

PLANTING SPECIFICATIONS

GENERAL

A. QUALIFICATIONS OF LANDSCAPE CONTRACTOR
 1. ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING.
 2. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.
 3. THE LANDSCAPE CONTRACTOR SHALL HOLD A VALID CONTRACTOR'S LICENSE ISSUED BY THE APPROPRIATE LOCAL JURISDICTION.

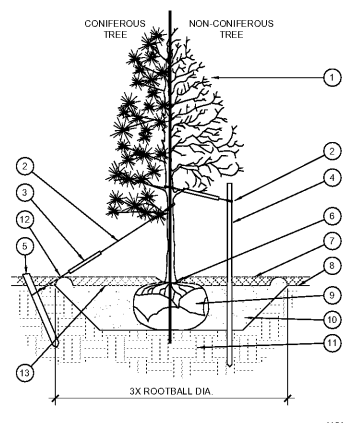
B. SCOPE OF WORK
 1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK SPECIFIED HEREIN AND SHOWN ON THE LANDSCAPE PLANS, NOTES, AND DETAILS.
 2. WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF ALL WORK.
 3. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK.

C. PRODUCTS
 ALL MANUFACTURED PRODUCTS SHALL BE NEW.
 1. CONTAINER AND ROOT BALLS:
 a. ALL PLANT MATERIAL SHALL BE FLORIDA NO. 1 OR BETTER ACCORDING TO GRADES AND STANDARDS FOR NURSERY PLANTS, CURRENT EDITION AT TIME OF INSTALLATION.
 2. FURNISH NURSERY GROWN PLANTS COMPLYING WITH ANSI Z60.1-2014. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. ALL PLANTS WITH A TRUNK DIAMETER OF 1 1/2" AND LARGER IN DIAMETER SHALL BE OF A CORNY TYPE FOR THE SPECIES. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMATIC CONDITIONS.
 3. TREES SHALL BE HEALTHY, DENSELY BRANCHED, ROOT SYSTEMS, NON-POT-HOLED, FREE FROM ENCRUSTING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED ROOTS).
 4. ANY PLANT MATERIAL UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTABLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, UNUSUAL, OR DEFECTIVE SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT AND OWNER SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAL.
 5. ALL TREES SHALL BE STANDARD IN FORM UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS SHALL BE REQUIRED TO BE DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
 6. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER.
 7. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL.
 8. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.
 9. SOIL: PROVIDE WELL-ROOTED SOIL OF THE VARIETY NOTED ON THE PLANS. SOIL SHALL BE CUT FROM HEALTHY MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOIL SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOIL.
 10. TOPSOIL: SANDY TO CLAY LOAM TOPSOIL, FREE OF STONES LARGER THAN 1/2" INCH, FOREIGN MATTER, PLANTS, ROOTS, AND SEEDS.
 11. COMPOST: WELL-COMPOSTED, STABLE, AND WHEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8, MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT, 100 PERCENT PASSING THROUGH 3/4" INCH SIEVE, SOLUBLE SALT CONTENT OF 5 TO 10 DECISEMENS/M, NOT EXCEEDING 0.5 PERCENT NERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED.
 12. PLANTING MIX FOR POTS: AN EQUAL PART MIXTURE OF TOPSOIL, SAND AND COMPOST. INCORPORATE "GELSCAPE", AS MADE BY AMERCO, INC., (800) 832-8788, AT THE RATE OF 3 LB. PER CUBIC YARD OF PLANTING MIX.
 13. FERTILIZER: GRANULAR FERTILIZER CONSISTING OF NITROGEN, PHOSPHORUS, POTASSIUM, AND OTHER NUTRIENTS IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED IN A SOIL REPORT FROM A QUALIFIED SOIL TESTING AGENCY (SEE BELOW).
 14. PALM MAINTENANCE SPIKES: AS MANUFACTURED BY THE LUTZ CORP. (800) 203-7740, OR APPROVED EQUAL.
 15. MULCH: SIZE AND TYPE AS INDICATED ON PLANS, FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS.
 16. TREE STAKING AND GUYING:
 a. STAKES: 1/2" GALV. GREEN METAL T PLANTS.
 b. GUY AND TIE WIRE: ASTM A 641, CLASS 1, GALVANIZED STEEL WIRE, 2 STRAND, TWISTED, 6 106 INCH DIAMETER.
 c. STRAP CHAINING GUARD: REINFORCED NYLON OR CANVAS AT LEAST 1 1/2 INCH WIDE, WITH GROMMETS TO PROTECT TREE TRUNKS FROM DAMAGE.
 17. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIES, CONFORMANCE OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

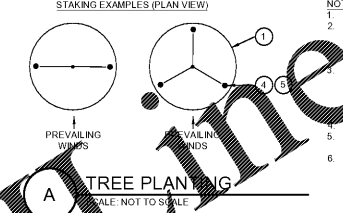
D. METHODS
 1. SOIL PREPARATION:
 a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +0.1' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST.
 2. SOIL TESTING:
 a. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES FROM THE PROJECT'S LANDSCAPE AREAS TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY. EACH SAMPLE SUBMITTED TO THE LAB SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL TAKEN FROM BETWEEN THE SOIL SURFACE AND 6" DEPTH. IF NO SAMPLE LOCATIONS ARE INDICATED ON THE PLANS, THE CONTRACTOR SHALL TAKE A MINIMUM OF THREE SAMPLES FROM VARIOUS REPRESENTATIVE LOCATIONS FOR TESTING.
 b. THE CONTRACTOR SHALL HAVE THE SOIL TESTING LABORATORY PROVIDE RESULTS FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, pH, ORGANIC MATTER CONTENT, SALT (CEC), LIMB, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT.
 c. THE CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES.
 d. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): SEPARATE SOIL PREPARATION AND BACKFILL MIX RECOMMENDATIONS FOR GENERAL ORNAMENTAL PLANTS, XERIC PLANTS, TURF, AND NATIVE SEEDS, AS WELL AS PRE-PLANT FERTILIZER APPLICATIONS AND RECOMMENDATIONS FOR ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG TERM MAINTENANCE.
 3. THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT.
 4. FOR BEDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING:
 a. TURF: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
 i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU YDS PER 1,000 S.F.
 ii. PREPLANT TURF FERTILIZER (10-20-10 OR SIMILAR, SLOW RELEASE, ORGANIC) - 15 LBS PER 1,000 S.F.
 b. "CLAY BUSTER" OR EQUAL, USE MANUFACTURER'S RECOMMENDED RATE.
 c. 12-12-12 FERTILIZER (OR SIMILAR, ORGANIC, SLOW RELEASE) - 10 LBS PER CU YD.
 d. "CLAY BUSTER" OR EQUAL, USE MANUFACTURER'S RECOMMENDED RATE.
 e. IRON SULPHATE - 2 LBS PER CU YD.
 5. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS.
 a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.
 b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL.
 c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED BASED ON A SOIL TEST PER SPECIFICATIONS, AND THE FINISH GRADES TO BE ESTABLISHED.
 d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
 e. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
 f. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND OWNER.
 6. ONCE SOIL PREPARATION IS COMPLETE, THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE

BREVARD COUNTY NATURAL RESOURCES MANAGEMENT OFFICE STANDARD NOTES - 2013

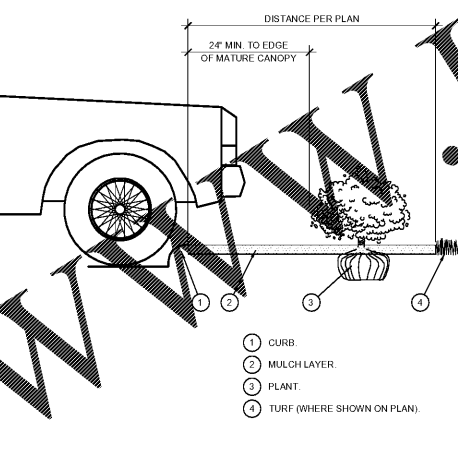
1. This site plan/subdivision plan will comply with Sec. 62-4333 of the Brevard County Landscaping, Land Clearing, and Tree Protection Ordinance regarding the removal and control in perpetuity of all non-native invasive plant species.
 2. This site plan/subdivision plan will comply with Sec. 62-4341 (14) of the Brevard County Landscaping, Land Clearing, and Tree Protection Ordinance regarding site and soil preparation and will comply with Sec. 62-4342 regarding maintenance in perpetuity for all required planted and preserved landscape materials.
 3. The method of irrigation for plants on this site will be an automatic irrigation system.
 4. Per Sec. 62-4339 (2)(c) of the Brevard County Landscaping, Land Clearing, and Tree Protection Ordinance, canopy preservation areas new subdivisions, industrial, institutional, public, or commercial developments shall be within separate tracts, Declaration of Covenants, recorded plat condition, or with sufficient protective language, noted on the approved landscape plan, to prohibit activities that are detrimental to the tree trunk, with a radius equal to 1" FOR EVERY 1" OF TRUNK DIAMETER AT BREAST HEIGHT (4' ABOVE THE AVERAGE GRADE AT THE TRUNK).
 5. Any state and federal permits that may be required as a result of land clearing and landscaping activities are the responsibility of the owner or designer.
 6. Any changes to the approved landscape and/or clearing plan will be confirmed in writing through The Brevard County Natural Resources Management Office prior to planting. Failure to obtain written approval to the approved landscape and/or clearing plan by the Brevard County Natural Resources Management Office may delay the issuance of the Certificate of Occupancy and/or Certificate of Completion.
 7. Per Sec. 62-4341 (3) of the Brevard County Landscaping, Land Clearing, and Tree Protection Ordinance, all plantings shall be at least Florida No 1 grade as defined by Grades & Standards for Nursery Plants, 1996, Division of Plant Industry, Florida Department of Agriculture and Consumer Services, as may be amended.
 8. Per Sec. 62-4339 (2)(c) of the Brevard County Landscaping, Land Clearing, and Tree Protection Ordinance, preserved trees shall have protective barriers during construction which encompass the root protection zone. It shall be the responsibility of the applicant to schedule an inspection with NRM or provide a notarized statement from a Recognized Knowledgeable Person, professional land surveyor registered in the State of Florida, professional civil engineer, or professional architect registered in the State of Florida and proficient in site design that protective barriers have been correctly installed. Failure to schedule an inspection or provide the notarized statement prior to any land clearing, alteration, or commencement of construction including grading and filling, shall constitute a violation, and may be subject to stop work order and other penalties and remedies pursuant to Section 62-4338. The only allowable activities prior to filing the notarized statement with NRM shall be those activities necessary for compliance with Stormwater Pollution Prevention Plans (SWPPP) and Florida Department of Environmental Protection (FDEP) National Pollutant Discharge Elimination System (NPDES).



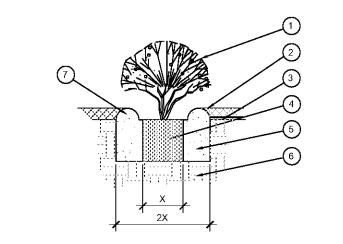
- 1 TREE CANOPY.
- 2 CONIFERUS (24" BOX/27" CAL TREES AND SMALLER) OR 12 GAUGE GALVANIZED WIRE WITH NYLON TREE STRAPS AT TREE AND STAKE (36" BOX/2 1/2" CAL TREES AND LARGER). SECURE TIES OR STRAPS TO TRUNK JUST ABOVE LOWEST MAJOR BRANCHES.
- 3 24" X 3/4" P.V.C. MARKERS OVER WIRES.
- 4 GREEN STEEL T-POSTS. EXTEND POSTS 12" MIN INTO UNDISTURBED SOIL.
- 5 PRESSURE TREATED WOOD DECK/AM, TWO PER TREE (MIN). BURY OUTSIDE OF PLANTING PIT AND 18" MIN INTO UNDISTURBED SOIL.
- 6 TRUNK FLARE.
- 7 MULCH TYPE AND DEPTH PER PLANS. DO NOT PLACE MULCH WITHIN 6" OF TRUNK.
- 8 FINISH GRADE.
- 9 ROOT BALL.
- 10 BACKFILL, AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
- 11 UNDISTURBED NATIVE SOIL.
- 12 4" HIGH EARTHEN WATERING BASIN.
- 13 2" HIGH EARTHEN WATERING BASIN.



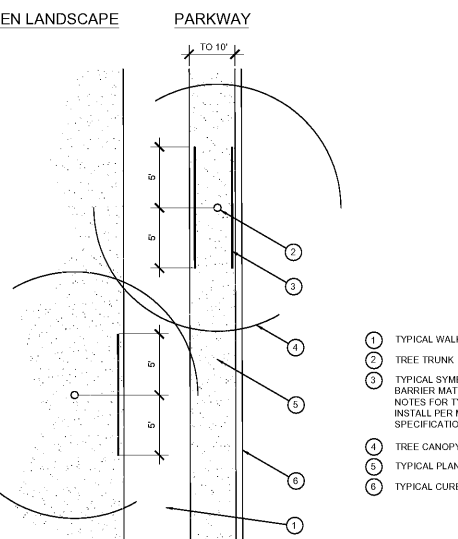
- NOTES:
- SCARIFY SIDES OF PLANTING PIT PRIOR TO SETTING TREE.
 - REMOVE EXCESS SOIL PLACED ON TOP OF THE ROOTBALL THAT COVERS THE TREE. THE PLANTING HOLE DEPTH SHALL BE SUCH THAT THE TREE RESTS ON UNDISTURBED SOIL, AND THE ROOT FLARE IS ABOVE FINISH GRADE.
 - FOR BASKET TREES, CUT OFF BOTTOM 1/3 OF WIRE BASKET BEFORE PLACING TREE IN HOLE, CUT OFF AND REMOVE REMAINDER OF BASKET AFTER TREE IS SET IN PLACE. REMOVE ALL NYLON TIES, NET, ROPE, AND OTHER PACKING MATERIAL. REMOVE AS MUCH OVERLAP FROM AROUND ROOTBALL AS IS PRACTICAL.
 - REMOVE ALL NURSERY STAKES AFTER PLANTING.
 - FOR TREES 36" BOX/2 1/2" CAL AND LARGER, USE THREE STAKES OR DECK/AM (AS APPROPRIATE), SPACED EVENLY AROUND TREE STARKING SHALL BE TIGHT ENOUGH TO PREVENT TRUNK FROM BENDING, BUT LOOSE ENOUGH TO ALLOW SOME TRUNK MOVEMENT IN WIND.



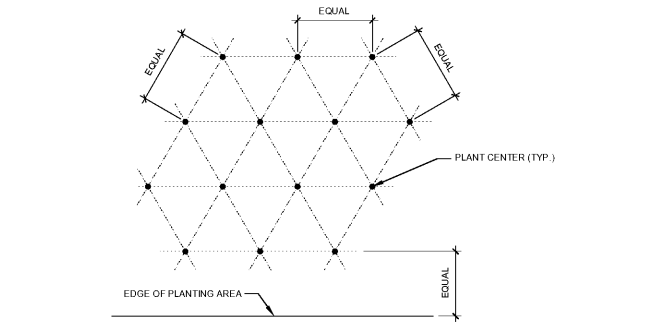
D. PLANTING AT PARKING AREA
SCALE: NOT TO SCALE



B. SHRUB AND PERENNIAL PLANTING
SCALE: NTS



E. ROOT BARRIER - PLAN VIEW
SCALE: NOT TO SCALE



NOTE: ALL PLANTS SHALL BE PLANTED AT EQUAL TRIANGULAR SPACING (EXCEPT WHERE SHOWN ON PLANS AS INFORMAL GROUPINGS). REFER TO PLANT LEGEND FOR SPACING DISTANCE BETWEEN PLANTS.

1) STEP 1: DETERMINE TOTAL PLANTS FOR THE AREA WITH THE FOLLOWING FORMULA:
 TOTAL AREA / AREA DIVIDER = TOTAL PLANTS

PLANT SPACING	AREA DIVIDER	PLANT SPACING	AREA DIVIDER
6"	0.22	18"	1.95
8"	0.29	24"	3.46
10"	0.40	30"	5.41
12"	0.57	36"	7.79
15"	1.35		

2) STEP 2: SUBTRACT THE ROW(S) OF PLANTS THAT WOULD OCCUR AT THE EDGE OF THE PLANTED AREA WITH THE FOLLOWING FORMULA: TOTAL PERIMETER LENGTH / PLANT SPACING = TOTAL PLANT SUBTRACTION

EXAMPLE: PLANTS AT 18" O.C. IN 100 SF PLANTING AREA, 40 LF PLANTER
 STEP 1: 100 SF / 1.95 = 51 PLANTS
 STEP 2: 51 PLANTS - (40 LF / 1.95 = 21 PLANTS) = 30 PLANTS TOTAL

C. PLANT SPACING
SCALE: NTS



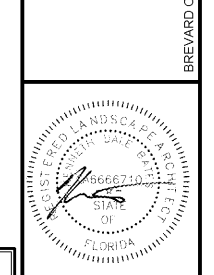
NO.	REVISIONS	DATE
1	CITY COMMENTS	4/7/2020
2	COMMENTS	XX-XX-XXXX
3		
4		
5		
6		
7		
8		

JOB NO.	DESIGNED	DATE	CHECKED	DATE ISSUED
19-1045	KB	NOVEMBER 2019	KB/RM	11/11/2019
DRAWN	KB			

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LANDSCAPE SPECIFICATIONS & DETAILS

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