

LOCATION MAP

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CONSTRUCTION DOCUMENT PLANS FOR

OAKLAND BEACH PLAYGROUND, SPLASHPAD & STORMWATER IMPROVEMENTS

> OAKLAND BEACH AVENUE WARWICK, RHODE ISLAND

> > RFP/BID # 2024-091



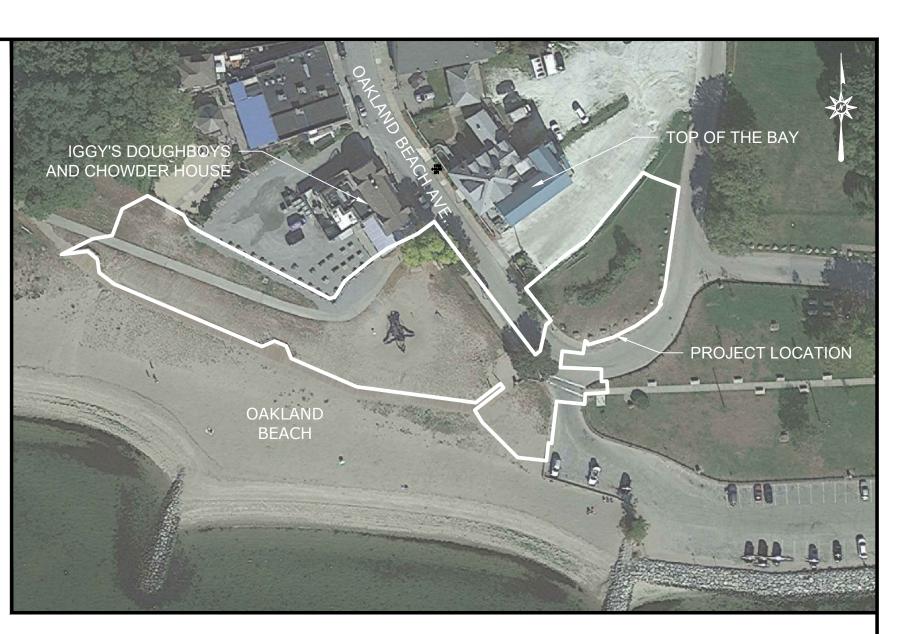
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PREPARED BY:



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VICINITY MAP

REGISTERED LANDSCAPE ARCHITECT

DOMINICK CELTRUDA, RLA RI PROFESSIONAL REGISTRATION NO. 648

ENGINEER

NICHOLAS R. GIARDINA, P.E. RI PROFESSIONAL ENGINEER NO. 0007828

DATES

ISSUE DATE: JUNE 2023 **REVISION:**

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES

GENERAL NOTES:

- THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME AND COORDINATE WITH THE ENGINEER AND OWNER AS REQUIRED.
- 2. CONTRACTOR SHALL BE SOLEY RESPONSIBLE FOR JOB SITE SAFETY ALL CONSTRUCTION MEANS AND METHODS.
- 3. LIMIT OF WORK SHALL BE EROSION CONTROL BARRIERS, LIMIT OF GRADING AND/OR AS INDICATED ON THE PLANS.
- PORTIONS OF THE PARK, WALK AND ADJACENT PROJECT AREA DISTURBED BY THE CONTRACTORS OPERATIONS SHALL BE RESTORED TO THEIR CONDITIONS PRIOR TO DISTURBANCE.
- 5. CONTRACTOR TO VERIFY UTILITY CONNECTION LOCATIONS AND ELEVATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
- . ANY ALTERATIONS TO THE PLAN SET MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS.
- . ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE
- B. EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.
- 9. FOR DRAWING LEGIBILITY, ALL TOPOGRAPHIC FEATURES, EXISTING UTILITIES, PROPERTY BOUNDARIES, EASEMENTS, ETC. MAY NOT BE SHOWN ON ALL DRAWINGS. REFER TO ALL REFERENCED DRAWINGS AND OTHER DRAWINGS IN THIS SET FOR ADDITIONAL INFORMATION.
- 10. THE CONTRACTOR SHALL IDENTIFY, LOCATE, AND PROTECT ALL EXISTING BOUNDS, MONUMENTS, AND BENCHMARKS. THE CONTRACTOR
- 11. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES DURING CONSTRUCTION.
- 12. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN CLEAR ACCESSIBLE PATHS NO LESS THAN 4' WIDE FOR ALL PEDESTRIANS.
- 13. THE CONTRACTOR SHALL NOT BE ALLOWED TO STORE ANY EXCESS MATERIAL WITHIN THE PROJECT LIMITS

SHALL OBTAIN APPROVAL FROM THE ENGINEER BEFORE ANY DISTURBANCE OR RELOCATION.

SAME. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.

- 14. AT NO TIME SHALL THE CONTRACTOR BE ALLOWED TO STORE ANY EQUIPMENT, TOOLS, OR MATERIALS OUTSIDE OF THE EXISTING PROJECT AREA OR DESIGNATED AREAS. THE CONTRACTOR SHALL ENSURE PROPER SIGHT DISTANCE IS MAINTAINED AT ALL INTERSECTIONS AND
- 15. AT THE END OF EACH WORK DAY, ANY EQUIPMENT, TOOLS, AND MATERIALS, INCLUDING SURPLUS FROM EXCAVATIONS, THAT ARE NOT TO BE RE-USED WITHIN 24 HOURS SHALL BE REMOVED FROM THE SITE UNLESS PREVIOUSLY APPROVED BY THE ENGINEER.
- 16. CONTRACTOR SHALL TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK AND BE RESPONSIBLE FOR COORDINATION OF
- 17. EXISTING SIGNS IMPACTED BY THE PROJECT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED AS DIRECTED BY INSPECTION PERSONNEL OR BY THE ENGINEER.
- 18. FINAL GRADE FOR WALKWAYS TO MATCH EXISTING WHERE POSSIBLE AND AT ALL EXISTING MANHOLE RIMS AND/OR CATCH BASIN FRAMES, WHEN RESET NOT SPECIFIED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 19. ALL ACCESSIBLE PARKING SPACES AND WALKWAYS MUST BE CONSTRUCTED TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT.
- 20. ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND CONDITIONS OF APPROVAL AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.
- 21. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF ANY SUCH CONFLICT BETWEEN THE GEOTECHNICAL REPORT AND THE PLANS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
- 22. THESE PLANS ARE BASED ON INFORMATION AVAILABLE AT THE TIME OF PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, OR IF THE PROPOSED
- 23. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST NOTIFY THE ENGINEER IF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES EXISTING PRIOR TO PROCEEDING WITH THE WORK. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE/REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THE PLAN SET PRIOR TO CONTRACTOR GIVING ENGINEER NOTICE.
- 24. DEBRIS MUST NOT BE BURIED ON THE SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT.
- 25. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT. UTILITIES, BUILDINGS AND INFRASTRUCTURE WHICH ARE TO REMAIN AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED IN THE PROJECT.
- 26. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE. BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
- 27. THE ENGINEER/LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 28. THE ENGINEER/LANDSCAPE ARCHITECT OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME.
- 29. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME THE ENGINEER AND ITS SUBCONTRACTORS AS ADDITIONAL NAMED INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH THE ENGINEER WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS THE ENGINEER, OWNER AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS, ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. CONTRACTOR MUST NOTIFY ENGINEER AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
- 30. NEITHER THE PROFESSIONAL ACTIVITIES OF THE ENGINEER, NOR THE PRESENCE OF THE ENGINEER AND/OR SUBCONSULTANTS AT A PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND COMPLIANCE WITH ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY.
- 31. IF THE CONTRACTOR DEVIATES FROM THE CONTRACT DOCUMENTS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING FROM THE DEVIATIONS.
- 32. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE.
- 33. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED
- 34. ENGINEER/LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS.
- 35. OWNER OR CONTRACTOR MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN AND, FURTHER ENGINEER IS NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES.
- 36. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.
- 37. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.
- 38. CONTRACTOR MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS.
- 39. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE.

DEMOLITION & SITE PREPARATION NOTES

- 1. CONTRACTOR MUST CALL DIGSAFE AT 811 AT LEAST 72 HOURS IN ADVANCE TO DETERMINE EXISTING UTILITIES AND STRUCTURES PRIOR TO SITE WORK AND EXCAVATION WITHIN THE PROJECT LIMITS.
- 2. THE CONTRACTOR SHALL INCLUDE IN THE PRICE THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE PRICE THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION AND DEMOLITION REQUIREMENTS AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.
- 3. THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL, THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS REMOVED OFF SITE TO A DESIGNATED MUNICIPAL PROPERTY AT NO ADDITIONAL COST. ALL GEOTECHNICALLY OR UNSUITABLE EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY. REMOVAL ACTIVITIES SHALL BE IN ACCORDANCE WITH THE STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE CITY.
- 4. UNLESS SPECIFICALLY NOTED TO BE REMOVED AND STOCKPILED (R&S) OR REUSED AND RELOCATED (R&R), ALL SITE FEATURES CALLED TO BE REMOVED AND DEMOLISHED (R&D) SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC. TRANSPORTED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO ADDITIONAL COST TO THE OWNER.
- 5. ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND/OR OWNER'S REPRESENTATIVE AT NO
- 6. DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE
- 7. IT SHALL BE THE CONTRACTOR'S OPTION, WITH CONCURRENCE OF THE OWNER'S REPRESENTATIVE, TO REUSE EXISTING BITUMINOUS CONCRETE PAVEMENT BASE COURSE AND/ OR SUB BASE GRAVEL MATERIALS IF IT MEETS THE REQUIREMENT OF THE SPECIFICATIONS FOR DENSE GRADED CRUSHED STONE.
- 8. STRIP AND STOCKPILE EXISTING TOPSOIL FOR LATER REUSE AS REQUIRED. STOCKPILE SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR SHALL CONFIRM THAT THE TOPSOIL IS SUITABLE FOR REUSE AND IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR TOPSOIL
- 9. CLEAR AND GRUB VEGETATION SHALL INCLUDE REMOVAL OF ALL GRASS/LAWN, SHRUBS, UNDERBRUSH, REMOVAL OF ROOTS.
- 10. THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN (SEE DETAIL). THE CONTRACTOR SHALL INSTALL TREE PROTECTION BARRIERS AFTER CLEARING TURF AND UNDERBRUSH BY HAND AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS.
- 11. THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 12. ALL TREES TO REMAIN SHALL BE PRUNED BY LICENSED ARBORIST. CONTRACTOR MUST CONSULT WITH THE CITY OF WARWICK'S TREE WARDEN PRIOR TO ANY PRUNING WORK.
- 13. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 et seq.), AS AMENDED AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
- 14. THE ENGINEER/LANDSCAPE ARCHITECT AND OWNER HAVE NO CONTRACTUAL, LEGAL, OR OTHER RESPONSIBILITY FOR JOB SITE SAFETY OR JOB SITE SUPERVISION. OR ANYTHING RELATED TO SAME.
- 15. CONTRACTOR MUST RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THE CONSTRUCTION DOCUMENTS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT, WITH THE ENGINEER, IN WRITING, AND RESPONDED TO BY THE ENGINEER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
- 16. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR IS RESPONSIBLE FOR: 1) OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THEM ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK; 2) NOTIFYING, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND OWNER, 72 HOURS PRIOR TO THE START OF WORK; 3 INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE. 4) IN ACCORDANCE WITH STATE LÁW, THE CONTRACTOR MUST CALL DIGSAFE FOR UTILITY MARKOUT, IN ADVANCE OF ANY EXCAVATION; 5) LOCATING AND PROTECTING ALL UTILITIES AND SERVICES MITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.; 6) PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.; 7) ARRANGING FOR AND COORDINATING WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS. THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.; 8) COORDINATION WITH UTILITY COMPANIES REGARDING WORKING OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES. WORK REQUIRED TO BE DONE OFF-PEAK" IS TO BE DONE AT NO ADDITIONAL COST TO THE OWNER.; AND 9) IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK AND IMMEDIATELY NOTIFY THE OWNER AND ENGINEER OF THE DISCOVERY OF SUCH MATERIALS.
- 17. THE ENGINEER/LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
- 18. THE CONTRACTOR MUST PROVIDE ALL "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS
- 19. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIR MUST INCLUDE THE RESTORATION OF ANY ITEMS REPAIRED TO THE PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR SHALL PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
- 20. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, AND/OR UNDER THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
- 21. CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM. OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS, AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT NEW IMPROVEMENTS AND PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES, AND MUST BE DONE SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE.
- REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE, AND LOCAL GOVERNMENTS MUST BE IN PLACE PRIOR TO CONTRACTOR STARTING AN EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.

22. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND ALL APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE

- 23. CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FHWA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY.
- 24. CONTRACTOR MUST CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
- 25. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT WRITTEN PERMISSION OF THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
- 26. THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
- 27. CONTRACTOR IS RESPONSIBLE TO SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
- 28. CONTRACTOR IS RESPONSIBLE FOR SITE JOB SAFETY, WHICH MUST INCLUDE, BUT NOT BE LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING AND OTHER APPROPRIATE SAFETY ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION

29. THE DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE

SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE. 30. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH

DIRECTION AS TO THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED TO ACCOMPLISH THAT WORK. ALL MEANS, METHODS,

- ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. THE CONTRACTOR MUST MAINTAIN RECORDS TO DEMONSTRATE PROPER DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
- 31. CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS UPON WHICH IS INDICATED THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED. ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER, AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK.

LAYOUT NOTES:

- 1. COORDINATE ALL LAYOUT ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY DEMOLITION, GRADING, AND UTILITIES OPERATIONS ENCOMPASSED BY THIS CONTRACT. SET, PROTECT AND REPLACE REFERENCE STAKES AS NECESSARY OR AS REQUIRED BY THE OWNER'S REPRESENTATIVE.
- 2. ALL WORK SHALL BE PERFORMED BY CONTRACTOR UNLESS SPECIFICALLY INDICATED THAT THE WORK WILL BE PERFORMED "BY OWNER" OR "BY OTHERS"
- 3. THE LAYOUT OF SITE AMENITIES MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- 4. ALL PROPOSED SITE FEATURES SHALL BE LAID OUT AND STAKED FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF INSTALLATION. ANY REQUIRED ADJUSTMENTS TO THE LAYOUT SHALL BE UNDERTAKEN AS DIRECTED, AT NO ADDITIONAL COST TO THE
- 5. ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES AND SHALL BE TREATED WITH AN RS-1 TACK COAT AT POINT OF CONNECTION. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT AND MATERIALS PLAN.
- 6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND AND REPORT ANY DISCREPENCIES IMMEDIATELY TO THE OWNER.
- 7. IF PLANS AND OR SPECIFICATIONS ARE IN CONFLICT. THE MOST COSTLY SHALL APPLY.

GRADING & UTILITIES NOTES:

- 1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, GRADES, AND INVERT ELEVATIONS IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE
- 2. ALL NEW WALKWAYS MUST CONFORM TO CURRENT AMERICANS WITH DISABILITIES ACT (ADA) REGULATIONS: WALKWAYS SHALL MAINTAIN A CROSS PITCH OF NOT MORE THAN ONE AND A HALF PERCENT MAXIMUM AND THE RUNNING SLOPE (PARALLEL TO DIRECTION OF TRAVEL) OF 4.5% MAXIMUM.
- 3. MINIMUM SLOPE ON ALL WALKWAYS WILL BE 1:100 OR 1% TO PROVIDE POSITIVE DRAINAGE. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE
- REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO CONTINUING WORK. 4. ALL UTILITY GRATES, COVERS, OR OTHER SURFACE ELEMENTS INTENDED TO BE EXPOSED AT GRADE SHALL BE FLUSH WITH THE ADJACENT FINISHED GRADE
- AND ADJUSTED TO PROVIDE A SMOOTH TRANSITION AT ALL EDGES REGARDLESS OF WHETHER THEY ARE INDICATED AS ADJUSTED (ADJ.) ON PLANS 5. THE CONTRACTOR SHALL SET SUBGRADE ELEVATIONS TO ALLOW FOR POSITIVE DRAINAGE AND PROVIDE EROSION CONTROL DEVICES, STRUCTURES,
- MATERIALS, AND CONSTRUCTION METHODS TO DIRECT SILT MIGRATION AWAY FROM DRAINAGE AND OTHER UTILITY SYSTEMS, PUBLIC/ PRIVATE STREETS AND WORK AREAS. CLEAN BASINS REGULARLY AND AT THE END OF THE PROJECT.
- 6. CONTRACTOR SHALL ENSURE ALL AREAS ARE PROPERLY PITCHED TO DRAIN, WITH NO SURFACE WATER PONDING OR PUDDLING
- 7. EXCAVATION REQUIRED WITHIN PROXIMITY OF KNOWN EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- 8. WHERE NEW EARTHWORK MEETS EXISTING EARTHWORK, CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR ROUNDS AT ALL TOP AND BOTTOM OF SLOPES.
- 9. WHERE A SPECIFIC LIMIT OF WORK LINE IS NOT OBVIOUS OR IMPLIED, BLEND GRADES TO EXISTING CONDITIONS WITHIN 5 FEET OF PROPOSED CONTOURS.
- 10. RESTORE ALL DISTURBED AREAS AND LIMITS OF ALL REMOVALS TO LOAM AND SEED UNLESS OTHERWISE NOTED.
- 11. WHERE NEW IMPROVEMENTS MEET EXISTING CONDITIONS, MEET LINE AND GRADE OF EXISTING ADJACENT PAVEMENTS, TYPICAL.
- 12. CONTRACTOR MUST CALL DIGSAFE AT 811 TO DETERMINE EXISTING UTILITIES AND STRUCTURES PRIOR TO SITE WORK AND EXCAVATION WITHIN THE PROJECT LIMITS. CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES WITHIN THE LIMITS OF DISTURBANCE OR THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.
- 13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICABLE CODES, REGULATIONS, LAWS, RULES, STATUTES AND/OR ORDINANCES, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY THE ENGINEER, IN WRITING, OF SAID CONFLICT AND/OR DISCREPANCY PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR'S FAILURE TO NOTIFY THE ENGINEER SHALL CONSTITUTE CONTRACTOR'S FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES AND, FURTHER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME.
- 14. THE CONTRACTOR MUST LOCATE AND CLEARLY AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND /OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
- 15. THE CONTRACTOR MUST FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES..
- 16. ALL NEW UTILITIES/SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
- 17. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS MUST BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER. REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED. VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS. SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER, OR OWNER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT.
- 18. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
- 19. ALL FILL. COMPACTION. AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND MUST BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK BALANCE.
- 20. THE CONTRACTOR MUST COMPLY, TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED TO EXCAVATION AND TRENCHING
- 21. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT
- 22. THE TOPS OF EXISTING MANHOLES. INLET STRUCTURES. AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
- 23. DURING THE INSTALLATION OF ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED IN THE UTILITY PLAN. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER AT THE COMPLETION OF WORK.
- 24. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR MUST CONFIRM AND ENSURE 1% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS OR EXISTING TOPOGRAPHY LIMIT GRADES), TO PREVENT PONDING. CONTRACTOR MUST IMMEDIATELY IDENTIFY, IN WRITING TO THE ENGINEER, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY. HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER NOTIFICATION, MUST BE AT THE CONTRACTOR'S OWN RISK.
- 25. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 1% GUTTER GRADE ALONG CURB FACE. IT IS CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.
- 26. IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE AND CONTROL. CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER/LANDSCAPE ARCHITECT, IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.
- 27. CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING ANY WORK.
- 28. CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SEWER, WATER AND STORM SYSTEMS, MUST BE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.



355 Research Parkway

Meriden, CT 06450 (203) 630-1406 (203) 630-2615 Fax

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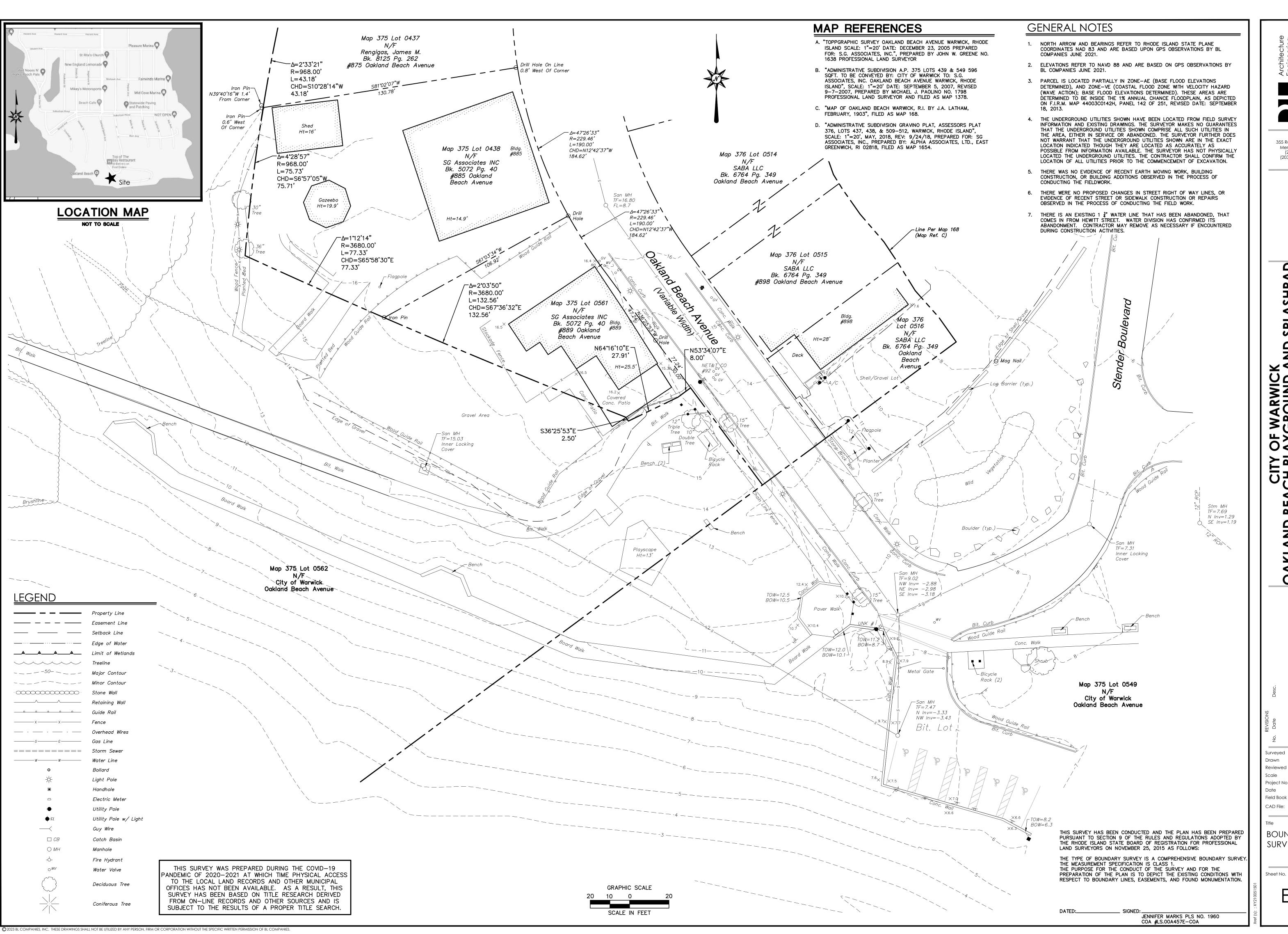
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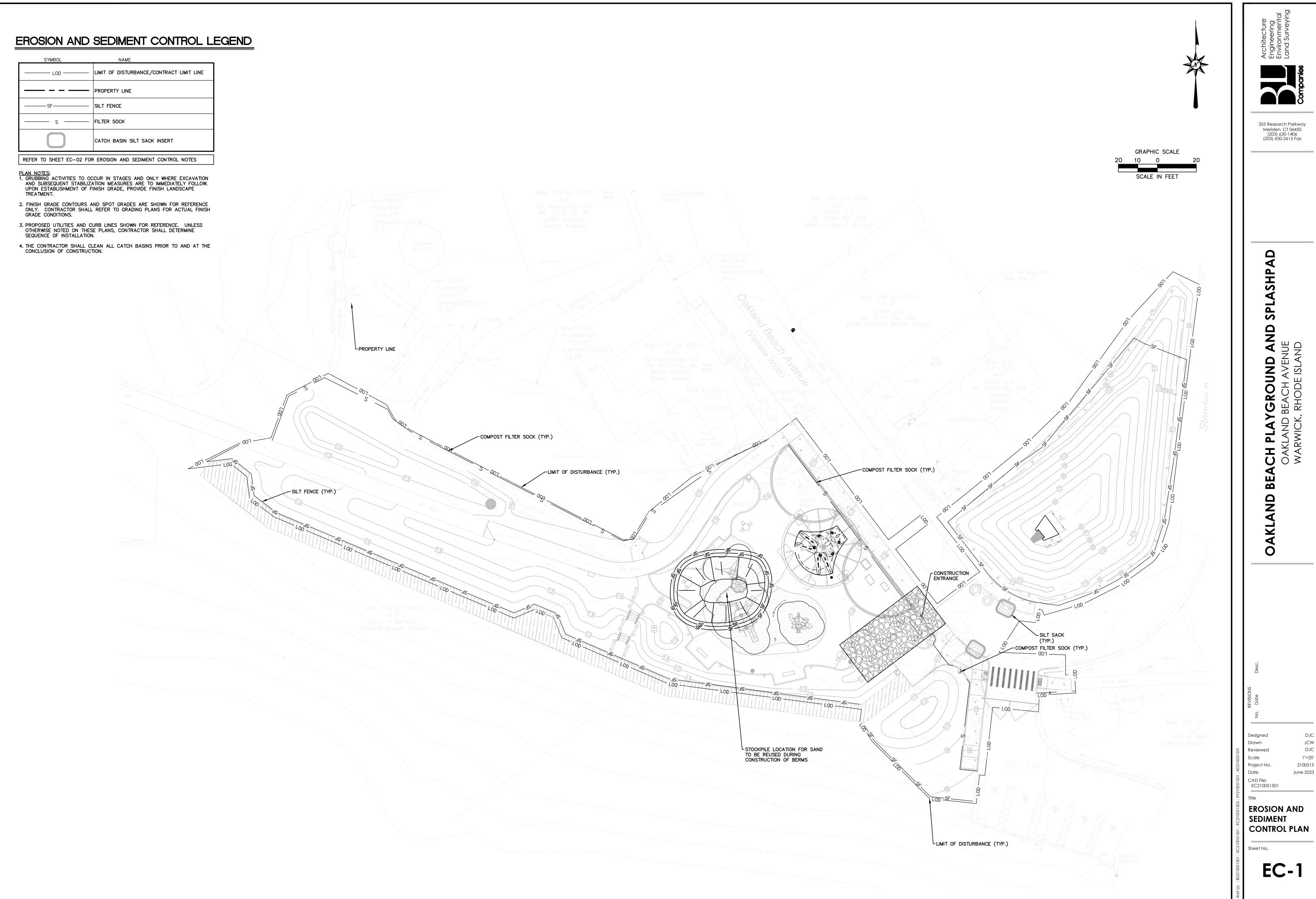
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BOUNDARY SURVEY

EX-1



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SEDIMENT AND EROSION CONTROL NOTES

AS DIRECTED BY THE CIVIL ENGINEER OR BY THE AUTHORITY HAVING JURISDICTION.

- 1. HAY BALE/STRAW BALE FILTERS WILL BE INSTALLED AT ALL CULVERT OUTLETS IF CULVERT OUTLETS ARE APPLICABLE TO THIS PROJECT AND SILTATION FENCE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.
- 2. CULVERT DISCHARGE AREAS WILL BE PROTECTED WITH RIP RAP CHANNELS. ENERGY DISSIPATORS WILL BE INSTALLED AS SHOWN ON THESE PLANS AND AS NECESSARY
- 3. CATCH BASINS WILL BE PROTECTED WITH HAY BALE /STRAW BALE FILTERS, SILT SACKS, SILTATION FENCE, OR OTHER INLET PROTECTION DEVICES PER DETAILS, THROUGHOUT THE CONSTRUCTION PERÍOD AND UNTIL ALL DISTURBED AREAS ARE
- 4. ALL SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE LATEST EDITION.
- 5. SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSTALLED PRIOR TO DEMOLITION AND/OR CONSTRUCTION WHENEVER
- 6. ALL CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE DEMOLITION AND CONSTRUCTION PERIOD UNTIL THE SITE IS DETERMINED TO BE STABILIZED BY THE AUTHORITY HAVING JURISDICTION.
- 7. ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF NECESSARY OR REQUIRED OR
- 8. SEDIMENT REMOVED FROM EROSION CONTROL STRUCTURES WILL BE DISPOSED IN A MANNER WHICH IS CONSISTENT WITH THE INTENT AND REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLANS, NOTES, AND DETAILS.
- 9. CONTRACTOR IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS SEDIMENT AND EROSION CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFICATION OF THE MUNICIPALITY AND/OR COUNTY SOILS CONSERVATION DISTRICT AND/OR INLAND WETLANDS COMMISSION OFFICE OR AUTHORITY HAVING JURISDICTION OF ANY TRANSFER OF THIS RESPONSIBILITY AND FOR CONVEYING A COPY OF THE SEDIMENT AND EROSION CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.
- 10. THE SEDIMENT AND EROSION CONTROL PLAN IS ONLY INTENDED TO DESCRIBE THE SEDIMENT AND EROSION CONTROL TREATMENT FOR THIS SITE. SEE SEDIMENT AND EROSION CONTROL DETAILS AND CONSTRUCTION SEQUENCE. REFER TO SITE PLAN FOR GENERAL INFORMATION AND OTHER CONTRACT PLANS FOR APPROPRIATE INFORMATION.
- 11. CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THIS SEDIMENT AND EROSION CONTROL PLAN, AND CAN BE REACHED AT TBD. THIS RESPONSIBILITY INCLUDES THE PROPER INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED WITH CONSTRUCTION ON THE SITE OF THE REQUIREMENTS AND OBJECTIVES OF THIS PLAN, INFORMING THE AUTHORITY HAVING JURISDICTION OR COUNTY SOILS CONSERVATION DISTRICT OR INLAND WETLANDS AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY, AND FOR CONVEYING A COPY OF THE SEDIMENT & EROSION CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.
- 12. AN EROSION CONTROL BOND MAY BE REQUIRED TO BE POSTED WITH CITY TO ENSURE IMPLEMENTATION OF THE SEDIMENT AND EROSION CONTROL MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF THIS BOND AND FOR INQUIRIES TO THE CITY FOR INFORMATION ON THE METHOD, TYPE AND AMOUNT OF THE BOND POSTING UNLESS OTHERWISE DIRECTED BY THE OWNER.
- 13. VISUAL SITE INSPECTIONS SHALL BE CONDUCTED WEEKLY, AND AFTER EACH MEASURABLE PRECIPITATION EVENT OF 0.25 INCHES OR GREATER BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN SEDIMENT AND EROSION CONTROL, TO ASCERTAIN THAT THE SEDIMENT AND EROSION CONTROL (E&S) BMPS ARE OPERATIONAL AND EFFECTIVE IN PREVENTING POLLUTION. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT, AND INCLUDE:
- A) A SUMMARY OF THE SITE CONDITIONS, E&S BMPS, AND COMPLIANCE; AND B) THE DATE, TIME, AND THE NAME OF THE PERSON CONDUCTING THE INSPECTION
- C) TURBIDITY TESTING AS REQUIRED BY THE GENERAL PERMIT (NPDES)
- 14. THE CONTRACTOR SHALL CONSTRUCT ALL SEDIMENT AND EROSION CONTROLS IN ACCORDANCE WITH STATE AND FEDERAL GUIDELINES, WITH THE CONTRACT DOCUMENTS, AND AS DIRECTED BY THE MUNICIPALITY AND/OR COUNTY SOILS CONSERVATION DISTRICT AND/OR INLAND WETLANDS COMMISSION. THE CONTRACTOR SHALL KEEP A COPY OF THE GUIDELINES ON-SITE FOR REFERENCE DURING CONSTRUCTION.
- 15. ADDITIONAL AND/OR ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES MAY BE INSTALLED DURING THE CONSTRUCTION PERIOD IF FOUND NECESSARY BY THE CONTRACTOR, OWNER, SITE ENGINEER, MUNICIPALITY AND/OR COUNTY SOILS CONSERVATION DISTRICT AND/OR INLAND WETLANDS COMMISSION, OR GOVERNING AGENCIES. THE CONTRACTOR SHALL CONTACT THE OWNER AND APPROPRIATE GOVERNING AGENCIES FOR APPROVAL IF ALTERNATIVE CONTROLS OTHER THAN THOSE SHOWN ON THE PLANS ARE PROPOSED.
- 16. THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROLS BEFORE AND AFTER EACH STORM (0.25 INCHES OR GREATER RAINFALL), OR AT LEAST WEEKLY, TO VERIFY THAT THE CONTROLS ARE OPERATING PROPERLY AND MAKE REPAIRS WHERE NECESSARY.
- 17. THE CONTRACTOR SHALL KEEP A SUPPLY OF SEDIMENT AND EROSION CONTROL MATERIAL (HAY BALES, SILT FENCE, JUTE MESH, RIP RAP, ETC.) ON-SITE FOR MAINTENANCE AND EMERGENCY REPAIRS.
- 18. PROTECT EXISTING TREES THAT ARE TO BE SAVED BY FENCING AT THE DRIP LINE OR AS SHOWN WITH SNOW FENCE. ORANGE SAFETY FENCE, OR EQUIVALENT FENCING. ANY LIMB TRIMMING SHOULD BE DONE BEFORE CONSTRUCTION BEGINS IN THAT AREA; FENCING SHALL BE MAINTAINED AND REPAIRED DURING CONSTRUCTION.
- 19. INSTALL PERIMETER SEDIMENT AND EROSION CONTROLS PRIOR TO CLEARING OR CONSTRUCTION. ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE LIMIT OF DISTURBANCE, WHICH SHALL BE MARKED WITH SILT FENCE, SAFETY FENCE, HAY BALES, RIBBONS, OR OTHER MEANS PRIOR TO CLEARING. CONSTRUCTION ACTIVITY SHALL REMAIN ON THE UPHILL SIDE OF THE SILT FENCE UNLESS WORK IS SPECIFICALLY CALLED FOR ON THE DOWNHILL SIDE OF THE FENCE.
- 20. STONE CONSTRUCTION ENTRANCE ANTI-TRACKING PADS SHALL BE INSTALLED AT START OF CONSTRUCTION AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. THE LOCATION OF THE TRACKING PADS MAY CHANGE AS VARIOUS PHASES OF CONSTRUCTION ARE COMPLETED.
- 21. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR USE IN FINAL LANDSCAPING. ALL EARTH STOCKPILES SHALL HAVE HAY BALES OR SILT FENCE AROUND THE LIMIT OF PILE. PILES SHALL BE TEMPORARILY SEEDED IF PILE IS TO REMAIN IN
- 22. MINIMIZE LAND DISTURBANCES. SEED AND MULCH DISTURBED AREAS WITH TEMPORARY MIX AS SOON AS PRACTICABLE (ONE WEEK MAXIMUM UNSTABILIZED PERIOD) USING PERENNIAL RYEGRASS AT 40 LBS PER ACRE. MULCH ALL CUT AND FILL SLOPES AND SWALES WITH LOOSE HAY AT A RATE OF 2 TONS PER ACRE. IF NECESSARY, REPLACE LOOSE HAY ON SLOPES WITH EROSION CONTROL BLANKETS OR JUTE CLOTH. MODERATELY GRADED AREAS, ISLANDS, AND TEMPORARY CONSTRUCTION STAGING AREAS MAY BE HYDROSEEDED WITH TACKIFIER.
- 23. MAINTAIN EXISTING PAVED AREAS FOR CONSTRUCTION STAGING FOR AS LONG AS POSSIBLE.
- 24. SILT FENCE AND OTHER SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH CONTRACT DRAWINGS AND MANUFACTURER'S RECOMMENDATIONS PRIOR TO WORK IN ANY UPLAND AREAS.
- 25. INSTALL SILT FENCE ACCORDING TO MANUFACTURER'S INSTRUCTION, PARTICULARLY, BURY LOWER EDGE OF FABRIC INTO GROUND. SILT FENCE SHALL BE TENCATE ENVIROFENCE, PROPEX GEOTEX OR EQUIVALENT APPROVED BY THE CIVIL ENGINEER. FILTER FABRIC USED SHALL BE TENCATE 140N OR 170N, OR APPROVED EQUIVALENT. SEE SPECIFICATIONS FOR
- 26. WHERE INDICATED ON SEDIMENT AND EROSION CONTROL PLANS USE NEW HAY/STRAW BALES AND REPLACE THEM WHENEVER THEIR CONDITION DETERIORATES BEYOND REASONABLE USABILITY. STAKE BALES SECURELY INTO GROUND AND BUTT TIGHTLY TOGETHER TO PREVENT UNDERCUTTING AND BYPASSING.
- 27. INSTALL CONCRETE WASH PITS AND DEWATERING PITS AS SHOWN AND AS NECESSARY DURING VARIOUS PHASES OF CONSTRUCTION TO CONTROL RUNOFF UNTIL UPHILL AREAS ARE DETERMINED TO BE STABILIZED BY THE AUTHORITY HAVING JURISDICTION. LOCATION OF TEMPORARY SEDIMENT BASINS WILL REQUIRE REVIEW AND APPROVAL BY THE CIVIL ENGINEER
- 28. DIRECT ALL DEWATERING PUMP DISCHARGE TO A SEDIMENT CONTROL DEVICE SUCH AS TEMPORARY PITS, SEDIMENT TRAP, SEDIMENT BASINS OR GRASS FILTERS WITHIN THE APPROVED LIMIT OF DISTURBANCE. DISCHARGE TO STORM DRAINAGE SYSTEM OR SURFACE WATERS FROM SEDIMENT CONTROLS SHALL BE CLEAR.
- 29. BLOCK END OF STORM SEWERS IN EXPOSED TRENCHES WITH BOARDS AND SANDBAGS AT THE END OF EACH WORKING DAY WHEN RAIN IS EXPECTED. 30. SWEEP AFFECTED PORTIONS OF OFF SITE ROADS ONE OR MORE TIMES A DAY (OR LESS FREQUENTLY IF TRACKING IS NOT

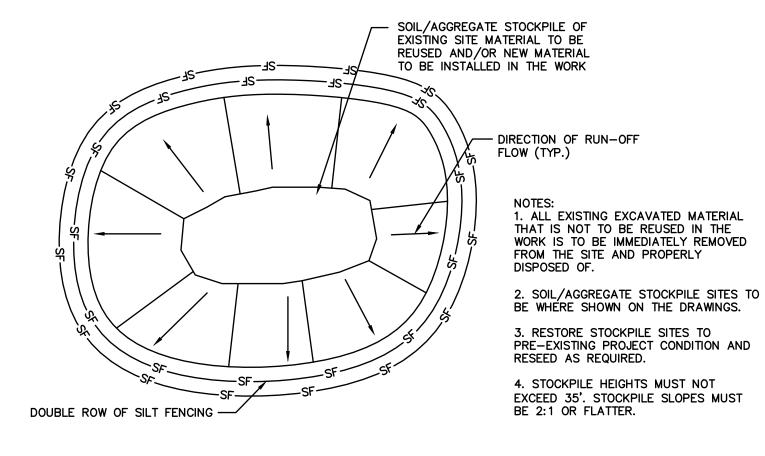
DOWN DISTÚRBED AREAS, USING CALCIUM CHLORIDE, AND COVERING LOADS ON DUMP TRUCKS.

31. PERIODICALLY CHECK ACCUMULATED SEDIMENT LEVELS IN THE SEDIMENT BASINS AND SEDIMENT TRAPS DURING CONSTRUCTION AND CLEAN ACCUMULATED SILT WHEN NECESSARY OR WHEN ONE FOOT OF SEDIMENT HAS ACCUMULATED OR PER SPECIFIC CLEANOUT MARKER ELEVATION. CLEAN ACCUMULATED SEDIMENT FROM CATCH BASIN SUMPS AS NECESSARY AND AS DIRECTED BY THE CIVIL ENGINEER OR OWNER'S CONSTRUCTION REPRESENTATIVE. REMOVE ACCUMULATED SEDIMENT FROM BEHIND HAY/STRAW BALES AND SILT FENCE WHEN LEVEL REACHES HALF THE HEIGHT OF THE BALE OR ONE FOOT AT SILT FENCE. DISPOSE OF SEDIMENT LEGALLY EITHER ON OR OFF SITE.

A PROBLEM) DURING CONSTRUCTION. OTHER DUST CONTROL MEASURES TO BE USED AS NECESSARY INCLUDE WATERING

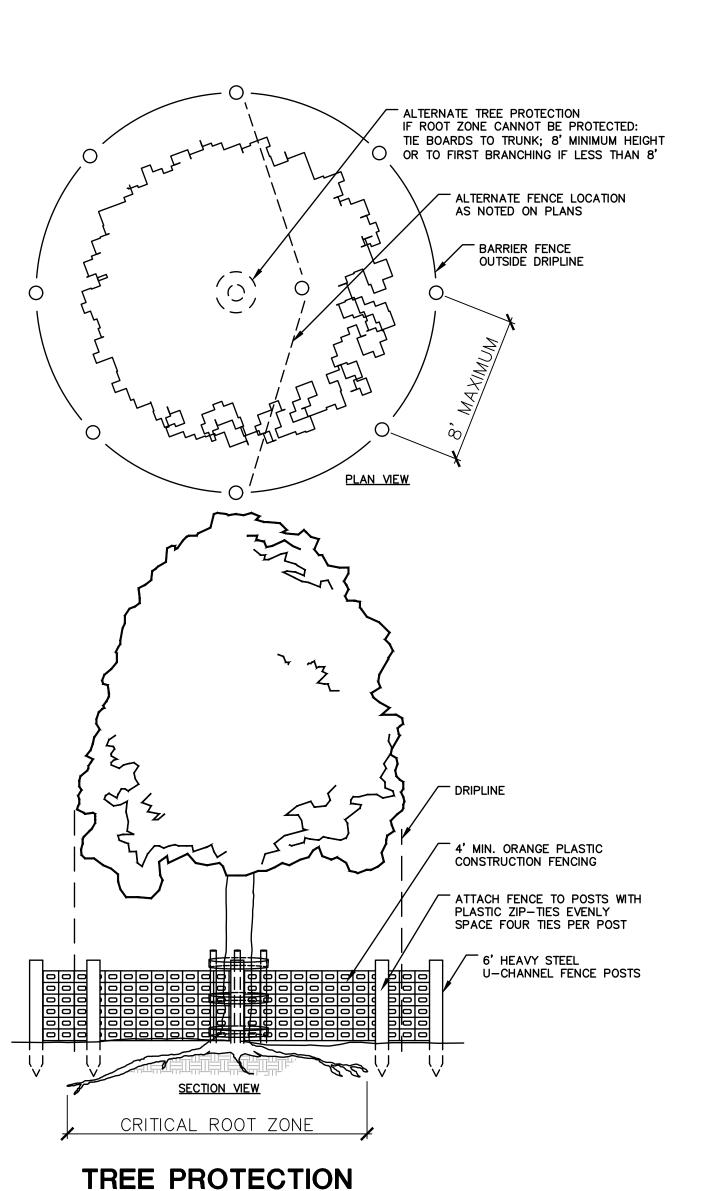
- 32. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
- 33. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.
- 34. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF UTILITY AND STORM PIPE TRENCHES SO AS TO ALLOW THE TRENCH TO INTERCEPT ALL SILT LADEN RUNOFF.
- 35. CONTRACTOR SHALL ONLY EXCAVATE AS MUCH UTILITY AND STORM PIPE TRENCH WORK AS CAN BE COMPLETED, BACKFILLED AND STABILIZED IN ONE DAY SO AS TO LIMIT THE AMOUNT OF OPEN, DISTURBED TRENCHING.

- 36. ANY STOCKPILES OF STRIPPED MATERIALS ARE TO BE PERIODICALLY SPRAYED WITH WATER OR A CRUSTING AGENT TO STABILIZE POTENTIALLY WIND-BLOWN MATERIAL. HAUL ROADS BOTH INTO AND AROUND THE SITE ARE TO BE SPRAYED AS NEEDED TO SUPPRESS DUST. TRUCKS HAULING IMPORT FILL MATERIAL ARE TO BE TARPED TO AID IN THE CONTROL OF AIRBORNE DUST. DURING HIGH WIND EVENTS (20 TO 30 MPH SUSTAINED) CONSTRUCTION ACTIVITY SHALL BE LIMITED OR CEASED IF DUST CANNOT BE CONTROLLED BY WETTING.
- 37. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS UNLESS OTHERWISE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
- 38. MAINTAIN ALL PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. UPON COMPLETION OF WORK SWEEP PARKING LOT AND REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS WHEN AUTHORIZED BY AUTHORITY HAVING JURISDICTION. FILE NOT (NOTICE OF TERMINATION) WITH AUTHORITY HAVING JURISDICTION RESPONSIBLE FOR REGULATING STORM WATER DISCHARGES FROM CONSTRUCTION ÁCTIVITIES PER NPDES.



MATERIALS STOCKPILE DETAIL

N.T.S.

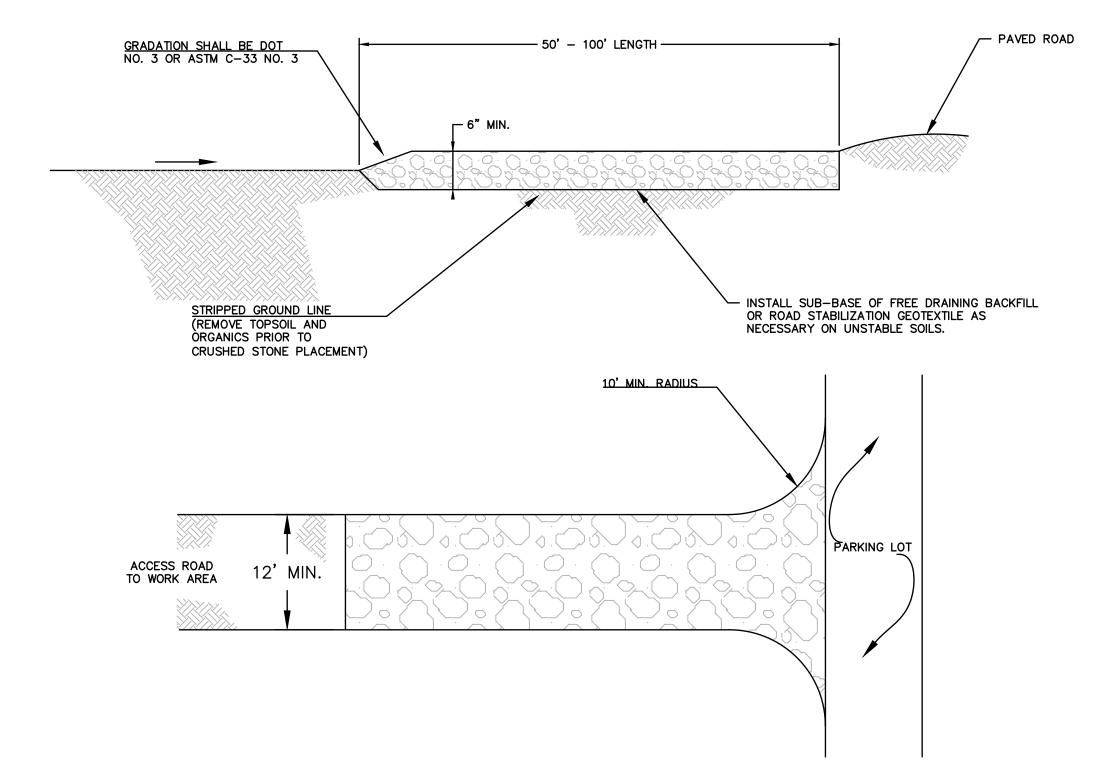


STAKES 6"x6" TRENCH OVFRI AP FABRIC EXCAVATED UP AT JOINTS SLOPE FROM STAKES FASTENERS (TYP) 6" BETWEEN SILT FENCE FABRIC EXTENDED INTO TRENCH - BACKFILL AND COMPACT EXCAVATED SOIL FENCE "A" STAKE "B" -TWO STAKES -STAKE "A" -FENCE "B"

JOINT DETAIL END JOINT DETAIL

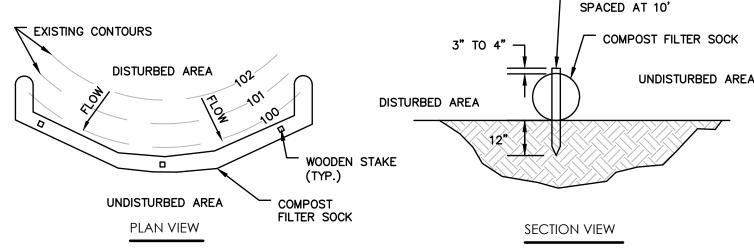
INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT MAINTENANCE SHALL OCCUR WHEN NECESSARY AND PER SEDIMETN AND EROSION CONTROL NOTES. SILT FENCE SHALL BE REPLACED EVERY 6 MONTHS AND STACKS SHALL BE INSPECTED TO ENSURE STRUCTURAL INTEGRITY. SILT FENCE SHALL BE INSPECTED WEEKLY AND ALL MAINTENANCE ISSUES SHALL BE CORRECT AT THAT TIME.

SILT FENCE



CONSTRUCTION ENTRANCE

N.T.S.



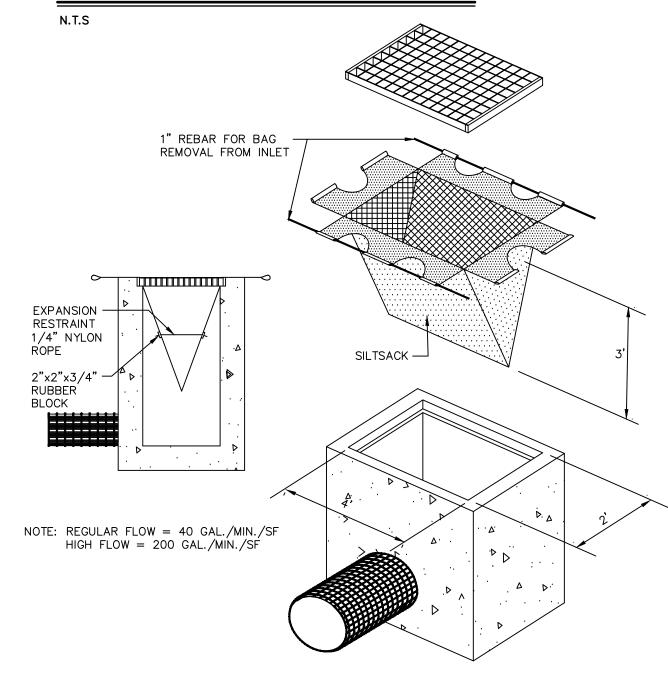
SOCK FABRIC SHALL MEET RIDOT STANDARDS. COMPOST SOCK SHALL ACT AS A SEDIMENT BARRIER AND BE AS SHOWN ON PLANS.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK SHALL BE

COMPOST FILTER SOCK DETAIL

POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.



SILTSACK DETAIL

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S S Z **A** = = OUND

2" X 2" WOODEN STAKE

DJC NONE 2100515 June 2023

EC210051501 **EROSION AND SEDIMENT CONTROL NOTES**

& DETAILS

SITE DEMOLITION LEGEND

SYMBOL	NAME
LOD	LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE
	PROPERTY LINE
	SAWCUT LINE
· xxxxxxxxxxxxxxxxxxxxxxxxxxx	REMOVE AND DISPOSE EXISTING CONCRETE CURB AND WALLS
	REMOVE AND DISPOSE EXISTING FENCES AND GUARDRAILS
	REMOVE AND DISPOSE EXISTING CONCRETE PAVEMENT
	REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT
	REMOVE AND DISPOSE EXISTING GRAVEL PAVEMENT
	REMOVE AND DISPOSE EXISTING LANDSCAPE AREA
×	REMOVE AND DISPOSE EXISTING STRUCTURE/FURNISHING/LANDSCAPE ITEM
\bigcirc	REMOVE AND DISPOSE EXISTING TREE AND STUMP (SYMBOL NOT TO SCALE)
(S)	PROTECT EXISTING TREE TO REMAIN (SYMBOL NOT TO SCALE)

REMOVAL AND DISPOSAL OF STRUCTURES AND FURNISHINGS SHALL INCLUDE FOUNDATION UNLESS OTHERWISE NOTED

GRUBBING NOTE GRUBBING ACTIVITIES TO OCCUR IN STAGES AND ONLY WHERE EXCAVATION AND SUBSEQUENT STABILIZATION MEASURES ARE TO IMMEDIATELY FOLLOW.

REFER TO EC SERIES FOR EROSION AND SEDIMENTATION CONTROL PLANS AND NOTES.

Map 375 Lot 0438 Bldg. ∵\ ₩ CHD=N12°42'37"W Map 376 Lot 0514 184.62' SG Associates INC R=968.00' SABA LLC Bk. 5072 Pg. 40 L = 75.73'Bk. 6764 Pg. 349 #885 Oakland CHD=S6°57'05"W Oakland Beach Avenue Beach Avenue 75.71 TF=16.80 FL=8.7 Ht = 19.9'___Δ=47°26′33" \ R=229.46' Ht = 14.9'L=190.00' CHD=N12°42'3 _Line Per Map 168 (Map Ref. C) 184.62 /⁻Δ=1°12'14" R=3680.00' Map 376 Lot 0515 L=77.33'CHD=S65°58'30"E N/F 77.33' SABA LLC Bk. 6764 Pg. 349 REMOVE AND RESET EXISTING TIMBER - BEAM WHEEL STOPS #898 Oakland Beach Avenue Beach R=3680.00' L=132.56' WOOD GUIDERAIL TO REMAIN-T CLEAR AND GRUB EXISTING LANDSCAPE AREA 7 Map 375 Lot 0561 PROTECT DURING CONSTRUCTION CHD=S67°36'32"E N/F 132.56 SG Associates INC EXISTING UTILITY POLE TO REMAIN-/ Map 376 Bk. 5072 Pg. 40 Bldg. PROTECT DURING CONSTRUCTION #889 Oakland #889 REMOVE AND DISPOSE EXISTING CONCRETE BOLLARDS Beach Avenue (TYPICAL OF 3) REMOVE AND DISPOSE EXISTING TREE AND STUMP REMOVE AND DISPOSE EXISTING LANDSCAPE AREA EXISTING SANITARY SEWER MANHOLE AND SANITARY SEWER LINE TO REMAIN—PROTECT DURING CONSTRUCTION -EXISTING TREE TO REMAIN-PROTECT DURING CONSTRUCTION REMOVE AND DISPOSE EXISTING BENCHES-(TYPICAL OF 3) REMOVE AND DISPOSE EXISTING BIKE RACK REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT -LIMIT OF DISTURBANCE REMOVE AND RESET SIGNAGE REMOVE AND DISPOSE EXISTING CONCRETE PAVEMENT REMOVE AND DISPOSE EXISTING GRAVEL PAVEMENT PROTECT DURING CONSTRUCTION WOOD GUIDERAIL TO REMAIN--REMOVE AND RESET SIGNAGE REMOVE AND DISPOSE EXISTING CHAIN LINK FENCE EXISTING LIGHT FIXTURE TO REMAIN S REMOVE AND RESET EXISTING BOULDERS (TYP.), FINAL LOCATION OF BOULDERS TO BE DÉTERMINED BY OWNER Map 375 Lot 0562 -REMOVE AND RESET SIGNAGE -EXISTING LIGHT FIXTURE TO REMAIN City of Warwick Dakland Beach Avenue -REMOVE AND DISPOSE EXISTING CONCRETE CURB -REMOVE AND DISPOSE EXISTING CONCRETE BOLLARDS (TYPICAL OF 3) EXISTING WOOD BOARDWALK AND BENCHES TO REMAIN—PROTECT DURING CONSTRUCTION Conc. Walk REMOVE AND DISPOSE EXISTING PLAYSCAPE STRUCTURE AND CONCRETE FOOTINGS SAWCUT AND REMOVE CONCRETE WALKWAY REMOVE AND DISPOSE EXISTING REMOVE AND DISPOSE EXISTING CLEAR AND GRUB EXISTING LANDSCAPE AREA CONCRETE WALL WOOD GUARDRAIL (TYP.) STOCKPILE SAND FOR REUSE PROPERTY LINE 7 REMOVE AND DISPOSE EXISTING BITUMINOUS CURB (TYP.) EXISTING UTILITY POLE AND GUY WIRE TO REMAIN—
PROTECT DURING CONSTRUCTION REMOVE AND DISPOSE EXISTING
METAL GATE, POSTS, AND FOOTINGS REMOVE AND RESET SIGNAGE-- REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT REMOVE AND DISPOSE EXISTING CONCRETE WALL SAWCUT LINE CLEAR AND GRUB EXISTING LANDSCAPE AREA STOCKPILE SAND FOR REUSE > EXISTING SANITARY SEWER MANHOLE TO REMAIN-PROTECT DURING CONSTRUCTION EXISTING CONCRETE WALL TO REMAIN-BOW=6.3

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GRAPHIC SCALE

SCALE IN FEET

20 10 0

SHP SPL/ YGROUND AND:

BEACH AVENUE

C, RHODE ISLAND

Designed JCW Drawn Reviewed 1"=20' Scale 2100515 Project No. June 2023 CAD File:

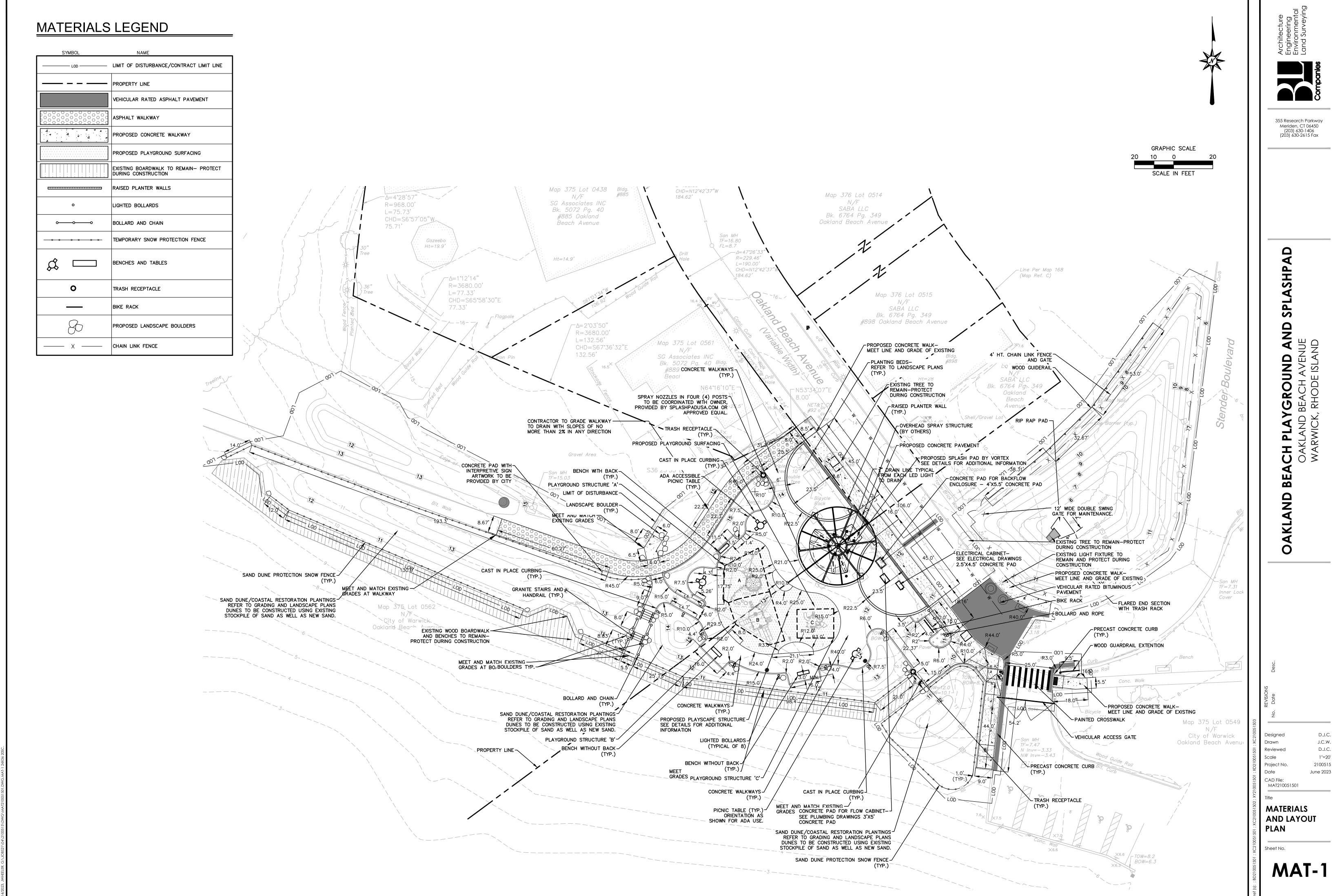
DM210051501 SITE DEMOLITION

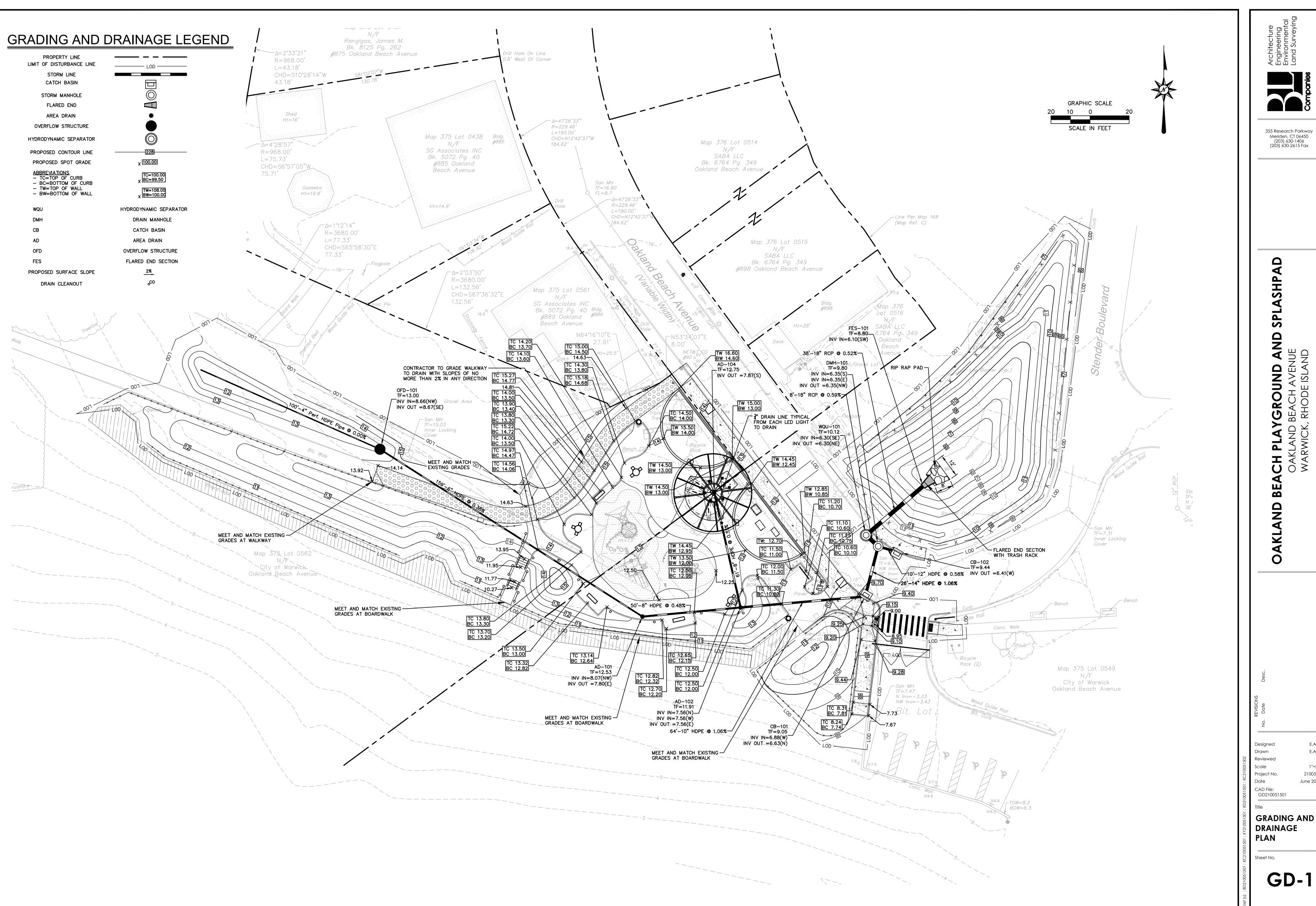
PLAN

DM-1

Sheet No.

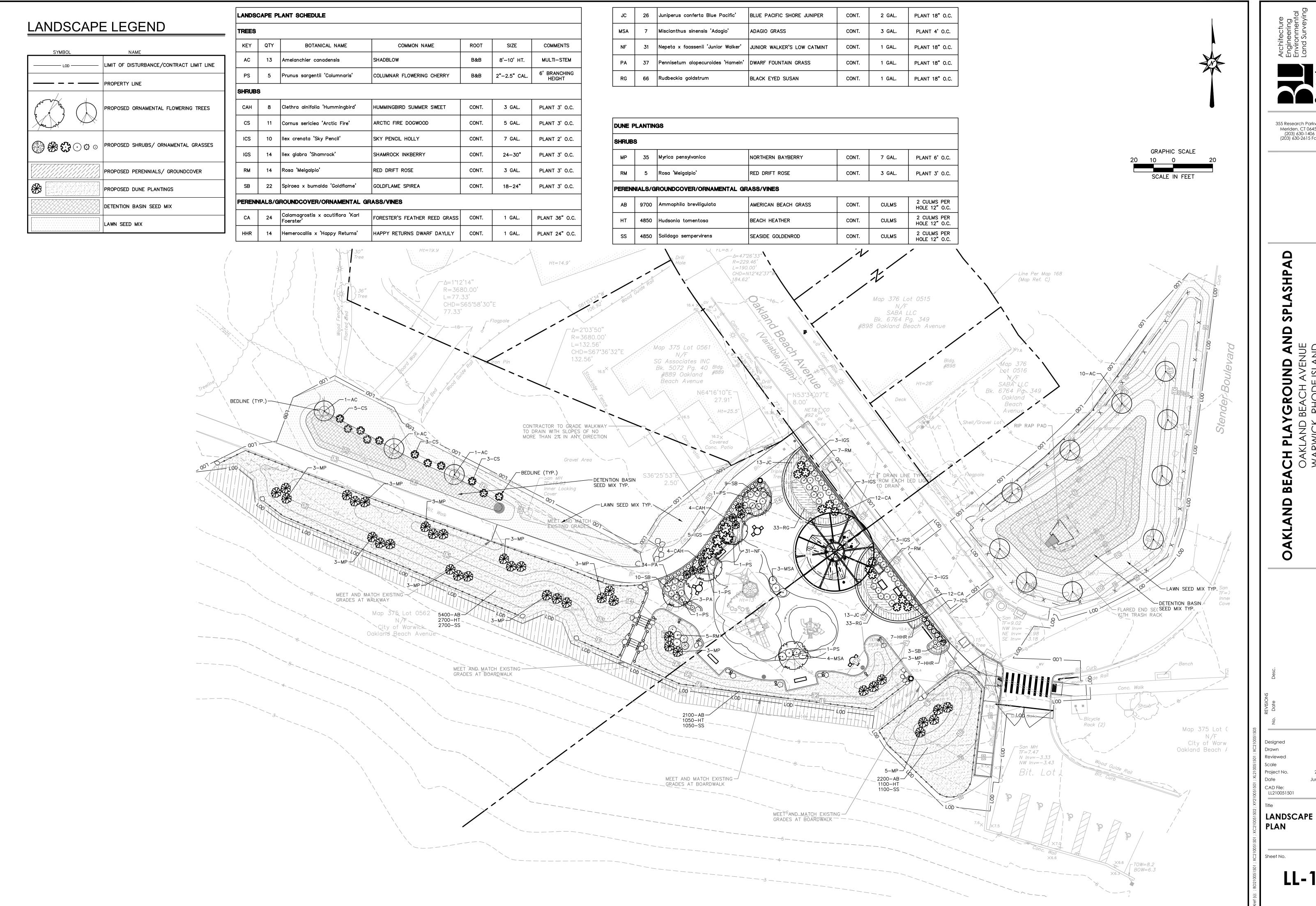
123 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.





Q 2023 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

E.A.E. June 2023



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YGROUND AND:

DEACH AVENUE

C, RHODE ISLAND

1"=20' 2100515 June 2023

LANDSCAPE

THE LANDSCAPE PLAN AND DETAIL SHEET ARE FOR LANDSCAPING INFORMATION ONLY. REFER TO THE SITE PLAN, GRADING AND DRAINAGE PLAN, SITE UTILITIES PLAN, LIGHTING PLAN AND DEMOLITION PLAN FOR ALL OTHER INFORMATION.

COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE. PRIOR TO DIGGING AND INSTALLATION OF PLANT MATERIAL, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 811.COM OR CALL AT 1-800-922-4455. 2. THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO UTILITY LOCATIONS AND SITE CONDITIONS. THE CONTRACTOR SHALL ACCURATELY STAKE OUT THE LOCATIONS FOR ALL PLANTS FOR THE REVIEW, ADJUSTMENT, AND APPROVAL BY OWNER OR LANDSCAPE ARCHITECT PRIOR TO PLANTING.

3. THE CONTRACTOR SHALL GUARANTEE THAT ALL PLANTS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF ONE YEAR OR JUNE 1ST OF THE YEAR FOLLOWING INSTALLATION, WHICHEVER IS LONGER, AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY OWNER OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. PLANT MATERIAL REPLACEMENTS SHALL BE GUARANTEED FOR ONE FULL YEAR FROM DATE OF REPLACEMENT. REPLACEMENT PLANTS SHALL BE THE SAME AS SPECIFIED FOR THE ORIGINAL PLANTING. REPLACEMENTS SHALL BE MADE AS MANY TIMES AS NECESSARY TO ENSURE HEALTHY PLANTS. FINAL ACCEPTANCE SHALL BE MADE IF ALI PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL THE END OF THE GUARANTEE PERIOD. DURING THE LANDSCAPE MAINTENANCE PERIOD (GUARANTEE) THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY SITE CONSTRAINTS (PHYSICAL, ENVIRONMENT, ETC.) OR MAINTENANCE DEFICIENCIES THAT MAY AFFECT LANDSCAPE VEGETATION ESTABLISHMENT.

4. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY. ALL PLANTS SHALL BE ACCLIMATED BY THE SUPPLY NURSERY TO THE LOCAL HARDINESS ZONE AND BE CERTIFIED THAT THE PLANTING MATERIAL HAS BEEN GROWN FOR A MINIMUM OF TWO YEARS AT THE SOURCE AND OBTAINED WITHIN 200 MILES OF PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT.

5. PLANTS SHALL HAVE TAGS THAT IDENTIFY PLANT GENUS, SPECIES, CULTIVAR (IF APPLICABLE), PLANT COMMON NAME, NAME OF SOURCE NURSERY, AND SIZE OF PLANT FOR REVIEW OF OWNER OR LANDSCAPE ARCHITECT.

6. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER OR

7. FINAL GRADES SHALL BLEND SMOOTHLY WITH EXISTING GRADES, AND TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED.

8. IF TREE STAKING IS PROPOSED, TREE STAKING MUST BE COMPLETED THE SAME DAY AS THE TREE IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED PER DETAIL

9. LANDSCAPE PLANTING AREAS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, DEAD OR DYING PLANT MATERIAL, BLASTED ROCK, STONES GREATER THAN 1" IN DIAMETER, AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT SHALL BE REMOVED FROM AREAS TO BE LANDSCAPED AS REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS.

10. PLANTING SOIL:

DEPTH: PLANTING SOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4" OR AS NOTED IN THE LANDSCAPE DETAILS. PLANTING SOIL SHALL BE UTILIZED IN ALL PLANTING AREAS.

TESTING: CONTRACTOR SHALL SUBMIT (2) SOIL SAMPLES PER SOIL STOCKPILE TO A CERTIFIED TESTING LABORATORY TO DETERMINE ACIDITY, ORGANIC CONTENT, MECHANICAL ANALYSIS, AVAILABLE NUTRIENTS (N,P,K,Ca,Mg,S,Fe,Mn,Zn,Cu,B,AI,Pb) AND NECESSARY AMENDMENTS TO SOIL. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS TO THE OWNER OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. TEST RESULTS SHALL RECOMMEND AMENDMENTS THAT WILL ALTER THE SOIL CHARACTERISTICS SUCH THAT THE CHARACTERISTICS DESCRIBED BELOW ARE ACHIEVED AND THE SPECIFIED PLANTS (CONTRACTOR TO PROVIDE LIST TO TESTING LABORATORY) WILL ACHIEVE PROPER GROWTH THAT IS NEITHER DEFICIENT NOR EXCESSIVE. THE CONTRACTOR SHALL INCORPORATE THESE AMENDMENTS AT NO INCREASE IN CONTRACT PRICE.

CHARACTERISTICS: PLANTING SOIL MAY CONSIST OF EXISTING ON-SITE SOILS, AMENDED ON-SITE SOILS, OR IMPORTED SOILS MEETING THE FOLLOWING CRITERIA:

- A. NOT TO CONTAIN MATERIALS HARMFUL TO PLANT LIFE, TO BE CLEAN, FERTILE, FRIABLE, AND WELL DRAINING. ALL PLANTING SOIL SHALL BE FREE OF ANY SUBSOIL EARTH CLODS, SODS, STONES OVER 1" IN ANY DIMENSION, STICKS, ROOTS, WEEDS, LITTER AND OTHER
- DELETERIOUS MATERIAL. PLANTING SOIL SHALL BE UNIFORM IN QUALITY AND TEXTURE. B. PLANTING SOIL SHALL HAVE THE FOLLOWING OPTIMUM RANGES UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE

3% - 6% FOR LAWN OR GRASS AREAS. ORGANIC CONTENT 4% - 8% FOR TREE AND SHRUB PLANTERS. 8%-16% FOR RETENTION OR DETENTION BASINS. (BY LOSS OF IGNITION AT 375 C METHOD OF TESTING)

- C. NUTRIENT LEVELS SHALL BE ACHIEVED BY THE CONTRACTOR'S ADDITION OF AMENDMENTS TO THE PLANTING SOIL TO MEET THE OPTIMUM NUTRIENT LEVELS SPECIFIED IN THE TESTING LABORATORY REPORT FOR EACH OF PLANTS TO BE INSTALLED.
- . SOIL SHALL BE COMPACTED TO A SURFACE PENETRATION RESISTANCE OF 75-125 LBS/SQ.IN. E. SOIL MAY BE TREATED FOR WEEDS WITH PRE-EMERGENT OR POST-EMERGENT HERBICIDE, AS NEEDED AND AS APPROPRIATE FOR THE APPLICATION SEASON OR LOCATION, OR ELIMINATE GROWTH OF UNWANTED PLANT MATERIAL. APPLY HERBICIDES IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. HERBICIDE APPLICATOR MUST BE LICENSED IN THE STATE OF RHODE ISLAND, AND PERFORM
- APPLICATIONS IN ACCORDANCE WITH LOCAL REQUIREMENTS, PERMITTING STIPULATIONS, AND ANY OTHER RESTRICTIONS INCLUDING AND IN EXCESS OF STATE AND FEDERAL REGULATIONS. F. PROPOSED TOPSOIL SHALL MEET THE USDA SOILS TEXTURAL PERCENTAGES OF SAND, SILT, AND CLAY FOR FOLLOWING CLASSIFICATIONS:
 - SANDY LOAM WHERE SAND DOES NOT EXCEED 70% AND CLAY IS NOT LESS THAN 5%.
- SANDY CLAY LOAM WHERE SAND DOES NOT EXCEED 70% AND CLAY IS LESS THAN 28% G. BIORETENTION SOILS: SOIL TO BE INSTALLED IN RETENTION BASINS, PONDS, OR OTHER STORMWATER MANAGEMENT ENVIRONS SHALL MEET THE ABOVE DESCRIBED CHARACTERISTICS AND AS FOLLOWS: - SOIL SHALL NOT CONTAIN MORE THAN 20% CLAY AND LESS THAN 40% SILT.
- SOIL SHALL HAVE AN INFILTRATION RATE BETWEEN 1/2" AND 3" PER HOUR. H. MODIFICATION TO THE PLANTING SOIL CHARACTERISTICS DESCRIBED ABOVE MAY BE SUBMITTED FOR APPROVAL BY THE LANDSCAPE ARCHITECT. CONTRACTOR MUST DEMONSTRATE PROPOSED CHARACTERISTICS ARE EQUAL TO OR SUPERIOR TO THE SPECIFIED CHARACTERISTICS WITH RESPECT TO SUPPORTING PLANT GROWTH, AND STORMWATER MANAGEMENT.

REUSE OF EXISTING SAND FROM STOCKPILE LOCATION AS WELL AS IMPORT OF NEW SAND TO MEET REQUIREMENTS IN SPECIFICATIONS.

APPLY FERTILIZER AND OTHER AMENDMENTS AS RECOMMENDED FOR EACH PLANTING AREA BY SOIL ANALYSIS. APPLY AMENDMENTS IN A MANNER CONSISTENT WITH MANUFACTURER'S RECOMMENDATIONS. ANY ORGANIC AMENDMENTS SHALL HAVE A PH BETWEEN 4.5 AND 5.5 UNLESS OTHERWISE

13. PLANT REQUIREMENTS: ALL PLANTS SHALL CONFORM IN SIZE AND GRADE TO THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1 (LATEST EDITION). ALL PLANTS SHALL MEET THE ADDITIONAL REQUIREMENTS SET FORTH BELOW AND IN WRITTEN SPECIFICATIONS AS APPLICABLE. ALL TREES AND SHRUBS SHALL HAVE BEEN GROWN AT A COMMERCIAL NURSERY WITHIN 200 MILES OF THE PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. THEY SHALL BE HEALTHY, SYMMETRICAL, EVENLY AND DENSELY BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF BARK INJURY, DISEASE, AND INSECT PESTS. ALL TREES SHALL HAVE A STRAIGHT TRUNK WITH A SINGLE MAIN LEADER UNLESS OTHERWISE CHARACTERISTIC OF THE SPECIES OR VARIETY. THE OWNER OR LANDSCAPE ARCHITECT WILL ALLOW SUBSTITUTIONS ONLY UPON WRITTEN APPROVAL. SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED MAY BE USED IF APPROVED, BUT THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL OVERSTORY TREES PLANTED ALONG PARKING AREAS, SIDEWALKS AND PEDESTRIAN ACCESSES SHALL NOT BRANCH BELOW 7' FEET IF THE TREE CALIPER IS 3" INCHES OR GREATER. ALL PLANT MATERIALS ARE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE. THE CONTRACTOR SHALL COORDINATE SOURCE VISITS WITH THE LANDSCAPE ARCHITECT AND SHALL ACCOMPANY THE OWNER AND/OR LANDSCAPE ARCHITECT FOR ALL INSPECTIONS. CERTIFICATES OF COMPLIANCE WITH SPECIFICATIONS ARE REQUIRED FOR ALL PLANTS.

ALL PLANT MATERIAL SHALL BE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE OR PLACE OF GROWTH. THE CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE ARCHITECT ON A SCHEDULE FOR SOURCE VISITS AND ACCOMPANY THE OWNER OR LANDSCAPE ARCHITECT FOR ALL SOURCE INSPECTIONS. CERTIFICATES OF COMPLIANCE ARE REQUIRED FOR ALL PLANT MATERIALS. PHOTOGRAPHIC REVIEW OF PLANT MATERIAL IS ACCEPTABLE IF APPROVED BY LANDSCAPE ARCHITECT. PHOTOGRAPHS MUST BE PROVIDED IN QUANTITY AND VARIETY TO ALLOW LANDSCAPE ARCHITECT SUFFICIENT INFORMATION TO MAKE A REASONABLE DETERMINATION AS TO THE PLANTS' QUALITY. OWNER AND LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT PLANT MATERIAL DELIVERED TO THE SITE BUT PREVIOUSLY ACCEPTED IF

15. PLANTING SEASONS (UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT)

SPRING APRIL 1 TO JUNE 1 SEPTEMBER 1 TO OCTOBER 15 EVERGREEN TREES AND SHRUBS DECIDUOUS TREES AND SHRUBS APRIL 1 TO JUNE 1 MAY 15 TO JUNE 15 PERENNIALS DUNE PLANTINGS NOT RECOMMENDED

DAMAGED OR NOT PROPERLY MAINTAINED DURING THE DELIVERY PROCESS.

SEPTEMBER 15 TO NOVEMBER 15 SEPTEMBER 1 TO OCTOBER 15 OCTOBER 15 TO APRIL 1 PER MANUFACTURERS RECOMMENDATIONS OR AS LISTED IN SEED MIX NOTES

16. ALL SLOPES STEEPER THAN 3:1 RECEIVING A SEED MIX SHALL BE COVERED WITH AN EROSION CONTROL BLANKET OF STRAW FIBER AND BIODEGRADABLE OR PHOTODEGRADABLE NETTING, NO PLASTIC NETTING WILL BE ALLOWED.

17. UNLESS OTHERWISE NOTED IN DRAWING SET, NEW TREELINES SHALL EQUAL CLEARING AND GRUBBING LIMIT FOR CONSTRUCTION

ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL HAVE LOAM AND SEED INSTALLED.

SEED MIX NOTES

A. LAWN SEEDING MIX -

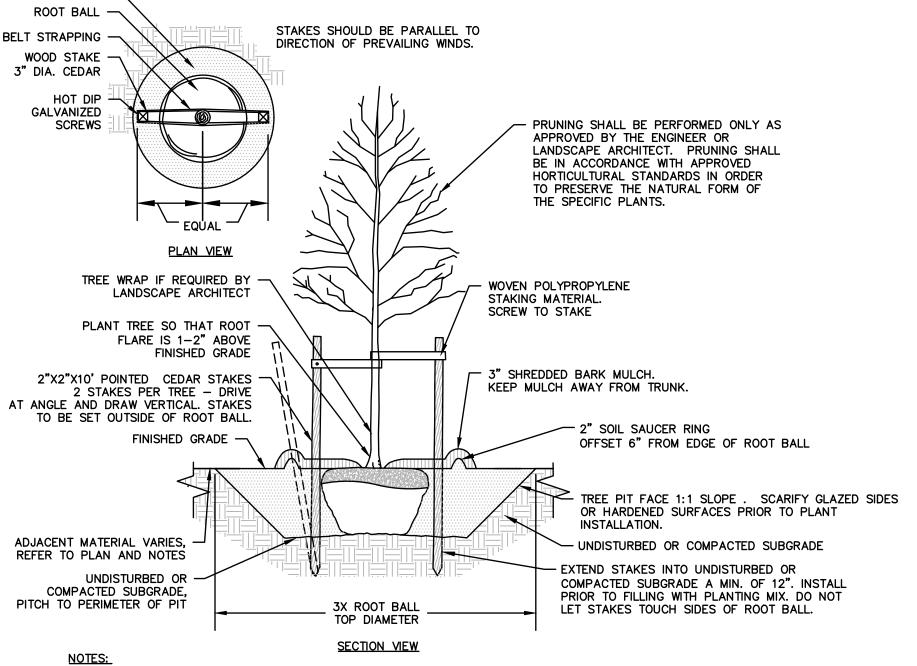
SEED MIXES

- 15 % PERENNIAL RYEGRASS (BLEND OF 3 IMPROVED HYBRIDS) 25 % FINE LEAF OR CREEPING FESCUE (BLEND OF 3 IMPROVED HYBRIDS)
- 60 % KENTUCKY BLUEGRASS (BLEND OF 3 IMPROVED HYBRIDS) SEEDING RATE: 5 LBS/1,000 S.F.
- SEEDING DATES: AUGUST 15 OCTOBER 1 AND APRIL 15 JUNE 30 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.
- C. DETENTION BASIN RESTORATION MIX-

NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASIN AND MOIST SITES NEW ENGLAND WETLAND PLANTS INC. OR APPROVED EQUAL

RIVER BANK WILD RYE (ELYMUS RIPARIOUS), CREEPING RED FESCUE (FESTUCA RUBRA), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), BIG BLUESTEM (ANDROPOGON GERARDII), SWITCH GRASS (PANICUM VIRGATUM), UPLAND BENTGRASS (AGROSTIS PERENNANS), NODDING BUR MARIGOLD (BIDENS CERNUA), BLUE VERVAIN (VERBENA HASTATA), HOLLOW-STEM JOE PYE WEED (EUPATORIUM FISTULOSUM), NEW ENGLAND ASTER (ASTER NOVAEANGLIAE), BONESET (EUPARTORIUM PERFOLIATUM), SOFT RUSH (JUNCUS EFFUSUS), WOOL GRASS (SCIRPUS

APPLICATION RATE: 35 LBS/ACRE: 1250 SQ FT/LB SEEDING DATES: AUGUST 15 - OCTOBER 1 AND APRIL 15 - JUNE 30 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.



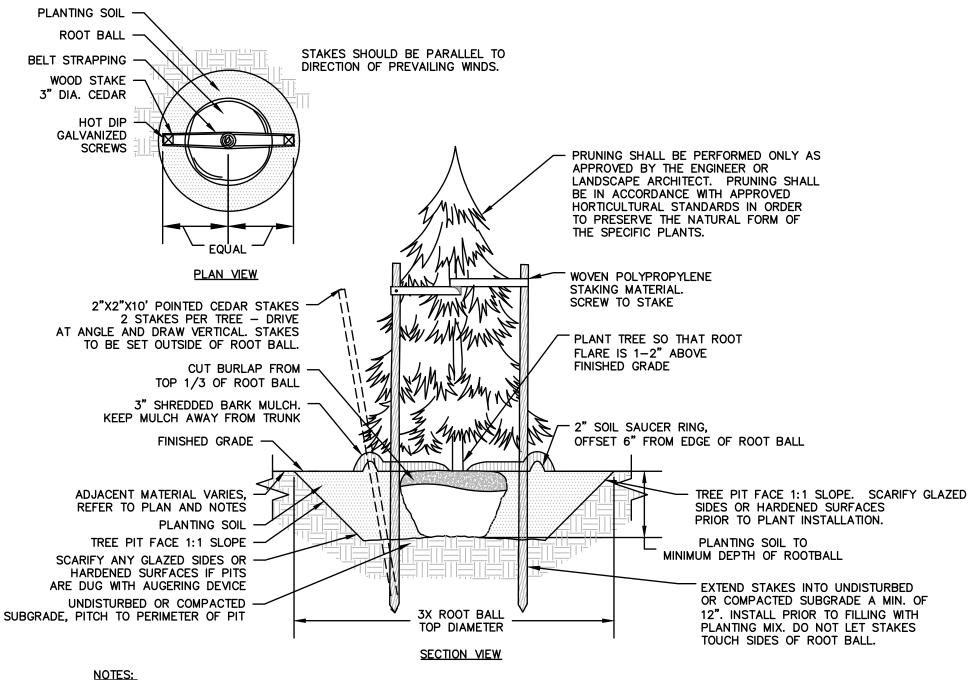
1. STAKING FOR TREES ON 4:1 SLOPES OR LESS THAN 3" CALIPER TO BE PERFORMED AT CONTRACTORS DISCRETION.

- 2. WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORTIE (GREEN) OR APPROVED EQUIVALENT. MATERIAL SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER, TWISTED, AND SECURED TO THE STAKE. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
- 3. BEFORE IN HOLE, REMOVE BOTTOM OF CAGE. ONCE IN HOLE, REMOVE REST OF CAGE FROM ROOT BALL. REMOVE TWINE AND BURLAP FROM TOP 1/3 OF ROOT BALL - SCORE REMAINING 2/3 OF BURLAP. IF BURLAP IS SYNTHETIC OR HAS BEEN TREATED WITH ANTI-DESSICANT, COMPLETELY REMOVE IT FROM ROOT BALL.

DECIDUOUS TREE PLANTING

N.T.S

PLANTING SOIL



1. STAKING FOR TREES ON 4:1 SLOPES OR LESS TO BE PERFORMED AT CONTRACTOR'S DISCRETION

N.T.S

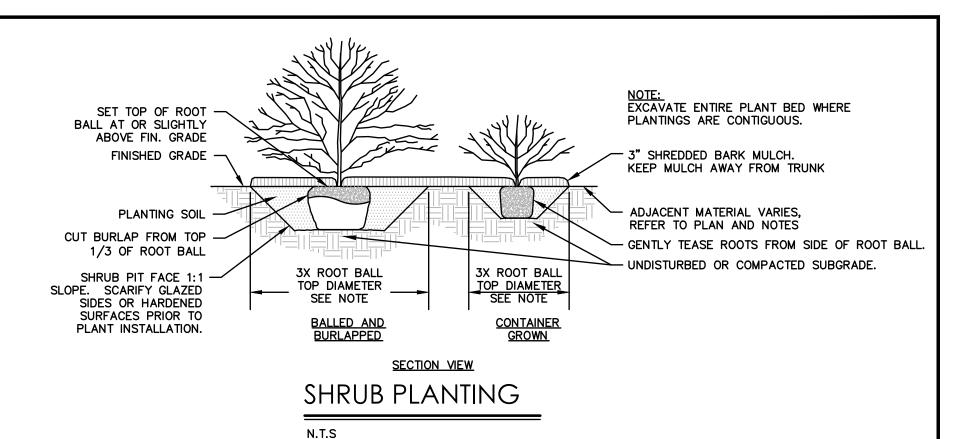
- 2. WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORTIE (GREEN) OR APPROVED EQUIVALENT. MATERIAL SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER, TWISTED, AND SECURED TO THE STAKE. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
- 3. BEFORE IN HOLE, REMOVE BOTTOM OF CAGE. ONCE IN HOLE, REMOVE REST OF CAGE FROM ROOT BALL. REMOVE TWINE AND BURLAP FROM TOP 1/3 OF ROOT BALL - SCORE REMAINING 2/3 OF BURLAP. IF BURLAP IS SYNTHETIC OR HAS BEEN TREATED WITH ANTI-DESSICENT, COMPLETELY REMOVE IT FROM ROOT BALL

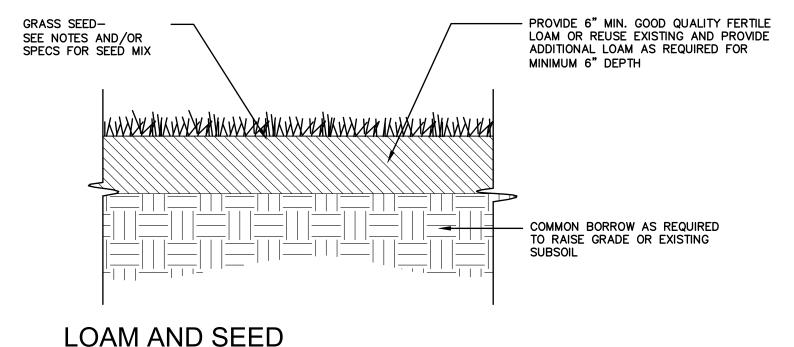
EVERGREEN TREE PLANTING

TAMP EDGE OF LOAM 1" SOIL REVEAL -- WIDEN MULCH THICKNESS — 3" MULCH <u>INITALIANIII/ININASAAJAINIIX D</u> 3 1/2"

NOTE: LOCATE BEDLINE AS SHOWN ON PLAN.

BEDLINE EDGE



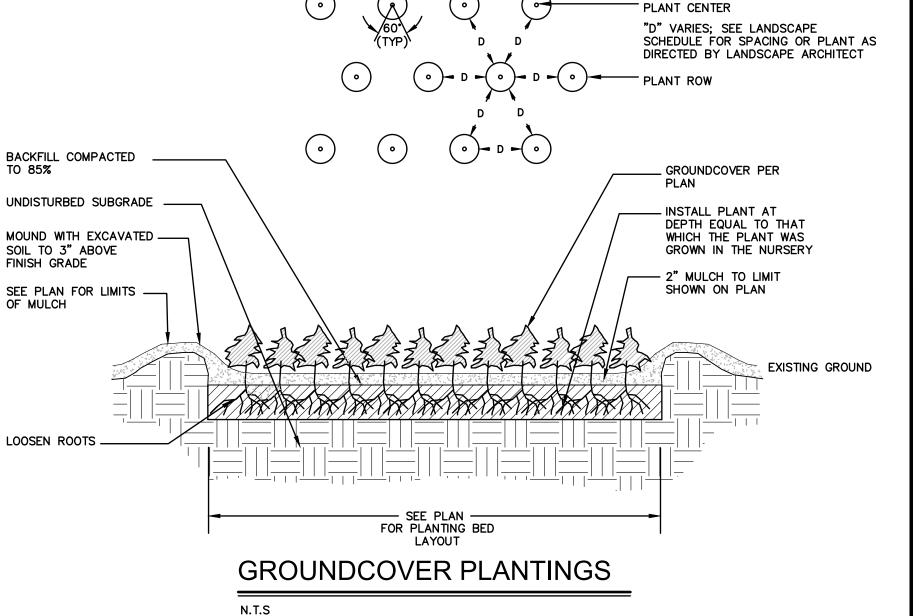


PERENNIAL PER PLANT 2" MULCH TO LIMIT SHOWN ON PLAN TAPER MULCH AWAY ----FROM CROWN - MOUND WITH EXCAVATED SOIL TO 3" ABOVE FINISH GRADE COMPACTED TO 85% SEE PLAN FOR LIMITS -OF MULCH **EXISTING GROUND** GENTLY HAND LOOSEN SOIL FROM AROUND ROOTBALL WITHOUT SEVERING MAIN ROOTS PLANT PERENNIAL AT DEPTH EQUAL TO THAT WHICH THE PLANT WAS GROWN IN THE NURSERY SPREAD ROOTS OVER UNDISTURED SUBGRADE

N.T.S

PERENNIAL AND GRASSES PLANTINGS

DIAMETER (MIN)



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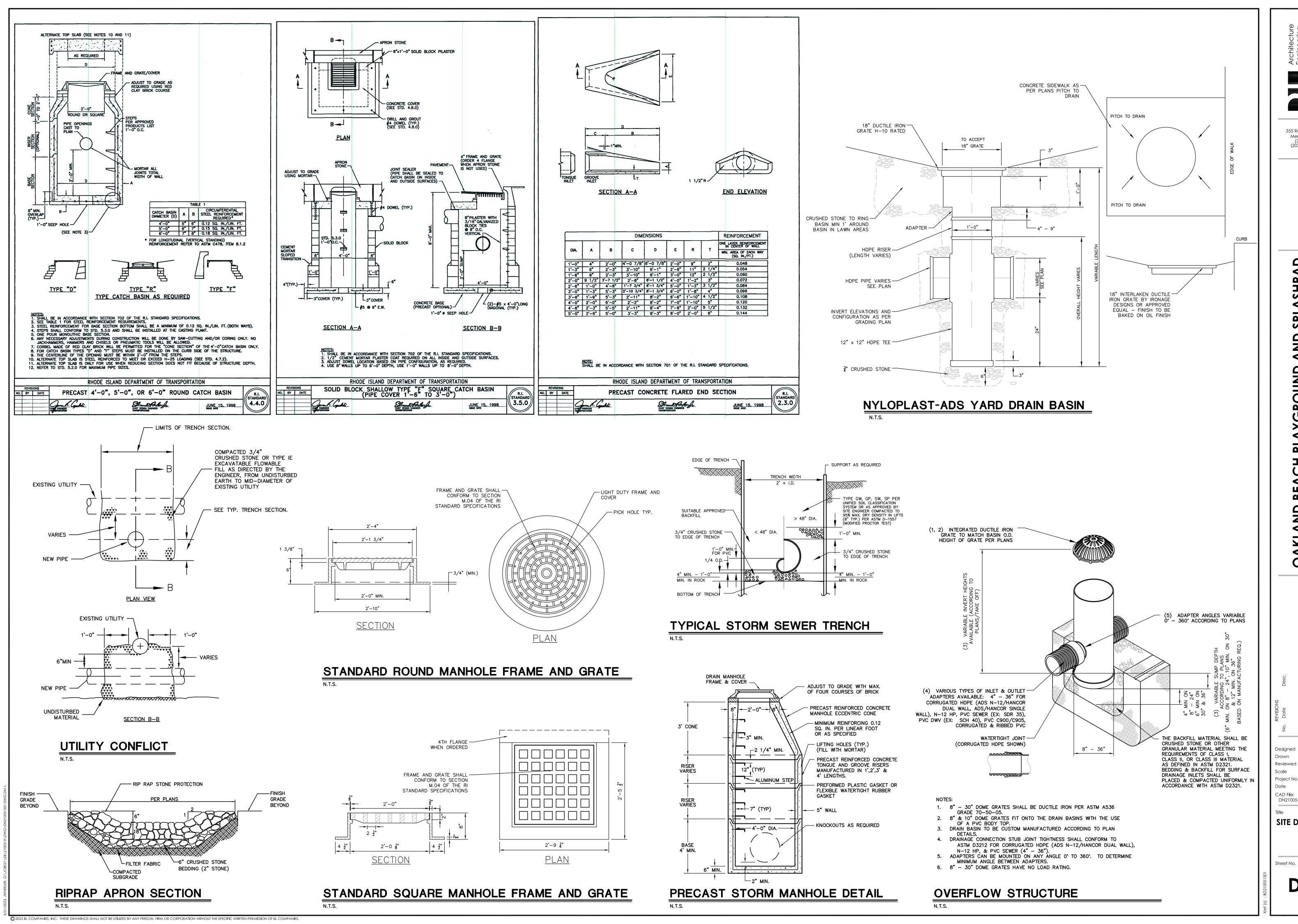
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Reviewed

NONE Project No 2100515 June 2023 CAD File: LL210051501

LANDSCAPE **DETAILS**

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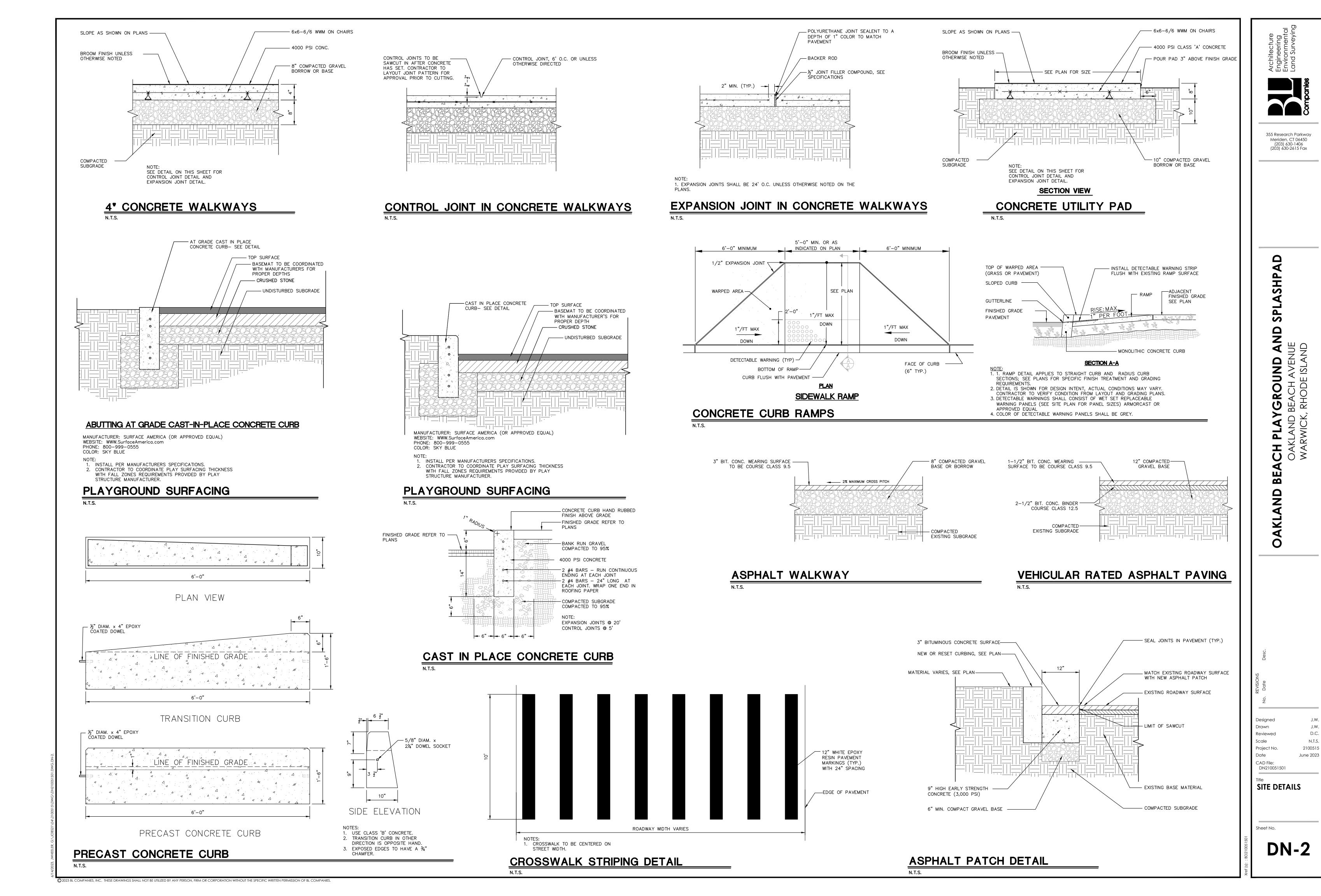
SPL GROUND AND BEACH AVENUE RHODE ISLAND

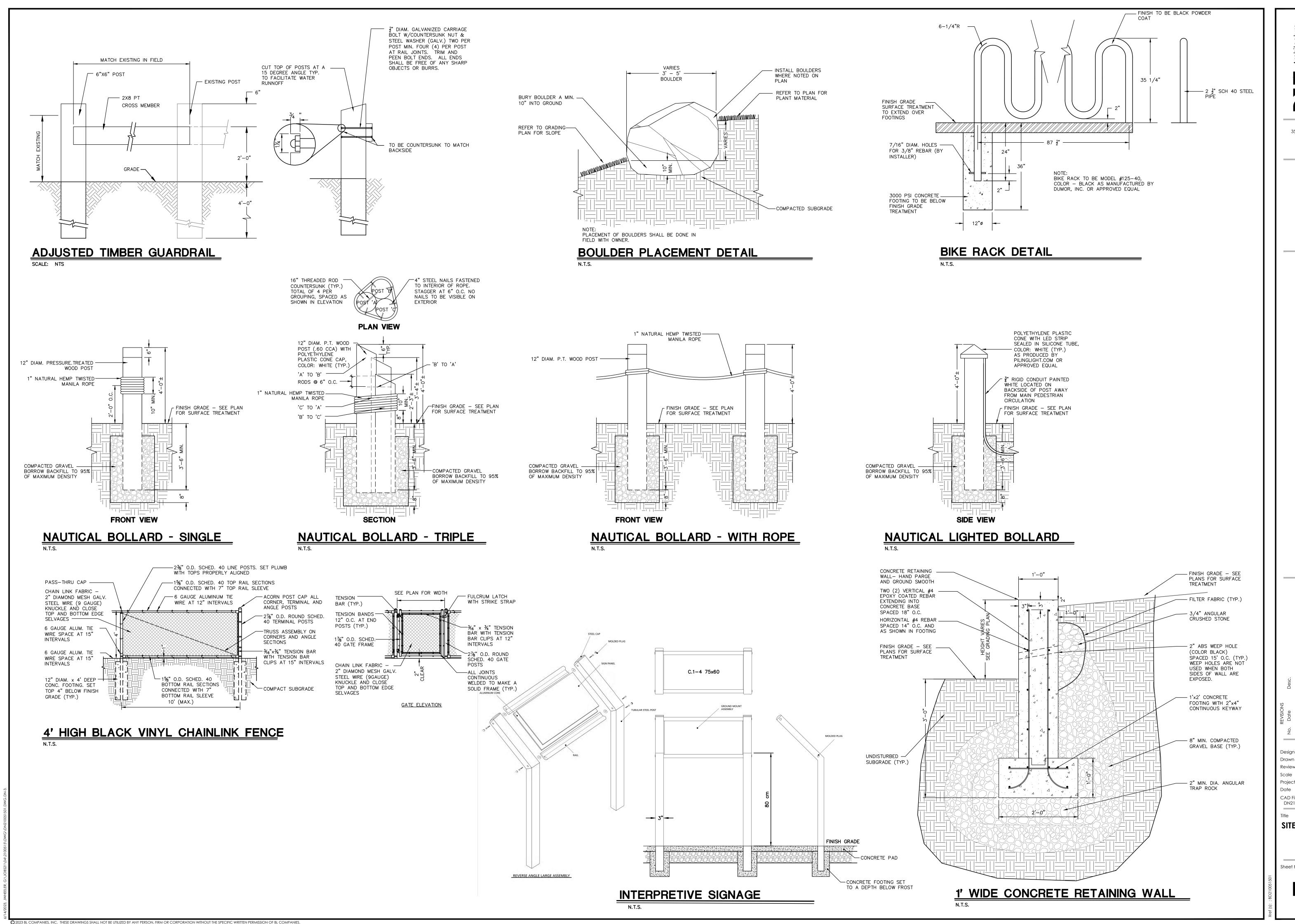
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SITE DETAILS





Architecture
Engineering
Environmental
Land Surveying

Compan

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ROUND AND SPLASHPAD

AKLAND BEACH PLAYGROUND AND SOAKLAND BEACH AVENUE WARWICK, RHODE ISLAND

REVISIONS
Io. Date Desc.

Designed J.W.
Drawn J.W.
Reviewed D.C.
Scale N.T.S.
Project No. 2100515

Scale N.T.S.

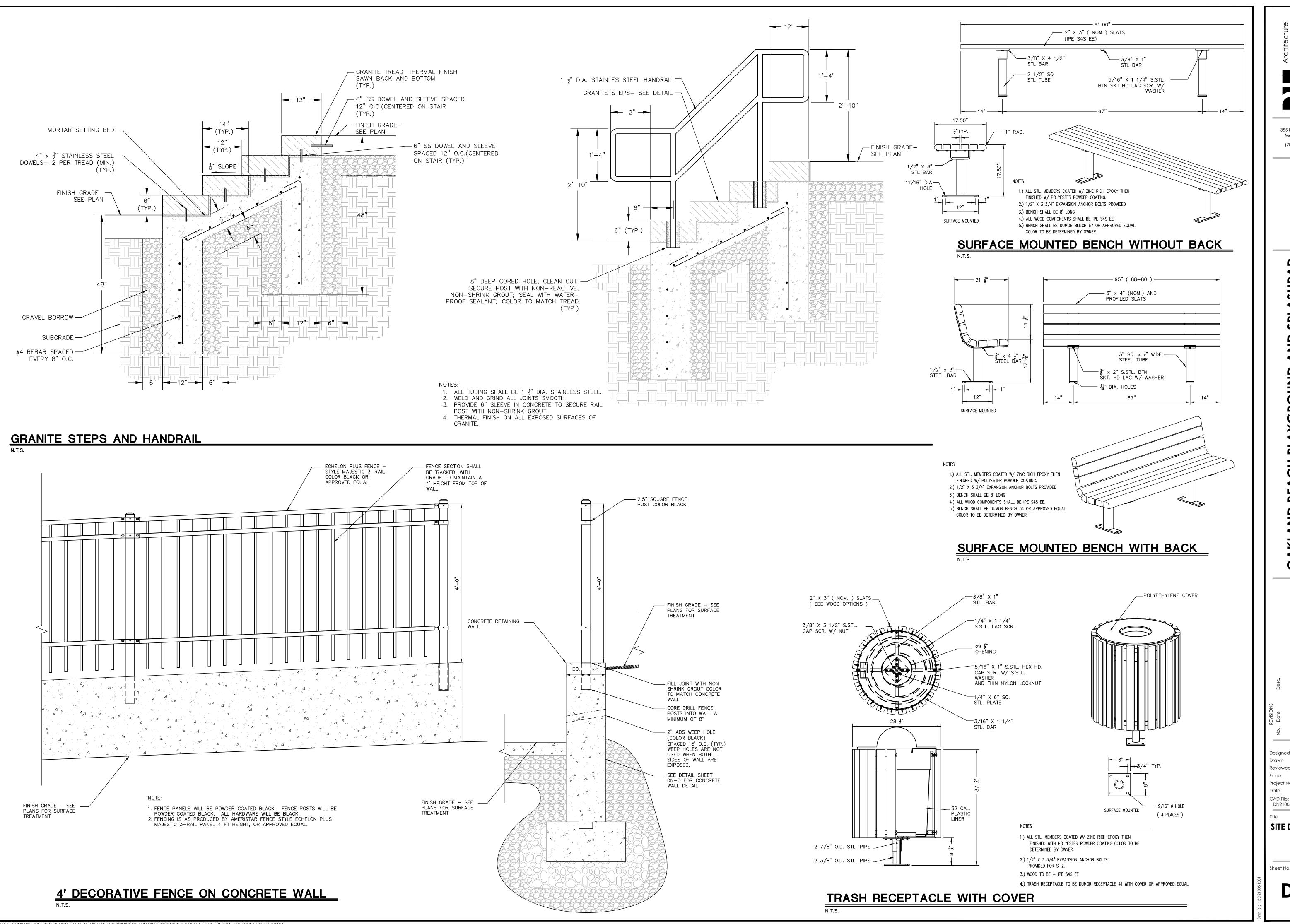
Project No. 2100515

Date June 2023

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SITE DETAILS

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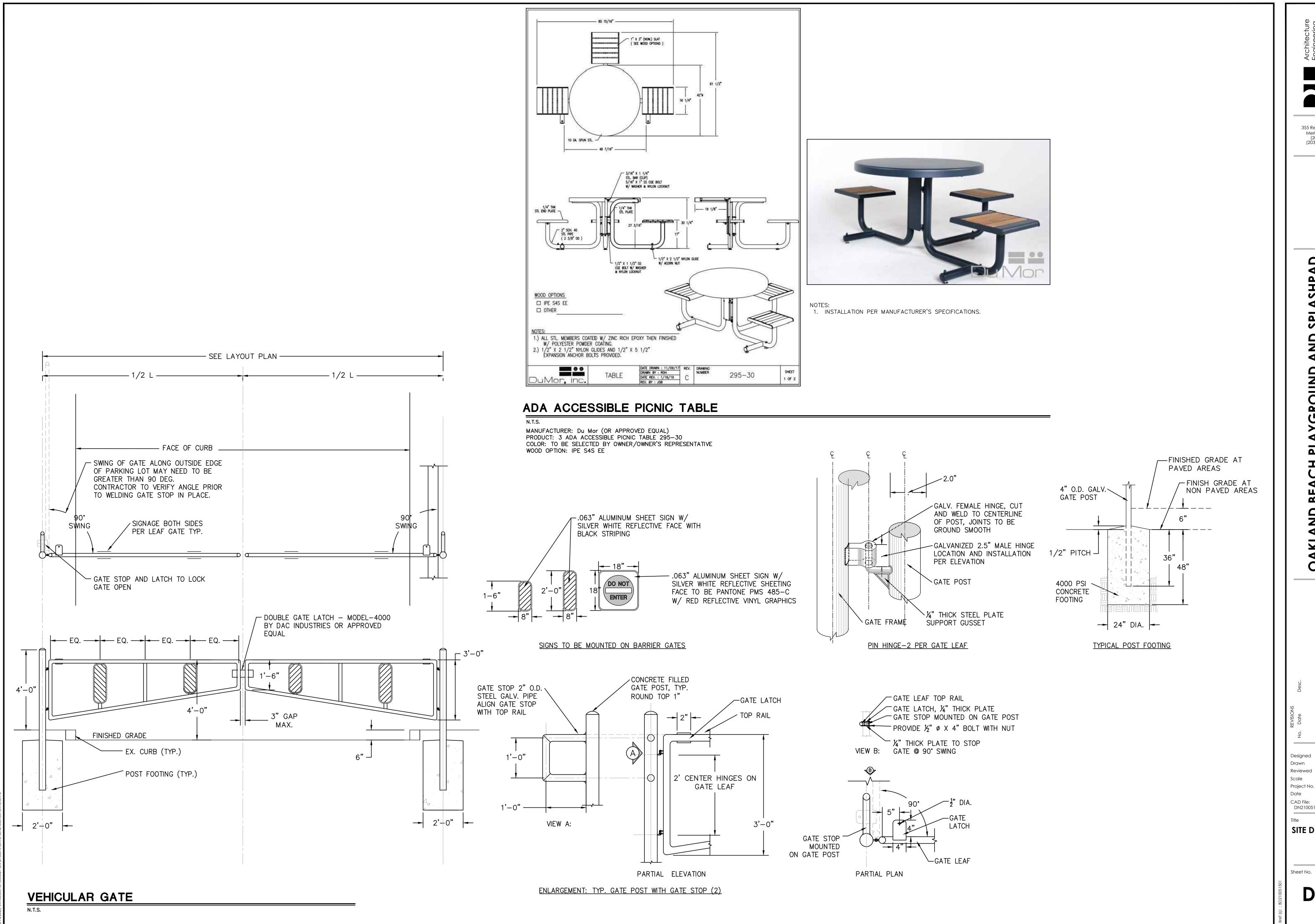
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Designed D.C. Reviewed N.T.S. 2100515 Project No.

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SITE DETAILS

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SPL, CH PLAYGROUND AND OAKLAND BEACH AVENUE WARWICK, RHODE ISLAND

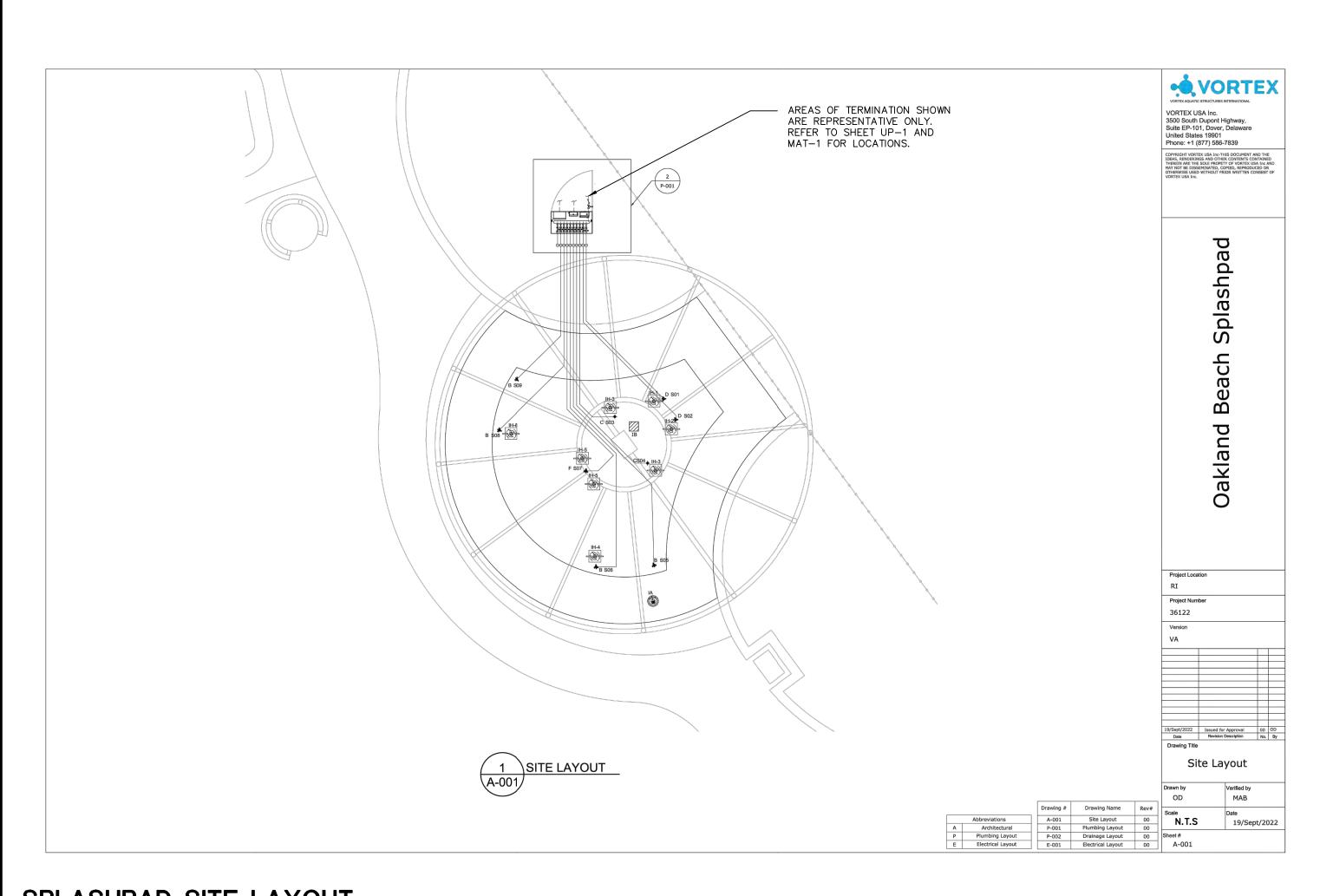
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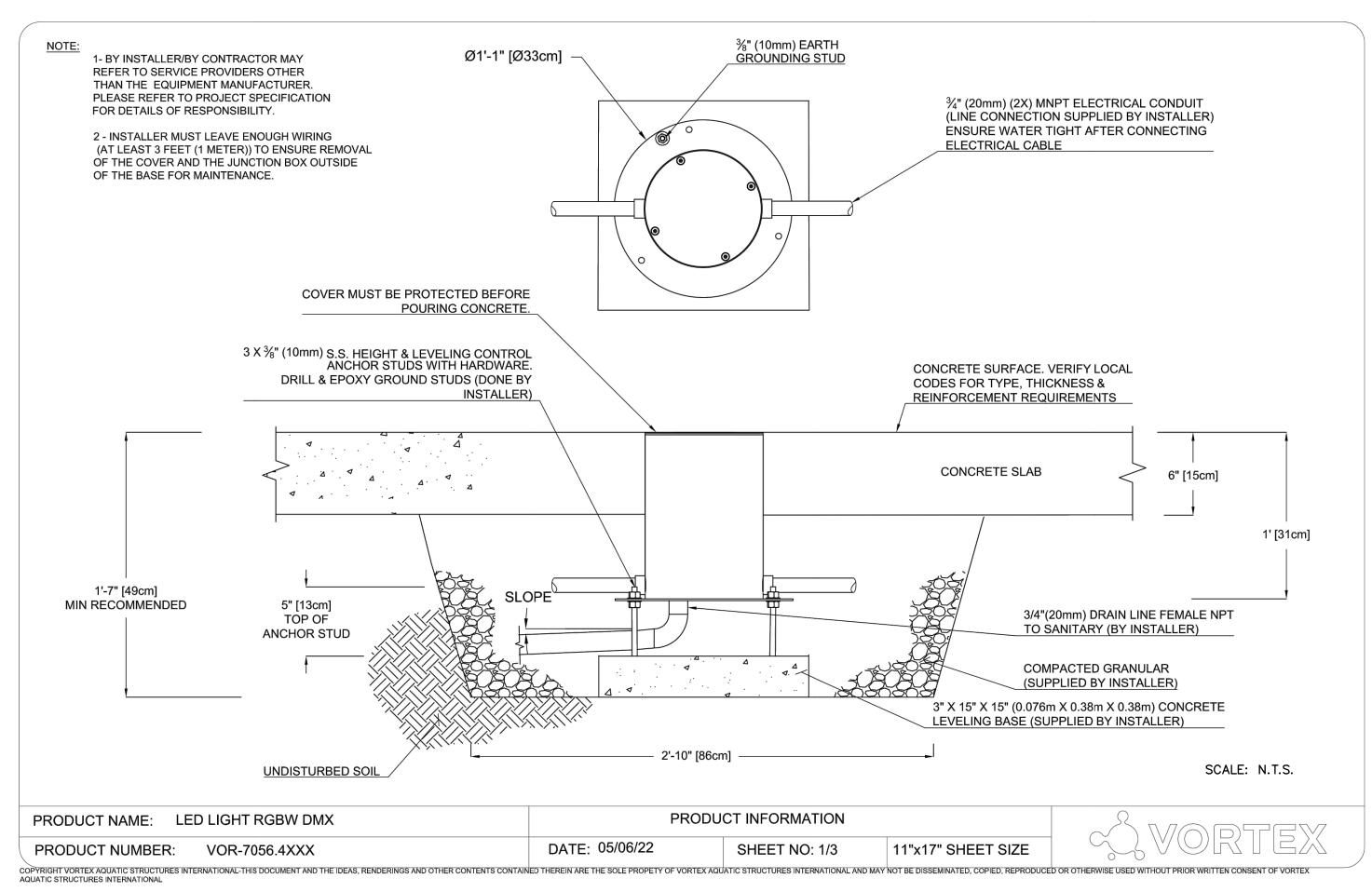
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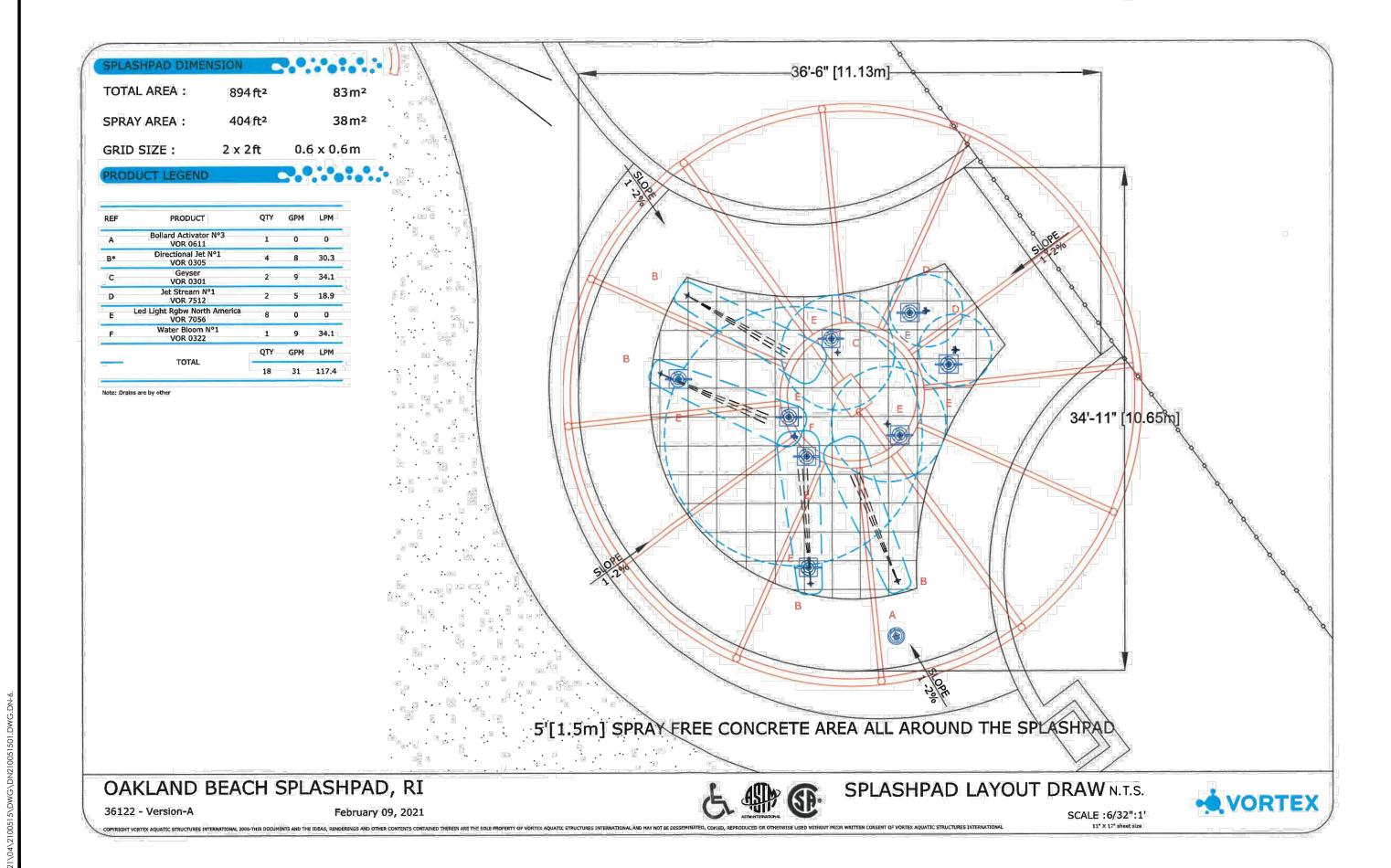
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SITE DETAILS

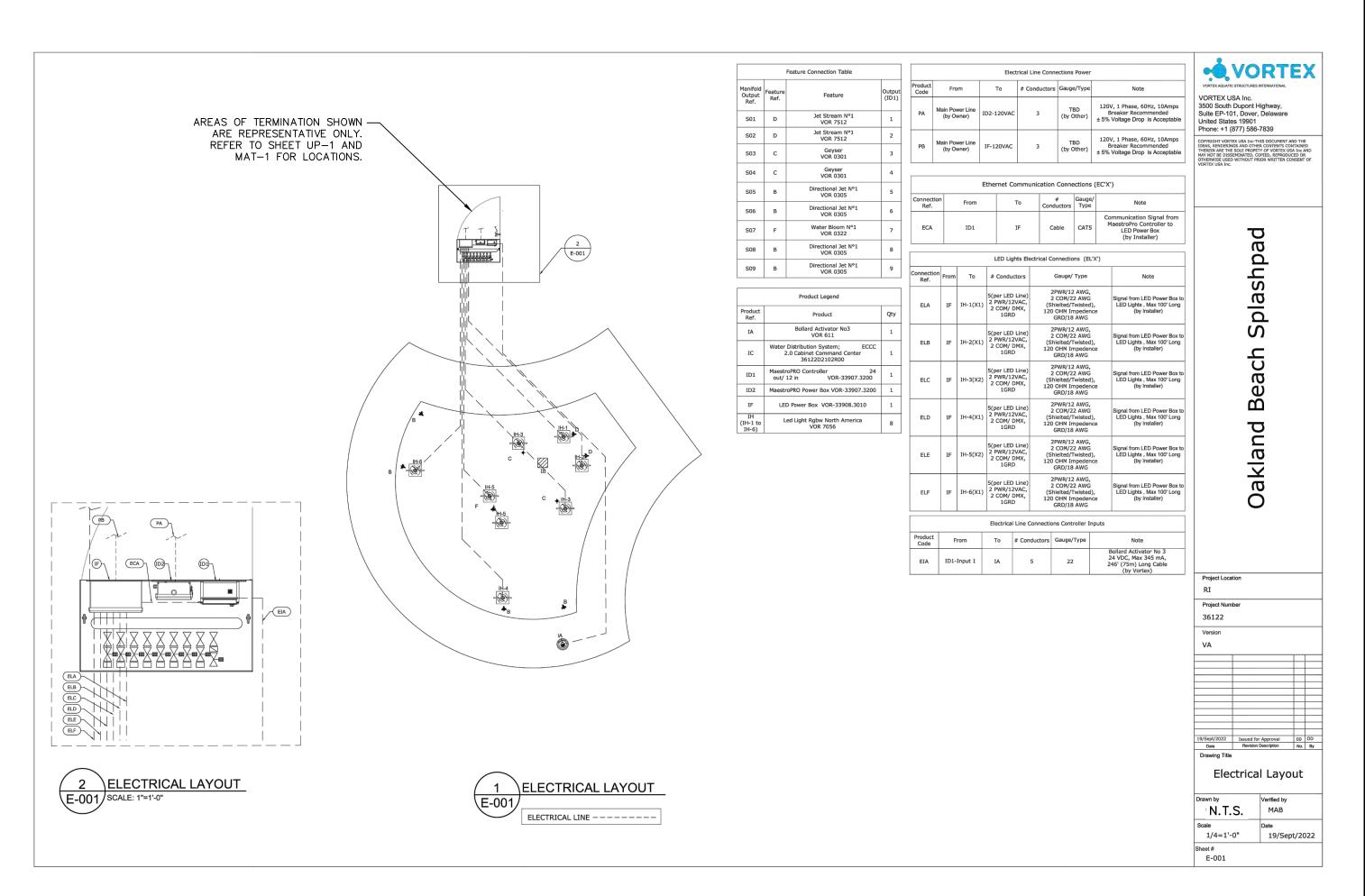




SPLASHPAD SITE LAYOUT



SPLASHPAD LED LIGHTING INSTALLATION



SPLASHPAD ELECTRICAL LAYOUT

BE Designed Scale Project No. Date CAD File: DN210051501

SPLASHPAD LED LIGHTING LAYOUT

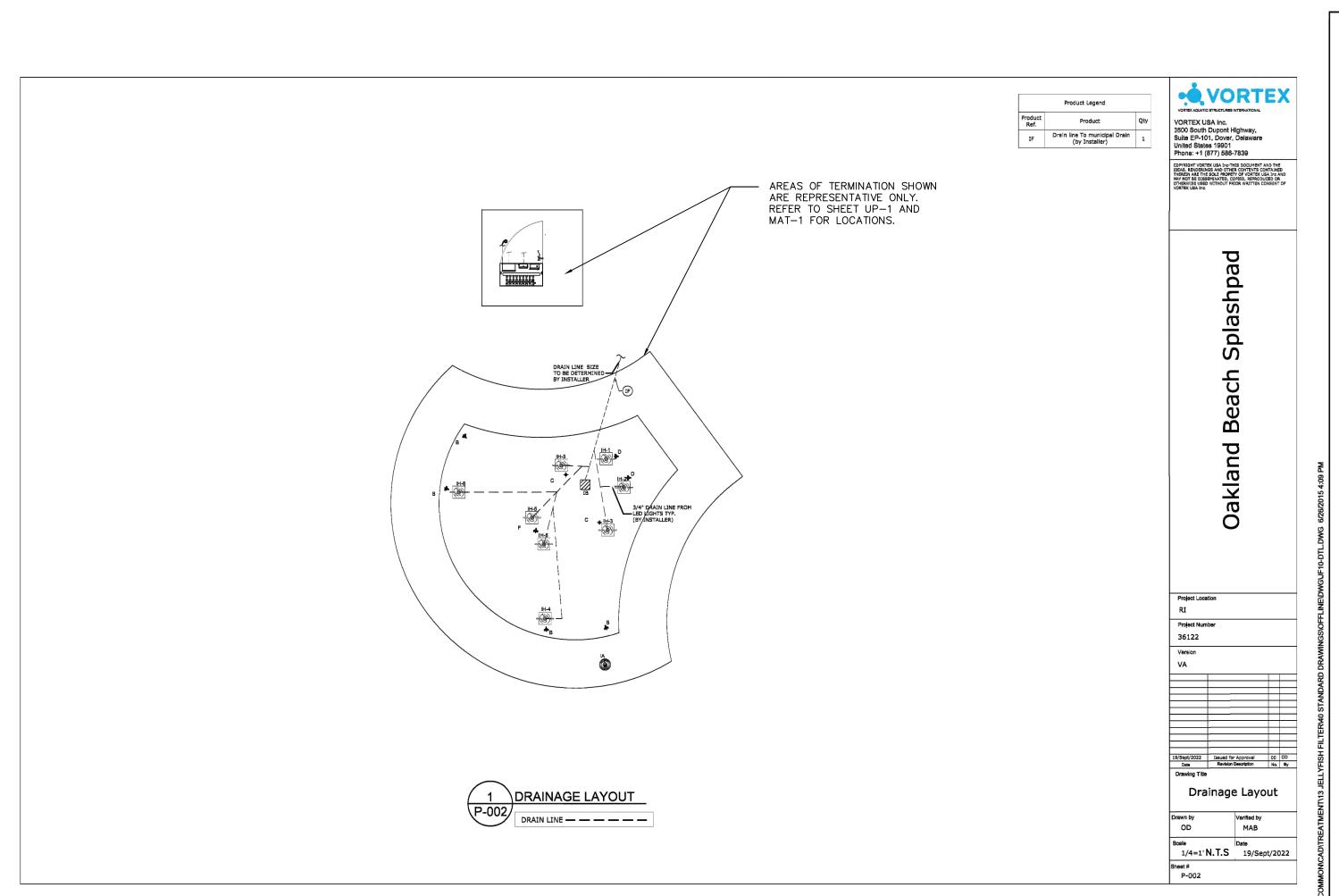
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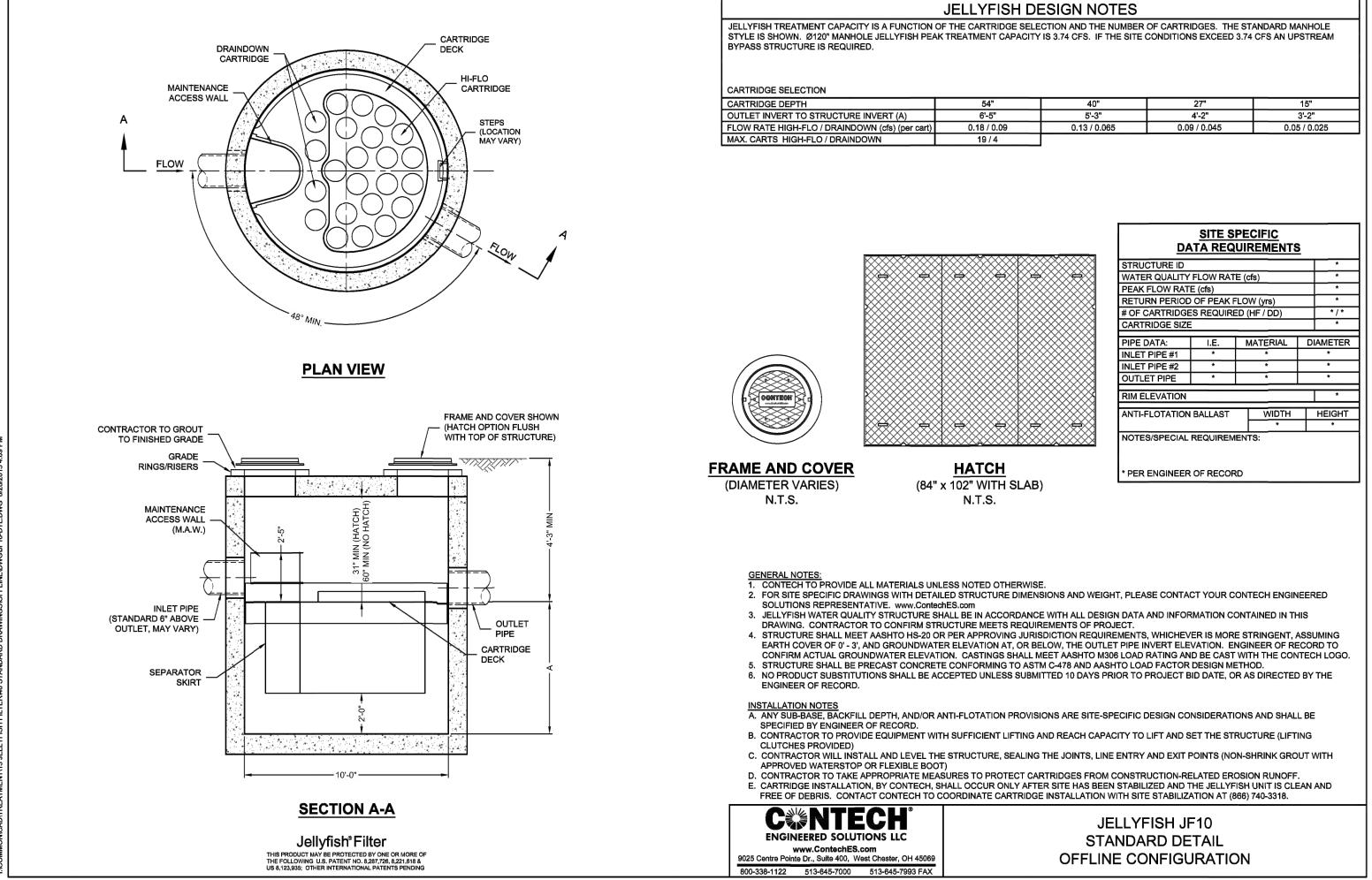
GROUND AND SEACH AVENUE RHODE ISLAND

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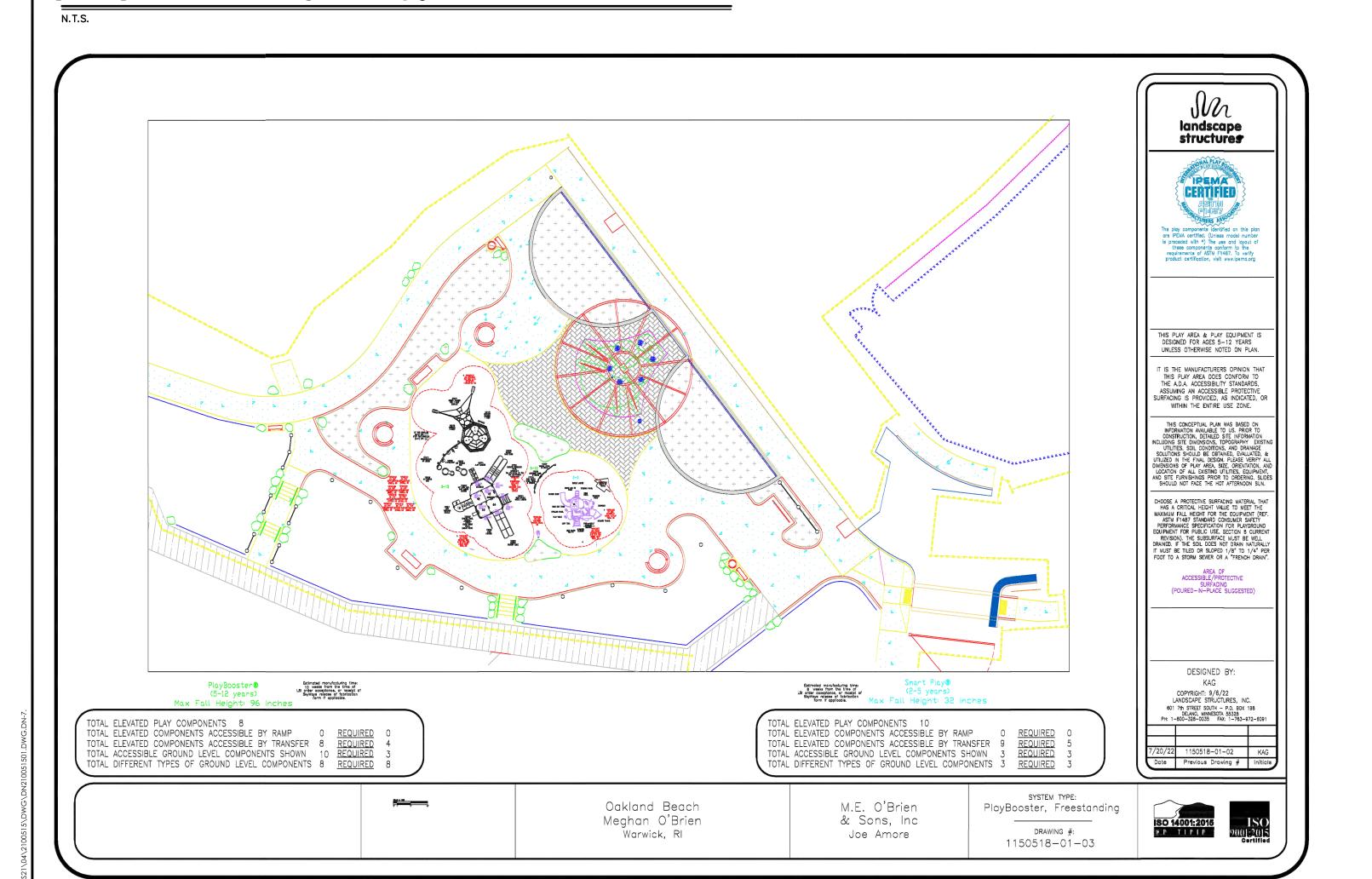
June 2023

SITE DETAILS





SPLASHPAD DRAINAGE LAYOUT



HYDRODYNAMIC SEPARATOR

Designed

Drawn Reviewed Scale 2100515 Project No. June 2023 Date CAD File: DN210051501

D.C.

N.T.S.

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GROUND AND SEACH AVENUE RHODE ISLAND

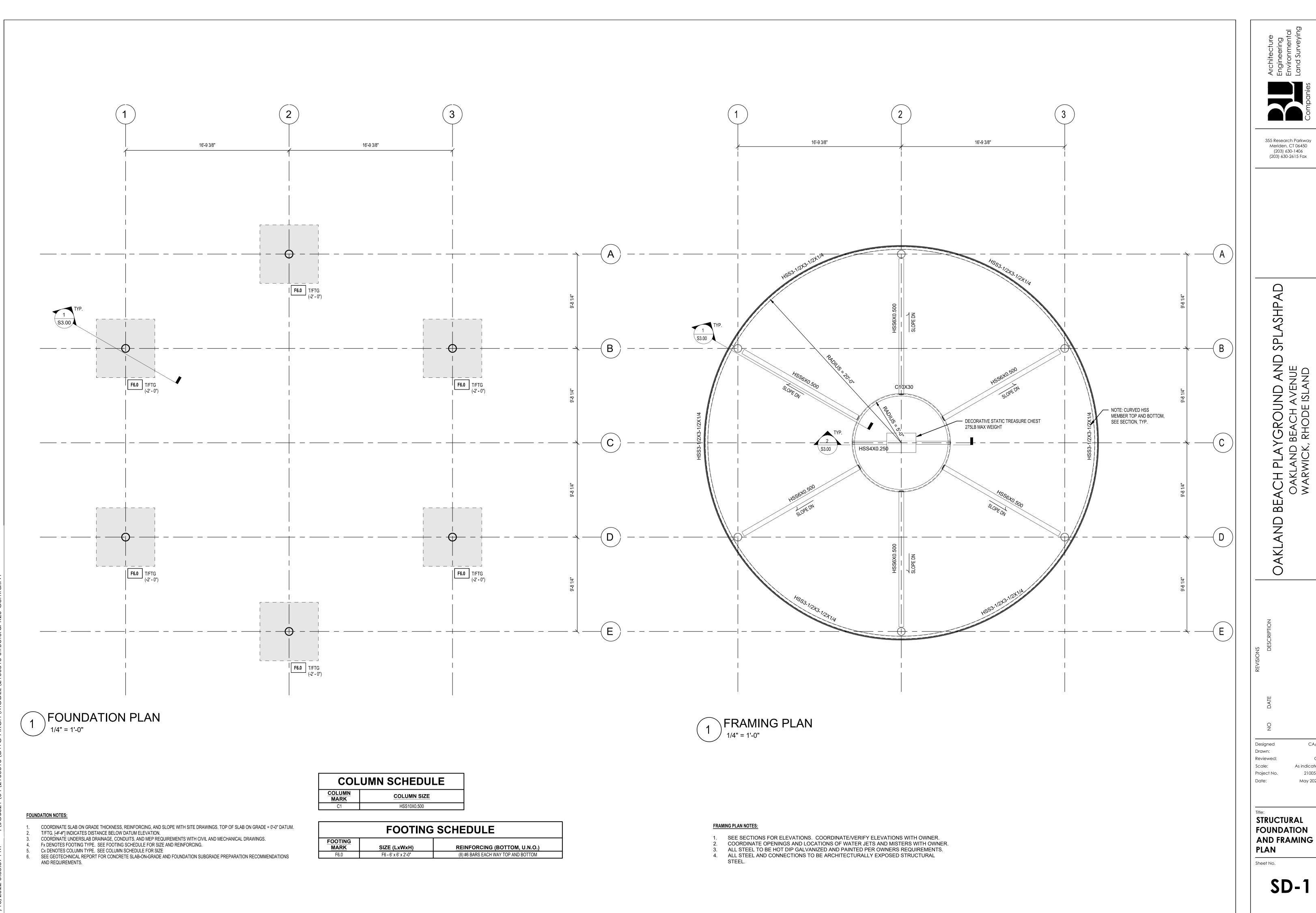
SITE DETAILS

Sheet No.

DN-7

PLAYGROUND LAYOUT

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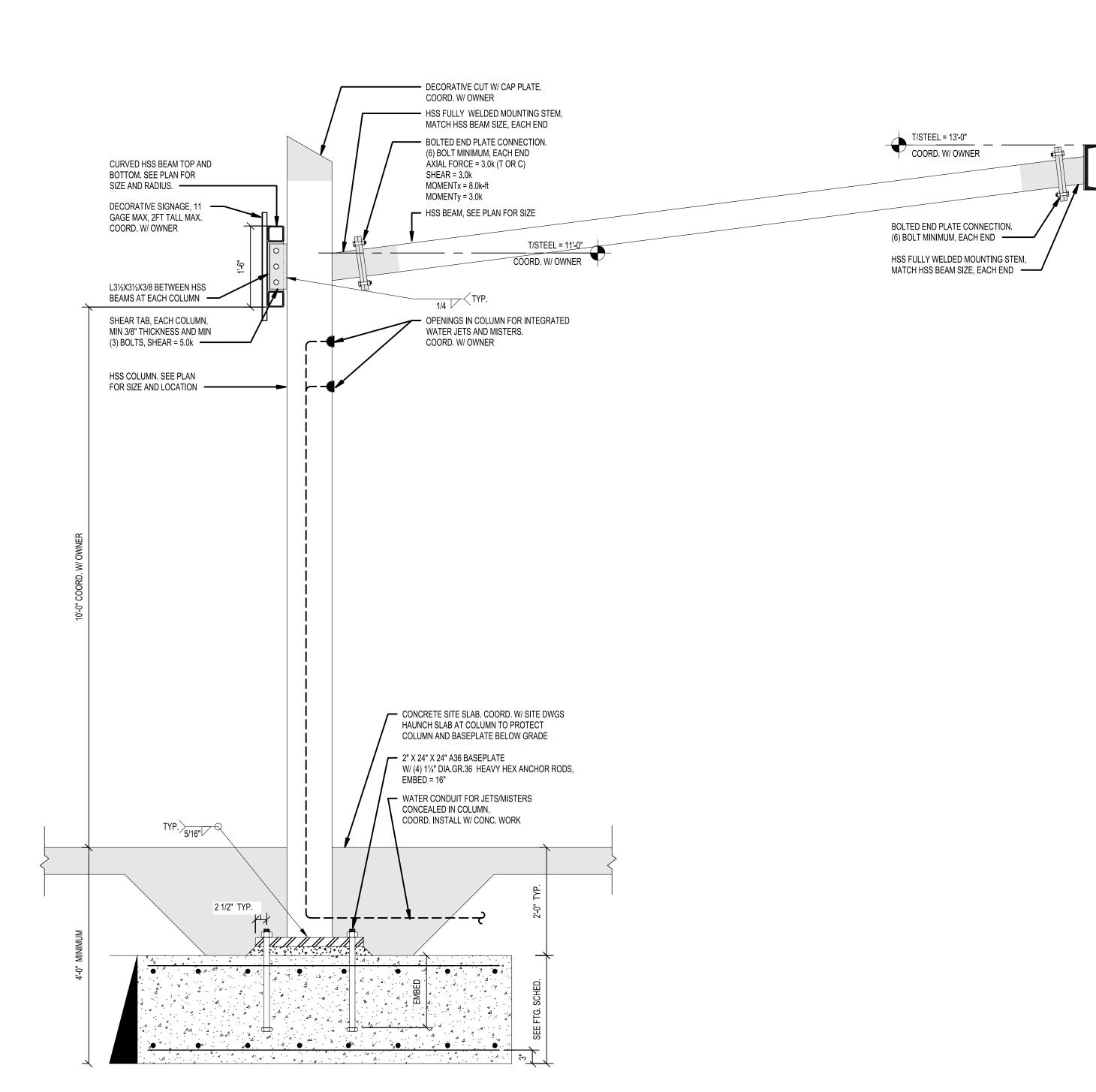
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As indicated

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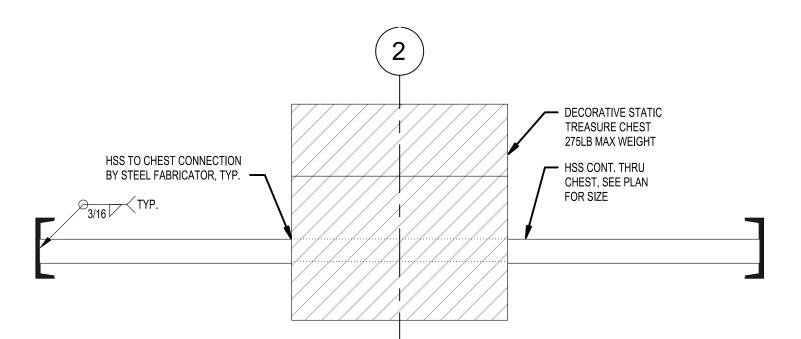
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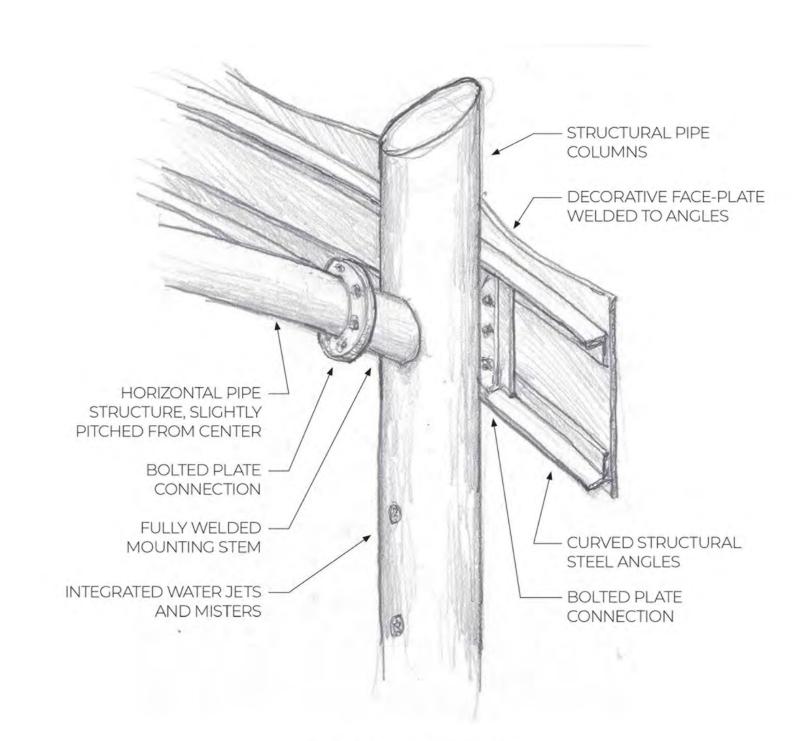


TYPICAL SECTION AT OUTER AND INNER RING STRUCTURAL SECTION NOTES:

1. THE STEEL FABRICATOR SHALL DESIGN BOTH END SHEAR REACTIONS, END AXIAL REACTIONS, AND END MOMENT REACTIONS TO RESIST UNFACTORED/ASD END REACTIONS SHOWN IN SECTION.



TYPICAL SECTION AT TREASURE CHEST



CONNECTION DETAIL

POST CONNECTION DETAIL

3 POST CONNECTION DETAIL



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-ASHPAD SPL EACH PLAYGROUND AND S OAKLAND BEACH AVENUE WARWICK, RHODE ISLAND BE, OAKLAND

CA/BS Designed Drawn: Reviewed: 3/4" = 1'-0" Scale: Project No. 2100515

CA

May 2023

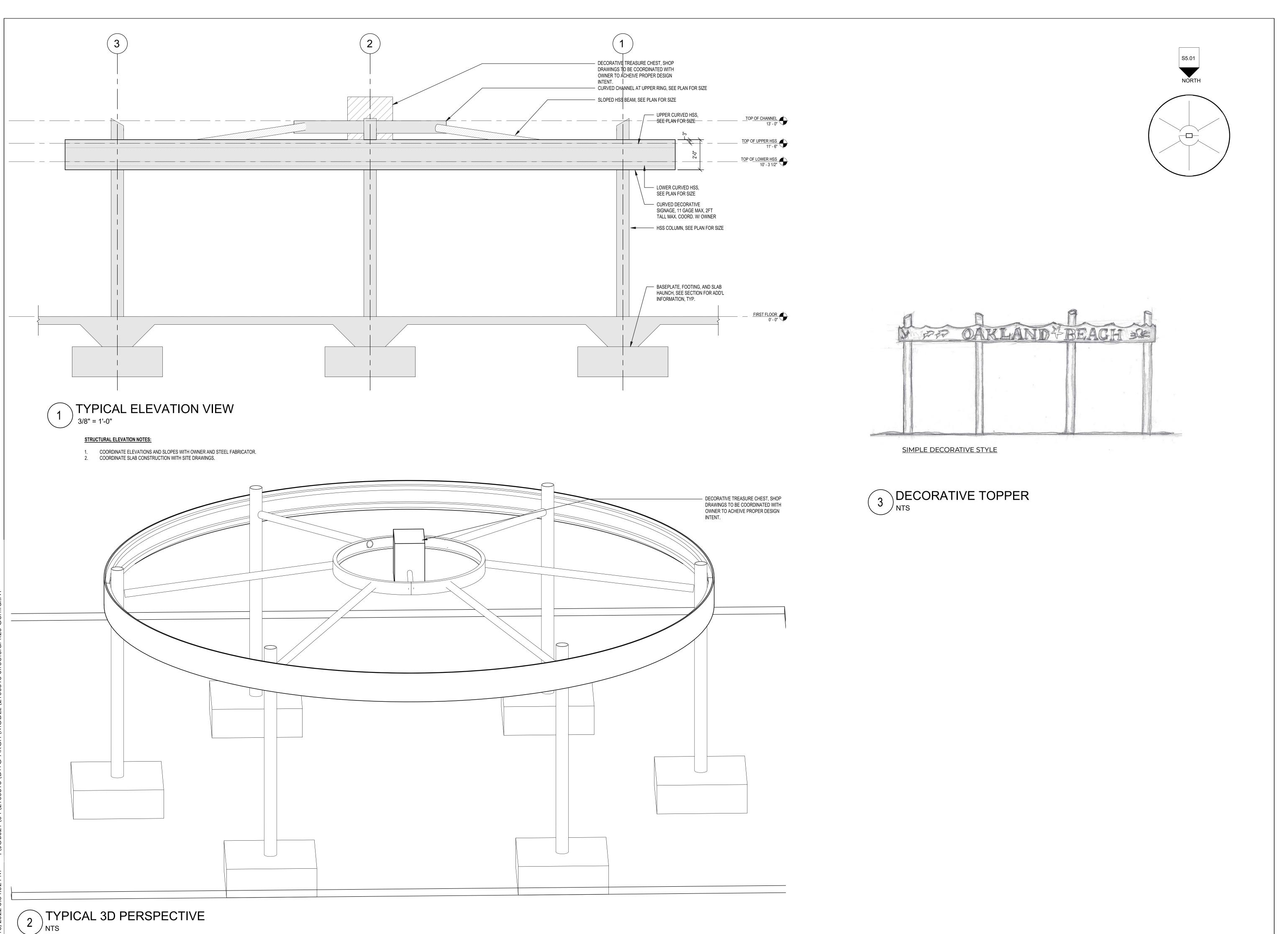
STRUCTURAL SECTIONS

Sheet No.

Date:

SD-2

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UTILITY LEGEND

SYMBOL	NAME					
LOD	LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE					
	PROPERTY LINE					
	VEHICULAR RATED ASPHALT PAVEMENT					
	ASPHALT WALKWAY					
A A A	PROPOSED CONCRETE WALKWAY					
	PROPOSED PLAYGROUND SURFACING					
	EXISTING BOARDWALK TO REMAIN- PROTECT DURING CONSTRUCTION					
	RAISED PLANTER WALLS					
0	LIGHTED BOLLARDS					
oo	BOLLARD AND CHAIN					
	TEMPORARY SNOW PROTECTION FENCE					
\$ 	BENCHES AND TABLES					
0	TRASH RECEPTACLE					
	BIKE RACK					
86	PROPOSED LANDSCAPE BOULDERS					
x	CHAIN LINK FENCE					

WITH ELECTRIC UTILITY COMPANY.

CIRCUIT BREAKER IN PANEL WITH (2)#12, (1)#12G.

AND SIZE REQUIREMENTS WITH SPLASH PAD INSTALLER.

INSTALLER.

(3) FURNISH AND INSTALL (1) QUAD GFI RECEPTACLE ON SIDE OF ENCLOSURE WITH LOCKABLE METALLIC IN-USE WEATHERPROOF ENCLOSURE. WIRE EACH DUPLEX RECEPTACLE TO A DEDICATED 20A,1P

MAESTROPRO POWER BOX AND (IF) LED POWER BOX, TO DEDICATED 15A,1P CIRCUIT BREAKER IN

(5) FURNISH AND INSTALL LED PILING LIGHT FIXTURE TO TOP OF PILING, ADJACENT FLUSH IN-GRADE

WIRING (2)#12, (1)#12G. IN 3/4" GRC FROM HANDHOLE UP SIDE OF PILING TO LIGHT FIXTURE.

6 FURNISH AND INSTALL SCH 40 PVC BELOW GRADE TO SPLASH PAD LIGHTING FROM CONTROL PANEL FOR LOW VOLTAGE CONTROL WIRING BY SPLASH PAD INSTALLER. VERIFY AND COORDINATE INSTALL

(7) FURNISH AND INSTALL SINGLE POLE DISCONNECT SWITCH IN HOTBOX FOR HEATER WITH DEDICATED CIRCUIT TO 15A,1P CIRCUIT BREAKER IN PANEL SP1 WITH (2)#12, (1)#12 G. IN 1" SCH. 40 PVC BELOW GRADE. COORDINATE EXACT LOCATION OF HOTBOX AND TERMINATION REQUIREMENTS WITH

PANEL SP1 WITH (2)#12, (1)#12 G. IN 1" SCH. 40 PVC BELOW GRADE. COORDINATE EXACT LOCATION OF CONTROL PANEL AND TERMINATION REQUIREMENTS WITH SPLASH PAD CONTROL PANEL INSTALLER.

QUAZITE BOX WITH IP-67 OUTDOOR WET LOCATION RATED LED DRIVER, SIZE AS REQUIRED PER SIZE

AND QUANTITY OF FIXTURES AT EACH LOCATION, AND WIRE TO 20A,1P CIRCUIT BREAKER IN PANEL SP1 VIA TIMECLOCK AND PHOTOCELL FOR CONTROL WITH (2)#10, (1)#10 G. IN 1' SCH. 40 PVC BELOW GRADE. PROGRAM TIMECLOCK PER TOWN REQUIREMENTS. FÜRNISH AND INSTALL LOW VOLTAGE

(4) FURNISH AND INSTALL (2) DEDICATED CIRCUITS FROM SPLASH PAD CONTROL PANEL (ID2)

GENERAL SHEET NOTES:

- 1. FURNISH AND INSTALL ALL ELECTRICAL POWER AND LIGHTING DEVICES INDICATED ON THIS DRAWING, UNLESS INDICATED OTHERWISE BY A KEY NOTE.
- 2. REFER TO DRAWING UP-2 FOR PLUMBING SPECIFICATIONS.
- 3. REFER TO DRAWING UP-3 FOR ELECTRICAL SPECIFICATIONS & DETAILS.
- 4. PROVIDE A TYPED CIRCUIT INDEX CARD FOR PANELBOARD IN ACCORDANCE WITH NEC 408.4. HAND WRITTEN AND PERMANENT MARKER ARE NOT ACCEPTABLE.
- 5. THE DRAWING SHOWS EQUIPMENT AND DEVICE LOCATIONS ONLY. WIRING SHOWN IS SCHEMATIC IN NATURE. REFER TO KEY NOTES AND DETAILS FOR ALL REQUIRED POWER AND CONTROL WIRING. COORDINATE CONDUIT ROUTE IN FIELD WITH OTHER TRADES, EQUIPMENT AND LANDSCAPE
- 6. EQUIPMENT AND LIGHTING LOCATIONS INDICATED ON PLANS ARE APPROXIMATE. EXACT LOCATIONS MUST BE COORDINATED WITH LANDSCAPE ARCHITECT.
- 7. ALL EXTERIOR POWER RECEPTACLES MUST BE GROUND FAULT PROTECTED.
- 8. COORDINATE WITH SPLASH PAD EQUIPMENT INSTALLER FOR EXACT LOCATIONS OF EQUIPMENT AND PLUMBING AND ELECTRICAL TERMINATION REQUIREMENTS.
- 9. THE CITY WATER DIVISION WILL PERFORM THE TAP IN THE STREET AND BRING WATER INTO THE PROPERTY TO THE LOCATION OF THE 'HOT BOX', THEY WILL ALSO PROVIDE THE SERVICE VALVE IN THE HOT BOX AS WELL AS THE 2" MACH10 METER AND 2" BACKFLOW. CONTRACTOR WILL BE RESPONSIBLE FOR ANY WORK AFTER THE 'HOT

WARNING: UNDERGROUND UTILITIES

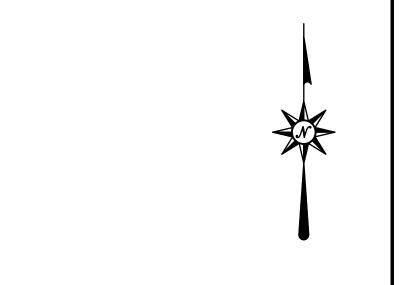
THE CONTRACTOR IS TO BE FULLY RESPONSIBLE FOR CONTACTING THE LOCAL POWER, TELEPHONE, CABLE TELEVISION, GAS, WATER, AND SEWER COMPANIES AND ANY OTHER UTILITY COMPANIES WITHIN THE AREA PRIOR TO PROCEEDING WITH ANY EXCAVATION. BY LAW, THE CONTRACTOR IS REQUIRED TO CALL BEFORE DOING ANY EXCAVATION, DIGGING HOLES, OR DRIVING POSTS REGARDLESS OF WHETHER IT IS WITHIN THE STREET LINE OR ON PRIVATE PROPERTY. CONTRACTOR SHALL CALL A MINIMUM OF (2) TWO FULL WORKING DAYS BEFORE ANY EXCAVATION.

ELECTRICAL AND LIGHTING KEY NOTES: PANEL: SP1 (NEW) LOCATION: PAD MOUNTED ENCLOSURE VOLTAGE/PHASE/WIRE: 120/240V, 1ø, 3W **KAIC: TBD BY CONTRACTOR** (1) FURNISH AND INSTALL LOCKING PAD MOUNTED NEMA 3R ENCLOSURE WITH 120/240V ELECTRICAL MOUNTING: SURFACE/ENCLOSURE PANEL SP1, TIMECLOCK AND EXTERNAL MOUNTED PHOTOCELL. REFER TO DRAWING UP-3 FOR SPECIFICATIONS AND THIS DRAWING FOR PANEL SCHEDULE INFORMATION. (2) FURNISH AND INSTALL ELECTRICAL SERVICE BELOW GRADE (3)#8, (1)#8G. IN 1" SCH 40 PVC BELOW GRADE AND GRC ABOVE GRADE UP UTILITY POLE WITH SLIP JOINT FITTING, FROM EXISTING UTILITY POLE TRANSFORMER TO PANEL VIA ENCLOSURE MOUNTED NEMA 3R, 60 AMP, 1 PHASE SERVICE DISCONNECT SWITCH WITH 40 AMP FUSES AND UTILITY METER. COORDINATE EXACT REQUIREMENTS

CIRCUIT BREAKER			PHASE			ult Equipment Protection, LOD=Lock	CIRCUIT BREAKER				
					LUASE	_					
POS.	AMP	POLES	LOAD DESCRIPTION	KVA	A	В	KVA	LOAD DESCRIPTION	POLES	AMP	P0
1	15	1	LIGHTS - SPLASH PAD CTRL	0.96	1.1		0.18	RECPT - SIDE OF ENCLOSURE	1	20	2
3	15	1	PUMPS - SPLASH PAD CTRL	0.96		1.1	0.18	RECPT - SIDE OF ENCLOSURE	1	20	4
5	20	1	LIGHTS - PILING CAPS	0.20	0.7		0.50	HEATER IN HOTBOX	1	15	6
7	20	1	SPARE					SPARE	1	20	8
9			SPACE - DO NOT USE					SPACE - DO NOT USE			10
11			SPACE - DO NOT USE					SPACE - DO NOT USE			12
13			SPACE - DO NOT USE					SPACE - DO NOT USE			14
15			SPACE - DO NOT USE					SPACE - DO NOT USE			16
17			SPACE - DO NOT USE					SPACE - DO NOT USE			18
MANU	IANUFACTURER: SCHNEIDER ELECTRIC/SQUARE D			1.14	1.14	Total KVA per Ph	ase				

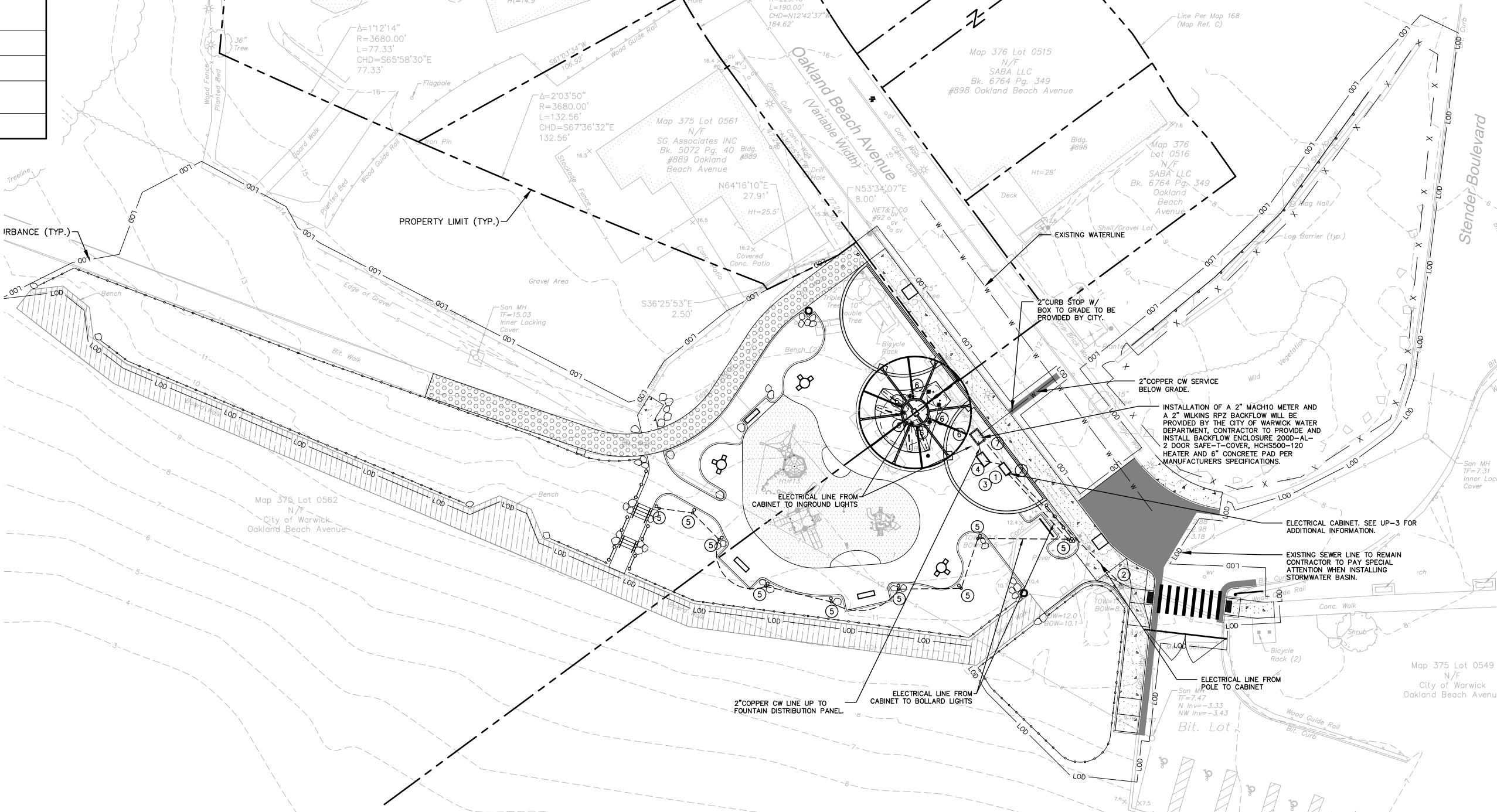
1.1 1.1 Total KVA per Phase for Panel

Total KVA for Panel



GRAPHIC SCALE 20 10 0

SCALE IN FEET -Δ=47°26'33" R=229.46'



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SH

SP GROUND AN BEACH AVENUE RHODE ISLAND

RB/DT Designed RB/DT Drawn DC/DP Reviewed 1"=20' Scale 2100515 Project No. June 2023 CAD File: UP210051501

UTILITY PLAN

PLUMBING SPECIFICATIONS

1. GENERAL:

- A. THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION," AIA DOCUMENT A201, LATEST EDITION, AND THESE SPECIFICATIONS AS APPLICABLE ARE PART OF THIS CONTRACT.
- B. ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO MADE PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER, PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIAL WHICH VIOLATES ANY OF THE ABOVE LAWS AND REGULATIONS, ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH VIOLATION SHALL BE CORRECTED BY THE CONTRACTOR.
- D. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. PIPE ROUTING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR ROUTING OF PIPE TO AVOID OBSTRUCTIONS. COORDINATION WITH THE EXISTING SERVICES, INCLUDING THOSE OF OTHER TRADES IS REQUIRED. MAINTAIN HEADROOM AND SPACE CONDITIONS.
- INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA
- F. REMOVAL AND RELOCATION OF CERTAIN EXISTING WORK WILL BE NECESSARY FOR THE PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND INCLUDE ALL CHANGES IN MAKING UP THE WORK
- THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND MATERIALS, AND ALL PARTS OF THE BUILDING, EXTERIOR SPACES AND ADJACENT STREETS, SIDEWALKS AND PAVEMENTS, FREE FROM MATERIAL AND DEBRIS RESULTING FROM THE EXECUTION OF THIS WORK. EXCESS MATERIALS WILL NOT BE PERMITTED TO ACCUMULATE EITHER ON THE INTERIOR OR THE EXTERIOR.
- J. THE LOCATIONS OF THE EXISTING SERVICES ARE BELIEVED TO BE AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATION OF THESE SERVICES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING ANY WORK.
- K. SEAL OPENINGS THROUGH PARTITIONS, WALLS AND FLOORS WITH NON-SHRINKING FIRE PROOF CAULKING OR OTHER NON-COMBUSTIBLE MATERIAL.
- L. PROVIDE ALL NECESSARY FLASHING AND COUNTERFLASHING TO MAINTAIN THE WATERPROOFING OF THIS BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF PIPING AND EQUIPMENT. PROVIDE
- M. ALL PRESENT MATERIAL, EQUIPMENT AND CONSTRUCTION DEBRIS TO BE REMOVED UNDER THIS CONTRACT SHALL BECOME THE PROPERTY OF THE CONTRACTOR WITH THE EXCEPTION OF THE SPECIFIC EQUIPMENT AND APPARATUS REQUESTED BY THE BUILDING REPRESENTATIVE, ARCHITECT OR AS NOTED TO BE RELOCATED ON THE DRAWINGS. REMOVED EQUIPMENT SHALL BE PROPERLY DISPOSED OF BY THIS
- N. MATERIALS AND WORKMANSHIP, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH BUILDING
- O. THE WORK IN THE BUILDING SHALL BE DONE WHEN AND AS DIRECTED, AND IN A MANNER SATISFACTORY TO THE OWNER. THE WORK SHALL BE PERFORMED SO AS TO CAUSE THE LEAST POSSIBLE INCONVENIENCE AND DISTURBANCE TO THE PRESENT OCCUPANTS.
- P. THE CONTRACTOR'S PROPOSAL FOR ALL WORK SHALL BE PREDICATED ON THE PERFORMANCE OF THE WORK DURING REGULAR WORKING HOURS. WHEN SO DIRECTED, HOWEVER, THE CONTRACTOR SHALL INSTALL WORK IN OVERTIME AND THE ADDITIONAL COST TO BE CHARGED THEREFORE SHALL BE ONLY THE "PREMIUM" PORTION OF THE WAGES PAID.
- Q. UNLESS OTHERWISE SPECIFICALLY SPECIFIED, INCLUDE ALL CUTTING AND PATCHING OF EXISTING FLOORS, WALLS, PARTITIONS AND OTHER MATERIALS IN THE EXISTING BUILDING. THE CONTRACTOR SHALL RESTORE THESE AREAS TO ORIGINAL CONDITION.
- R. ALL MATERIAL AND EQUIPMENT TO BE NEW UNLESS OTHERWISE NOTED AND SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
- S. SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE PORTIONS OF THE EXISTING BUILDING, EQUIPMENT, ETC., WHICH AFFECT THIS WORK, AND THE ACCESS TO SUCH SPACES, HAS BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. THE CONTRACTOR IS RESPONSIBLE TO INDICATE ANY DISCREPANCIES BETWEEN THE CONTRACT DRAWINGS AND ACTUAL FIELD CONDITIONS PRIOR TO SUBMITTAL OF BID. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. LATER CLAIMS SHALL NOT BE MADE FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN DURING SUCH AN EXAMINATION. THE ON—SITE INSPECTION SHALL VERIFY EXISTING PIPE SIZES, CLEARANCES ETC. AND CONDITIONS
- T. INSURANCE: IN ACCORDANCE WITH BUILDING REQUIREMENTS AND SHALL INCLUDE A HOLD HARMLESS CLAUSE FOR OWNER AND ENGINEER.
- U. THE FINAL ACCEPTANCE WILL BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS EQUIPMENT, TESTED THE VARIOUS SYSTEMS, DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS AND HAS FURNISHED ALL THE REQUIRED CERTIFICATES OF INSPECTION AND APPROVAL.

2. <u>SCOPE OF WORK:</u>

- A. SCOPE OF WORK SHALL CONSIST OF PROVIDING LABOR, MATERIALS, EQUIPMENT, SERVICES AND FEES NECESSARY FOR COMPLETE AND SAFE INSTALLATION IN CONFORMITY WITH THE INTERNATIONAL PLUMBING CODE, STATE SUPPLEMENT, AND ALL OTHER LOCAL CODES AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION, AS INDICATED ON DRAWINGS AND HEREIN SPECIFIED.
- 3. THE BASE BUILDING OF DRAWINGS, PLANS, DETAILS, SPECIFICATIONS AND SPECIFICATION ADDENDA ARE MADE PART OF THIS CONTRACT AND SHALL APPLY TO ALL WORK UNDER THE CONTRACT UNLESS OTHERWISE AMENDED, MODIFIED, SUPPLEMENTED OR SPECIFIED HEREIN.
- C. THE CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN ONE YEAR FROM THE DATE OF FINAL CERTIFICATE FOR PAYMENT AND/OR FROM DATE OR ACTUAL USE OF EQUIPMENT OR OCCUPANCY OF SPACES BY OWNER INCLUDED UNDER THE VARIOUS PARTS OF THE WORK, WHICHEVER DATE IS EARLIER. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE SHALL ALSO PROVIDE THAT WHERE DEFECTS OCCUR, THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED IN REPAIRING AND REPLACING WORK OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENT SUPPLIED BY THE
- D. THE CONTRACTOR SHALL GIVE NECESSARY NOTICE, FILE DRAWINGS AND SPECIFICATIONS WITH THE DEPARTMENT HAVING JURISDICTION, OBTAIN PERMITS OR LICENSES NECESSARY TO CARRY OUT THIS WORK AND PAY ALL FEES THEREFORE. THE CONTRACTOR SHALL ARRANGE FOR INSPECTION AND TESTS OF ANY OR ALL PARTS OF THE WORK IF SO REQUIRED BY AUTHORITIES AND PAY ALL CHARGES FOR SAME. THE CONTRACTOR SHALL PAY ALL COSTS FOR, AND FURNISH TO THE OWNER BEFORE FINAL BILLING, ALL CERTIFICATES NECESSARY AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH ALL REGULATIONS WHERE THEY APPLY TO THIS WORK.

3. <u>SHOP DRAWINGS:</u>

- A. PRIOR TO THE INSTALLATION OF ANY WORK AND PROCUREMENT OF EQUIPMENT PROVIDE COMPLETE SET OF COORDINATED SHOP DRAWINGS OF ALL NEW AND EXISTING EQUIPMENT, INDICATING CAPACITY DIMENSIONS AND SEQUENCE OF OPERATION FOR WRITTEN APPROVAL BY THE ARCHITECT AND ENGINEER.
- B. INDICATE ON EACH SHOP DRAWINGS SUBMITTED:

 1. PROJECT NAME AND LOCATION

 2. NAME OF ARCHITECT AND ENGINEER
- 3. ITEM IDENTIFICATION
 4. APPROVAL STAMP OF PRIME CONTRACTOR

AS-BUILT DRAWINGS AND EQUIPMENT OPERATIONAL INSTRUCTIONS:

A. UPON COMPLETION AND ACCEPTANCE OF WORK, CONTRACTOR SHALL FURNISH WRITTEN INSTRUCTIONS AND EQUIPMENT MANUALS AND DEMONSTRATE TO THE OWNER THE PROPER OPERATION AND MAINTENANCE OF ALL EQUIPMENT AND APPARATUS FURNISHED UNDER THIS CONTRACT

5. GENERAL PROVISIONS FOR PLUMBING WORK:

A. SPECIFICATIONS ARE OF SIMPLIFIED FORM AND INCLUDE INCOMPLETE SENTENCES. WORDS OR PHRASES SUCH AS "THE CONTRACTOR SHALL," SHALL BE," "FURNISH," "PROVIDE," "A," "THE," AND "ALL" HAVE BEEN OMITTED FOR BREVITY.

B. DEFINITIONS:

- 1. "PROVIDE": TO SUPPLY, INSTALL AND CONNECT UP COMPLETE AND READY FOR SAFE AND REGULAR OPERATION THE PARTICULAR WORK REFEREED TO UNLESS SPECIFICALLY
- 2. "INSTALL": TO ERECT, MOUNT AND CONNECT COMPLETE WITH RELATED ACCESSORIES.
- 3. "FURNISH" OR "SUPPLY": TO PURCHASE, PRODUCE, ACQUIRE AND DELIVER COMPLETE WITH RELATED ACCESSORIES.
- 4. "WORK": LABOR, MATERIAL, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES AND OTHER ITEMS REQUIRED FOR PROPER AND COMPLETE INSTALLATION.
- 5. "WRING": RACEWAY, FITTINGS, WIRE, BOXES AND RELATED ITEMS.
- "CONCEALED": EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, INSTALLED IN FURRED SPACES, WITHIN DOUBLE PARTITIONS OR HUNG CEILINGS, IN TRENCHES, IN CRAWL SPACES, OR IN ENCLOSURES.
- 7. "EXPOSED": NOT INSTALLED UNDERGROUND OR "CONCEALED" AS DEFINED ABOVE.
- 8. "SIMILAR" OR "EQUAL": EQUAL IN MATERIALS, WEIGHT, SIZE, DESIGN AND EFFICIENCY OF

C. QUALITY ASSURANCE:

- . QUALITY AND GAUGE OF MATERIALS: NEW, BEST OF THEIR RESPECTIVE KINDS, FREE FROM DEFECTS AND LISTED BY UNDERWRITERS LABORATORIES, INC., OR BEARING THEIR LABEL. MATERIALS AND EQUIPMENT OF SIMILAR APPLICATION SHALL BE OF SAME MANUFACTURER. EXCEPT AS NOTED.
- GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE OF WORK.

6. <u>PIPE AND FITTINGS:</u>

- A. THE VARIOUS PIPING SYSTEMS ARE CLASSIFIED AS FOLLOWS, AND MATERIALS OF CONSTRUCTION SHALL BE AS SPECIFIED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- B. PIPING, VALVES AND EQUIPMENT USED IN SIMILAR APPLICATIONS SHALL BE PROVIDED FROM THE
- SAME MANUFACTURER UNLESS NOTED OTHERWISE.

 C. ALL EXPOSED PIPING PASSING THROUGH, WALLS, FLOORS, CEILINGS, AND PARTITIONS SHALL BE
- PROVIDED WITH CHROME PLATED CAST BRASS ESCUTCHEONS HELD IN PLACE WITH SET SCREWS.
- D. ALL EXPOSED PIPE AND FITTINGS SHALL BE AS FOLLOWS:
 1. DOMESTIC WATER SYSTEM BRANCH PIPING, UNDERGROUND, 2 INCHES AND SMALLER,
 - SUITABLE FOR A WORKING PRESSURE OF 125 PSIG

a. PIPING SYSTEMS

- 1. COPPER TYPE K, SOFT ANNEALED, CONFORMING TO FEDERAL SPECIFICATION WWT-799. JOINTS AND FITTINGS ARE NOT PERMITTED BELOW FLOOR SLABS WITH COPPER TYPE K SOFT ANNEALED PIPE.
- 2. MULTI-LAYER CPVC OVER ALUMINUM COMPOSITE MIDDLE LAYER BENDABLE PIPING, ASTM D2846, SOLVENT CEMENT JOINTS AND FITTINGS, ASTM F493. NOVEON FLOWGUARD GOLD BENDABLE.

VALVES. FLANGES AND UNIONS:

GENERAL:

1. ALL SYSTEMS UNDER THIS SECTION SHALL BE PROVIDED WITH VALVES TO PERMIT COMPLETE AND SECTIONAL CONTROL OF THE SYSTEM. THEY SHALL BE LOCATED TO PERMIT EASY OPERATION, REPLACEMENT AND REPAIR. THEY SHALL BE INSTALLED WHERE SHOWN ON THE DRAWINGS, OR AS HEREIN SPECIFIED. VALVES TO COMPLY WITH NSF 61–G, NSF 61, AND NSF 372. VALVES SHALL BE AS MANUFACTURED BY ONE OF THE FOLLOWING COMPANIES: AMERICAN, ANVIL INTERNATIONAL, FNW, KENNEDY, KITZ, MILWAUKEE, NIBCO, POWELL, STOCKHAM, VICTAULIC, WATTS, OR APPROVED EQUAL, AND SHALL CONFORM TO DESCRIPTION LISTED

B. VALVE DESCRIPTION:

- GATE VALVES:

 a. 2-1/2" AND LARGER, VICTAULIC SERIES 771V GROOVED ENDS (STEEL PIPE), STOCKHAM G-634, 175 LB. FLANGED OS&Y.
- b. 2" AND SMALLER, MILWAUKEE UP149. LOW LEAD, 125 LB., SWEAT CONNECTION. 2-1/2" AND LARGER, VICTAULIC MASTERSEAL (STEEL PIPE) AND SERIES 608 (COPPER TUBING); MILWAUKEE FIG. F-2885, 125 LB., FLANGED OR APOLLO 141WD-SE-1 LEAD FREE BUTTERFLY VALVE WITH 10 POS. LEVER HANDLE.
- c. 8" AND LARGER, APOLLO141WD-SE-2 LEAD FREE BUTTERFLY VALVE WITH GEAR
- d. 2-1/2" AND SMALLER, MILWAUKEE BB-SC100. THREADED.
- CHECK VALVES:
- 2" AND SMALLER, MILWAUKEE UP509, 200 LB., THREADED, LOW LEAD.
 2" AND LARGER, VICTAULIC SERIES 716, GROOVED ENDS.
 2-1/2" AND LARGER, MILWAUKEE FIG. F-2974, 125 LB. FLANGED.
 2-1/2" AND LARGER, STOCKHAM G-939, 175 LB. FLANGE.
- 3. BALL VALVES: a. 2" AND SMALLER, MILWAUKEE UPBA 100.
- D. MATERIALS AS SPECIFIED IN THIS SECTION SHALL BE MANUFACURTED BY CERTAINTEED, JOHN MANVILLE, KNAUF, OWENS CORNING OR EQUAL. INSULATION THICKNESS SHALL BE AS SHOWN IN THE FOLLOWING TABLE:

12. EXCAVATION AND BACKFILL:

- A. SUPPORT ALL PIPING FROM BUILDING CONSTRUCTION BY PROVIDING INSERTS, BEAM CLAMPS, STEEL FISHPLATES (IN CONCRETE FILL ONLY), AND ACCEPTABLE BRACKETS. SUBMIT ALL METHODS FOR REVIEW.
- B. PROVIDE TRAPEZE HANGERS OF BOLTED ANGLES OR CHANNELS FOR GROUPED LINES AND SERVICES.
- C. PROVIDE ADDITIONAL FRAMING WHERE BUILDING CONSTRUCTION IS INADEQUATE. SUBMIT FOR

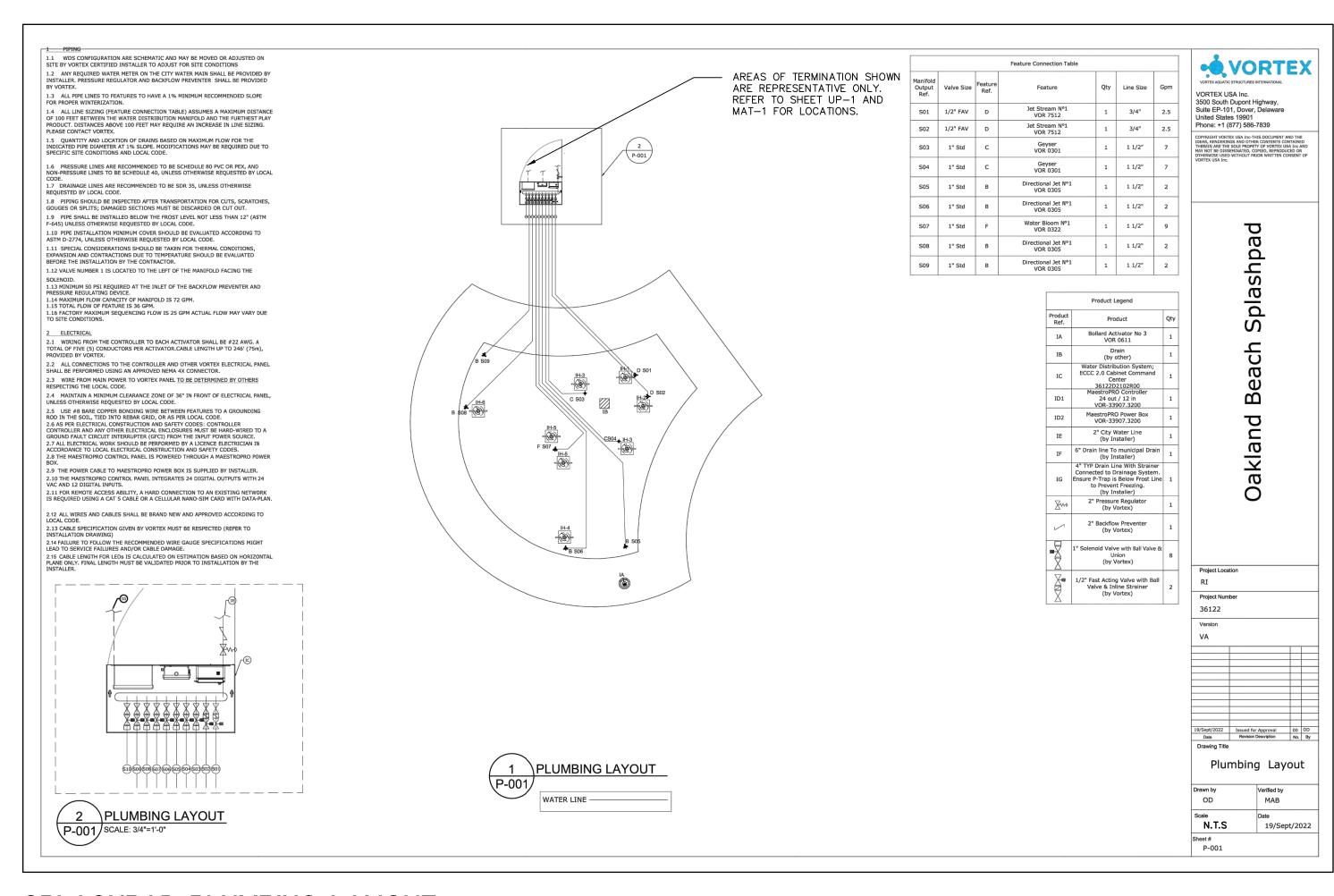
13. <u>TESTS:</u>

- A. DOMESTIC WATER PIPING:
 - TEST PIPING HYDROSTATICALLY AT A PRESSURE OF 125PSI.

 DURATION OF TEST SHALL BE 2 HOURS WITHOUT A LOSS IN PRESSURE.
- B. ARRANGE AND COORDINATE TESTS WITH OWNER 48 HOURS IN ADVANCE NOTIFY ENGINEER AND ARCHITECT OF TEST DATE AND TIME.

14. <u>CODES AND REGULATIONS</u>

A. MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CURRENT PLUMBING CODES AND STANDARDS ADOPTED BY THE STATE.



SPLASHPAD PLUMBING LAYOUT

N.T.S.



FLOW CABINET

N.T.S.

MANUFACTURER: VORTEX (OR APPROVED EQUAL)
PRODUCT: 10 VALVE SMART FLOW COMMAND CENTER
WEBSITE: WWW.VORTEX—INTL.COM

Architecture Engineering Environmental Land Surveying



355 Research Parkway Meriden, CT 06450 (203) 630-1406 (203) 630-2615 Fax

ND SPLASHPAD

ID BEACH PLAYGROUND A OAKLAND BEACH AVEN

Desc.

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REVISIONS No. Date

Designed RB
Drawn RB
Reviewed DC
Scale NONE
Project No. 2100515
Date June 2023
CAD File:

UP210051502

PLUMBING
SPECIFICATIONS
AND DETAILS

Sheet No.

A. <u>CODES, REGULATIONS, AND STANDARDS</u>

REGULATORY REQUIREMENTS: ALL WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE FEDERAL. STATE AND LOCAL CODES AND ORDINANCES. WHERE APPROVAL STANDARDS HAVE BEEN ESTABLISHED BY OSHA, UL, ASME, AGA, AMCA, ANSI, ARI. NFPA. THE STATE FIRE INSURANCE REGULATORY BODY. AND FM. FOLLOW THESE STANDARDS WHETHER INDICATED ON THE DRAWINGS AND SPECIFICATIONS. INCLUDE COST OF WORK REQUIRED TO COMPLY WITH REQUIREMENTS OF THESE AUTHORITIES IN THE ORIGINAL PROPOSAL. COMPLY WITH IEEE C2 WHERE APPLICABLE.

ALL ELECTRICAL SYSTEMS WILL BE DESIGNED TO COMPLY WITH THE REQUIREMENTS OF THE STATE BUILDING CODE INCLUDING ANY SUPPLEMENT(S) AND/OR AMENDMENT(S).

FURTHER, ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING APPROVED CODES AND

- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70 NATIONAL ELECTRICAL CODE (NEC).
- 2. INTERNATIONAL BUILDING CODE (IBC).
- 3. INTERNATIONAL ENERGY CONSERVATION CODE (IECC).
- NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE.
- NFPA 101 LIFE SAFETY CODE.
- UNDERWRITER'S LABORATORY (UL) 924 STANDARD FOR SAFETY OF EMERGENCY LIGHTING AND POWER EQUIPMENT.
- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).
- 8. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA). 10. AMERICANS WITH DISABILITIES ACT (ADA).
- 11. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
- 12. INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS (IEEE).
- 13. ELECTRICAL TESTING LABORATORIES (ETL).
- 14. AMERICAN SOCIETY OF HEATING AND AIR-CONDITIONING ENGINEERS (ASHRAE) 90.1 ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS.

<u>DEFINITIONS</u>

- "FURNISH": SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION,
- 2. "INSTALL": UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN, AND SIMILAR OPERATIONS AT PROJECT SITE.
- "PROVIDE": FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
- 4. "PROJECT SITE": SPACE AVAILABLE FOR PERFORMING CONSTRUCTION ACTIVITIES. THE EXTENT OF PROJECT SITE IS SHOWN ON DRAWINGS AND MAY OR MAY NOT BE IDENTICAL WITH THE DESCRIPTION OF THE LAND ON WHICH PROJECT IS TO BE BUILT.
- "NEW": MANUFACTURED WITHIN THE LAST TWO-YEARS AND NEVER USED.
- 6. "EQUAL". "ACCEPTABLE", "EQUIVALENT": ACCEPTABLE FOR USE ON THE PROJECT, AS DETERMINED BY THE ENGINEER, BASED UPON DOCUMENTS PRESENTED FOR SUCH DETERMINATION.
- 7. "INDICATED": REQUIREMENTS EXPRESSED BY GRAPHIC REPRESENTATIONS OR IN WRITTEN FORM ON DRAWINGS, IN SPECIFICATIONS, AND IN OTHER CONTRACT DOCUMENTS. OTHER TERMS INCLUDING "SHOWN," "NOTED," "SCHEDULED," AND "SPECIFIED" HAVE THE SAME MEANING AS "INDICATED."

WORK UNDER THE ELECTRICAL CONTRACT SHALL INCLUDE LABOR, MATERIALS, EQUIPMENT, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.

GENERAL REQUIREMENTS

AFTER CAREFULLY STUDYING THE DRAWINGS AND SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL, EACH BIDDER SHALL VISIT THE SITE TO ASCERTAIN CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED; NO EXTRA COMPENSATION WILL BE AWARDED IF THE CONTRACTOR FAILS TO NOTIFY THE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT HE MAY HAVE NOTICED BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS AND

THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS OF HIS OWN, OR OTHERS, AT THE SITE, AND SHALL BE RESPONSIBLE FOR CORRECTNESS OF SAME AS RELATED TO HIS WORK.

SLEEVE-SEAL SYSTEMS SHALL BE MODULAR SEALING DEVICE TYPE. DESIGNED FOR FIELD ASSEMBLY TO FILL ANNULAR SPACE BETWEEN SLEEVE AND RACEWAY OR CABLE. SEALING ELEMENTS SHALL BE EPDM RUBBER INTERLOCKING LINKS SHAPED TO FIT THE SURFACE AND PIPE. INCLUDE TYPE AND NUMBER REQUIRED FOR PIPE MATERIAL AND SIZE OF PIPE PRESSURE PLATES SHALL BE STAINLESS STEEL WITH CONNECTING BOLTS/NUTS OF STAINLESS STEEL, LENGTH AS REQUIRED TO SECURE PRESSURE PLATES TO SEALING ELEMENTS.

PROVIDE DANGER LABELING AT ALL EQUIPMENT AND JUNCTION/PULL BOXES PER CODE.

<u>CLEANING</u>

REMOVE CONSTRUCTION DEBRIS RESULTING FROM THIS WORK. CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE DETAILED PROCEDURES SPECIFIED HEREIN, OR AS DICTATED BY OWNER AT SITE.

EXCESS ELECTRICAL MATERIALS AND WASTE SHALL BE REMOVED FROM THE SITE DURING REGULAR BUSINESS HOURS AND SHALL BE TAKEN OFF-SITE NO LATER THAN THE START OF THE NEXT BUSINESS DAY. NO DEBRIS SHALL BE ALLOWED TO ACCUMULATE ON THE SITE. THE CONSTRUCTION SITE SHALL BE SWEPT CLEAN EACH DAY AND NO DUST OR DEBRIS SHALL BE PERMITTED TO ENTER THE AREA DRAINS.

ALL EXCESS ELECTRICAL MATERIALS AND WASTE SHALL BE TAKEN FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND ENVIRONMENTAL REGULATIONS. IF ANY EQUIPMENT IS REQUIRED TO BE TURNED OVER TO THE OWNER SHALL BE PLACED IN A MUTUALLY ACCEPTABLE LOCATION.

PERMITS, FEES AND INSPECTIONS

THE ELECTRICAL CONTRACTOR SHALL:

- GIVE ALL NECESSARY NOTICES
- ARRANGE WITH LOCAL AND STATE AUTHORITIES AND UTILITY COMPANIES FOR PERMITS AND SERVICE CONNECTIONS, VERIFYING LOCATIONS AND ARRANGEMENT.
- SHALL INCLUDE IN HIS BID THE COST OF REQUIRED GOVERNMENT AND STATE SALES TAXES AND ALL APPLICABLE FEES INCLUDING INSPECTIONS.
- THE CONTRACTOR SHALL FILE ALL DRAWINGS, COMPLETE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS FROM THE PROPER AUTHORITY OR AGENCY HAVING JURISDICTION.
- 5. SEE THAT ALL REQUIRED INSPECTIONS AND TESTS ARE MADE, AND OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION COVERING HIS WORK.

<u>SUBMITTALS</u>

SHOP DRAWINGS SUBMITTALS SHALL CONSIST OF ELECTRONIC FILES IN PDF FORMAT, OR AS SPECIFIED ELSEWHERE WITH IN THESE DOCUMENTS. SUBMIT SHOP DRAWINGS OF, BUT NOT LIMITED TO, THE FOLLOWING:

- CONDUIT AND CONDUCTORS
- SAFETY SWITCHES, DISCONNECTS, AND FUSES CIRCUIT BREAKERS AND ENCLOSURES
- 4. LIGHTING FIXTURES AND LAMPS

MAINTENANCE OF EXISTING FACILITIES AND CONDUCT OF WORK

THIS FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PROGRESS OF THE WORK; WHEN NECESSARY TO TEMPORARILY HALT BUILDING EGRESS OR FLOW OF PERSONNEL TRAFFIC, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON; IT IS REQUIRED THAT THE WORK INDICATED AND/OR SPECIFIED SHALL BE CARRIED OUT WITH A MINIMUM OF INTERFERENCE TO THE ESTABLISHED ROUTINE OF THE OCCUPANTS.

THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ALL COORDINATION OF HIS WORK WITH OTHER TRADES IN ORDER THAT ALL WORK MAY PROCEED WITH A MINIMUM OF DELAY AND INTERFERENCE. THE WORK SHALL BE CAREFULLY LAID OUT IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS, OR OTHER SURFACES; WHERE SUCH WORK IS NECESSARY, THE WORK SHALL BE PATCHED AND/OR REPAIRED IN AN APPROVED MANNER BY SKILLED MECHANICS AT NO ADDITIONAL COST TO THE OWNER.

NO WORK SHALL BE LEFT INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS; AT NO TIME SHALL THE WORK INTERFERE WITH OR CUTOFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.

WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUIT SUPPLYING EXISTING FACILITIES, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A MUTUALLY AGREED UPON TIME.

MAINTAIN EXISTING ELECTRICAL SERVICES IN THE BUILDING AREAS NOT AFFECTED BY THE ALTERATIONS DURING THE PROGRESS OF THE WORK INCLUDING PROVIDING TEMPORARY JUMPERS, CONDUITS, CAPS, PROTECTIVE DEVICES, CONNECTIONS

K. QUALITY, WORKMANSHIP, MATERIALS AND SAFETY

PROVIDE LABOR, MATERIALS, APPARATUS, AND APPLIANCES ESSENTIAL TO THE COMPLETE FUNCTIONING OF THE SYSTEMS DESCRIBED OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY IMPLIED AS ESSENTIAL WHETHER MENTIONED IN THE CONTRACT DOCUMENTS OR NOT. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND LISTED FOR THE DESCRIBED APPLICATION.

WORK SHALL BE FIRST-CLASS IN EVERY RESPECT AND SHALL BE NEATLY PERFORMED IN A PRACTICAL AND WORKMANLIKE MANNER BY PROFICIENT ELECTRICIANS SKILLED IN THE WORK THEY ARE TO DO, USING THE BEST PRACTICES OF THEIR TRADE, AND UNDER CONTINUOUS AND COMPETENT SUPERVISION.

THE WORK SHALL BE WELL ORGANIZED IN OPERATION, AND CARRIED OUT EFFICIENTLY WITHOUT DELAYS WHICH MAY IMPEDE PROGRESS OR THE QUALITY OF THE WORK OF OTHER TRADES AND THE JOB AS A WHOLE.

MATERIAL AND EQUIPMENT PROVIDED SHALL BE NEW AND APPROVED FOR THE APPLICATION AND SHALL CONFORM WITH THE SPECIFIED CODES AND STANDARDS; DEFECTIVE OR DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED IN A MANNER

ELECTRICAL MATERIAL AND METHODS SHALL BE UL OR ETL LISTED AND FM APPROVED FOR THEIR INTENDED USE.

TESTS, INSPECTION AND APPROVAL

SATISFACTORY TO THE OWNER.

INSPECT EQUIPMENT, COMPONENTS AND MATERIALS INSTALLED OR CONNECTED UNDER THIS CONTRACT TO ENSURE:

- COMPONENTS ARE IN PLACE ALIGNED AND SECURE . PROPER INTERNAL CONNECTIONS

BEFORE ENERGIZING ANY FACTORY FABRICATED EQUIPMENT, INSPECT EACH UNIT IN DETAIL; BOLTS AND CONNECTIONS SHALL BE TIGHT (TORQUE/TIGHTEN WHERE REQUIRED), COMPONENTS SHALL BE ALIGNED, AND THE EQUIPMENT SHALL BE IN SAFE, OPERATIONAL CONDITION.

THE COMPLETE ELECTRICAL SYSTEM SHALL BE FREE OF GROUNDS AND SHORT CIRCUITS AND SHALL OPERATE SATISFACTORILY UNDER FULL LOAD CONDITIONS, WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

SERVICE MANUALS

UPON COMPLETION OF THE WORK, FULLY INSTRUCT THE OWNER AS TO THE OPERATION AND MAINTENANCE OF MATERIAL, EQUIPMENT, AND SYSTEMS. PROVIDE (3) COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING SYSTEMS AND EQUIPMENT.

RECORD DRAWINGS

MAINTAIN, AT THE JOB SITE, A SET OF ELECTRICAL DRAWINGS INDICATING ALL CHANGES IN LOCATION OF EQUIPMENT, PANELS, DEVICES AND CIRCUIT NUMBERS FROM THE ORIGINAL LAYOUT. PLAINLY MARK IN RED. ALL CHANGES ON THE DRAWINGS. AT THE COMPLETION OF THE PROJECT, PROVIDE A COMPLETE SET OF AS-BUILT REPRODUCIBLE DRAWINGS SHOWING ALL CHANGES AND TURN OVER TO THE OWNER.

FURNISH, IN WRITING, A COMPLETE GUARANTEE AGAINST DEFECTIVE MATERIALS AND IMPROPER WORKMANSHIP, SATISFACTORY TO OWNER, FOR PARTS, COMPONENTS, AND OPERATION FOR A PERIOD OF (1) YEAR FROM THE DATE OF ACCEPTANCE, BY THE OWNER, OF THE COMPLETE INSTALLATION.

GUARANTEE SHALL INCLUDE COMPLETE MAINTENANCE OF SYSTEMS, INCLUDING REPLACEMENT PARTS, LABOR AND MATERIALS TO MAINTAIN THE SYSTEMS IN PROPER OPERATING CONDITION FOR THE GUARANTEE PERIOD.

CUTTING AND PATCHING

INSTALLATION OF THE WORK.

ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING REQUIRED FOR THE WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

CUTTING OF BEAMS, FLOORS OR WALLS FOR PIPING OR CONDUIT, SHALL BE DONE ONLY AS APPROVED BY THE OWNER. PROVIDE DRILLING AND PATCHING FOR EXPANSION BOLTS, HANGERS, AND OTHER SUPPORTS FOR PROPER AND SAFE

PROVIDE UL LISTED ASSEMBLIES FOR FIRE STOPPING AND SEALING AROUND PENETRATIONS THROUGH RATED ASSEMBLIES; REFER TO ARCHITECTURAL SPECIFICATIONS.

PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.

26-0519 (16120) - LOW VOLTAGE POWER CONDUCTORS AND CABLES

A. <u>BUILDING WIRE</u>

HOMERUNS, FEEDERS AND BRANCH CIRCUITS NO. 8 AWG AND LARGER: COPPER, STRANDED CONDUCTOR, 600 VOLT INSULATION, XHHW-2, IN ACCORDANCE WITH NEMA WC5 AND NEMA WC3.

HOMERUNS, FEEDERS AND BRANCH CIRCUITS NO. 10 AWG AND SMALLER: COPPER CONDUCTOR, 600 VOLT INSULATION, XHHW-2: SOLID CONDUCTOR IN ACCORDANCE WITH NEMA WC5.

CONTROL WIRING SHALL BE COPPER, STRANDED CONDUCTOR 600 VOLT INSULATION, THHN/THWN-2, IN SINGLE CONDUCTORS OR PREFERABLY MULTI-CONDUCTOR CABLES WHEREVER POSSIBLE. CABLES SHALL BE PROVIDED WITH AN OVERALL FLAME-RETARDANT EXTRUDED JACKET, RATED FOR PLENUM USE.

WIRING CONNECTIONS AND SPLICES

CONDUCTORS NO. 8 AWG AND SMALLER SHALL BE TWISTED AND MADE MECHANICALLY TIGHT. THEN SECURED WITH PIGTAIL CONNECTORS - SELF-INSULATING, WIRE NUT CONNECTORS. CRIMP TYPE CONNECTORS SHALL NOT BE USED. UTILIZE UL LISTED "SILICON FILLED" PIGTAIL CONNECTORS WHERE LOCATED IN WET ENVIRONMENTS, OUTDOORS, OR IN DATA PROCESSING/COMMUNICATION ROOM RAISED FLOOR CAVITIES.

SPLICE OR TAP STRANDED COPPER CONDUCTORS (NO. 6 AWG AND LARGER) WITH PRESSURE INDENT, HIGH CONDUCTIVITY, WROUGHT COPPER, COLOR-KEYED COMPRESSION TYPE CONNECTORS - BURNDY, NEPCO, T&B, OR O.Z. GEDNEY WITH COMPOSITION INSULATING COVERS.

GENERAL WIRING METHODS

PROVIDE CONDUCTORS OF CONTINUOUS LENGTH WITHOUT JOINT OR SPLICE.

NEATLY TRAIN AND LACE WIRING INSIDE BOXES AND POLES.

USE NO WIRE SMALLER THAN NO. 10 AWG FOR POWER AND LIGHTING CIRCUITS, AND NO SMALLER THAN NO. 12 AWG FOR

PROVIDE NEUTRAL CONDUCTOR OF THE SAME SIZE AS THE PHASE CONDUCTORS IT IS ASSOCIATED WITH. COMMON NEUTRALS SHALL NOT BE USED FOR BRANCH CIRCUITS.

HOMERUNS AND BRANCH CIRCUIT CONDUCTOR SIZE SHALL BE AS INDICATED ON PLANS.

PROVIDE APPROPRIATELY SIZED LUGS AND TERMINATIONS AT ALL EQUIPMENT. DO NOT REDUCE WIRE SIZE AT EQUIPMENT

WIRING INSTALLATIONS IN RACEWAY

PULL ALL CONDUCTORS INTO A RACEWAY AT THE SAME TIME. USE UL LISTED WIRE PULLING LUBRICANT. DO NOT EXCEED MANUFACTURER'S RECOMMENDED TENSION.

COMPLETELY AND THOROUGHLY SWAB RACEWAY SYSTEM BEFORE INSTALLING CONDUCTORS.

DO NOT INSTALL CONDUCTORS WHICH HAVE BEEN REMOVED FROM A RACEWAY. WIRE PREVIOUSLY PULLED INTO CONDUIT IS CONSIDERED USED AND SHALL NOT BE RE-PULLED.

BRANCH CIRCUITS. INSTALL THHN/THWN-2 CONDUCTORS IN RACEWAYS FOR ABOVE-GRADE FEEDERS AND BRANCH CIRCUITS.

PROVIDE HOMERUN AND FEEDER CONDUCTORS OF CONTINUOUS LENGTH WITHOUT JOINT OR SPLICE FROM OVERCURRENT

INSTALL XHHW-2 CONDUCTORS IN RACEWAY FOR SERVICE ENTRANCE CONDUCTORS, AND UNDERGROUND FEEDERS AND

<u>26-0526 (16060) - GROUNDING AND BONDING</u>

DEVICE TO FIRST LIGHT POLE.

PROVIDE GROUNDING SYSTEMS, INCLUDING POWER SYSTEM GROUNDING, ELECTRICAL EQUIPMENT AND RACEWAY GROUNDING AND BONDING, STRUCTURAL STEEL GROUNDING, AND MISCELLANEOUS SYSTEM GROUNDING.

BUILDING EQUIPMENT GROUND:

- PROVIDE A SEPARATE, INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDERS AND BRANCH CIRCUITS. TERMINATE EACH END ON A GROUNDING LUG, BUS, OR BUSHING. DO NOT USE CONDUIT AS GROUNDING CONDUCTOR.
- PROVIDE OZ GEDNEY TYPE 'BJ' BONDING JUMPER AT ALL EXPANSION JOINTS, POINTS OF ELECTRICAL DISCONTINUITY OR CONNECTIONS IN CONDUIT WHERE FIRM MECHANICAL BOND IS NOT POSSIBLE, SUCH AS FLEXIBLE CONNECTIONS, INSULATION COUPLINGS, ETC.
- BOND EVERY ITEM OF EQUIPMENT SERVED BY THE ELECTRICAL SYSTEM TO THE BUILDING EQUIPMENT GROUND SYSTEM. THIS INCLUDES NEW SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, RECEPTACLES, CONTROLS, FANS, AIR HANDLING UNITS, PUMPS AND FLEXIBLE DUCT CONNECTIONS.

PROVIDE SUPPLEMENTARY GROUND BONDING WHERE METALLIC CONDUITS TERMINATE AT METAL CLAD EQUIPMENT (OR AT THE METAL PULL BOX OF EQUIPMENT) FOR WHICH A GROUND BUS IS SPECIFIED. ACCOMPLISH THIS BY EQUIPPING THE CONDUITS WITH A BUSHING OF THE GROUNDING TYPE CONNECTED INDIVIDUALLY TO GROUND BUS.

ALL GROUND WIRES SHALL BE SUITABLY PROTECTED FROM MECHANICAL INJURY.

BARE COPPER CONDUCTORS:

- SOLID CONDUCTOR: ASTM B 3.
- STRANDED CONDUCTORS: ASTM B 8.
- TINNED CONDUCTORS: ASTM B 33. 4. BONDING CABLE: 28 KCMIL, 14 STRANDS OF NO. 17 AWG CONDUCTOR, 1/4 INCH (6 MM) IN DIAMETER.
- 5. BONDING CONDUCTOR: NO. 4 OR NO. 6 AWG, STRANDED CONDUCTOR.
- 6. BONDING JUMPER AND TINNED BONDING JUMPER: COPPER TAPE AND TINNED-COPPER TAPE, BRAIDED CONDUCTORS TERMINATED WITH COPPER FERRULES; 1-5/8 INCHES (41 MM) WIDE AND 1/16 INCH (1.6 MM) THICK.

GROUNDING BUS SHALL BE PRE-DRILLED RECTANGULAR BARS ON ANNEALED COPPER, 1/4 BY 8 INCHES (6.3 BY 200MM) IN CROSS SECTION MINIMUM, WITH 9/32 INCH (7.14MM) HOLES SPACED 1-1/8 INCHES (28MM) APART. STAND-OFF INSULATORS FOR MOUNTING SHALL COMPLY WITH UL 891 FOR USE IN SWITCHBOARDS, 600V AND SHALL BE LEXAN OR PVC. INSTALL IN ELECTRICAL EQUIPMENT ROOMS, ROOMS HOUSING SERVICE ENTRANCE EQUIPMENT, AND ELSEWHERE AS INDICATED.

CONNECTORS SHALL BE LISTED AND LABELED BY AN NRTL ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION FOR APPLICATIONS IN WHICH USED AND FOR SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS

WELDED CONNECTORS: EXOTHERMIC-WELDING KITS OF TYPES RECOMMENDED BY KIT MANUFACTURER FOR MATERIALS BEING JOINED AND INSTALLATION CONDITIONS.

GROUND RODS: COPPER-CLAD STEEL; 3/4 INCH BY 10 FEET (19 MM BY 3 M).

A. <u>PULL AND JUNCTION BOXES</u>

26-0533 (16130/16132) - RACEWAY AND BOXES

PROVIDE GALVANIZED SHEET METAL BOXES SHALL BE 4-11/16 INCH SQUARE OR LARGER CONFORMING TO NEMA OS 1.

PULL BOXES AND JUNCTION BOXES SHALL BE SIZED SO THAT THE MINIMUM BENDING RADIUS CRITERIA SPECIFIED FOR THE WIRES AND CABLE ARE MAINTAINED.

INCLUDE ALL REQUIRED JUNCTION/PULL BOXES REGARDLESS OF INDICATIONS ON THE DRAWINGS (WHICH DUE TO SYMBOLIC METHODS OF NOTATION, MAY NOT SHOW ALL THAT ARE REQUIRED.)

PROVIDE PULL OR JUNCTION BOXES IN ACCESSIBLE LOCATIONS WHERE SHOWN, AT LEAST EVERY 150-FEET IN STRAIGHT RUNS, AS REQUIRED BY CODE, OR AS NEEDED FOR PROPER INSTALLATION OF WIRING AND JUNCTIONS.

SET BOXES INSTALLED IN CONCEALED LOCATIONS FLUSH WITH THE FINISH SURFACES, AND PROVIDE WITH THE PROPER TYPE

EXTENSION RINGS AND/OR COVERS WHERE REQUIRED. ALL EQUIPMENT, DEVICE BOXES, JUNCTION BOXES, PULL BOXES AND OUTLET BOXES SHALL BE INSTALLED TO ALLOW ACCESS

IDENTIFY ALL JUNCTION BOXES BY PANEL AND CIRCUIT NUMBERS ON COVER WITH LEGIBLE PERMANENT INK MARKER. BOXES AND ENCLOSURES INSTALLED ON CONCRETE SURFACES SHALL BE PROVIDED WITH 1/4 INCH AIR GAP MINIMUM.

CONDUIT MATERIALS

PROVIDE RIGID GALVANIZED STEEL CONDUIT (RGS) AND FITTINGS IN ACCORDANCE WITH ANSI C80.1; HOT DIP GALVANIZED UNLESS OTHERWISE SPECIFIED.

PROVIDE ELECTRICAL METALLIC TUBING (EMT) AND FITTINGS IN ACCORDANCE WITH ANSI C80. 3; HOT-DIPPED GALVANIZED TUBING UNLESS OTHERWISE SPECIFIED. RIGID NON-METALLIC CONDUIT (RNC) SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40. UNLESS OTHERWISE NOTED.

THREADED FITTINGS SHALL BE USED WITH RGS CONDUIT. STEEL SET SCREW OR STEEL COMPRESSION FITTINGS SHALL BE USED WITH EMT.

CONDUIT SIZING, ARRANGEMENT AND SUPPORT

MINIMUM SIZE OF CONDUIT SHALL BE 3/4-INCH.

CONDUIT SIZES INDICATED ON THE DRAWINGS ARE MINIMUM BASED ON XHHW-2. COPPER WIRE AND LARGER SIZES MAY BE USED FOR CONVENIENCE OF WIRE PULLING.

CONCEAL CONDUIT IN CEILING AND WALLS IN ALL FINISHED AREAS OF THE BUILDING. IN UNFINISHED AREAS WITHOUT CEILINGS, CONDUIT MAY BE RUN EXPOSED OVERHEAD. INSTALL ALL CONDUIT, INCLUDING CONDUIT ABOVE ACCESSIBLE CEILING, PARALLEL OR PERPENDICULAR TO WALLS AND

UNAVOIDABLE, CONDUIT SHALL BE KEPT AT LEAST 1-INCH FROM THE INSULATED COVERING OF THE PIPE AND CROSS

MAINTAIN MINIMUM 6-INCH CLEARANCE BETWEEN CONDUIT AND PIPING. MAINTAIN 12-INCH CLEARANCE BETWEEN CONDUIT AND HEAT SOURCES SUCH AS FLUES, STEAM PIPES, HOT WATER PIPES, AND HEATING APPLIANCES. WHERE CROSSINGS ARE

ROUTE CONDUIT TO ALLOW FOR EQUIPMENT ACCESS AND MAINTENANCE. ARRANGE CONDUIT SUPPORTS TO PREVENT DISTORTION OF ALIGNMENT BY WIRE PULLING OPERATIONS. FASTEN CONDUIT SECURELY TO BUILDING STRUCTURE USING CLAMPS, HANGERS AND THREADED ROD.

THE ROUTING OF CONDUITS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC: BEFORE INSTALLING ANY WORK, EXAMINE THE WORKING LAYOUTS AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND CLEARANCE.

FOR ALL SIZES OF CONDUIT LARGER THEN 1-1/2 INCHES, USE STANDARD MANUFACTURED ELBOWS. IN SMALLER SIZES, FIELD BENDS WILL BE PERMITTED INSTEAD OF USING MANUFACTURED ELBOWS BUT CARE MUST BE TAKEN NOT TO DAMAGE THE CONDUIT. THE RADIUS OF THE INNER CURVE OF ANY BEND SHALL NOT BE ANY LESS THAN THAT PERMITTED BY

CONDUIT SHALL BE SECURELY FASTENED IN PLACE. HANGERS, SUPPORTS, OR FASTENINGS SHALL BE PROVIDED AT EACH ELBOW AND AT EACH END OF STRAIGHT CONDUIT RUN TERMINATED AT A BOX OR CABINET. WHERE RISER CONDUITS PIERCE FLOOR SLABS. THEY SHALL REST ON EACH FLOOR WITH APPROVED BEAM CLAMPS. PIPE STRAPS OR HEAVY IRON TIES WIRED TO THE STRUCTURAL MEMBERS SUPPORTING EQUIPMENT. SIZE AND TYPE OF ANCHOR SHALL BE BASED ON THE COMBINED WEIGHTS OF CONDUIT, HANGER AND CABLES. ALL HANGERS AND RODS SHALL BE PAINTED WITH ONE COAT OF

INSTALL CONDUIT EXPANSION FITTINGS IN EACH CONDUIT RUN WHEREVER IT CROSSES AN EXPANSION JOINT AND WHEREVER THE CONDUIT LENGTH EXCEEDS 200-FEET.

CONDUIT/BOX APPLICATION INDOORS

- EXPOSED AREAS NOT SUBJECT TO PHYSICAL DAMAGE: EMT.
- EXPOSED AREAS SUBJECT TO PHYSICAL DAMAGE: RGS BELOW 48 INCHES AND EMT 48 INCHES ABOVE FINISHED FLOOR. AREAS SUBJECT TO PHYSICAL DAMAGE INCLUDE, BUT ARE NOT LIMITED TO MECHANICAL AND ELECTRICAL ROOMS, RECEIVING AREA, MAINTENANCE SHOP, BOILER ROOM, SPRINKLER ROOM, AND LIKE UTILITY ROOMS, ETC.
- GREATER THAN 4 INCH: RGS. 4. DO NOT USE ELECTRICAL METALLIC TUBING IN AREAS SUBJECT TO MOISTURE, CORROSIVE AGENTS, OR PHYSICAL

AREAS SUBJECT TO MOISTURE, CORROSIVE AGENTS, PHYSICAL ABUSE, IN UNCONDITIONED SPACES, OR CONDUIT SIZES

- 5. CONCEALED IN CEILINGS AND WALLS: EMT.
- 6. CAST IN CONCRETE OR BELOW CONCRETE SLABS: RNC SCHEDULE 40 PVC. EXCEPTION, EXPOSED CONDUIT ENTERING/EXITING THE CONCRETE SHALL BE RGS.
- 7. CONNECTION TO VIBRATING EQUIPMENT: IN AREAS SUBJECT TO MOISTURE, HIGH HUMIDITY, OR CORROSIVE AGENTS, USE LIQUID-TIGHT FLEXIBLE METAL STEEL CONDUIT (LFMC).
- 8. PLENUM SPACES: WRING METHODS IN PLENUM SPACES SHALL CONFORM TO THE REQUIREMENTS OF NEC SECTION 300-22. ALL CONDUITS SHALL BE METAL.

26-0553 (16075) - IDENTIFICATION

PROVIDE WIRE AND CABLE MARKERS (SPLIT SLEEVE OR TUBING TYPE) ON ALL CONDUCTORS. PROVIDE WIRE MARKERS ON EACH CONDUCTOR IN SPLICE BOXES, PULL BOXES, AND AT FIRST LOAD CONNECTION ON HOMERUN. IDENTIFY WITH BRANCH CIRCUIT OR FEEDER NUMBER FOR POWER AND LIGHTING CIRCUITS, AND WITH CONTROL WIRE NUMBER AS INDICATED ON EQUIPMENT MANUFACTURERS SHOP DRAWING FOR CONTROL WIRING.

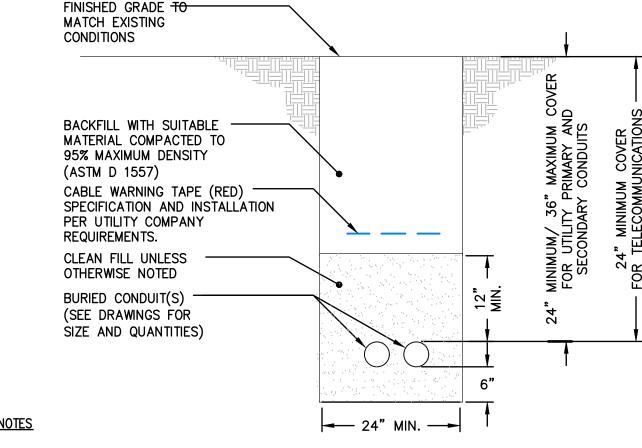
UNDERGROUND-LINE WARNING TAPE: DETECTABLE THREE-LAYER LAMINATE, CONSISTING OF A PRINTED PIGMENTED POLYOLEFIN FILM, A SOLID ALUMINUM-FOIL CORE, AND A CLEAR PROTECTIVE FILM THAT ALLOWS INSPECTION OF THE CONTINUITY OF THE CONDUCTIVE CORE, BRIGHT COLORED, CONTINUOUS PRINTED ON ONE SIDE WITH THE INSCRIPTION OF THE UTILITY, COMPOUNDED FOR DIRECT BURIAL SERVICE. WIDTH SHALL BE 3 INCHES (75 MM), OVERALL THICKNESS SHALL BE 5 MILS (0.125 MM), FOIL CORE THICKNESS SHALL BE 0.35 MILS (0.00889 MM), WEIGHT SHALL BE 28 LB/1000 SQ. FT. (13.7 KG/100 SQ. M), AND TENSILE SHALL BE ACCORDING TO ASTM D 882: 70 LBF (311.3 N) AND 4600 PSI (31.7 MPA). PRINTING ON TAPE SHALL BE PERMANENT AND SHALL NOT BE DAMAGED BY BURIL OPERATIONS. TAPE MATERIAL AND INK SHALL BE CHEMICALLY INERT AND NOT SUBJECT TO DEGRADATION WHEN EXPOSED TO ACIDS, ALKALIS, AND OTHER

COLOR CODING SHALL BE BUILDING STANDARD. WHERE NO BUILDING STANDARD EXIST IS, FACTORY COLOR CODING SHALL

DESTRUCTIVE SUBSTANCES COMMONLY FOUND IN SOILS. PROVIDE RED-COLORED TAPE FOR ELECTRIC LINES.

<u>208Y/120V, 3 PH</u> PHASE 'A' PHASE 'B': red BLUE <u>480Y/277V, 3 PH</u> PHASE 'A': PHASE 'B': ORANGE YELLOW PHASE 'C':

ALL SYSTEMS NEUTRAL: GREEN EQUIPMENT GROUND: GREEN/YELLOW STRIPE ISOLATED GROUND:



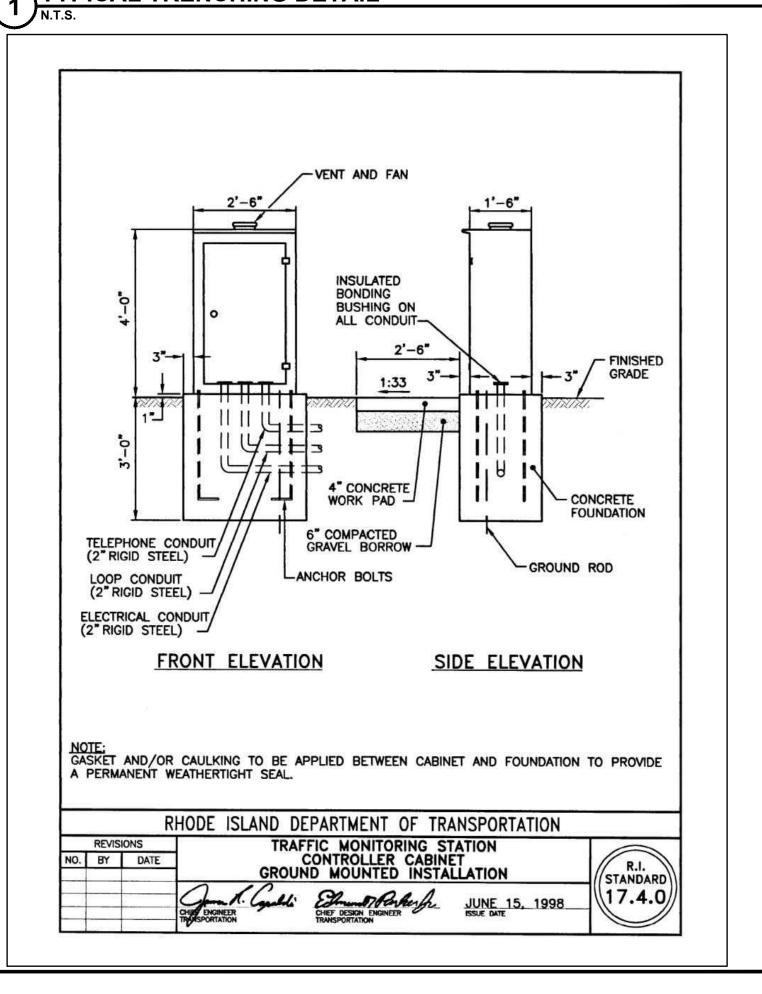
- 1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION.
- 2. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

3. ENCASE PRIMARY UTILITY CONDUITS, SECONDARY CONDUITS, TELEPHONE SERVICE CONDUITS, AND CATV SERVICE CONDUITS. WITH

- MINIMUM OF 3" CONCRETE ENTIRE LENGTH OF CONDUIT(S). SEE 'TYPICAL CONCRETE ENCASED CONDUIT DETAIL'. 4. PROVIDE SEPARATION OF CONDUITS OF DIFFERENT SYSTEMS (I.E., ELECTRIC, CATV & TELEPHONE) PER UTILITY COMPANY REQUIREMENTS. COORDINATE ROUTING OF CONDUITS WITH OTHER TRADES TO MAINTAIN REQUIRED SEPARATION WITH GAS, WATER,

5. TRENCH SHALL MEET UTILITY COMPANY REQUIREMENTS. **\TYPICAL TRENCHING DETAIL**

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ELECTRICAL SPECIFICATIONS AND DETAILS

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