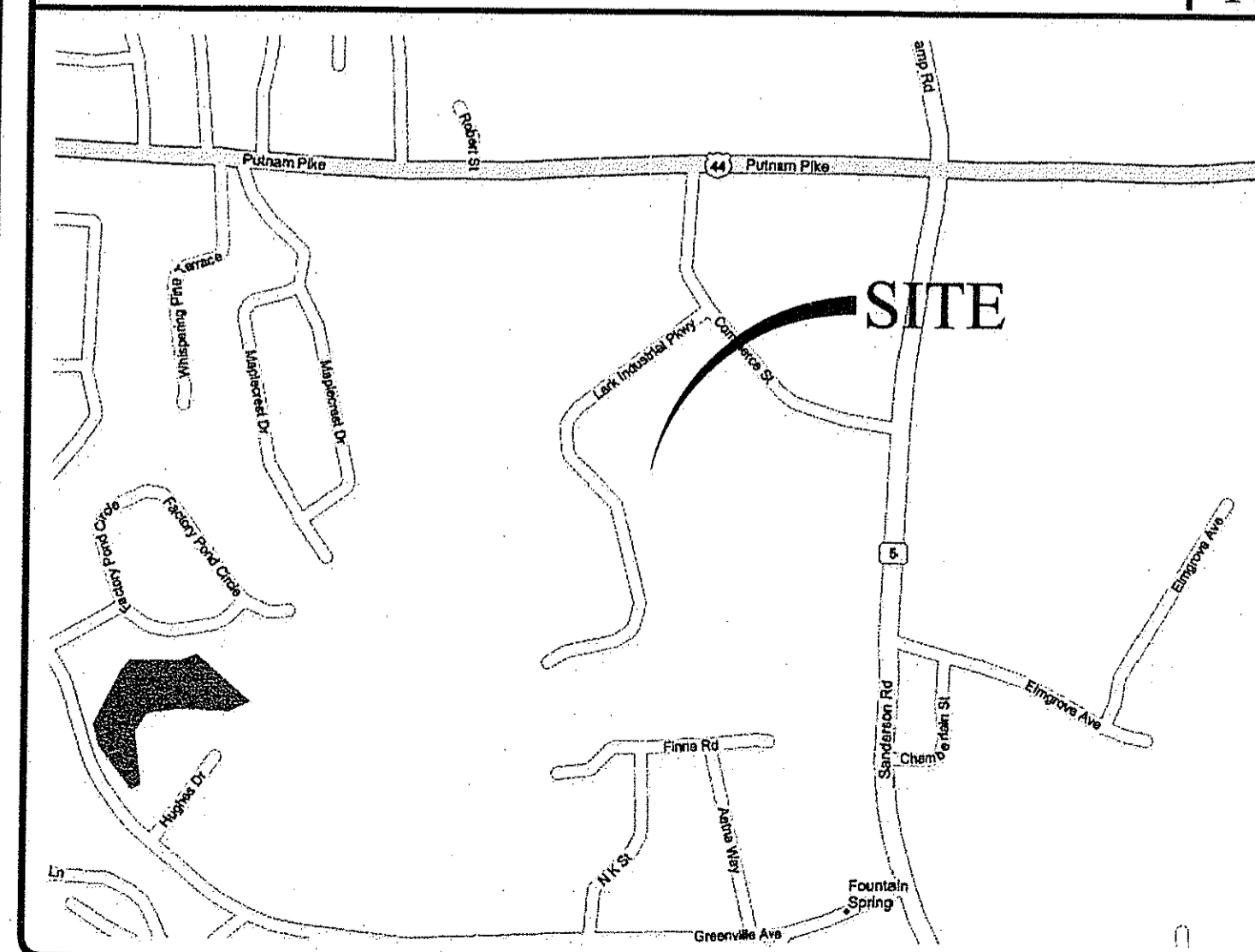
OWNER: LARK S & S LLC
15 LARK INDUSTRIAL PARKWAY
SMITHFIELD, RHODE ISLAND 02828

ARCHITECT: J. CHRISTOPHER ARCHITECT
300 POST ROAD
WARWICK, RHODE ISLAND 02888
PHONE: 944-1335

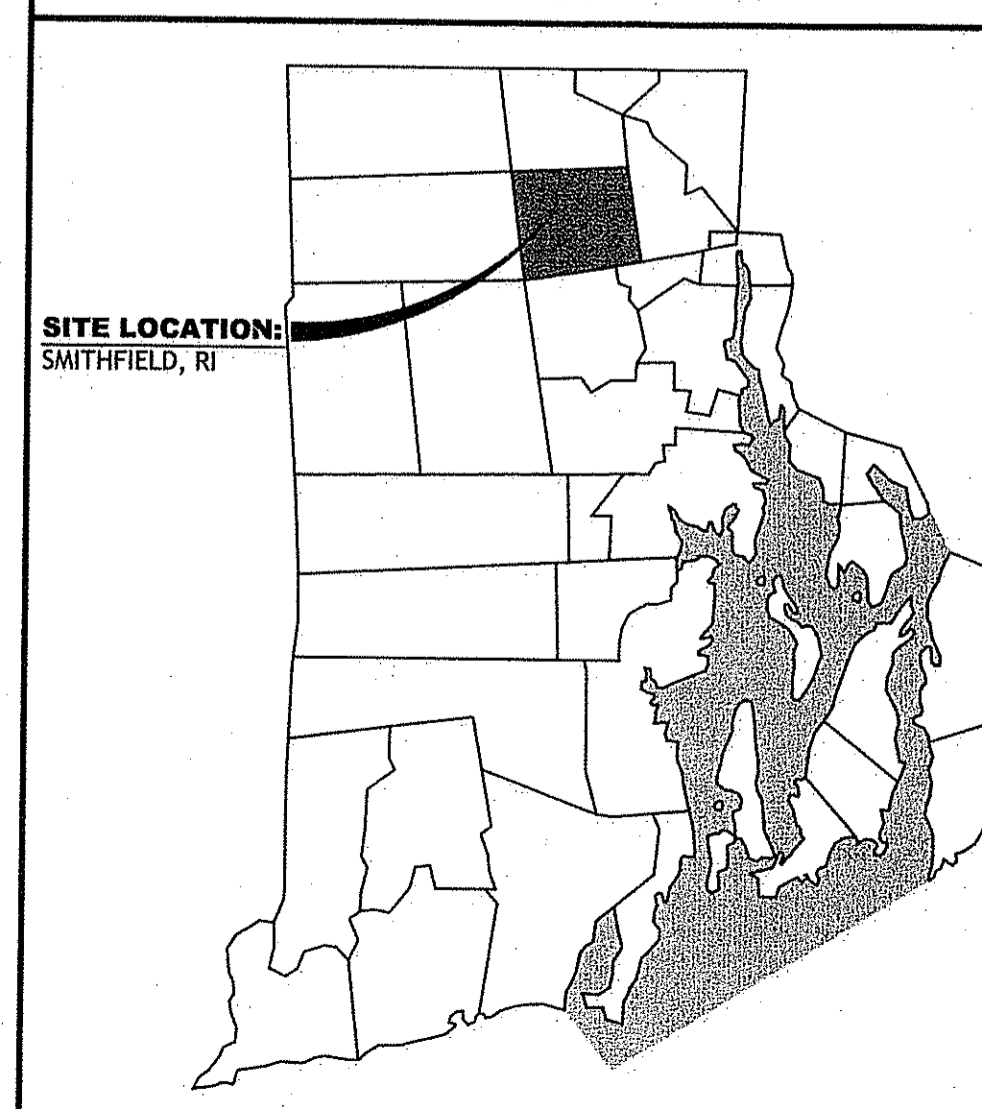
CIVIL: JOE CASALI ENGINEERING, INC.
300 POST ROAD
WARWICK, RHODE ISLAND 02888
PHONE: 401-944-1300
FAX: 401-944-1313

SURVEYOR: INTERNATIONAL MAPPING AND SURVEYING CORP.
19 INDUSTRIAL DRIVE
SMITHFIELD, RHODE ISLAND 02917
PHONE: 401-232-2620

LOCUS MAP (NOT TO SCALE)



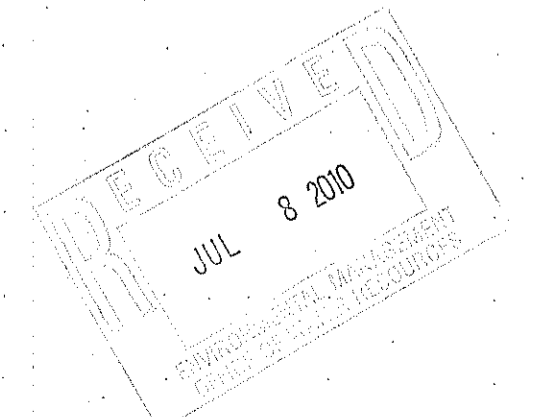
STATE WIDE MAP



INDEX OF DRAWINGS

| SHEET NO. | PLAN |
|-----------|--------------------------|
| 1 | COVER SHEET |
| 2 | GENERAL NOTES AND LEGEND |
| 3 | EXISTING CONDITIONS PLAN |
| 4 | SITE PLAN |
| 5 | LANDSCAPE PLAN |
| | DETAILS |

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED ~~FALL 2010~~ FILE # 10-0143
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles H. Horbe
AUG 04 2010



REVISIONS:

| NO. | DATE | DESCRIPTION |
|-----|---------|------------------|
| 1 | 6/23/10 | RTC SOIL EROSION |

DESIGNED BY: JEA
DRAWN BY: WMLJR
CHECKED BY: JAC
DATE: APRIL 2010
PROJECT NO: 03-38b

PRELIMINARY, NOT FOR CONSTRUCTION

COVER SHEET

SHEET 1 OF 6

SEQUENCE & STAGING OF PROPOSED CONSTRUCTION ACTIVITIES:

1. SURVEY AND STAKE THE PROPOSED BUILDING ADDITION CORNERS, STORMWATER MANAGEMENT AREA, SWALES, STRUCTURES, AND LIMIT OF DISTURBANCE.
2. PLACE SEDIMENTATION BARRIERS (HAY BALES OR SILT FENCE) AS SHOWN ON THE PLANS AND AS STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS.
3. EXCAVATE, INSTALL AND BACKFILL PROPOSED STORMWATER MANAGEMENT AREA AS SHOWN ON PLAN.
4. BEGIN SITE WORK (CLEARING AND GRUBBING, EXCAVATING AND GRADING, ETC.). TOPSOIL IS TO STRIPED AND STOCKPILED WITHIN DISTURBANCE LIMITS. THE STOCKPILES ARE TO BE PROTECTED BY A ROW OF SEDIMENTATION BARRIERS. STOCKPILES TO BE COVERED OR TEMPORARILY SEEDED. DIVERT ALL THE RUNOFF FROM DISTURBED AREAS TO THE PROPOSED STORMWATER STORAGE AREA.
5. INSTALL UTILITIES AND DRAINAGE INCLUDING DRAINAGE PIPE, IMMEDIATELY PLACE THE RIP-RAP AT THE DISCHARGE POINTS. SEE ALL DISTURBED AREAS.
6. BEGIN BUILDING CONSTRUCTION.
7. BEGIN PAVEMENT AND PROPOSED GRADING.
8. FINISH BUILDING AND PAVEMENT CONSTRUCTION.
9. FINISH LANDSCAPING AND PERMANENT STABILIZATION.
10. INSPECT AND REPAIR ALL DRAINAGE STRUCTURES INCLUDING STORAGE CHAMBERS AND DISCHARGE POINTS. REMOVE ANY DEBRIS (LEAVES, TREE LIMBS, BOULDERS, ETC.) FROM DRAINAGE INLETS AND OUTLETS. FLUSH ALL SEDIMENTS FROM DRAINAGE PIPES AND APPLY TOPSOIL TO PONDS.
11. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE VEGETATION HAS BEEN ESTABLISHED TO ALL DISTURBED AREAS.

GENERAL NOTES:

1. PLAN AND PROPERTY LINE INFORMATION OBTAINED FROM CLASS I BOUNDARY AND CLASS III TOPOGRAPHIC SURVEY PREPARED BY INTERNATIONAL MAPPING AND SURVEYING CORP.
2. THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR TOWN WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
3. BASED ON FEMA FLOOD INSURANCE RATE MAP FOR PROVIDENCE COUNTY, RHODE ISLAND, PANEL 281 OF 451, MAP NUMBER 44007C0281G, EFFECTIVE DATE MARCH 2, 2009, THE SITE IS LOCATED IN FLOOD ZONE "A" (NO BASE FLOOD ELEVATIONS DETERMINED). A LETTER OF MAP REVISION BASED ON FILL (LOW-R-F) WAS PREPARED BY JCE AND ISSUED BY FEMA (CASE # 05-01-0157A). THE LOWR DETERMINED THAT THE 100-YEAR FLOOD ELEVATION IS 222.6 (NGVD 1929).
4. BASED ON THE SOIL SURVEY OF RHODE ISLAND, SUBSURFACE SOILS ON THE SUBJECT SITE CONSIST OF THE FOLLOWING:
 - A. ADRIAN MUCK (Aa): THE PERMEABILITY OF THIS SOIL IS RAPID AND IS SUITED FOR COMMUNITY DEVELOPMENT.
 - B. PITS GRAVEL (Pg): THIS UNIT CONSISTS MOSTLY OF SAND AND GRAVEL. THE PERMEABILITY IS RAPID OR VERY RAPID.
5. THE EXISTING WETLANDS WERE FLAGGED AND DELINEATED BY ECOSYSTEMS SOLUTIONS, INC ON MARCH 23, 2010.
6. THE SITE LIES WITHIN THE WOONASQUATUCKET RIVER WATERSHED.
7. THIS SITE DOES NOT CONTAIN ANY EASEMENTS.
8. THERE ARE NO EXTRAORDINARY OR UNUSUAL NATURAL FEATURES ON THIS SITE.
9. THERE ARE NO HISTORIC BUILDINGS ON THIS SITE.
10. THERE ARE NO WATERCOURSES, PONDS OR DRAINAGE AREAS ON THIS SITE.
11. NO POTENTIAL IMPACTS TO THE EXISTING COMMUNITY ARE PROPOSED FOR THIS SITE.

SITE NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.
2. STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.
3. ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED.
4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SURVEY LAYOUT SERVICES FOR THE WORK AND SHALL SUBMIT "AS-BUILT" DRAWINGS OF ALL WORK, WHICH SHALL BE STAMPED AND CERTIFIED BY A RHODE ISLAND REGISTERED PROFESSIONAL LAND SURVEYOR.
5. ANY ITEM OF WORK NOT SPECIFICALLY INDICATED ON THE PLANS BUT IS REQUIRED FOR THE COMPLETE CONSTRUCTION OF THE PROJECT WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND INCLUDED IN THE CONTRACT BID PRICE. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL EXISTING SITE CONDITIONS.
6. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ACTUAL SIZE OF THE PROPOSED BUILDING.
7. WHERE NECESSARY TO REMOVE CURBS, CATCH BASINS OR DRAINS TO COMPLETE WORK, THE CONTRACTOR SHALL REPLACE SUCH ITEMS TO THE SATISFACTION OF THE TOWN, STATE AND/OR OWNER AT NO ADDITIONAL COST TO THE OWNER.
8. ANY EXISTING PIPE OR UTILITY DAMAGED BY THE CONTRACTORS OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER OR TOWN.
9. THE CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION OR REPLACE TREES, SHRUBS, FENCES, SIGNS, DRIVEWAYS, SIDEWALKS AND ANY OTHER OBJECT AFFECTED BY THIS OPERATION.
10. ROADWAYS SHALL BE LEFT PASSABLE AT ALL TIMES. CLOSURE OF ROADWAY IS NOT PERMITTED.
11. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL DRIVEWAYS AT COMPLETION OF EACH DAYS WORK.
12. WATER SERVICE SHALL BE MAINTAINED AT ALL TIMES.
13. ALL LEDGE TO BE REMOVED BY MECHANICAL MEANS.
14. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN THE DRY. THE CONTRACTOR SHALL PROVIDE, OPERATE AND MAINTAIN ALL PUMPS, DRAINS, WET POINTS, SCREENS, OR OTHER FACILITIES NECESSARY TO CONTROL, COLLECT AND DISPOSE OF ALL SURFACE AND SUBSURFACE WATER ENCOUNTERED IN THE PERFORMANCE OF THE WORK IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.
15. REFER TO PLUMBING PLANS FOR CONTINUATION OF ALL UTILITIES WITHIN 5' (FIVE) FEET OF THE BUILDING.
16. ALL SITE WORK, INCLUDING BUT NOT LIMITED TO BITUMINOUS PAVEMENT, STONE, GRAVEL, DRAINAGE STRUCTURES, UTILITY CONNECTIONS, PAVEMENT, SAW CUTTING, CURBING, LANDSCAPING, SIGNAGE, PAVEMENT MARKINGS, AND SOIL EROSION AND SEDIMENTATION CONTROLS SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION WITH LATEST ADDENDA.

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 ENGINEERS ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW, NO WORK SHALL PROCEED UNLESS AUTHORIZED BY THE ENGINEER.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION (IF REQUIRED), ALL TEMPORARY AND VEHICULAR 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.).
2. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DIVIDES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.
3. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE RIDOT SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

**PROPOSED PAVEMENT STRUCTURE:
ON-SITE (PAVEMENT PARKING LOT / ENTRANCE DRIVE)**

- 1 1/2" BITUMINOUS CONCRETE SURFACE COURSE CLASS 1-1
- 1 1/2" BITUMINOUS CONCRETE BASE COURSE
- 8" GRAVEL BORROW SUBBASE

**PROPOSED PAVEMENT STRUCTURE (LARK INDUSTRIAL PARKWAY):
PAVEMENT STRUCTURE TO BE REPLACED IN-KIND OR AT A MINIMUM TO TOWN STANDARDS OF:**

- 2" BITUMINOUS CONCRETE SURFACE COURSE CLASS 1-1
- 2" BITUMINOUS CONCRETE BASE COURSE
- 12" GRAVEL BORROW SUBBASE

DRAINAGE SYSTEM MAINTENANCE SCHEDULE:

UPON PROJECT COMPLETION, THE SITE OWNER SHALL ADHERE TO THE FOLLOWING MAINTENANCE RECOMMENDATIONS:

1. INLET AREAS AND DRAIN LINES: AN INSPECTION MUST OCCUR ON AN ANNUAL BASIS TO ENSURE PROPER OPERATION. THE INSPECTION SHOULD, AS A MINIMUM, CONCENTRATE ON THE FOLLOWING:
 - EVIDENCE OF STANDING WATER
 - DEBRIS REMOVAL
 - STRUCTURAL ALIGNMENT/ INTEGRITY
 - SOIL STABILIZATION
- ANY DEFICIENCY NOTED DURING THE INSPECTION SHALL BE IMMEDIATELY REPAIRED OR REPLACED.
2. SEDIMENT REMOVAL: THE SEDIMENT IS TO BE PROPERLY DISPOSED IN UPLAND AREAS BASED UPON THE TEST RESULTS AND LOCAL, STATE, AND FEDERAL REGULATIONS

DRAINAGE SYSTEM NOTES:

1. THE PROPOSED DRAINAGE LINES SHALL BE ADS (HDPE) OR AN APPROVED EQUAL AS INDICATED ON THESE PLANS.
2. THE DESIGN ENGINEER MUST SUBMIT AN AS-BUILT PLAN AND A CERTIFICATION TO THE TOWN ENGINEER THAT THE CONSTRUCTION IS IN COMPLIANCE WITH THE DESIGN PLANS FOR ALL ELEMENTS OF THE STORM OR DRAINAGE PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. THE HAYBALE AND SILT FENCE LINE ILLUSTRATED ON THESE PLANS SHALL SERVE AS THE STRICT LIMIT OF DISTURBANCE FOR THE PROJECT WITHIN OR ADJACENT TO REGULATED FRESHWATER WETLAND AREAS.
2. THE LIMITS OF CLEARING, GRADING, AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THESE LIMITS, AS DEPICTED ON THE PLAN SHALL BE TOTALLY UNDISTURBED, TO REMAIN IN NATURAL CONDITION.
3. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL REGULARLY CHECK ALL SEEDED AREAS TO ENSURE THAT A GOOD STAND IS MAINTAINED.
4. ALL GRASSSED SLOPES SHALL BE MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL CHECK ALL SEEDED AREAS TO ENSURE THAT A GOOD STAND IS MAINTAINED.
5. ALL HAYBALES, SILT FENCE, TEMPORARY TREATMENT (HAY, STRAW, ETC.) AND TEMPORARY EROSION PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
6. STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES OF NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED PER CONTRACT SPECIFICATIONS.
7. THE HAYBALES SHALL BE CHECKED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM FOR UNDERMINING OR DETERIORATION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY HAYBALES AS NEEDED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY-BALES BECOMES FILLED WITH SEDIMENTS.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL SOIL EROSION AND SEDIMENT CONTROLS ON THE PROJECT SITE FOR THE ENTIRE DURATION OF THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL FOLLOW THE DIRECTION OF THE RESIDENT ENGINEER WITH REGARD TO INSTALLATION, MAINTENANCE, AND REPAIR OF ALL SOIL EROSION AND SEDIMENTATION CONTROLS ON THE PROJECT SITE. TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROLS (HAYBALES, SILT FENCE, ETC.) SHALL BE MAINTAINED UNTIL ALL EXPOSED SOILS ARE SATISFACTORILY STABILIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND/OR RESEEDING ALL AREAS THAT DO NOT DEVELOP WITHIN ONE YEAR FROM THE COMPLETION OF CONSTRUCTION.
9. ALL REFERENCED SOIL EROSION AND SEDIMENTATION CONTROLS INCLUDING MATERIALS USED, APPLICATION RATES AND THE INSTALLATION PROCEDURES SHALL BE PERFORMED PER THE "RHODE ISLAND EROSION AND SEDIMENTATION HANDBOOK", DATED 1993.

DETENTION BASIN CONSTRUCTION NOTES:

1. DETENTION BASIN BERM AREAS ARE TO BE CONSTRUCTED WITH COMMON BORROW COMPACTED TO 95% AND THEN LOAMED AND SEEDED.
2. DISTURBED AREAS ARE TO BE LOAMED A MINIMUM OF 6" AND SEEDED WITH A CONSERVATION TYPE MIXTURE.
3. ALL CONTROL PRACTICES MUST BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE "SOIL EROSION AND SEDIMENT CONTROL HANDBOOK".
4. GRASSES MUST BE PLANTED AROUND AND WITHIN THE POND IMMEDIATELY FOLLOWING CONSTRUCTION TO STABILIZE THE SLOPES AND PREVENT EROSION. TREES AND SHRUBS SHALL NOT BE ON THE IMPOUNDING EMBANKMENTS TO PREVENT POSSIBLE FAILURE OF THE STRUCTURE. IT IS SUGGESTED THE DEVELOPER USE STORM WATER BASIN PLANTS AND LANDSCAPING GUIDE: A SIMPLE GUIDE FOR DESIGNERS AND COMMUNITIES (LMP, 1991) TO ASSIST THE SELECTION OF APPROPRIATE VEGETATION.

DETENTION BASIN PLANT MIX

| | LBS/ ACRE | LBS/ 1000 FT. |
|---------------------------------|-----------|---------------|
| CREeping RED FESCUE | 20 | .45 |
| TALL FESCUE OR REED CANARYGRASS | 20 | .45 *USE |

* REED CANARYGRASS WHERE MOWING IS NOT REQUIRED.
(Source: USDA, Soil Conservation Service)

BMP MAINTENANCE SCHEDULE:

1. ALL MAINTENANCE (INCLUDING CLEANING) REQUIRED DURING THE CONSTRUCTION PHASE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL INCLUDE:
 - A) MEASURES NEEDED TO ENSURE THE PROPER OPERATION OF STORMWATER RUNOFF (DRAINAGE) AND WATER QUALITY CONTROL SYSTEMS TO INCLUDE INSPECTION, CLEANING AND REPAIRS TO ALL PIPES, SWALES, INTAKE AND DISCHARGE STRUCTURES.
 - B) INSPECTION OF ALL SLOPES, BERMS, AND OTHER CONTROL STRUCTURES FOR STRUCTURAL INTEGRITY/STABILITY AND EVIDENCE OF SOIL EROSION PROCESSES, AND MAINTENANCE OF THESE STRUCTURES IF NECESSARY. INSPECTIONS SHALL BE PERFORMED FOLLOWING ALL RAIN EVENTS OF 1/8 INCH RAINFALL OR MORE IN A 24-HOUR PERIOD, OR BI-MONTHLY IF NO RAINFALL EVENT OCCURS.
 - C) UPON COMPLETION OF PROJECT CONSTRUCTION, AND PRIOR TO VACATING THE SITE, THE CONTRACTOR SHALL CONDUCT A FINAL INSPECTION AND CLEANING OF THE DRAINAGE SYSTEM AND ALL ASSOCIATED STRUCTURES.
2. AFTER THE COMPLETION OF THE ENTIRE PROJECT TO THE SATISFACTION OF THE ENGINEER, ALL MAINTENANCE OF THE DRAINAGE SYSTEM SHALL THEN BE THE RESPONSIBILITY OF THE OWNER OR THEIR APPOINTED AGENTS.
 - A) ANY REQUIRED REPAIR AND REPLACEMENT OF DRAINAGE STRUCTURES OR FACILITIES SHALL BE DONE PROMPTLY TO ENSURE PROPER FUNCTIONING OF THE SYSTEM.
 - B) ALL DESIGN, CLEANING, AND MAINTENANCE OF THE STORMWATER DRAINAGE SYSTEM SHALL FOLLOW AT LEAST THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION MINIMUM STANDARDS, SECTION 206.2000 AND SECTION 701.9040. WHERE APPROPRIATE, PROCEDURES REGARDING THE DRAINAGE DESIGN, AND THE INSPECTION AND MAINTENANCE OF THE STORMWATER DRAINAGE SYSTEM SHALL BE FOLLOWED AS OUTLINED IN THE "RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL" (RIDEM/RICRMC, SEPT. 1, 1993).
 - C) ANY TRASH, DEBRIS, ECT SHOULD BE REMOVED FROM DETENTION AREAS, SWALES AND PIPE OUTLETS.
 - D) SWALES SHALL BE MOWED AT LEAST ONCE DURING THE GROWING SEASON TO PREVENT UNWANTED WOODY GROWTH.
 - E) SWALES AND DETENTION AREAS SHALL BE INSPECTED AFTER MAJOR STORM EVENTS OR AN ANNUAL BASIS. REPAIRS SHALL BE PERFORMED IMMEDIATELY AS CONDITIONS WARRANT. BARE SPOTS AND ERODED AREAS AS SHALL BE RESEEDING IMMEDIATELY FOLLOWING OBSERVATION. ALL LITTER AND TRASH SHALL BE REMOVED DURING INSPECTIONS.
 - F) SIDE-SLOPES, EMBANKMENTS AND THE UPPER STAGE OF THE POND SHOULD BE MOWED AT LEAST ONCE DURING THE GROWING SEASON PREFERABLE AFTER AUGUST 15TH, TO PREVENT UNWANTED WOODY GROWTH. MOWINGS CAN BE MORE FREQUENT IN RESIDENTIAL AREAS IF A MORE GROOMED APPEARANCE IS DESIRED. ALL TRASH AND LITTER SHALL BE REMOVED FROM THE POND DURING MOWING OPERATIONS.
 - G) SEDIMENTS SHALL BE REMOVED FROM THE POND DURING THE FIRST YEAR OF OPERATION AND EVERY 2 YEARS THEREAFTER. MORE FREQUENT REMOVALS MAY BE NECESSARY IF THE SEDIMENT STORAGE CAPACITY OF THE FOREBAY OR POND IS EXCEEDED.

EXTENDED DETENTION POND NOTES:

1. THE DETENTION POND(S) OUTLET AND OUTFLOW CHANNEL SHALL BE INSPECTED AT LEAST TWICE PER YEAR. INSPECTIONS SHALL BE ACCOMPLISHED SEVERAL TIMES DURING THE FIRST SIX MONTHS OF OPERATIONS, ESPECIALLY AFTER RAINFALL EVENTS, TO CHECK FOR CLOGGING OR TOO RAPID RELEASE RESULTING IN EROSION.
2. IF STANDING WATER IS FOUND IN EITHER POND MORE THAN (3) DAYS AFTER A RAINFALL EVENT, THE POND(S) SHALL BE DETERMINED TO HAVE FAILED AND THE OWNER SHALL BE RESPONSIBLE TO HAVE THE POND(S) CHECKED BY A PROFESSIONAL REGISTERED ENGINEER AND REPAIRED OR REPLACED IMMEDIATELY.
3. ALL GRASSSED AREAS SHALL BE INSPECTED AT LEAST TWICE PER YEAR TO CHECK FOR EROSION PROBLEMS. PROBLEM AREAS SHALL BE RE-SEEDED IMMEDIATELY TO STABILIZE EXPOSED SOIL, THEREBY PREVENTING EROSION AND POTENTIAL LOGGING OF OUTFLOW DEVICES.
4. AN AREA SHALL BE SET ASIDE IN THE DEVELOPMENT SITE IN AN UPLAND LOCATION OUTSIDE OF JURISDICTIONAL WETLANDS FOR THE PURPOSE OF SEDIMENT DISPOSAL, IF AN OFF SITE DISPOSAL AREA IS NOT FEASIBLE.
5. MOWING SHALL OCCUR WHEN VEGETATION REACHES A HEIGHT BETWEEN 18 AND 24 INCHES. MOWING SHALL UTILIZE A ROTARY MOWER SET AT A HEIGHT OF 8 INCHES.

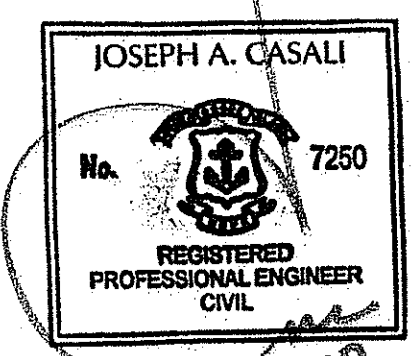
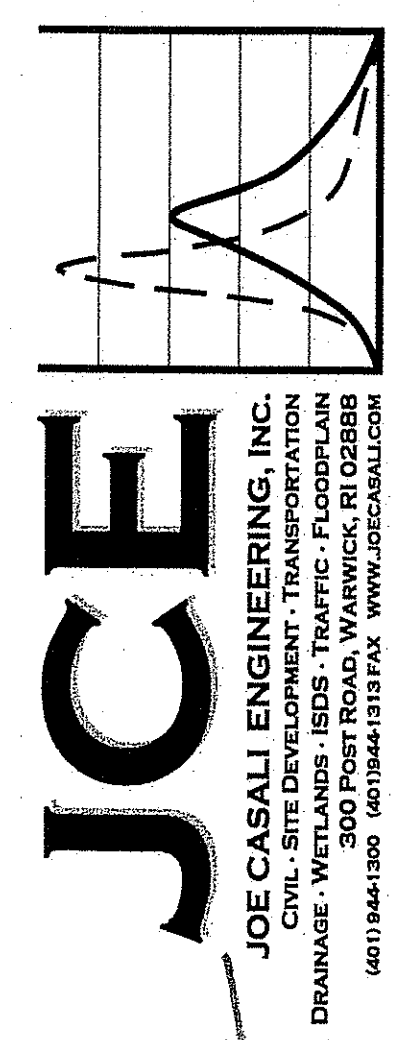
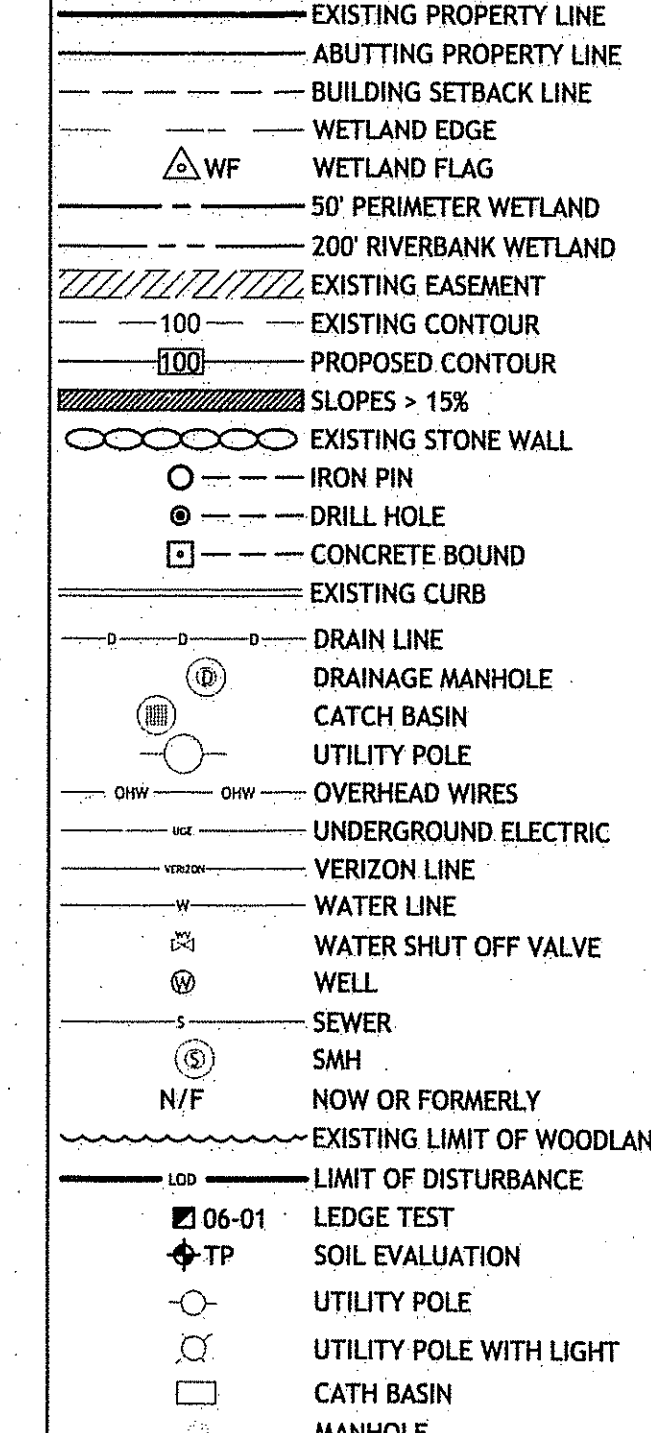
MISCELLANEOUS UTILITY NOTES:

1. PRIOR TO CONSTRUCTION ALL POTENTIAL UTILITY/DRAINAGE CONFLICTS MUST BE IDENTIFIED BY THE CONTRACTOR. 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.
2. THE CONTRACTOR SHALL AT ALL TIMES PROVIDE A SUFFICIENT NUMBER OF WORKMEN AND GUARDS AS MAY BE NECESSARY TO PROPERLY SAFEGUARD THE PUBLIC FROM THEIR OPERATIONS.
3. THE CONTRACTOR SHALL TAKE PRECAUTIONS AGAINST DAMAGING OF PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES AND SHALL PROMPTLY REPAIR AT HIS OWN EXPENSE ANY DAMAGE TO SUCH PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES TO THE SATISFACTION OF THE OWNER OR TOWN.
4. INSPECTION OF ALL SEWER CONSTRUCTION WITHIN EXISTING ROAD AND SITE SHALL BE PERFORMED BY TOWN OF SMITHFIELD SEWER CONSULTANT. THE APPLICANT SHALL PROVIDE A SCHEDULE FOR CONSTRUCTION AS SOON AS POSSIBLE TO ALLOW FOR DEVELOPMENT OF INSPECTION FEE, TO BE PAID BY APPLICANT DIRECTLY TO TOWN OF SMITHFIELD, ENGINEERING DEPARTMENT. UPON PAYMENT OF FEE, COMMENCEMENT OF CONSTRUCTION INSPECTION REQUIRES MINIMUM NOTIFICATION OF 48 HOURS.
5. APPLICANT IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS FROM LOCAL, STATE, AND/OR FEDERAL AGENCIES WITH REGULATORY JURISDICTION OVER THE PROPOSED WORK. ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY A DRAIN LAYER LICENSED IN THE STATE OF RHODE ISLAND AND THE TOWN OF SMITHFIELD.
6. SEWERS SHALL BE LAID AT LEAST 10 FEET HORIZONTAL FROM ANY EXISTING OR PROPOSED WATER MAIN. THERE IS NO MINIMUM VERTICAL SEPARATION REQUIRED PROVIDED THE 10 FOOT HORIZONTAL SEPARATION IS MAINTAINED. IF THE 10 FOOT HORIZONTAL SEPARATION CANT BE MAINTAINED; THE SEWER AND WATER MAIN ARE TO BE LAID IN SEPARATE TRENCHES, OR THE SEWER OR WATER MAIN MAY BE INSTALLED IN THE SAME TRENCH WITH THE WATER MAIN PLACED ON A BENCH OF UNDISTURBED EARTH, AND IN EITHER CASE, THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.
7. IN SITUATIONS WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL OR VERTICAL SEPARATION; THE SEWER MAIN SHALL BE ENCASED IN A MIN. 6" THICK CONCRETE FOR AT LEAST 10 FEET EITHER SIDE OF THE AREA NOT COMPLYING WITH THE HORIZONTAL AND VERTICAL SEPARATION.
8. PRIOR TO RECEIVING AUTHORIZATION TO CONSTRUCT, ALL MATERIALS SHALL MEET THE STANDARDS AND RECEIVE THE WRITTEN APPROVAL, BASED ON MANUFACTURERS DRAWINGS AND OTHER DATA, OF THE SEWER AUTHORITY OR ITS REPRESENTATIVE.
9. INSTALLATION OF THE SEWERAGE FACILITIES SHALL BE IN ACCORDANCE WITH THE TOWN OF SMITHFIELD SEWER AUTHORITY'S STANDARD SPECIFICATIONS AND DETAILS FOR THE INSTALLATION OF SEWERS AND APPURTENANCES BY PRIVATE DEVELOPERS.
10. ALL SEWERAGE FACILITIES SHALL MEET TESTING AND CLEANING REQUIREMENTS PRIOR TO ACCEPTANCE. (IN ACCORDANCE WITH NOTE 12)
11. TWO SETS OF AS-BUILT DRAWINGS STAMPED BY A CURRENTLY RHODE ISLAND REGISTERED PROFESSIONAL ENGINEER SHALL AND PROFESSIONAL SURVEYOR BE FURNISHED TO THE TOWN OF SMITHFIELD SEWER AUTHORITY AS A CONDITION FOR ACCEPTANCE OF THE NEW SEWERAGE FACILITIES.
12. NO FLOW WILL BE ACCEPTED UNTIL ALL ABOVE STEPS ARE COMPLETED AND THE CERTIFICATE IS ISSUED.
13. THE CONTRACTOR IS TO COORDINATE WITH THE PLUMBER AS TO THE LOCATION OF THE NEW BUILDING SEWER.
14. TOWN MUST BE GIVEN A MINIMUM OF 48 HOURS NOTICE PRIOR TO THE START OF CONSTRUCTION SO THAT INSPECTIONS CAN BE SCHEDULED.

SEWER NOTE(S):

1. ALL SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN OF SMITHFIELD SEWER AUTHORITY STANDARD SPECIFICATIONS AND DETAILS FOR THE INSTALLATION OF SEWER AND APPURTENANCES BY PRIVATE DEVELOPERS.
2. ALL NEW SEWER PIPES AND MANHOLES SHALL BE CLEANED AND TESTED PRIOR TO ACCEPTANCE. GRAVITY SEWER PIPES SHALL BE REQUIRED TO PASS BOTH LOW PRESSURE AIR AND DEFLECTION (I.E. MANDREL) TESTING. LOW PRESSURE SEWER PIPING SHALL BE REQUIRED TO PASS A LOW PRESSURE (I.E. HYDROSTATIC) TEST. SEWER MANHOLES SHALL BE REQUIRED TO PASS A VACUUM TEST.
3. APPLICANT IS REQUIRED TO PROVIDE TWO SETS OF FINAL AS-BUILT PLANS TO SEWER AUTHORITY AND ENGINEERING DEPARTMENT UPON COMPLETION OF CONSTRUCTION, PRIOR TO FINAL ACCEPTANCE. AS-BUILT PLANS SHALL INCLUDE FIELD MEASUREMENTS OF ALL INSTALLED PIPE AND APPURTENANCES, INCLUDING LENGTH, SLOPE, MANHOLE RIMS AND INVERTS, AS WELL AS TIES/MEASUREMENTS TO ALL MANHOLES, SEWER STUBS, AND/OR LATERAL SERVICE CONNECTIONS.
4. INSPECTION OF ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY TOWN OF SMITHFIELD SEWER CONSULTANT. APPLICANT SHALL PROVIDE SCHEDULE FOR CONSTRUCTION AS SOON AS POSSIBLE TO ALLOW FOR DEVELOPMENT FOR INSPECTION FEE, TO BE PAID BY APPLICANT DIRECTLY TO TOWN OF SMITHFIELD, ENGINEERING DEPARTMENT. UPON PAYMENT OF FEE, COMMENCEMENT OF CONSTRUCTION INSPECTION REQUIRES MINIMUM NOTIFICATION OF 48-HOURS.
5. APPLICANT IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS FROM LOCAL, STATE, AND/OR FEDERAL AGENCIES WITH REGULATORY JURISDICTION OVER THE PROPOSED WORK. COPIES OF ALL PERMITS SHALL BE PROVIDED TO SMITHFIELD SEWER AUTHORITY AND TOWN ENGINEER PRIOR TO CONSTRUCTION. ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY A DRAIN LAYER LICENSED IN THE STATE OF RHODE ISLAND AND THE TOWN OF SMITHFIELD.
6. APPLICANT SHALL PROVIDE ONE SET OF REVISED PLANS TO THE TOWN ENGINEER AND THE TOWN OF SMITHFIELD SEWER CONSULTANT PRIOR TO CONSTRUCTION. THESE PLANS SHALL ADDRESS COMMENTS FROM THIS SEWER REVIEW.
7. NO FLOW WILL BE ACCEPTED UNTIL A COMPLETION CERTIFICATE IS ISSUED.
8. THE CONTRACTOR SHALL CONFINE HIS CONSTRUCTION OPERATIONS AND ACTIVITIES TO WITHIN THE STREET LINES, EASEMENTS AND/OR RIGHT OF WAY, AS SHOWN ON THE DRAWINGS.
9. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO EXTRA COST TO THE OWNER. ALL GRASSSED AREAS DISTURBED BY THE CONTRACTORS OPERATIONS SHALL BE LOAMED AND SEEDED.
10. THE TOPOGRAPHY HAS BEEN ESTABLISHED ON NATIONAL GEODETIC VERTICAL DATUM (NGVD)1988.
11. ALL CONSTRUCTION MATERIALS, AS WELL AS ALL MATERIAL SHOP DRAWINGS AND MANUFACTURES DATA SHEET SHALL BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER, THE SEWER AUTHORITY, OR ITS REPRESENTATIVE PRIOR TO FABRICATION AND INSTALLATION, AND SUBMITTED TO THE SMITHFIELD SEWER AUTHORITY AND TOWN ENGINEER PRIOR TO CONSTRUCTION FOR THEIR RECORDS.
12. NO FLOOR DRAINS SHALL BE PERMITTED TO DISCHARGE INTO THE CLOSED SANITARY SEWER SYSTEM.

LEGEND



KERISSA CREATIONS
15 LARK INDUSTRIAL PARKWAY
SMITHFIELD, RHODE ISLAND
AP 43 LOT 97A

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED Jan 10 2010 FILE # 10-0143
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Hober

REVISIONS:

| NO. | DATE | DESCRIPTION |
|-----|---------|------------------|
| 1 | 6/23/10 | RTC SOIL EROSION |

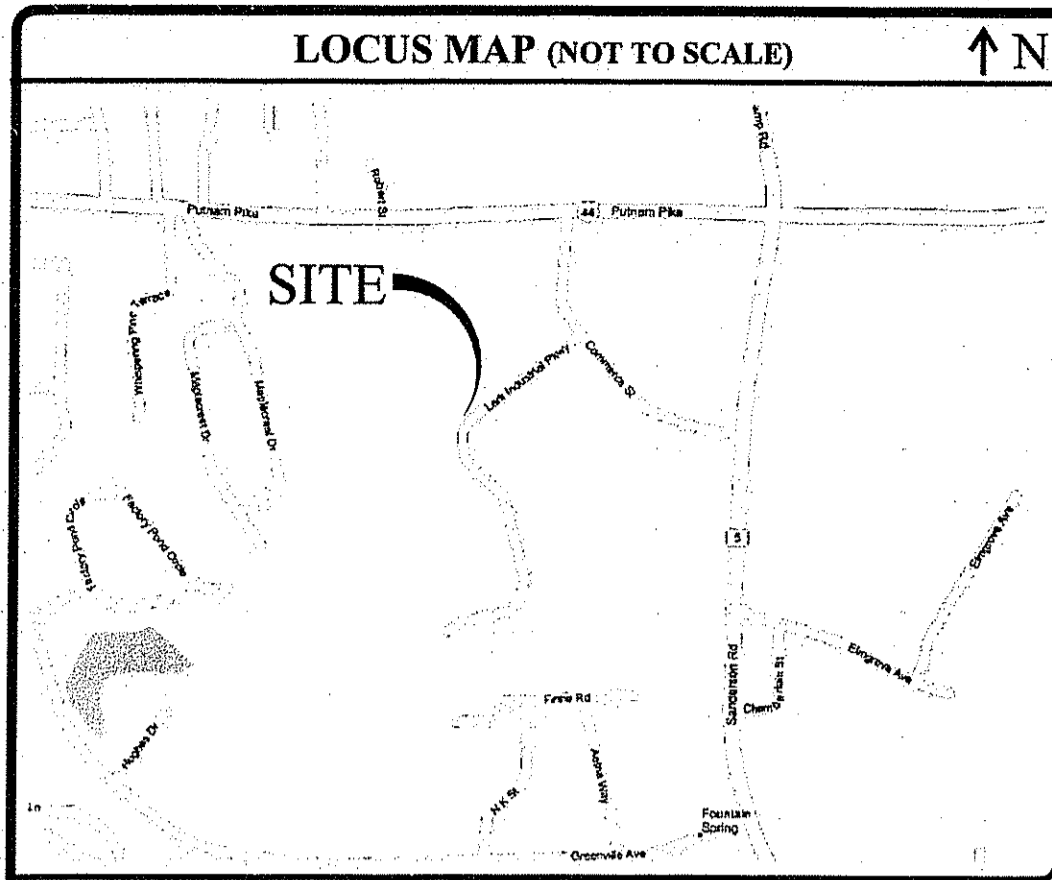
DESIGNED BY: JEA
 DRAWN BY: WMLJR
 CHECKED BY: JAC
 DATE: APRIL 2010
 PROJECT NO: 03-38b

PRELIMINARY, NOT FOR CONSTRUCTION

GENERAL NOTES

SHEET 2 OF 6

Q:\03-38-Karissa Creations\03-38b-Karissa Creations\ACAD\Pre\Initial\03-38b-Karissa Creations\PLANS\SET1-R1.dwg - Jun_30_2010 1:15:10pm



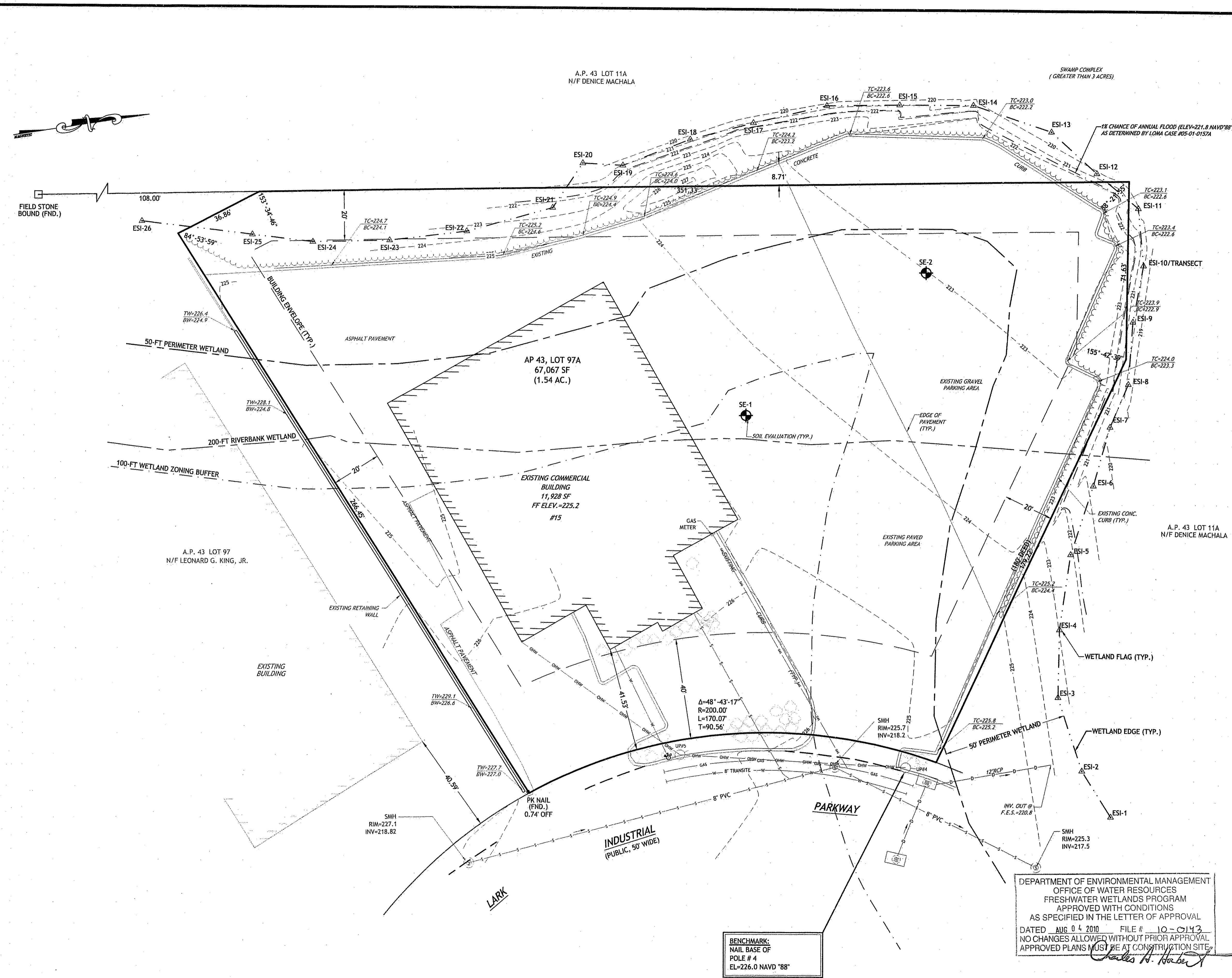
- LEGEND**
- EXISTING PROPERTY LINE
 - ABUTTING PROPERTY LINE
 - BUILDING SETBACK LINE
 - WETLAND EDGE
 - △ WF WETLAND FLAG
 - 50' PERIMETER WETLAND
 - 100' WETLAND ZONING BUFFER
 - 200' RIVERBANK WETLAND
 - 100' EXISTING CONTOUR
 - IRON PIN
 - ⊙ DRILL HOLE
 - CONCRETE BOUND
 - EXISTING CURB
 - D DRAIN LINE
 - ⊕ DRAINAGE MANHOLE
 - ⊕ CATCH BASIN
 - UTILITY POLE
 - OHW OVERHEAD WIRES
 - W WATER LINE
 - WATER SHUT OFF VALVE
 - ⊕ WELL
 - S SEWER
 - SMH SMH
 - N/F NOW OR FORMERLY
 - EXISTING LIMIT OF WOODLAND (APPROXIMATE)
 - TP SOIL EVALUATION

| ZONING CRITERIA | REQUIRED |
|----------------------------|-----------|
| ZONING DISTRICT | I CLUSTER |
| MINIMUM LOT AREA | 40,000 SF |
| MINIMUM LOT FRONTAGE | 150' |
| MINIMUM FRONT YARD SETBACK | 40' |
| MINIMUM SIDE YARD SETBACK | 20' |
| MINIMUM REAR YARD SETBACK | 20' |
| MAXIMUM BUILDING HEIGHT | 48' |

- GENERAL NOTES:**
- WETLAND EDGES HAVE BEEN DELINEATED BY ECOSYSTEM SOLUTIONS AND SURVEY LOCATED BY INTERNATIONAL MAPPING AND SURVEYING CORP.
 - SOIL EVALUATIONS COMPLETED BY ECOSYSTEMS SOLUTIONS ON MARCH 23, 2010 AND SURVEY LOCATED BY INTERNATIONAL MAPPING AND SURVEYING CORP. ON MARCH 24, 2010.
 - RIVERBANK WETLAND OBTAINED FROM COMPILATION OF USGS MAPPING, RIGS STREAM DATA FOR REAPER BROOK AND SUPPLEMENTED BY ECOSYSTEM SOLUTIONS, INC. MARCH 23, 2010 FIELD OBSERVATIONS.
 - PLAN AND PROPERTY LINE INFORMATION OBTAINED FROM CLASS I BOUNDARY AND CLASS III TOPOGRAPHIC SURVEY PREPARED BY INTERNATIONAL MAPPING AND SURVEYING CORP.
 - THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR TOWN WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
 - BASED ON THE SOIL SURVEY OF RHODE ISLAND, SUBSURFACE SOILS ON THE SUBJECT SITE CONSIST OF THE FOLLOWING:
 - ADRIAN MUCK (Aa): THE PERMEABILITY OF THIS SOIL IS RAPID AND IS SUITED FOR COMMUNITY DEVELOPMENT.
 - PITTS GRAVEL (Pg): THIS UNIT CONSISTS MOSTLY OF SAND AND GRAVEL. THE PERMEABILITY IS RAPID OR VERY RAPID.
 - BASED ON FEMA FLOOD INSURANCE RATE MAP FOR PROVIDENCE COUNTY, RHODE ISLAND, PANEL 281 OF 451, MAP NUMBER 44007C0281G, EFFECTIVE DATE MARCH 2, 2009, THE SITE IS LOCATED IN FLOOD ZONE "A" (NO BASE FLOOD ELEVATIONS DETERMINED). A LETTER OF MAP REVISION BASED ON FILL (LDMR-F) WAS PREPARED BY JCE AND ISSUED BY FEMA (CASE # 05-01-0157A). THE LDMR DETERMINED THAT THE 100-YEAR FLOOD ELEVATION IS 222.6 (NGVD 1929)



LOCATION OF EXISTING UTILITIES SHOWN, ARE FROM GATE LOCATION AND EXISTING DOCUMENTATION AND MAY NOT BE ACCURATE. EXACT LOCATION TO BE DONE BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY PRIOR TO ANY EXCAVATION CALL **DIGSAFE** AT **1-888-DIG-SAFE** OR **1-888-344-7233**



BENCHMARK:
NAIL BASE OF
POLE # 4
EL=226.0 NAVD '88"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 04 2010 FILE # 10-0143
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

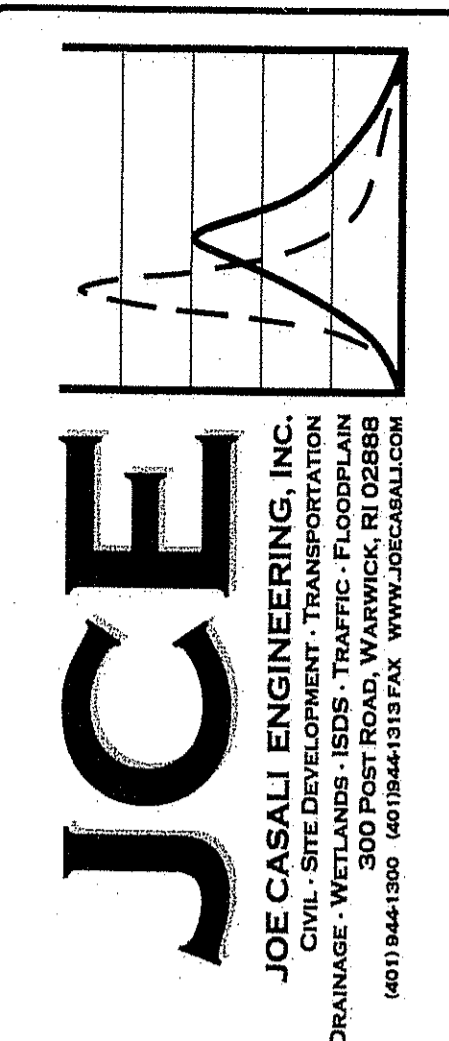
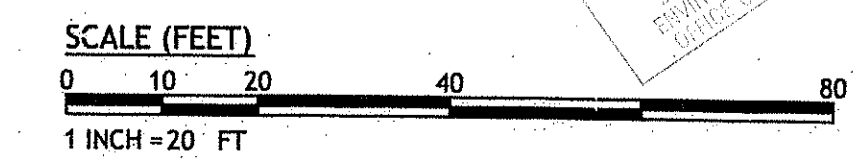


INTERNATIONAL MAPPING & SURVEYING CORP.
LAND SURVEYING CIVIL ENGINEERING PHOTOGRAMMETRIC MAPPING
19 INDUSTRIAL DRIVE, SMITHFIELD, R.I. 02917 (401) 232-2620

THIS SURVEY AND PLAN CONFORMS TO THE FOLLOWING CLASS STANDARDS AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

BOUNDARY SURVEY CLASS I
TOPOGRAPHIC SURVEY CLASS III

BY: *Anthony E. Muscatelli* 6-24-10
ANTHONY MUSCATELLI, PROFESSIONAL LAND SURVEYOR



KERISSA CREATIONS
15 LARK INDUSTRIAL PARKWAY
SMITHFIELD, RHODE ISLAND
AP 43 LOT 97A

REVISIONS:

| NO. | DATE | DESCRIPTION |
|-----|---------|------------------|
| 1 | 6/23/10 | RTC SOIL EROSION |

DESIGNED BY: JEA
DRAWN BY: WMLJR
CHECKED BY: JAC
DATE: APRIL 2010
PROJECT NO: 03-38b

PRELIMINARY, NOT FOR CONSTRUCTION

EXISTING CONDITIONS PLAN

SHEET 3 OF 6

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- ABUTTING PROPERTY LINE
- BUILDING SETBACK LINE
- WETLAND EDGE
- WETLAND FLAG
- 50' PERIMETER WETLAND
- 100' WETLAND ZONING BUFFER
- 200' RIVERBANK WETLAND
- 100' EXISTING CONTOUR
- PROPOSED CONTOUR
- IRON PIN
- DRILL HOLE
- CONCRETE BOUND
- EXISTING CURB
- GUARD RAIL
- DRAIN LINE
- CATCH BASIN
- UTILITY POLE
- OVERHEAD WIRES
- WATER LINE
- WATER SHUT OFF VALVE
- SEWER
- SMH
- N/F - NOW OR FORMERLY
- EXISTING LIMIT OF WOODLAND (APPROXIMATE)
- HAY BALES
- LIMIT OF DISTURBANCE
- SOIL EVALUATION

TEST HOLE DATA

| SE ID | GROUND ELEV. | SHGWT ELEV. | LEDGE |
|-------|--------------|-------------|--------|
| 1 | 224.5 | 221.0 | 216.5- |
| 2 | 222.0 | 219.0 | 214.0- |

SOIL EVALUATIONS PERFORMED BY ECOSYSTEM SOLUTIONS ON MARCH 22, 2010 AND FIELD LOCATED BY INTERNATIONAL MAPPING AND SURVEYING CORP.

- GENERAL NOTES:**
- THE OWNER OF THIS PROJECT IS LARK S & S LLC, 15 LARK INDUSTRIAL PARKWAY, SMITHFIELD, RHODE ISLAND 02917.
 - THE APPLICANT OF THIS PROJECT IS LARK S & S LLC, 15 LARK INDUSTRIAL PARKWAY, SMITHFIELD, RHODE ISLAND 02917.
 - THE PROPOSED DEVELOPMENT SHALL BE SERVICED BY PUBLIC WATER AND SEWER.
 - STORMWATER RUNOFF WILL BE MITIGATED WITH THE USE OF SWALES, AND A WATER QUALITY BASIN INCORPORATING THE BEST MANAGEMENT PRACTICES OF RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.
 - WETLAND EDGES HAVE BEEN DELINEATED BY ECOSYSTEM SOLUTIONS AND SURVEY LOCATED BY INTERNATIONAL MAPPING AND SURVEYING CORP.
 - SOIL EVALUATIONS COMPLETED BY ECOSYSTEMS SOLUTIONS ON MARCH 23, 2010.
 - PLAN AND PROPERTY LINE INFORMATION OBTAINED FROM CLASS I BOUNDARY AND CLASS III TOPOGRAPHIC SURVEY PREPARED BY INTERNATIONAL MAPPING AND SURVEYING CORP.
 - ALL PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR TOWN WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
 - BASED ON THE SOIL SURVEY OF RHODE ISLAND, SUBSURFACE SOILS ON THE SUBJECT SITE CONSIST OF THE FOLLOWING:
 - ADRIAN MUCK (Aa): THE PERMEABILITY OF THIS SOIL IS RAPID AND IS SUITED FOR COMMUNITY DEVELOPMENT.
 - PITS GRAVEL (Pg): THIS UNIT CONSISTS MOSTLY OF SAND AND GRAVEL. THE PERMEABILITY IS RAPID OR VERY RAPID.
 - BASED ON FEMA FLOOD INSURANCE RATE MAP FOR PROVIDENCE COUNTY, RHODE ISLAND, PANEL 281 OF 451, MAP NUMBER 44007C0281G, EFFECTIVE DATE MARCH 2, 2009, THE SITE IS LOCATED IN FLOOD ZONE "A" (NO BASE FLOOD ELEVATIONS DETERMINED). A LETTER OF MAP REVISION BASED ON FILL (LOMR-F) WAS PREPARED BY ICE AND ISSUED BY FEMA (CASE # 05-01-0137A). THE LOMR DETERMINED THAT THE 100-YEAR FLOOD ELEVATION IS 222.6 (NGVD 1929)

ZONING CRITERIA

| ZONING CRITERIA | REQUIRED | EXISTING |
|----------------------------|-----------|-----------|
| ZONING DISTRICT | 1 CLUSTER | 1 CLUSTER |
| MINIMUM LOT AREA | 40,000 SF | 67,067 SF |
| MINIMUM LOT FRONTAGE | 150' | 170.07' |
| MINIMUM FRONT YARD SETBACK | 40' | 41.53' |
| MINIMUM SIDE YARD SETBACK | 20' | 28.46' |
| MINIMUM REAR YARD SETBACK | 20' | 38.23' |
| MAXIMUM BUILDING HEIGHT | 48' | <48' |

DEVELOPMENT DATA

| | |
|----------------|------------|
| AREA OF PARCEL | 1.54 ACRES |
| BLD COVERAGE | 0.38 ACRES |
| PAVEMENT AREA | 0.84 ACRES |
| PARKING SPACES | 30 SPACES |
| ADA SPACES | 2 SPACES |

REFERENCES:
SEE RECORDED PLAN ENTITLED: "LARK INDUSTRIAL PARK SECTION I SMITHFIELD, RHODE ISLAND BY LARK DEVELOPMENT CORPORATION", DATED OCT. 1974 AND FILED IN THE TOWN OF SMITHFIELD, RI.
SEE DEED BOOK 192 PAGE 875.

PROPOSED PARKING CALCULATION(S):
FOR AN OFFICE USE, 4 SPACES PER 1000 SQUARE FEET OF GROSS FLOOR AREA. EXISTING OFFICE AREA: 1872 SF (1872 SF / 1000 SF) X 4 SPACES PER 1000 SF = 7.488 OR 8 PARKING SPACES

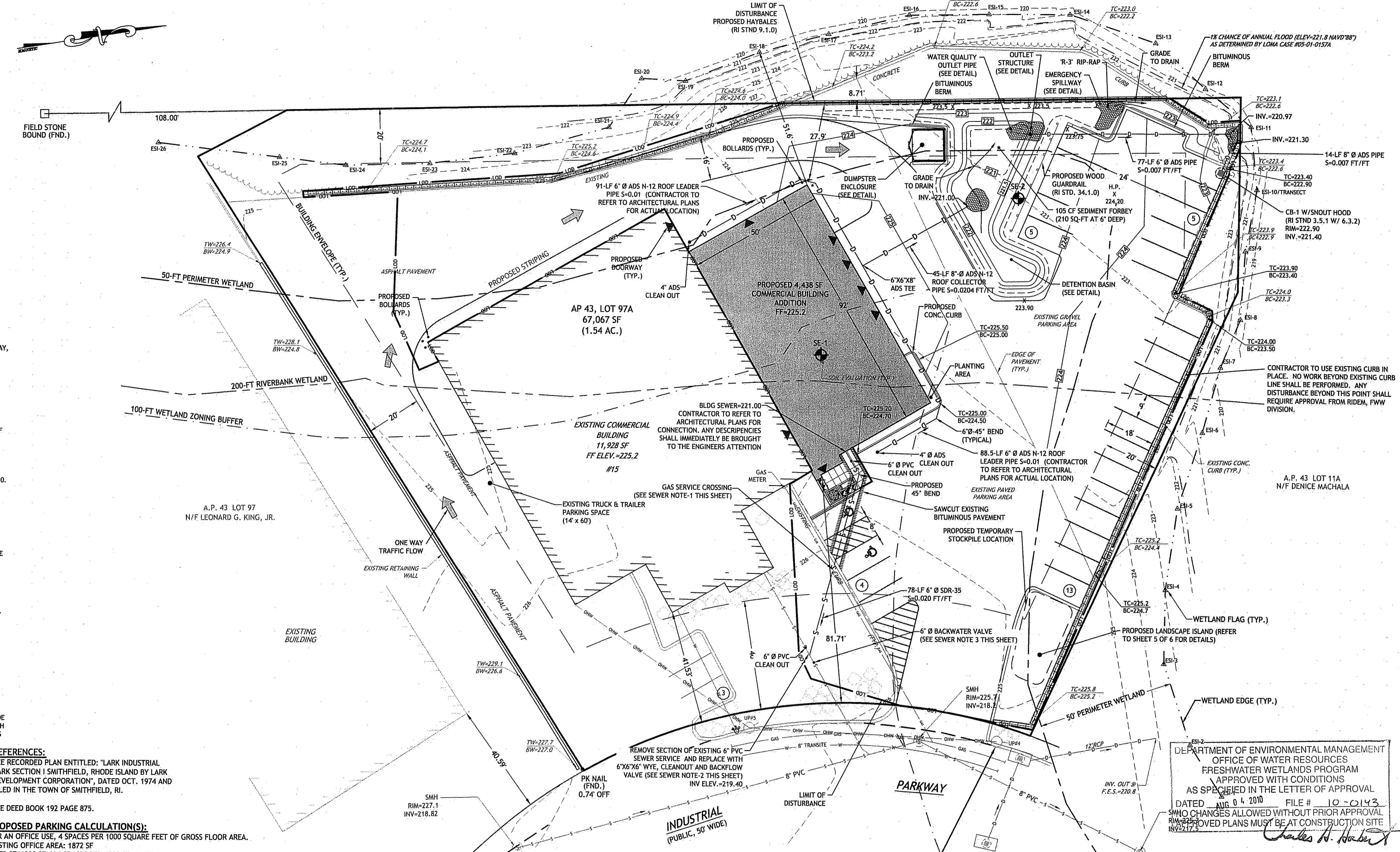
FOR A WAREHOUSE USE, 1 SPACE EACH PER 1000 SQUARE FEET OF GROSS FLOOR AREA OR ONE SPACE PER EMPLOYEE ON THE MAXIMUM SHIFT. (WHICHEVER IS GREATER).
EXISTING WAREHOUSE AREA: 9800 SF (9800 SF X 1 SPACE / 1000 SQUARE FEET) = 9.8 OR 10 PARKING SPACES

PROPOSED WAREHOUSE AREA: 4438 SF (4438 SF X 1 SPACE / 1000 SQUARE FEET) = 4.4 OR 5 PARKING SPACES

REQUIRED: 23 SPACES
PROVIDED: 30 SPACES
REQUIRED ADA: 2 SPACES
PROVIDED ADA: 2 SPACES

SITE NOTES:

- SITE IMPROVEMENTS WITHIN THE 50 FOOT PERIMETER WETLAND AND 200 FOOT RIVERBANK WETLAND REQUIRE APPROVAL FROM THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT - DIVISION OF FRESHWATER WETLANDS.
- THE PROPOSED SITE IMPROVEMENTS WILL NOT HAVE AN ADVERSE AFFECT ON THE EXISTING 100 YEAR FLOODPLAIN (221.8 NAVD 1988) OF THE REAPER BROOK.
- ANY LOOSE AND OR BROKEN BITUMINOUS PAVEMENT SURFACE SHALL BE PATCHED AND SEALED IN ACCORDANCE WITH RIDOT STANDARDS.



JCE
JOE CASALI ENGINEERING, INC.
1000 W. MAIN STREET, SUITE 100
SMITHFIELD, RHODE ISLAND 02917
PHONE: 401-944-1800 FAX: 401-944-1813
WWW.JCEENGINEERING.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6.5.10

KERISSA CREATIONS
15 LARK INDUSTRIAL PARKWAY
SMITHFIELD, RHODE ISLAND
AP 43 LOT 97A

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 04 2010 FILE # 10-0143
WHO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
REVISIONS TO APPROVED PLANS MUST BE AT CONSTRUCTION SITE
INVESTIGATED

- SEWER NOTE:**
- CONTRACTOR TO VERIFY DEPTH OF GAS MAIN PRIOR TO SEWER LATERAL INSTALLATION. ANY CONFLICTS SHALL IMMEDIATELY BE BROUGHT TO THE ENGINEERS ATTENTION
 - CONTRACTOR TO CONFIRM SIZE, DEPTH AND SLOPE OF EXISTING SEWER LATERAL PRIOR TO CONSTRUCTION. ALL AREAS DISTURBED WITHIN LANDSCAPE AREA SHALL BE LOAMED AND SEEDED
 - CONTRACTOR TO INSTALL INLINE BACKWATER VALVE AS MANUFACTURED BY CLEAN CHECK, INC., SPEARS MANUFACTURING CO. OR APPROVED EQUAL IN ACCORDANCE WITH THE STATE PLUMBING CODE
 - PROPOSED DEPTH OF COVER SHALL NOT BE LESS THAN 4.0' (48").

REVISIONS:

| NO. | DATE | DESCRIPTION |
|-----|---------|------------------|
| 1 | 6/23/10 | RTC SOIL EROSION |

DESIGNED BY: JEA
DRAWN BY: WMLJR
CHECKED BY: JAC
DATE: APRIL 2010
PROJECT NO: 03-38b

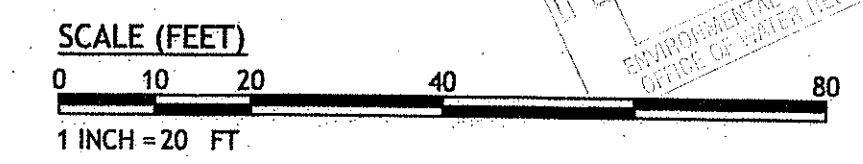
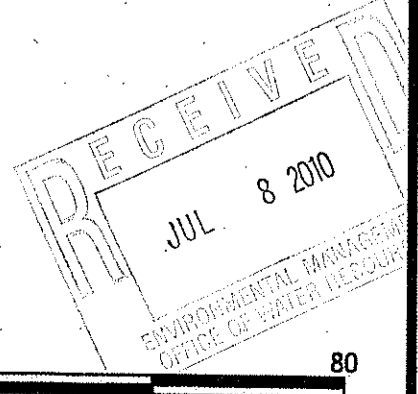
PRELIMINARY, NOT FOR CONSTRUCTION

SITE PLAN

SHEET 4 OF 6



LOCATION OF EXISTING UTILITIES SHOWN, ARE FROM GATE LOCATION AND EXISTING DOCUMENTATION AND MAY NOT BE ACCURATE. EXACT LOCATION TO BE DONE BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY PRIOR TO ANY EXCAVATION CALL **DIGSAFE** AT **1-888-DIG-SAFE** **1-888-344-7233**



Q:\03-38 Kerissa Creations\03-38b Kerissa Creations\ACAD\Preliminary\CPS\KERISSA CREATIONS\PLANSET\RI.dwg Jun. 30, 2010 4:13pm

PLANT SCHEDULE

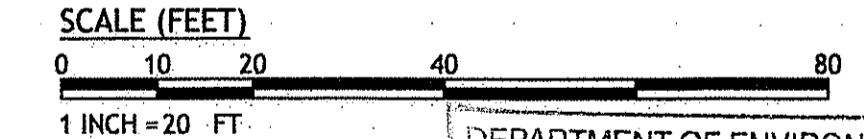
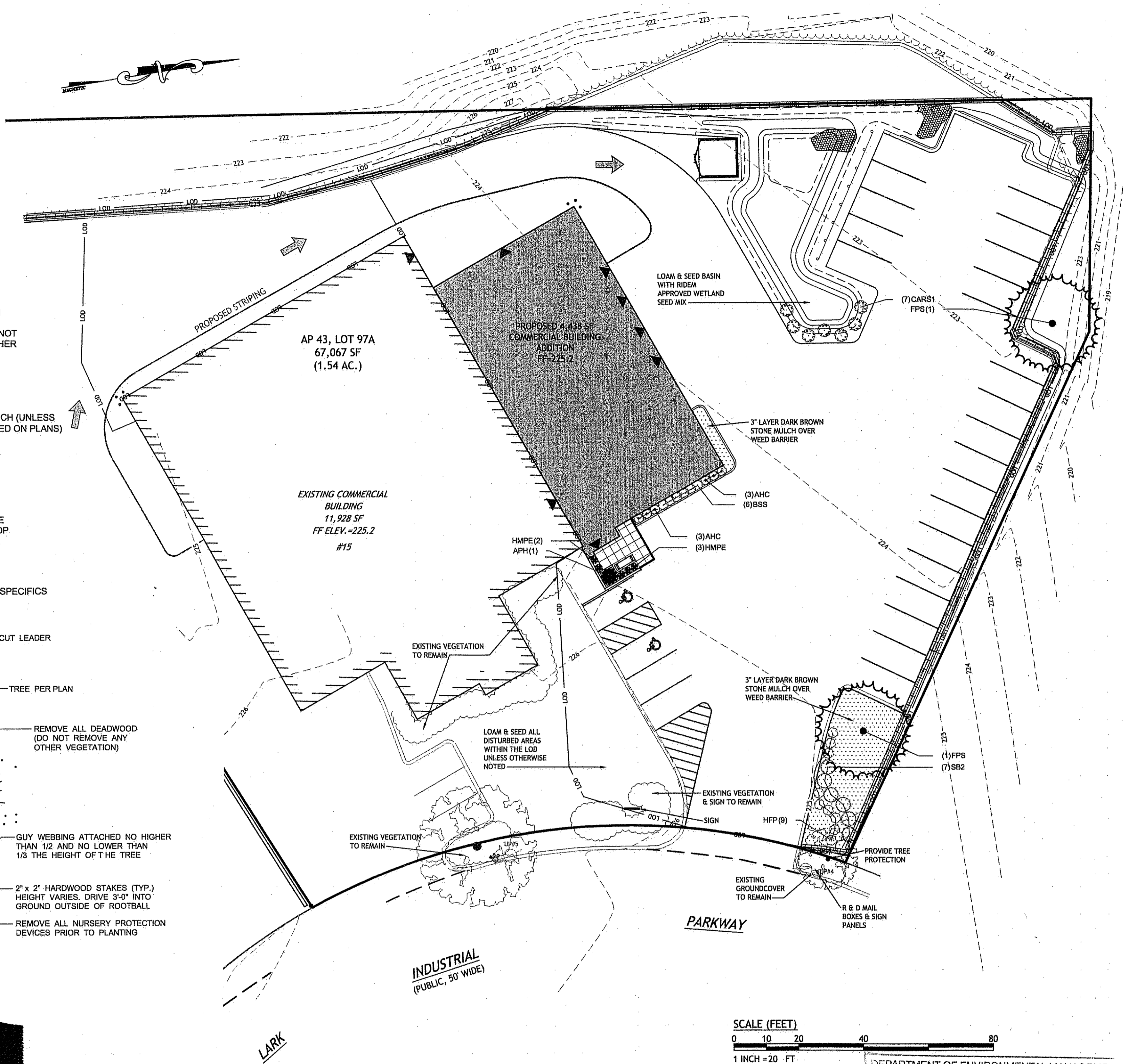
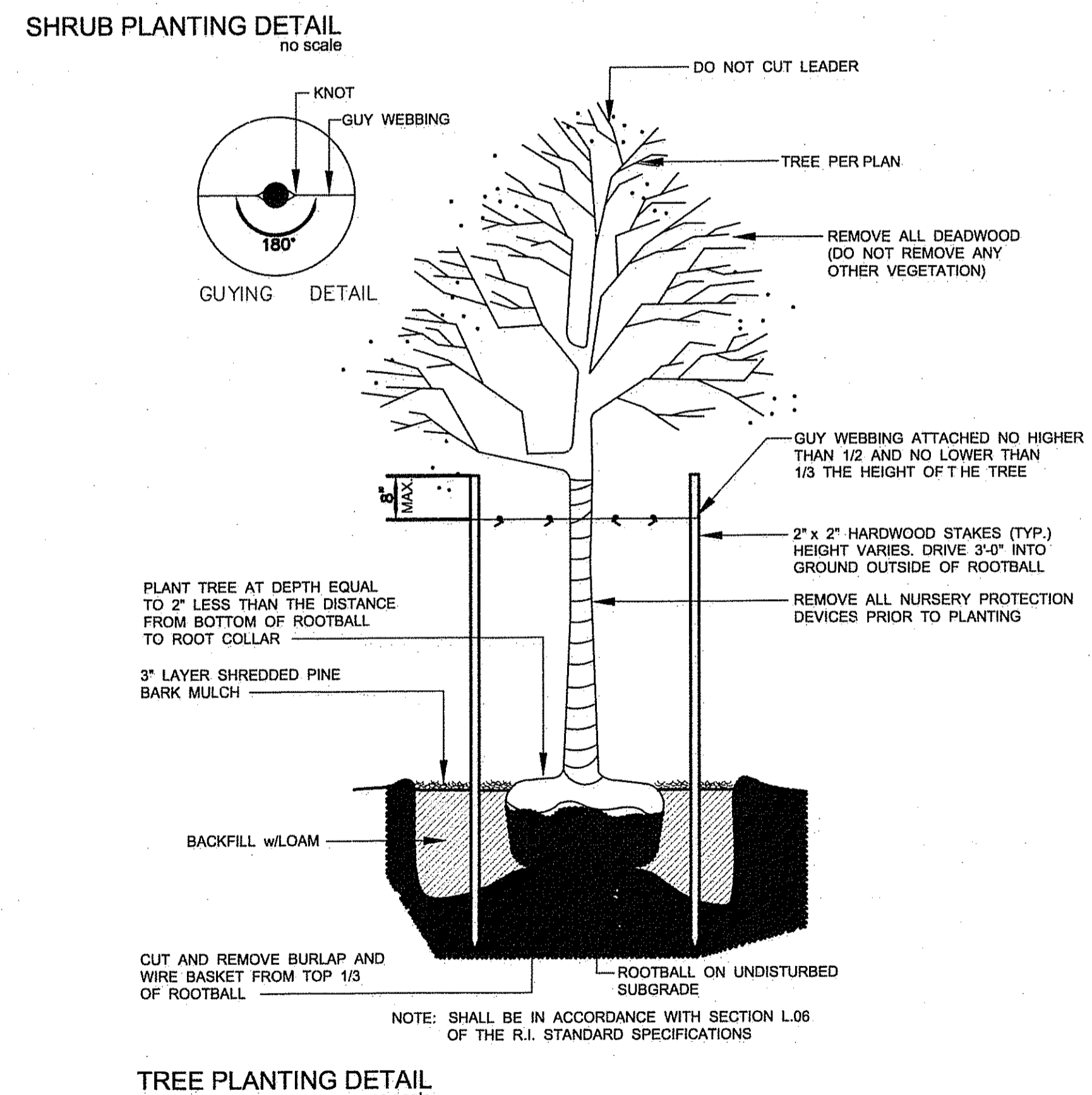
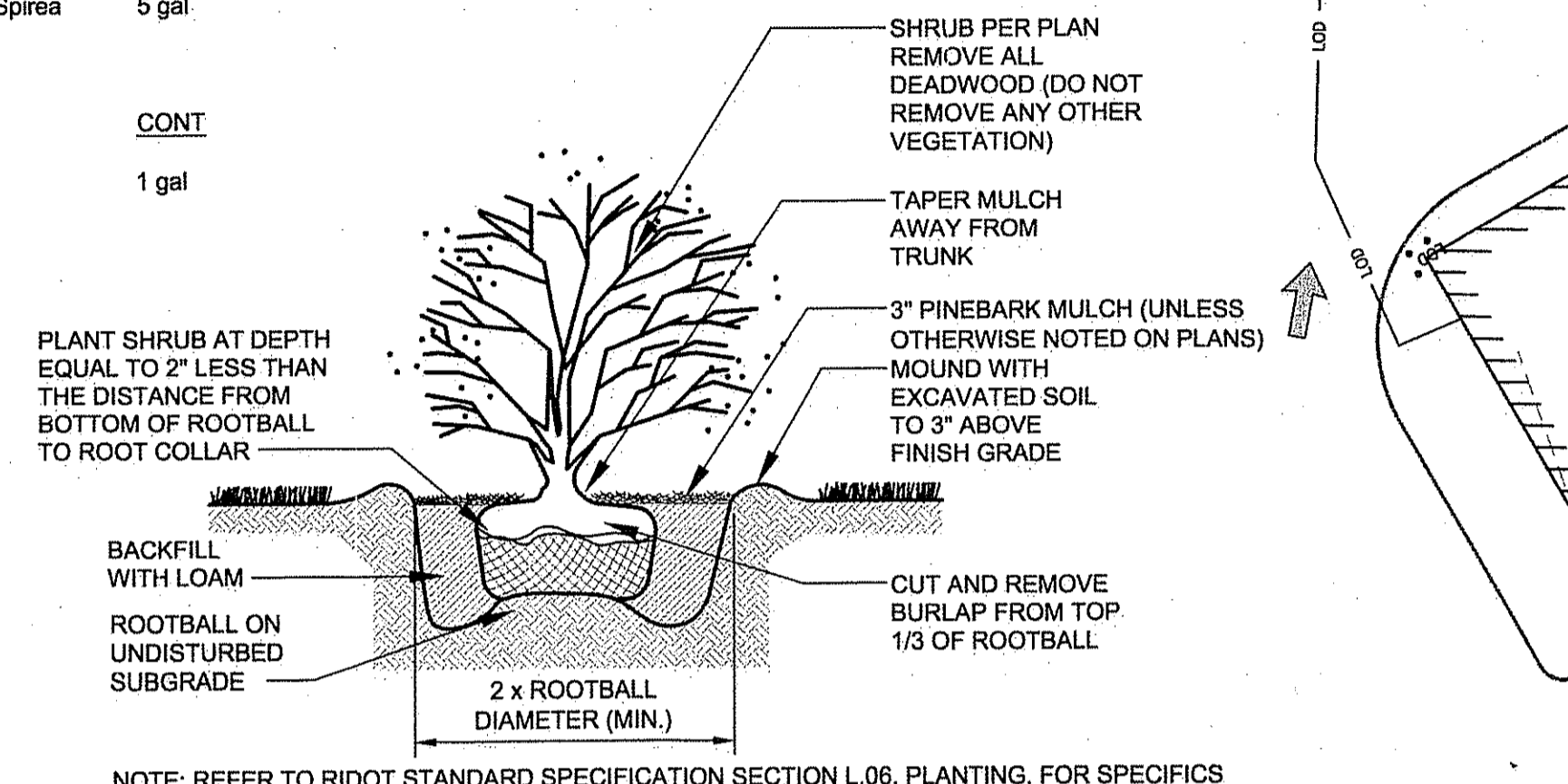
| DECIDUOUS TREES | CODE | QTY | BOTANICAL NAME / COMMON NAME | CONT | CAL |
|-----------------|------|-----|--|--------|----------|
| APH | 1 | 1 | Acer palmatum 'Hanami Nishiki' / Hanami Nishiki Japanese Maple | 15 gal | |
| FPS | 2 | 2 | Fraxinus pennsylvanica 'Summit' / Summit Ash | B & B | 2.5" Cal |

| SHRUBS | CODE | QTY | BOTANICAL NAME / COMMON NAME | CONT |
|--------|------|-----|--|-------|
| AHC | 6 | 6 | Azalea Kurume Hybrid 'Hino-Crimson' / Kurume Azalea | 5 gal |
| BSS | 6 | 6 | Buxus sempervirens 'Suffruticosa' / True Dwarf Boxwood | 5 gal |
| CARS1 | 7 | 7 | Clethra alnifolia 'Ruby Spice' / Ruby Spice Clethra | 5 gal |
| HMPE | 5 | 5 | Hydrangea macrophylla 'Pink Elf' / Pink Elf Hydrangea | 5 gal |
| SB2 | 7 | 7 | Spiraea x bumalda 'Anthony Waterer' / Anthony Waterer Spirea | 5 gal |

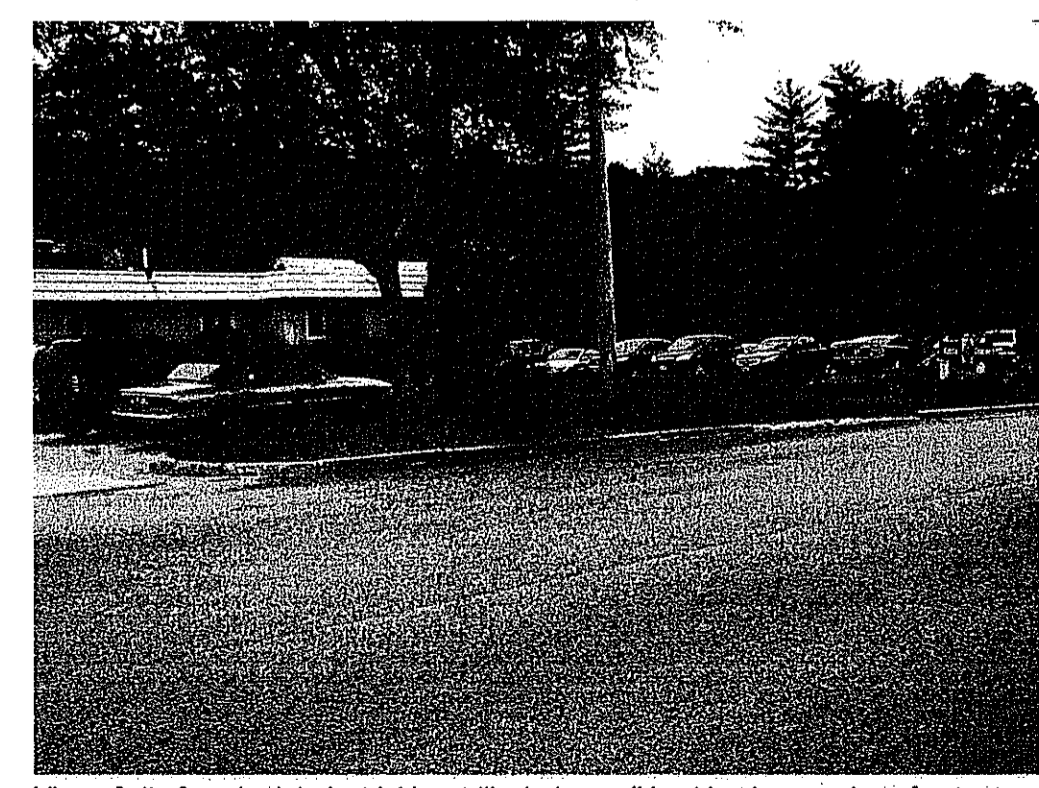
| PERENNIALS | CODE | QTY | BOTANICAL NAME / COMMON NAME | CONT |
|------------|------|-----|--|-------|
| HFP | 9 | 9 | Hosta fortunei 'Patriot' / Hosta (white edged) | 1 gal |

LANDSCAPE NOTES:

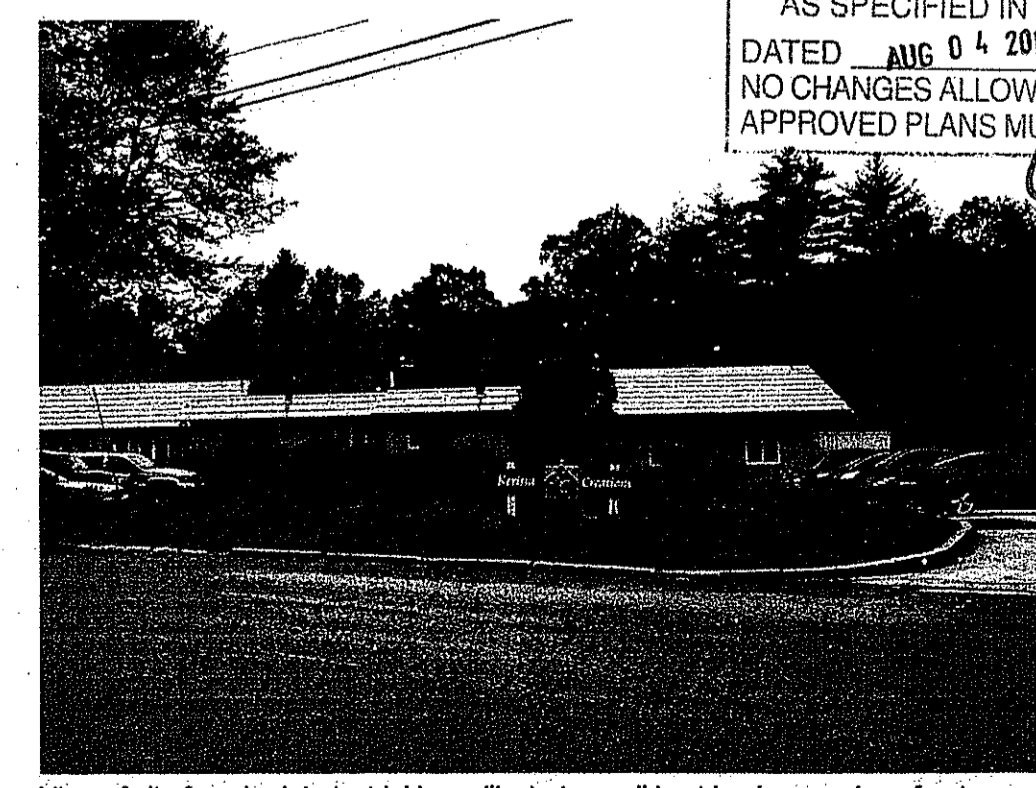
- GUARANTEE THAT, UPON COMPLETION AND FINAL ACCEPTANCE, LANDSCAPE PLANTINGS CONFORM TO REQUIREMENTS OF CONTRACT DOCUMENTS. PROVIDE A WARRANTY FOR TREE PLANTINGS FOR A MINIMUM OF TWO (2) YEARS, INCLUDING TWO (2) CONTINUOUS GROWING SEASONS. COMMENCE WARRANTY ON DATE IDENTIFIED IN THE CERTIFICATE OF FINAL 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.
- PLANT MATERIALS SHALL BE OF SIZE AND CALIPER REQUIRED AND CONFORM TO THE REQUIREMENTS DESCRIBED IN THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- 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.
- A PROFESSIONAL HORTICULTURIST/NURSERYMAN SHALL BE CONSULTED TO DETERMINE THE PROPER TIME TO MOVE AND INSTALL PLANT MATERIAL SO THAT STRESS TO THE PLANT IS MINIMIZED. PLANTING OF DECIDUOUS MATERIAL MAY BE CONTINUED DURING WINTER MONTHS PROVIDED THERE IS NO FROST IN THE GROUND AND FROST-FREE TOPSOIL. PLANTING MIXTURES ARE USED.
- 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.
- SET PLANTS PLUMB 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.
- FERTILIZE SHRUB BEDS WITH 10-6-4 FERTILIZER AT THE RATE OF 3 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 PELLET 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.
- REMOVE PLANT FROM CONTAINER AND 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 SOULIDLY FIRMED.
- AFTER PLANTING PRUNE ONLY BROKEN OR DEFORMED BRANCHES AND IN SUCH MANNER AS TO PRESERVE NATURAL CHARACTER OF PLANT.
- 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.
- MULCH SHALL BE APPLIED A MINIMUM OF THREE (3) INCHES IN DEPTH IN ALL PLANTING BEDS, AS INDICATED ON THE DRAWINGS.
- 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.
- INSTALL "GUTE MESH" EROSION CONTROL FABRIC WHERE FINAL GRADES ARE 3:1 (33%) OR GREATER PER MANUFACTURER'S INSTRUCTIONS.
- UNLESS OTHERWISE SPECIFIED, CONTRACTOR TO LOAM AND SEED ALL DISTURBED AREAS.
- SEEDING NOTE: USE UNIVERSITY OF RHODE ISLAND NO. 2 IMPROVED SEED MIX OR EQUAL.
- TREE STAKING NOTE: ANY TREE STAKING APPARATUS MUST BE REMOVED NO LATER THAN ONE YEAR (1) AFTER INSTALLATION.
- TREE PRUNING NOTE: STREET TREES SHOULD BE PRUNED TO MAINTAIN A MINIMAL BRANCH HEIGHT OF 8' WITHIN TWO (2) YEARS OF INSTALLATION OF THE TREE.
- LANDSCAPE ESTABLISHMENT AND MAINTENANCE NOTE: CONTRACTOR SHALL ENSURE THAT ALL LAWN AREAS AND PLANTINGS ARE FULLY ESTABLISHED AND ACCEPTABLE TO THE OWNER'S REPRESENTATIVE PRIOR TO RELINQUISHING THEIR RESPONSIBILITIES FOR MAINTENANCE OF THESE AREAS.
- TREE PROTECTION NOTE: NO MATERIAL, TEMPORARY SOIL DEPOSIT OR EXCAVATION SHALL OCCUR WITHIN FOUR FEET OF SHRUBS OR WITHIN TWO FEET OF THE DRIP LINE OF ANY SHRUBS OR TREES TO REMAIN. ANY RETAINED EXISTING VEGETATION SHALL BE PROTECTED AS PER NORTH KINGSTOWN ZONING ORDINANCE, SECTION 21-277, SUBSECTION 3c: PROTECTION OF EXISTING PLANTINGS AND SITE FEATURES.



LANDSCAPE PLAN
1" = 20'

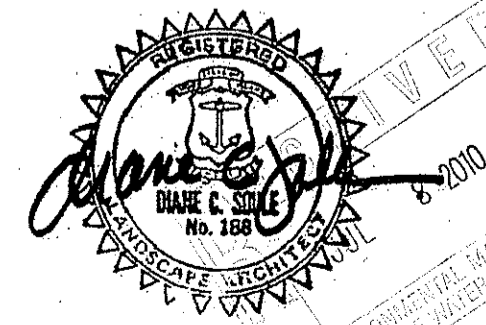


View of site from Lark Industrial Lane illustrates well kept landscape along frontage



View of site from Lark Industrial Lane illustrates well kept landscape along frontage

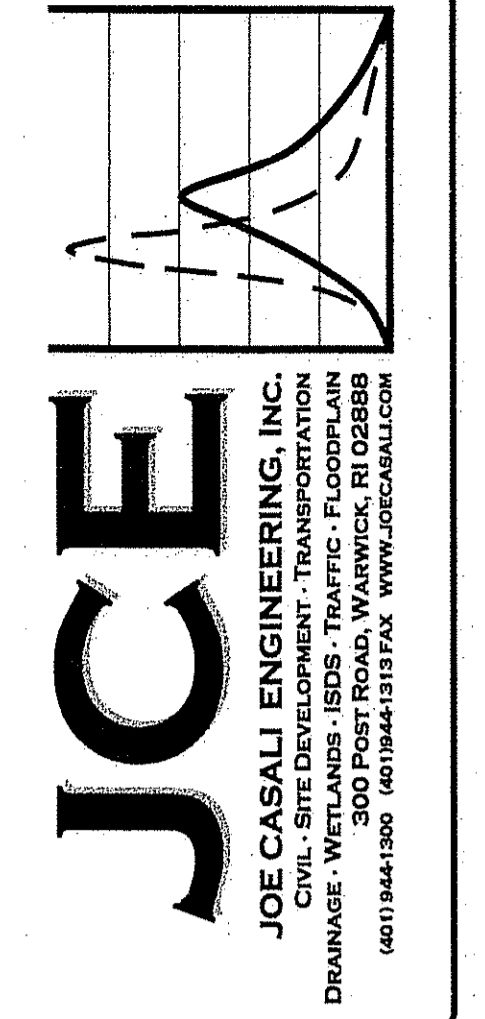
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 04 2010 FILE # 10-0143
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Harte



TOWN OF SMITHFIELD ZONING CODE ARTICLE VII Landscaping Design Standards

| PARKING AREA | Required | Provided |
|---|----------------------------------|--------------------------------------|
| 150 sq ft landscaping per 10 parking spaces (30 spaces) | 450 sq ft | 960 sq ft |
| Minimum landscape island width | 8 feet | n/a |
| Minimum parking lot trees | 2 per every 12 spaces or 5 trees | 3 trees (request relief for 2 trees) |
| Minimum parking area landscaping | 50% vegetation | Yes |

| OVERALL SITE LANDSCAPING | Required | Provided |
|--|---|--|
| Frontage landscape strip between parking and property line | 10 feet wide | 3 - 30 feet |
| Screening adjacent to public streets | 1/2 of street frontage | Yes |
| Perimeter landscaping of abutting properties | Property to north is screened by existing woodland; property to south has no screening (existing condition); wooded wetland to west | Request relief for screening requirement for property to south |
| Street Tree and Canopy Tree caliper size | 2 1/2" | 6 1/2" |
| Ornamental Trees Height | 6 feet | 6 feet |
| Trees required along frontage | 1 tree for every 40 linear feet excluding curb cuts (90 linear feet) or 3 trees | 2 trees (request relief for 1 tree) |
| Building perimeter landscaping | 3 sides | 1 side (request relief for 2 sides) |



KERISSA CREATIONS
15 LARK INDUSTRIAL PARKWAY
SMITHFIELD, RHODE ISLAND
AP 43 LOT 97A

REVISIONS:

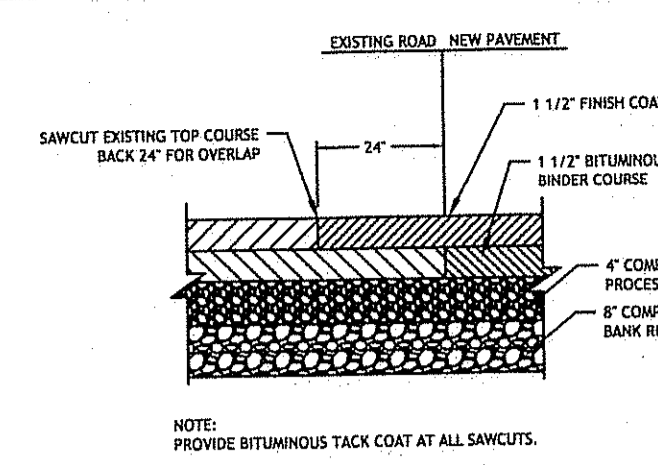
| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

DESIGNED BY: DCSA
DRAWN BY: DCS
CHECKED BY: DCSA
DATE: APRIL 2010
PROJECT NO: 03-38b

PRELIMINARY, NOT FOR CONSTRUCTION

LANDSCAPE PLAN

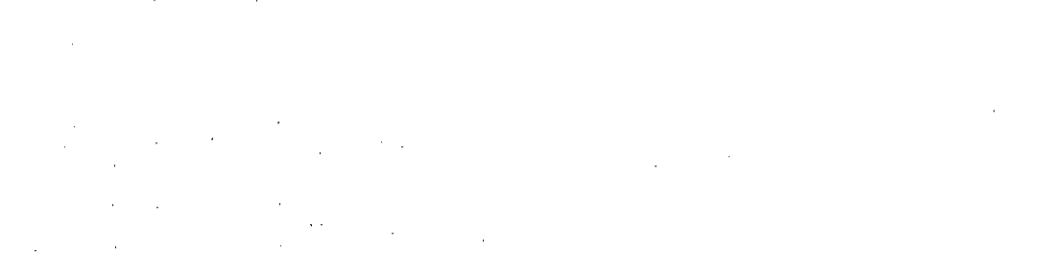
Q:\03-38-Kerissa Creations\SUBS\Diagrams\Landscaping Plan.dwg Jun. 30, 2010 3:33pm



PAVEMENT CUT & MATCH
NOT TO SCALE

| Description | Pond |
|----------------------------|--------|
| Top of Pond Elevation | 223.50 |
| 100 Year Storm Elevation | 223.44 |
| 25 Year Storm Elevation | 223.37 |
| 10 Year Storm Elevation | 223.33 |
| 2 Year Storm Elevation | 223.25 |
| Water Quality Volume Elev. | 223.00 |
| Emergency Spillway Elev. | 223.00 |
| Sediment Forebay Elev. | 221.00 |
| Bottom of Pond | 221.50 |

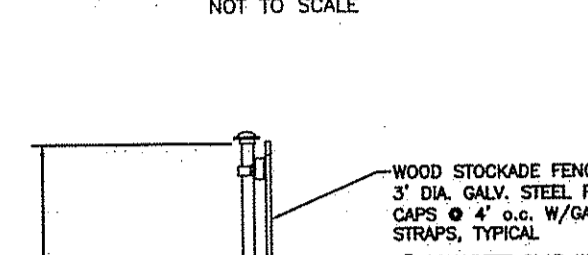
OUTLET STRUCTURE RISER DETAIL
N.T.S.



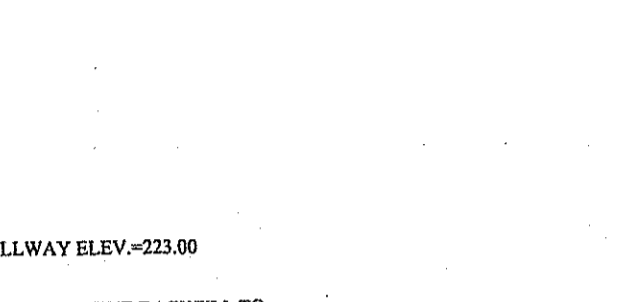
PAVEMENT CROSS SECTION
NOT TO SCALE



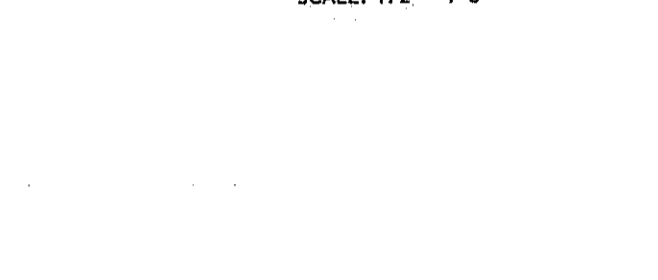
TYPICAL BOLLARD DETAIL
NOT TO SCALE



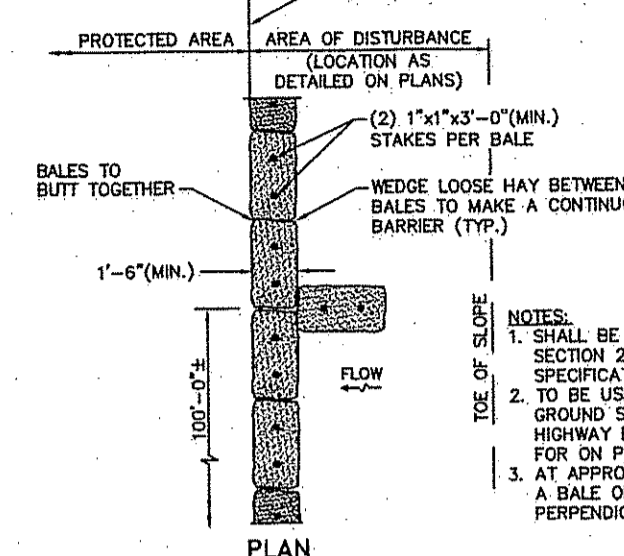
EMERGENCY SPILLWAY DETAIL
N.T.S.



DUMPSTER PAD/FENCE DETAIL
SCALE: 1/2" = 1'-0"



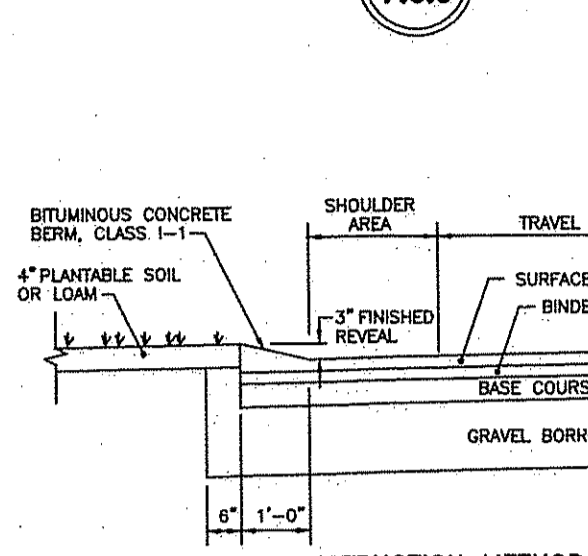
ELEVATION



BALED HAY EROSION CHECK
N.T.S.

R.I. STANDARD 9.1.0

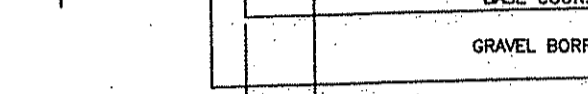
CURB SETTING DETAIL
R.I. STANDARD 7.6.0



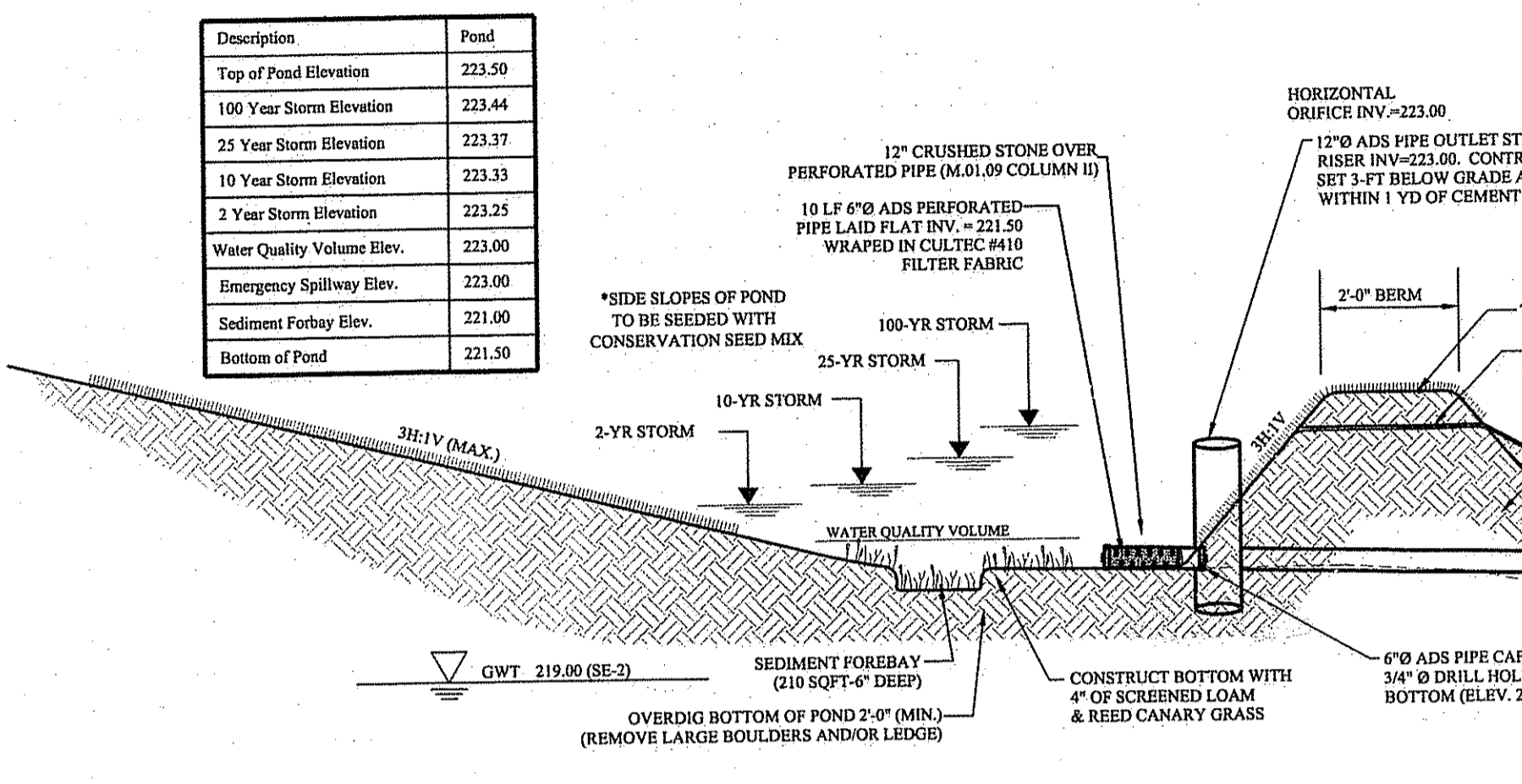
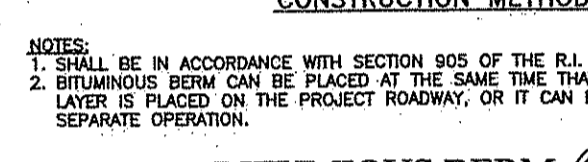
CONSTRUCTION METHOD A

CONSTRUCTION METHOD B

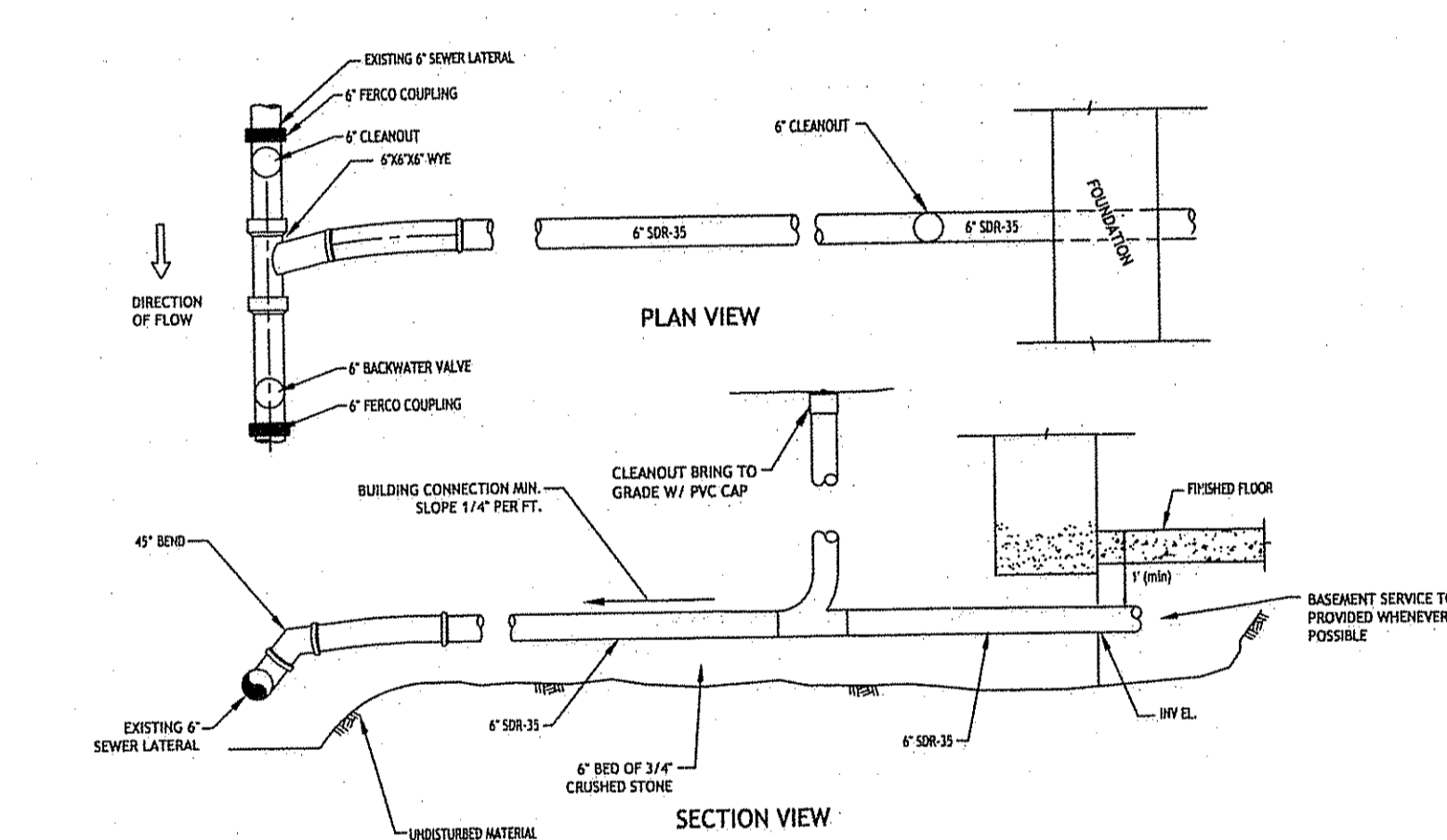
BITUMINOUS BERM
R.I. STANDARD 7.5.1



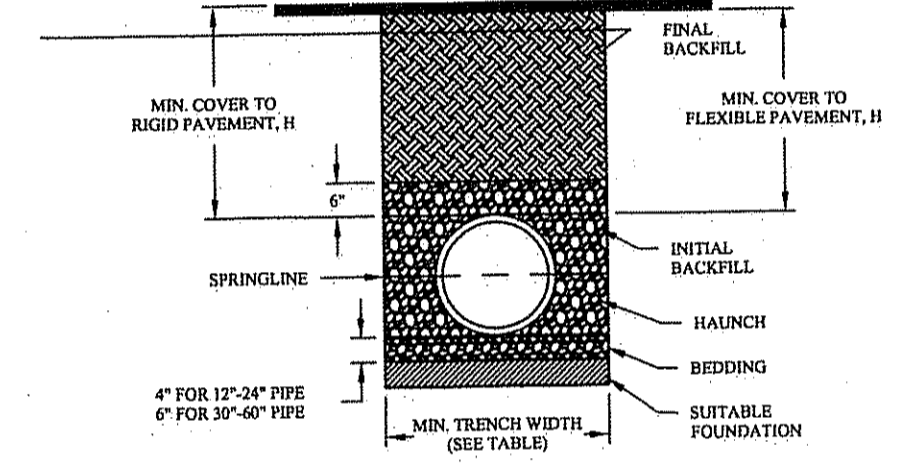
STOCKPILE DETAIL
NOT TO SCALE



DETENTION POND DETAIL
N.T.S.



GRAVITY SEWER BUILDING CONNECTION DETAIL
N.T.S.



ADS PIPE TRENCH INSTALLATION DETAIL
N.T.S.

RECOMMENDED MINIMUM TRENCH WIDTHS

| PIPE DIAM. | MIN. TRENCH WIDTH |
|------------|-------------------|
| 4" | 21" |
| 6" | 23" |
| 8" | 26" |
| 10" | 28" |
| 12" | 30" |

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

| PIPE DIAM. | COVER |
|------------|---------------------------------|
| 11-25 | HEAVY CONSTRUCTION (31.5 kN/m²) |
| 12" | 48" |
| UP TO 24" | 24" |

VEHICLES IN EXCESS OF 75 TONS REQUIRE ADDITIONAL COVER

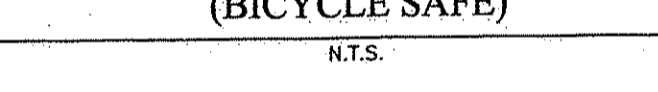
MINIMUM RECOMMENDED COVER BASED ON RAILWAY LOADING CONDITIONS

| PIPE DIAM. | COVER |
|------------|-------|
| UP TO 24" | 24" |

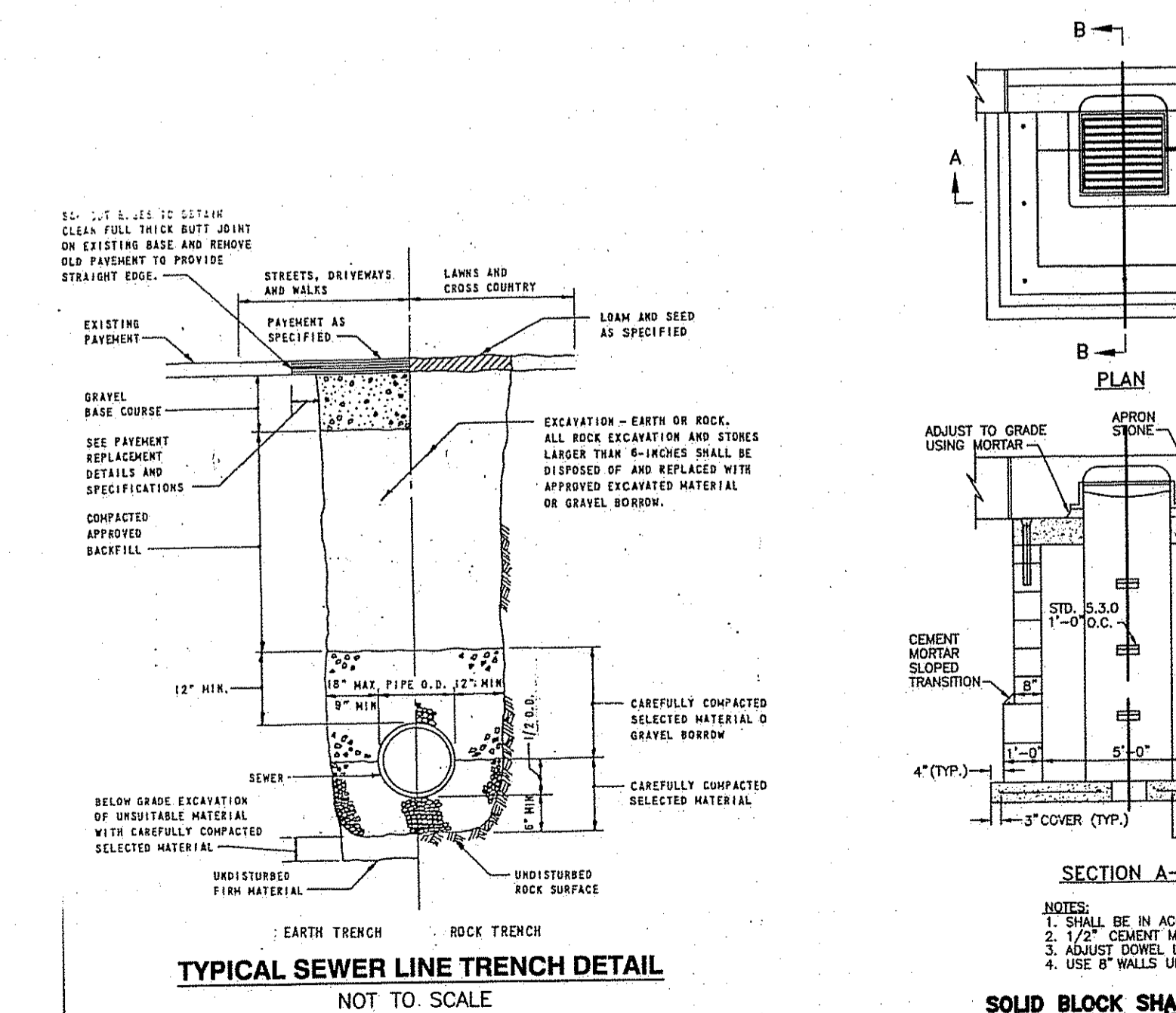
COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE.

** E-80 COVER REQUIREMENTS, ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.

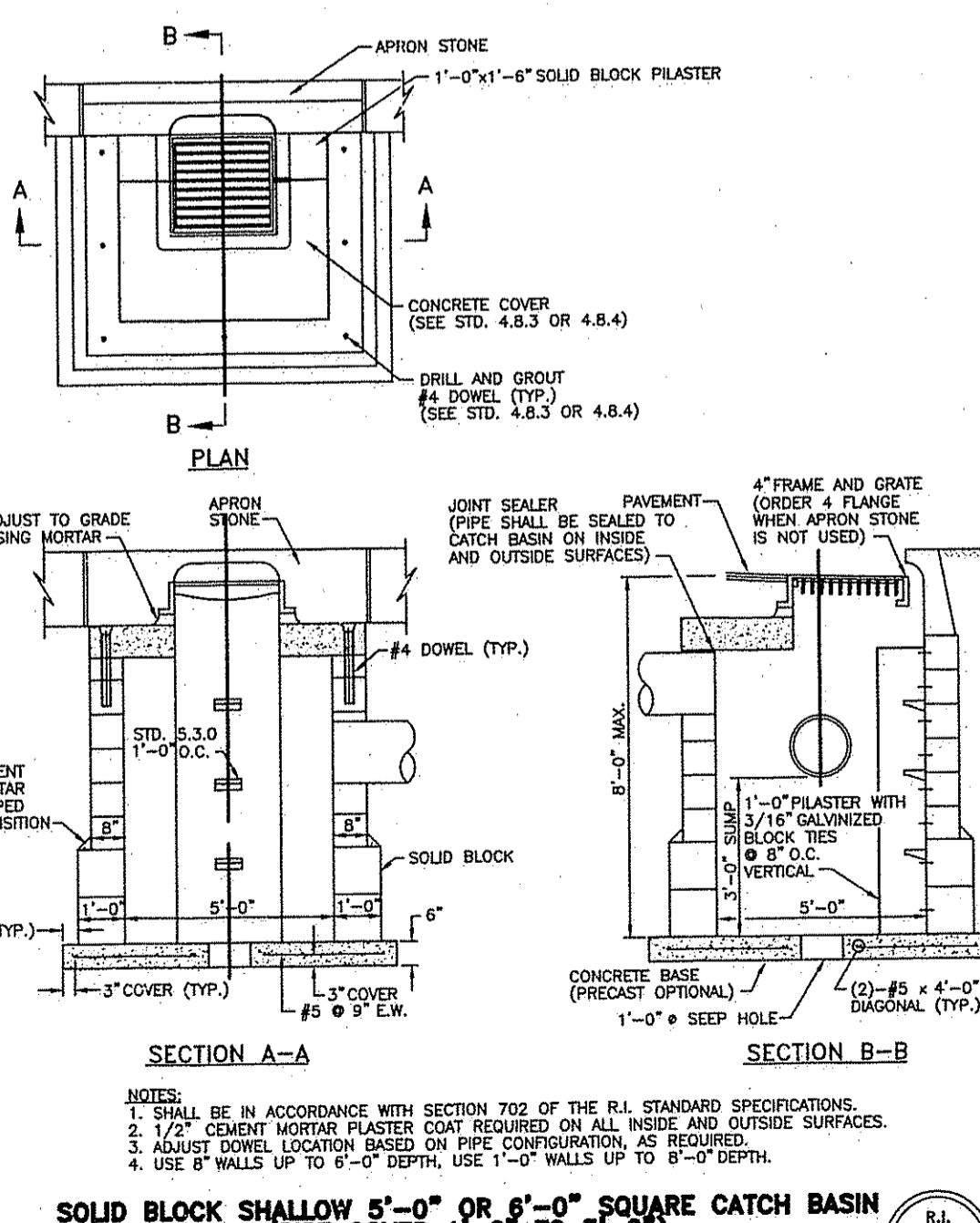
SQUARE FRAME AND GRATE (BICYCLE SAFE)
N.T.S.



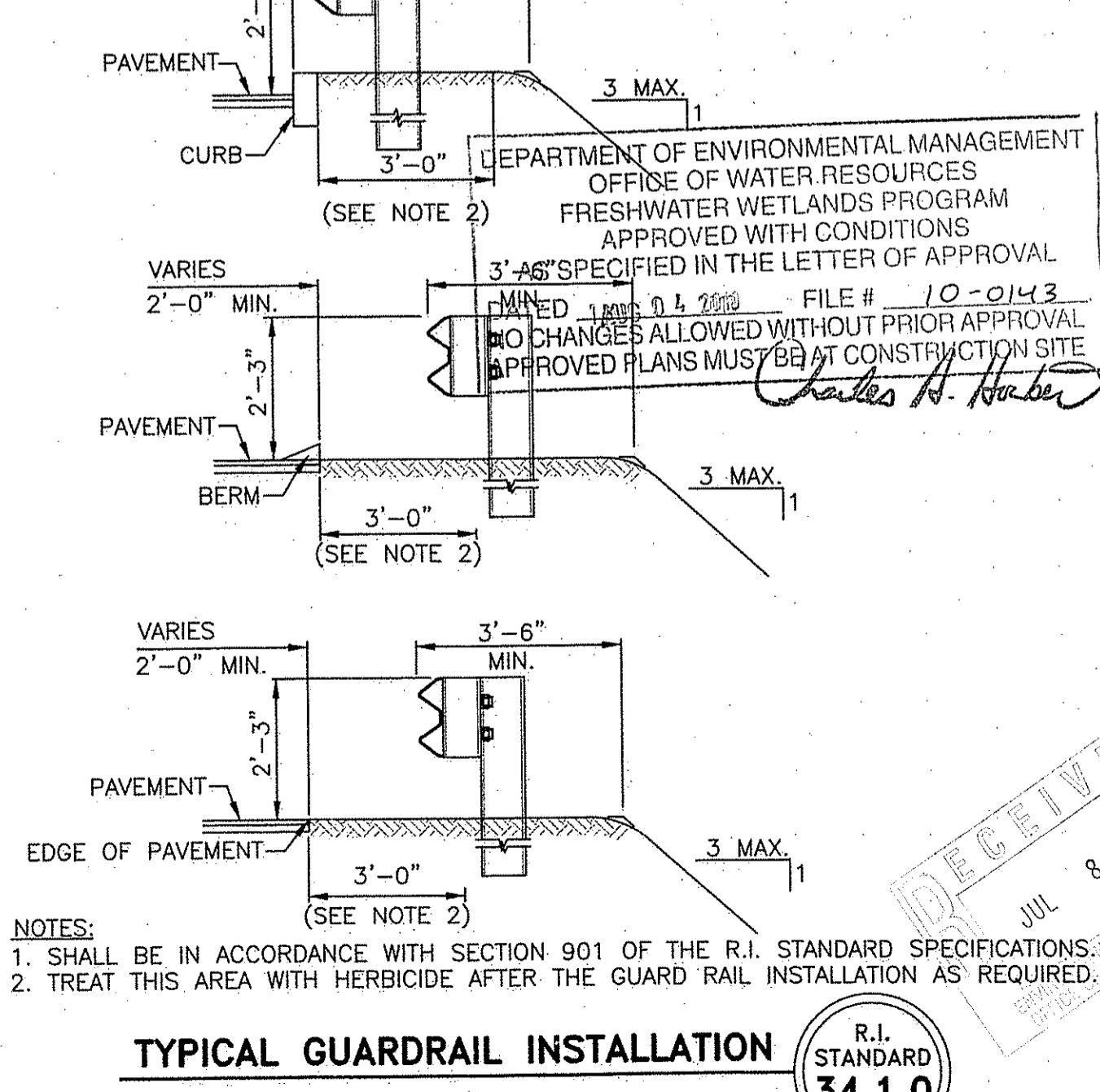
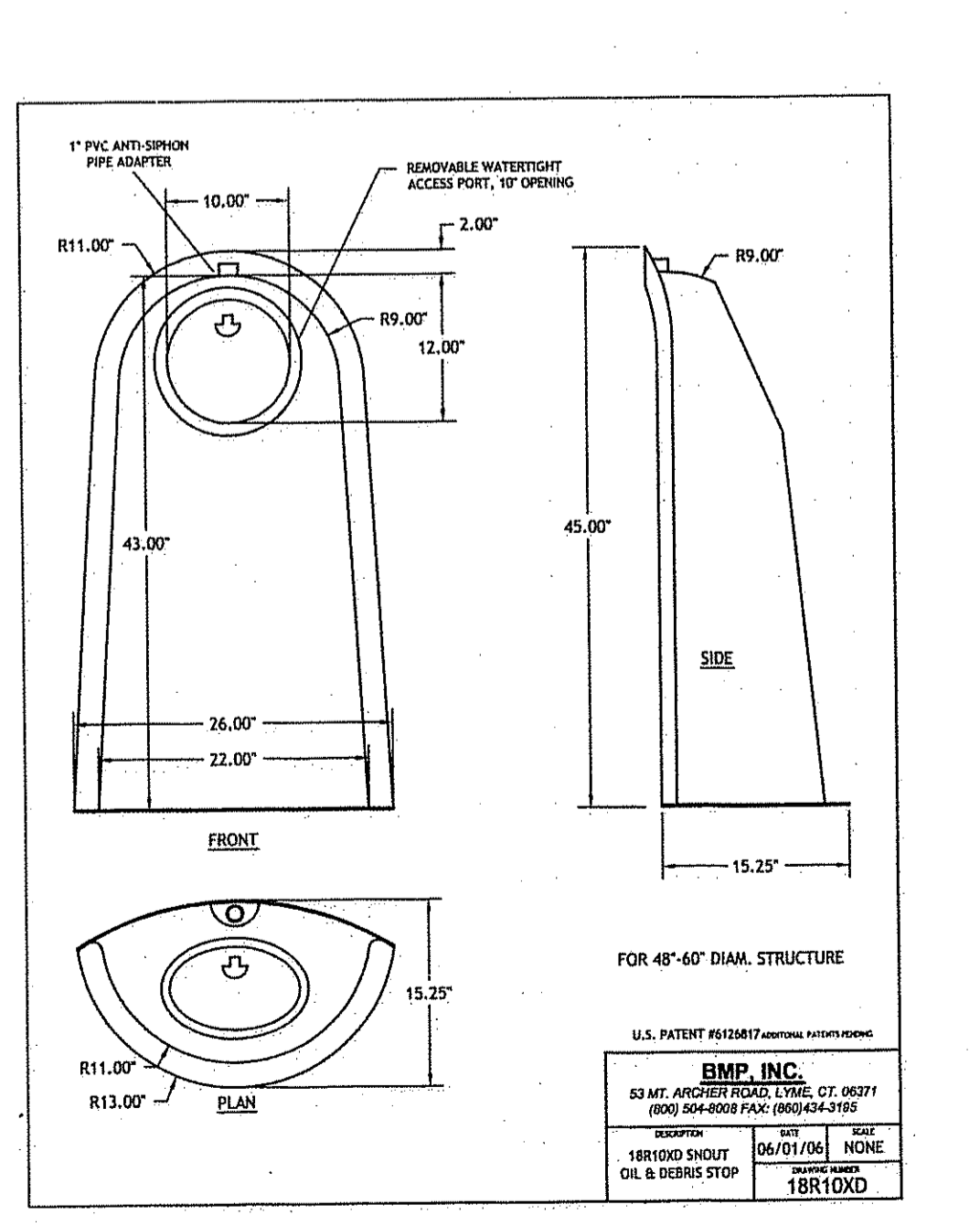
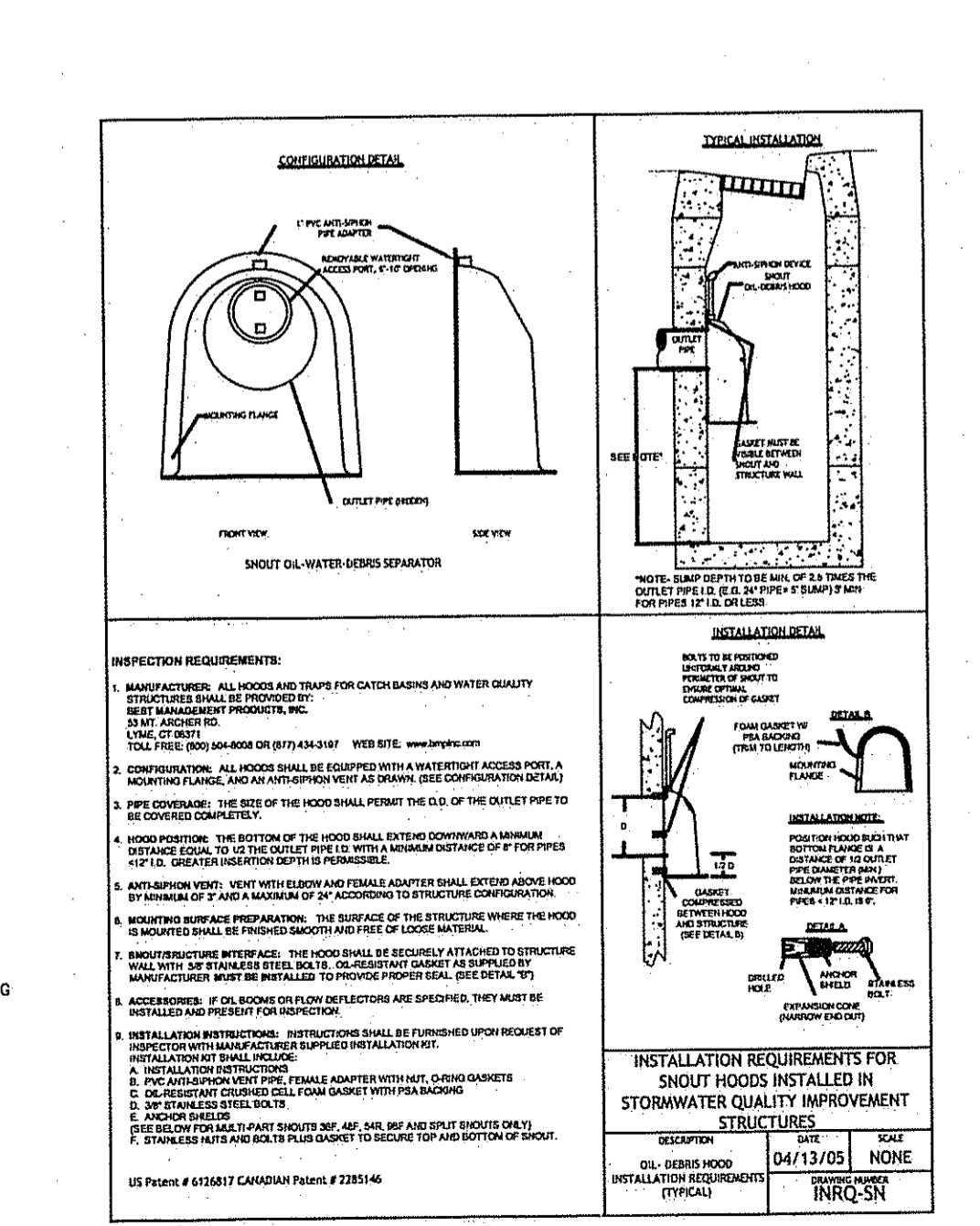
R.I. STANDARD 6.3.2



TYPICAL SEWER LINE TRENCH DETAIL
NOT TO SCALE



SOLID BLOCK SHALLOW 5'-0\"/>



TYPICAL GUARDRAIL INSTALLATION
R.I. STANDARD 34.1.0

JCE
JOE CASALI ENGINEERING, INC.
CIVIL - SITE DEVELOPMENT - TRANSPORTATION
DRAINAGE - WATER CONTROL - HIGHWAY DESIGN
3000 POINT ROAD, WARWICK, RI 02886
(401) 844-1000 (401) 844-1313 FAX WWW.JCEONLINE.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6-20-10

KERISSA CREATIONS
15 LARK INDUSTRIAL PARKWAY
SMITHFIELD, RHODE ISLAND
AP 43 LOT 97A

REVISIONS:

| NO. | DATE | DESCRIPTION |
|-----|---------|------------------|
| 1 | 6/23/10 | RTC SOIL EROSION |

DESIGNED BY: JEA
DRAWN BY: WMLJR
CHECKED BY: JAC
DATE: APRIL 2010
PROJECT NO: 03-386

PRELIMINARY, NOT FOR CONSTRUCTION

DETAILS

SHEET 6 OF 6

Q:\03-38-Kerissa Creations\03-38 Kerissa Creations\ACAD\Preliminary-CFS\KERISSA CREATIONS (PLANSET)-R1.dwg Jun. 30. 2010 3:04pm