FINAL PLAN FILING OF A MAJOR LAND DEVELOPMENT
FOR A PROPOSED 2,966 SQ. FT. COMMERCIAL BUILDING

UNIVERSITY ORTHODONTICS

947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

ZONING DISTRICT: BN (BUSINESS NEIGHBORHOOD)

APPROVALS:

TOWN OF NORTH SMITHFIELD PLANNING BOARD - MASTER PLAN APPROVAL (JUNE 18, 2015)
TOWN OF NORTH SMITHFIELD PLANNING BOARD - PRELIMINARY PLAN APPROVAL (SEPTEMBER 17, 2015)
TOWN OF NORTH SMITHFIELD - SOIL EROSION PERMIT
TOWN OF NORTH SMITHFIELD - WATER AND SEWER DEPARTMENT
RHODE ISLAND DEPARTMENT OF TRANSPORTATION - PHYSICAL ALTERATION PERMIT NO. 150724-A

FILINGS:

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT - DIVISION OF FRESHWATER WETLANDS - PRELIMINARY DETERMINATION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV 2 0 2015 FILE # 15-0159
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT TEAM

OWNER / APPLICANT:
DR. BRYAN F. BEAGAN, DMD
UNIVERSITY ORTHODONTICS
95 SOCKANOSSET CROSS RD. #301
CRANSTON, RI 02920

CIVIL ENGINEER:
JOE CASALI ENGINEERING, INC.
300 POST ROAD
WARWICK, RI 02888
PHONE: 401-944-1300
FAX: 401-944-1313
JOECASALI.COM

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

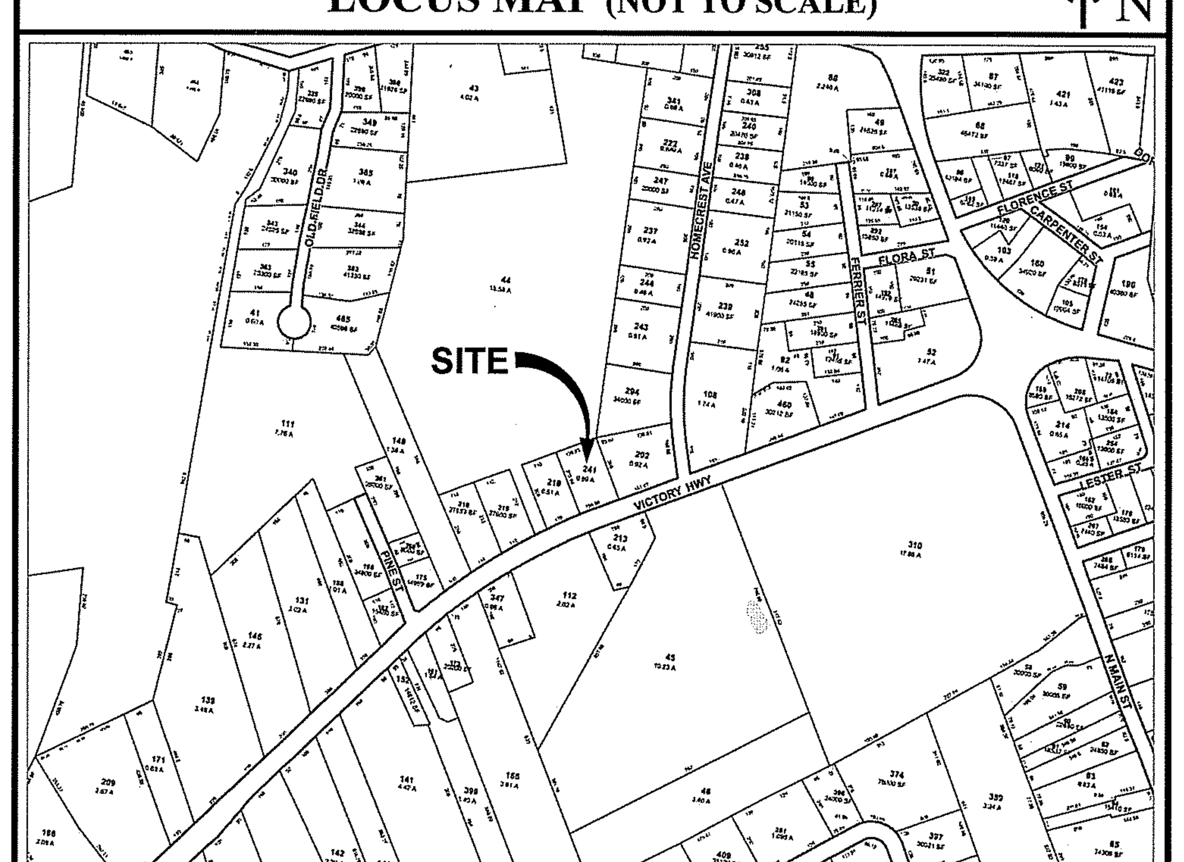
ARCHITECT:
VISION 3 ARCHITECTS
225 CHAPMAN ST. #300
PROVIDENCE, RI 02905
PHONE: 401-461-7771
FAX: 401-461-7772

WETLAND BIOLOGIST:
NATURAL RESOURCE SERVICES
180 TINKHAM LANE
HARRISVILLE, RI 02830
PHONE: 401-568-7390

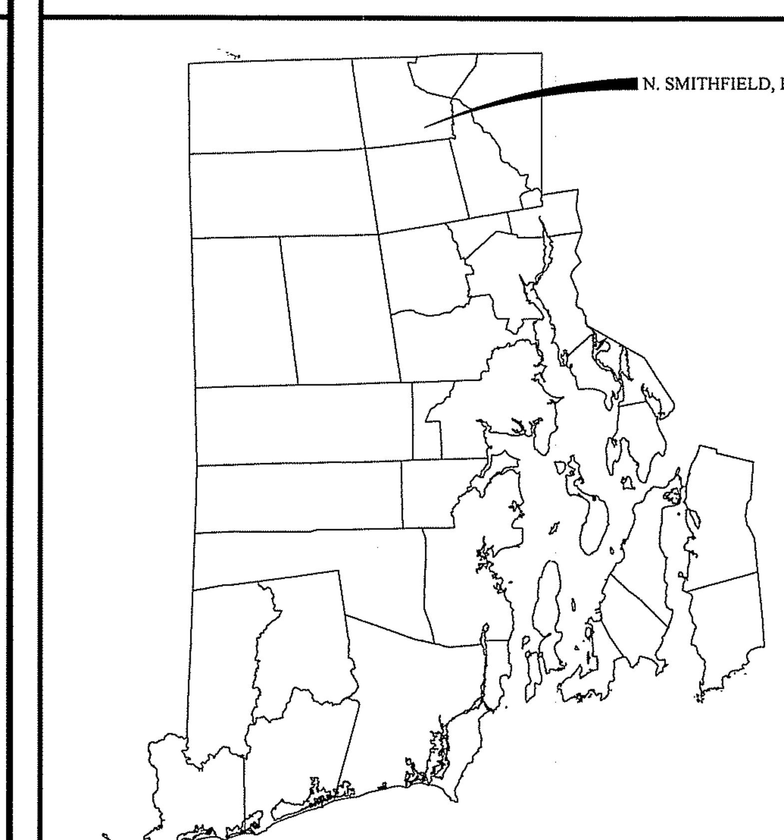
WATER RESOURCE ENGINEER:
NORTHEAST WATER SOLUTIONS
567 SOUTH COUNTY TRAIL
EXETER, RI 02822
PHONE: 401-667-7463

LOCUS MAP (NOT TO SCALE)

N



STATE WIDE MAP



INDEX OF DRAWINGS

OCT 2 8 2015

JCE
JOE CASALI ENGINEERING, INC.
CIVIL - SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER CIVIL
10.28.15

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

REVISIONS:

NO.	DATE.	DESCRIPTION
1	10/28/15	RIDEM RTC

DESIGNED BY:	DRD
DRAWN BY:	WMLJR
CHECKED BY:	JAC
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

COVER SHEET

GENERAL NOTES:
1. THESE PLANS ARE BASED ON CLASS I BOUNDARY AND CLASS III TOPOGRAPHIC SURVEY PERFORMED BY INTERNATIONAL MAPPING AND SURVEYING CORP. IN MARCH 2015.

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 CITY WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.

3. THE SITE IS LOCATED ON THE FLOOD INSURANCE RATE MAP FOR PROVIDENCE COUNTY, MAP NUMBER 44007C0065G. BASED ON THE FEMA FLOOD INSURANCE RATE MAP, MAP INDEX FOR PROVIDENCE COUNTY, MAP NUMBER 44007CINDOC, EFFECTIVE SEPTEMBER 18, 2013, THE FIRM ON WHICH THE SUBJECT PARCEL FALLS ON IS NOT PRINTED. ACCORDING TO RIDEM ENVIRONMENTAL RESOURCE MAPPING AND TOWN OF NORTH SMITHFIELD GIS MAPPING, THE SITE AND ALL ADJACENT SITES, LIE IN ZONE X - AREAS DETERMINED TO BE OUTSIDE OF THE 1% ANNUAL-CHANCE FLOOD HAZARD AREA.

4. SOILS ON THE SITE CONSIST OF CANTON-URBAN LAND COMPLEX (CB) AND RIDGEBURY EXTREMELY STONY FINE SANDY LOAM (Rf), HYDROLOGIC GROUP B AND C, RESPECTFULLY.

5. WETLAND DELINEATION WAS PERFORMED BY NATURAL RESOURCE SERVICES, INC. IN MARCH 2015. THE SITE IS LOCATED WITHIN THE BRANCH RIVER WATERSHED (RIDEM INVENTORY NO. 010900030204).

6. THERE ARE NO KNOWN EASEMENTS ON THE SUBJECT PROPERTY. THERE ARE NO KNOWN EXISTING PUBLIC RECREATIONAL OR CULTURAL RESOURCES LOCATED WITHIN THE SUBJECT SITE.

7. THE SITE IS LOCATED WITHIN A NON-COMMUNITY WELLHEAD PROTECTION AREA.

SITE NOTES:
1. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.

2. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS, AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAN WITH DISABILITIES ACT AND WITH ALL APPLICABLE STATE AND LOCAL LAWS AND REGULATIONS, WHICHEVER IS MORE STRINGENT.

3. STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.

4. ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED.

5. 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 ITEMS FOUND WHICH DO NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.

6. 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.

7. 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 CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SITE CONDITIONS.

8. REFER TO ARCHITECTURAL PLANS, STRUCTURAL PLANS, PLUMBING PLANS AND ELECTRICAL PLANS, FOR ACTUAL SIZE OF THE PROPOSED BUILDING AND WORK WITHIN 5 FEET OF THE PROPOSED BUILDING.

9. WHERE NECESSARY TO REMOVE CURBS, CATCH BASINS OR DRAINS TO COMPLETE WORK, THE CONTRACTOR SHALL REPLACE SUCH ITEMS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.

10. ANY EXISTING PIPE OR UTILITY DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER OR THE TOWN OF NORTH SMITHFIELD.

11. THE CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION OR REPLACE TREES, SHRUBS, FENCES, SIGNS, GUARDRAILS, DRIVEWAYS, SIDEWALKS AND ANY OTHER OBJECT AFFECTED BY THIS OPERATION, UNLESS OTHERWISE NOTED ON THE SITE PLANS.

12. THE TOPS OF ALL VALVE BOXES AND CURB BOXES SHALL BE FLUSH WITH GROUND OR PAVEMENT SURFACE LEVEL AND PLUMB, UNLESS OTHERWISE DIRECTED.

13. ROADWAYS SHALL BE LEFT PASSABLE AT ALL TIMES. CLOSURE OF ROADWAY IS NOT PERMITTED.

14. WATER SERVICE SHALL BE MAINTAINED AT ALL TIMES.

15. ALL LEDGE TO BE REMOVED BY MECHANICAL MEANS.

16. 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.

17. ALL SITE WORK, INCLUDING BUT NOT LIMITED TO, BITUMINOUS PAVEMENT, ROADWAY CONSTRUCTION, AGGREGATE MATERIALS, DRAINAGE STRUCTURES, CURBING, SIDEWALK, LANDSCAPING, SAW CUTTING, ETC. SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED AUGUST 2013 WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE R.I. STANDARD DETAILS 1998 EDITION WITH ALL REVISIONS.

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. ALL TEMPORARY AND VEHICULAR SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2009 EDITION.

2. 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.

3. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED IN THE STATE OR TOWN RIGHT-OF-WAY.

4. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS CHANNELING DEVICES, ETC, SHALL BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION.

5. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE RIDOT SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

DRAINAGE SYSTEM NOTES:
1. THE PROPOSED DRAINAGE LINES SHALL BE ADS N-12 HDPE PIPE OR AN APPROVED EQUAL UNLESS OTHERWISE NOTED ON THE SITE PLANS.

2. ALL RIM ELEVATIONS SHOWN ARE APPROXIMATE AND ARE TO BE SET FLUSH WITH FINAL GRADES.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES
1. THE 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 CATCH BASINS AND CULVERTS SHALL BE PROTECTED WITH STAKED HAYBALES (R.I. STD. 9.8.0) DURING CONSTRUCTION ACTIVITIES. ALL PROPOSED STORM WATER DISCHARGE AREAS SHALL BE LINED WITH A RIPRAP SPLASH PAD AND PROTECTED WITH STAKED HAYBALE OUTLET PROTECTION (R.I. STD. 9.1.0), OR STAKED HAYBALE WITH SILT FENCE (R.I. STD. 9.3.0) OUTLET PROTECTION (STAKED HAYBALE OR STAKED HAYBALE WITH SILT FENCE) SHALL ALSO BE INSTALLED AT ALL EXISTING STORMWATER DISCHARGE LOCATIONS WHERE DISTRIBUTING PIPES, CATCH BASINS, AND MANHOLES ARE TO BE CLEANED AND FLUSHED.

4. CONTRACTOR SHALL INSTALL SILTSACK SEDIMENT TRAPS IN THE DOWNSTREAM CATCH BASINS ALONG THE NORTHERN SIDE OF VICTORY HIGHWAY AT APPROXIMATELY STA 13+40 & 19+25 TO PREVENT SEDIMENT FROM ENTERING THE STATE HIGHWAY DRAINAGE SYSTEM.

5. 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.

6. ALL 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.

7. 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.

8. THE SILT FENCE 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 SILT FENCE 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 AMENDED 2014.

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.

2. OVERHEAD AND/OR UNDERGROUND ELECTRIC, GAS AND COMMUNICATIONS SERVICES ARE TO BE COORDINATED BY THE CONTRACTOR WITH THE APPROPRIATE UTILITY COMPANY.

3. 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.

4. 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 AND/OR THE TOWN OF NORTH SMITHFIELD .

5. EXISTING UTILITY FRAMES AND COVERS FOR SANITARY SEWER, WATER, GAS, STORM DRAINAGE AND OTHER UTILITIES SHALL BE ADJUSTED TO GRADE AS REQUIRED IN NEW PAVING AND PAVEMENT OVERLAY AREAS.

6. 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 (IE., MANDREL) TESTING. LOW PRESSURE SEWER PIPING SHALL BE REQUIRED TO PASS A LOW PRESSURE (IE., HYDROSTATIC) TEST.

7. A BACKFLOW PREVENTION DEVICE MUST BE INSTALLED AT EACH SEWER SERVICE BUILDING CONNECTION THAT IS BELOW THE RIM ELEVATION OF THE NEAREST SEWER MANHOLE, AS REQUIRED BY THE INTERNATIONAL PLUMBING CODE.

8. APPLICANT IS REQUIRED TO PROVIDE TWO SETS OF FINAL AS-BUILT PLANS 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 SWING TIES/MEASUREMENTS TO ALL MANHOLES, SEWER STUBS, AND/OR LATERAL SERVICE CONNECTIONS.

9. 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 NORTH SMITHFIELD.

10. NO FLOW WILL BE ACCEPTED UNTIL A COMPLETION CERTIFICATE IS ISSUED.

11. THE CONTRACTOR SHALL CONFINE HIS CONSTRUCTION OPERATIONS AND ACTIVITIES TO WITHIN THE STREET LINES, EASEMENT AND/OR RIGHT-OF-WAY, AS SHOWN ON THE DRAWINGS.

12. ALL CONSTRUCTION MATERIALS, AS WELL AS ALL MATERIAL SHOP DRAWINGS AND MANUFACTURERS DATA SHEETS SHALL BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER, OR HIS/HER REPRESENTATIVE PRIOR TO FABRICATION AND INSTALLATION.

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 THE STORMWATER RUNOFF (DRAINAGE) AND WATER QUALITY CONTROL SYSTEMS TO INCLUDE INSPECTION, CLEANING AND REPAIRS ALL PIPES, INTAKE AND DISCHARGE STRUCTURES, CATCH BASIN SUMPS, AND MANHOLES.

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 1/2 INCH RAINFALL OR MORE IN A 24-HOUR PERIOD, OR BI-MONTHLY IF NO RAINFALL EVENT OCCURS.

2. UPON COMPLETION OF THE 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.

3. ALL INSTALLATION, CLEANING, AND MAINTENANCE OF THE STORMWATER DRAINAGE SYSTEM SHALL FOLLOW AT LEAST THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION MINIMUM STANDARDS, SECTION 212 AND SECTION 708. WHERE APPROPRIATE, PROCEDURES REGARDING THE DRAINAGE INSTALLATION, CLEANING, 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, 2010).

4. AFTER CONSTRUCTION, STORMWATER BMPS SHALL BE INSPECTED AND MAINTAINED BY THE OWNER AS FOLLOWS:

ROOF DRAIN LEADERS
- PERFORM ROUTINE ROOF INSPECTIONS QUARTERLY.
- KEEP ROOFS CLEAN AND FREE OF DEBRIS.
- KEEP ROOF DRAINAGE SYSTEMS CLEAR.

PRE-TREATMENT SEDIMENT FOREBAY
- AFTER CONSTRUCTION, THE SEDIMENT FOREBAY SHALL BE INSPECTED AND CLEANED WHEN SEDIMENT BUILD UP IS IN EXCESS OF 6" OR 25% OF THE SEDIMENT STORAGE VOLUME.

SAND FILTER
- AFTER CONSTRUCTION, THE SAND FILTER SHALL BE INSPECTED AFTER EACH OF THE FIRST TWO RAINFALL EVENTS OF AT LEAST 1.0 INCHES TO ENSURE THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, INSPECTIONS SHALL BE CONDUCTED ON AN ANNUAL BASIS AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL TO 2 INCHES.
- SILT/SEDIMENT SHALL BE REMOVED FROM THE FILTER BED WHEN THE ACCUMULATION EXCEEDS ONE INCH. WHEN THE FILTERING CAPACITY DIMINISHES SUBSTANTIALLY (I.E. WHEN WATER PONDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 48 HOURS), THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REMOVED AND SHALL BE REPLACED WITH FRESH MATERIAL. THE REMOVED SEDIMENTS SHALL BE DISPOSED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS AT AN APPROVED AND PERMITTED LOCATION.

LOAMING & SEEDING
SEEDING ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH SECTION L.02 SEEDING OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA), AND SHALL ALSO CONFORM TO THE FOLLOWING:

1. AFTER ROUGH GRADING IS COMPLETED, ALL DISTURBED AREAS AND AREAS LABELED AS 'LOAM AND SEED' ARE TO BE BROUGHT TO AN ELEVATION OF 6" BELOW THE PROPOSED FINISHED GRADE. SCARIFY THE SUBGRADE TO A DEPTH OF 12" WITH THE TEETH OF A BACKHOE OR A POWER RAKE TO RESULT IN AN UNCOMPACTED SUBSOIL. 6" OF GOOD QUALITY TOPSOIL IS TO BE APPLIED AND RAKED TO FINISHED GRADE.

2. THE TOPSOIL IS TO BE GOOD QUALITY LOAM, FERTILE AND FREE OF WEEDS, STICKS AND STONES OVER 3/4" IN SIZE AND OTHERWISE COMPLYING WITH SECTION M.18.01 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA),

3. PRIOR TO SEEDING OR SODDING, FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 1-2" OF THE PLANTING SOIL. APPLY AT A RATE OF 8 LBS. PER 1000 SQUARE FEET.

4. APPLY LIME AT A RATE OF ONE TON PER ACRE AND UNIFORMLY INCORPORATE INTO THE TOP 1-2" OF TOPSOIL.

5. SEEDING
AFTER THE SEED BED IS PREPARED, SEED IS TO BE BROADCAST EVENLY OVER THE SURFACE AND WORKED INTO THE TOP 1" OF SOIL. SEED SHALL BE APPROVED URI #2 OR APPROVED EQUAL. APPLY AT A RATE OF 4-5 LBS. PER 1000 SQUARE FEET OR AS OTHERWISE DIRECTED BY THE MANUFACTURER.

URI #2 IMPROVED SEED MIX, % BY WEIGHT:

40% CREEPING RED FESCUE
20% IMPROVED PERENNIAL RYEGRASS
20% IMPROVED KENTUCKY BLUEGRASS
20% KENTUCKY BLUEGRASS

RECOMMENDED SEEDING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15. AT THE CONTRACTORS DISCRETION, SEED MAY BE APPLIED BY HYDROSEEDING RATHER THAN THE METHOD DESCRIBED ABOVE.

1-888-DIG-SAFE
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV 20 2015 FILE # 15-0159
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

OCT 28 2015

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER CIVIL
10.28.15

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

REVISIONS:

NO.	DATE.	DESCRIPTION
1	10/28/15	RIDEM RTC

DESIGNED BY:	DRD
DRAWN BY:	WMLJR
CHECKED BY:	JAC
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

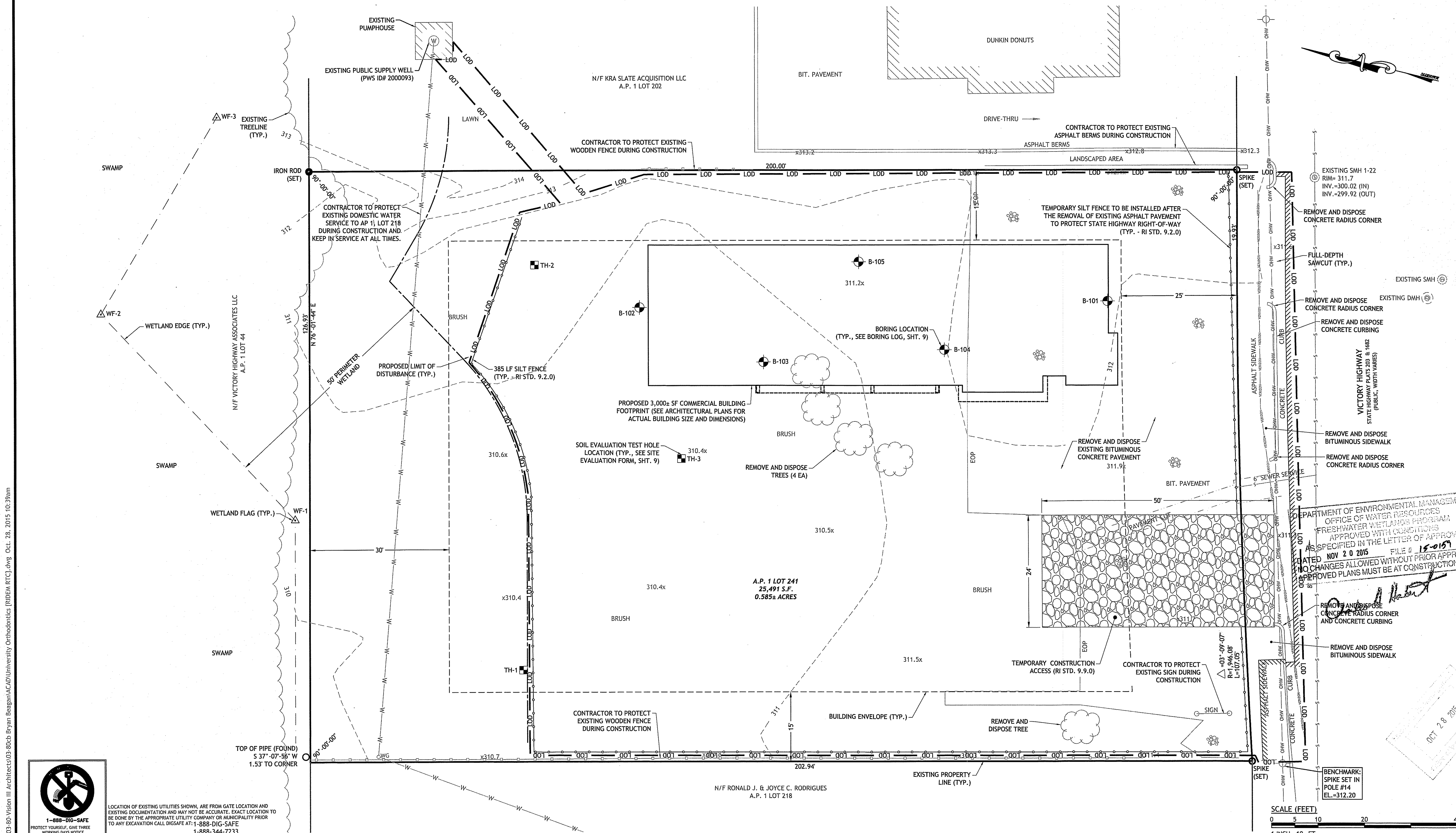
GENERAL NOTES

SHEET 2 OF 12

Q:\03-80-Vision III Architects\03-80cb Bryan Beagan\ACAD\University Orthodontics [RIDEM RTC].dwg Oct. 28, 2015 10:38am

LEGEND:

EXISTING PROPERTY LINE	EXISTING DRAINAGE MANHOLE
PROPOSED PROPERTY LINE	PROPOSED DRAINAGE MANHOLE
ABUTTING PROPERTY LINE	EXISTING CATCH BASIN
BUILDING SETBACK LINE	PROPOSED CATCH BASIN
WETLAND EDGE	EXISTING SEWER LINE
WF WETLAND FLAG	PROPOSED SEWER LINE
50' PERIMETER WETLAND	EXISTING SEWER MANHOLE
100' RIVERBANK WETLAND	PROPOSED SEWER MANHOLE
200' RIVERBANK WETLAND	EXISTING WATER LINE
EXISTING EASEMENT	PROPOSED WATER LINE
100 EXISTING CONTOUR	WG EXISTING WATER GATE
100 PROPOSED CONTOUR	PROPOSED WATER GATE
EXISTING FENCE	GAS EXISTING GAS LINE
EXISTING CURB	GAS PROPOSED GAS LINE
PROPOSED CURB	EXISTING UTILITY POLE
GUARD RAIL	PROPOSED UTILITY POLE
D EXISTING DRAIN LINE	TH1 EXISTING TEST HOLE
D PROPOSED DRAIN LINE	SILT FENCE
	LOD LIMIT OF DISTURBANCE



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
FILE # 15-0157
DATED NOV 20 2015
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

OCT 28 2015

1-888-DIG-SAFE
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

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:\03-80-Vision III Architects\03-80cb Bryan Bezgon\ACAD\University Orthodontics [RIDEM RTC].dwg Oct. 28, 2015 10:39am

JCE

JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER CIVIL
10.28.15

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

REVISIONS:

NO.	DATE.	DESCRIPTION
1	10/28/15	RIDEM RTC

DESIGNED BY:	DRD
DRAWN BY:	WMLJR
CHECKED BY:	JAC
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

SITE PREPARATION PLAN

LEGEND:

EXISTING PROPERTY LINE	EXISTING CATCH BASIN
PROPOSED PROPERTY LINE	PROPOSED CATCH BASIN
ABUTTING PROPERTY LINE	EXISTING SEWER LINE
BUILDING SETBACK LINE	PROPOSED SEWER LINE
WETLAND EDGE	EXISTING SEWER MANHOLE
WF WETLAND FLAG	PROPOSED SEWER MANHOLE
50' PERIMETER WETLAND	EXISTING WATER LINE
100' RIVERBANK WETLAND	PROPOSED WATER LINE
200' RIVERBANK WETLAND	WGO EXISTING WATER GATE
EXISTING EASEMENT	PROPOSED WATER GATE
100 EXISTING CONTOUR	GAS EXISTING GAS LINE
100 PROPOSED CONTOUR	GAS PROPOSED GAS LINE
EXISTING FENCE	TEL PROPOSED TELECOM DUCTBANK
EXISTING CURB	UGE PROPOSED UNDERGROUND ELECTRIC
PROPOSED CURB	EXISTING UTILITY POLE
GUARD RAIL	PROPOSED UTILITY POLE
D EXISTING DRAIN LINE	TH1 EXISTING TEST HOLE
D PROPOSED DRAIN LINE	EXISTING HYDRANT
EXISTING DRAINAGE MANHOLE	N/F NOW OR FERMERLY
PROPOSED DRAINAGE MANHOLE	

ZONING CRITERIA	REQUIRED	PROPOSED
ZONING DISTRICT	BN	BN
MINIMUM FRONT YARD SETBACK	25'	26'
MINIMUM SIDE YARD SETBACK	15'	16'
MINIMUM REAR YARD SETBACK	30'	74'
MAXIMUM BUILDING HEIGHT (MAIN)	35'	25'
MAXIMUM BUILDING HEIGHT (ACCESS.)	20'	NA
MAXIMUM FLOOR AREA RATIO	0.25	0.12
MINIMUM DISTANCE TO RESIDENTIAL ZONE BOUNDARY	25'	73'

NOTES TO CONTRACTOR:

1. CONTRACTOR TO COORDINATE WITH PROJECT OWNER AND OWNER OF ADJACENT PROPERTY (AP 1, LOT 202) REGARDING ACCESS AND ANY WORK TO TAKE PLACE ON AP 1, LOT 202.
2. CONCRETE SIDEWALK CONTROL JOINTS SHALL BE SPACED EVERY 4 FEET EXCEPT WHERE NOTED ON THE PLANS. EVERY FOURTH JOINT SHALL BE AN EXPANSION JOINT.

DISTRICT USE REGULATIONS: SECTION 5.3 OF THE TOWN OF NORTH SMITHFIELD CODE OF ORDINANCES:

SECTION 5.4.3: OFFICE USES

OFFICE, BUILDING UNDER 3,000 SF GLA: PERMITTED IN BN DISTRICT
OFFICE, BUILDING OVER 3,000 SF GLA: NOT PERMITTED IN BN DISTRICT

ACTUAL GLA = 2,982 SF

DESIGN AND OPERATION GUIDELINES WITHIN WATER SUPPLY PROTECTION OVERLAY DISTRICT: SECTION 6-19.10 OF THE TOWN OF NORTH SMITHFIELD CODE OF ORDINANCES:

MAXIMUM PERCENTAGE OF IMPERVIOUS AREA IN BN ZONE = 40%

TOTAL LOT AREA = 25,491 SQ. FT.
TOTAL BUILDING FOOTPRINT = 3,098 SQ. FT.
TOTAL PARKING AREA FOOTPRINT = 6,675 SQ. FT.
TOTAL MISCELLANEOUS IMPERVIOUS AREA = 426 SQ. FT.

TOTAL IMPERVIOUS AREA = 10,200 SQ. FT.
PROPOSED IMPERVIOUS AREA = 40%

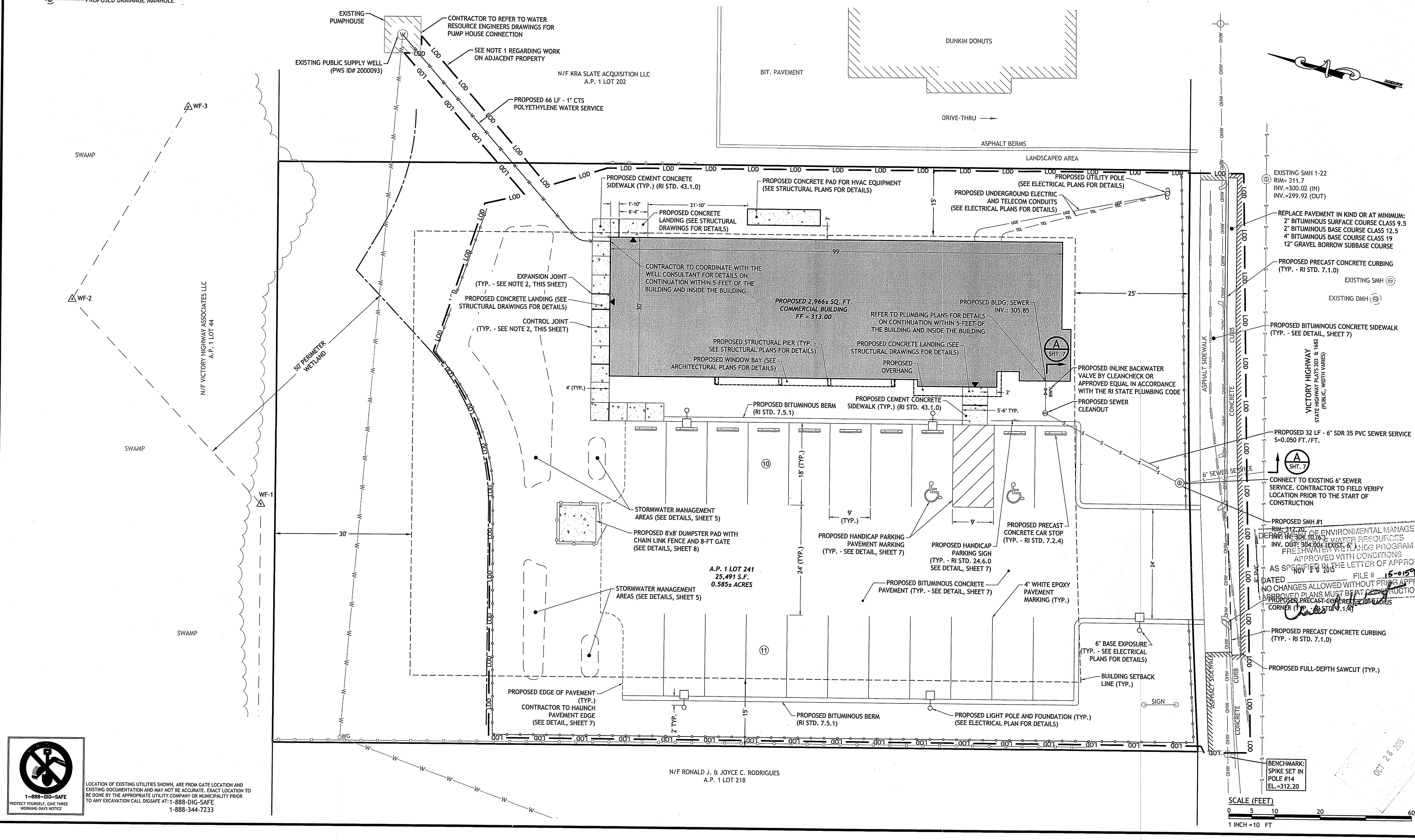
OFF-STREET PARKING SPACE REQUIREMENTS:

PROPOSED 3,000 SF OFFICE SPACE

PARKING CATEGORY: OFFICE USE
ONE PARKING SPACE / 400 SF OF FLOOR AREA

PROPOSED 3,000 SF GFA x 1 SPACE / 400 SF = 8 PARKING SPACES REQUIRED
ADA REQUIRES 1 HANDICAP SPACE FOR LOTS OF 25 SPACES OR LESS

REQUIRED: 8 SPACES (1 VAN ACCESSIBLE HANDICAP)
PROVIDED: 21 SPACES (2 VAN ACCESSIBLE HANDICAP)



Q:\03-80-Vision III Architects\03-80cb Bryan Reagan\ACAD\University Orthodontics [RIDEM RTC].dwg Oct. 28, 2015 10:39am

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313FAX WWW.JCECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER CIVIL
10.28.15

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

REVISIONS:

NO.	DATE.	DESCRIPTION
1	10/28/15	RIDEM RTC

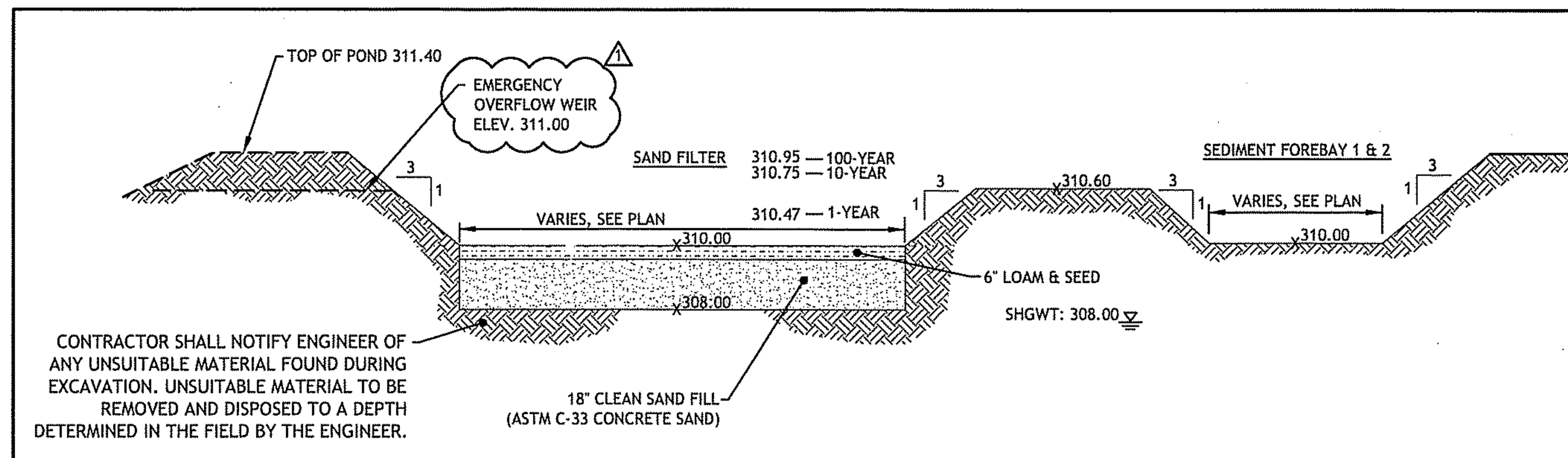
DESIGNED BY:	DRD
DRAWN BY:	WMLJR
CHECKED BY:	JAC
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

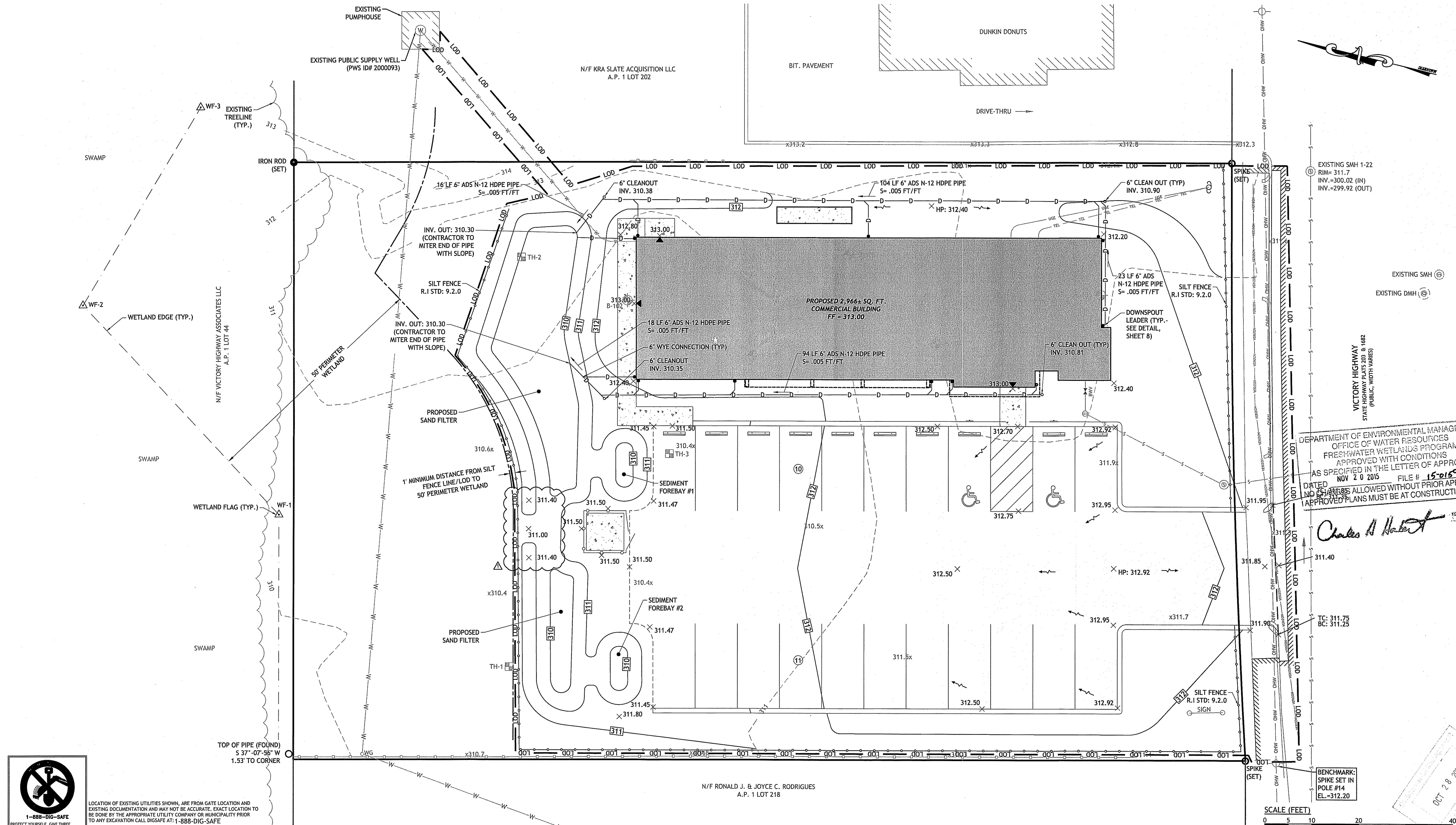
SITE AND UTILITY PLAN

LEGEND:

———	EXISTING PROPERTY LINE
———	PROPOSED PROPERTY LINE
— — —	ABUTTING PROPERTY LINE
— — —	BUILDING SETBACK LINE
— · —	WETLAND EDGE
WF	WETLAND FLAG
— — —	50' PERIMETER WETLAND
— · · —	100' RIVERBANK WETLAND
— · · —	200' RIVERBANK WETLAND
//////	EXISTING EASEMENT
— — 100 — —	EXISTING CONTOUR
100	PROPOSED CONTOUR
—o—o—	EXISTING FENCE
———	EXISTING CURB
═══	PROPOSED CURB
—o—o—	GUARD RAIL
—D— —D—	EXISTING DRAIN LINE
—D— —D—	PROPOSED DRAIN LINE
	EXISTING DRAINAGE MANHOLE
	PROPOSED DRAINAGE MANHOLE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
—S— —S—	EXISTING SEWER LINE
—S— —S—	PROPOSED SEWER LINE
	EXISTING SEWER MANHOLE
	PROPOSED SEWER MANHOLE
—W—	EXISTING WATER LINE
—W—	PROPOSED WATER LINE
WG	EXISTING WATER GATE
	PROPOSED WATER GATE
— GAS —	EXISTING GAS LINE
— GAS —	PROPOSED GAS LINE
	EXISTING UTILITY POLE
	PROPOSED UTILITY POLE
TH1	EXISTING TEST HOLE
	EXISTING HYDRANT
N/F	NOW OR FERMERLY



1 SEDIMENT FOREBAY AND SAND FILTER CROSS SECTION DETAIL
NOT TO SCALE



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
FILE # 15-0159
DATED NOV 20 2015
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A Horbert

1-888-DIG-SAFE
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

LOCATION OF EXISTING UTILITIES SHOWN, ARE FROM GATE LOCATION AND LOCATING 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

SCALE (FEET)
0 5 10 20 40
1 INCH =10 FT

Q:\03-80-Vision III Architects\03-80cb Bryan Reagan\ACAD\University Orthodontics [RIDEM RTC].dwg Oct. 28, 2015 10:39am

OCT 28 2015

JCE
JOE CASALI ENGINEERING, INC.
CIVIL - SITE DEVELOPMENT - TRANSPORTATION
DRAINAGE - WETLANDS - ISDS - TRAFFIC - FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER CIVIL
10.28.15

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

REVISIONS:

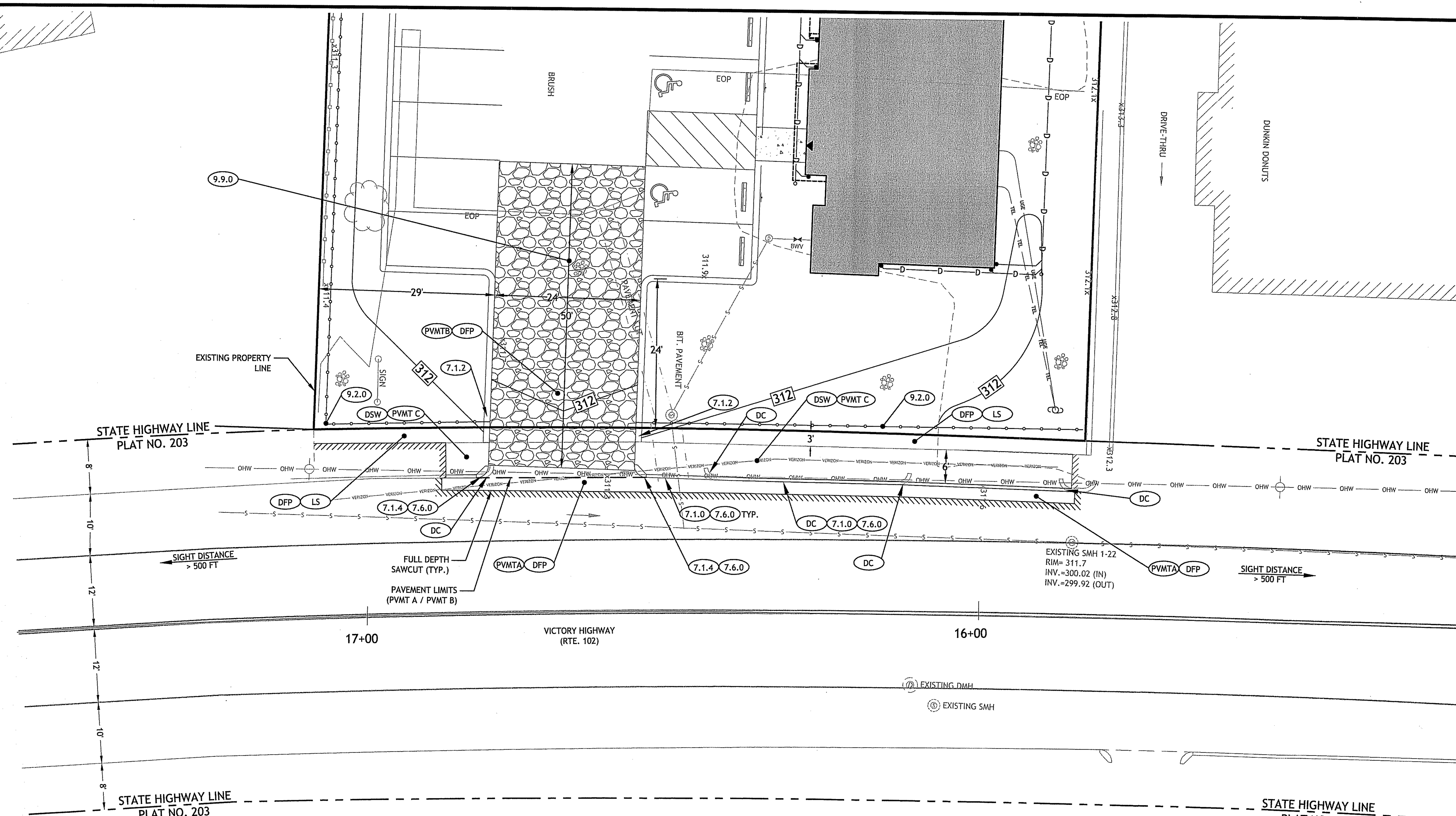
NO.	DATE.	DESCRIPTION
1	10/28/15	RIDEM RTC

DESIGNED BY:	DRD
DRAWN BY:	WMLJR
CHECKED BY:	JAC
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

GRADING AND DRAINAGE PLAN

SHEET 5 OF 12



RIDOT PHYSICAL ALTERATION PERMIT PLAN

SCALE: 1"=10'

RHODE ISLAND STANDARDS

- (7.1.0) PRECAST CONCRETE CURB
- (7.1.2) 6'-0" PRECAST CONCRETE TRANSITION CURB
- (7.1.4) PRECAST CONCRETE 2'-0" RADIUS CORNER
- (7.6.0) CURB SETTING DETAIL
- (9.2.0) SILT FENCE
- (9.9.0) CONSTRUCTION ACCESS
- (DC) REMOVE AND DISPOSE CURB
- (DFP) REMOVE AND DISPOSE FLEXIBLE PAVEMENT
- (DSW) REMOVE AND DISPOSE SIDEWALK
- (LS) LOAM & SEED
- (PVMT A) EXISTING STATE ROADWAY PAVEMENT STRUCTURE PER RIDOT CONTRACT NO. 7410:
  - 2" BITUMINOUS SURFACE COURSE CLASS 9.5
  - 2" BITUMINOUS BASE COURSE CLASS 12.5
  - 4" BITUMINOUS BASE COURSE CLASS 19
  - 12" GRAVEL BORROW SUBBASE COURSE
- (PVMT B) PROPOSED DRIVEWAY ENTRANCE PAVEMENT STRUCTURE:
  - 1.5" BITUMINOUS SURFACE COURSE CLASS 9.5
  - 2.5" BITUMINOUS BASE COURSE CLASS 12.5
  - 8" GRAVEL BORROW SUBBASE COURSE
- (PVMT C) PROPOSED BITUMINOUS CONCRETE SIDEWALK PAVEMENT STRUCTURE:
  - 3" BITUMINOUS SURFACE COURSE CLASS 9.5
  - 8" GRAVEL BORROW SUBBASE COURSE

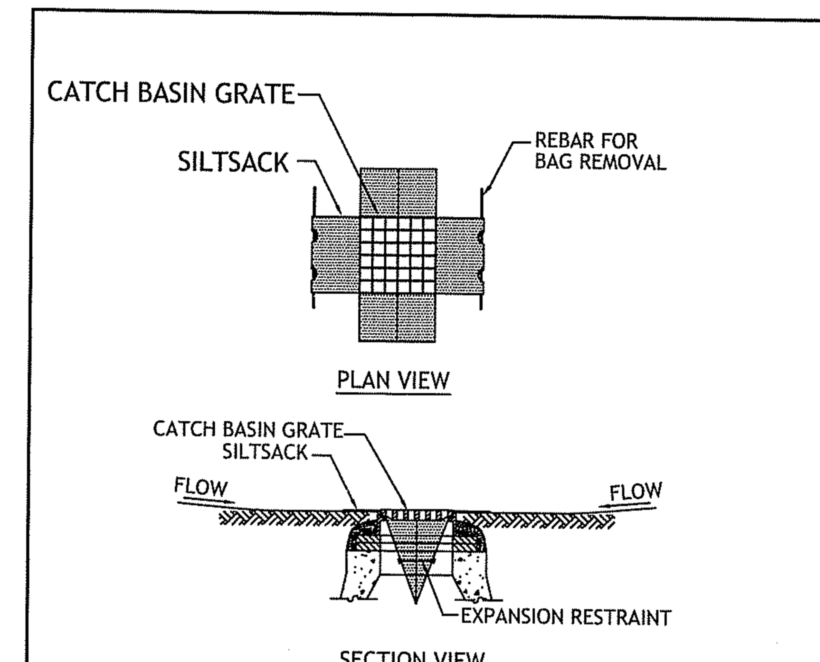
NOTES:

1. ALL WORK TO BE DONE WITHIN THE STATE RIGHT-OF-WAY (ROW) SHALL CONFORM TO RI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED 2013 WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE RI STANDARD DETAILS 1998 EDITION WITH ALL REVISIONS.
2. UTILITY WORK SHOWN AS REFERENCE. THIS WORK NEEDS TO BE PERMITTED THROUGH A UTILITY PHYSICAL UTILITY PERMIT (PUP) WITH RIDOT'S DIVISION OF MAINTENANCE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION. ALL TEMPORARY AND VEHICULAR SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. CONTRACTOR SHALL INSTALL A CATCH BASIN SILTSACK SEDIMENT TRAP AT EXISTING DOWNSTREAM CATCH BASINS ALONG THE NORTH SIDE OF VICTORY HIGHWAY AT APPROXIMATELY STA 13+40 & 19+25.
5. CONTRACTOR TO PROVIDE TEMPORARY EROSION CONTROLS TO PROTECT THE STATE ROW DURING THE DEMOLITION OF EXISTING DRIVEWAY AND CONSTRUCTION OF NEW DRIVEWAY.

POSTED SPEED LIMIT ON VICTORY HIGHWAY: 35 MPH
AASHTO STOPPING SIGHT DISTANCE (SSD) REQUIREMENTS

SPEED	DISTANCE
25	155 FT.
30	200 FT.
35	250 FT. ←
55	495 FT.

SITE MEETS REQUIREMENTS FOR THE POSTED SPEED LIMIT ON VICTORY HIGHWAY. IT SHOULD BE NOTED THAT SPEEDS WERE IN EXCESS OF THE POSTED SPEED LIMIT HOWEVER THE STOPPING SIGHT DISTANCE MEASURED ALLOW FOR SPEEDS UP TO 55 MPH.



Notes:

1. INSTALL SILTSACK IN BOTH DOWNSTREAM CATCH BASINS ALONG VICTORY HIGHWAY BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
2. GRATE TO BE PLACED OVER SILTSACK. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

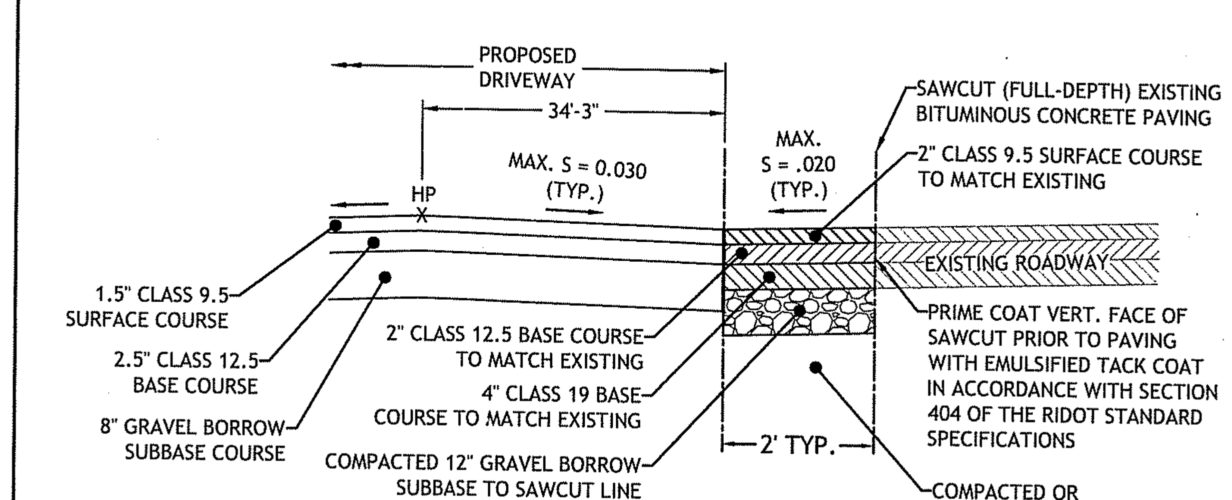
2 SILTSACK SEDIMENT TRAP

NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV 20 2015 FILE # 15-0159
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

NOTES:

1. MINIMUM COMPACTION FOR GRAVEL SUB-BASE OR SUBGRADE: 95% MODIFIED PROCTOR.
2. NO WORK SHOULD BE DONE OUTSIDE OF THE PROJECT'S LOD. PAVEMENT SHOULD MATCH WHERE NOTED ON THE SITE PLANS.
3. WHEN MATCHING EXISTING PAVEMENT, THE LONGITUDINAL CUT AND MATCH SECTION SHOULD NOT EXCEED PAST THE SHOULDER STRIPING.



ENTRANCE ACCESS SAWCUT AND MATCH DETAIL

NOT TO SCALE

SCALE (FEET)
0 5 10 20 40
1 INCH = 10 FT

1-888-DIG-SAFE
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

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:\03-80-Vision III Architects\03-80cb Bryan Beagan\ACAD\University Orthodontics [RIDEM RTC].dwg Oct. 28, 2015 10:39am

JCE
JOE CASALI ENGINEERING, INC.
CIVIL SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER CIVIL
10.28.15

UNIVERSITY ORTHODONTICS

947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

REVISIONS:

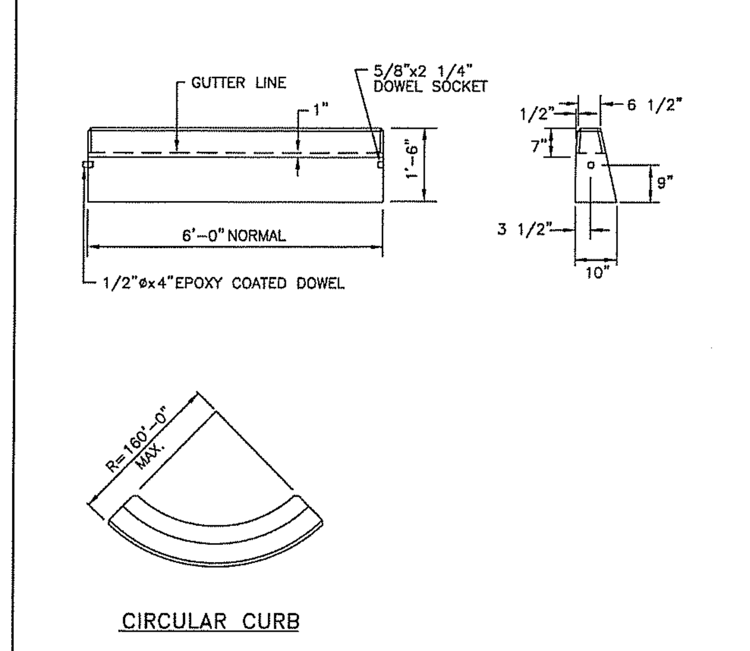
NO.	DATE.	DESCRIPTION
1	10/28/15	RIDEM RTC

DESIGNED BY:	DRD
DRAWN BY:	WMLJR
CHECKED BY:	JAC
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

RIDOT PAP PLAN

SHEET 6 OF 12



CIRCULAR CURB

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0".
3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
4. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.
5. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

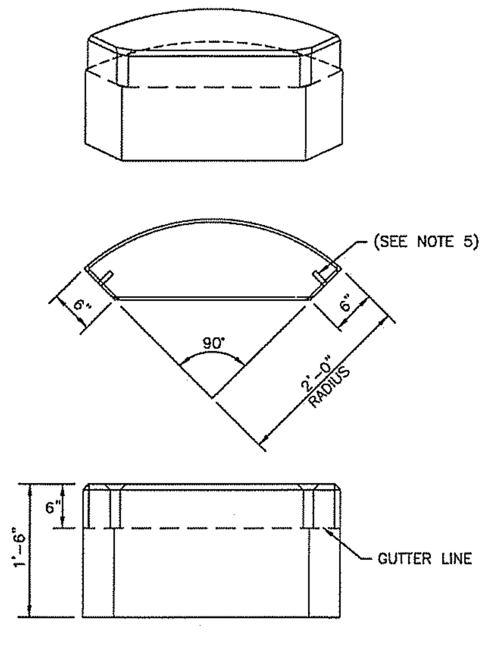
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

PRECAST CONCRETE CURB

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.1.0



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
3. NO REINFORCEMENT REQUIRED.
4. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.
5. SEE STD. 7.1.0 FOR DOWEL SOCKET LOCATION.

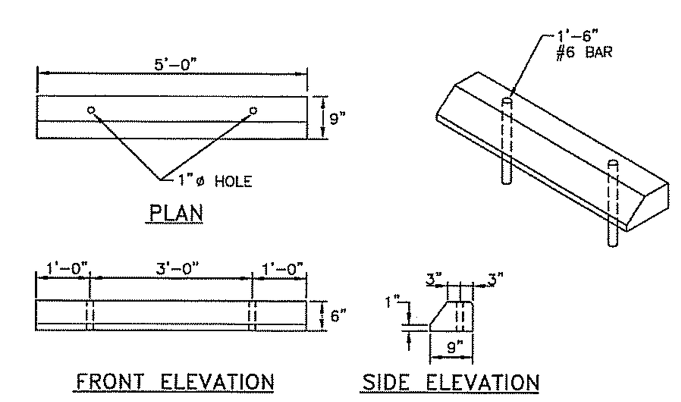
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

PRECAST CONCRETE 2'-0" RADIUS CORNER

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.1.4



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. ALL EXPOSED EDGES TO HAVE A 3/4" CHAMFER.
3. ALL SURFACES TO HAVE A SPONGE FLOAT FINISH.

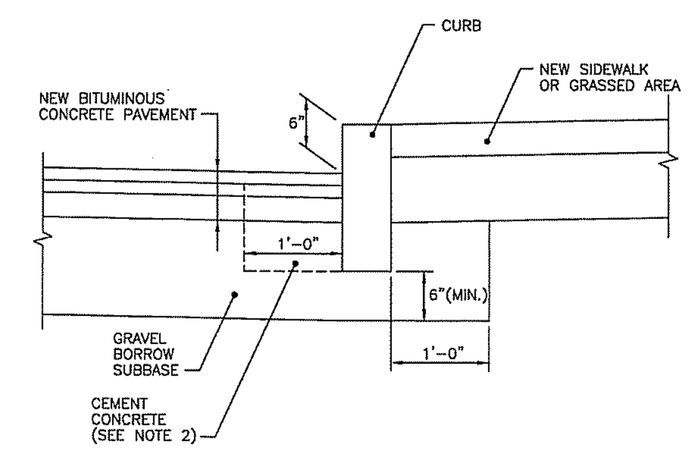
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

PRECAST CONCRETE CAR STOPS

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.2.4



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. CEMENT CONCRETE SHALL BE USED ONLY WHEN THE CURB IS SET AFTER THE BASE AND/OR BINDER COURSES ARE IN PLACE, OTHERWISE THE CEMENT CONCRETE WILL BE ELIMINATED AND THE GRAVEL BROUGHT UP TO BOTTOM OF THE BASE COURSE.

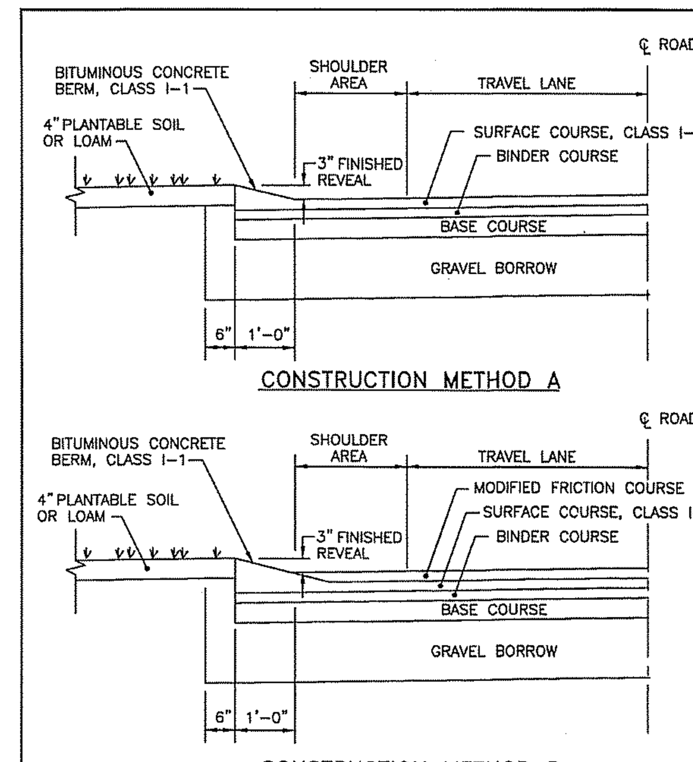
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

CURB SETTING DETAIL

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.6.0



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. BITUMINOUS BERM CAN BE PLACED AT THE SAME TIME THAT THE SURFACE COURSE LAYER IS PLACED ON THE PROJECT ROADWAY, OR IT CAN BE INSTALLED IN A SEPARATE OPERATION.

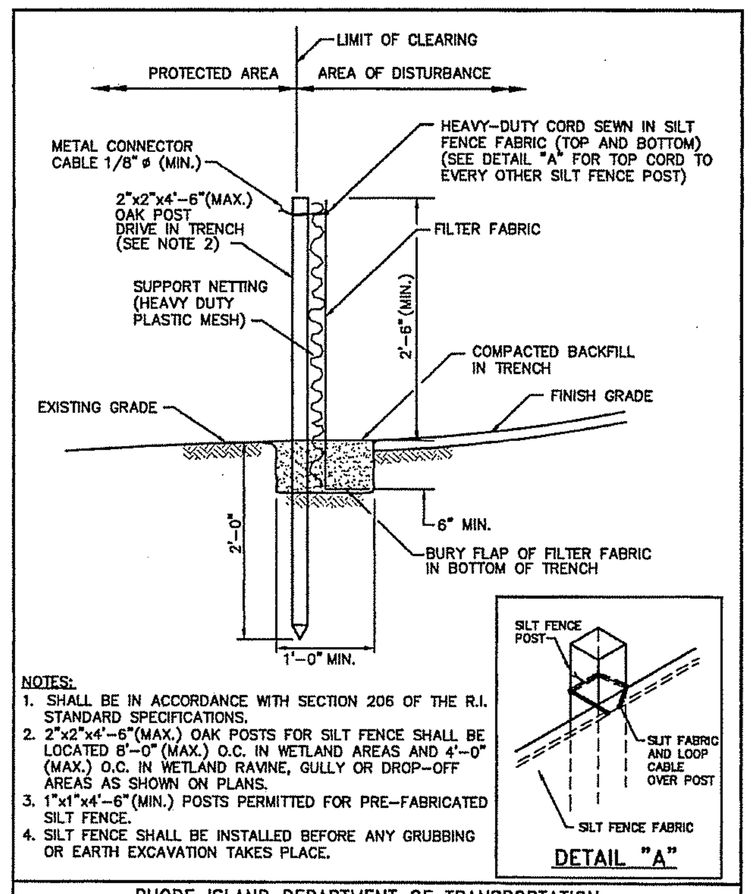
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

BITUMINOUS BERM

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.5.1



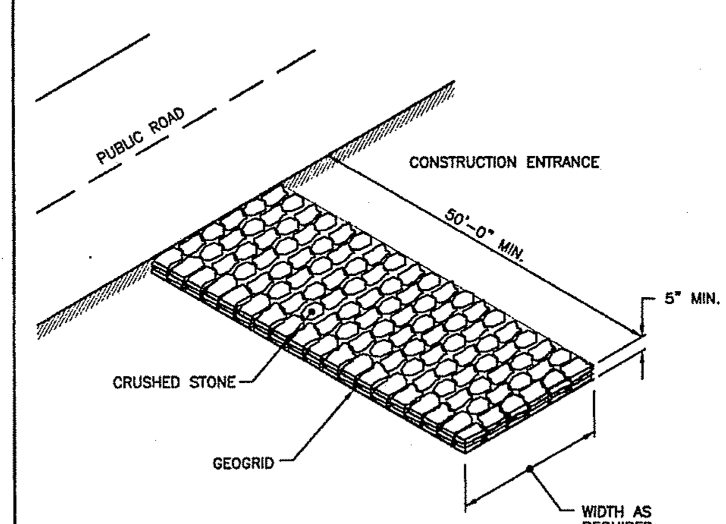
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. 2"x2"x4'-6"(MAX.) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 8'-0"(MAX.) O.C. IN WETLAND AREAS AND 4'-0" (MAX.) O.C. IN WETLAND RAVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
3. 1"x1"x4'-6"(MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
4. SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

SILT FENCE DETAIL

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 9.2.0



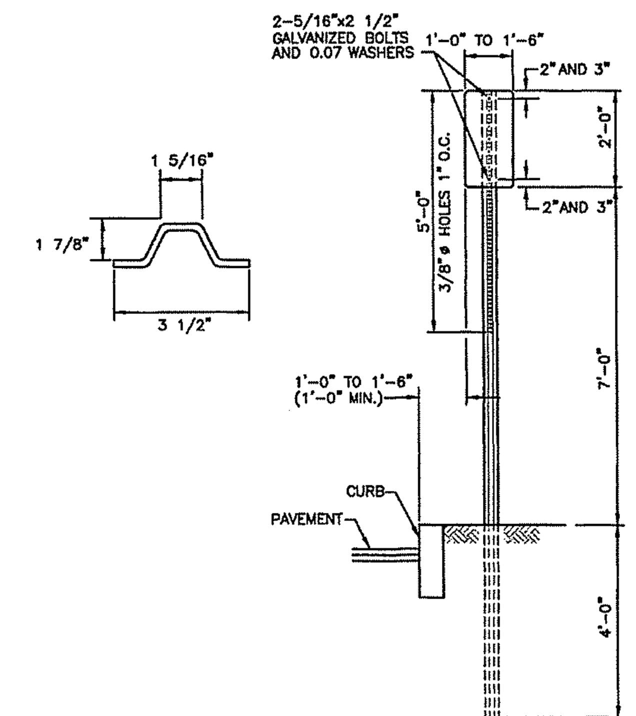
NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

CONSTRUCTION ACCESS

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 9.9.0



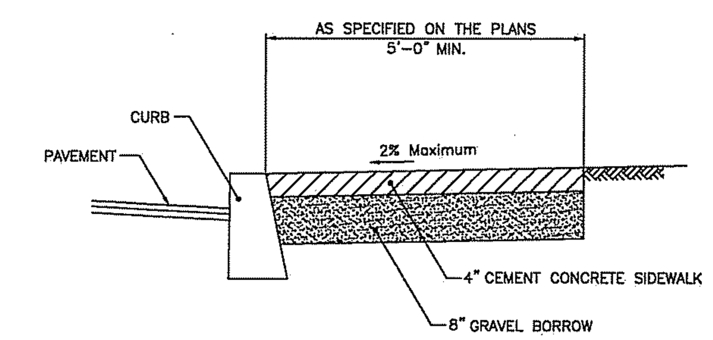
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION T.15 OF THE STANDARD SPECIFICATIONS.
2. PARKING SIGNS SHALL BE SET AT AN ANGLE OF NOT LESS THAN 30° NOR MORE THAN 45° WITH A LINE PARALLEL TO FLOW OF TRAFFIC, 1'-6" (1'-0" MIN.) FROM EDGE OF CURB FACE.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

PARKING SIGN MOUNTING DETAIL

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 24.6.0



NOTES
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. FOR CURB SETTING DETAIL REFERENCE STD. 7.6.0.

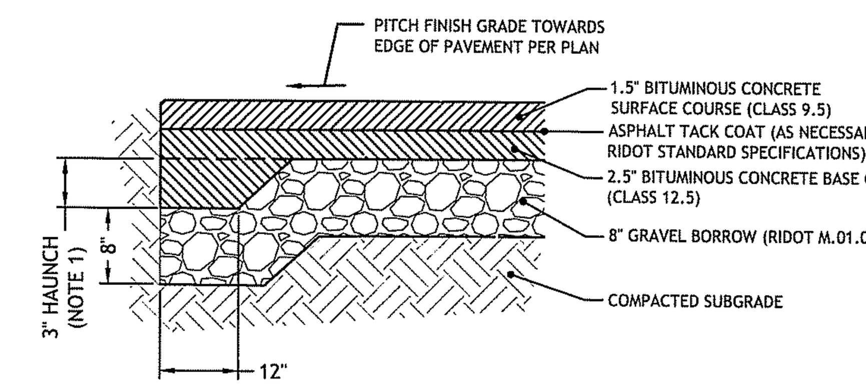
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	3/1/05
2	MLP	06/01/10

CEMENT CONCRETE SIDEWALK

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

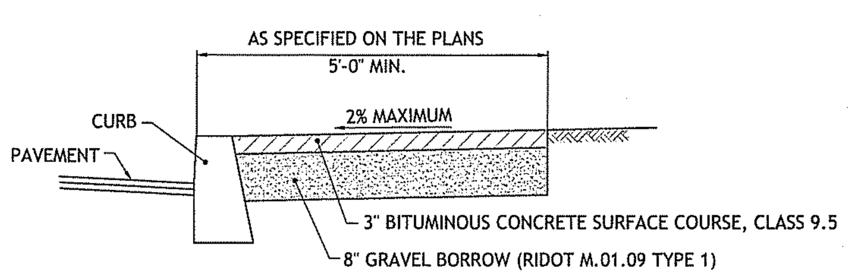
R.I. STANDARD 43.1.0



NOTES:
1. HAUNCH SHALL BE PLACED IN ONE (1) CONTINUOUS 3-INCH THICK LIFT OF CLASS 12.5 BITUMINOUS CONCRETE BASE MATERIAL.

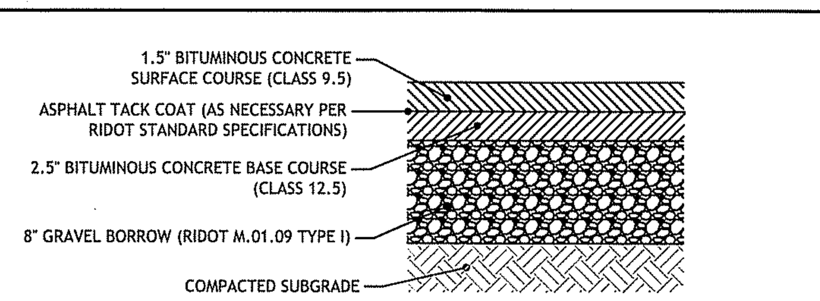
3 BITUMINOUS CONCRETE PAVEMENT EDGE HAUNCH DETAIL
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV 2 0 2015 FILE # 15-0159
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



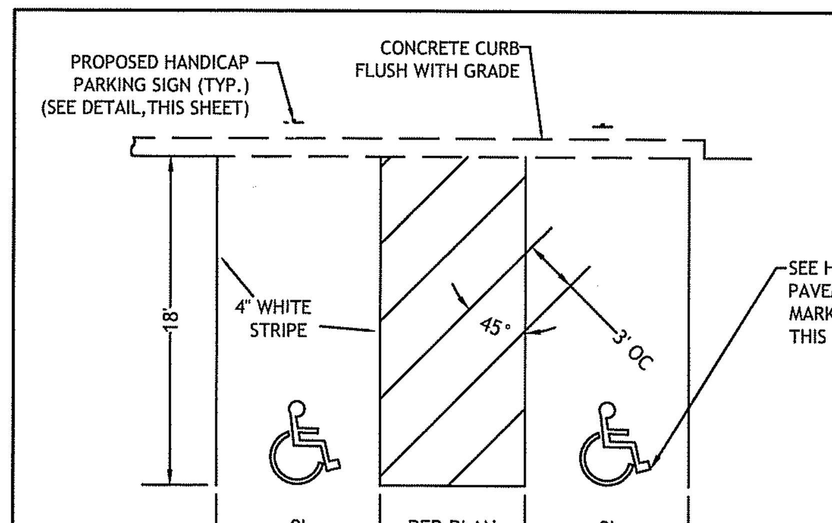
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. FOR CURB SETTING DETAIL REFERENCE STD. 7.6.0.

4 BITUMINOUS CONCRETE SIDEWALK
NOT TO SCALE



NOTE:
1. IN AREAS OF EARTH EXCAVATION FOR BITUMINOUS CONCRETE PAVEMENT, THE CONTRACTOR SHALL REMOVE 12 INCHES OF EXISTING MATERIAL. IF UNSUITABLE MATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. THE DEPTH OF UNSUITABLE MATERIAL TO BE REMOVED WILL BE DETERMINED IN THE FIELD. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE THE UNSUITABLE MATERIALS AND REPLACE WITH SUITABLE MATERIAL APPROVED BY THE ENGINEER.
2. PAVEMENT DETAIL IS FOR THE PARKING LOT ONLY. PLEASE REFER TO THE RIDOT PAP PLAN (SHEET 6 OF 9) FOR PAVEMENT DETAILS WITHIN THE RIDOT ROW.

5 PARKING LOT BITUMINOUS CONCRETE PAVEMENT
NOT TO SCALE



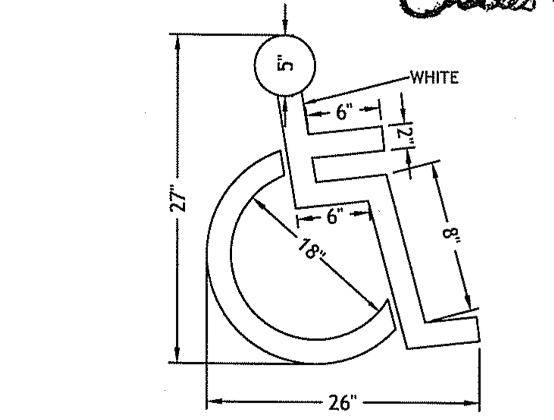
6 HANDICAP PARKING STALLS
NOT TO SCALE

NOTE:
SIGNS ARE TO CONFORM WITH THE MOST RECENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

* VAN ACCESSIBLE SIGNS FOR SPACES ADJACENT TO THE 8' STRIPED ISLE.

SIGN NOTES:
1. SIGN POSTS SHALL BE GALVANIZED STEEL U-CHANNEL (3 1/2" WIDE-MIN) AND INSTALLED IN CONFORMANCE TO M.U.T.C.D. AND RHODE ISLAND STANDARD SPECIFICATIONS.
2. POSTS SHALL BE DRIVEN TO A DEPTH OF 4 FEET (MIN).
3. THE EDGE OF THE SIGN SHALL BE 18" FROM THE FACE OF THE CURB.
4. WITHIN SIDEWALK LOCATIONS THE SIGN POST WILL BE INSTALLED WITHIN A 8"X8"X6" SQUARE BOX FORM.

7 HANDICAP PARKING SIGNS
NOT TO SCALE



NOTE:
1. ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE RHODE ISLAND STATE BUILDING CODE.

8 HANDICAP PAVEMENT MARKING
NOT TO SCALE

OCT 2 8 2015

JCE

JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER CIVIL
10.28.15

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

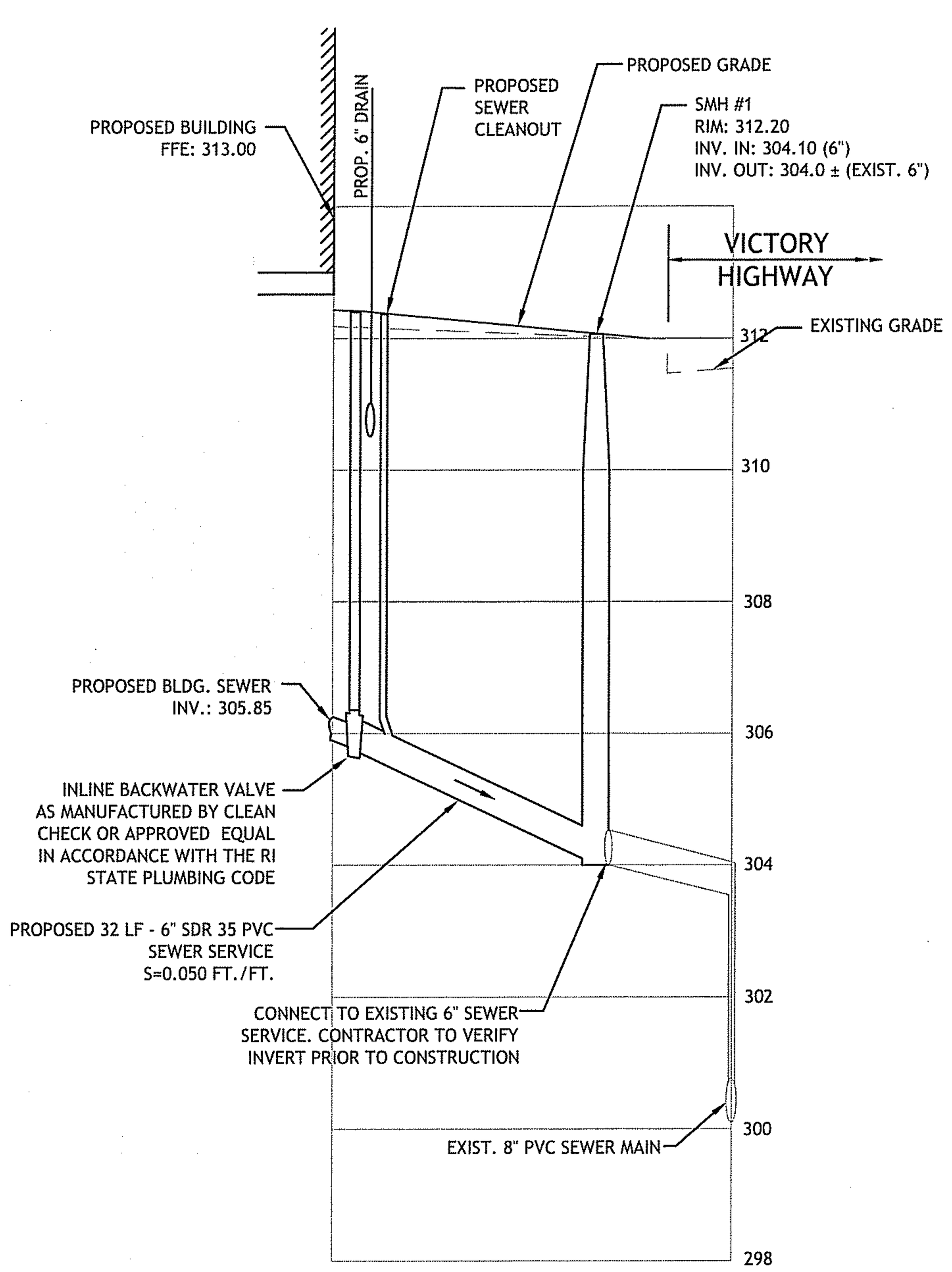
REVISIONS:

NO.	DATE.	DESCRIPTION
1	10/28/15	RIDEM RTC

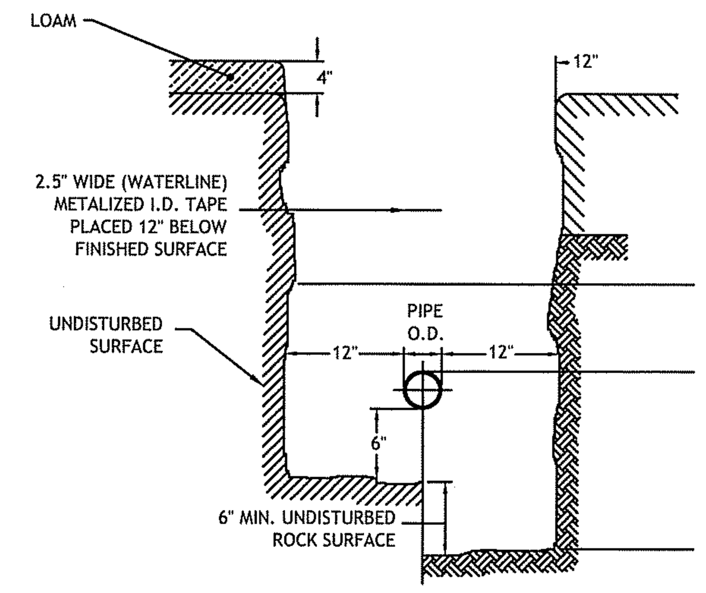
DESIGNED BY:	DRD
DRAWN BY:	WMLJR
CHECKED BY:	JAC
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

DETAILS I

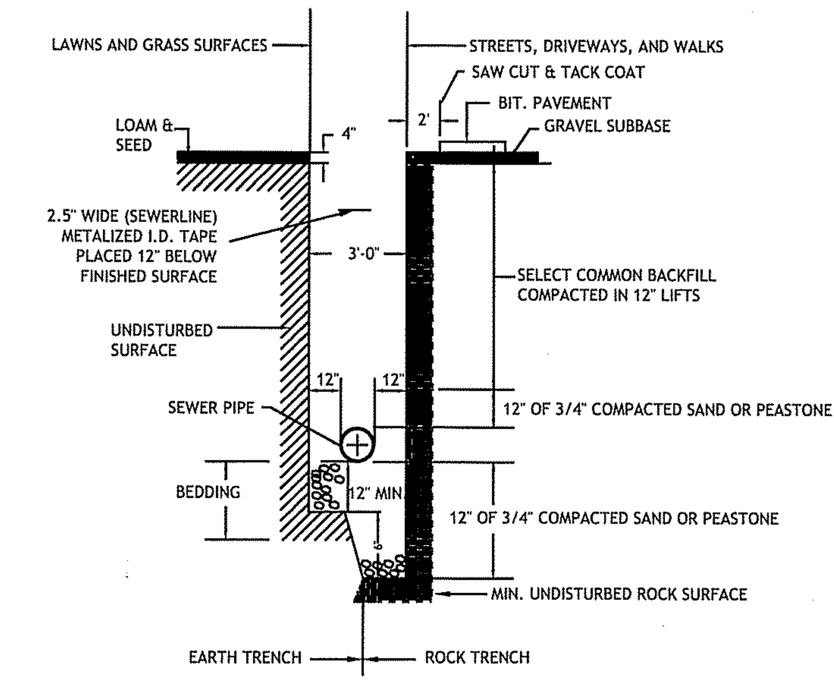


SECTION A-A
1"=20'-0" HORIZONTAL
1"=2'-0" VERTICAL



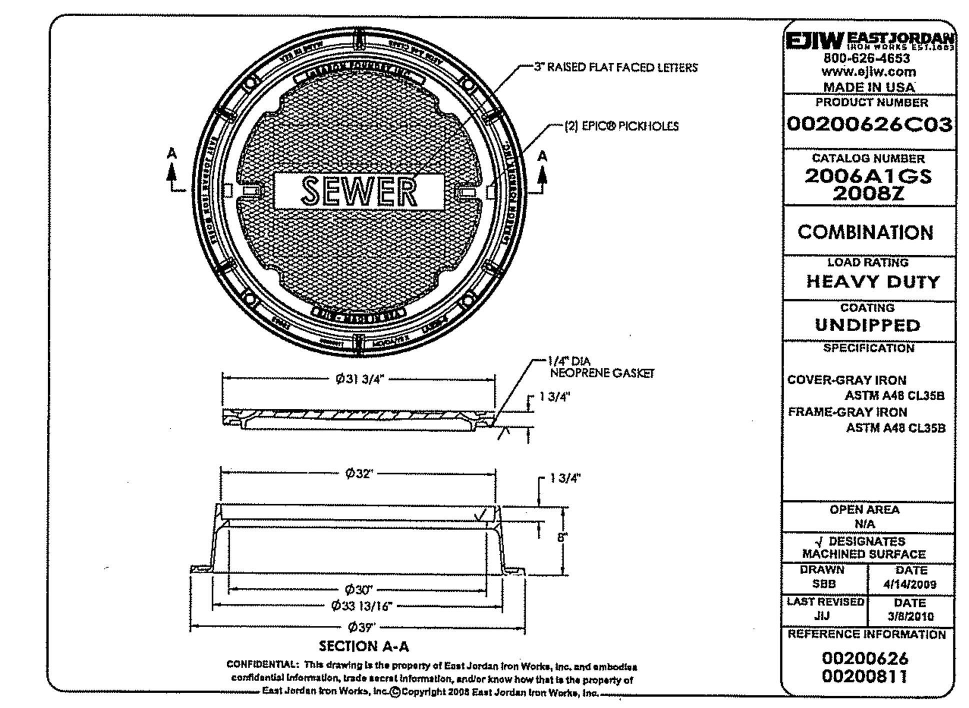
NOTES:
1. ROADWAY RESTORATION IN ACCORDANCE WITH COMMUNITY OR RIDOT.

9 WATER TRENCH DETAIL
NOT TO SCALE

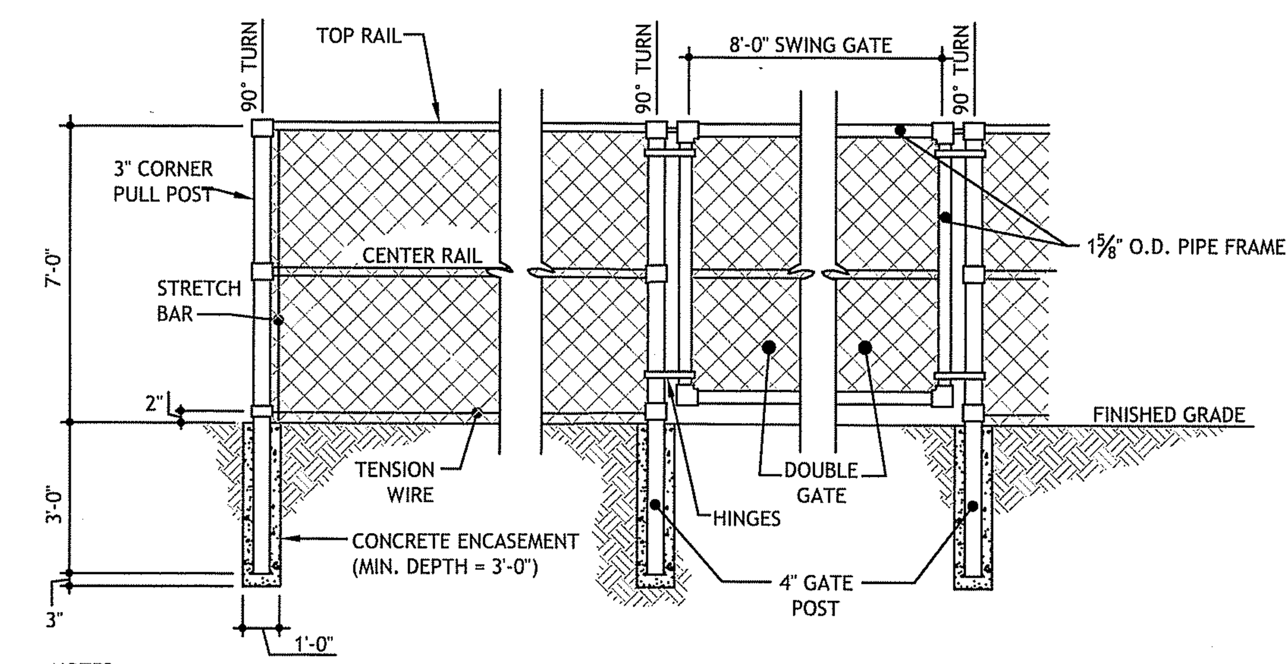


NOTES:
1. 3/4-INCH COMPACTED SAND OR PEASTONE FOUNDATION SHALL BE PLACED 12" UNDER THE PIPE UP TO THE PIPE GRADE, THE PIPE LAID THEREON, AND 3/4-INCH COMPACTED SAND OR PEASTONE PULLED AGAINST THE PIPE SIDE TO FIRMLY HOLD THE PIPE IN PLACE. NO BLOCKS OR STONES SHALL BE USED TO SUPPORT THE PIPE.
2. 3/4-INCH COMPACTED SAND OR PEASTONE HAUNCHING SHALL BE BROUGHT LEVEL TO THE TOP OF THE PIPE AND OUT TO THE TRENCH WALL AT THIS ELEVATION FOR ALL PIPE. 3/4-INCH COMPACTED SAND OR PEASTONE BLANKET SHALL BE PLACED 12" ABOVE THE PIPE.
3. SEWER PIPE SHALL HAVE AT LEAST 4-FEET OF COVER AT ALL TIMES.

10 TYPICAL SEWER LINE TRENCH DETAIL
NOT TO SCALE

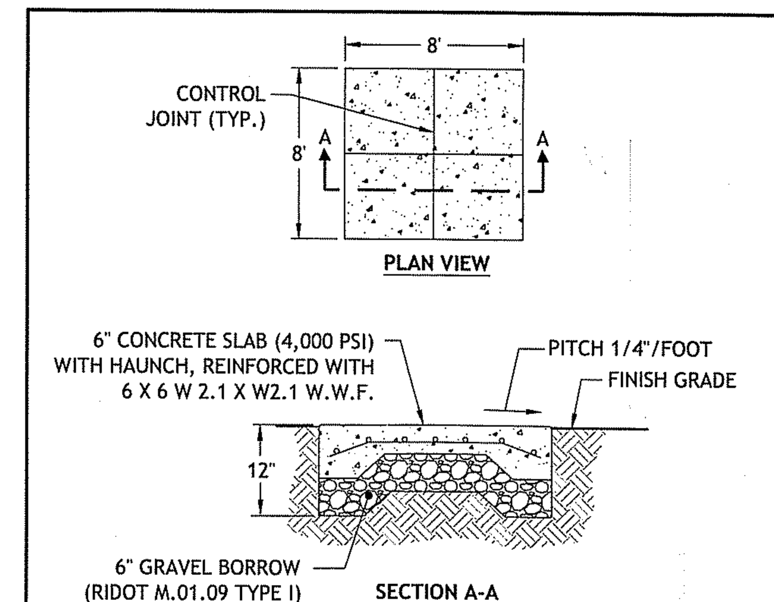


11 SEWER MANHOLE FRAME & COVER DETAIL
NOT TO SCALE

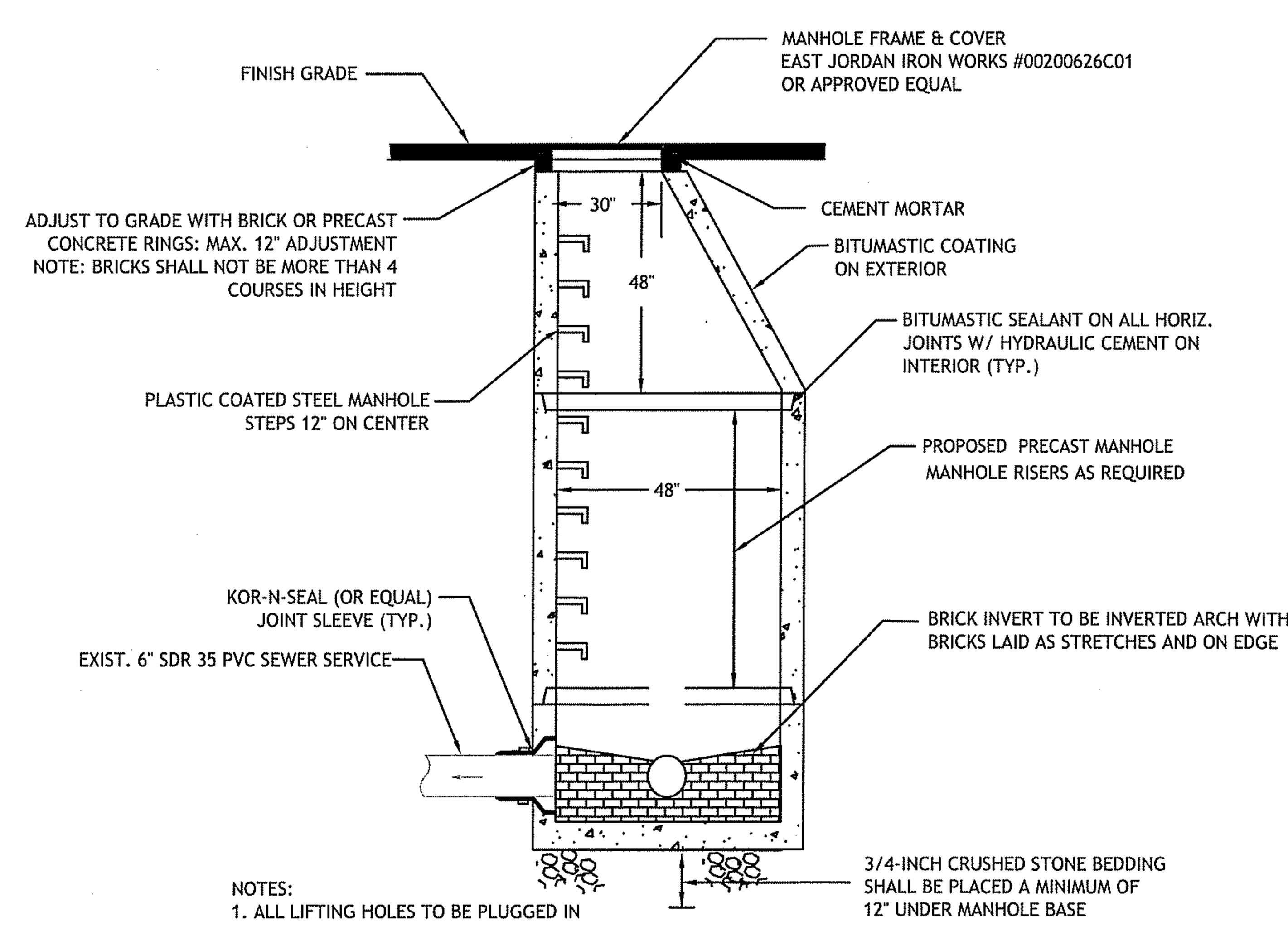


NOTES:
1. DOUBLE GATE SHALL HAVE A LOCKING MECHANISM, DROP ROD, AND TRUSS ROD.
2. ALL FENCING MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 902 OF THE RHODE ISLAND STANDARD SPECIFICATIONS.
3. FENCE MESH TO BE SECURED TO TOP RAIL AND CORNER POSTS USING TIE WIRES SPACED 12" ON CENTER.
4. PRIVACY SLATS TO BE INSTALLED AT THE COMPLETION OF CONSTRUCTION. PRIVACY SLATS SHALL BE GREEN AND SHALL BE BOTTOM-LOCKING AS MANUFACTURED BY PDS FENCE PRODUCTS INC. OR APPROVED EQUAL.

13 CHAIN-LINK FENCE DETAIL
NOT TO SCALE

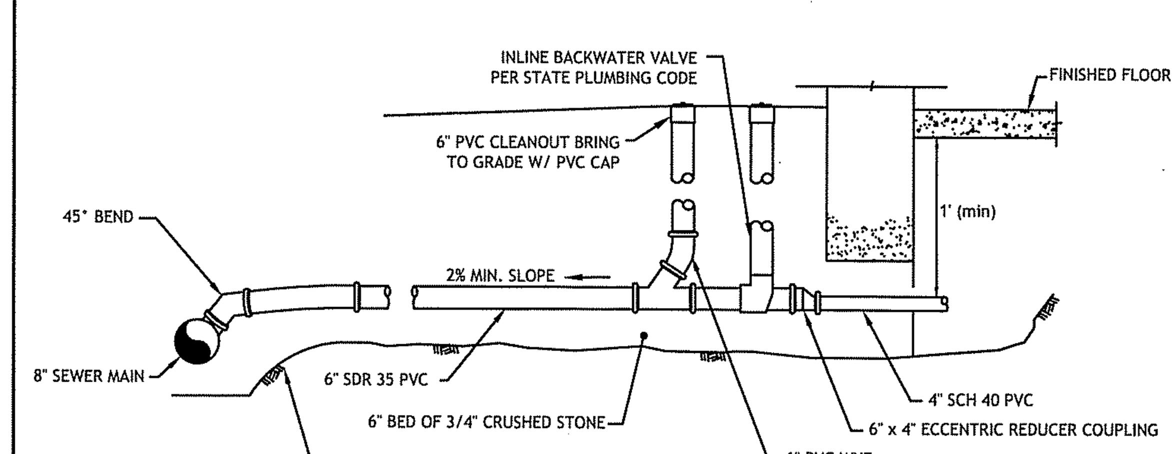


14 DUMPSTER PAD DETAIL
NOT TO SCALE

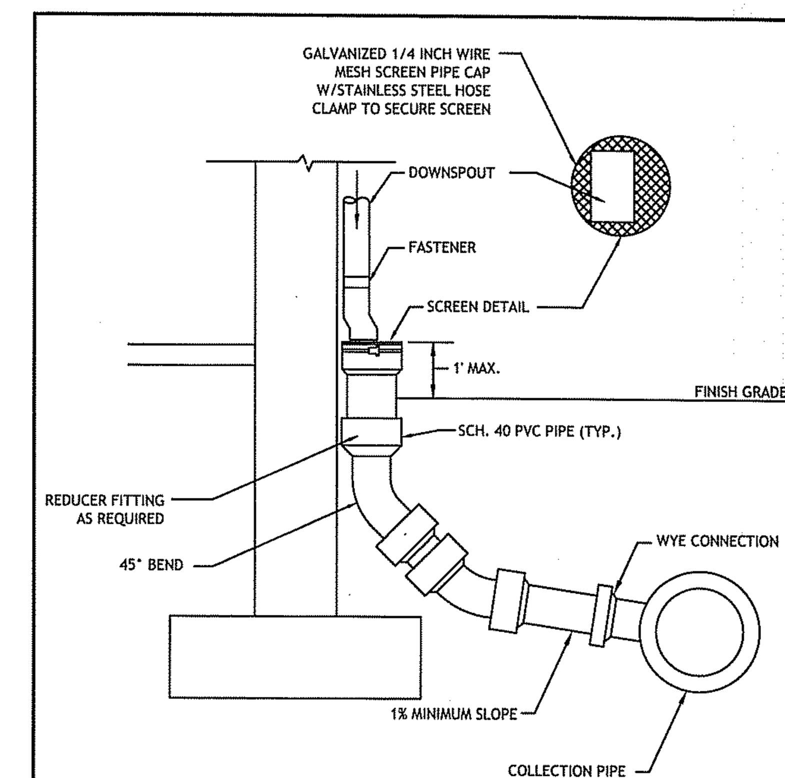


NOTES:
1. ALL LIFTING HOLES TO BE PLUGGED IN AND OUT WITH HYDRAULIC CEMENT.
2. ALL JOINTS TO BE HYDRAULICALLY CEMENTED.
3. ALL FILL AROUND MANHOLE SHALL BE SCREENED WITH NO STONES LARGER THAN 2-INCH DIAMETER

12 PRECAST SANITARY SEWER MANHOLE DETAIL
NOT TO SCALE



15 GRAVITY SEWER BUILDING CONNECTION DETAIL
NOT TO SCALE



16 DOWNSPOUT LEADER CONNECTION DETAIL
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV 2 0 2015 FILE # 15-0159
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
PLANS MUST BE AT CONSTRUCTION SITE
APPROVED

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER CIVIL
10.28.15

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

REVISIONS:

NO.	DATE.	DESCRIPTION
1	10/28/15	RIDEM RTC

DESIGNED BY:	DRD
DRAWN BY:	WMLJR
CHECKED BY:	JAC
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

DETAILS II

SHEET 8 OF 12

OCT 28 2015

Q:\03-80-Vision III Architects\03-80cb Bryan Beagan\ACAD\University Orthodontics [RIDEM RTC].dwg Oct. 28, 2015 10:40am

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment System Program

Site Evaluation Form
Part A – Soil Profile Description   Application Number ______

Property Owner: Bryan Beagan
Property Location: A.P. 1, Lot 241, North Smithfield, RI
Date of Test Hole: March 25, 2015
Soil Evaluator: Edward J. Avizinis   License Number: D4083
Weather: Sunny 40°s   Shaded: Yes ☐ No ☑   Time: 8 am

TH 1 Horizon	Depth	Horizon Boundaries Dist	Topo	Soil Colors Matrix	Re-Dox Features	Re-Dox Ab. S. Contr.	Texture	Structure	Consistence	Soil Category
HTM	36-0	a	s	10YR 4/4	—	—	gLS	Øsg	L	1
A	0-8	g	s	10YR 2/1	—	—	SL	1msbk	fr	3
Bg1	8-15	g	s	10YR 4/2	10YR 5/1 10YR 5/6	c (2) f c (2) p	SL	1Lsbk	fr	3
Bg2	15-30	g	s	10YR 5/2	—	—	SL	1Lsbk	fr	3
Cg	30-66	—	—	10YR 5/1	—	—	SL	Øm	fr	6

TH 2 Horizon	Depth	Horizon Boundaries Dist	Topo	Soil Colors Matrix	Re-Dox Features	Re-Dox Ab. S. Contr.	Texture	Structure	Consistence	Soil Category
HTM	20-0	a	s	10YR 4/4	—	—	gLS	Øsg	L	1
Ap	0-8	g	s	10YR 2/1	—	—	SL	1fsbk	fr	3
Bw	8-30	g	s	10YR 5/4	10YR 5/8 10YR 5/1	f (2) d f (2) d	SL	1msbk	fr	3
Bg	30-50	g	s	10YR 5/2	10YR 5/6 10YR 5/1	c (2) d c (2) f	SL	1Lsbk	fr	3
Cg	50-80	—	—	10YR 5/1	—	—	SL	Øm	fr	6

TH 1 Soil Class B Total Depth 96 Impervious/Limiting Layer Depth >96 (cg) GW Seepage Depth 35" SHWT 6" (cg)
TH 2 Soil Class B Total Depth 100 Impervious/Limiting Layer Depth >100 (cg) GW Seepage Depth 24 SHWT 18" (cg)
Comments:

Revised 1/31/14

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment System Program

Site Evaluation Form
Part A – Soil Profile Description   Application Number ______

Property Owner: Bryan Beagan
Property Location: A.P. 1, Lot 241, North Smithfield, RI
Date of Test Hole: March 25, 2015
Soil Evaluator: Edward J. Avizinis   License Number: D4083
Weather: Sunny 40°s   Shaded: Yes ☐ No ☑   Time: 8 am

TH 3 Horizon	Depth	Horizon Boundaries Dist	Topo	Soil Colors Matrix	Re-Dox Features	Re-Dox Ab. S. Contr.	Texture	Structure	Consistence	Soil Category
HTM	32-0	a	s	10YR 4/4	—	—	gLS	Øsg	L	1
Ap	0-7	g	s	10YR 3/2	—	—	SL	1fsbk	fr	3
Bg	7-35	d	s	10YR 5/2	10YR 5/6 10YR 5/6	c (2) d c (2) f	SL	1msbk	fr	3
Cg	35-50	—	—	10YR 5/1	—	—	SL	Øm	fr	6

TH ___ Horizon	Depth	Horizon Boundaries Dist	Topo	Soil Colors Matrix	Re-Dox Features	Re-Dox Ab. S. Contr.	Texture	Structure	Consistence	Soil Category

TH 3 Soil Class B Total Depth 82" Impervious/Limiting Layer Depth >82" (cg) GW Seepage Depth 35" SHWT 8" (cg)
TH ___ Soil Class ___ Total Depth ___ Impervious/Limiting Layer Depth ___ (cg) GW Seepage Depth ___ SHWT ___ (cg)
Comments:

Revised 1/31/14

BORING B-101 (PAGE 1 of 1)

BORING INFORMATION
LOCATION: See Fig. 1 - Boring Location Plan
GROUND SURFACE EL. (ft): 312.0   DATE START/END: 4/23/15
VERTICAL DATUM: NAVD88   DRILLING COMPANY: Northern Drill Service, Inc.
TOTAL DEPTH (ft): 21.8 feet   DRILLER NAME: Tim Tucker
LOGGED BY: Nicholas Casali   RIG TYPE: Mobile Drill B-48 Track-Mounted Rig

DRILLING INFORMATION
HAMMER TYPE: Automatic   CASING I.D./O.D.: NA   CORE BARREL TYPE: NA
AUGER I.D./O.D.: 4" / 7"   DRILL ROD O.D.: 3.5"   CORE BARREL I.D./O.D.: NA
DRILLING METHOD: Hollow Stem Augers
WATER LEVEL ELEVATIONS (ft): Not measured.

ABBREVIATIONS: Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen, %; WOR = Weight of Rods; WOH = Weight of Hammer; S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger; Qp = Pocket Penetrometer Strength; Sv = Pocket Torvane Shear Strength; LL = Liquid Limit; PI = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter; NA, NM = Not Applicable, Not Measured; Blows per 6 in.: 140 lb. hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Sample No.	Depth (ft)	Pen./Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/Field Test Data	Soil and Rock Description
	0.0 to 0.4	5/5			5" ASPHALT
S1	0.4 to 2.4	24/14	11-8-3-4		S1: WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM); 70% fine to coarse sand, 20% fine to coarse gravel (up to 1.5"), 10% nonplastic fines, brown, dry.
	2.4 to 5.0				
S2	5.0 to 7.0	24/13	26-20-21-19		S2: SILTY SAND WITH GRAVEL (SM); 70% fine to coarse sand, 15% fine to coarse gravel (up to 1"), 15% nonplastic fines, gray, dry.
	7.0 to 10.0				
S3	10.0 to 12.0	24/3	14-22-38-33		S3: SILTY SAND WITH GRAVEL (SM); 50% fine to coarse sand, 35% fine to coarse gravel (up to 1"), 15% nonplastic fines, brown, wet.
	12.0 to 15.0				
S4	15.0 to 17.0	24/22	39-60-96-99		S4: WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM); 75% fine to coarse sand, 15% fine gravel (up to .5"), 10% nonplastic fines, brown and gray, wet.
	17.0 to 20.0				
S5	20.0 to 21.8	21/20	34-72-84-75/3"		S5: WELL GRADED SAND WITH SILT (SW-SM); 90% fine to coarse sand, 10% nonplastic fines, brown, moist.
					Bottom of boring at 21.75 feet. Borehole backfilled with cuttings upo completion. Asphalt patch placed at the ground surface.

Elev. (ft): 311.5, 308, 304.5, 301, 297.5, 294, 290.5; Depth (ft): 0, 3.5, 7, 10.5, 14, 17.5, 21

PROJECT NAME: University Orthodontics   NOTES:
CITY/STATE: N. Smithfield, RI
PROJECT NUMBER: 03-80cb
JCE JOE CASALI ENGINEERING, INC.

BORING B-102 (PAGE 1 of 1)

BORING INFORMATION
LOCATION: See Fig. 1 - Boring Location Plan
GROUND SURFACE EL. (ft): 310.6   DATE START/END: 4/23/15
VERTICAL DATUM: NAVD88   DRILLING COMPANY: Northern Drill Service, Inc.
TOTAL DEPTH (ft): 22 feet   DRILLER NAME: Tim Tucker
LOGGED BY: Nicholas Casali   RIG TYPE: Mobile Drill B-48 Track Mounted Rig

DRILLING INFORMATION
HAMMER TYPE: Automatic   CASING I.D./O.D.: NA   CORE BARREL TYPE: NA
AUGER I.D./O.D.: 4" / 7"   DRILL ROD O.D.: 3.5"   CORE BARREL I.D./O.D.: NA
DRILLING METHOD: Hollow Stem Augers
WATER LEVEL ELEVATIONS (ft): Not measured.

ABBREVIATIONS: Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen, %; WOR = Weight of Rods; WOH = Weight of Hammer; S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger; Qp = Pocket Penetrometer Strength; Sv = Pocket Torvane Shear Strength; LL = Liquid Limit; PI = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter; NA, NM = Not Applicable, Not Measured; Blows per 6 in.: 140 lb. hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Sample No.	Depth (ft)	Pen./Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/Field Test Data	Soil and Rock Description
S1	0.0 to 2.0	24/15	2-2-3-2		S1: WELL GRADED SAND (SW); 95% fine to coarse sand, 5% nonplastic fines, brown, moist.
	2.0 to 5.0				
S2	5.0 to 7.0	24/23	5-9-6-7		S2: SILTY SAND (SM); 80% mostly fine to medium sand, 20% nonplastic fines, light brown, wet.
	7.0 to 10.0				
S3	10.0 to 12.0	24/16	11-31-31-27	GS wc = 8.3%	S3: SILTY SAND WITH GRAVEL (SM); 52.5% fine to coarse sand, 25.0% nonplastic fines, 22.5% fine to coarse gravel (up to 1.75"), brown, wet.
	12.0 to 15.0				
S4	15.0 to 17.0	24/22	27-45-51-50		S4: SILTY SAND (SM); 75% fine to coarse sand, 15% nonplastic fines, 10% fine to coarse gravel (up to 1"), brown, wet.
	17.0 to 20.0				
S5	20.0 to 22.0	24/23	32-61-64-84		S5: SILTY SAND (SM); 75% fine to coarse sand, 15% nonplastic fines, 10% fine to coarse gravel (up to 1"), brown, moist.
					Bottom of boring at 22 feet. Boreholbackfilled with cuttings uponcompletion.

Elev. (ft): 308, 304.5, 301, 297.5, 294, 290.5; Depth (ft): 0, 3.5, 7, 10.5, 14, 17.5, 21

PROJECT NAME: University Orthodontics   NOTES:
CITY/STATE: N. Smithfield, RI
PROJECT NUMBER: 03-80cb
JCE JOE CASALI ENGINEERING, INC.

BORING B-103 (PAGE 1 of 1)

BORING INFORMATION
LOCATION: See Fig. 1 - Boring Location Plan
GROUND SURFACE EL. (ft): 310.6   DATE START/END: 4/23/15
VERTICAL DATUM: NAVD88   DRILLING COMPANY: Northern Drill Service, Inc.
TOTAL DEPTH (ft): 22 feet   DRILLER NAME: Tim Tucker
LOGGED BY: Nicholas Casali   RIG TYPE: B-48 Mobile Drill Track Mounted Rig

DRILLING INFORMATION
HAMMER TYPE: Automatic   CASING I.D./O.D.: NA   CORE BARREL TYPE: NA
AUGER I.D./O.D.: 4" / 7"   DRILL ROD O.D.: 3.5"   CORE BARREL I.D./O.D.: NA
DRILLING METHOD: Hollow Stem Augers
WATER LEVEL ELEVATIONS (ft): Estimated at 3 feet B.G.S.

ABBREVIATIONS: Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen, %; WOR = Weight of Rods; WOH = Weight of Hammer; S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger; Qp = Pocket Penetrometer Strength; Sv = Pocket Torvane Shear Strength; LL = Liquid Limit; PI = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter; NA, NM = Not Applicable, Not Measured; Blows per 6 in.: 140 lb. hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Sample No.	Depth (ft)	Pen./Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/Field Test Data	Soil and Rock Description
S1	0.0 to 2.0	24/20	2-5-5-3		S1: WELL GRADED SAND (SW); 95% fine to coarse sand, 5% nonplastic fines, dark brown, moist.
	2.0 to 5.0				
S2	5.0 to 7.0	24/18	4-18-21-27	GS wc = 10.7%	S2: SILTY SAND (SM); 48.3% fine to coarse sand, 40.3% nonplastic fines, 11.4% fine gravel (up to 0.5"), gray with occasional orange staining, moist.
	7.0 to 10.0			Slow drilling 8 to 9 feet - possible cobble / boulder.	
S3	10.0 to 12.0	24/17	5-10-20-54		S3: SILTY SAND (SM); 75% fine to medium sand, 25% nonplastic fines, grey, wet.
	12.0 to 15.0				
S4	15.0 to 17.0	24/23	19-42-33-27		S4: POORLY GRADED SAND WITH SILT (SP-SM) ; 85% mostly fine to medium sand, 10% nonplastic fines, 5% fine gravel (up to .5"), brown, moist.
	17.0 to 20.0				
S5	20.0 to 22.0	24/21	25-70-80-100/6		S5: POORLY GRADED SAND WITH SILT (SP- SM); 90% fine to medium sand, 10% nonplastic fines, brown, moist.
					Bottom of boring at 22 feet. Borehole backfilled with cuttings upon completion.

Elev. (ft): 308, 304.5, 301, 297.5, 294, 290.5; Depth (ft): 0, 3.5, 7, 10.5, 14, 17.5, 21

PROJECT NAME: University Orthodontics   NOTES:
CITY/STATE: N. Smithfield, RI
PROJECT NUMBER: 03-80cb
JCE JOE CASALI ENGINEERING, INC.

BORING B-104 (PAGE 1 of 1)

BORING INFORMATION
LOCATION: See Fig. 1 - Boring Location Plan
GROUND SURFACE EL. (ft): 312.0   DATE START/END: 4/23/15
VERTICAL DATUM: NAVD88   DRILLING COMPANY: Northern Drill Service, Inc.
TOTAL DEPTH (ft): 16.75 feet   DRILLER NAME: Tim Tucker
LOGGED BY: Nicholas Casali   RIG TYPE: Mobile Drill B-48 Track Mounted Rig

DRILLING INFORMATION
HAMMER TYPE: Automatic   CASING I.D./O.D.: NA   CORE BARREL TYPE: NA
AUGER I.D./O.D.: 4" / 7"   DRILL ROD O.D.: 3.5"   CORE BARREL I.D./O.D.: NA
DRILLING METHOD: Hollow Stem Augers
WATER LEVEL ELEVATIONS (ft): Estimated at 4 feet B.G.S.

ABBREVIATIONS: Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen, %; WOR = Weight of Rods; WOH = Weight of Hammer; S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger; Qp = Pocket Penetrometer Strength; Sv = Pocket Torvane Shear Strength; LL = Liquid Limit; PI = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter; NA, NM = Not Applicable, Not Measured; Blows per 6 in.: 140 lb. hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Sample No.	Depth (ft)	Pen./Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/Field Test Data	Soil and Rock Description
S1	0.0 to 2.0	24/16	4-6-6-6		S1: WELL GRADED SAND WITH GRAVEL (SW); 75% fine to coarse sand, 20% fin to coarse gravel (up to 1.5"), 5% nonplastic fines, brown, moist.
	2.0 to 5.0				
S2	5.0 to 7.0	24/17	3-4-5-18	GS wc = 16.7%	S2: SILTY SAND (SM); 64.2% fine to coarse sand, 23.5% nonplastic fines, 12.3% fine gravel (up to .5"), light brown with occasional orangle staining, moist.
	7.0 to 10.0				
S3	10.0 to 12.0	24/19	16-14-11-14		S3: SILTY SAND (SM); 80% fine to medium sand, 20% nonplastic fines, gray and light brown, wet.
	12.0 to 15.0				
S4	15.0 to 16.5	18/16	43-62-87-50/3"		S4: POORLY GRADED SAND WITH SILT (SP-SM); 90% mostly fine to medium sand, 10% nonplastic fines, brown, moist.
					Bottom of boring at 16.75 feet. Borehole backfilled with cuttings upo completion.

Elev. (ft): 311.5, 308, 304.5, 301, 297.5, 294, 290.5; Depth (ft): 0, 3.5, 7, 10.5, 14, 17.5, 21

PROJECT NAME: University Orthodontics   NOTES:
CITY/STATE: N. Smithfield, RI
PROJECT NUMBER: 03-80cb
JCE JOE CASALI ENGINEERING, INC.

BORING B-105 (PAGE 1 of 1)

BORING INFORMATION
LOCATION: See Fig. 1 - Boring Location Plan
GROUND SURFACE EL. (ft): 311.5   DATE START/END: 4/23/15
VERTICAL DATUM: NAVD88   DRILLING COMPANY: Northern Drill Service, Inc.
TOTAL DEPTH (ft): 17 feet   DRILLER NAME: Tim Tucker
LOGGED BY: Nicholas Casali   RIG TYPE: Mobile Drill B-48 Track Mounted Rig

DRILLING INFORMATION
HAMMER TYPE: Automatic   CASING I.D./O.D.: NA   CORE BARREL TYPE: NA
AUGER I.D./O.D.: 4" / 7"   DRILL ROD O.D.: 3.5"   CORE BARREL I.D./O.D.: NA
DRILLING METHOD: Hollow Stem Augers
WATER LEVEL ELEVATIONS (ft): Estimated at 4 feet B.G.S.

ABBREVIATIONS: Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen, %; WOR = Weight of Rods; WOH = Weight of Hammer; S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger; Qp = Pocket Penetrometer Strength; Sv = Pocket Torvane Shear Strength; LL = Liquid Limit; PI = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter; NA, NM = Not Applicable, Not Measured; Blows per 6 in.: 140 lb. hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Sample No.	Depth (ft)	Pen./Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/Field Test Data	Soil and Rock Description
S1	0.0 to 2.0	24/14	3-15-27-7		S1 (0-7"): WELL GRADED SAND WITH GRAVEL (SW); 80% fine to coarse sand, 15% fine gravel (up to .5"), 5% nonplastic fines, moist, dark brown, dry. S1 (7-14"): WELL GRADED SAND WITH GRAVEL (SW); 70% fine to coarse sand, 25% fine gravel (up to .5"), 5% nonplastic fines, gray, dry.
	2.0 to 5.0				
S2	5.0 to 7.0	24/16	13-17-14-11		S2: POORLY GRADED SAND WITH SILT (SP-SM); 80% mostly fine to medium sand, 10% fine gravel (up to .5"), 10% nonplastic fines, light brown, moist.
	7.0 to 10.0				
S3	10.0 to 12.0	24/13	13-40-23-22	GS wc = 11.4%	S3: SILTY SAND WITH GRAVEL (SM); 58.6% mostly fine to medium sand, 25.5% fine to coarse gravel (up to 1.5"), 15.8% nonplastic fines, gray, wet.
	12.0 to 15.0			Possible cobble / bounder at 13 feet.	
S4	15.0 to 17.0	24/19	80-41-60-71		S4: POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM); 50% mostly fine to medium sand, 40% fine to coarse gravel (up to 1"), 10% nonplastic fines, gray, wet.
					Bottom of boring at 17 feet. Borehole backfilled with cuttings upon completion.

Elev. (ft): 311.5, 308, 304.5, 301, 297.5, 294, 290.5; Depth (ft): 0, 3.5, 7, 10.5, 14, 17.5, 21

PROJECT NAME: University Orthodontics   NOTES:
CITY/STATE: N. Smithfield, RI
PROJECT NUMBER: 03-80cb
JCE JOE CASALI ENGINEERING, INC.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV 20 2015 FILE # 15-0159
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A Horbert

OCT 28 2015

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER CIVIL
10.28.15

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

REVISIONS:

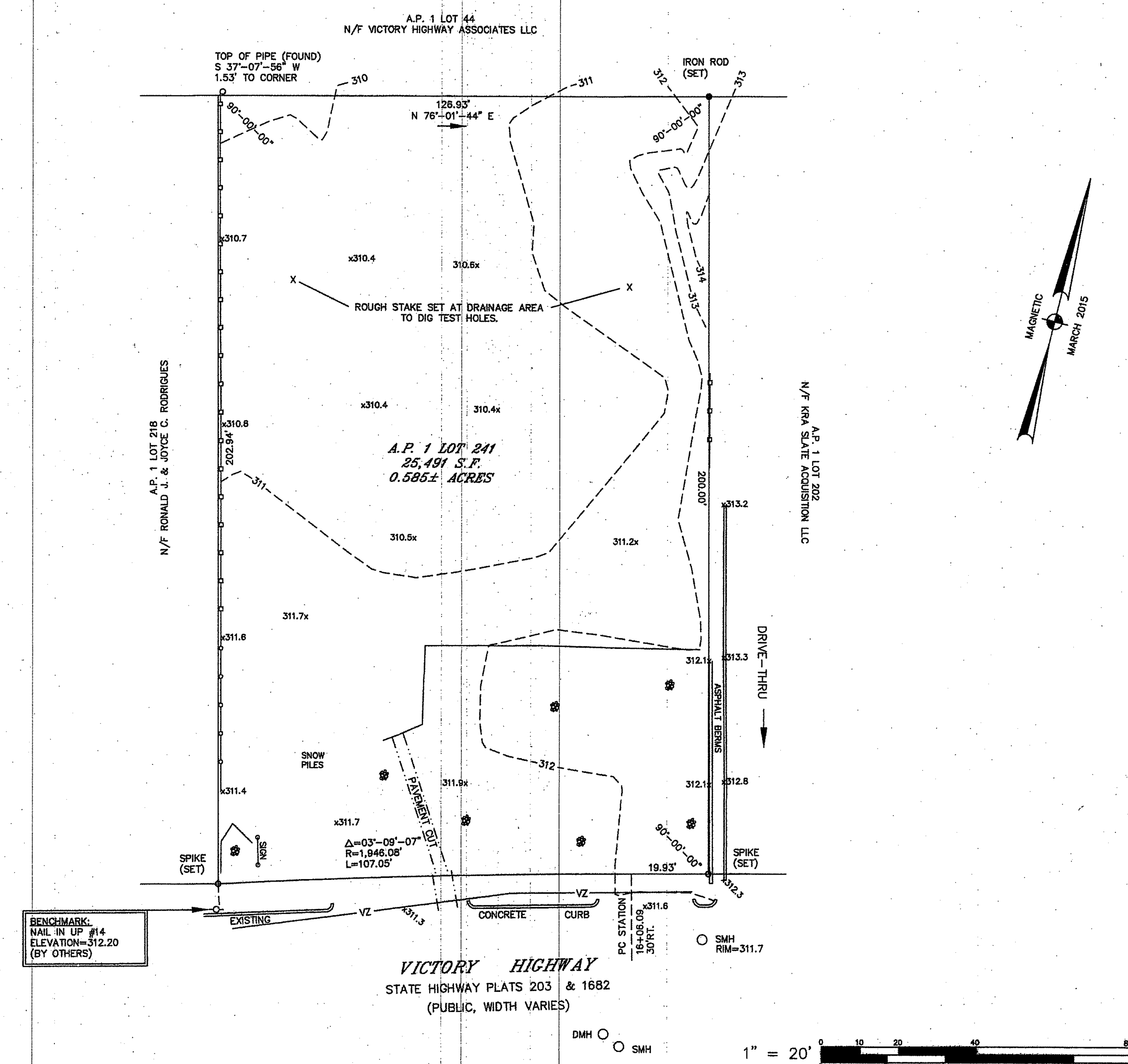
NO.	DATE.	DESCRIPTION
1	10/28/15	RIDEM RTC

DESIGNED BY:	DRD
DRAWN BY:	WMLJR
CHECKED BY:	JAC
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

SUBSURFACE EXPLORATION LOGS

Q:\03-80-Vision III Architects\03-80cb Bryan Beagan\ACAD\University Orthodontics [RIDEM RTC].dwg Oct. 28, 2015 10:40am



LEGEND:

EXISTING CONTOUR	----312----
SPOT ELEVATION	x311.6 311.7x
EDGE OF PAVEMENT w/ CONCRETE CURB	
ASPHALT BERM	
APPROXIMATE PAVEMENT	
PAVEMENT CUT	
UTILITY POLE	
SEWER MANHOLE	SMH
DRAINAGE MANHOLE	DMH
APPROXIMATE VERIZON	— VZ —

REFERENCE:

SEE PLAN ENTITLED: "DIVISION OF LAND OWNED BY ROBERT B. & MARION F. LOWE NORTH SMITHFIELD, RHODE ISLAND JUNE 7, 1995 RECORDED ON SLIDE 29A IN THE TOWN OF NORTH SMITHFIELD.

RHODE ISLAND STATE BOARD OF PUBLIC ROADS HIGHWAY ENGINEERING DEPARTMENT PLATS 203 & 1682.

CERTIFICATION:

THIS SURVEY AND PLAN CONFORM 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 9-3-15
REGISTERED PROFESSIONAL LAND SURVEYOR DATE

ANTHONY E. MUSCATELLI
No. 1718
PROFESSIONAL LAND SURVEYOR

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

SURVEY & EXISTING CONDITIONS PLAN
on VICTORY HIGHWAY
in NORTH SMITHFIELD, RI
A.P. 1 LOT 241

REVISIONS	DATE	NO.
DRAWN BY	KRR	
CKD. BY	AEM	
APPRD. BY	AEM	
DATE	5/23/15	
SCALE	1"=20'	
SHEET	1OF1	
DWG.NO.	150301-SP	

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV 2 0 2019 FILE # 15-0159
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles H. Horbert

OCT 2 8 2015

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401) 944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

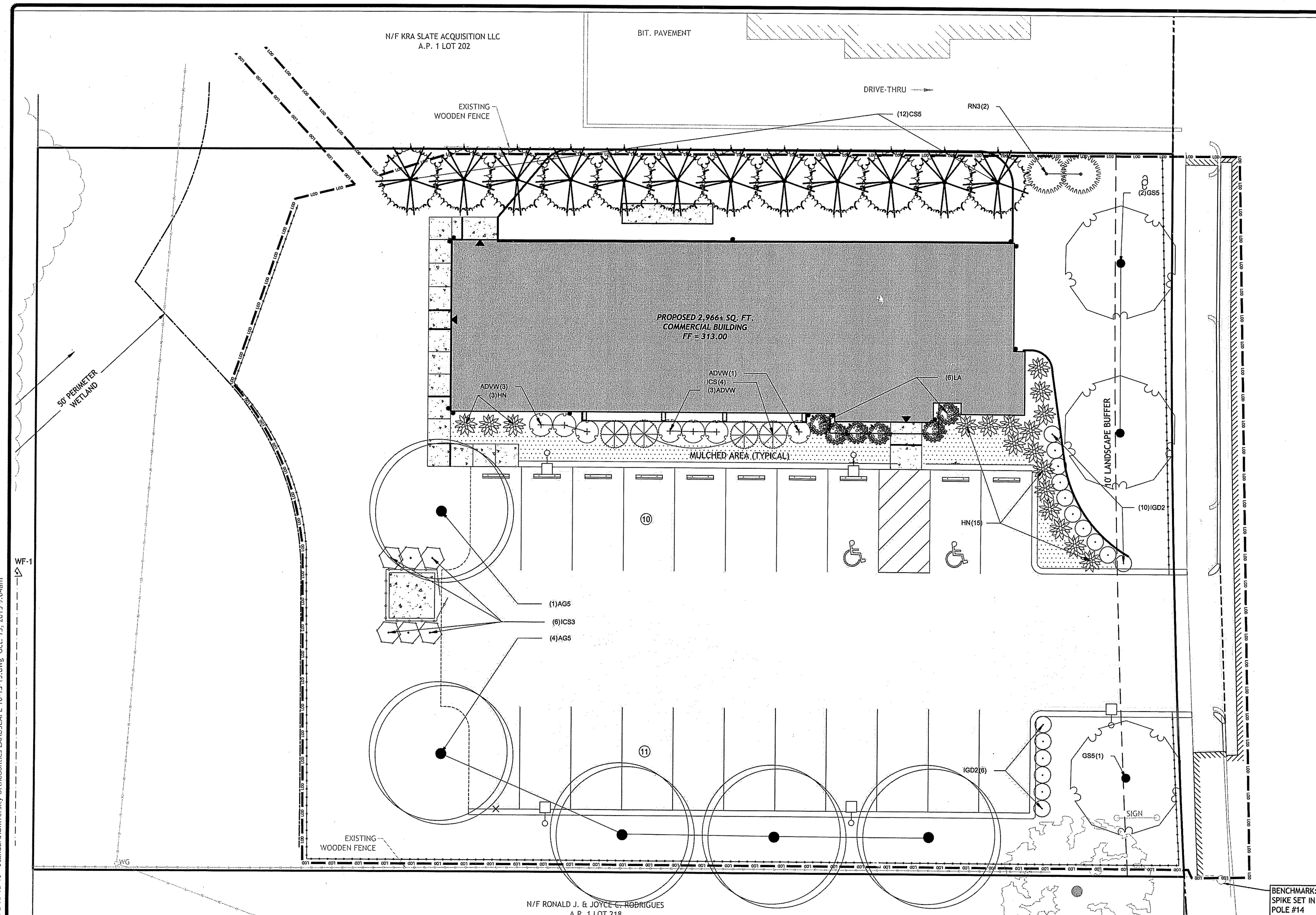
REVISIONS:

NO.	DATE.	DESCRIPTION
1	10/28/15	RIDEM RTC

DESIGNED BY:	DRD
DRAWN BY:	WMLJR
CHECKED BY:	JAC
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

SURVEY AND EXISTING CONDITIONS PLAN



BENCHMARK:
SPIKE SET IN
POLE #14
EL.=312.20

LANDSCAPE PLAN

1" = 10'

NORTH SMITHFIELD LANDSCAPE PLANNING DATA

APPENDIX A ZONING

SECTION 17 DEVELOPMENT PLAN REVIEW

CRITERIA	REQUIRED	PROPOSED	REGULATION
PARKING LOT BUFFER	LANDSCAPE STRIP AT LEAST 10' WIDE WHICH IS ADJACENT TO PUBLIC STREET & SHADE TREES PLANTED AT 30' ON CENTER	10' WITH SHADE TREES PLANTED AT 30' ON CENTER	17.8.3
INTERIOR PARKING LOT LANDSCAPING	1 SHADE TREE FOR EVERY 5 SPACES (21 SPACES/5=4.2 TREES)	5 TREES	17.8.3
SEPARATION BETWEEN BUILDING AND PARKING	5' SEPARATION WITH RAISED WALKWAY OR PLANTING STRIP	8'	17.8.3
MINIMUM SHADE TREE SIZE PROJECT-WIDE	3" CALIPER	3" CALIPER	17.8.3
PARKING LOT SCREENING	PARKING AREAS LOCATED AT SIDE OR REAR OF BUILDINGS & SCREENED TO GREATEST EXTENT POSSIBLE	YES	17.8.3
STREET TREE PLACEMENT	7' MIN. BETWEEN DRIVEWAY, WATER METER, GAS METER & SEWER LATERALS 10' MIN. BETWEEN POINT OF INTERSECTION AND STREET 10' MIN. BETWEEN TREE AND UTILITY POLE 8' MIN. BETWEEN FIRE HYDRANTS & FIRE DEPARTMENT SPRINKLER AND STANDPIPE CONNECTION	YES	17.8.3
SPACING OF EVERGREEN TREES TO SCREEN PARKING LOTS AND BUILDINGS	20' ON CENTER MAXIMUM	12'	17.8.3
LOADING AREAS & DUMPSTERS	LOCATE AT REAR OR SIDE OF BUILDINGS WITH VEGETATIVE SCREENING	YES	17.8.3

PLANT SCHEDULE

DECIDUOUS TREES	CODE	QTY	COMMON NAME / BOTANICAL NAME	CONT	CAL	SIZE
	AG5	5	October Glory Maple / Acer rubrum `October Glory` TM	B & B;	3"Cal	
	GS5	3	Shademaster Locust / Gleditsia triacanthos inermis `Shademaster` TM	B & B	3"Cal	
EVERGREEN TREES	**CODE**	**QTY**	**COMMON NAME / BOTANICAL NAME**	**CONT**	**CAL**	**SIZE**
	CS5	12	Leyland Cypress / Cupressocyparis leylandii	B & B		5` - 6` HT.
SHRUBS	**CODE**	**QTY**	**COMMON NAME / BOTANICAL NAME**	**CONT**		
	ADVW	7	Glen Dale Azalea / Azalea Glenn Dale Hybrid `Delaware Valley White` Mature Height: to 4`	5 gal		
	HN	18	Nikko Blue Hydrangea / Hydrangea macrophylla `Nikko Blue`	5 gal		
	ICS	4	`Steeds` Japanese Holly / Ilex crenata `Steeds`	5 gal		
	ICS3	6	Steeds Japanese Holly / Ilex crenata `Steeds` Mature Height: 6`-8`	B&B; 4-5 FT.		
	IGD2	17	Inkberry Holly / Ilex glabra `Densa`	3 gal		
	LA	6	Coastal Leucothoe / Leucothoe axillaris Mature Height: 2`-4`	5 gal		
	RN3	2	Catawba Rhododendron / Rhododendron catawbiense `Nova Zembla` Mature Height: 5`	4` - 5`; B&B		

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV 20 2015 FILE # 15-0159
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Horbert

1-888-DIG-SAFE
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

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

SCALE (FEET)
0 5 10 20 40
1 INCH = 10 FT

North

Diane C. Soule & Associates, ASLA
Landscape Architecture
422 Farnum Pike
Smithfield, Rhode Island 02917
www.dianesouleandassociates.com
401.231.0738
email: diane@dcsa.ws

OCT 8 2015

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313FAX WWW.JOECASALI.COM

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

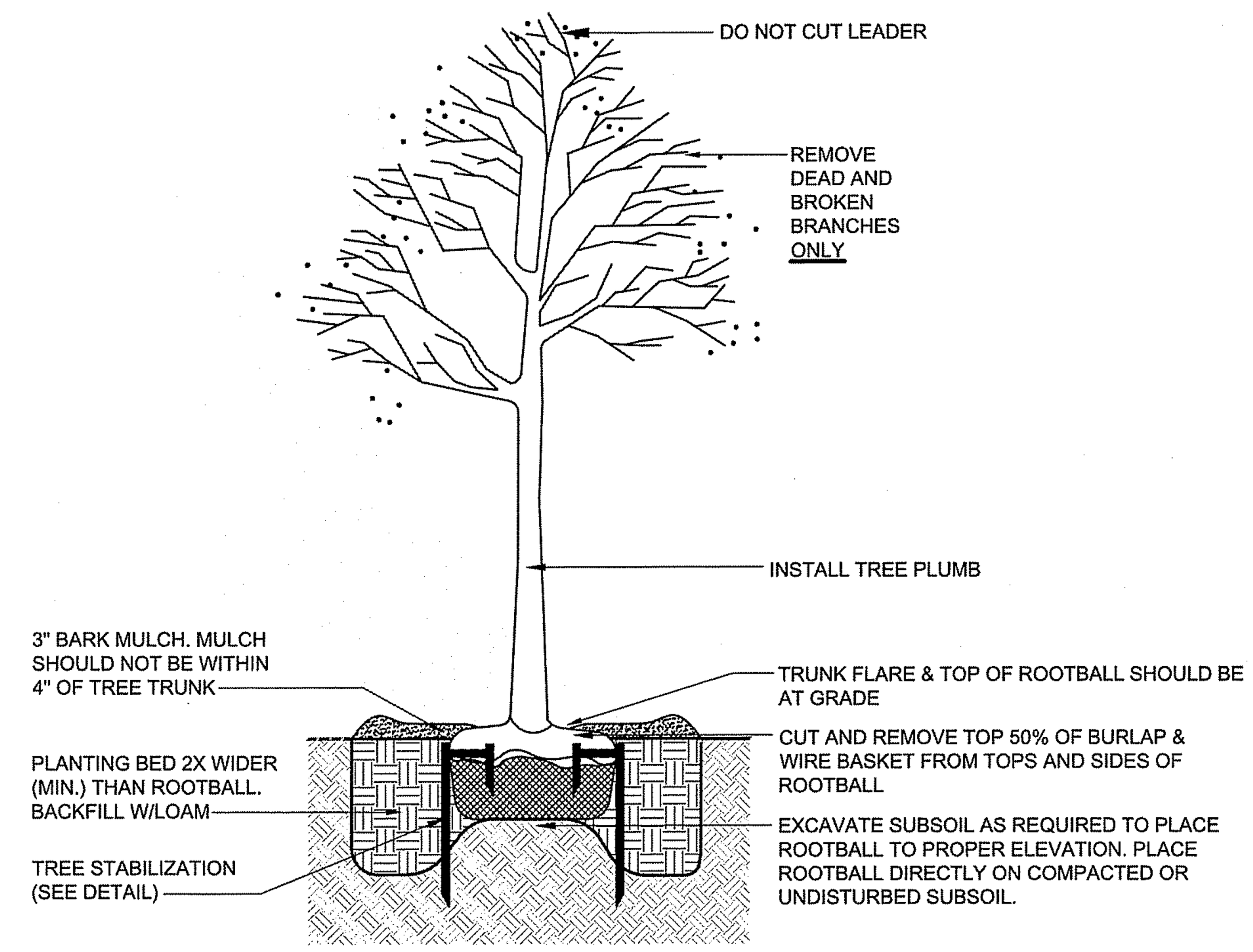
REVISIONS:		
NO.	DATE.	DESCRIPTION

DESIGNED BY:	DCS
DRAWN BY:	DCS
CHECKED BY:	DCS
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

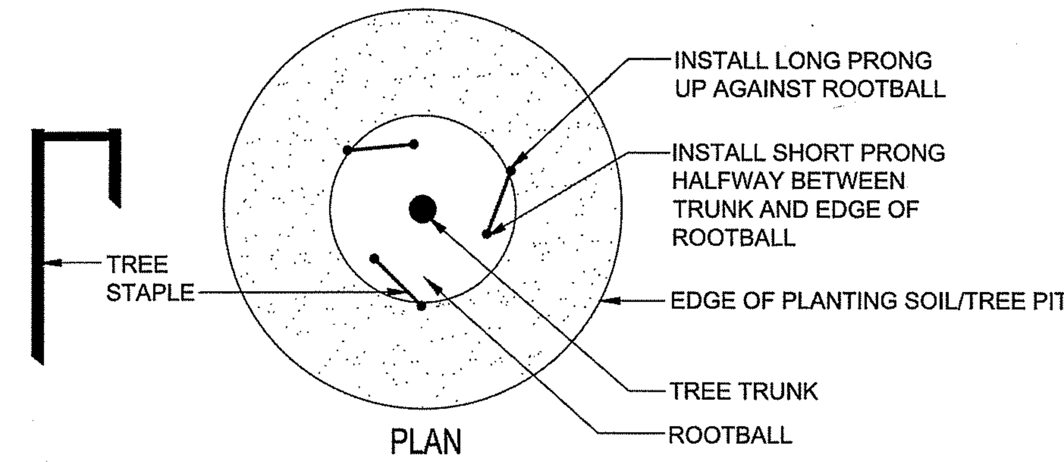
ISSUED FOR CONSTRUCTION

LANDSCAPE PLAN

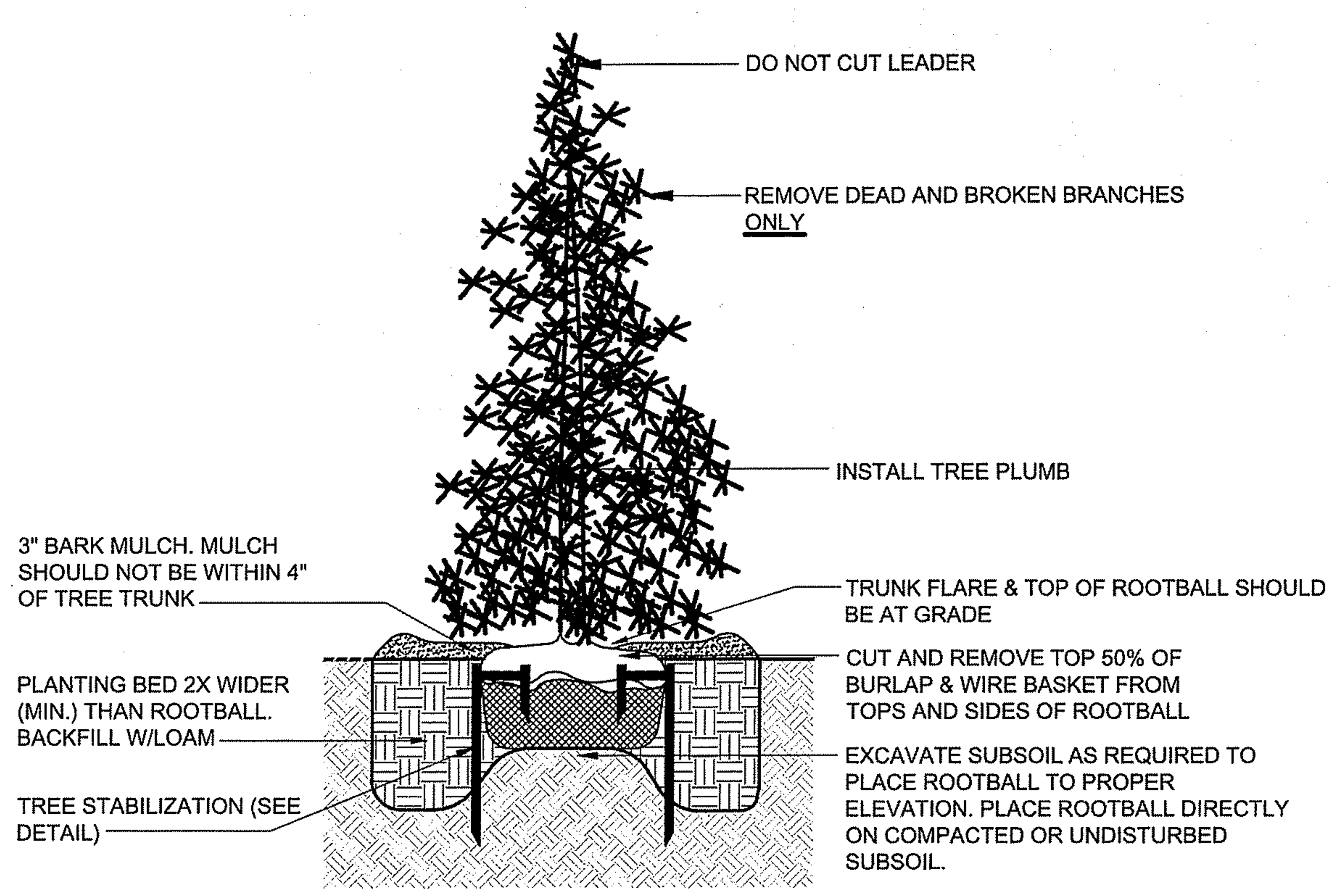
Q:\03-80-Vision III Architects\03-80cb Bryan Beagan\Subs\Diane Soule\University Orthodontics LANDSCAPE 10-13-15 - Standard\University Orthodontics LANDSCAPE 10-13-15.dwg Oct. 13, 2015 9:04am



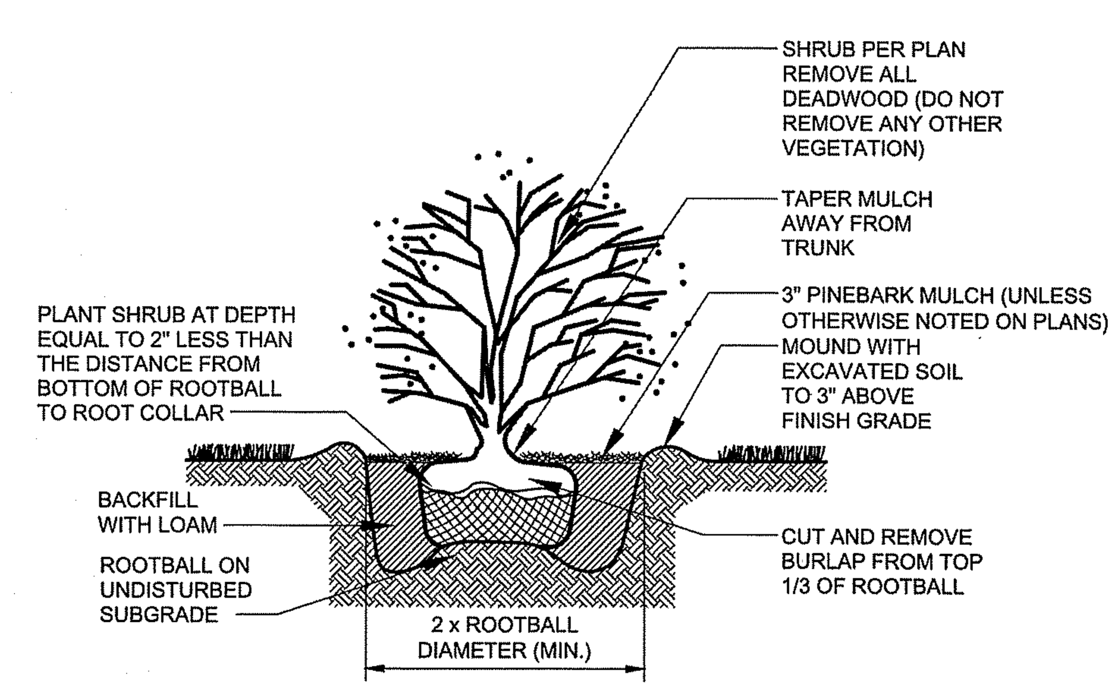
TREE PLANTING DETAIL
no scale



NOTE:
CONTRACTOR SHALL USE CAUTION WITH TREE STAPLES SO NOT TO BE DRIVEN INTO SUBGRADE PIPES AND UTILITIES



EVERGREEN PLANTING DETAIL
no scale



NOTE: REFER TO RIDOT STANDARD SPECIFICATION SECTION L.06, PLANTING, FOR SPECIFICS

SHRUB PLANTING DETAIL
no scale

GENERAL LANDSCAPE NOTES:

1. PROVIDE A WARRANTY FOR TREE, SHRUB, and GROUNDCOVER/PERENNIAL 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 2260–1) 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 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 FIRMING 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 3 POUNDS PER 100 SQUARE FEET OF SURFACE AREA, BROAD CAST. 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.
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 OWNERS 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 'JUTE MESH' EROSION CONTROL FABRIC WHERE FINAL GRADES ARE 3:1 (33%) OR GREATER PER MANUFACTURERS INSTRUCTIONS. CONTRACTOR TO LOAM AND SEED ALL DISTURBED AREAS.
13. LAWN AREAS SEEDING NOTE: USE UNIVERSITY OF RHODE ISLAND IMPROVED SEED MIX NO. 2 AS AVAILABLE FROM ALLEN'S SEED STORE OR EQUAL FOR ALL LAWN AREAS (ALL DISTURBED AREAS OTHER THAN STORMWATER BASINS).
14. STORMWATER BASIN AREAS SEEDING NOTE: USE 'NEW ENGLAND EROSION CONTROL/RESTORATION SEED MIX FOR DETENSION BASINS AND MOIST SITES' AS AVAILABLE FROM ALLEN'S SEED STORE OR EQUAL FOR ALL STORMWATER BASIN AREAS.

DEPARTMENT OF ENVIRONMENTAL MANAGEME
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED ________ FILE # 15-0159
NO CHANGES ALLOWED WITHOUT PRIOR APPROV
APPROVED PLANS MUST BE AT CONSTRUCTION SI

OCT 28 2015

Diane C. Soule & Associates, ASLA
Landscape Architecture
422 Farnum Pike
Smithfield, Rhode Island 02917
www.dianesouleandassociates.com
401.231.0736
email: diane@dcsa.ws

1-888-DIG-SAFE
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

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

JCE
JOE CASALI ENGINEERING, INC.
CIVIL - SITE DEVELOPMENT - TRANSPORTATION
DRAINAGE - WETLANDS - SEPTIC - TRAFFIC - FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401)944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

UNIVERSITY ORTHODONTICS
947 VICTORY HIGHWAY
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 241

REVISIONS:		
NO.	DATE.	DESCRIPTION

DESIGNED BY:	DCS
DRAWN BY:	DCS
CHECKED BY:	DCS
DATE:	OCT. 16, 2015
PROJECT NO:	03-80cb

ISSUED FOR CONSTRUCTION

LANDSCAPE DETAILS

Q:\03-80-Vision III Architects\03-80cb Bryan Beagan\Subs\Diane Soule\University Orthodontics LANDSCAPE 10-13-15 - Standard\University Orthodontics LANDSCAPE 10-13-15.dwg Oct. 13, 2015 9:05am