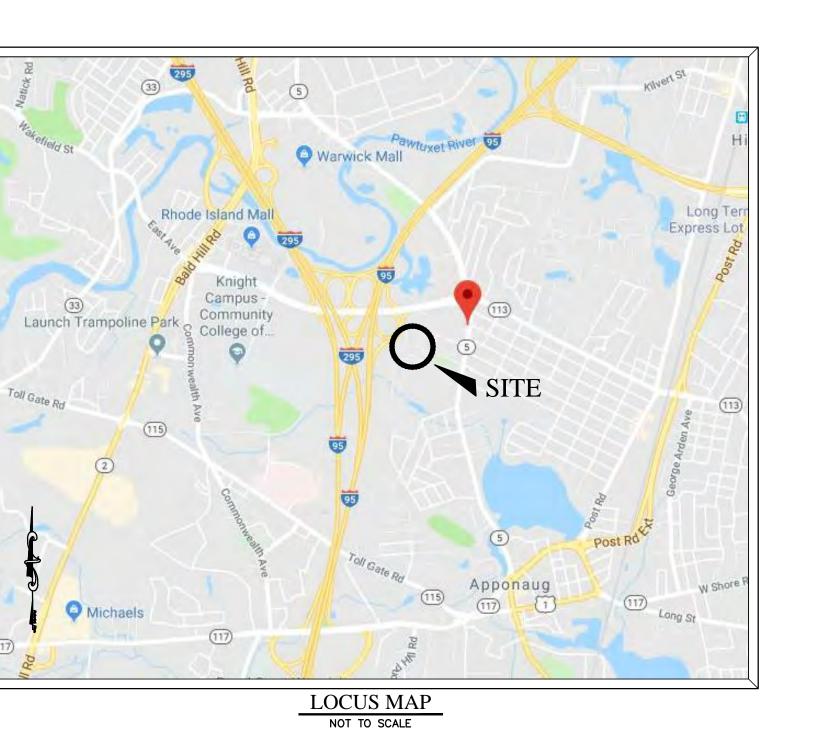
## FINAL PLAN SUBMISSION

FOR:

# ORTHO RI AT THE CROSSINGS

ASSESSOR PLAT 257, LOT 10

SITUATED ON: CROSSINGS BLVD WARWICK, RHODE ISLAND 02886



PREPARED FOR:

BELLECASTLE REALTY, INC. 1414 ATWOOD AVENUE JOHNSTON, RI 02919

JOB NO. 7155-00 DATE: JANUARY 29, 2019

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### LAST REVISED

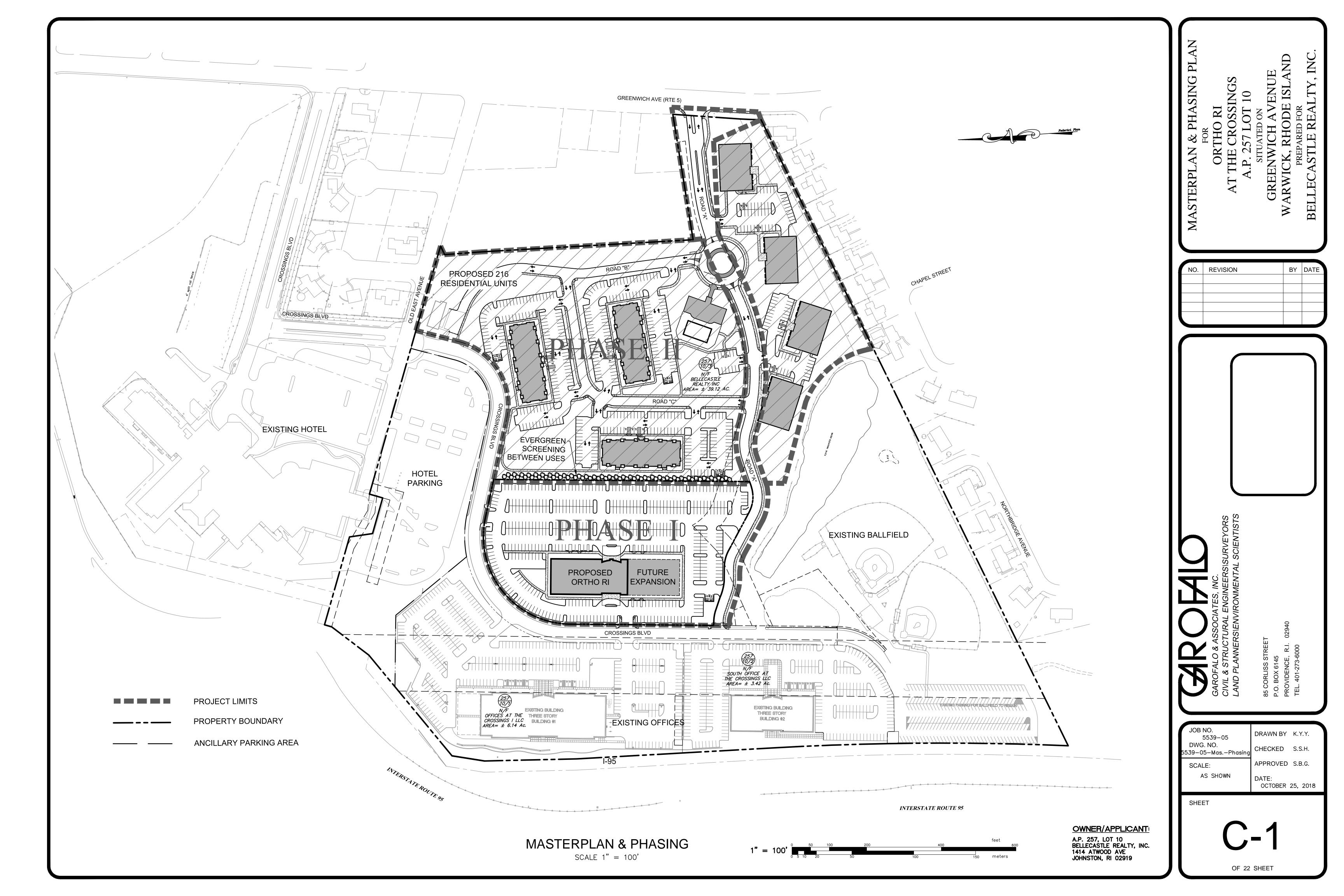
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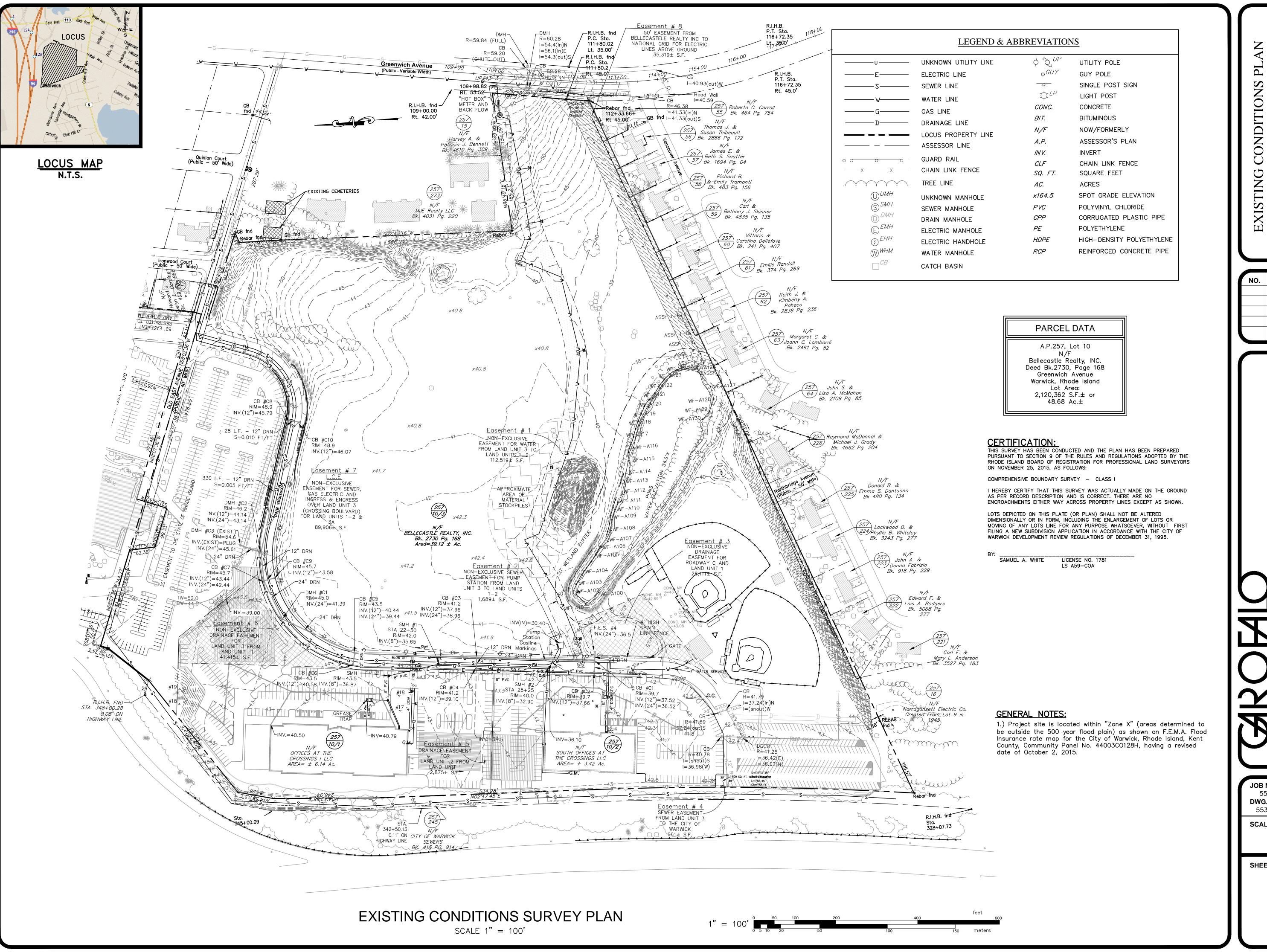
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### **INFORMATIONAL**

- 200' RADIUS MAP
- LIGHTING PLAN
- ADMINISTRATIVE SUBDIVISION PLAN







BY DATE REVISION

JOB NO. **DRAWN BY** RSE 5539-05.00 DWG. NO. CALCS BY RSE 5539-05-ECS **APPROVED** SAW SCALE: 1"=100' DATE: APRIL 2018

### **GENERAL CONSTRUCTION NOTES:**

- 1. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE TRAILER AT ALL TIMES. DEVIATIONS OR CHANGES WILL NOT BE ALLOWED UNLESS BY WRITTEN APPROVAL FROM THE ENGINEER.
- 2. SITEWORK CONSTRUCTION SHALL NOT COMMENCE UNTIL ALL APPROVALS HAVE BEEN SECURED. REQUIRED PERMITS/APPROVALS FOR THE PROJECT INCLUDE BUT NOT LIMITED TO THE FOLLOWING: DEMOLITION PERMITS, SITE PLAN APPROVAL BY THE CITY OF WARWICK, RIDOT PHYSICAL ALTERATION PERMIT, RIDEM UNDERGROUND INJECTION CONTROL, WARWICK SEWER AND VEOLIA WATER NORTH AMERICA CONNECTION PERMIT, PROVIDENCE WATER SUPPLY BOARD CONNECTION PERMIT, WARWICK MAJOR LAND DEVELOPMENT PERMIT, AND WARWICK ZONING VARIANCE.
- 3. THE CONTRACTOR MUST RETAIN THE SERVICES OF A REGISTERED LAND SURVEYOR IN THE STATE OF RHODE ISLAND TO LAYOUT ON THE GROUND ALL NEW ELEMENTS OF WORK. IF ANY WORK IS INSTALLED PRIOR TO THE ABOVE REQUIREMENT AND IF ANY WORK IS NOT SATISFACTORY TO THE ENGINEER, THE CONTRACTOR MUST REPLACE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
- 4. THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, SITE CONDITIONS AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING, INSTALLING OR PROCEEDING
- 5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND TO TAKE WHATEVER NECESSARY MEASURES NEEDED TO PROVIDE FOR THEIR PROTECTION. THE ENGINEER HAS DILIGENTLY ATTEMPTED TO LOCATE AND INDICATE ALL EXISTING UNDERGROUND UTILITIES AND FACILITIES ON THE DRAWINGS: HOWEVER. THE INFORMATION SHOWN IS FOR THE CONTRACTORS CONVENIENCE ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS OF UTILITIES SHOWN OR NOT SHOWN. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE ANY EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION, VERIFY ALL DIMENSIONS, SITE CONDITIONS AND MATERIALS. THE CONTRACTOR MUST CONTACT THE LOCAL UTILITY COMPANIES FOR EXACT LOCATION OF UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE START OF ANY WORK. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND REPLACE ANY AND ALL DAMAGE MADE TO UTILITIES BY THE CONTRACTOR.
- 6. THE CONTRACTOR MUST NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITIES IN THE AREA OF PROPOSED CONSTRUCTION, EXCAVATION OR BLASTING AT LEAST THREE WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION, EXCAVATION OR BLASTING. ALL WATER, SEWER, GAS AND ALL OTHER UTILITIES MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- 7. METHODS AND MATERIALS USED IN THE CONSTRUCTION OF IMPROVEMENTS MUST CONFORM TO THE CITY OF WARWICK CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS AND THE STATE OF RHODE ISLAND DEPARTMENT OF TRANSPORTATION.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PAVEMENT, DRIVEWAYS, SIDEWALKS, WALL, CURBS, ETC. DAMAGED DURING CONSTRUCTION WITH MATCHING MATERIALS.
- 9. THE CONTRACTOR AGREES THAT HE WILL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE PROJECT SITE CONDITIONS THROUGHOUT CONSTRUCTION. INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONJUNCTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
- 10. ALL MATERIALS USED FOR CONSTRUCTION MUST BE NEW AND FREE OF DEFECTS. USED OR SALVAGED MATERIAL WILL NOT BE ALLOWED UNLESS WRITTEN APPROVAL FROM THE OWNER IS OBTAINED BY THE CONTRACTOR.
- 11. AT ALL TIME THE CONTRACTOR MUST MAINTAIN ACCESS FOR EMERGENCY VEHICLES AROUND AND TO ALL BUILDINGS. (I.E. IN TIMES OF RAIN OR SNOW, ROADS MUST ABLE TO CARRY A FIRE TRUCK BY BEING PAVED OR HAVING A CRUSHED STONE BASE, ETC.). WIDTH OF EMERGENCY VEHICLE ACCESS MUST BE A MINIMUM OF 20 FEET WIDE. ACCESS TO BUILDINGS THAT HAVE A FIRE SPRINKLER SYSTEM OR STANDPIPE MUST BE WITHIN 40 FEET OF THE FIRE DEPARTMENT CONNECTION (FDC). NFPA 1141 3-1.
- 12. NECESSARY BARRICADES, LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL METHODS AS MAYBE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC MUST BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION BY THE CONTRACTOR.
- 13. HIGH INTENSITY LIGHTING FACILITIES MUST BE SO ARRANGED THAT THE SOURCE OF ANY LIGHT IS CONCEALED FROM PUBLIC VIEW AND FROM ADJACENT RESIDENTIAL PROPERTY AND DOES NOT INTERFERE WITH TRAFFIC. (REFER TO ELECTRICAL SITE PLANS PREPARED BY OTHERS FOR DETAILS.)
- 14. ALL RI HIGHWAY BOUNDS AND PERMANENT SURVEY MARKERS SHALL BE PROTECTED THROUGHOUT CONSTRUCTION.
- 15. ALL WORK WITHIN THE STATE HIGHWAY RIGHT OF WAY SHALL CONFORM TO RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, INCLUDING ALL REVISIONS AND THE RI STANDARD DETAILS.
- 16. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2003 INCLUDING ALL REVISIONS.
- 17. TEST HOLE EVALUATIONS WERE PERFORMED BY GAROFALO & ASSOCIATES IN JULY 2004.
- 18. REFER TO ARCHITECTURAL, STRUCTURAL, AND MECHANICAL PLANS FOR ALL BUILDING INFORMATION.
- 19. THERE ARE KNOWN WETLAND AREAS ON OR ADJACENT TO THE PROJECT SITE. THE WELTANDS INDICATED HAVE BEEN FLAGGED IN THE FIELD.
- 20. ALL CURB RADII ARE 3' UNLESS OTHERWISE NOTED ON THE SITE PLAN.
- 21. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR IS REQUIRED TO DEVELOP AND IMPLEMENT A PLAN FOR THE TEMPORARY CONTROL OF VEHICULAR AND PEDESTRIAN TRAFFIC FOR WORK WITHIN PUBLIC STREET RIGHT-OF-WAY AT THE SITE EGRESS. CONTRACTOR SHALL OBTAIN APPROVAL OF SAID PLAN FROM APPROPRIATE STATE AND COMMUNITY PUBLIC SAFETY OFFICIALS.
- 22. WHEN IT IS NECESSARY TO CLOSE OFF A STREET, THE FIRE DEPARTMENT AND POLICE DEPARTMENT SHALL BE NOTIFIED BY THE CONTRACTOR.
- 23. ALL WORK WITHIN THE STATE'S ROW SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION (RIDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, WITH ALL REVISIONS. STANDARD DETAILS FOR WORK WITHIN THE STATE'S ROW ARE THE RHODE ISLAND STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.
- 24. PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION. SHOP DRAWINGS OF PRECAST STRUCTURES SHALL BE REVIEWED BY THE ENGINEER AND APPROVED BEFORE USE.
- 25. IF ANY EXISTING STRUCTURES AND/OR UTILITIES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, EITHER ON THE PROJECT SITE, ADJACENT PROPERTIES, OR WITHIN STATE RIGHT-OF-WAY, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXÍSTING CONDITIONS OR BETTER.

### GENERAL DRAINAGE & GRADING NOTES:

- 1. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- 2. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
- 3. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- 4. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH THE CITY OF WARWICK SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- 6. ALL WATERLINES SHALL BE LAID 10-FT (MINIMUM) DISTANCE FROM SANITARY LINES. A CARRIER PIPE SHALL BE PROVIDED WHEN WATERLINE CROSSES WITHIN 1.5-FT VERTICAL DISTANCE FROM SEWER LINES. CARRIER PIPES SHALL EXTEND 10-FEET PERPENDICULAR FROM THE CROSSING. ALL SEWER/WATER LAYOUT AND INSTALLATION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE PROVIDENCE WATER SUPPLY BOARD AND RIDEM SEWER/WATER LINE SEPARATION POLICY.
- INSTALL SILT SACKS AT ALL INLETS AFTER INSTALLATION.

### **GENERAL UTILITY NOTES:**

- 1. THE CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888-344-7233) AND ALL LOCAL AUTHORITIES & UTILITY COMPANIES TO VERIFY LOCATIONS OF UTILITIES WITHIN THE AREA 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION OR DEMOLITION FOR THE PURPOSE OF COORDINATING THE MARKING OF UNDERGROUND UTILITIES. LOCATION AND DEPTHS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE VERIFY, LOCATE AND PROTECT EXISTING UTILITIES IN THE FIELD WHETHER OR NOT SHOWN ON THE DRAWINGS.
- 2. ALL WORK SHALL BE IN COMPLETE ACCORDANCE WITH ALL APPLICABLE STATE, FEDERAL AND LOCAL CODES, AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER/DEVELOPER. THE CONTRACTOR SHALL REFER TO THE KENT COUNTY WATER AUTHORITY RULES & REGULATIONS FOR THE SERVICE INSTALLATION & EXTENSION REQUIREMENTS OF WATER LINES.
- 3. THE CONTRACTOR SHALL COORDINATE LOCATION AND INSTALLATION OF ALL UNDERGROUND UTILITIES AND APPURTENANCES TO MINIMIZE DISTURBANCE OF CURBING, PAVING AND COMPACTED SUBGRADE, THE CONTRACTOR SHALL NOTIFY THE TOWN ENGINEER & ALL LOCAL UTILITY COMPANIES 48 HOURS BEFORE EACH PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER OF ANY DISCREPANCIES OR ERRORS DISCOVERED IN THE PLANS.
- 4. BEDDING REQUIREMENTS SPECIFIED HEREIN ARE TO BE CONSIDERED AS MINIMUMS FOR RELATIVELY DRY, STABLE EARTH CONDITIONS. ADDITIONAL BEDDING SHALL BE REQUIRED FOR ROCK TRENCHES AND WET AREA. CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO PROVIDE SUCH ADDITIONAL BEDDING AS MAY BE REQUIRED TO PROPERLY CONSTRUCT THE WORK.
- 5. THE CONTRACTOR SHALL REMOVE ANY ABANDONED FOUNDATIONS, UTILITY STRUCTURES, BURIED DEBRIS ETC. WHICH INTERFERE WITH THE INSTALLATION OF THE UTILITY WORK. ALL SUCH STRUCTURES SHALL BE COMPLETELY REMOVED AND THE EXCAVATED AREA SHALL BE BACKFILLED WITH COMPACTED GRAVEL IN 6" LIFTS TO 95% COMPACTION TO 6" BELOW THE BOTTOM OF THE UTILITY AND PIPE.
- 6. COMPACTION OF THE BACKFILL OF ALL TRENCHES SHALL BE COMPACTED TO THE DENSITY OF 95% OF THE THEORETICAL MAXIMUM DRY DENSITY (ASTM D698). BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS OR OTHER FOREIGN DEBRIS AND SHALL BE PLACED IN LIFTS NOT TO EXCEED ONE FOOT IN COMPACTED FILL THICKNESS. CORRECTION OF ANY TRENCH SETTLEMENT WITHIN A YEAR FROM THE DATE OF PROJECT APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 7. ALL PIPING LAYOUT INDICATED ON THESE PLANS IS DIAGRAMMATIC ONLY AND DOES NOT SHOW ALL THE REQUIRED FITTINGS FOR PROPER ALIGNMENT. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED FITTINGS TO OBTAIN PROPER ALIGNMENT AND FOR EXISTING UTILITY CONNECTIONS BASED UPON FIELD CONDITIONS.
- 8. IF DURING EXCAVATION THE TRENCH WIDTH EXCEEDS THE SUM OF THE PIPE O.D. PLUS 2'-0", PLACE AND COMPACT THE FILL TO 12" ABOVE THE PIPE AND RE-EXCAVATE TO REQUIRED GRADE.
- 9. DOMESTIC AND FIRE PROTECTION WATER SERVICE IS PROVIDED TO THE PROPERTY BY THE KENT COUNTY WATER AUTHORITY (KCWA) AND METERED AT THE EXISTING ABOVE GROUND HEATED ENCLOSURE ON GREENWICH AVENUE. THE ONSITE WATER SYSTEM ON THE PROPERY IS PRIVATE. WATER PIPING SHALL BE CLASS 52 DOUBLE CEMENT LINED DUCTILE IRON PIPE WITH TYTON JOINTS. ALL BENDS, TEES ETC. SHALL BE JOINT RESTRAINED BY THE USE OF CONCRETE THRUST BLOCKS AND "MEG-A-LUG". ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE KCWA REGULATIONS. STANDARDS AND SPECIFICATIONS. NOTIFICATION SHALL BE PROVIDED TO SAID AUTHORITIES AT LEAST 72 HOURS PRIOR TO INITIATING CONSTRUCTION. WATER SERVICE PIPING SIZE SHOWN IS APPROXIMATE ONLY AND SHALL BE SIZED AND VERIFIED BY A LICENSED FIRE PROTECTION ENGINEER AND OR LICENSED. PLUMBING ENGINEER.
- 10. GATE VALVES SHALL BE CAST IRON BODY BRONZE MOUNTED, COMPLETE WITH ROAD BOX AND SHALL CONFORM TO THE KCWA REGULATIONS, STANDARDS AND SPECIFICATIONS.
- 11. ALL FIRE AND PLUMBING FIXTURES MUST CONFORM TO LOCAL SPECIFICATIONS AND AS STIPULATED BY THE LOCAL FIRE MARSHALL AND/OR THE BUILDING OFFICIAL.
- 12. ALL SANITARY SEWER MATERIALS AND WORKMANSHIP ASSOCIATED WITH THE INSTALLATION AND TESTING OF SANITARY SEWERS SHALL CONFORM TO THE WARWICK SEWER DEPARTMENT AND VEOLIA WATER NORTH AMERICA REGULATIONS STANDARDS AND SPECIFICATIONS. ALL SEWER SYSTEM COMPONENTS MUST BE TESTED, CLEANED AND AS-BUILT INFORMATION MUST BE SUBMITTED TO THE CITY OF WARWICK AND APPROVED, PRIOR TO ISSUANCE OF A PERMIT TO CONNECT TO PUBLIC SEWER SYSTEM.
- 13. SANITARY SEWER MAINS AND SERVICES SHALL BE SDR-35 (ASTM D-3034) PVC SEWER PIPE WITH PUSH ON RUBBER RING JOINTS UNLESS NOTED OTHERWISE. CLEANOUTS SHALL BE INSTALLED AT BUILDING FACE (REFER PLUMBING PLANS FOR ALL WORK WITHIN 5' OF THE BUILDING). NEOPRENE COUPLINGS WITH STAINLESS STEEL BAND AND SHEER RINGS SHALL BE REQUIRED FOR JOINING DIFFERENT TYPES OF SANITARY SEWER PIPES.
- 14. SEWER LINES SHALL BE INSTALLED AT A MINIMUM 10 FOOT HORIZONTAL SEPARATION FROM ANY PROPOSED OR EXISTING WATER LINE. SEWER CONNECTION TO THE PROPERTY LINE SHALL BE PERFORMED BY THE EPSD AND PAID FOR BY THE OWNER. CONTRACTOR SHALL INSTALL CLEANOUT AT THE BUILDING FACE. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH W.S.A. REQUIREMENTS.
- 15. WHENEVER SEWER LINES MUST CROSS WATER LINES, THE SEWER SHALL BE INSTALLED SO THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. WHERE 18 INCH VERTICAL SEPARATION & 10 FOOT HORIZONTAL SEPARATION CAN NOT BE MET AT WATER AND SEWER CROSSINGS, THE SEWER PIPE SHALL BE ENCASED IN EITHER DUCTILE IRON OR c900 BLUE BRUTE PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF CROSSING.
- 16. WHENEVER NEW SEWER LINES CONNECT TO EXISTING SEWER MANHOLES THE CONTRACTOR SHALL REBUILD THE EXISTING SEWER MANHOLE CHANNEL TO ACCOMMODATE THE NEW CONNECTION.
- 17. STORM DRAINS 12" AND OVER SHALL BE SMOOTH INTERIOR WALL AND EXTERIOR CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) PIPE CAPABLE OF WITHSTANDING (H-20) LOAD UNLESS NOTED OTHERWISE. PIPE SHALL BE JOINED USING BELL & SPIGOT JOINTS MEETING OR EXCEED ASTM F2648. THE JOINT SHALL BE SOIL-TIGHT AND GASKETS SHALL MEET OR EXCEED ASTM F477. HDPE PIPE SHALL BE AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS INC. (ADS), HANCOR PIPE OR LANE PIPE. ALL STORM DRAINAGE PIPING SHALL BE LAID ON A SMOOTH CONTINUOUS GRADE WITH NO VISIBLE BENDS AT THE JOINTS. WHERE INDICATED ON DRAWINGS REINFORCED CONCRETE PIPE (RCP) PIPE SHALL BE CLASS III RCP WITH "O" RING GASKET JOINTS
- 1. GAS SERVICE FACILITIES SHALL BE DESIGNED BY OTHERS. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE UTILITY INSTALLATIONS AS REQUIRED TO ENSURE ADEQUATE GAS SERVICE IS PROVIDED AND SHALL BE RESPONSIBLE FOR ALL INSTALLATION PROCEDURES (TRENCHING, LAYING PIPE, ETC.) AS ARE REQUIRED BY THE GAS COMPANY FOR COMPLETE AND IN PLACE CONSTRUCTION.

19. ELECTRIC SERVICE FACILITIES SHALL BE DESIGNED BY OTHERS. ELECTRIC SERVICE AND TRANSFORMER PAD SHALL CONFORM TO THE REQUIREMENTS OF THE ELECTRIC COMPANY. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ADEQUATE ELECTRIC SERVICE IS PROVIDED AND SHALL BE RESPONSIBLE FOR ALL INSTALLATION PROCEDURES (TRENCHING, LAYING PIPE, ETC.) AS ARE REQUIRED BY THE ELECTRIC COMPANY FOR COMPLETE AND IN PLACE CONSTRUCTION. REFER TO ELECTRICAL DRAWINGS FOR DETAILS ON ALL UNDERGROUND ELECTRIC.

- 20. TEL/CABLE SERVICE FACILITIES SHALL BE DESIGNED BY OTHERS CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ADEQUATE UTILITY SERVICE IS PROVIDED AND SHALL BE RESPONSIBLE FOR ALL INSTALLATION PROCEDURES (TRENCHING, LAYING PIPE ETC.) AS IS REQUIRED BY THE LOCAL UTILITY CO. FOR COMPLETE AND IN PLACE CONSTRUCTION. REFER TO ELECTRICAL DRAWINGS FOR ALL UNDERGROUND ELECTRIC.
- 21. SITE LIGHTING ELEMENTS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL PROVIDE A PHOTOMETRICS PLAN TO THE CITY OF WARWICK PRIOR TO CONSTRUCTION. THE PLAN SHALL MEET THE APPLICABLE REQUIREMENTS OF THE CITY OF WARWICK. SITE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE INSTALLATION OF LIGHT POLE BASES IN LOCATIONS INDICATED. REFER TO SITE LIGHTING PLANS FOR INSTALLATION REQUIREMENTS.
- 22. WHENEVER UTILITIES ARE TO BE INSTALLED WITHIN THE CITY OF WARWICK PUBLIC OR PRIVATE RIGHT OF WAYS, THE TRENCH MUST BE BACKFILLED WITH FLOWABLE FILL. ALL AREAS OF ROADWAY PAVEMENT & WALKWAYS DISTURBED DURING CONSTRUCTION SHALL BE RE-PAVED PER THE CITY OF WARWICK AND STATE STANDARDS AND SPECIFICATIONS.

### STORMWATER SYSTEM MAINTENANCE NOTES:

THE DRAINAGE SYSTEMS ARE TO BE MONITORED THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD BY THE CONTRACTOR. UPON COMPLETION OF THE PROJECT THE CONTRACTOR MUST DO A FINAL FULL MAINTENANCE & CLEAN UP OF THE STORMWATER MANAGEMENT SYSTEM AND THE SITE. UPON COMPLETION OF THE CONTRACTOR'S FINAL MAINTENANCE & CLEAN UP OF THE PROJECT, MONITORING OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF THE OWNER.

CONSTRUCTION MONITORING/MAINTENANCE PROCEDURES SHALL BE AS FOLLOWS: (RESPONSIBILITY OF CONTRACTOR)

- SILT BARRIER:
- MONITOR SILT BARRIER ON A WEEKLY BASIS AND AFTER EVERY RAIN STORM EVENT AND REPAIR OR REPLACE ANY DAMAGED AREAS IMMEDIATELY. IMMEDIATELY CLEAN THE SILT BARRIER IF SIX INCHES OR MORE OF SEDIMENT HAS ACCUMULATED ON THE HAYBALE & SILT BARRIER.
- 2. PAVED AREAS: PARKING LOTS, PUBLIC & PRIVATE ROADWAYS AND GUTTERS SHALL BE SWEPT CLEAN OF ALL SEDIMENT & DEBRIS. SWEEPING & REMOVAL OF DEBRIS SHALL BE PERFORMED ON A WEEKLY BASIS AT A MINIMUM.
- CATCH BASINS: ALL CATCH BASINS SHALL BE INSTALLED AS DETAILED AND INSPECTED AFTER EVERY RAIN STORM EVENT. IMMEDIATELY CLEAN THE CATCH BASIN SUMP IF TWO FEET OR MORE OF SEDIMENT HAS ACCUMULATED WITHIN THE CATCH BASIN.
- 4. DRAIN MANHOLES: DRAIN MANHOLES SHALL BE INSTALLED AS DETAILED AND INSPECTED AFTER EVERY RAIN STORM EVENT. MMEDIATELY CLEAN THE DRAIN MANHOLE IF ONE FOOT OR MORE OF SEDIMENT HAS ACCUMULATED WITHIN THE DRAIN MANHOLE.
- SUBSURFACE INFILTRATION BASIN (STORMTECH INFILTRATION SYSTEMS AND ISOLATOR ROWS): SUBSURFACE INFILTRATION BASIN SHALL BE INSPECTED AFTER EVERY RAIN STORM. CARE SHALL BE TAKEN TO PREVENT SILTATION OF THE BASIN AFTER INSTALLATION. PRETREATMENT BMP'S (DEEP SUMP CATCH BASINS & WATER QUALITY STRUCTURES) MUST BE MAINTAINED AND CLEANED PER THE PROCEDURES LISTED TO ENSURE PROPER FUNCTIONING. SUBSURFACE INFILTRATION BASIN SHALL BE MONITORED FOR ANY PONDING AND ACCUMULATION OF SEDIMENT/DEBRIS. ALL ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED BY A VAC-TRUCK. DISPOSAL OF ALL SEDIMENT AND DEBRIS MUST IN ACCORDANCE WITH ALL APPLICABLE LOCAL. STATE AND FEDERAL GUIDELINES & REGULATIONS.
- POST CONSTRUCTION MONITORING/MAINTENANCE PROCEDURES SHALL BE AS FOLLOWS: (RESPONSIBILITY OF OWNER)
- PAVED AREAS: PARKING LOTS, ROADS AND ALL ACCESS WAYS AND GUTTERS MUST BE SWEPT CLEAN OF ALL SEDIMENT AND DEBRIS ON BI-ANNUAL BASIS IN SPRING AND FALL OF EACH YEAR. OR AS NECESSARY.
- 7. CATCH BASINS: ALL CATCH BASINS MUST BE INSPECTED AND MAINTAINED ON A BI-ANNUAL BASIS IN MARCH AND OCTOBER OF EACH YEAR. CATCH BASINS MUST BE INSPECTED TO ENSURE THEY HAVE ADEQUATE SUMP CAPACITY, FRAMES AND GRATES ARE NOT DAMAGED. OIL/WATER SEPARATING DEVICES ARE IN PLACE. CATCH BASIN SUMPS ARE TO BE CLEANED OUT DURING BI-ANNUAL INSPECTIONS IN MARCH AND OCTOBER OF EACH YEAR. IMMEDIATELY CLEAN THE CATCH BASIN SUMP IF TWO FEET OR MORE OF SEDIMENT HAS ACCUMULATED WITHIN THE CATCH BASIN.
- DRAIN MANHOLES: ALL DRAIN MANHOLES MUST BE INSPECTED AND MAINTAINED ON A BI-ANNUAL BASIS IN MARCH AND OCTOBER OF EACH YEAR. DRAIN MANHOLES MUST BE INSPECTED TO ENSURE FRAMES AND COVERS ARE NOT DAMAGED AND NO BLOCKAGES HAVE OCCURRED WITHIN THE MANHOLE. DRAIN MANHOLES ARE TO BE CLEANED OUT DURING BI-ANNUAL INSPECTIONS IN MARCH AND OCTOBER OF EACH YEAR IMMEDIATELY CLEAN THE DRAIN MANHOLE IF ONE FOOT OR MORE OF SEDIMENT HAS ACCUMULATED.
- 9. SUBSURFACE INFILTRATION BASINS AND ISOLATOR ROWS: SUBSURFACE INFILTRATION BASIN SHALL BE INSPECTED ON A BIANNUAL BASIS, IN MARCH BASIN SHALL BE MONITORED FOR ANY PONDING AND ACCUMULATION OF SEDIMENT/DEBRIS. ALL ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED BY A VAC-TRUCK. DISPOSAL OF ALL SEDIMENT AND DEBRIS MUST IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL GUIDELINES & REGULATIONS.

### INFILTRATION AREA CONSTRUCTION PROTECTION

FOR THE LONG-TERM FUNCTION OF THE INFILTRATING SYSTEMS, CARE MUST BE TAKEN IN THIS AREA DURING CONSTRUCTION. THE CONTRACTOR SHALL EMPLOY THE FOLLOWING MINIMUM BEST MANAGEMENT PRACTICES (BMP'S):

- 1. THE INFILTRATION AREAS SHALL NOT BE USED AS A CONSTRUCTION SEDIMENTATION SYSTEM.
- 2. CONSTRUCTION EQUIPMENT, VEHICULAR TRAFFIC, PARKING OF VEHICLES, AND STOCKPILING OF CONSTRUCTION AND EARTH MATERIALS SHALL BE OUTSIDE THE LIMITS OF THE INFILTRATION AREA UNTIL INSTALLATION IS COMPLETED. THE SUBGRADE BENEATH THE SYSTEM SHALL NOT BE COMPACTED.
- 3. EXCAVATION FOR CONSTRUCTION OF THE INFILTRATION AREAS SHALL BE PERFORMED MANUALLY OR BY HYDRAULIC EXCAVATOR OR SOME OTHER SIMILAR MEANS TO ENSURE THAT THE EQUIPMENT IS NOT IN DIRECT CONTACT WITH THE NATURAL INFILTRATION EARTH MATERIAL AND DOES NOT CAUSE COMPACTION OF THE MATERIAL AND THE ENTIRE AREA IS TO BE SCARIFIED PRIOR TO INSTALLATION.
- 5. THE CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION FENCING AND EROSION CONTROLS AROUND THE PERIMETER OF THE INFILTRATION AREA TO PREVENT THE USE OF THIS AREA FOR ALL ACTIVITIES THAT MIGHT DAMAGE THE INFILTRATION CAPABILITIES OF THE AREA. THIS FENCING MAY BE REMOVED FOR BACKFILLING AND FINAL CONSTRUCTION.

### SITE PLAN LEGEND (RIDOT):

BITUMINOUS CONCRETE PAVEMENT (7.1.8) PRECAST CONC. APRON STONE ' CLASS 12.5 HMA SURFACE " CLASS 19 HMA BASE 12" GRAVEL BORROW SUBBASE PRECAST CONC. RAMP STONE CUT AND MATCH PAVEMENT 12" PAVEMENT MARKINGS-CROSSWALKS & STOP BAR (7.2.1) PRECAST CONC. SLOPED FACE TRANSITION CURB 4" LOAM AND SEEDING, TYPE 2

- (3.4.1)BRICK/SOILD BLOCK ROUND CATCH BASIN WITH GUTTER LINE (6.1.0) LIGHT - DUTY ROUND FRAME AND COVER
- (6.2.1) HEAVY - DUTY ROUND FRAME AND COVER (6.3.2) HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)
- (6.4.0) ROUND FRAME AND GATE
- PRECAST CONCRETE CURB 6'-0" PRECAST CONCRETE TRANSITION CURB

- PRECAST CONC. WHEELCHAIR RAMP TRANSITION CURB
- (7.2.0) PRECAST CONC. SLOPED FACE CURB
- (7.6.0) CURB SETTING DETAIL
- (9.9.0) CONSTRUCTION ACCESSS (24.2.0) SIGN POST SELECTION & INSTALLATION DETAILS U-CHANNEL
- POST (SIGN UP TO  $8'-0"W \times 4'-0"H$ ) (43.1.0) CEMENT CONCRETE SIDEWALK
- (43.3.0) WHEELCHAIL RAMP
  - WHEELCHAIR RAMP FOR LIMITED RIGHT-OF-WAY AREAS DETECTIBLE WARNING PANEL PLACEMENT

### SITE LEGEND

Q CENTERLINE (LAYOUT) D D STORM DRAIN E E ELCOTRE (UNDERGOUND) FF FO FOOTONING DRAIN GAS OFW OVERHEAD WIRE FFD FOOTONING DRAIN GAS OFW OVERHEAD WIRE FFD FOOTONING DRAIN GAS OVERHEAD WIRE FROPERTY LINE S SAMITARY SEWER S S. SAMITARY SEWER TELEPHONE WATER CONTOUR X64.00 X64.0	EXISTING	NEW	DESCRIPTION
STORM DRAIN  E E ELECTRIC (UNDERROUND)  F F F F F F F F F F F F F F F F F F F		¢	CENTERLINE (LAYOUT)
F F FIRE SERVICE GO G	D	<del>-</del>	• •
FD GOTING DRAIN OHW OVERHEAD WIRE PROPERTY LINE SAL SL SITE LICHTING SERVICE TI T T TILEPHONE W WATER CONTOUR SEAS, TO SEASON OF SALOT CONDOUR SEAS, TW) 64.50(TW) 64.	— Е — —	—— E ——	ELECTRIC (UNDERGROUND)
G GAS OHW OHW OF SERVICE OHW OHW OF SERVICE OHW OHW OF SERVICE S GAS ON OHW OF SERVICE S GAS OHW OH	' I	•	
OHW OVERHEAD WIRE PROPERTY LINE SIL SIL SITE LICHTING SERVICE T T T T T T T T T T T T T T T T T T T			
S S SANTARY SEWER  SL SITE LIGHTING SERVICE  T T TELEPHONE  W WATER  C64 CONTOUR  X64.0(BC) X64.00(BC) SPOT GRADE (BOT. OF CURB)  X64.5(TC) X64.50(TC) SPOT GRADE (BOT. OF CURB)  X64.5(TW) 64.50(TW) SPOT GRADE (TOP OF CURB)  64.5(TW) 64.50(TW) SPOT GRADE (TOP OF WALL)  BCC BCC BTUMINOUS CONC. CURB  PCC PCC PRECAST CONC. CURB  PCC PCSMC PRECAST CONC. CURB  PCSMC PCSMC SCC VERTICAL GRANITE CURB  SSC SCC VERTICAL GRANITE CURB  CBDG#I CATCH BASIN  CBBC#I CATCH BASIN  CBCC  CCB  CCB BCCC  CCB CATCH BASIN  CATCH	——————————————————————————————————————		
SL T T T T T T T T T T T T T T T T T T T			
T TELEPHONE  W WATER  C64 CONTOUR  x64.0(GC) x64.0(GC) x64.00(GC) x64.00(GC) x64.00(GC) x64.00(GC) x64.00(GC) x64.50(TC) x64.50(TW) SPOT GRADE (GOT, OF CURB) 64.50(TW) SPOT GRADE (GOT, OF WALL) 64.50(TW) SPOT GRADE (TOP OF CURB) 64.50(TW) SPOT GRADE (TOP OF WALL) 64.			
W WATER  64 - 64 - 64 - 64 - 64 - 64 - 64 - 64	SL		
## SEV SEER MANHOLE    SEV SEER MANHOLE   SEV SEER MANHOLE   SEV SEEV SEER MANHOLE   SEV SEEV SEEV SEEV MANHOLE   SEV SEEV SEEV SEEV MANHOLE   SEV SEEV SEEV SEEV SEEV SEEV SEEV SEEV			
x64.0 (BC) x64.0(BC) x64.			
x 64.0(BC) x 64.5(TC) x 64.5(TW) x 64.50(TW) x 64			
X 64.5(TC) 64.5(BW) 64.5(TW)			
64.5(BW) 64.5(TW) 65.5(TW) 66.5(TW) 66.		, ,	
BCC  BCC  BCC  BCC  BCC  BCC  BCC  BCC	64.5(BW)	64.50(BW)	
CCB  CCCB  CCCB  CCCB  CCCB  CCCB  CCCB  CCCB  CCCB  CCCB  CCCC  CCCB  CCCC  CCCB  CCCC  CCCB  CCCC  CCCB  CCCC  CCCB  CCCC  CCCC  CCCC  CCCC  CCCC  CCCC  CCCC	64.5(TW)	64.50(TW)	
CCB PCC PCSMC PCSMC PCSMC PCSMC SGC SGC SGC SGC VGC CVGC VGC VGC VGC VGC VGC VGC VGC	BCC BCC		BITUMINOUS CONC. CURB
PCC PCSMC PCC PCSMC PCC PCC PCC PCC PCC PCC PCC PCC PCC P			CAPE COD BERM
PCC PCSMC SGC SGC VGC VGC VGC VGC VGC VGC VGC VGC VGC V			PRECAST CONC. CURB
SGC  SGC  SGC  SGC  VGC  VGC  VGC  VGC	PCC	PCC	
SSC  VGC  VGC  VGC  VGC  VGC  VGC  VGC	PCSMC	PCSMC	
VGC  STOCKADE FENCE (CLF)  STOCKADE FENCE (STKF)  BORING LOCATION  CB CBDG#1 CATCH BASIN  CTB CODD#1 DOUBLE GRATE CATCH BASIN  CTB CONCRETE THRUST BLOCK  DAH  DMH  DMH  FLARED END STRUCTURE  FES  SMH  SMH  WATER SERVICE  UTILITY POLE  FIRE HYDRANT  MYO  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SIGN  WETLAND  SEV  SIGN  WETLAND  SEV  SOIL EVALUATION LOCATION  FDC  PFDC  PFDC  PFDC  FIRE DEPARTMENT CONNECTION  PIV  PIV  DED  ELECTRIC MANHOLE (EMH)  TT  TRANSFORMER PAD  GEN  GEN  GEN  GEN  GEN  GEN  GEN  GE	SGC	SGC	SLOPED GRANITE CURB
CHAINLINK FENCE (CLF)  STOCKADE FENCE (STKF)  BORING LOCATION  CB CBDg#1  CATCH BASIN  CONCRETE THRUST BLOCK  DAH  DAH  FLARED END STRUCTURE  FES  SMH  SEWER MANHOLE  WATER SERVICE  UTILITY POLE  FIRE HYDRANT  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SEV  SOL EVALUATION LOCATION  TEST PIT LOCATION  PIV  FICE  ELECTRIC MANHOLE (EMH)  TT  TRANSFORMER PAD  GEN  GEN  GEN  GEN  GEN  GEN  GEN  GE	VGC	VGC	VERTICAL GRANITE CURB
BORING LOCATION  CB  CBB CBB CBBC#1  CATCH BASIN  COBCCTB CORCRETE THRUST BLOCK  DDMH  DMH  DMH  DMH  DMH  FLARED END STRUCTURE  FES  SMH  SMH  WATER SERVICE  UTILITY POLE  FIRE HYDRANT  GV  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SSV  SSV  SOIL EVALUATION LOCATION  FIP  FIP  FIP  FIP  FIP  FIP  FIP  FI	—⊗——⊗——⊗—	——⊗———⊗———⊗—	CHAINLINK FENCE (CLF)
© CB#1 CATCH BASIN  © CBDG#1 DOUBLE GRATE CATCH BASIN  © CDDG#1 DOUBLE GRATE CATCH BASIN  CTB → CONCRETE THRUST BLOCK  © DMH DMH  DMH DMH  FLARED END STRUCTURE  FES  SMH SMH SMH  SMH WATER SERVICE  UTILITY POLE  FIRE HYDRANT  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SEV SOIL EVALUATION LOCATION  FIRE DEPARTMENT CONNECTION  FIRE DEPARTMENT CONNECTIO		-000-	STOCKADE FENCE (STKF)
© CB#1 CATCH BASIN  © CBDG#1 DOUBLE GRATE CATCH BASIN  © CDDG#1 DOUBLE GRATE CATCH BASIN  CTB → CONCRETE THRUST BLOCK  © DMH DMH  DMH DMH  FLARED END STRUCTURE  FES  SMH SMH SMH  SMH WATER SERVICE  UTILITY POLE  FIRE HYDRANT  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SEV SOIL EVALUATION LOCATION  FIRE DEPARTMENT CONNECTION  FIRE DEPARTMENT CONNECTIO	<b>.</b>	<b>.</b>	BORING LOCATION
CBDG#1  CTB CD CTB CONCRETE THRUST BLOCK  DMH  DMH  DMH  DMH  DMH  DMH  DMH  DM	T CR	⊕ CR#1	
CTB CONCRETE THRUST BLOCK  DMH  DMH  DMH  DMH  DRAIN MANHOLE  FES  FES  SEWER MANHOLE  WATER SERVICE  UTILITY POLE  FIRE HYDRANT  MY  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SIGN  WETLAND  SEV  SEV  SEV  SEV  SIGN  WETLAND  FIRE POLICATION  FIRE DEPARTMENT CONNECTION  FIRE DEPARTMENT CONNECTION  POST INDICATOR VALVE (PIV)  PIV  E  E  E  E  E  E  E  E  CONCRETE THRUST BLOCK  DRAIN MANHOLE  FES  FLARED END STRUCTURE  FES  SEWER MANHOLE  WATER SERVICE  UTILITY POLE  FIRE HYDRANT  WE TLAND  SEV  SEV  SOIL EVALUATION LOCATION  TEST PIT LOCATION  POST INDICATOR VALVE (PIV)  PIV  E  E  E  E  E  E  E  E  E  CONTINUOUS ROW OF HAYBALES  CONTINUOUS ROW OF HAYBALES  CONTINUOUS ROW OF HAYBALES  CONTINUOUS ROW OF SILT FENCE  PAVEMENT SAWCUT & MATCH  TO EXISTING	_		
DMH  DMH  DRAIN MANHOLE  FES  FES  SWER MANHOLE  WATER SERVICE  UTILITY POLE  FIRE HYDRANT  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SIGN  WETLAND  SEV  SEV  SEV  FIRE DEPARTMENT CONNECTION  FID  FDC  FID  FDC  FID  FDC  FIRE DEPARTMENT CONNECTION  POST INDICATOR VALVE (PIV)  PIV  E  E  ELECTRIC MANHOLE (EMH)  T  T  TRANSFORMER PAD  GEN  GEN  GEN  GEN  GEN  GEN  GEN  GE	, ,		
DMH  DMH  FES  FES  FES  FES  SMH  WATER SERVICE  UTILITY POLE  FIRE HYDRANT  GATE VALVE AND CURB BOX  WETLAND  SEV  SEV  SEV  SEV  SEV  SEV  SIGN  WETLAND  TEST PIT LOCATION  FIRE DEPARTMENT CONNECTION  PIV  PIV  PIV  PIV  E  GEN  GEN  GEN  GEN  GEN  GEN  GEN			
FES  SMH  WATER SERVICE  UTILITY POLE  FIRE HYDRANT  KY  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SIGN  WETLAND  SEV  SOIL EVALUATION LOCATION  TP  FDC  FIRE DEPARTMENT CONNECTION  POST INDICATOR VALVE (PIV)  PIV  B  GEN  GEN  GEN  GEN  GEN  GEN  GEN	<u> </u>	_	DRAIN MANHOLE
SMH  SMH  WATER SERVICE  UTILITY POLE  FIRE HYDRANT  GATE VALVE AND CURB BOX  CV  HANDICAP SYMBOL (PRKG. SPACE)  SIGN  WETLAND  SEV  SEV  SOIL EVALUATION LOCATION  TEST PIT LOCATION  FDC  FIRE DEPARTMENT CONNECTION  POST INDICATOR VALVE (PIV)  PIV  PIV  E  GEN  GEN  GEN  GEN  GENERATOR PAD  GEN  GEN  GEN  GENERATOR PAD  GEN  GEN  GENERATOR PAD  GEN  GEN  GEN  GEN  GEN  GEN  GEN  GE	$\triangleleft$	◀	FLARED END STRUCTURE
SMH  WATER SERVICE  UTILITY POLE FIRE HYDRANT  M GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SIGN  WETLAND  SEV  SEV  SEV  SIGN  WETLAND  TEST PIT LOCATION  POST INDICATOR VALVE (PIV)  PIV  PIV  PIV  E  GEN  GEN  GEN  GEN  GEN  GEN  GEN			
WATER SERVICE  UTILITY POLE FIRE HYDRANT  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SIGN WETLAND SEV SEV SOIL EVALUATION LOCATION TEST PIT LOCATION TP FDC FIRE DEPARTMENT CONNECTION POST INDICATOR VALVE (PIV) PIV  E ELECTRIC MANHOLE (EMH) T TRANSFORMER PAD GEN GEN GEN GEN GEN GENERATOR PAD GEN GEN GEN GEN GENERATOR PAD GEN GEN GEN GENERATOR PAD GEN GEN GEN GENERATOR PAD GEN GEN GENERATOR PAD GEN GEN GEN GEN GEN GENERATOR PAD GEN		_	SEWER MANHOLE
UTILITY POLE FIRE HYDRANT  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SIGN WETLAND SEV SEV SOIL EVALUATION LOCATION TEST PIT LOCATION TP FDC FIRE DEPARTMENT CONNECTION POST INDICATOR VALVE (PIV) PIV  E  GEN GEN GEN GEN GEN GEN GEN GEN GEN			WATER SERVICE
FIRE HYDRANT  GATE VALVE AND CURB BOX  HANDICAP SYMBOL (PRKG. SPACE)  SIGN  WETLAND  SEV  SOIL EVALUATION LOCATION  TEST PIT LOCATION  FDC  FIRE DEPARTMENT CONNECTION  POST INDICATOR VALVE (PIV)  PIV  E  GEN  GEN  GEN  GEN  GEN  GEN  GEN			UTILITY POLE
GV G			FIRE HYDRANT
SIGN WETLAND SEV SOIL EVALUATION LOCATION TEST PIT LOCATION TEST PIT LOCATION TO PIV PIV PIV E E E GEN GEN GEN GEN GEN GEN GEN GEN G			GATE VALVE AND CURB BOX
SIGN WETLAND SEV SOIL EVALUATION LOCATION TEST PIT LOCATION TEST PIT LOCATION POST INDICATOR VALVE (PIV) PIV  E E E E E E E E E E E E E E E E E E			HANDICAD CAMBOI (DDKC CDACE)
WETLAND SEV SOIL EVALUATION LOCATION TEST PIT LOCATION TEST PIT LOCATION TEST PIT LOCATION TO POST INDICATOR VALVE (PIV) PIV  E E ELECTRIC MANHOLE (EMH) T T TRANSFORMER PAD GEN	E.	Ċ.	HANDICAP SIMBOL (PRRG. SPACE)
WETLAND SEV SOIL EVALUATION LOCATION TEST PIT LOCATION TEST PIT LOCATION TEST PIT LOCATION TO POST INDICATOR VALVE (PIV) PIV  E E ELECTRIC MANHOLE (EMH) T T TRANSFORMER PAD GEN		_	CION
SEV SOIL EVALUATION LOCATION TEST PIT LOCATION TEST PIT LOCATION POST INDICATOR VALVE (PIV) PIV  E E E E E E E E E E E E E E E E E E			
TEST PIT LOCATION  TP  FDC  FIRE DEPARTMENT CONNECTION  POST INDICATOR VALVE (PIV)  PIV  E  E  ELECTRIC MANHOLE (EMH)  T  TRANSFORMER PAD  GEN  GEN  GEN  GEN  GEN  GEN  GEN  GE			
FDC  FICE  FICE  FICE  FICE  FIRE DEPARTMENT CONNECTION  POST INDICATOR VALVE (PIV)  PIV  ELECTRIC MANHOLE (EMH)  TELEPHONE MANHOLE (TMH)  TRANSFORMER PAD  GEN  GEN  GEN  GEN  GEN  GEN  GEN  GE	===		
POST INDICATOR VALVE (PIV)  PIV  E  ELECTRIC MANHOLE (EMH)  T  TRANSFORMER PAD  GEN  GEN  GEN  GEN  GEN  GEN  GEN  GE	TP	TP	TEST THE EUGATION
PIV  E  ELECTRIC MANHOLE (EMH)  T  TELEPHONE MANHOLE (TMH)  T  TRANSFORMER PAD  GEN  GEN  GEN  GEN  GEN  GEN  GEN  GE		FDC	FIRE DEPARTMENT CONNECTION
TELEPHONE MANHOLE (TMH)  TRANSFORMER PAD  GEN  GEN  GEN  GEN  GEN  GEN  GEN  GE		o ⋈ PIV	POST INDICATOR VALVE (PIV)
T TRANSFORMER PAD  GEN  GEN  GEN  GEN  GEN  GENERATOR PAD  GROUND CLEANOUT  SIGHT LIGHT POLE  TRAFFIC FLOW DIRECTION  CONTINUOUS ROW OF HAYBALES  CONTINUOUS ROW OF SILT FENCE  PAVEMENT SAWCUT & MATCH  TO EXISTING	E	Œ	ELECTRIC MANHOLE (EMH)
GEN  GEN  GEN  GEN  GEN  GEN  GENERATOR PAD  GROUND CLEANOUT  SIGHT LIGHT POLE  TRAFFIC FLOW DIRECTION  CONTINUOUS ROW OF HAYBALES  CONTINUOUS ROW OF SILT FENCE  PAVEMENT SAWCUT & MATCH  TO EXISTING	$\bigcirc$		TELEPHONE MANHOLE (TMH)
→ GCO  → LP  → SIGHT LIGHT POLE  TRAFFIC FLOW DIRECTION  CONTINUOUS ROW OF HAYBALES  CONTINUOUS ROW OF SILT FENCE  PAVEMENT SAWCUT & MATCH  TO EXISTING	T	T	TRANSFORMER PAD
SIGHT LIGHT POLE  TRAFFIC FLOW DIRECTION  CONTINUOUS ROW OF HAYBALES  CONTINUOUS ROW OF SILT FENCE  PAVEMENT SAWCUT & MATCH TO EXISTING	GEN	GEN	GENERATOR PAD
TRAFFIC FLOW DIRECTION  CONTINUOUS ROW OF HAYBALES  CONTINUOUS ROW OF SILT FENCE  PAVEMENT SAWCUT & MATCH TO EXISTING	⊖GCO	⊖GCO	GROUND CLEANOUT
CONTINUOUS ROW OF HAYBALES  CONTINUOUS ROW OF SILT FENCE  PAVEMENT SAWCUT & MATCH TO EXISTING	☆ LP	•—	SIGHT LIGHT POLE
CONTINUOUS ROW OF SILT FENCE  PAVEMENT SAWCUT & MATCH TO EXISTING	$\Rightarrow$	$\Rightarrow$	TRAFFIC FLOW DIRECTION
PAVEMENT SAWCUT & MATCH TO EXISTING			CONTINUOUS ROW OF HAYBALES
TO EXISTING			CONTINUOUS ROW OF SILT FENCE
X.X.X RIDOT STD DETAIL REFERENCE		· · · · · · · · · · · · · · · · · · ·	
		(X.X.X)	RIDOT STD DETAIL REFERENCE
	l		

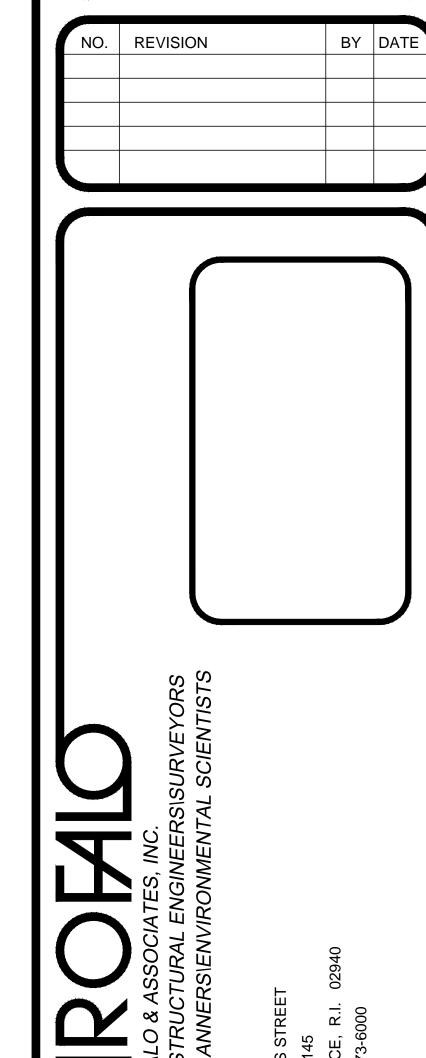
### **ABBREVIATIONS**

CI CLDI CLF CTE D.I.	CAST IRON PIPE CEMENT LINED DUCTILE IRON PIPE CHAINLINK FENCE POINT OF CONNECTION TO EXISTING DUCTILE IRON PIPE
ESHWT	ESTIMATED SEASONAL HIGH WATER TABLE
ETR	EXISTING TO REMAIN
EX.	EXISTING
-&I	FURNISH AND INSTALL
HDPE	HIGH DENSITY POLYETHYLENE PIPE
NV.	INVERT ELEVATION
MTE	MATCH TO EXISTING
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
∕IF	VERIFY IN FIELD
NQS	WATER QUALITY STRUCTURE

### **OWNER/APPLICANT:**

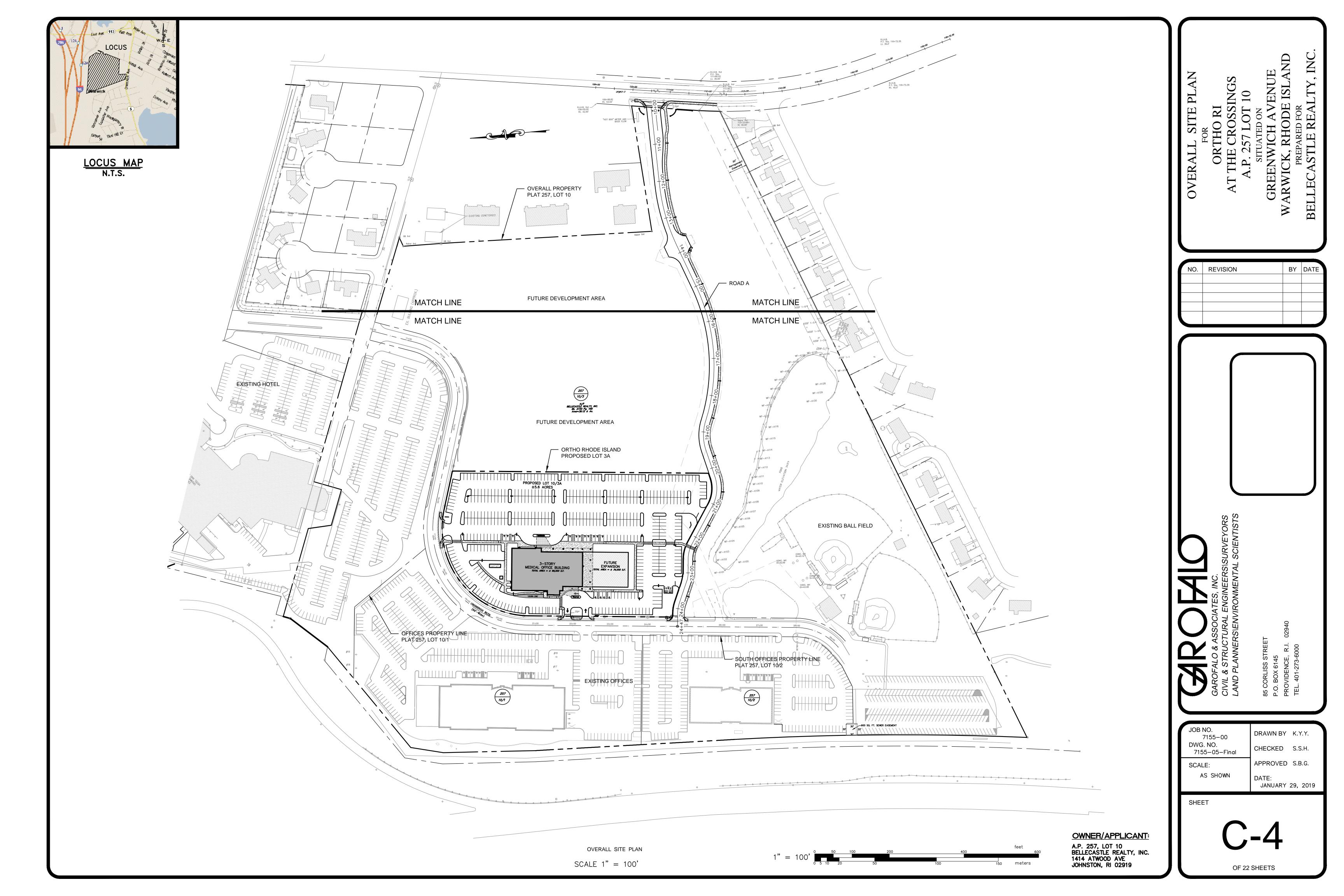
A.P. 257, LOT 10 BELLECASTLE REALTY, INC. 1414 ATWOOD AVE JOHNSTON, RI 02919

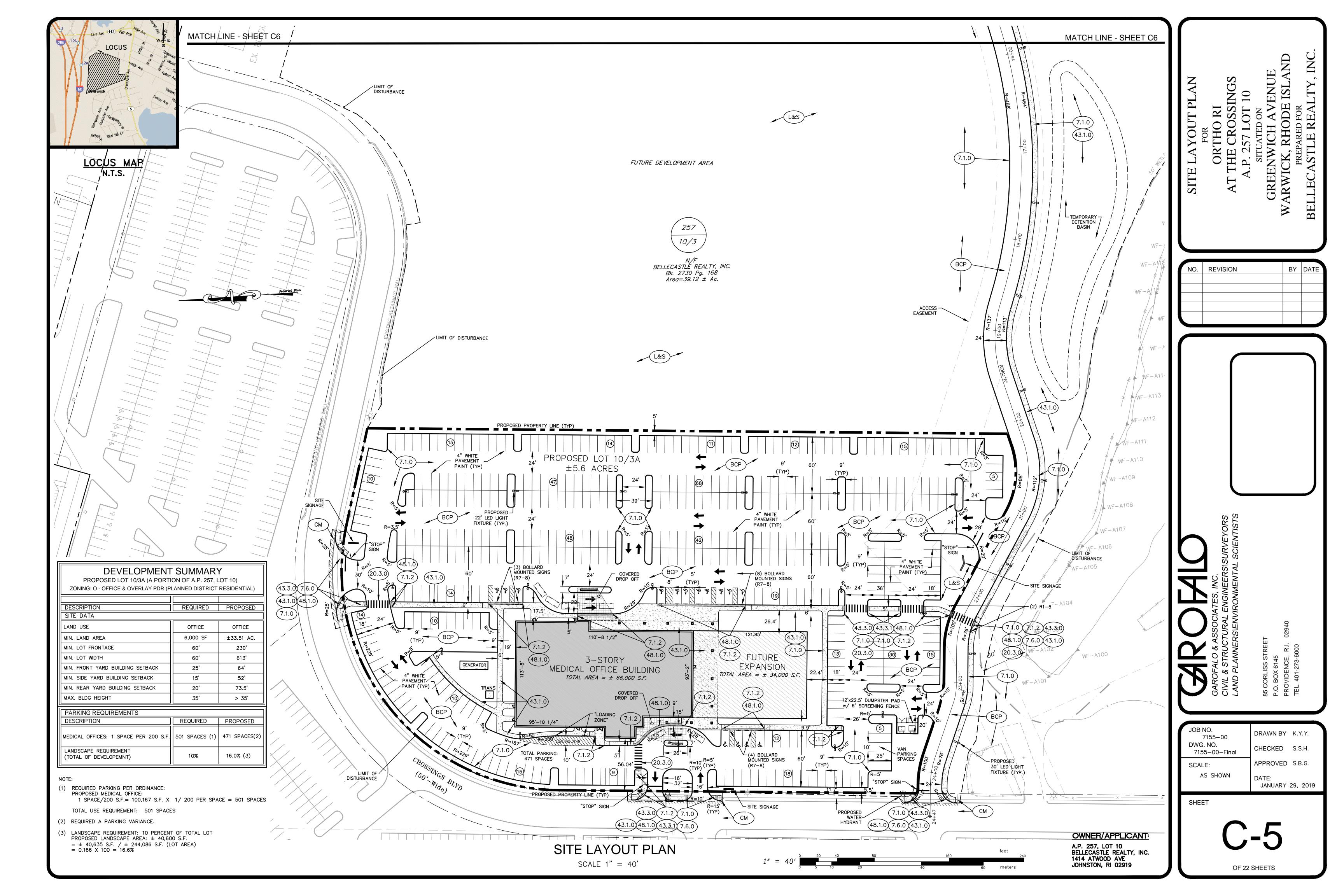
ODE GREENARWIC

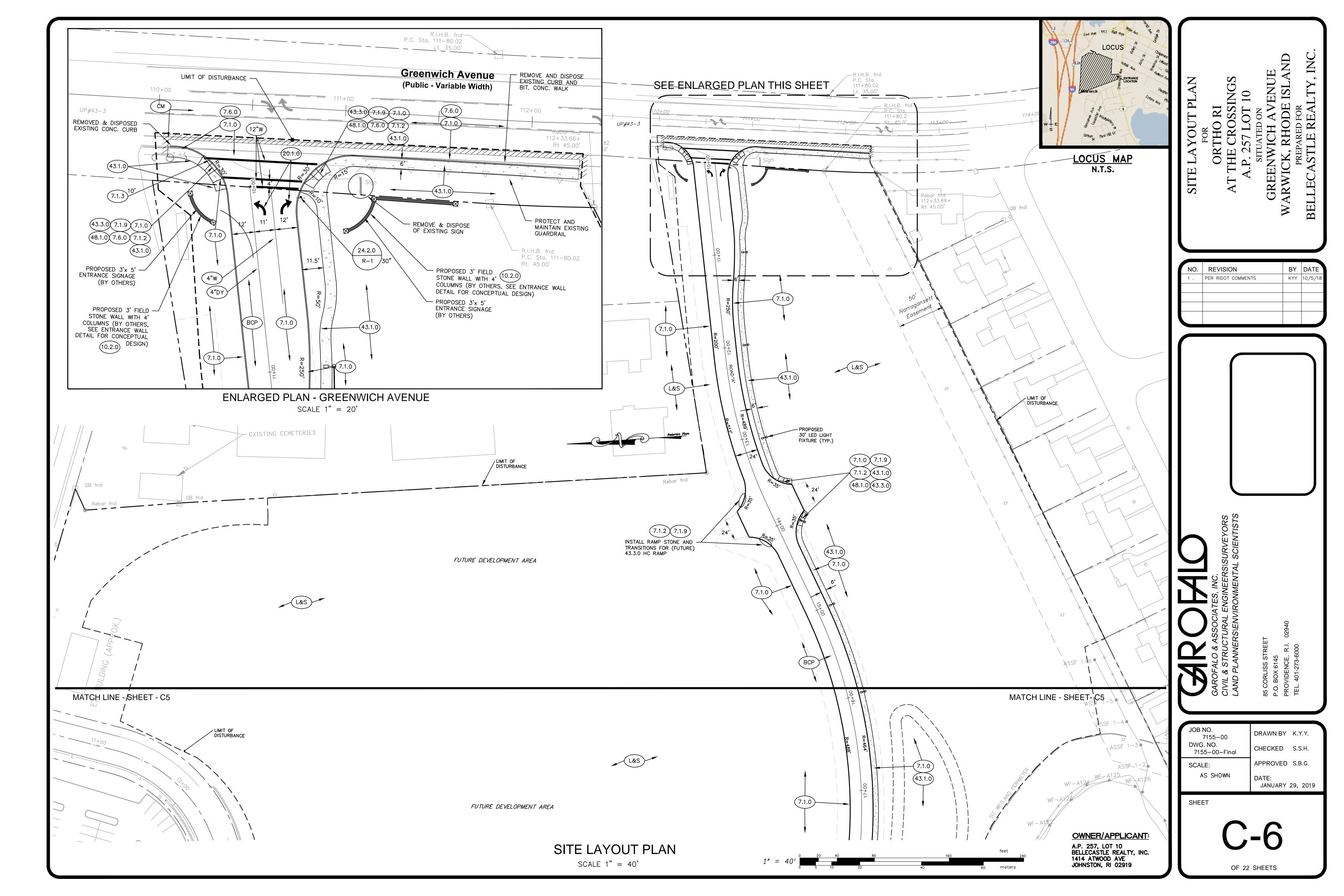


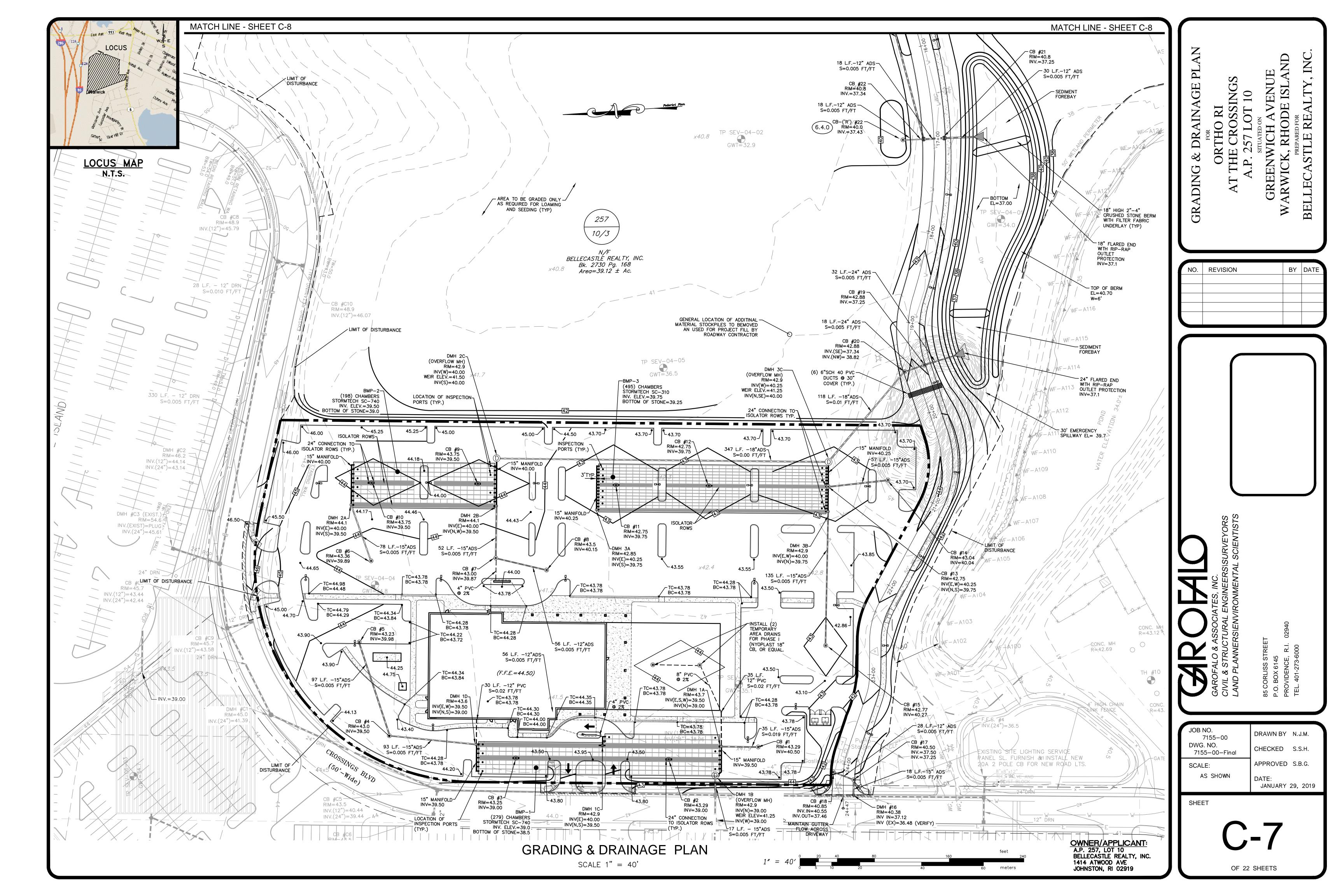
JOB NO. DRAWN BY K.Y.Y. 7155-00 DWG. NO. CHECKED S.S.H. 7155-00-Final APPROVED S.B.G. AS SHOWN JANUARY 29, 2019

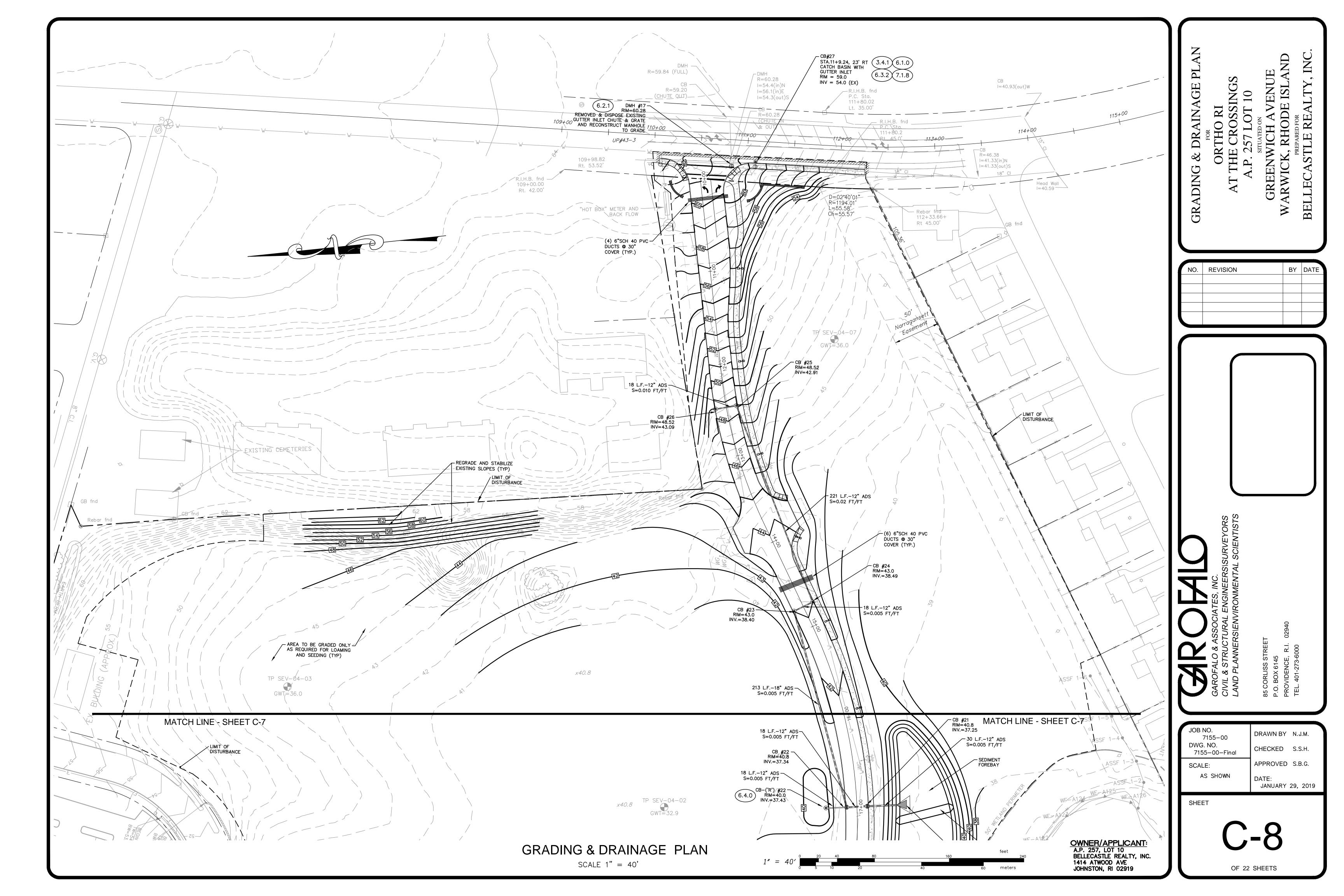
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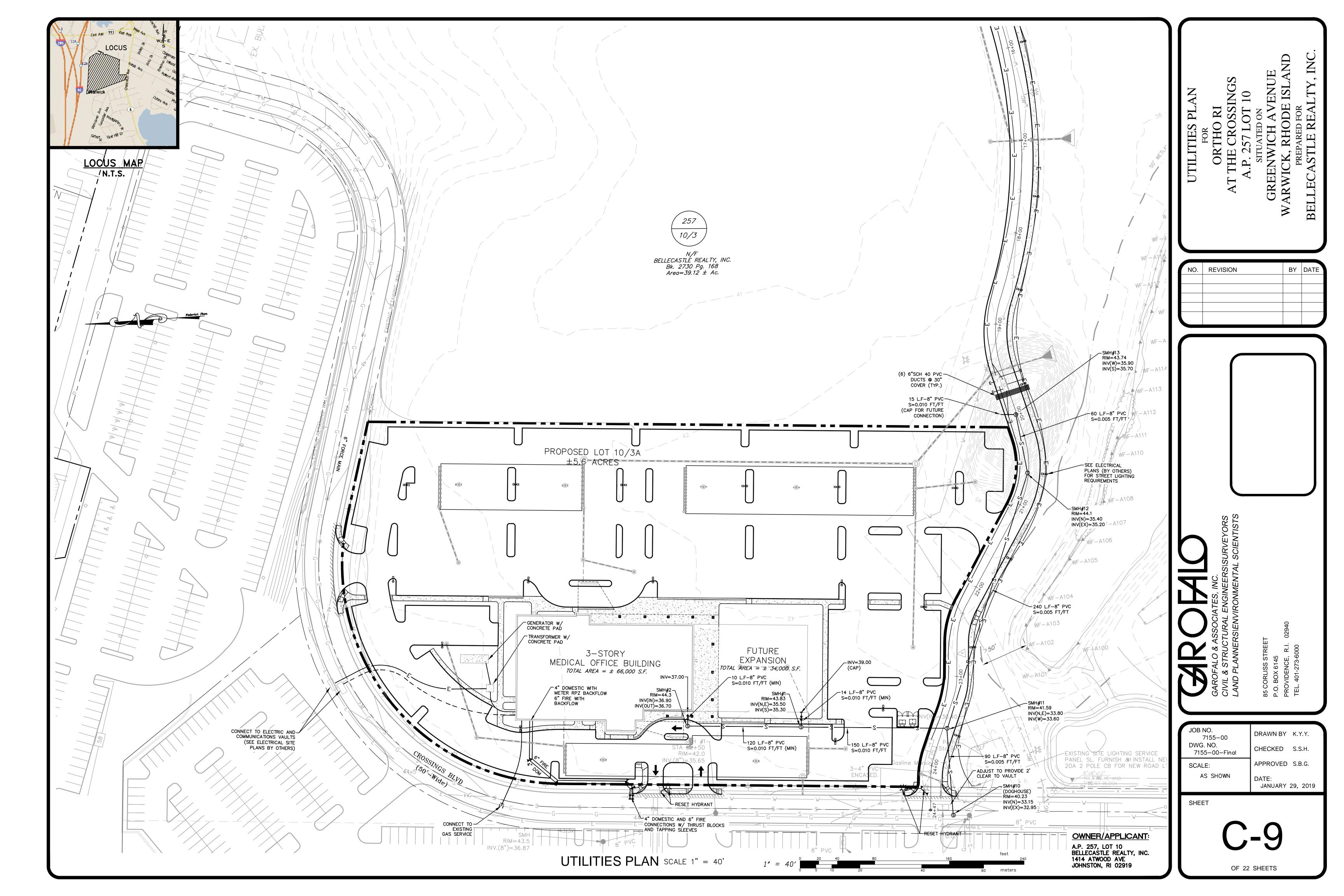


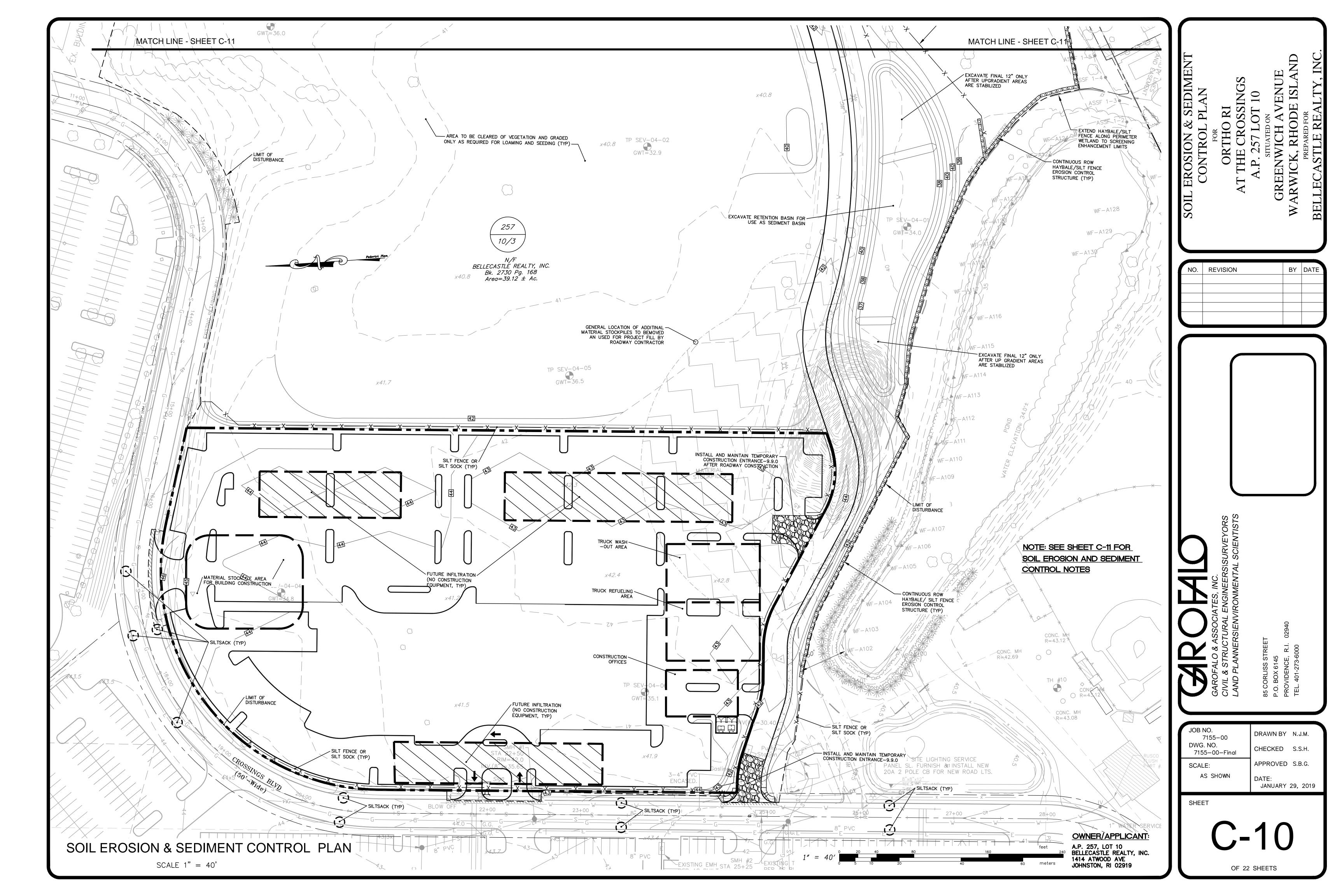


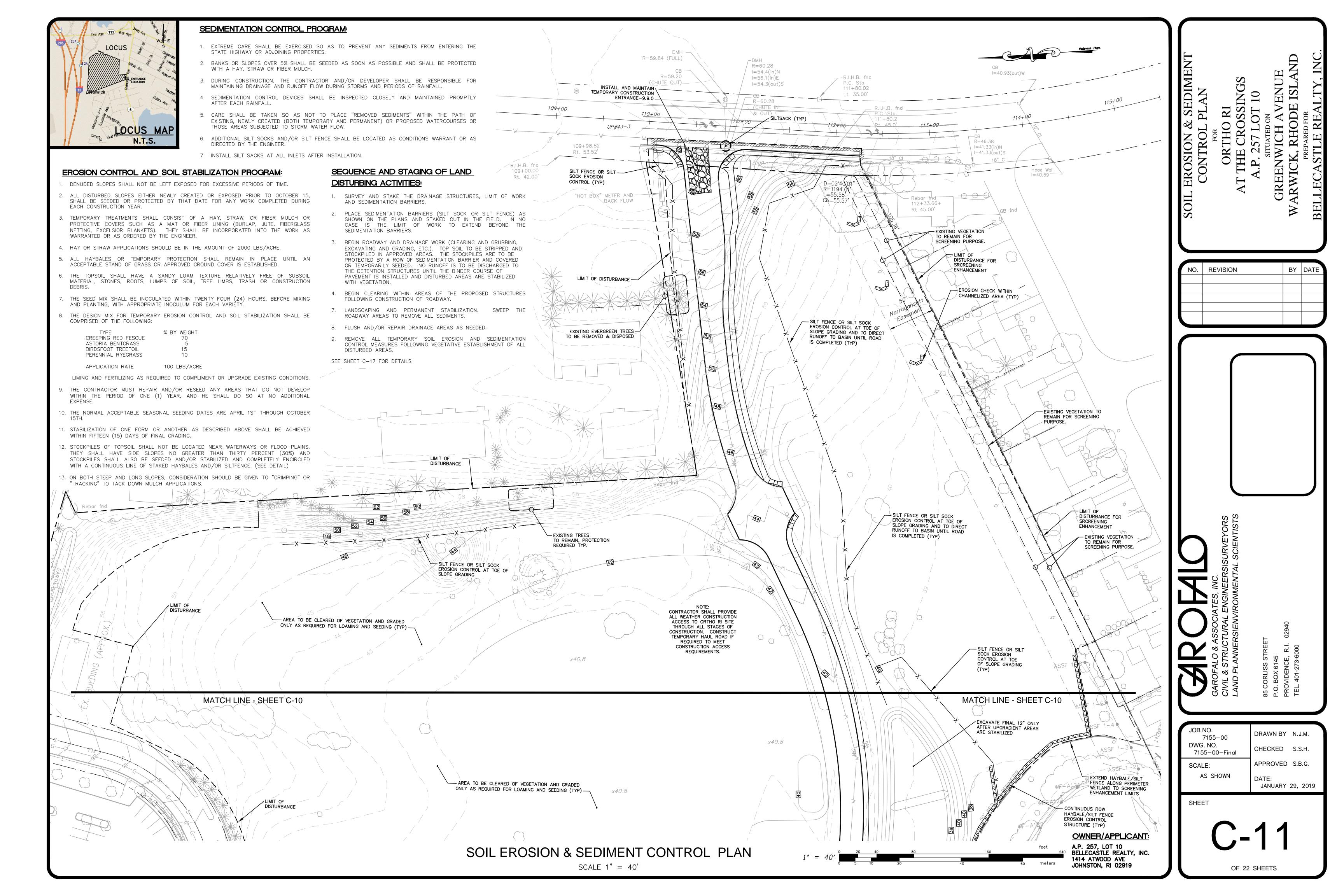


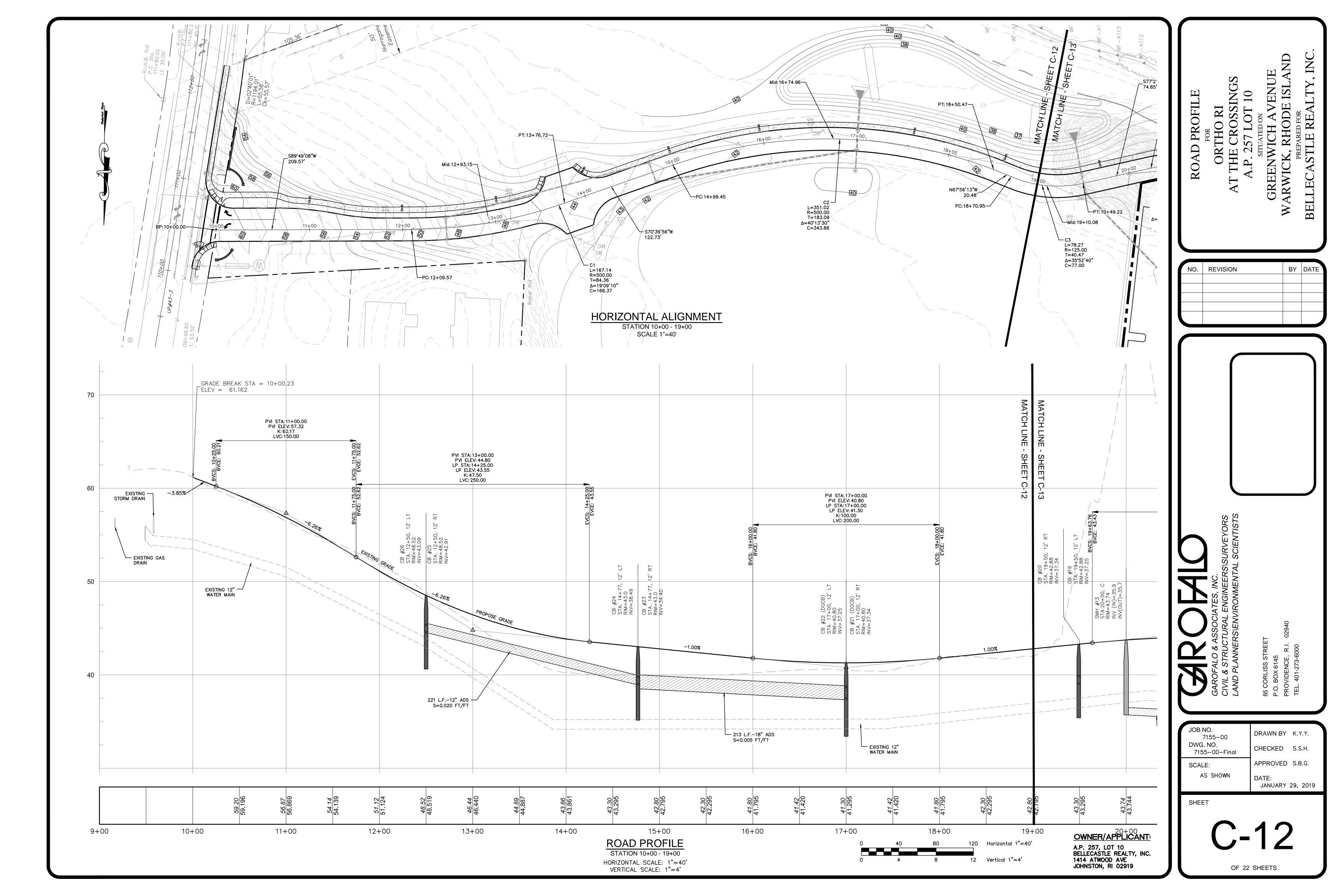


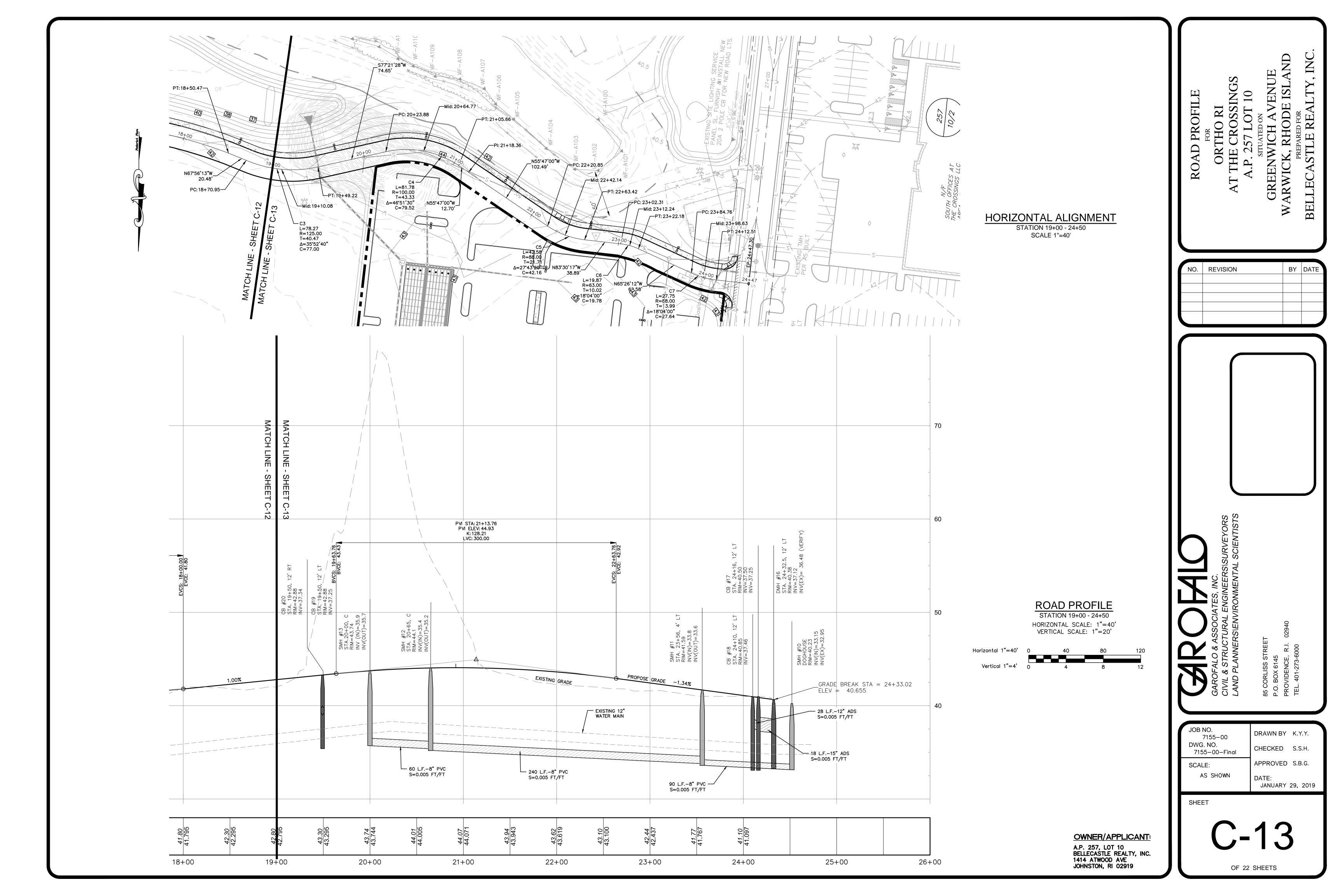


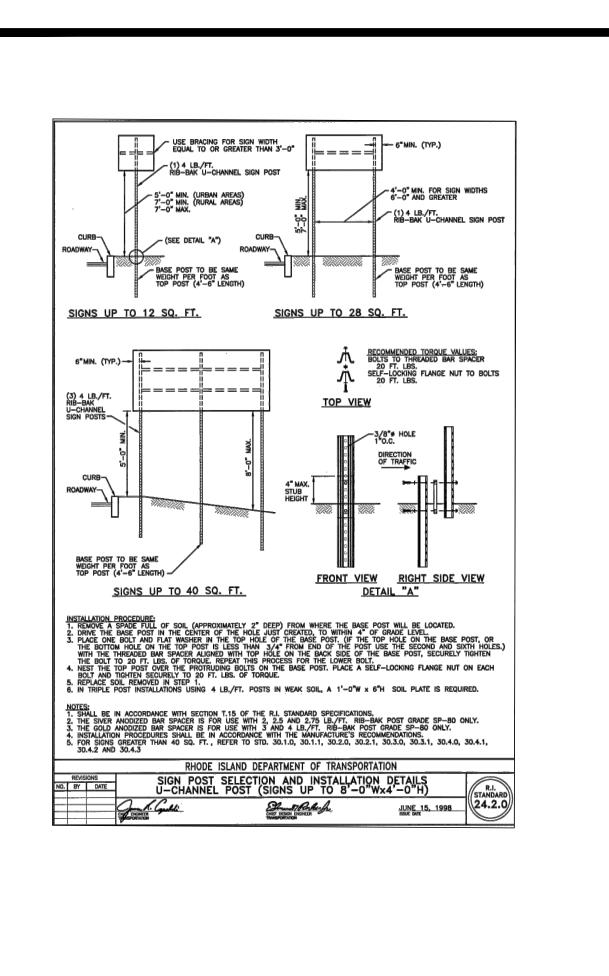












TRANSITION

43.1.0 PCC

RAMP

43.1.0 or 43.2.0

MLP Sep 2012

\_\_\_\_

SIDEWALK

LENGTH

- 48.1.0 DETECTABLE WARNING PANEL

1:50

MAX.

\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_

MARKED OR UNMARKED

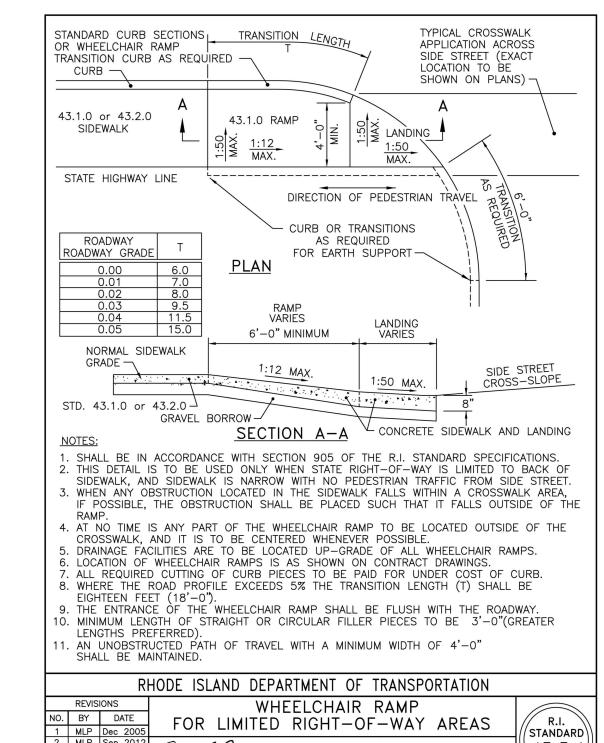
CROSSWALK

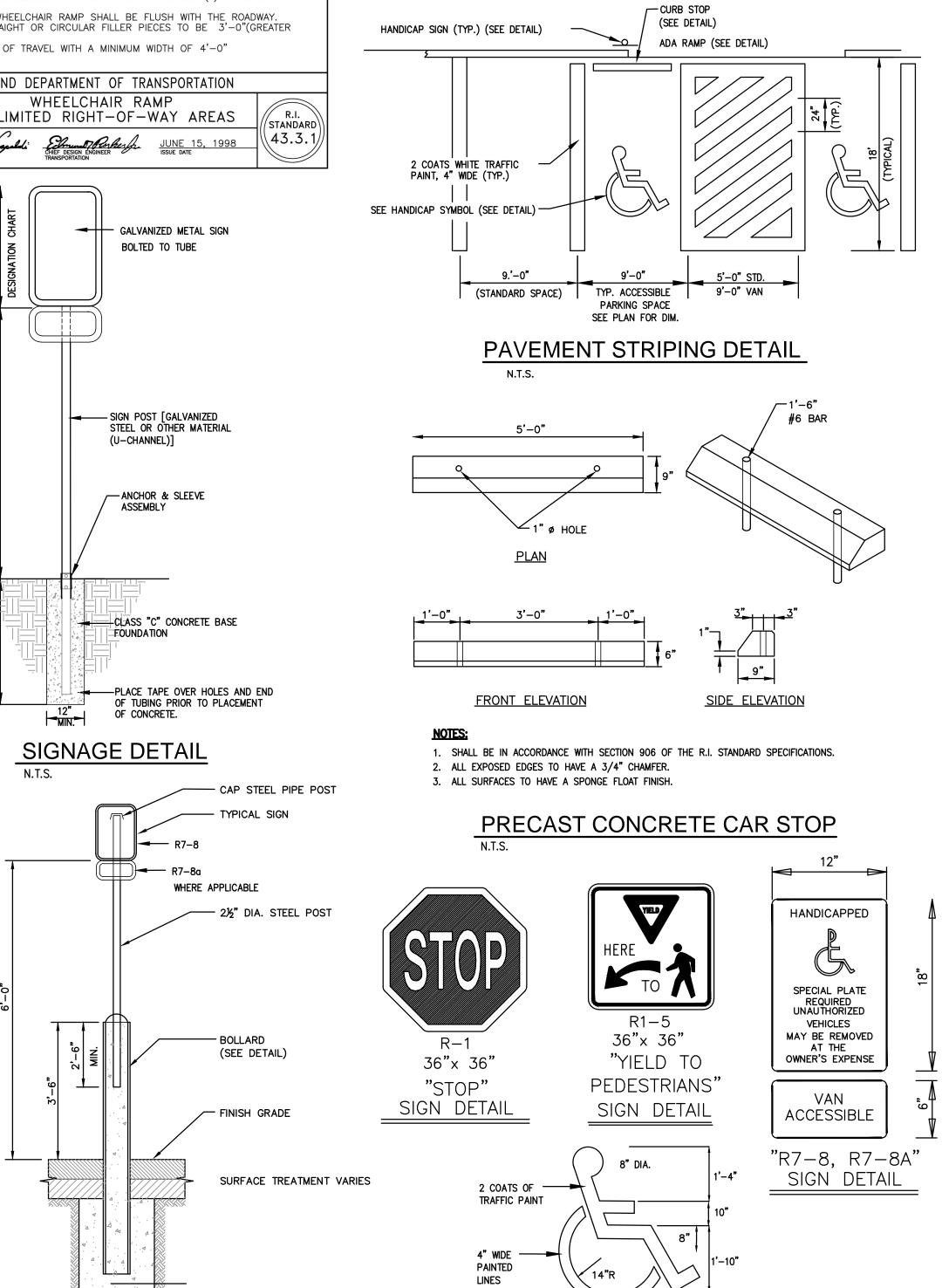
R.I.

STANDARD

∖\48.1.0*/*/

**BOLLARD MOUNTED SIGN** 





HANDICAP SYMBOL

HAY BALE/SILT SOCK

STOCKPILE

MATERIAL

STOCKPILE DETAIL

NOT TO SCALE

1. COMPOST SOCK SHALL BE INSTALLED PER MANUFACTURERS

EROSION CONTROL

SOCK

BLANKET AS

NOT TO SCALE

RECOMMENDATIONS. COMPOST SOCK SHALL BE A MINIMUM OF 8" IN

2. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY THE

4. ALWAYS INSTALL COMPOST SOCK PERPENDICULAR TO SLOPE AND ALONG

WOODEN STAKE

2"x2"x3' 3' O.C. SPACING

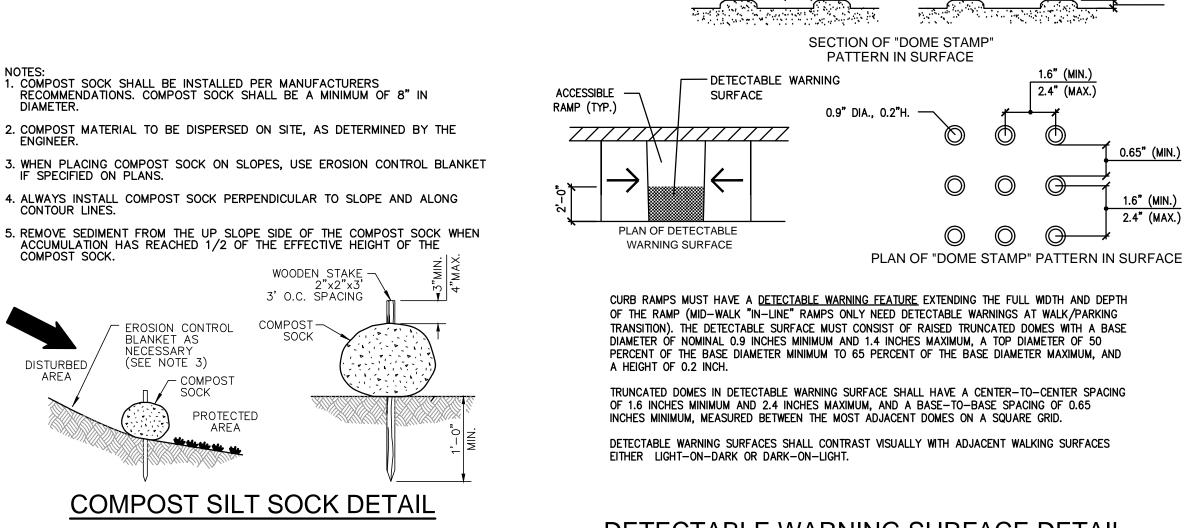
COMPOST

COMPOST SILT SOCK DETAIL

SOCK

EROSION CONTROL

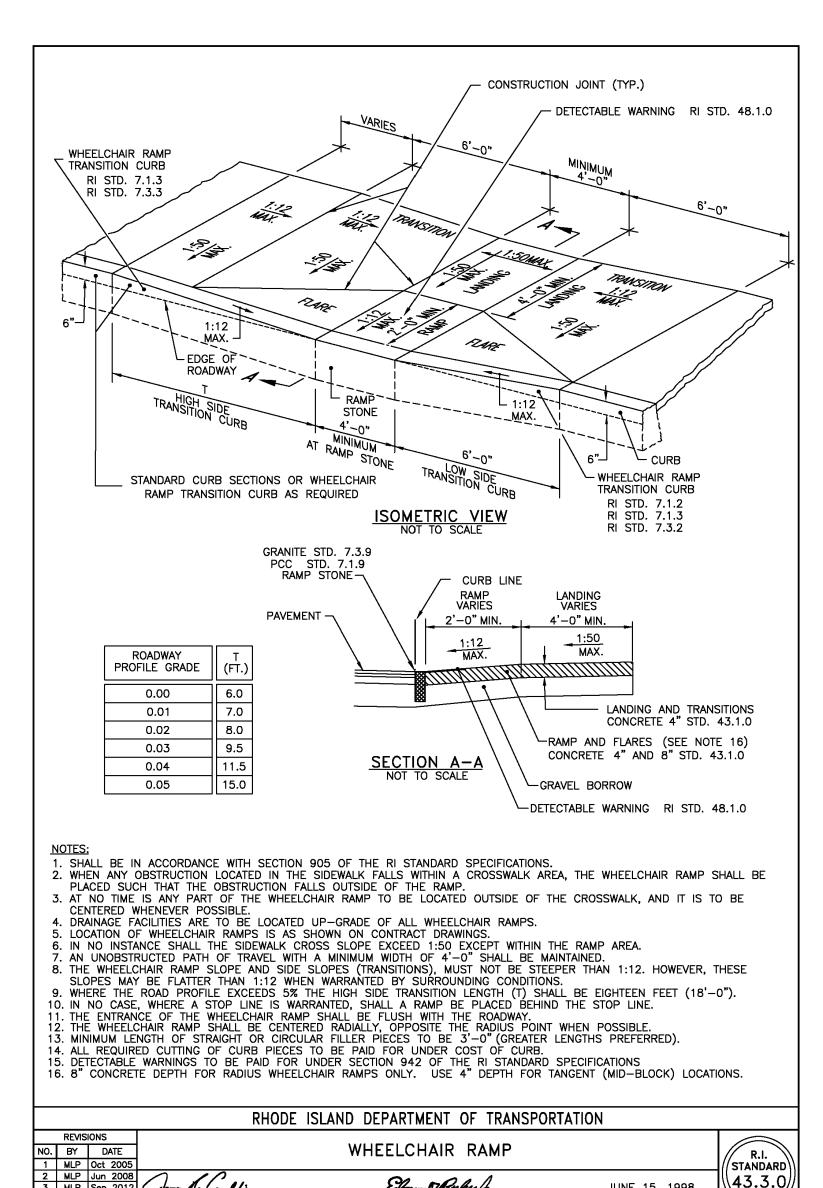
TOE OF SLOPE

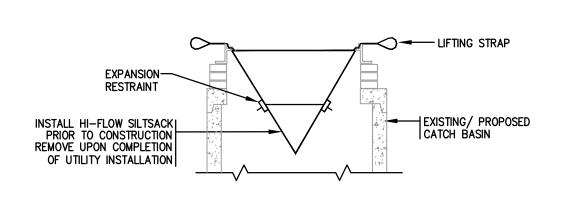




VARES PER MANUF.

2.4" (MAX.)





SILTSACK®AT CATCH BASIN DETAIL NOT TO SCALE

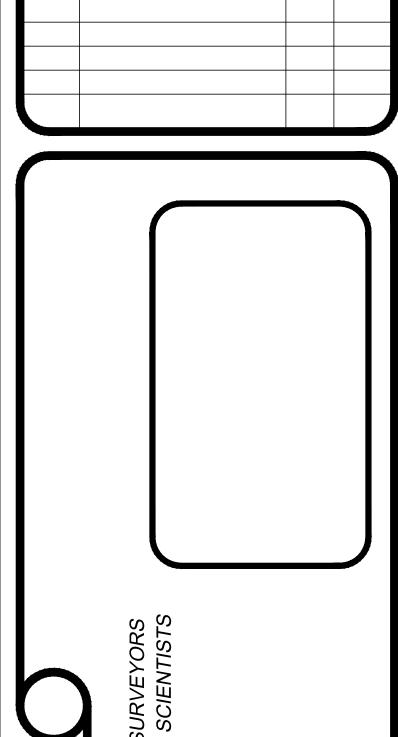
OWNER/APPLICANT: A.P. 257, LOT 10 BELLECASTLE REALTY, INC. 1414 ATWOOD AVE JOHNSTON, RI 02919

DE

NO. REVISION

AR

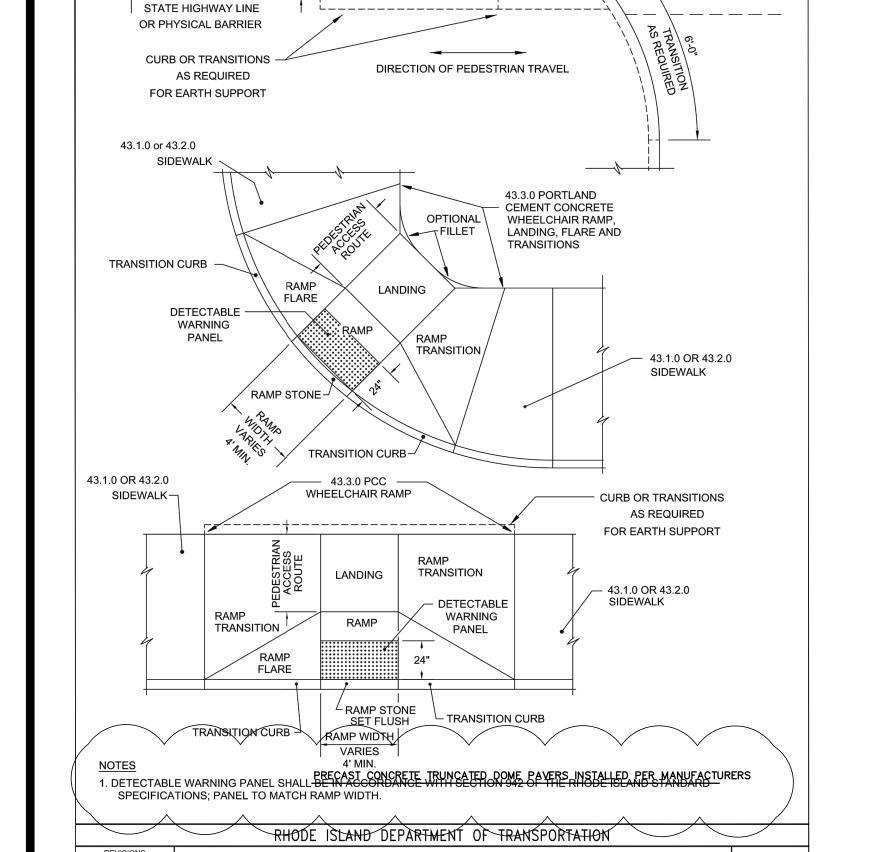
BY DATE



DRAWN BY K.Y.Y.
CHECKED S.S.H.
APPROVED S.B.G.
DATE: JANUARY 29, 2019

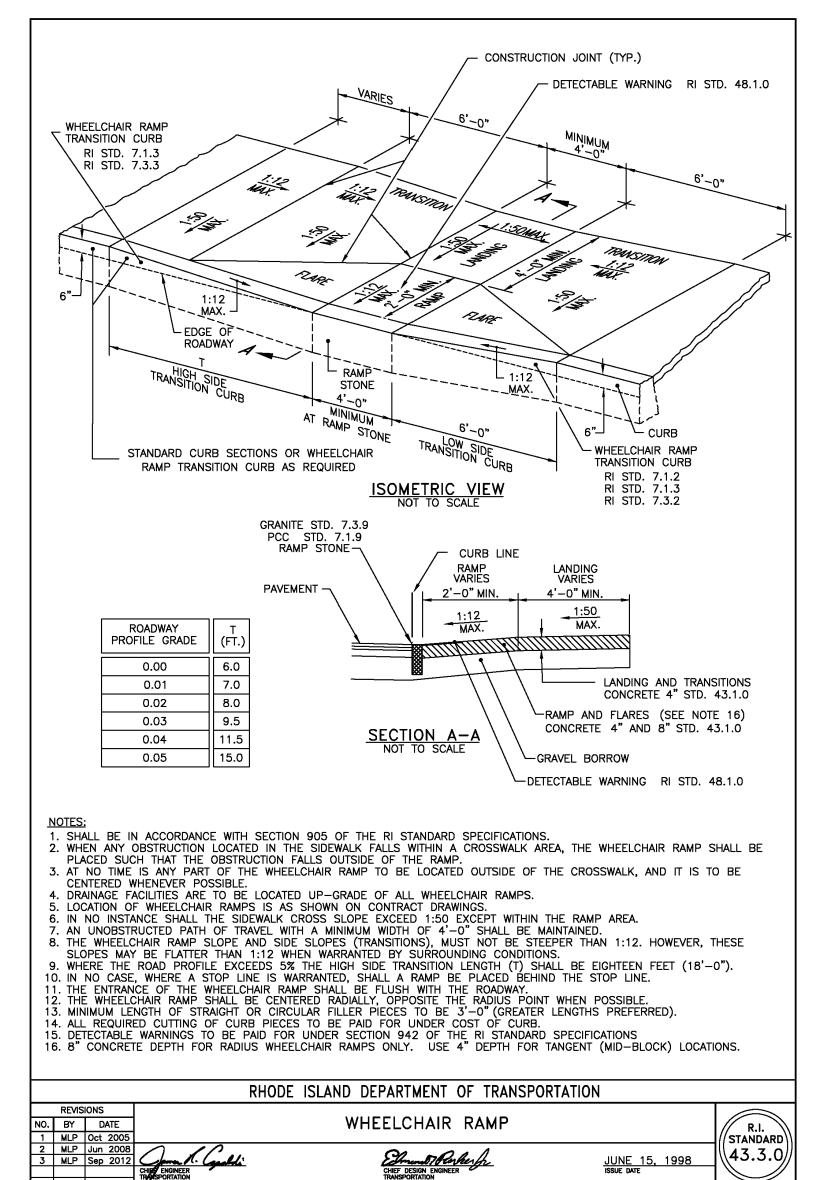
SHEET

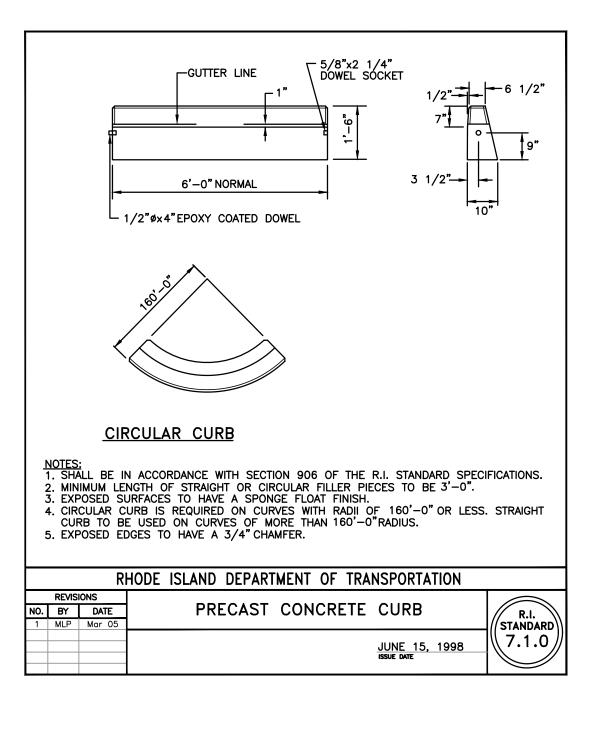
OF 22 SHEETS



DETECTABLE WARNING PANEL PLACEMENT

CHIEF DESIGN ENGINEER TRANSPORTATION





**NEW BITUMINOUS** CONCRETE PAVEMENT-

SUBBASE-

CONCRETE (SEE NOTE 2)—/

CEMENT

NO. BY DATE

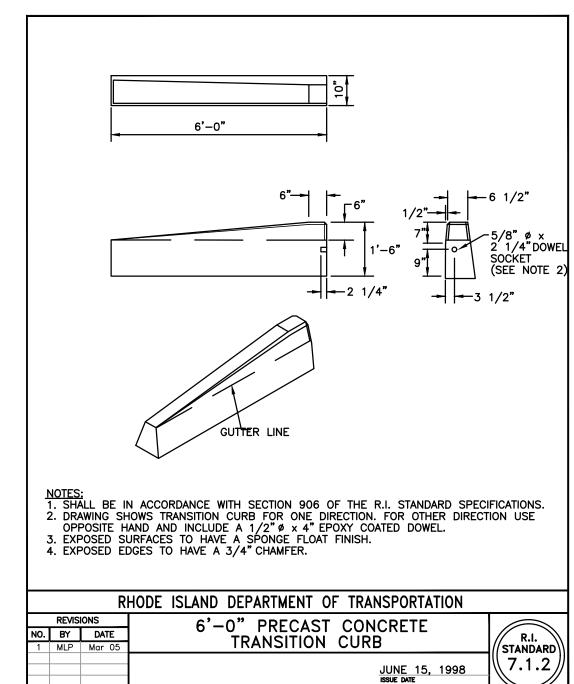
- NEW SIDEWALK OR GRASSED AREA

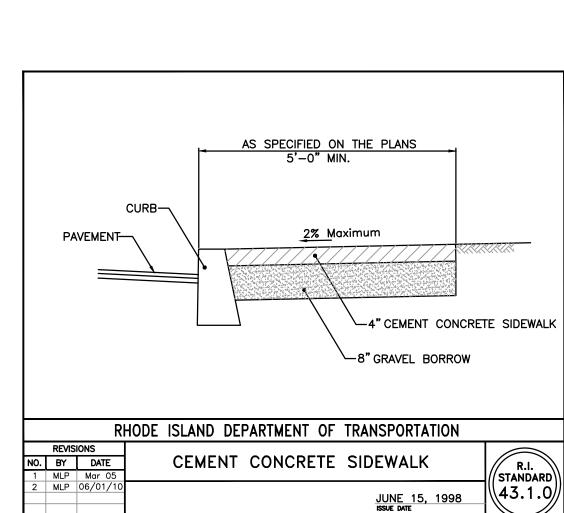
6"(MIN.

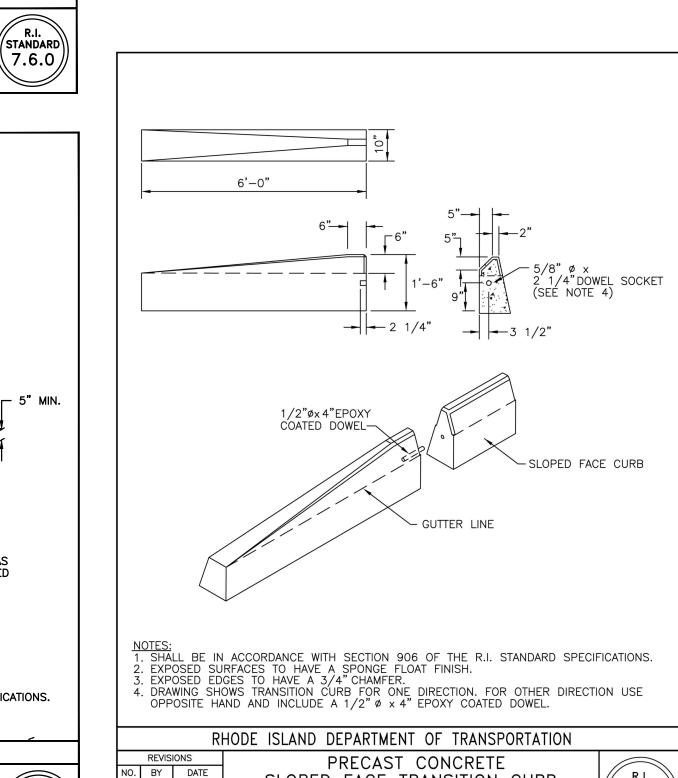
OTES.
SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
CEMENT CONCRETE SHALL BE USED ONLY WHEN THE CURB IS SET AFTER THE BASE
AND/OR BINDER COURSES ARE IN PLACE, OTHERWISE THE CEMENT CONCRETE WILL BE
ELIMINATED AND THE GRAVEL BROUGHT UP TO BOTTOM OF THE BASE COURSE.

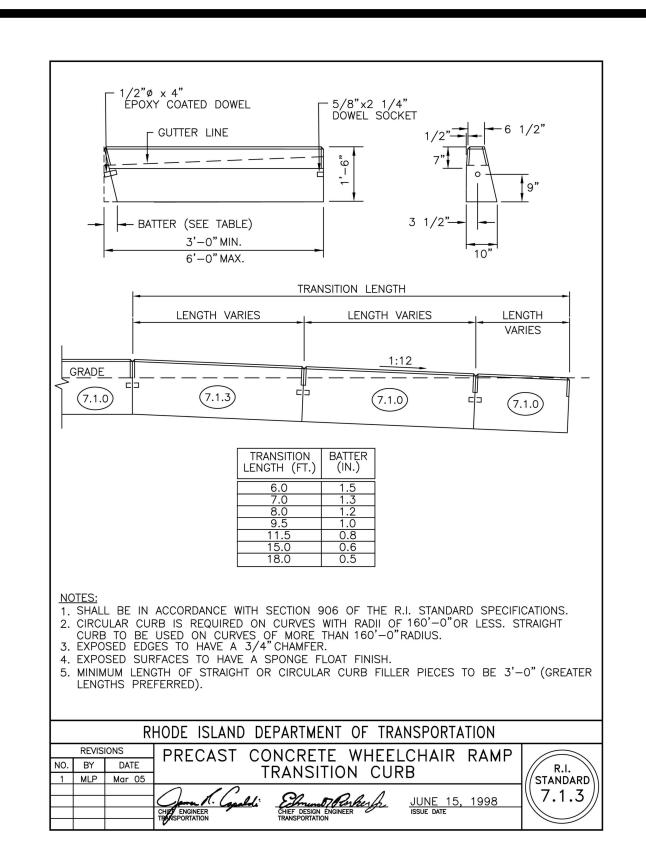
CURB SETTING DETAIL

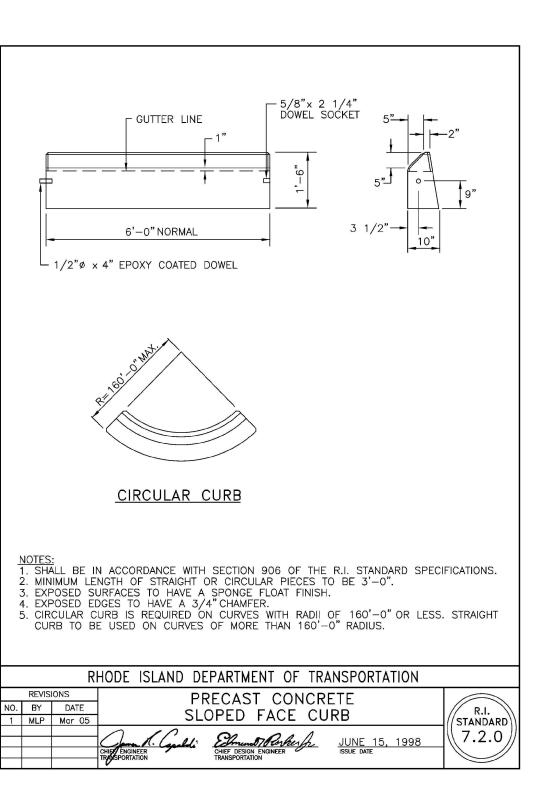
RHODE ISLAND DEPARTMENT OF TRANSPORTATION











2" BITUMINOUS CONCRETE —

3" BITUMINOUS CONCRETE -

RIDOT CLASS 9.5 HMA AFTER COMPACTION

RIDOT CLASS 19 HMA AFTER COMPACTION

10" GRAVEL BASE

COMPACTED SUB-SOIL

TRAVEL LANES

1. THE SOIL MUST HAVE A MOISTURE CONTENT DRY OF OPTIMUM AS DETERMINED

2. THE SOIL CAN BE COMPACTED TO 98% OF THE MAXIMUM STANDARD PROCTOR DENSITY AS DETERMINED BY THE MOISTURE—DENSITY RELATIONSHIP TEST METHOD ASTM D698

THE SOIL SHALL NOT BE USED IF THE MATERIAL CONTAINS ORGANIC MATTER, RUBBLE, DEBRIS OR ANY OTHER DELETERIOUS MATERIAL

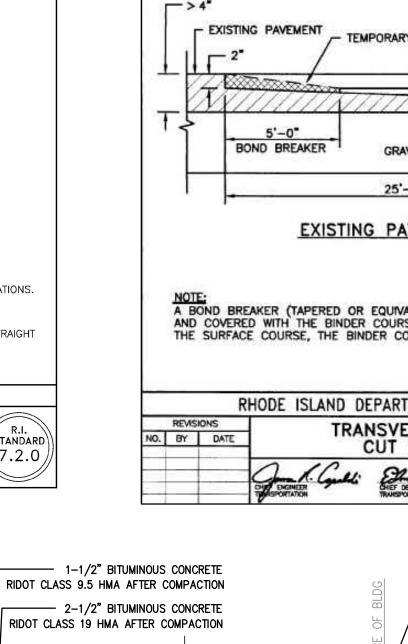
4. SUBMIT MIX DESIGN TO THE CIVIL ENGINEER OF RECORD AT LEAST 30 DAYS PRIOR TO BEGINNING ASPHALT PAVING OPERATIONS. MIX DESIGNS OVER ONE YEAR OLD WILL NOT BE ACCEPTED. MIX DESIGNS SUBMITTAL SHALL FOLLOW THE LATEST EDITION OF THE RIDOT STANDARD SPECIFICATIONS.

**BITUMINOUS CONCRETE** 

PAVEMENT SECTIONs (BCP)

N.T.S.

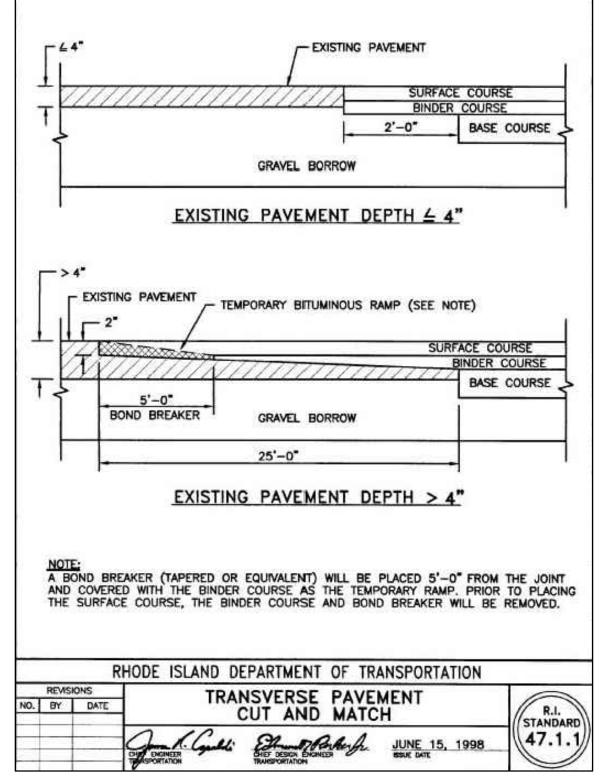
MOISTURE-DENSITY RELATIONSHIP TEST METHOD ASTM D1557.



8" GRAVEL BASE

COMPACTED SUB-SOIL

PARKING SPACES



GUTTER LINE

MINIMUM

INSIDE CHORD

CIRCULAR CONCRETE RAMP STONE

3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.

6. RAMP STONE SHALL BE SET IN ACCORDANCE WITH STD 43.3.0.

7. 12" RAMP STONE SHALL BE SET IN CONJUNCTION WITH STD. 7.1.2.

8. 18" RAMP STONE SHALL BE SET IN CONJUNCTION WITH STD. 7.1.3.

5. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

NO. BY DATE

1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.

4. CIRCULAR RAMP STONE IS REQUIRED ON CURVED WITH RADII OF 160'- 0" OR LESS. STRAIGHT RAMP STONE TO BE USED ON CURVES OF MORE THAN 160-0" RADIUS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE RAMP STONE

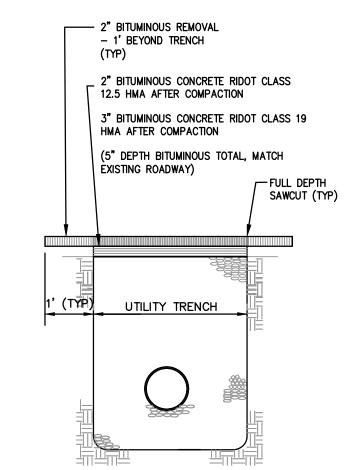
2. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR RAMP STONE TO BE 4'-0".

12" OR 18"

5/8" Ø X 2 1/4" DOWEL SOCKET

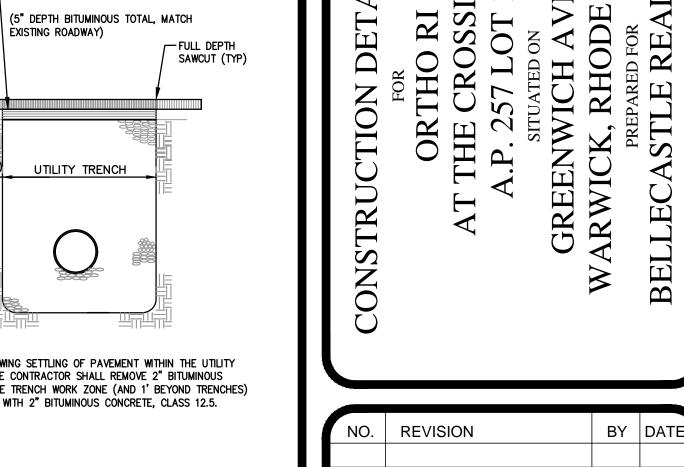
R.I. STANDARD

JUNE 27, 2008 ISSUE DATE

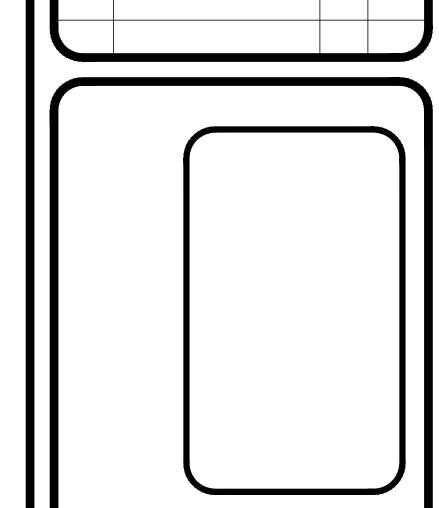


NOTE: FOLLOWING SETTLING OF PAVEMENT WITHIN THE UTILITY TRENCHES, THE CONTRACTOR SHALL REMOVE 2" BITUMINOUS ACROSS ENTIRE TRENCH WORK ZONE (AND 1' BEYOND TRENCHES) AND REPLACE WITH 2" BITUMINOUS CONCRETE, CLASS 12.5.

PAVEMENT RESURFACE NOT TO SCALE

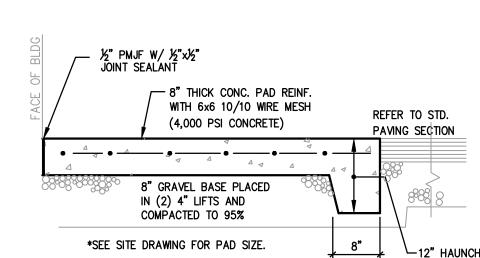


DETAII



JOB NO. 7155-00	DRAWN BY	K.Y.Y.
DWG. NO. 7155-00-Details	CHECKED	S.S.H.
SCALE:	APPROVED	S.B.G.
AS SHOWN	DATE: JANUARY	29, 201

OF 22 SHEETS

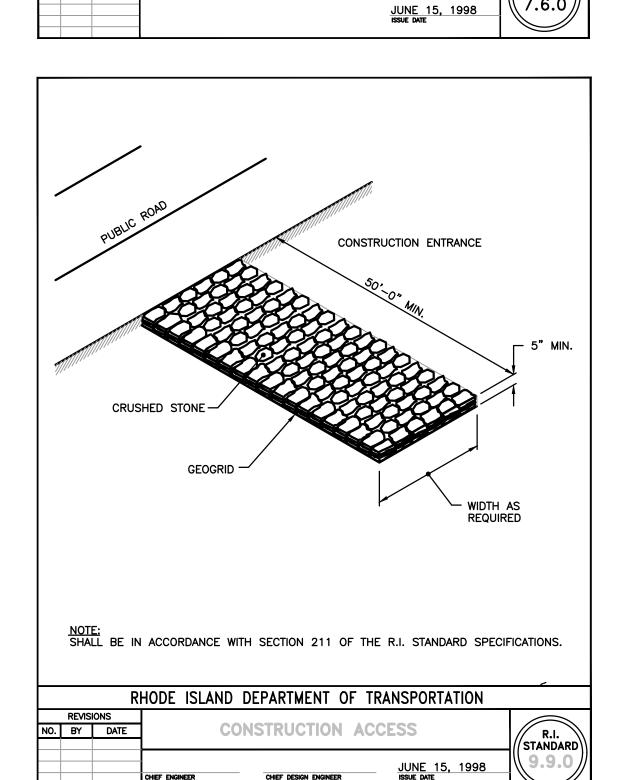


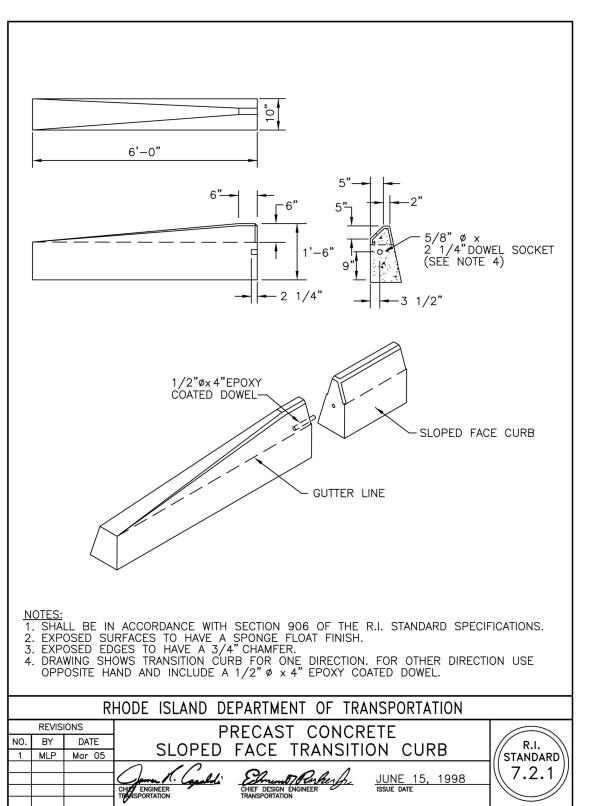
1. CONCRETE WALKS SHALL BE 4" MINIMUM THICKNESS, CONCRETE PADS AND ENTRANCES SHALL BE 6" MINIMUM THICKNESS REINFORCED CONCRETE. CONCRETE WALKS AND PADS SHALL BE INSTALLED WITH CONTRACTION JOINTS AGAINST ALL STRUCTURAL FEATURES AND/OR AT 24' CENTERS.

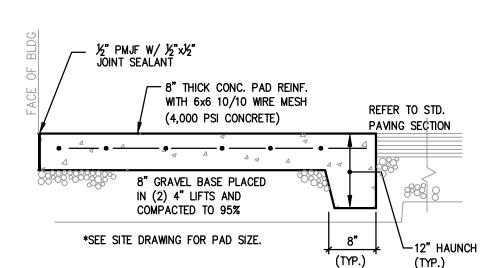
TOOLED JOINTS SHALL BE INSTALLED AT 6' MAXIMUM SPACING EACH WAY.

**DUMPSTER PADS** 

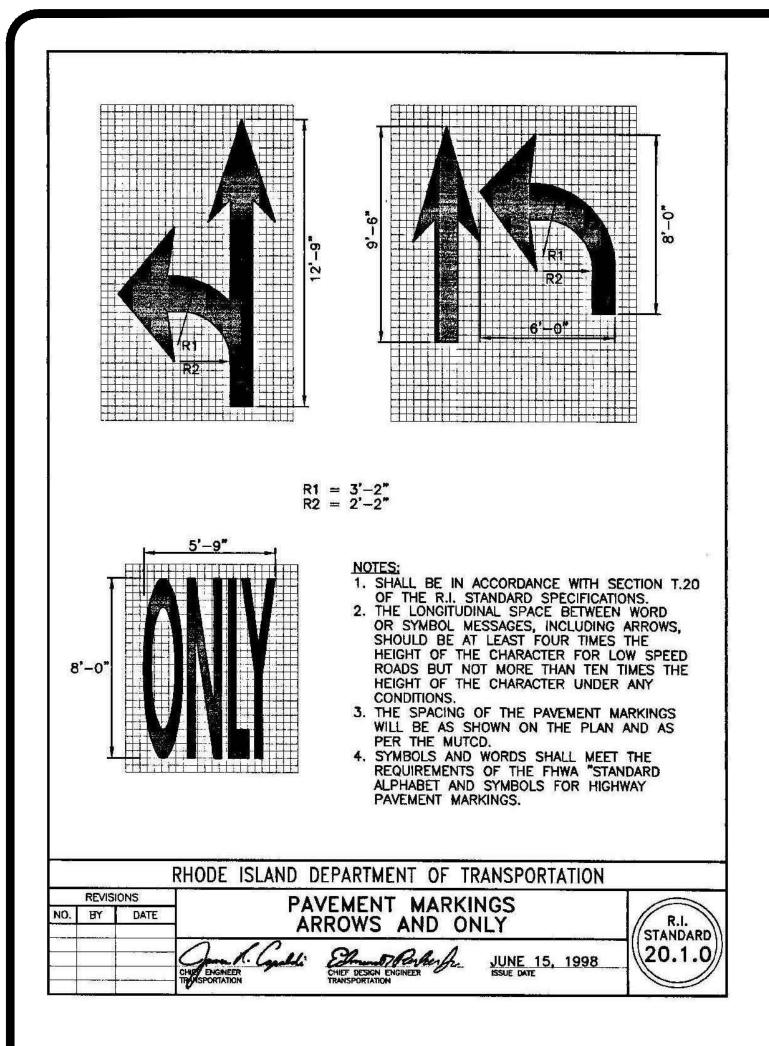
OWNER/APPLICANT: A.P. 257, LOT 10 BELLECASTLE REALTY, INC. 1414 ATWOOD AVE JOHNSTON, RI 02919







N.T.S.



3'-2"

1/2"øx 4"EPOXY COATED DOWEL

PAVEMENT -

REVISIONS

NO. BY DATE

1 MLP Mar 05

5/8"x2 1/4" DOWEL SOCKET

R.I. STANDARD

3"MAX.

TYPE "F" ROUND

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.

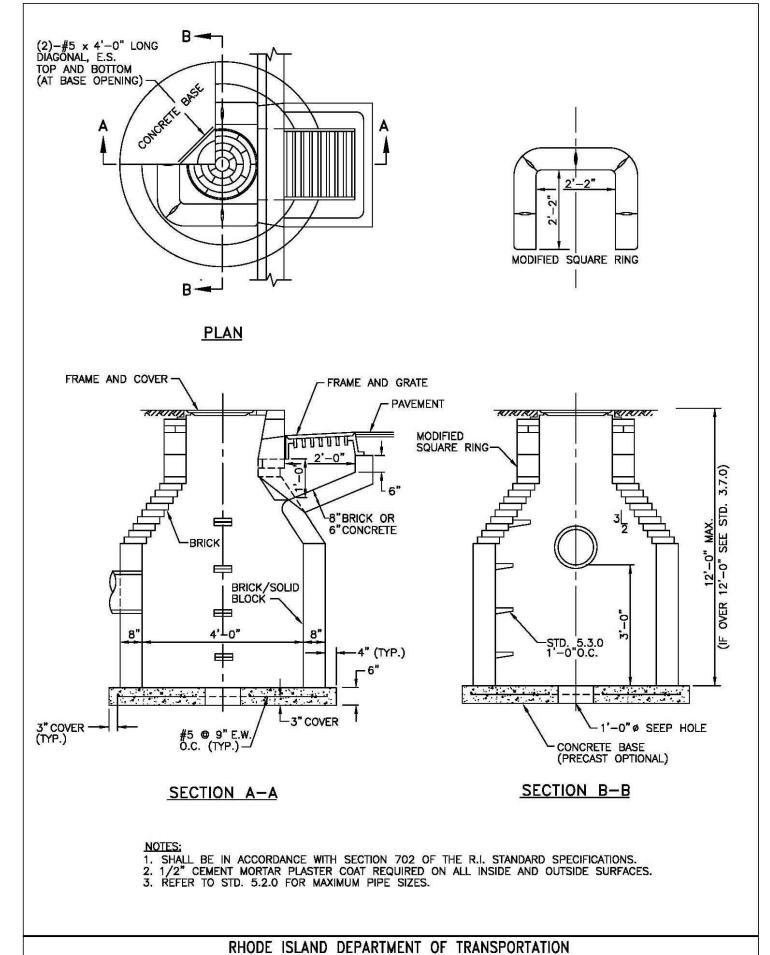
2. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.

3. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

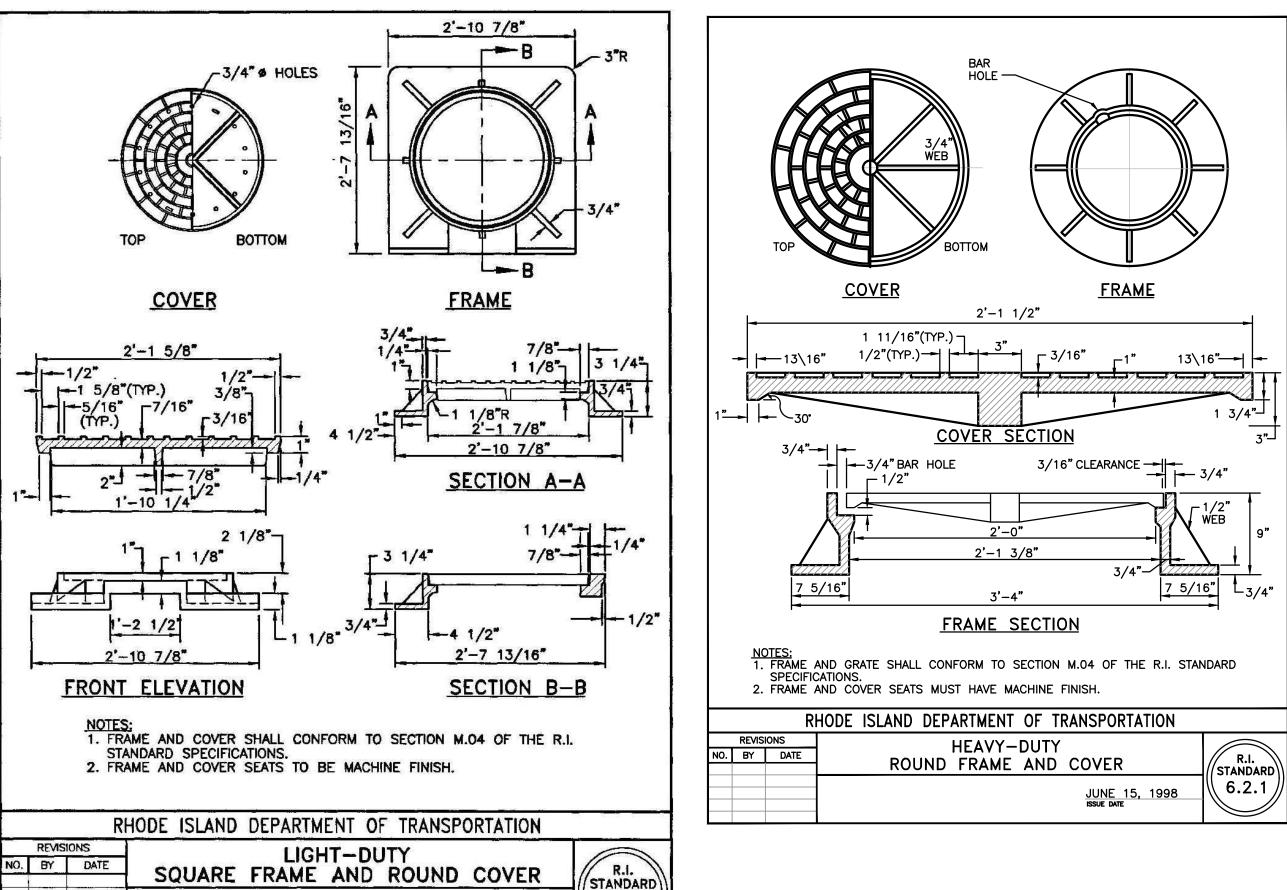
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE APRON STONE

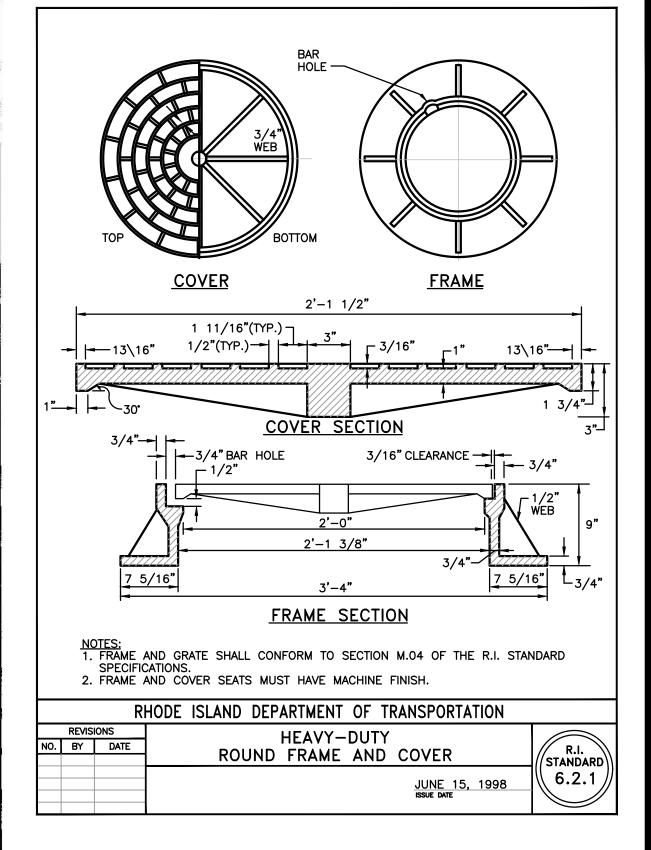
(FOR ROUND CATCH BASIN)

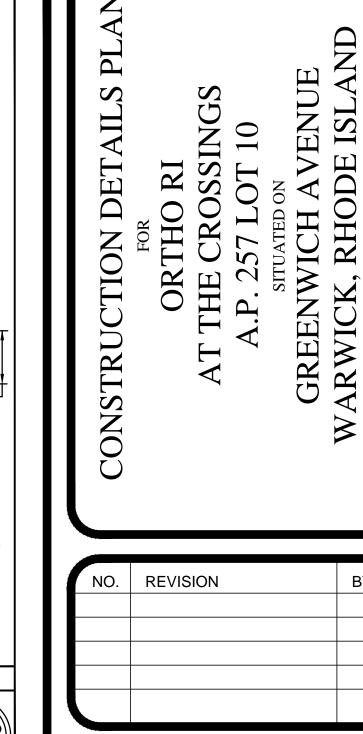


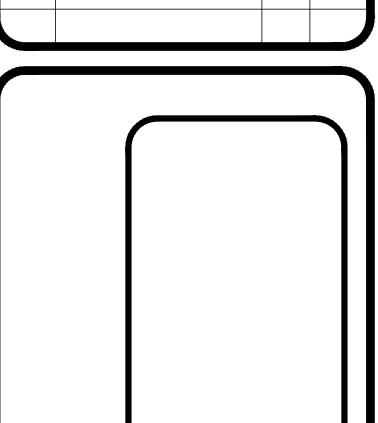
BRICK/SOLID BLOCK ROUND CATCH BASIN WITH GUTTER INLET



6.1.0

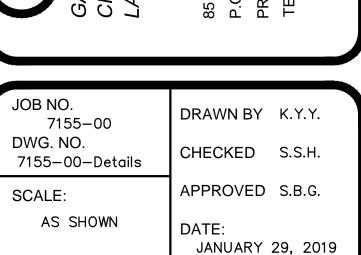






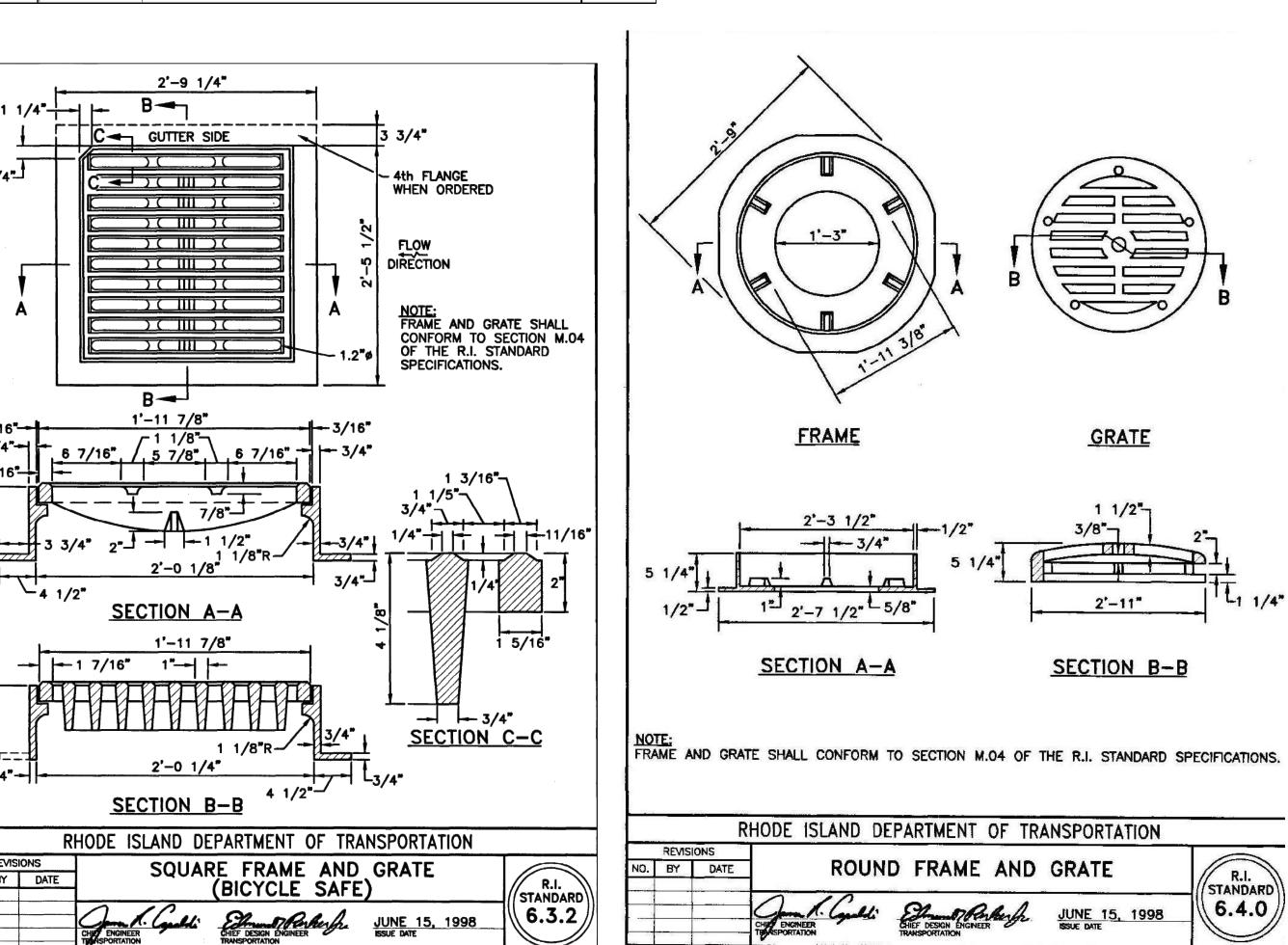
BY DATE





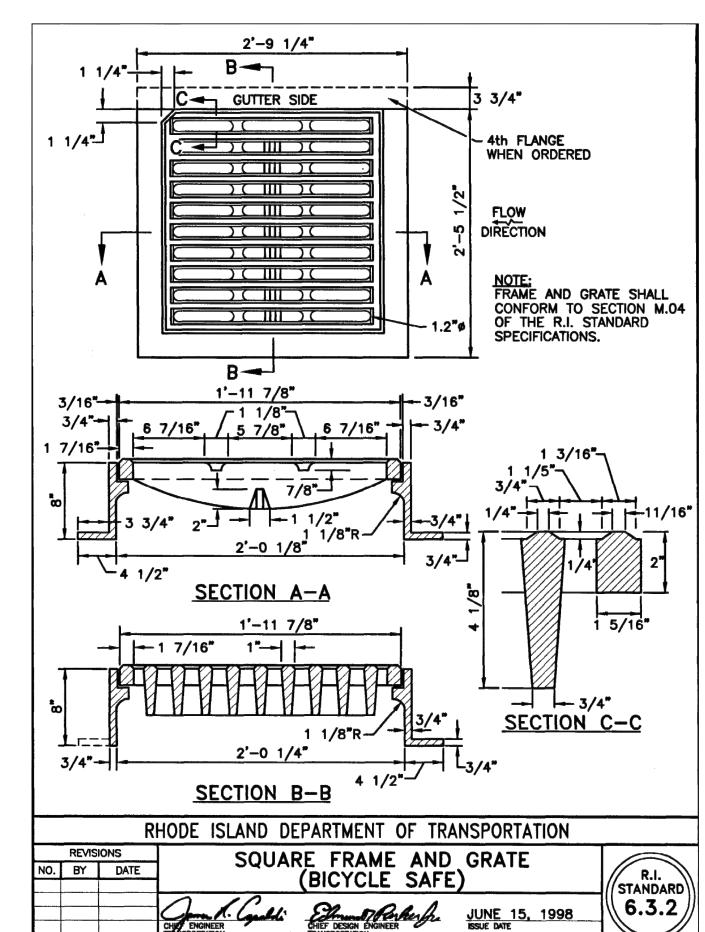
SHEET

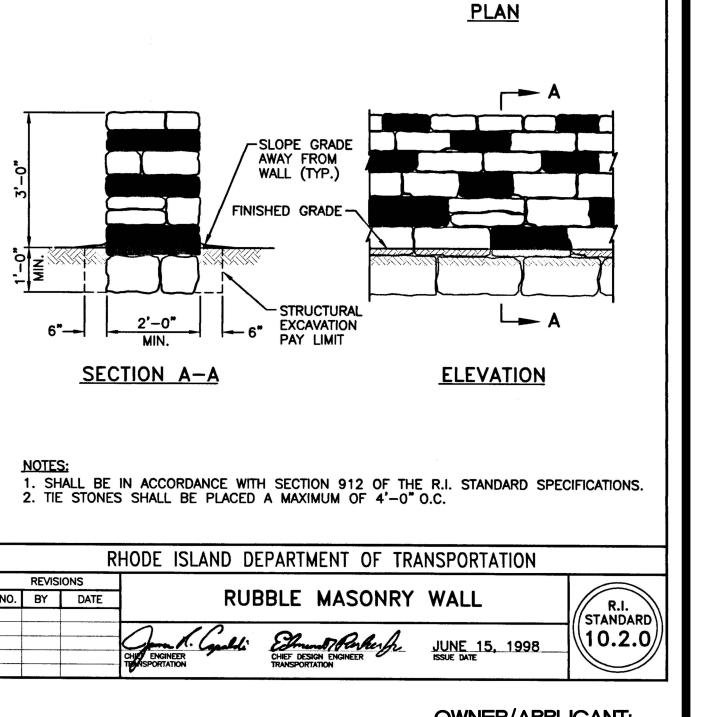
OF 22 SHEETS



3.4.1

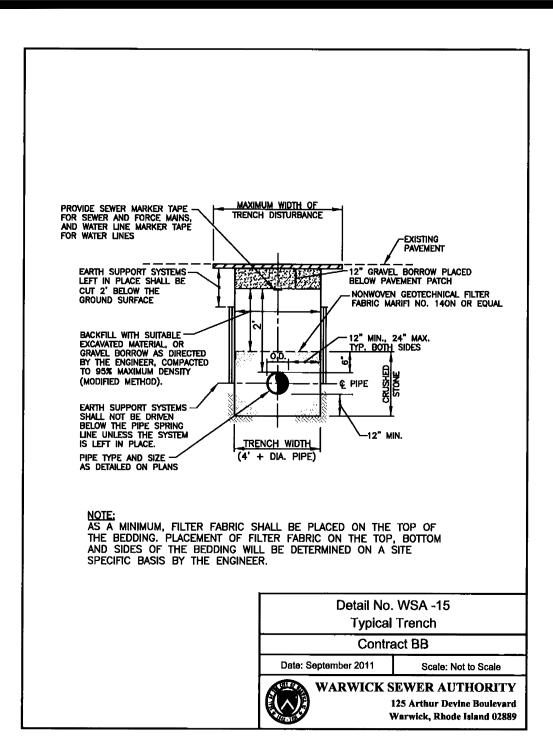
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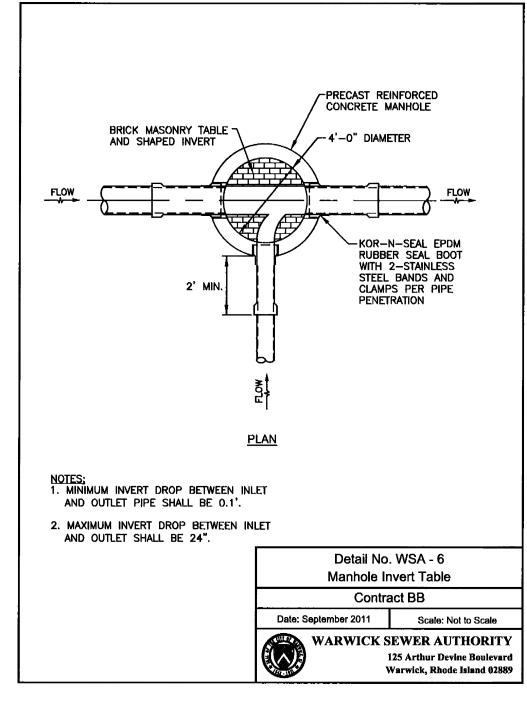


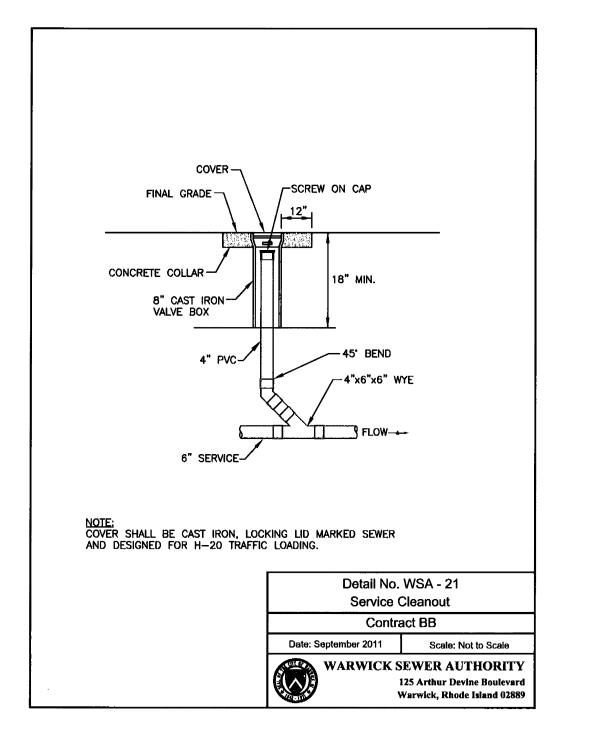


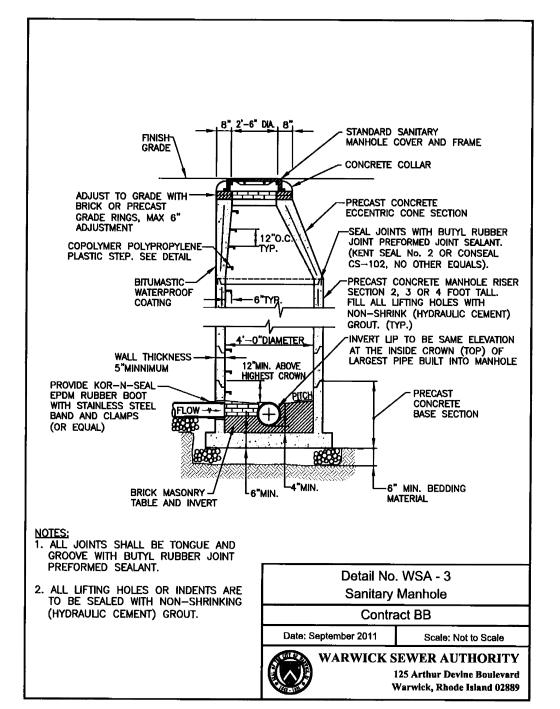
TIE STONE (TYP.) -

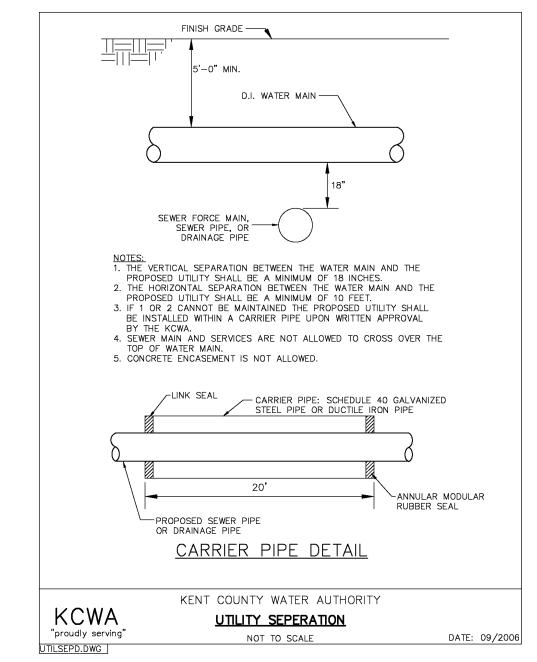
OWNER/APPLICANT: A.P. 257, LOT 10 BELLECASTLE REALTY, INC. 1414 ATWOOD AVE JOHNSTON, RI 02919

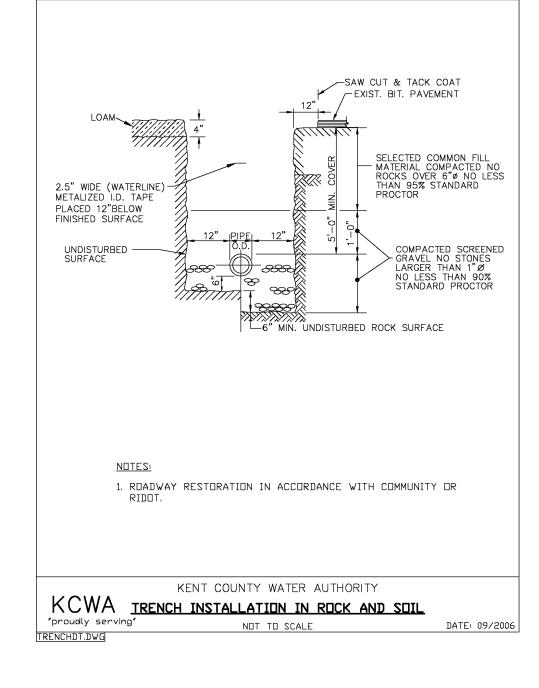


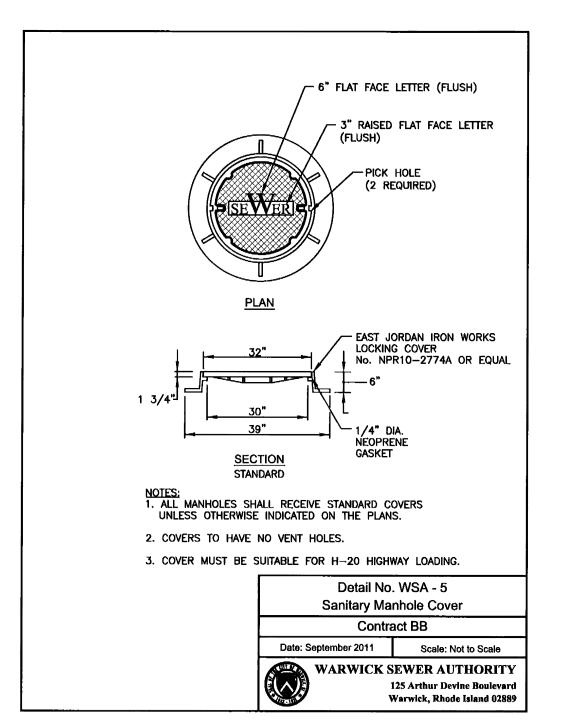


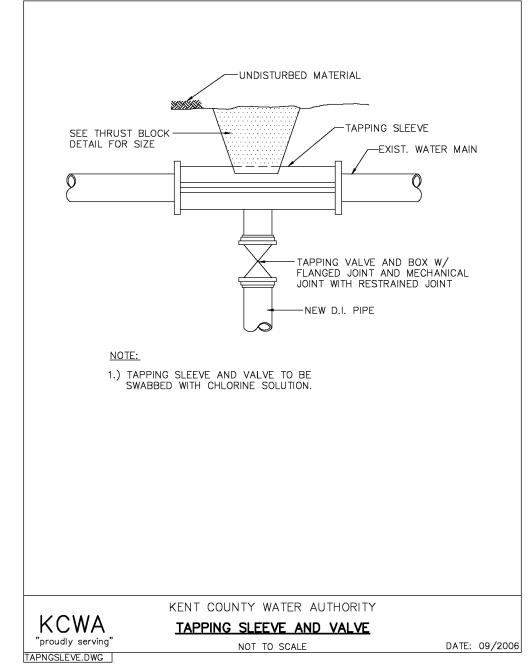


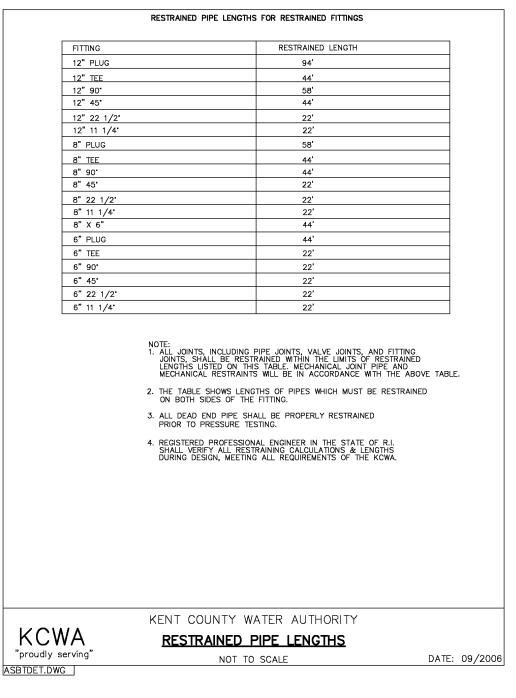












### WATER LINE CONSTRUCTION NOTES:

1. INSTALLATION OF ALL WATER LINES SHALL BE IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION'S INSTALLATION MANUAL AND ANSI/AWWA C600. 2. TRENCH SHALL BE IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION TYPE 5 TRENCH. 3. PIPING SHALL BE LAID STRAIGHT TRUE TO LINE AND IN ALL CASES HIGH POINT SHALL BE EQUIPPED WITH AUTOMATIC AIR RELEASE VALVE IN A PRE-CAST CONCRETE CHAMBER WITH CAST IRON MANHOLE FRAME AND COVER DIAMOND CHECK PATTERN WITH "CAPS" CAST UPON IT. CHAMBER, FRAME & COVER SHALL BE DESIGNED TO WITHSTAND AN H-20 WHEEL LOADING. 4. PIPE MAY BE DEFLECTED IN ORDER TO MAKE ADJUSTMENTS IN THE ALIGNMENT. ALL DEFLECTIONS SHALL BE A MAXIMUM OF 75% OF THE MANUFACTURES SAFE ALLOWABLE DEFLECTION PER PIPE LENGTH. 5. METALIZED DETECTABLE IDENTIFICATION TAPE 2-1/2" IN WIDTH, BLUE IN COLOR AND PRINTED WITH "CAUTION WATER LINE BURIED BELOW" SHALL BE UTILIZED OVER ALL MAINS SET TO A DEPTH OF FINISHED

### WATER LINE PRESSURE TEST NOTES:

GRADE OF NO MORE THAN 1'-0".

1. PRESSURE TEST SHALL BE DONE ON ALL COMPLETED WATER LINES PRIOR TO ACCEPTANCE. PRESSURE TEST SHALL BE DONE BY THE PROPOSER WITNESSED BY THE KENT COUNTY WATER AUTHORITY. 2. TEST PRESSURES SHALL BE ONE AND ONE HALF TIMES THE MAXIMUM WORKING PRESSURE OF THE SYSTEM BUT NOT LESS THAN 150 PSI. TEST SHALL BE WITNESSED BY AN EMPLOYEE OF THE KENT COUNTY

3. PROPER THRUSTING OF ALL PIPE FITTINGS, CAPS, HYDRANTS AND APPURTENANCES SHALL BE DONE TO RESIST THE IMPOSED TEST PRESSURE.

### NOTIFICATION:

1. KENT COUNTY WATER AUTHORITY SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION COMMENCEMENT OF ANY ITEM BEING INSTALLED WITHIN THEIR SYSTEM. 2. PRIOR TO PRESSURE TESTING AND/OR CHLORINATION KENT COUNTY WATER AUTHORITY SHALL BE NOTIFIED TWO DAYS PRIOR TO THE DATE OF 3. IF KENT COUNTY WATER AUTHORITY IS UNAVAILABLE TO WITNESS THE TEST DUE TO TIME CONSTRAINTS ON OTHER PROJECTS, THE PROPOSER SHALL DELAY TEST PROCEDURES UNTIL SUCH TIME THAT THE KENT COUNTY WATER AUTHORITY EMPLOYEES ARE AVAILABLE.

1. KENT COUNTY WATER AUTHORITY EMPLOYEES SHALL BE GIVEN FULL ACCESS TO THE PROJECT AT ALL TIMES FOR INSPECTION ON AN AS NEED 2. DESIGN DRAWINGS AND RECORD DRAWINGS OF THE PROGRESS OF THE WORK SHALL BE MAINTAINED AT THE JOB SITE AND SHALL BE AVAILABLE FOR THE INSPECTOR OF THE KENT COUNTY WATER AUTHORITY TO VIEW

### CHLORINATION:

ALL NEW WATER MAINS SHALL BE FLUSHED, CLEANED AND CHLORINATED. CHLORINATION SHALL BE PERFORMED BY THE PROPOSER OR THE CONTRACTOR FOR THE PROPOSER IN ACCORDANCE WITH CHAPTER 5, DISTRIBUTION SYSTEM CHLORINATION, AMERICAN WATER WORKS ASSOCIATION MANUAL #20 EXCEPT TABLET CHLORINATION SHALL NOT BE ALLOWED. SAMPLES SHALL BE TAKEN BY KENT COUNTY WATER AUTHORITY EMPLOYEES AND TESTED BY KENT COUNTY WATER AUTHORITY'S LABORATORY. THE WATER SAMPLE SHALL BE CONSISTENT IN QUALITY WITH THE KENT COUNTY WATER AUTHORITY'S WATER IN ITS SYSTEM PRIOR TO CONNECTION. ALL WATER UTILIZED IN THE FLUSHING AND CHLORINATION MUST BE DONE THROUGH AN ISOLATED CONNECTION TO THE KENT COUNTY WATER SYSTEM THROUGH A BACKFLOW PREVENTOR. ALL WATER UTILIZED WILL BE PAID FOR IN ADVANCE FOR FLUSHING AND CHLORINATION OPERATION BY THE PROPOSER. METERING OF THIS WATER MAY BE REQUIRED. THE PROPOSER SHALL PROVIDE ALL NECESSARY EQUIPMENT FOR THIS OPERATION AT NO COST TO KENT COUNTY WATER AUTHORITY.

### | 24" MIN.- 12" & LARGER PHE | 18" MIN.--10" & SMALLER . -- - UNDISTURBED FARTE UNDISTURBED FARTH PLAN & FIFVATION PLUGS BENDS & IEES SECTION L) ALL CONCRETE SHALL BE 4000 P.S.I @

2.) CONCRETE THRUST BLOCKS SHALL BEAR AGA:NS\* UNDISTURBED FAR I- FORMS TO BE USED AS NECESSARY. FROM CONCRETE AND EASILY ACCESSIBLE .) REGISTER D PROFESSIONAL ENGINEER IN THE STATE OF R.L. SHALL VERLY ALL CALCULATIONS

DURING DESIGN TO MEET CONDITIONS OF PROJECT

AND KOWA REQUIREMENTS.

TEES TEES		PLU	PLUGS		90° BEND		45° BEND		22° BENI	
SIZE	A	В	С	D	Α	В	Α	В	Α	E
12"	18"	42"	16"	48"	24"	30"	18"	30"	18"	18
6"	18"	24"	16"	24"	18"	18"	18"	12"	18"	12
8"	18"	39"	16"	44"	24"	30"	18"	30"	18"	15

### **METERING:**

1. ALL METERS SHALL BE COMPATABLE WITH "NEPTUNE" ARB SYSTEM PROTECTUS 3 METER EMPLOYED BY KENT COUNTY WATER AUTHORITY.

2. ALL METERS TO READ IN CUBIC FEET. 3. INFLUENT AND EFFLUENT VALVES SHALL BE PROVIDED INSIDE THE "HOT BOX" ENCLOSURE BEFORE AND AFTER THE METER COUPLINGS. BALL VALVES ON EITHER SIDE OR BALL VALVE, CHECK VALVE COMBINATION WILL BE ACCEPTABLE. 4. ARB READING BOX SHALL BE MOUNTED ON A PRESSURE TREATED 4" X 4" POST OR DIRECTLY TO THE "HOT BOX" ENCLOSURE.

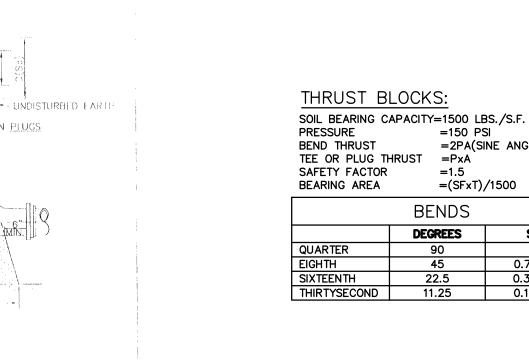
### BACKFLOW PREVENTION:

1. BACKFLOW PREVENTERS MUST BE INSTALLED AND OPERATIONAL PRIOR TO CONNECTION TO KENT COUNTY WATER AUTHORITY SYSTEM. VALVES SHALL BE LOCATED ON BOTH SIDES OF THE BACKFLOW PREVENTER WITH OR TEST PLUGS ON THE INFLUENT SIDE VALVE. 2. RESIDENTIAL UNITS MUST BE EQUIPPED WITH NON-REMOVABLE VACUUM BREAKERS ON ALL OUTSIDE HOSE BIBBS PRIOR TO SERVICE CONNECTION AND METER INSTALLATION. STYLE SHALL BE NON-REMOVABLE SELF DRAINING TYPE WATTS NO 8D OR EQUAL. 3. ALL RESIDENTIAL LAWN SPRINKLER SYSTEMS MUST BE PROVIDED WITH A POSITIVE VACUUM BREAKER ASSEMBLY WHERE THE SYSTEM CONNECTS TO WATER SUPPLY. IT SHALL BE IN A LOCATION THAT IS ALWAYS FREE DRAINING AND WILL NOT BE SUBMERGED.

### GENERAL NOTES

1. THE LOCATION OF ALL EXISTING UTILITIES IS APPROXIMATE ONLY AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO START OF 2. CONTACT DIG-SAFE AND UTILITY COMPANIES FOR EXACT ON-SITE LOCATION OF EXISTING UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.

3. KENT COUNTY WATER AUTHORITY TO BE NOTIFIED FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL OBTAIN REQUIRED INSPECTION SCHEDULE OF THE MUNICIPALITY. UTILITY COMPANIES AND ALL OTHER REQUIRED PARTIES AND SHALL STRICTLY ADHERE TO THOSE REQUIREMENTS. A 24 HOUR NOTICE IS REQUIRED FOR ALL AFFECTED CUSTOMERS UE TO THE SHUT DOWN AND INSTALLATION OF THE VALVE AT THE END OF THE EXISTING WATER LINE WELL IN ADVANCE. 6. CONTRACTOR MUST REFER TO THE KCWA RULES AND REGULATIONS FOR SERVICE INSTALLATION AND EXTENSIONS FOR PROPER REVIEW AND INSTALLATION REQUIREMENTS.



AREA	CALCUL	ATIONS	THRU	THRUST CALCULATIONS (LBS)				8	EARING	AREA	(SF)	
SIZE	O.D.	AREA	FORCE		BEND	ANGLE						
ZI	IN	Mz	LBS	90	45	22.5	11.25	"T" CAP	90	45	22.5	11.25
12"	13.2	136.8	20,527	20,527	14,509	7,353	4,003	20.5	20.5	14.5	8.0	4.0
6"	6.9	37.37	5,606	5,606	3,964	2,145	1,094	5.6	5.6	4.0	2.1	1.1
8"	9.05"	64.3	9,645	9,645	6,820	3,763	1,882	9.66	9.66	6.82	3.76	1.88

=150 PSI

=(SFxT)/1500

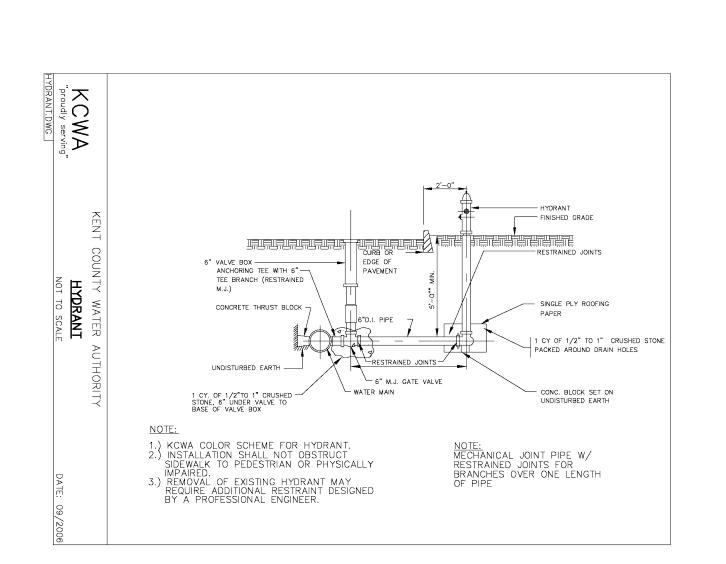
=1.5

BENDS DEGREES

 $=2PA(SINE\ ANG/2)$ 

SINE

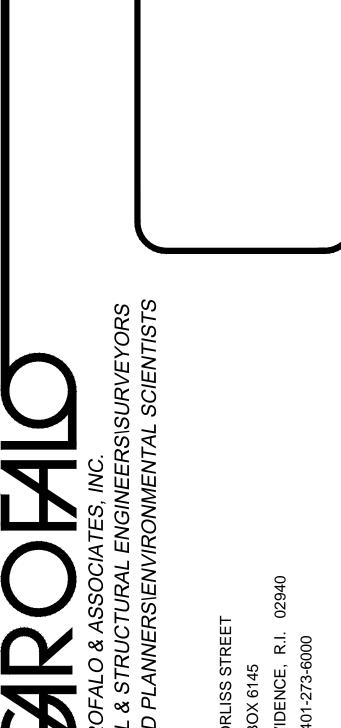
DATE: 03/2007



OWNER/APPLICANT: A.P. 257, LOT 10 BELLECASTLE REALTY, INC. 1414 ATWOOD AVE JOHNSTON, RI 02919

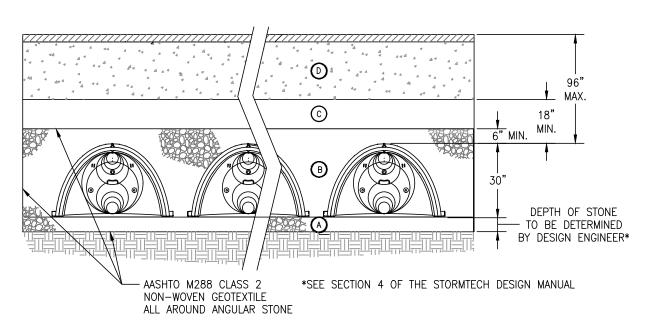
AR BY DATE NO. REVISION

ISI



JOB NO. DRAWN BY K.Y.Y. 7155-00 DWG. NO. CHECKED S.S.H. 7155-00-Details APPROVED S.B.G. SCALE: DATE: JANUARY 29, 2019

SHEET



### ACCEPTABLE FILL MATERIALS STORMTECH SC-310 AND SC-740 CHAMBER SYSTEMS NOT TO SCALE

### ACCEPTABLE FILL MATERIALS: SC-310 and SC-740 CHAMBER SYSTEMS

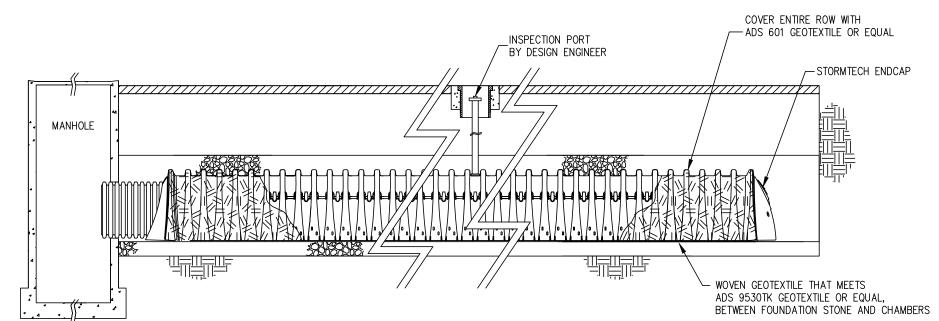
M	MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION <sup>1</sup>	COMPACTION/DENSITY REQUIREMENT
D	FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISH GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THIS LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
©	FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" [457 mm] ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, < 35% FINES. MOST PAVEMENT SUB- BASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTION AFTER 12" [305 mm] OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" [152 mm] LIFTS TO A MIN. 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs [53 kN]. DYNAMIC FORCE NOT TO EXCEED 20,000 lbs [89 kN].
B	EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 - 2 INCH [19 - 51 mm]	3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 - 2 INCH [19 - 51 mm]	3, 35, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY <sup>2</sup> .

### PLEASE NOTE:

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".

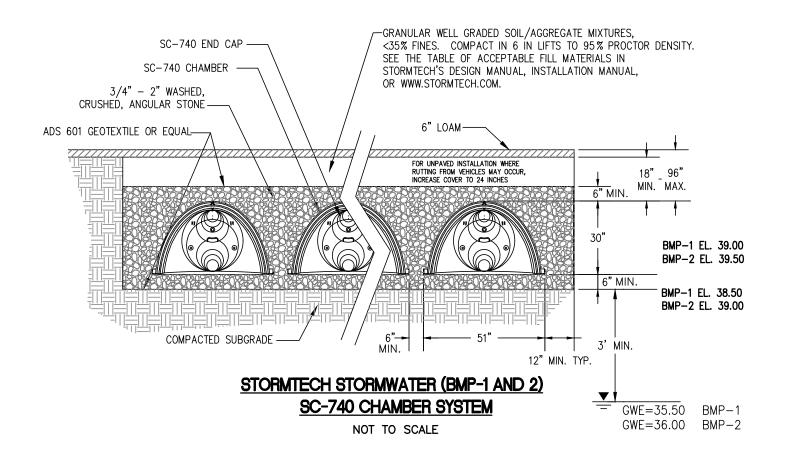
2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" [229 mm] (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.

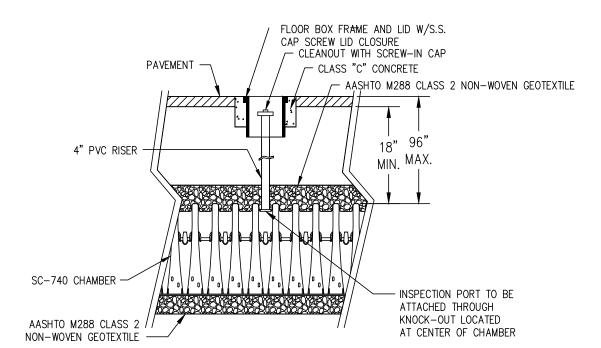
3. EXCAVATE ANY FILL MATERIALS ENCOUNTERED BELOW INFILTRATION SYSTEM AND BACKFILL WITH ASTM C-33 SAND.



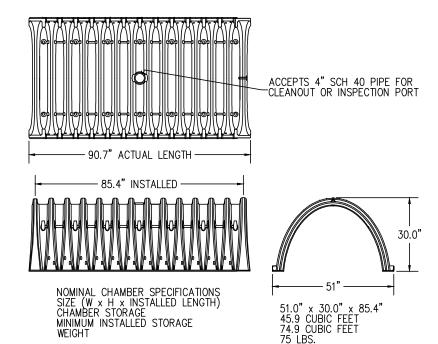
**ISOLATOR CHAMBER ROW DETAIL** 

NOT TO SCALE

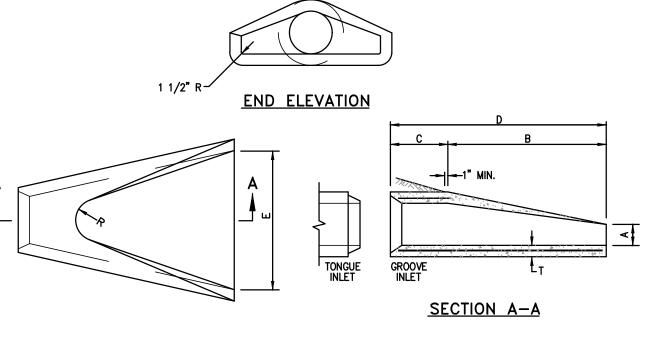




STORMTECH SC-740 CHAMBER SYSTEM INSPECTION PORT DETAIL NOT TO SCALE



STORMTECH SC-740 CHAMBER (BMP-1 AND 2) NOT TO SCALE

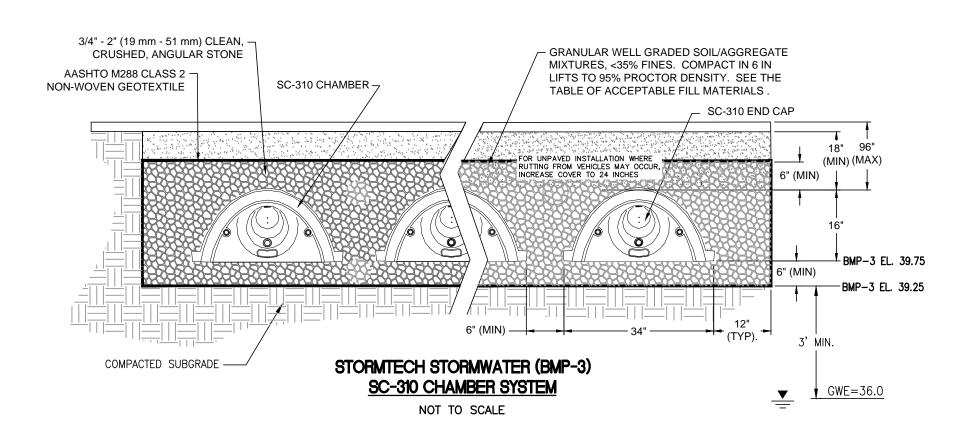


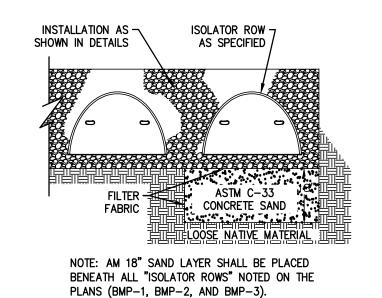
		REINFORCEMENT						
DIA.	A	В	С	D	E	R	т	ONE LAYER REINFORCEMENT IN CENTER OF WALL
DIA.	^	В		D		K	'	MIN. AREA OF EACH WAY (SQ. IN./FT.)
1'-0"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	9"	2"	0.048
1'-3"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	2 1/4"	0.054
1'-6"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	2 1/2"	0.060
2'-0"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	1'-2"	3"	0.072
2'-6"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	1'-3"	3 1/2"	0.084
3'-0"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	1'-8"	4"	0.096
3'-6"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	1'-10"	4 1/2"	0.108
4'-0"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	1'-10"	5"	0.120
4'-6"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	2'-0"	5 1/2"	0.132
5'-0"	2'-6"	5'-0"	3'-3"	8'-3"	8'-0"	2'-0"	6"	0.144

NOTE: SHALL BE IN ACCORDANCE WITH SECTION 701 OF THE R.I. STANDARD SPECIFICATIONS.

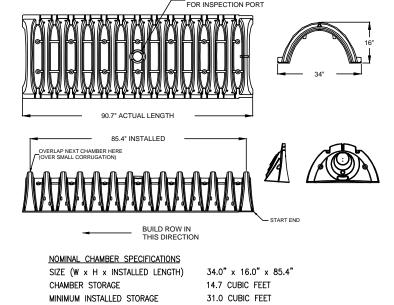
### PRECAST CONCRETE FLARED END SECTION

NOT TO SCALE (RIDOT STD. 2.3.0)



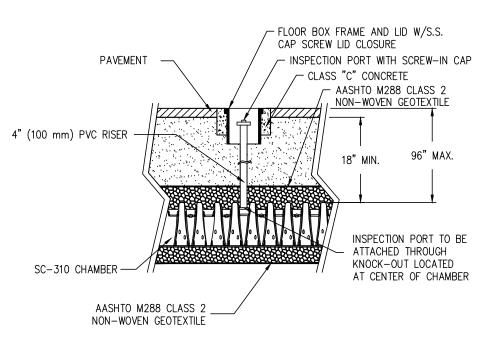


INFILTRATION CHAMBERS - CROSS SECTION NOT TO SCALE



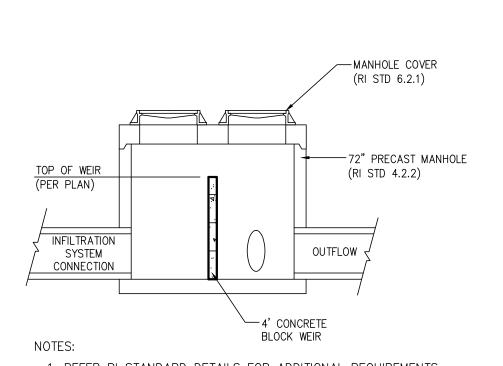
STORMTECH SC-310 CHAMBER (BMP-3) NOT TO SCALE

35 lbs.



STORMTECH SC-310 CHAMBER SYSTEM INSPECTION PORT DETAIL

NOT TO SCALE



WIDTH OF FLARED END SECTION + 10'

SECTION C-C

\_WIDTH OF FLARED END SECTION + 6'\_

SECTION B-B

WIDTH OF FLARED END SECTION + 2'

SECTION A-A

1. UNLESS OTHERWISE SPECIFIED, CLASS "C" RIP-RAP IS

2. DIMENSIONS MAY BE MODIFIED BY ENGINEER TO MEET

3. UNLESS OTHERWISE SPECIFIED, DUMPED RIP-RAP SHALL

RIP RAP AT FLARED END SECTION

TO BE USED FOR ALL FLARED ENDS.

4. USE ONLY SECTION A-A FOR ROOF DRAINS.

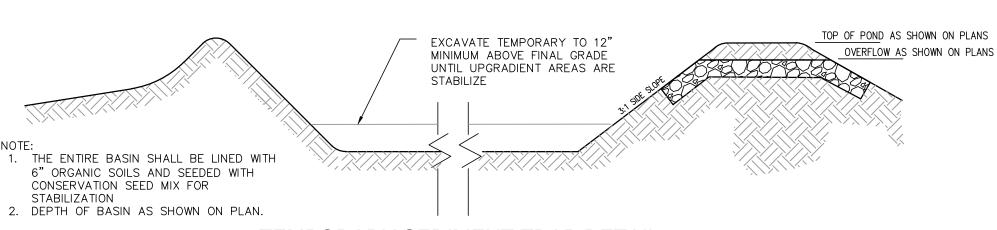
FIELD CONDITIONS.

BE USED.

NOTES:

1. REFER RI STANDARD DETAILS FOR ADDITIONAL REQUIREMENTS. 2. FLUSH FRAME AND COVER TO BE SUBSTITUED WHERE HEIGHT CONSTRAINTS REQUIRE.

### OVERFLOW MANHOLE NOT TO SCALE



TEMPORARY SEDIMENT TRAP DETAIL

NOT TO SCALE

OWNER/APPLICANT: A.P. 257, LOT 10 BELLECASTLE REALTY, INC. 1414 ATWOOD AVE JOHNSTON, RI 02919

-JUTE MESH TO BE PLACED ON BOTH SIDES OF RIP-RAP

FOR EROSION STABILIZATION

FILTER FABRIC

-MIRAFI 140N

//٪//٪//٪/ \

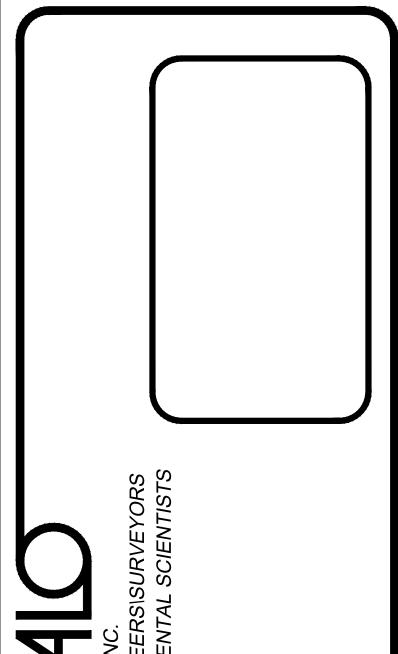
FILTER FABRIC OR EQUIVALENT

FILTER FABRIC

OR EQUIVALENT

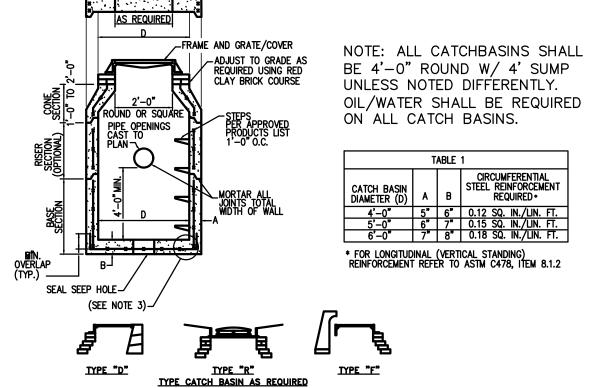
OR EQUIVALENT

REVISION	BY	DATE
	REVISION	REVISION BY



JOB NO. 7155-00	DRAWN BY K.Y.Y.
DWG. NO. 7155-00-Details	CHECKED S.S.H.
SCALE:	APPROVED S.B.G.
AS SHOWN	DATE: JANUARY 29, 2019

OF 22 SHEETS



ALTERNATE TOP SLAB (SEE NOTES 10 AND 11)

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.

2. SEE TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.

3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ IN./LIN/ FT.(BOTH WAYS).

4. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.

5. ONE POUR MONOLITHIC BASE SECTION.

6. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW—CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.

7. CORBEL MADE OF RED CLAY BRICK WILL BE PERMITTED FOR THE "CONE SECTION" OF THE 44'-0"CATCH BASIN ONLY.

8. FOR CATCH BASIN TYPES "D" AND "F" STEPS MUST BE INSTALLED ON THE CURB SIDE OF THE STRUCTURE.

9. THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS.

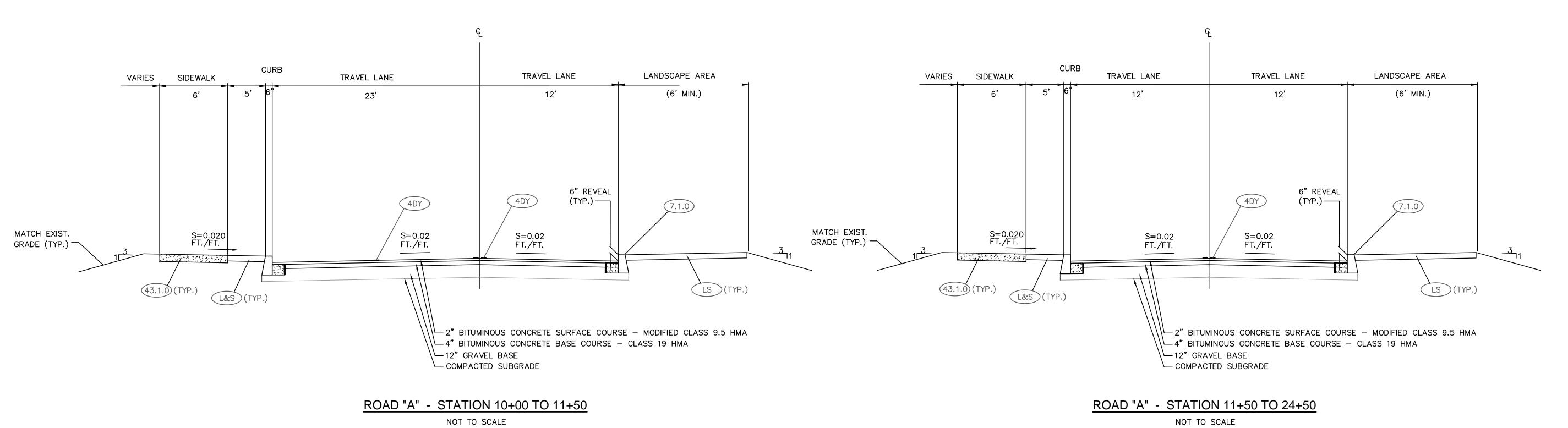
10. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H—25 LOADING (SEE STD. 4.7.2).

11. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.

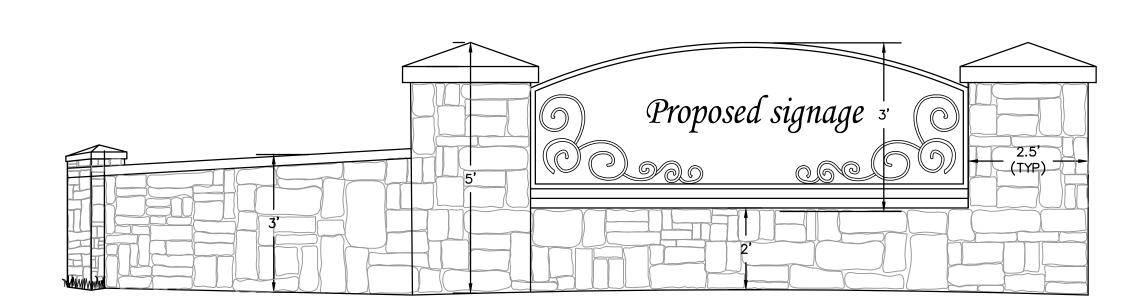
12. REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

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

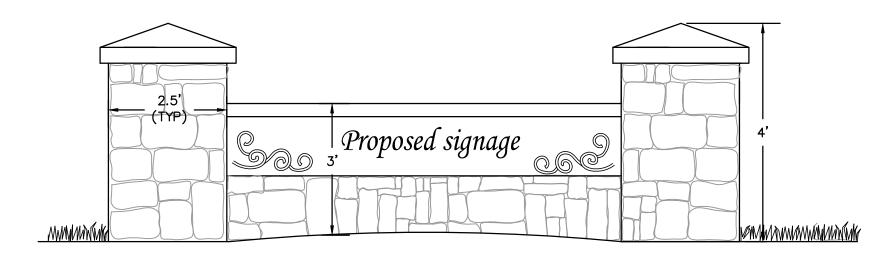
NOT TO SCALE



NOT TO SCALE



LEFT SIDE WALL

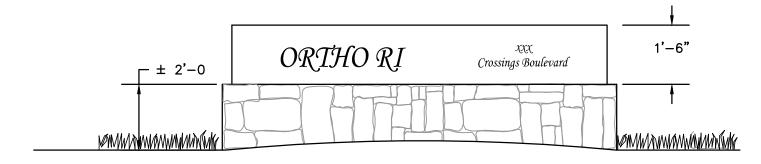


RIGHT SIDE WALL

### ENTRANCE STONE WALL / SIGNAGE

NOT TO SCALE

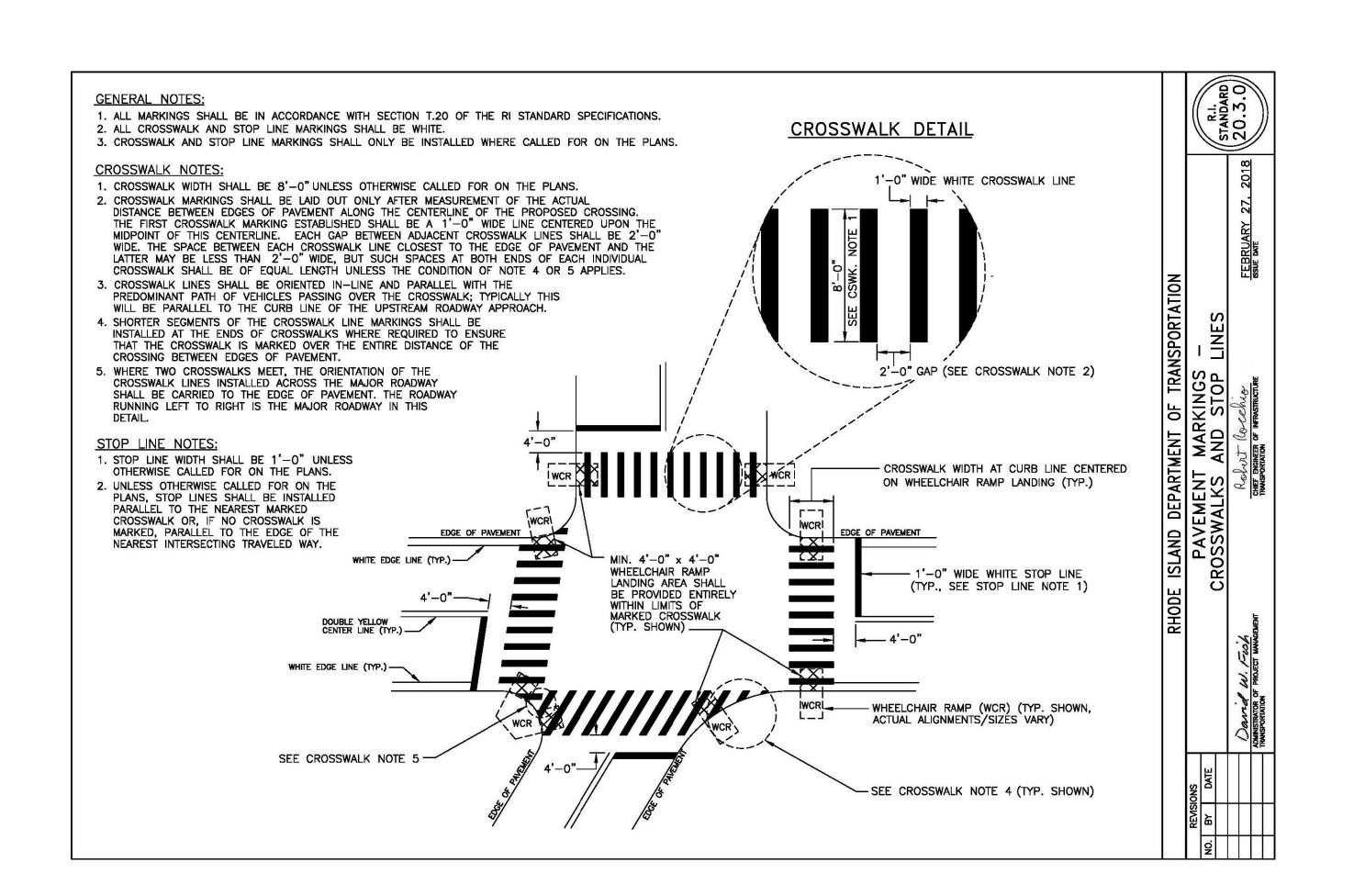
ENTRANCE WALL AND SIGNAGE DETAIL IS CONCEPTUAL ONLY. CONTRACTOR SHALL SUBMIT DESIGN FOR REVIEW AND APPROVAL BY THE OWNER.

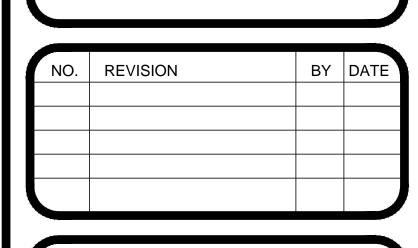


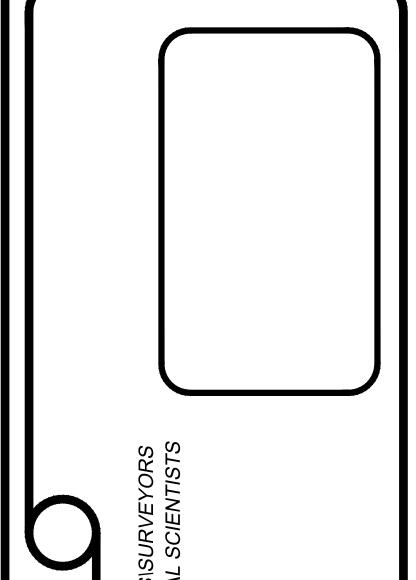
### SITE SIGNAGE

NOT TO SCALE

WALL AND SIGNAGE IS NOTIONAL ONLY - TENANT SIGNAGE SHALL CONFORM TO EXISTING PARK STANDARDS. CONTRACTOR SHALL SUBMIT DESIGN FOR REVIEW AND APPROVAL BY THE OWNER.





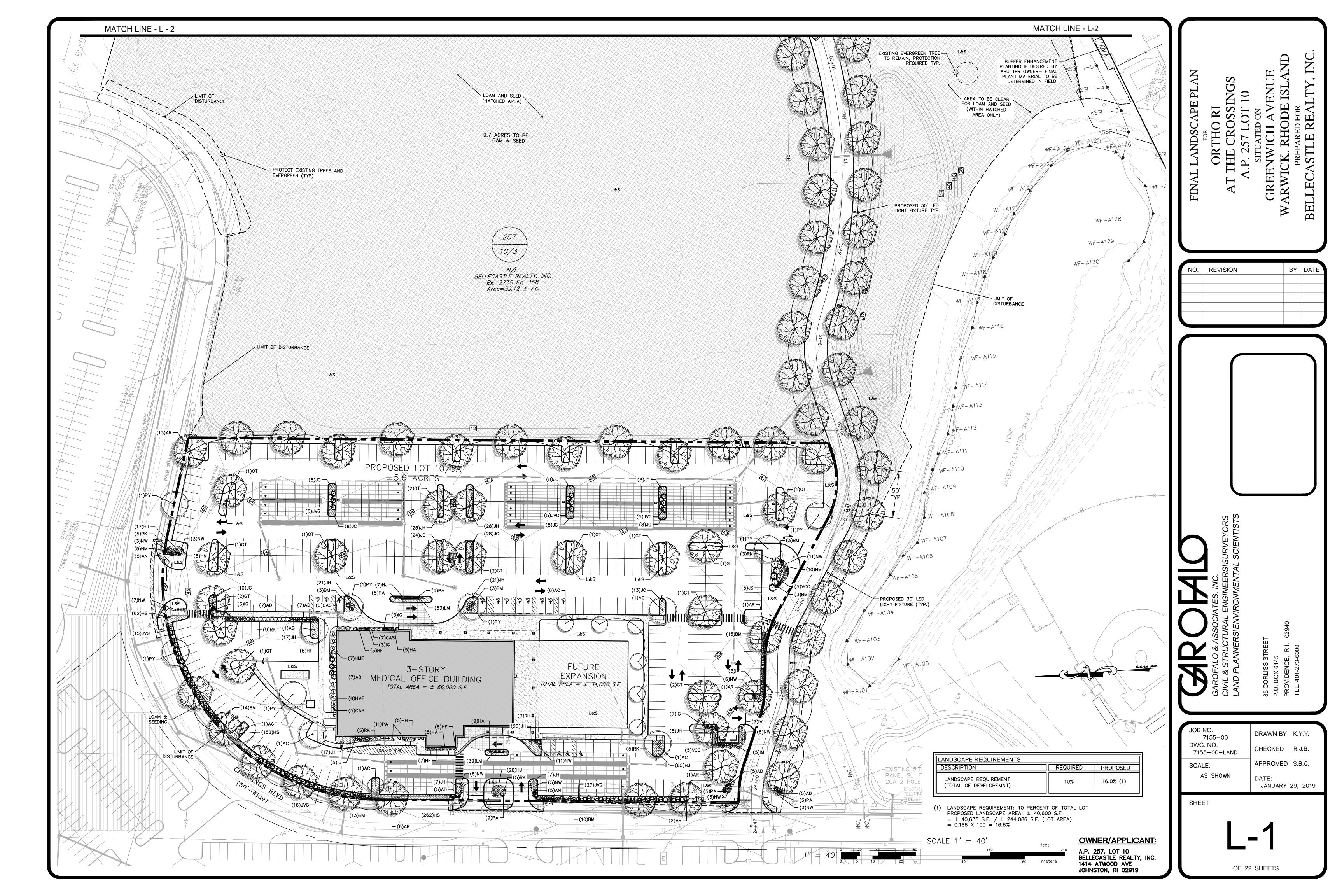


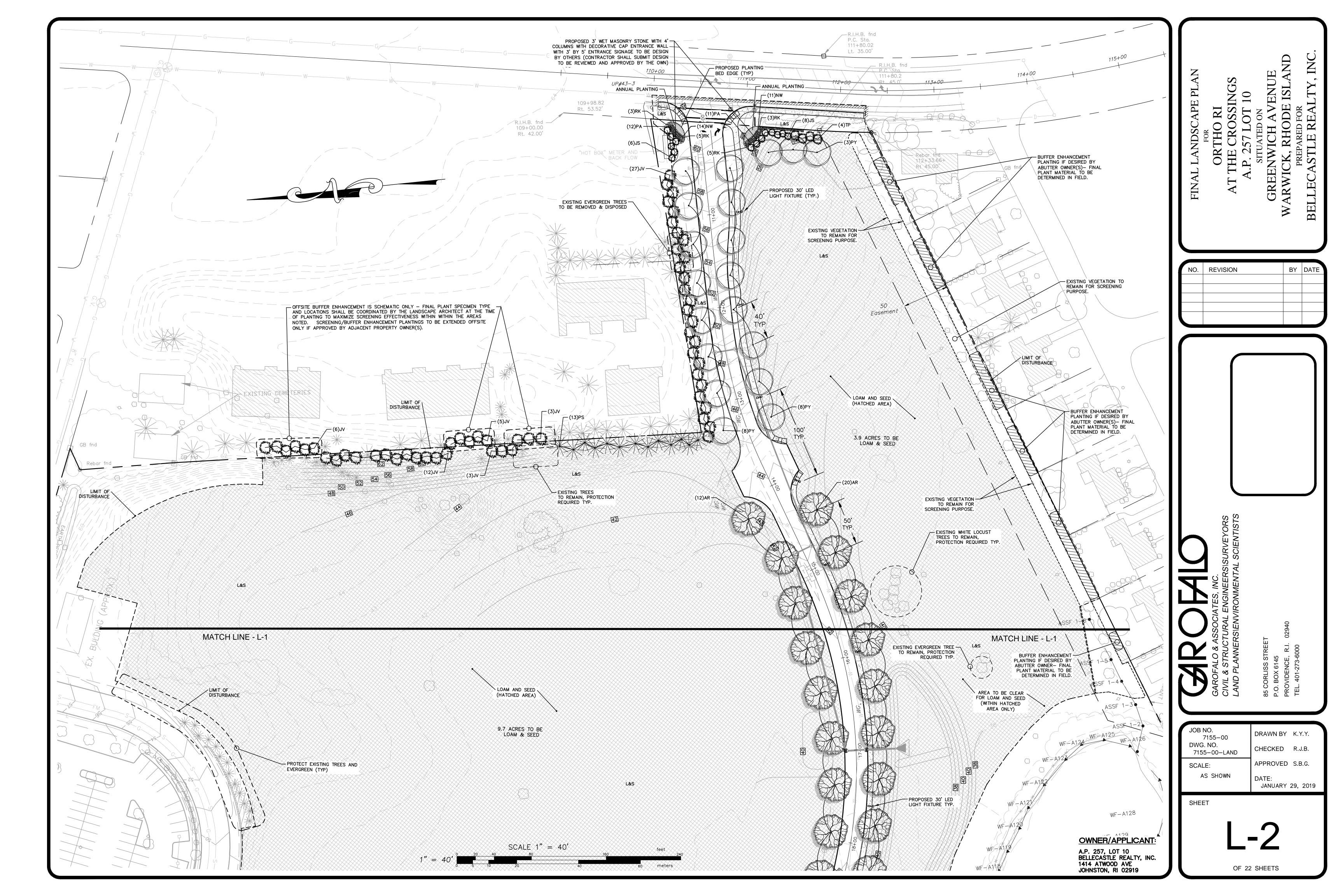
JOB NO. 7155-00	DRAWN BY K.Y.Y.
DWG. NO. 7155-00-Details	CHECKED S.S.H.
SCALE:	APPROVED S.B.G.
AS SHOWN	DATE: JANUARY 29, 2019

SHEET

OF 22 SHEETS

**OWNER/APPLICANT:** A.P. 257, LOT 10 BELLECASTLE REALTY, INC. 1414 ATWOOD AVE JOHNSTON, RI 02919





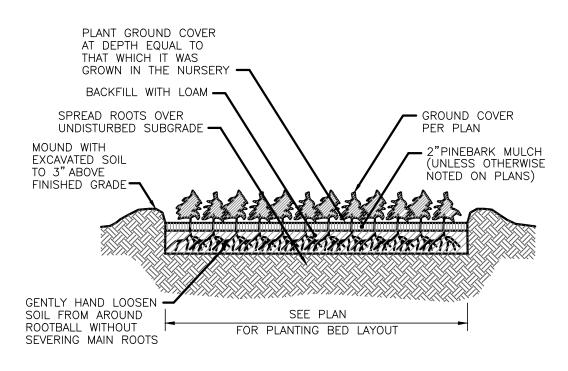
### **GENERAL LANDSCAPE NOTES:**

- 1. THE CONTRACTOR SHALL INSTALL ALL PLANT MATERIAL IN CONFORMANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- 2. ALL PLANT MATERIAL SHALL MEET THE AMERICAN OF NURSERYMEN STANDARDS FOR NURSERY STOCK, LATEST EDITION, AND ITS AMENDMENTS. PLANT ONLY DURING SEASONS NORMAL TO THE PARTICULAR VARIETY. NO SUBSTITUTIONS SHALL BE ACCEPTED WITHOUT PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT.
- 3. ALL PLANT MATERIAL FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR. IF THE FIRST YEAR ENDS DURING THE DORMANT PERIOD, THE GUARANTEE SHALL EXTEND TO THE START OF THE NEXT LEAFING. DURING THE ONE-YEAR GUARANTEE PERIOD THE CONTRACTOR SHALL EMPLOY ACCEPTED HORTICULTURAL PRACTICES TO KEEP THE PLANTS INSTALLED IN LIVING, HEALTHY CONDITION. FOLLOWING THE ONE-YEAR GUARANTEE PERIOD THE OWNER/OWNERS SHALL INSPECT ALL PLANT MATERIAL FOR HEALTHY ORNAMENTAL QUALITY. AT THAT TIME SHOULD ANY PLANT MATERIAL BE FOUND IN INADEQUATE HEALTH THE CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE THE PLANT IN KIND AND PROVIDE A ONE-YEAR GUARANTEE FOR THE REPLACEMENT PLANT.
- 4. INSTALL ALL PLANT MATERIAL AS SHOWN IN DETAILS.
- 5. STAKE ALL TREES OVER 5' AS SHOWN ON DETAILS. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE SITE CLEAN OF MISCELLANEOUS DEBRIS THROUGHOUT THE CONSTRUCTION PERIOD. ALL WASTE MATERIAL IS TO BE DISPOSED OF IMMEDIATELY TO AN OFFSET LOCATION, UNLESS OTHERWISE INDICATED ON THE PLANS.
- 7. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS, AND SHALL OBTAIN ALL NECESSARY PERMITS FOR THE
- 8. LAYOUT: ALL NOTES AND DIMENSIONS ARE TYPICAL UNLESS OTHERWISE NOTED. DIMENSIONS ARE SQUARE (PARALLEL OR PERPENDICULAR) UNLESS OTHERWISE NOTED. CONTRACTOR SHALL NOTIFY THE OWNER/OWNER'S REPRESENTATIVE IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES FOUND IN THE CONTRACT DOCUMENTS AND/OR IN THE FIELD, OR ON CONDITIONS UNCOVERED IN THE WORK WHICH ARE NOT REFLECTED IN THE
- 9. PROTECTION OF EXISTING PLANTINGS: MAXIMUM EFFORT SHOULD BE MADE TO SAVE TREES OF OTHER PLANT SPECIMENS WHICH ARE LARGE FOR THEIR SPECIES, RARE TO THE AREA, OR OF SPECIAL HORTICULTURAL OR LANDSCAPE VALUE. CONTACT OWNER/LANDSCAPE ARCHITECT BEFORE REMOVING ANY SPECIMEN OF THIS TYPE UNLESS OTHERWISE NOTED ON THE PLANS. NO MATERIAL OR TEMPORARY SOIL DEPOSITS SHALL BE PLACED WITHIN THE DRIP LINE OF SHRUBS OR TREES DESIGNATED ON THE LANDSCAPE PLAN TO BE RETAINED PROTECTIVE BARRIERS ARE TO BE INSTALLED AROUND EACH PLANT AND/OR GROUP OF PLANTS THAT ARE TO REMAIN ON THE SITE. BARRIERS SHALL NOT BE SUPPORTED BY THE PLANTS THEY ARE PROTECTING, BUT SHALL BE SELF SUPPORTING. THEY SHALL BE OF MINIMUM OF FOUR FEET (4') HIGH AND CONSTRUCTED OF A DURABLE MATERIAL, SUCH AS SNOW OR SILT FENCE, THAT WILL LAST UNTIL CONSTRUCTION IS COMPLETED.
- 10. PRUNING: THE CONTRACTOR SHALL CAREFULLY PRUNE BRANCHES IN THE WAY OF CONSTRUCTION BY USING ONLY APPROVED METHODS AND TOOLS. THE USE OF AXES FOR TRIMMING OR SPURS FOR CLIMBING WILL NOT BE PERMITTED.
- 11. UTILITIES: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL UTILITY DAMAGE INCLUDING DAMAGE THAT MAY OCCUR TO NEW UTILITIES. THE CONTRACTOR IS REQUIRED TO CONTACT DIG-SAFE PRIOR TO COMMENCING ANY SITE CONSTRUCTION. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- 12. DISTURBED AREAS: ALL AREAS DISTURBED DURING THE COURSE OF CONSTRUCTION ARE TO BE RESTORED TO ORIGINAL (OR BETTER) CONDITION BY THE CONTRACTOR BEFORE COMPLETION OF THE PROJECT, AND ARE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT AND OWNER. ALL GRASS AREAS DISTURBED DURING CONSTRUCTION SHALL BE FINE RAKED TO REMOVE STONES AND LOAMED AND SEEDED AS PER SPECIFICATIONS.
- 13. DRAINAGE SYSTEMS: CONTRACTOR IS RESPONSIBLE FOR GENERAL CLEAN—OUT OF ALL CATCH BASINS, MANHOLES, AND/OR OTHER DRAINAGE FEATURES ON THE SITE WHICH HAVE ACCUMULATED SEDIMENT AS A RESULT OF CONSTRUCTION ACTIVITIES.

### LOAM AND SEEDING

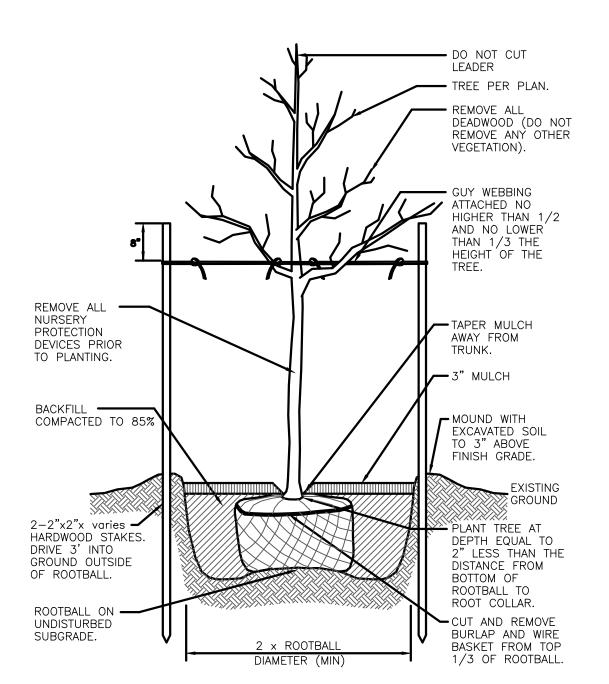
APPLICATION OF LOAM AND SEED SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

- 1. LOAM MATERIAL TO BE FURNISHED SHALL CONSIST OF SCREENED LOOSE, FRIABLE, FINE SANDY LOAM OR SANDY LOAM. AS DEFINED BY THE USDA'S SOIL CONSERVATION SERVICE IN THE SOIL SURVEY MANUAL ISSUED IN 1993, FREE OF SUBSOIL, REFUSE, STUMPS, ROOTS, ROCKS, COBBLES, STONES, BRUSH, NOXIOUS WEEDS, LITTER AND OTHER MATERIALS WHICH ARE LARGER THAN 12-INCH IN ANY DIMENSION AND WHICH WILL PREVENT THE FORMATION OF A SUITABLE SEED BED. ORGANIC MATTER SHALL CONSTITUTE NOT LESS THAN 5 PERCENT NOR MORE THAN 20 PERCENT OF THE LOAM AS DETERMINED BY LOSS-ON-IGNITION OF OVEN DRIED SAMPLES THAT HAVE BEEN DRAWN BY THE ENGINEER, UNLESS OTHERWISE SPECIFIED OR DIRECTED. THE LOAM SHALL HAVE AN ACIDITY RANGE OF 5.5 PH TO 7.6 PH.
- 2. LOAM MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE RETAINED AND DISTRIBUTED WITHIN THE SITE IN ACCORDANCE WITH THE LANDSCAPE PLAN. STOCKPILED LOAM SHALL NOT BE MIXED WITH ANY SUBSOIL OR UNSUITABLE MATERIAL. ALL EXISTING LOAM REMAINS THE PROPERTY OF THE OWNER.
- 3. LOAM SHALL BE SPREAD TO A DEPTH OF 4" IN SEEDING AREAS AND PLACED TRUE TO LINES AND GRADES SHOWN ON THE PLANS.
- 4. THE LOAMED SURFACE SHALL BE GRADED, AND ALL ROOTS, SODS, WEEDS, COBBLES OR STONES WITH ANY DIMENSION GREATER THAN 1 INCH SHALL BE REMOVED AND LEGALLY DISPOSED OF. AFTER SHAPING AND GRADING, ALL TRUCKS AND OTHER EQUIPMENT NOT REQUIRED TO PERFORM SEEDING, MULCHING OR MOWING OPERATIONS SHALL BE EXCLUDED FROM THE LOAMED AREAS.
- 5. LIME (GROUND OR PELLETIZED) SHALL BE APPLIED DRY AND SPREAD EVENLY OVER THE ENTIRE SURFACE TO BE SEEDED. UNLESS OTHERWISE SPECIFIED, THE APPLICATION RATE SHALL BE 1 TON PER ACRE. RAKING SHALL BE COMPLETED AFTER THE FERTILIZER HAS BEEN APPLIED.
- 6. ALL SEED DELIVERED TO THE JOB SHALL BE IN CONTAINERS LABELED IN ACCORDANCE WITH PROVISIONS OF THE RHODE ISLAND SEED ACT OF 1956 (VOLUME 8, TITLE 2, CHAPTER 6) AND ITS AMENDMENTS AS PROVIDED FOR AGRICULTURAL SEED OFFERED FOR SALE. ONLY THE CURRENT YEARS SEED SHALL BE ACCEPTED.
- 7. SEED SHALL BE APPLIED ONLY DURING THE FOLLOWING DATES: SPRING SEEDING: MARCH 15 TO MAY 31. FALL SEEDING: AUGUST 15 TO OCTOBER 15.
- 6. THE CONTRACTOR SHALL WATER ALL SEEDED AREAS AND RESEED AS NECESSARY FOR A PERIOD OF 2-MONTHS OR UNTIL A HEALTH STAND OF GRASS IS ESTABLISHED AND APPROVAL HAS BEEN MADE BY THE OWNER/LANDSCAPE ARCHITECT.



Ground Cover Planting Detail

NOT TO SCALE



Canopy Tree Planting Detail

NOT TO SCALE

### PLANT LIST:

CANOPY TREES						
KEY	BOTANICAL NAME COMMON NAME		SIZE	NOTE		
AR	ACER RUBRUM 'FRANKSRED' RED SUNSET SWAMP MAPLE	56	2"-2.5" CAL			
GT	GLEDITSIA TRIACANTHOS 'SKYCOLE' THORNLESS HONEY LOCUST SKYLINE	17	2"-2.5" CAL			

_					
	FLOW	ERING TREES			
	KEY	BOTANICAL NAME COMMON NAME	QTY.	SIZE	NOTE
	AC	AMELANCHIER CANADENSIS SHADBLOW SERVICEBERRY	7	7'-8' CLUMP	
	AG	ACER GRISEUM PAPERBARK MAPLE	5	7'-8' CLUMP	
	PY	PRUNUS X YEDOENSIS YOSHINO CHERRY SINGLE WHITE FLOWER	26	7'-8' CLUMP	

EVERGREEN TREES					
KEY	BOTANICAL NAME COMMON NAME	QTY.	SIZE	NOTE	
JS	JUNIPERUS SCOPULORUM 'MOONGLOW' MOONGLOW JUNIPER	19	5'-6' B¢B		
JV	JUNIPERUS VIRGINIANA EASTERN RED CEDAR	56	5'-6' B¢B		
TP	THUJA PLICATA 'GREEN GIANT' GREEN GIANT ARBORVITAE	19	5'-6' B¢B		
PS	PINUS STROBUS EASTERN WHITE PINE	13	5'-6' B¢B		

### GENERAL SEEDING MIX (L&S)

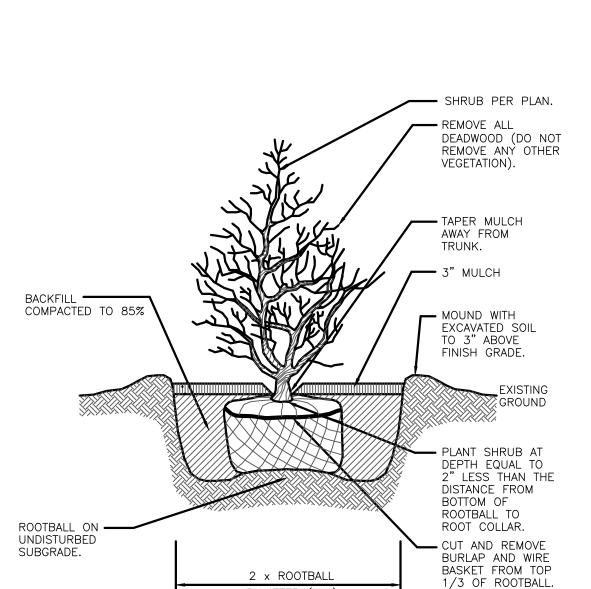
	PERCENT BY WEIGHT	PERCENT BY VOLUME
CHEWINGS FESCUE IMPROVED VARIETIES	30	85
KENTUCKY BLUEGRASS IMPROVED VARIETIES	30	90
PERENNIAL RYEGRASS IMPROVED VARIETIES	40	90

\* QUANTITY SHOWN IS FOR NUMBER OF INDIVIDUAL PLANT REQUIRED. CONTRACTOR SHALL USE FLATS WHEN AVAILABLE.

APPLICATION RATE: 200 LBS / ACRE

OWNER/APPLICANT:

A.P. 257, LOT 10 BELLECASTLE REALTY, INC. 1414 ATWOOD AVE JOHNSTON, RI 02919



2 x ROOTBALL

Container Grown Shrub and Perennial Planting Detaill

DIAMETER (MIN.)

- SHRUB PER PLAN

REMOVE ALL DEADWOOD

ANY OTHER VEGETATION)

WITH LOAM

MOUND WITH EXCAVATED SOIL

PLANT SHRUB AT

DEPTH EQUAL TO

DISTANCE FROM

BOTTOM OF THE

ROOT COLLAR

ROOTBALL TO THE

"LESS THAN TH

TO 3" ABOVE

FINISHED GRADE

B & B Shrub Planting Detail

3" PINEBARK MULCH

(UNLESS OTHERWISE

GENTLY HAND LOOSEN

SEVERING MAIN ROOTS -

UNDISTURBED SUBGRADE -

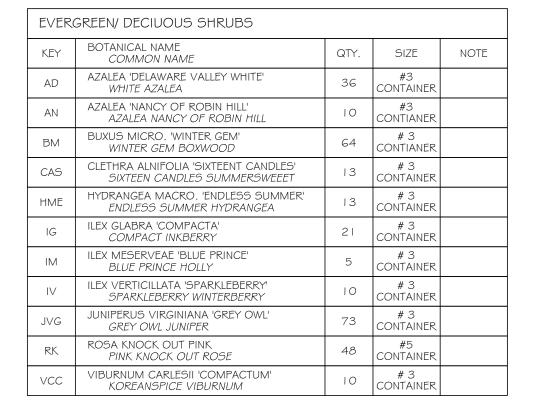
NOT TO SCALE

SOIL FROM AROUND

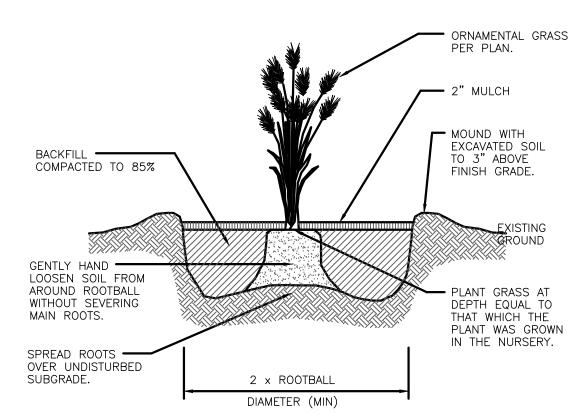
ROOTBALL WITHOUT

SPREAD ROOTS OVER

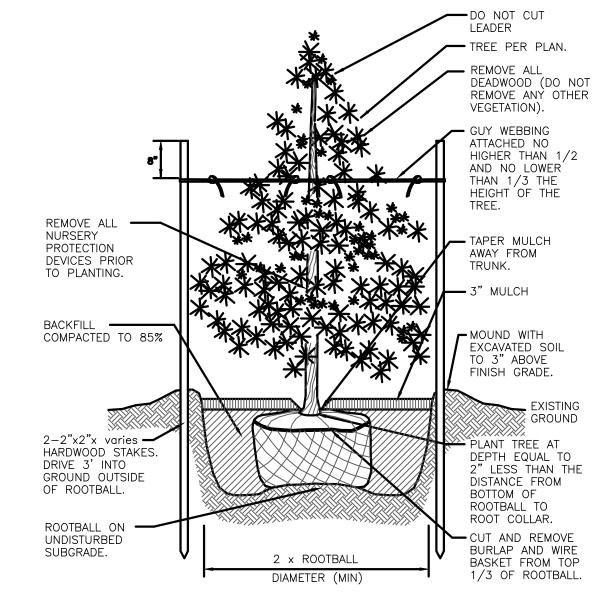
NOTED ON PLANS) -



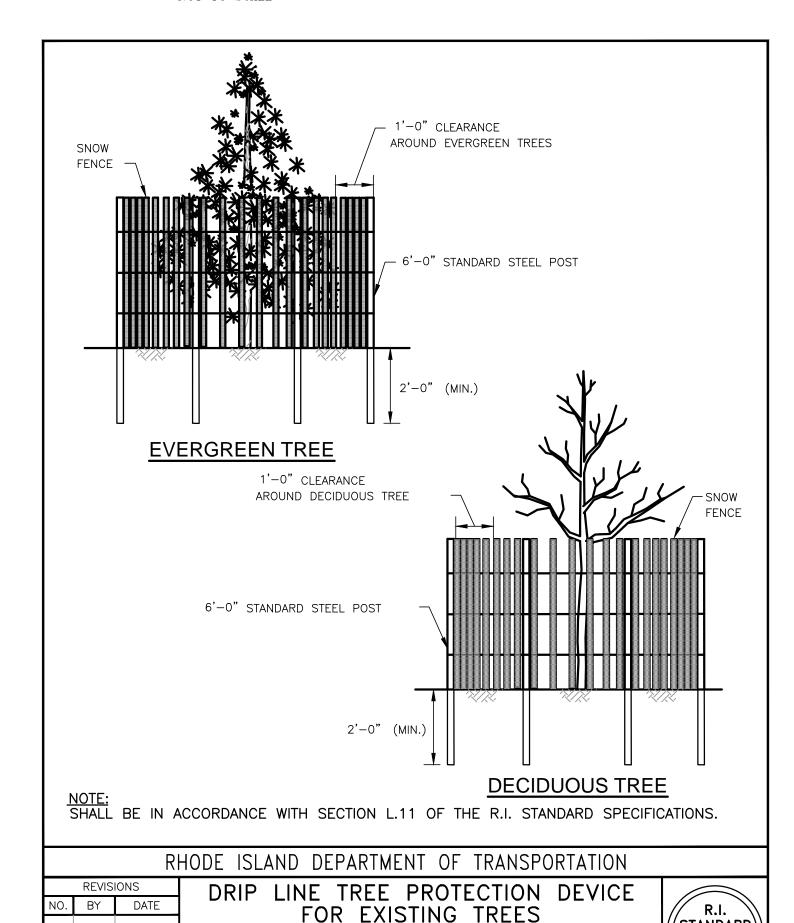
PERENNIALS/GROUNDCOVERS/ VINES					
KEY	BOTANICAL NAME COMMON NAME	QTY.	SIZE	NOTE	
НА	HOSTA 'AUGUST MOON' AUGUST MOON HOSTA	22	#2 CONTAINER		
HF	HOSTA 'FIRE AND ICE' FIRE AND ICE PLANTAIN LILY	23	#2 CONTAINER		
HJ	HEMEROCALLIS 'JOAN SENIOR' JOAN SENIOR DAYLILY	115	FLAT	18" O.C.	
НМ	HEUCHERA 'MELTING FIRE' CORAL BELL-BURGUNDY/ WHITE	33	# I CONTAINER		
HS	HEMEROCALLIS 'STELLA DE ORO' STELLA DE ORO DAYLILY	476	FLAT	18" O.C.	
JC	JUNIPERUS CONFERTA 'BLUE PACIFIC' SHORE JUNIPER	168	FLAT *	36" O.C.	
JH	JUNIPERUS HORIZ. 'BAR HARBOR' BAR HARBOR CREEPING JUNIPER	210	FLAT	36" O.C.	
LM	LAMIUM MACULATUM 'PURPLE DRANGON' PURPLE DRAGON DEAD NETTLE	122	FLAT *	15" O.C.	
NW	NEPETA 'WALKER'S LOW' CAT MINT BLUE	89	# I * CONTAINER		
PA	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	63	#2 * CONTAINER		
RH	RUDBECKIA HIRTA BLACK EYED SUSAN	8	#2 * CONTAINER		



Perennial Planting Detai

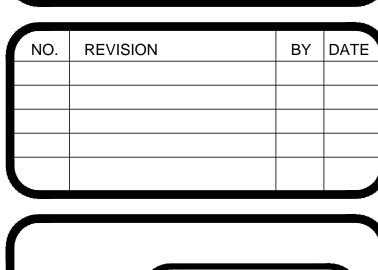


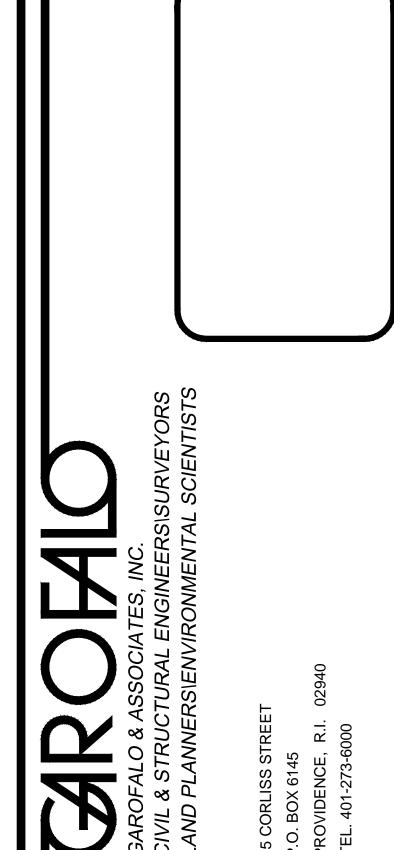
Evergreen Tree Planting Detail

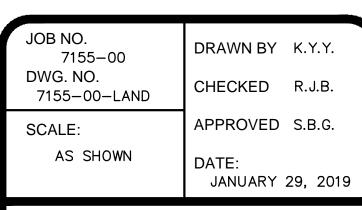


CHIEF DESIGN ENGINEER

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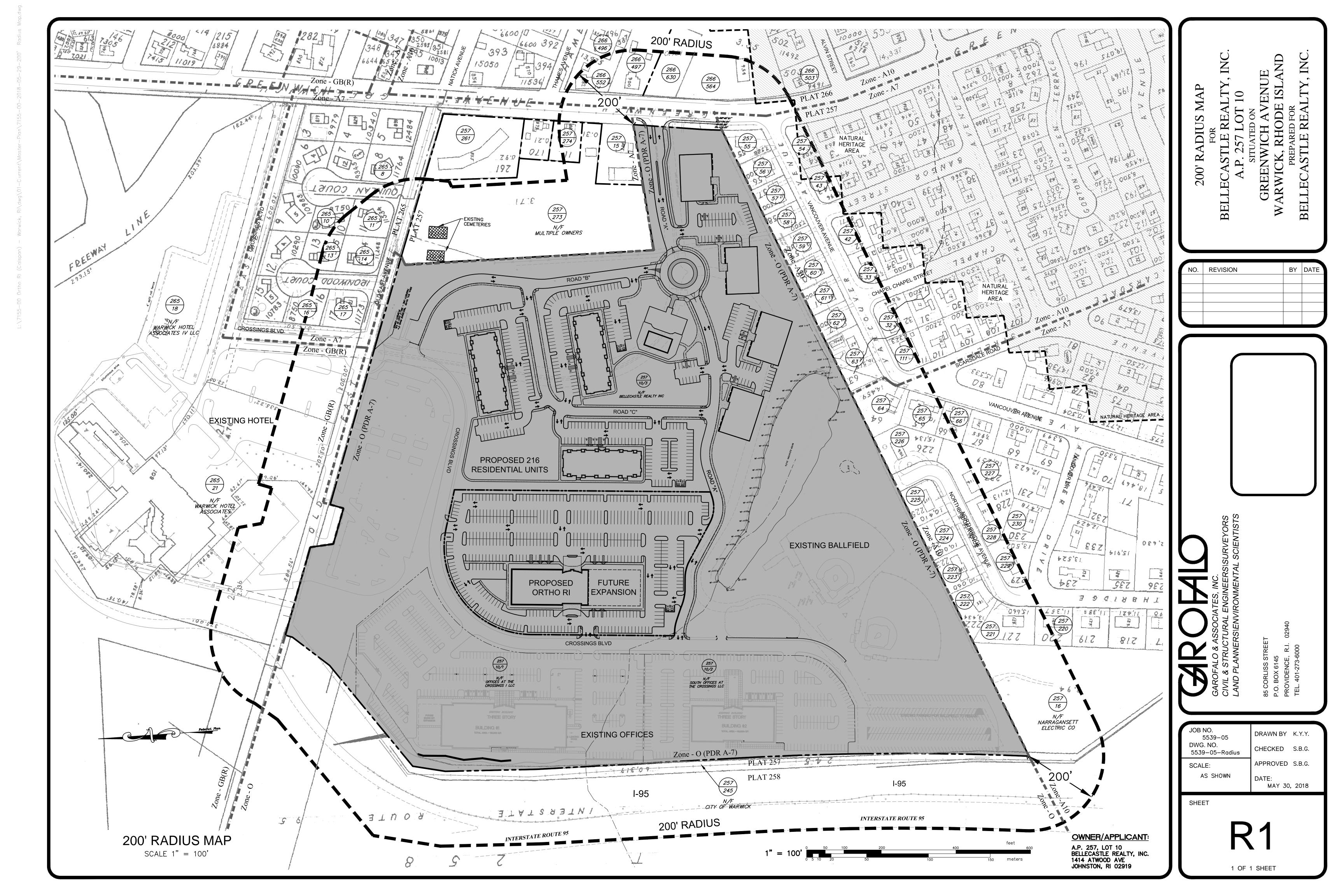


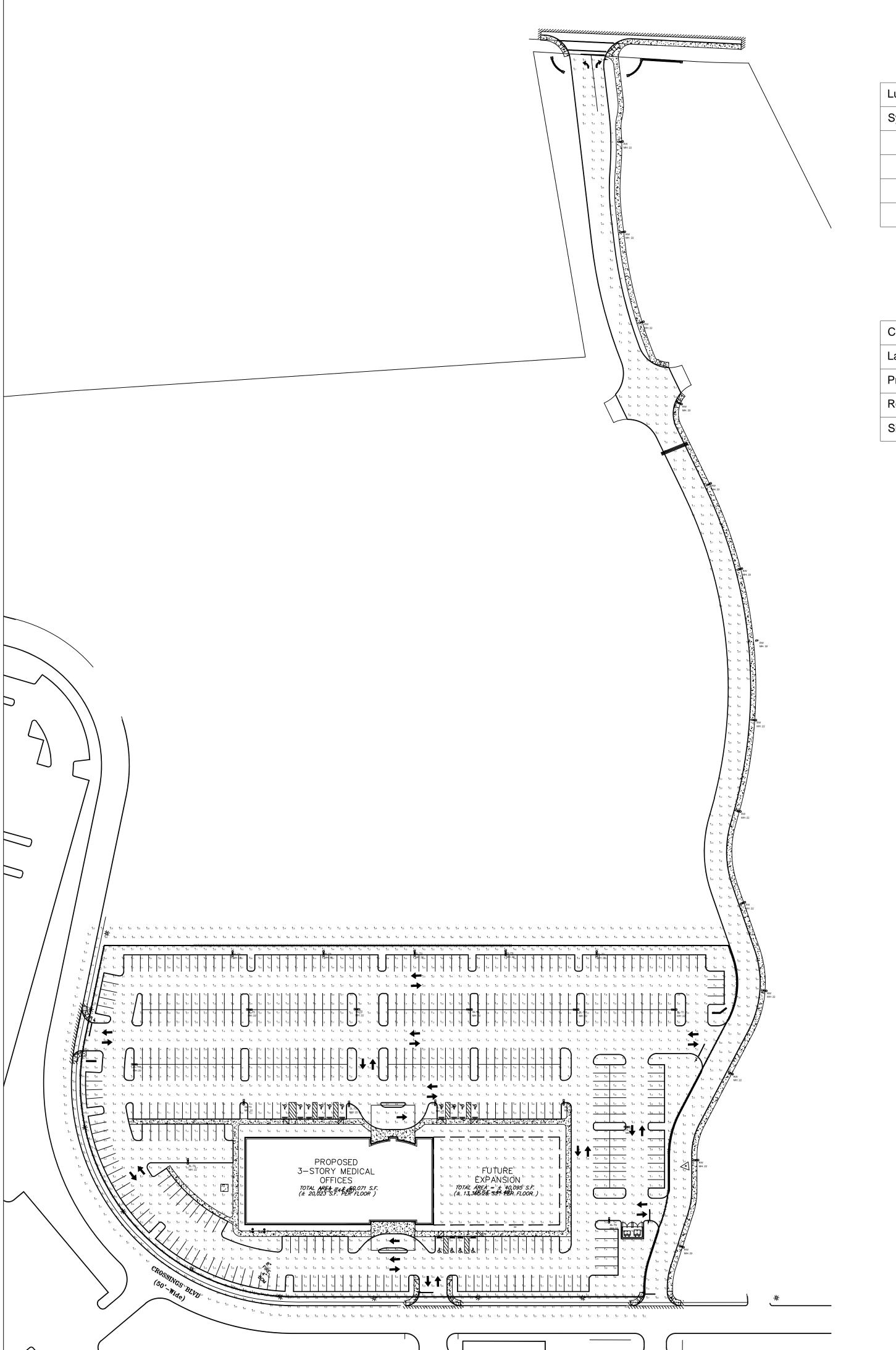
SHEET

STANDARD\

,51.1.1

JUNE 15, 1998





Luminaire Schedule						
Symbol	Qty	Label	Description	LLF	Lum. Lumens	Lum. Watts
<b>──</b>	9	SL-T3	VMX-1-T3-25L-4K-UNV	0.850	24013	172
—————————————————————————————————————	8	SL-T5	VMX-1-T5LR-25L-4K-UNV	0.850	23948	172
<b>─</b>	1	SL-T4	VMX-1-T4-25L-4K-UNV	0.850	24063	172
<b>─</b>	14	RW	BSX-II-3-T3-20L-4K-UNV	0.850	21720	152

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Property Line	Illuminance	Fc	0.49	4.1	0.0	N.A.	N.A.
Roadway	Illuminance	Fc	2.73	6.9	0.1	27.30	69.00
Site Points	Illuminance	Fc	1.50	9.0	0.0	N.A.	N.A.

ABBREVIATIONS:

Avg= Average
AFG= Above Finished Grade
CF = Compact Fluorescent
CV= Coefficient of variation
fc = Footcandles
HPS = High Pressure Sodium
LLF= Light Loss Factor
MH = Mounting Height
NTS = Not to Scale
PSMH = Pulse Start Metal Halide
SF = Square foot
W = Watts

### NOTES:

- A. CALCULATION POINTS INDICATED ARE BASED ON MAINTAINED FOOTCANDLE (FC) LEVELS AFTER A LIGHT LOSS FACTOR (LLF) IS APPLIED TO FIXTURE. REFER TO SCHEDULES FOR LLF AND LUMEN INFORMATION.
- B. REFER TO PLAN FOR FIXTURE MOUNTING HEIGHTS.
- C. CALCULATION POINTS TAKEN AT GRADE.

Experience the light

20/22 Carver Circle Canton, MA 02023

PROJECT NAME

Rhode Island Ortho- Site

CLIENT

Garofalo &
Associates, Inc.

85 Corliss Street
Providence, RI 02940

SEAL

Date

REVISIONS

No. Description

5.

4. 3. 2.

Issue Date: October 29, 2018

Project #: 18196

Drawn: AD

Checked: TJ

Approved: HD

Scale: NTS

Site Lighting-Lighting

Lighting
Photometrics and
Schedules

DRAWING NUMBER

SL1

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