

**LANDSCAPE ARCHITECT GENERAL NOTES:**

**SUMMARY, POINTS OF CONTACT, VERIFICATION, PROTECTION DURING CONSTRUCTION, AND REFERENCES.**

**A. SUMMARY:** THE FOLLOWING ARE GENERAL NOTES PERTAINING TO JBPRO-PRODUCED LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS. SUPPLEMENTAL NOTES ARE PROVIDED FOR THE FOLLOWING BASED THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND SITE CONDITIONS.

1. TREE AND PLANT PROTECTION/TREE MITIGATION NOTES, DETAILS, AND PLAN DRAWINGS.
2. SOIL AMENDMENT AND LANDSCAPE NOTES, DETAILS, AND PLAN DRAWINGS.
3. ENHANCED HARDSCAPE NOTES, DRAWINGS, AND PLAN DETAILS.
4. LANDSCAPE LIGHTING NOTES, DETAILS, AND PLAN DRAWINGS.
5. IRRIGATION NOTES, DETAILS, AND PLAN DRAWINGS.

**B.** THE CONTRACTOR SHALL PROVIDE ALL PERMITTING APPLICATIONS AND FEES, LABOR, MATERIALS, TOOLS, EQUIPMENT, FACILITIES, TRANSPORTATION AND SERVICES NECESSARY FOR, AND INCIDENTAL TO PERFORMING ALL OPERATIONS AS SHOWN ON THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.

1. THE LANDSCAPE ARCHITECT MAY OBSERVE THE WORK AT ANY TIME, AND 5/H HE MAY REMOVE SAMPLES OF MATERIALS TO VERIFY CONFORMITY TO SPECIFICATIONS.
2. UPON WRITTEN NOTICE OF THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL RE-EXECUTE ANY WORK THAT FAILS TO CONFORM TO STANDARDS, SPECIFICATIONS, AND CODES WITHIN THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS, AND THE CONTRACTOR SHALL REMEDY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP AT THE SOONEST POSSIBLE TIME THAT CAN BE COORDINATED WITH OTHER WORK AND SEASONAL WEATHER DEMANDS.

a. REJECTED MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE COST OF TESTING MATERIALS NOT MEETING SPECIFICATIONS SHALL BE PAID BY THE CONTRACTOR.

b. IN THE EVENT THAT CONSTRUCTION WORK DAMAGES EXISTING SOIL IN AREAS DESIGNATED FOR USE AS PLANTING SOIL, TO THE POINT WHERE THE SOIL IS NO LONGER SUITABLE TO SUPPORT THE PLANTS SPECIFIED, THE CONTRACTOR SHALL PROVIDE MODIFICATION OF THE DAMAGED SOIL UP TO AND INCLUDING REMOVAL AND REPLACEMENT WITH SOIL OF EQUAL QUALITY TO THE SOIL THAT EXISTED PRIOR TO CONSTRUCTION.

c. THE CONTRACTOR SHALL PROTECT INSTALLED AND/OR MODIFIED PLANTING SOIL FROM DAMAGE INCLUDING CONTAMINATION AND OVER COMPACTION. UTILIZE FENCING AND MATTING AS REQUIRED OR DIRECTED TO PROTECT THE FINISHED SOIL WORK. TREAT, REPAIR OR REPLACE DAMAGED PLANTING SOIL IMMEDIATELY.

1) EXAMPLES OF DAMAGE INCLUDE FURTHER COMPACTION, CONTAMINATION, GRADING, CREATION OF HARD PAN OR DRAINAGE PROBLEMS, AND LOSS OF THE "O" AND OR "A" SOIL HORIZONS.

3. THE GENERAL CONTRACTOR CAN REQUESTS A PRE-CONSTRUCTION CONFERENCE TO REVIEW THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS AT LEAST TEN (10) BUSINESS DAYS BEFORE BEGINNING WORK (I.E. THE INSTALLATION OF TREE AND PLANT PROTECTION FENCING) ON THE SITE.

**C. POINTS OF CONTACT:** THE GENERAL CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT THE FOLLOWING.

1.	POSITION	COMPANY NAME	TELEPHONE	EMAIL
	PROJECT MANAGER			
	SITE SUPERINTENDENT			
	CONSULTING ARBORIST			

2.	PROJECT TASK(S)	COMPANY / FIRM NAME
	CLEARING AND GRADING	
	INSTALLATION / MAINTENANCE OF TREE PROTECTION FENCING	
	PESTICIDE APPLICATION	
	COMPOST SUPPLIER	
	SOIL AMENDMENT(S) SUPPLIER(S)	
	NURSERY(IES) / PLANT GROWER(S)	
	LANDSCAPE INSTALLER	
	IRRIGATION INSTALLER	
	ANY OTHER COMPANY / FIRM THAT WILL EXCAVATE / TRENCH WITHIN PROJECT SITE	

3. THE LANDSCAPE ARCHITECT SHALL ONLY COMMUNICATE DIRECTLY TO THE OWNER, GENERAL CONTRACTOR'S PROJECT MANAGER (PM), AND/OR SUPERINTENDENT UNLESS OTHERWISE REQUESTED BY THE OWNER AND/OR GENERAL CONTRACTOR PM.

**D. VERIFICATION:** THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, CODES, ORDINANCES, AND REGULATIONS BEARING ON THE OPERATION OR CONDUCT OF THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.

1. BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND QUANTITIES, EXISTING VEGETATION TO REMAIN, SURFACE GRADES, AND SOIL CONDITIONS.

a. VERIFY THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED.

b. VERIFY ALL SURFACE AREAS TO BE FILLED WITH PLANTING SOIL ARE FREE OF CONSTRUCTION DEBRIS, REFUSE, COMPRESSIBLE OR BIODEGRADABLE MATERIALS, STONES GREATER THAN TWO INCHES (2") DIAMETER, SOIL CRUSTING FILMS OF SILT OR CLAY THAT REDUCES OR STOPS DRAINAGE FROM THE PLANTING SOIL INTO THE SUBSOIL; AND/OR STANDING WATER. REMOVE UNSUITABLE MATERIAL FROM THE SITE.

c. VERIFY NO ADVERSE DRAINAGE CONDITIONS ARE PRESENT.

d. VERIFY NO CONDITIONS ARE PRESENT WHICH ARE DETRIMENTAL TO PLANT GROWTH.

e. VERIFY UTILITY WORK HAS BEEN COMPLETED PRIOR TO LANDSCAPE INSTALLATION.

f. ALTHOUGH SIZES AND LOCATIONS OF PLANTS AND OR IRRIGATION EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, IT IS NOT WITHIN THE SCOPE OF THE DRAWINGS TO SHOW ALL NECESSARY OFFSETS, OBSTRUCTIONS, OR SITE CONDITIONS.

1) THE LANDSCAPE ARCHITECT DRAWS IRRIGATION PIPING AND RELATED EQUIPMENT DIAGRAMMATICALLY. SCALED DIMENSIONS ARE APPROXIMATE ONLY.

2) PIPING AND EQUIPMENT IS TO BE LOCATED WITHIN THE DESIGNATED PLANTING AREAS WHEREVER POSSIBLE UNLESS SPECIFICALLY DEFINED OR DIMENSIONED OTHERWISE.

3) THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL THE WORK IN SUCH A MANNER THAT IT WILL BE IN CONFORMANCE TO SITE CONDITIONS, COMPLETE, AND IN GOOD WORKING ORDER.

4) COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH PROTECTED OR PROPOSED TREE LOCATIONS.

g. VERIFY IRRIGATION WORK, WHICH IS SHOWN TO BE INSTALLED BELOW PREPARED SOIL LEVELS, HAS BEEN COMPLETED PRIOR TO THE LANDSCAPE INSTALLATION.

2. AT ANY TIME PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY

SUBMIT IN WRITING A LIST OF ANY DISCREPANCIES BETWEEN THE INFORMATION ON THE PLANS AND THE ACTUAL CONDITIONS TO THE LANDSCAPE ARCHITECT.

3. AT ANY TIME PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY SUBMIT WRITING A LIST OF ANY CONDITIONS THAT MAY IMPACT THE SUCCESSFUL PROTECTION OF EXISTING VEGETATION, AMENDING OF SOIL, INSTALLATION OF NEW VEGETATION, INSTALLATION OF THE IRRIGATION SYSTEM, AND ANY OTHER PORTION OF THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.

a. THE CONTRACTOR SHALL INCLUDE A DESCRIPTION OF ANY PROPOSED CHANGES TO WORK, SCHEDULE, AND COST.

4. THE CONTRACTOR SHALL INFORM THE LANDSCAPE ARCHITECT OF THE PROGRESS OF THE WORK SO THE LANDSCAPE ARCHITECT MAY OBSERVE KEY TIMES IN THE CONSTRUCTION PROCESS. PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE LANDSCAPE ARCHITECT FOR THE FOLLOWING, AND MAINTAIN THE LANDSCAPE ARCHITECT OF CHANGES TO THE SCHEDULE:

ACTIVITY	DATE
INSTALLATION OF TREE PROTECTION FENCING	
PRUNING OF TREES TO REMAIN	
DELIVERY AND INSTALL OF SOIL MIXES / AMENDMENTS	
DELIVERY AND INSTALL OF LANDSCAPE MATERIAL	
INSTALL AND TEST OF IRRIGATION SYSTEM	
SUBSTANTIAL COMPLETION WALK-THROUGH OF SITE	

a. THE FAILURE OF THE LANDSCAPE ARCHITECT TO MAKE FIELD OBSERVATIONS SHALL NOT RELIEVE THE CONTRACTOR FROM MEETING ALL THE REQUIREMENTS OF THIS SPECIFICATION.

**E. REFERENCES:** THE FOLLOWING APPLIES TO REFERENCED STANDARDS, SPECIFICATIONS, AND CODES WITHIN THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.

1. IN THE EVENT THAT THE REQUIREMENTS OF THE REFERENCED STANDARDS, SPECIFICATIONS, AND CODES CONFLICT WITH THESE LANDSCAPE ARCHITECTURAL DETAILS AND DRAWINGS, THE REQUIREMENTS OF THESE DETAILS AND DRAWINGS SHALL PREVAIL.

2. IN THE EVENT THAT THE REQUIREMENTS OF ANY OF THE REFERENCED STANDARDS, SPECIFICATIONS, AND CODES CONFLICT WITH EACH OTHER THE MORE STRINGENT REQUIREMENT SHALL PREVAIL.

3. WHEREVER REFERENCES ARE MADE TO STANDARDS, SPECIFICATIONS, AND CODES IN ACCORDANCE WITH WHICH WORK IS TO BE PERFORMED OR TESTED, THE EDITION OR REVISION OF THE STANDARDS, SPECIFICATIONS, AND CODES CURRENT ON THE PERMITTED DATE OF THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS SHALL APPLY UNLESS OTHERWISE EXPRESSLY SET FORTH.

4. WEBSITES LISTED IN THE LIST OF REFERENCES BELOW MAY NOT BE THE MOST CURRENT EDITION OF THE PUBLICATIONS. THE LANDSCAPE ARCHITECT OF RECORD IS PROVIDING THEM TO ASSIST THE CONTRACTOR'S DUE DILIGENCE.

5. IN THE EVENT THE CONTRACTOR DISCOVERS ANY OF THE ABOVE CONDITIONS, IMMEDIATELY CONTACT THE LANDSCAPE ARCHITECT.

**F. THE MOST CURRENT EDITION OF FOLLOWING STANDARDS, SPECIFICATIONS, AND CODES APPLY TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS:**

1. FOR THE PROTECTION OF EXISTING TREES AND OTHER PLANTS:

a. *ANSI A300 (PART 5), TREE, SHRUB, AND OTHER WOOD PLANT MANAGEMENT - STANDARD PRACTICES (MANAGEMENT OF TREES AND SHRUBS DURING SITE PLANNING, SITE DEVELOPMENT, AND CONSTRUCTION.* TREE CARE INDUSTRY ASSOCIATION, INC., LONDONDERRY, NEW HAMPSHIRE.

b. *STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY.* BY EDWARD F. GILMAN ET AL. PUBLISHED BY URBAN TREE FOUNDATION, VISALIA, CALIFORNIA.

c. *GLOSSARY OF ARBORICULTURAL TERMS.* INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS.

d. *BEST MANAGEMENT PRACTICES - PRUNING.* SHARON J. LILLY, EDWARD F. GILMAN, AND E. THOMAS SMILEY. INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS.

e. SEE SUPPLEMENTAL NOTES FOR TREE AND PLANT PROTECTION STARTING WITH SHEET LT-01 FOR MUNICIPAL LAND DEVELOPMENT CODE REQUIREMENTS.

2. FOR THE FURNISHING, DELIVERY, AND INSTALLATION OF PLANTING SOIL AND/OR THE MODIFICATION OF EXISTING SITE SOIL FOR USE AS PLANTING SOIL:

a. *STANDARD SPECIFICATION FOR AGRICULTURAL LIMING MATERIALS, ASTM C602-20.* ASTM INTERNATIONAL, WEST CONSHOHOCKEN, PENNSYLVANIA, AVAILABLE FOR PURCHASE ONLINE AT <<https://www.astm.org/c602-20.html>>.

b. "FINE AGGREGATE" IN STANDARD SPECIFICATION FOR CONCRETE AGGREGATES, ASTM C33/C33M-18. ASTM INTERNATIONAL, WEST CONSHOHOCKEN, PENNSYLVANIA, AVAILABLE FOR PURCHASE ONLINE AT <[https://www.astm.org/c0033\\_c0033m-18.html](https://www.astm.org/c0033_c0033m-18.html)>.

c. Parts 613 to 617, "Soil Classifications," and Parts 618 to 625, "Soil Qualities," *NATIONAL SOIL SURVEY HANDBOOK, TITLE 430.* U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE. AVAILABLE ONLINE AT

<<https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=49659.wba>>

d. "TREE & SHRUB CLASS," "FLOWER & VEGETABLE GARDEN CLASS," AND "LAWNS," CONSUMER COMPOST USE PROGRAM. U.S. COMPOSTING COUNCIL. AVAILABLE ONLINE AT

<<https://www.compostingcouncil.org/page/CCUPMethodsAmounts>>

e. *METHODS OF SOIL ANALYSIS, PART 1: PHYSICAL AND MINERALOGICAL METHODS.* ARNOLD KLUTE, EDITOR. THE SOIL SCIENCE SOCIETY OF AMERICA, INC.

f. *UP BY ROOTS: HEALTHY SOILS AND TREES IN THE BUILT ENVIRONMENT.* J. URBAN. INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS.

g. TEST METHOD FOR THE EXAMINATION OF COMPOSTING AND COMPOST (TMECC). U.S. COMPOSTING COUNCIL. AVAILABLE ONLINE AT

<<https://www.compostingcouncil.org/page/tmecc>>.

h. *ELEMENTS OF THE NATURE AND PROPERTIES OF SOILS.* NYLE C. BRADY AND RAY R. WEIL. PEARSON EDUCATION, INC., UPPER SADDLE RIVER, NEW JERSEY.

3. FOR THE FURNISHING, DELIVERY, INSTALLATION, AND NAMING OF VEGETATION (ALSO KNOWN AS "LANDSCAPING"):

a. *ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK.* AMERICAN HORTICULTURE INDUSTRY ASSOCIATION, COLUMBUS, OHIO. AVAILABLE ONLINE AT <[http://www.americanhort.site-ym.com/resource/collection/38ED7535-9C88-45E5-AF44-01C26838AD0C/ANSI\\_Nursery\\_Stock\\_Standards\\_AmericanHort\\_2014.pdf](http://www.americanhort.site-ym.com/resource/collection/38ED7535-9C88-45E5-AF44-01C26838AD0C/ANSI_Nursery_Stock_Standards_AmericanHort_2014.pdf)>

b. *ANSI A300 (PART 5), TREE, SHRUB, AND OTHER WOOD PLANT MANAGEMENT - STANDARD PRACTICES (MANAGEMENT OF TREES AND SHRUBS DURING SITE PLANNING, SITE DEVELOPMENT, AND CONSTRUCTION.* TREE CARE INDUSTRY ASSOCIATION, INC., LONDONDERRY, NEW HAMPSHIRE.

c. *FLORIDA GRADES AND STANDARDS FOR NURSERY STOCK.* FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, TALLAHASSEE, FLORIDA. AVAILABLE ONLINE AT <<http://www.ifas.ufl.edu/media/stylifasufledu/hillsborough/docs/pdf/environmentalhort/grades-and-standards-for-nursery-plants-2022.pdf>>

d. *THE GERMPASM RESOURCES INFORMATION NETWORK (GRIN).* U.S. DEPARTMENT OF AGRICULTURE. AVAILABLE ONLINE AT <[HTTP://WWW.ARS-GRIN.GOV/NPGS/SEARCHGRIN.HTML](http://www.ars-grin.gov/npgs/SEARCHGRIN.HTML)>

e. *MANUAL OF WOODY LANDSCAPE PLANTS.* MICHAEL DIRR. STIPES PUBLISHING, CHAMPAIGN, ILLINOIS.

f. *STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY.* BY EDWARD F. GILMAN ET AL. PUBLISHED BY URBAN TREE FOUNDATION, VISALIA, CALIFORNIA.

g. *GLOSSARY OF ARBORICULTURAL TERMS.* INTERNATIONAL SOCIETY OF ARBORICULTURE,

CHAMPAIGN, ILLINOIS.

h. *LANDSCAPING WITH CONIFERS AND GINKGO FOR THE SOUTHEAST.* BY TOM COX AND JOHN M. RUTER. UNIVERSITY OF FLORIDA PRESS, GAINESVILLE, FLORIDA.

i. *BETROCK'S REFERENCE GUIDE TO FLORIDA LANDSCAPE PLANTS.* TIMOTHY K. BROSCHEAT AND ALAN W. MEEROW. UNIVERSITY OF FLORIDA, GAINESVILLE, FLORIDA.

j. *BEST MANAGEMENT PRACTICES - PRUNING.* SHARON J. LILLY, EDWARD F. GILMAN, AND E. THOMAS SMILEY. INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS.

k. "LIST OF INVASIVE PLANT SPECIES." FLORIDA INVASIVE SPECIES COUNCIL (FISC). AVAILABLE ONLINE AT <<https://floridainvasivespecies.org/plantlist.cfm>>

l. SEE SUPPLEMENTAL NOTES FOR LANDSCAPING STARTING WITH SHEET LP-01 FOR MUNICIPAL LAND DEVELOPMENT CODE REQUIREMENTS.

4. FOR THE FURNISHING, DELIVERY, AND INSTALLATION OF NECESSARY FOR THE INSTALLATION OF A LANDSCAPE IRRIGATION SYSTEM.

a. *PROPOSED CONSTRUCTION BUILDING CODES FOR TURF AND LANDSCAPE IRRIGATION SYSTEMS.* APPENDIX F, 2023 FLORIDA BUILDING CODE, PLUMBING. 8<sup>TH</sup> EDITION. AVAILABLE ONLINE AT

<<https://codes.iccsafe.org/content/FLPC2023P1/appendix-f-proposed-construction-building-codes-for-turf-and-landscape-irrigation-systems>>

b. RAIN BIRD LANDSCAPE IRRIGATION CATALOG. AVAILABLE ONLINE AT <<https://www.rainbird.com/landscape/rain-bird-landscape-irrigation-catalog>>

c. HUNTER IRRIGATION PRODUCT CATALOG. AVAILABLE ONLINE AT <<https://www.hunterindustries.com/product-catalog-and-parts-list>>

d. SEE SUPPLEMENTAL NOTES FOR IRRIGATION START ON SHEET LI-01 FOR MUNICIPAL LAND DEVELOPMENT CODE REQUIREMENTS.

**G. PROTECTION DURING CONSTRUCTION:** THE CONTRACTOR SHALL PROTECT PLANTING AND RELATED WORK AND OTHER SITE WORK FROM DAMAGE DUE TO PLANTING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS OR TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION UNTIL SUBSTANTIAL COMPLETION ACCEPTANCE. TREAT, REPAIR OR REPLACE DAMAGED WORK IMMEDIATELY.

1. THE CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL TO STOP SOIL EROSION UNTIL THE SITE IS STABILIZED WITH MULCH, PINE STRAW, AND/OR ESTABLISHED PLANTINGS AND TURF.

2. DAMAGE DONE BY THE CONTRACTOR, OR ANY SUB-CONTRACTORS, TO EXISTING OR INSTALLED PLANTS, OR ANY OTHER PARTS OF THE WORK OR EXISTING FEATURES TO REMAIN, INCLUDING ROOTS, TRUNK OR BRANCHES OF LARGE EXISTING TREES, SOIL, PAVING, UTILITIES, LIGHTING, IRRIGATION, OTHER FINISHED WORK AND SURFACES INCLUDING THOSE ON ADJACENT PROPERTY, SHALL BE CLEANED, REPAIRED OR REPLACED BY THE CONTRACTOR.

**H. THE FOLLOWING ARE DEFINITIONS APPLICABLE TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS PER AUTHORITIES HAVING JURISDICTION:**

1. REFERENCE: (INSERT LAND DEVELOPMENT CODE ARTICLE(S) APPLICABLE TO THE PROJECT)

a. DEFINITIONS (E.G. SURVEYED TREE, PROTECTED TREE, HERITAGE TREE, ETC.)

b. TREE MITIGATION

c. TREE PROTECTION CREDIT CALCULATIONS

d. LANDSCAPE REQUIREMENTS (INCLUDES PERIMETER BUFFERS, SITE, PARKING LOT/VEHICLE USE AREAS, AND BUILDING FACADES)

e. LANDSCAPE LIGHTING

f. SIGNAGE

g. MISCELLANEOUS

2. DENOTES GUIDELINES FOR CONTRACTOR SUBMITTAL TO LANDSCAPE ARCHITECT.

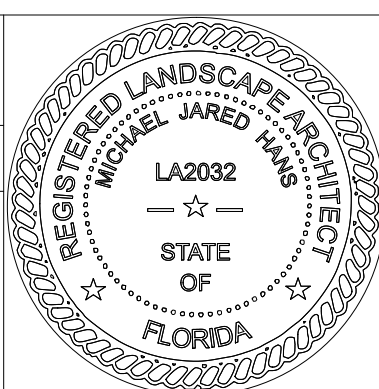
--- END LANDSCAPE ARCHITECTURAL GENERAL NOTES ---

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

LANDSCAPE ARCHITECT OF RECORD: **MICHAEL J. HANS, R.L.A. LA2032**

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MICHAEL J. HANS, R.L.A. ON THE DATE ADJACENT TO THE SEAL.

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SHEET TITLE:		<b>LANDSCAPE ARCHITECT GENERAL NOTES</b>		DATE: <b>FEBRUARY 2026</b>
CLIENT:		<b>FLORIDA GATEWAY RV RESORT, LLC</b> LAKE CITY, FLORIDA		PROJECT NO: <b>370-23-01</b>
PROJECT:		<b>PARADISE RV RESORT</b>		SHEET NO: <b>LG-01</b>

**SUPPLEMENTAL LANDSCAPE ARCHITECT NOTES  
FOR SOIL AMENDMENTS AND LANDSCAPE  
INSTALLATION:**

**PART I. DEFINITIONS AND BASIS OF DESIGN FOR SOIL AMENDMENT PRODUCTS.**

**A. DEFINITIONS:** THE FOLLOWING PROVIDES SPECIFIC NOTES FOR EXISTING SOIL AND AMENDMENTS TO EXISTING SOIL PRIOR TO THE LANDSCAPE INSTALLATION. THE FOLLOWING DEFINITIONS SHALL APPLY TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS:

1. ACCEPTABLE DRAINAGE: DRAINAGE RATE IS SUFFICIENT FOR THE PLANTS TO BE GROWN. TYPICAL RATES FOR INSTALLED PLANTING SOIL ARE BETWEEN ONE TO FIVE INCHES (1"-5") PER HOUR. IN NATURAL UNDISTURBED SOIL A MUCH LOWER DRAINAGE RATE, AS LOW AS ONE-EIGHTH INCH (1/8") PER HOUR CAN STILL SUPPORT GOOD PLANT GROWTH. WETLAND PLANTS CAN GROW ON TOP OF PERCHED WATER LAYERS OR EVEN WITHIN SEASONAL PERCHED WATER LAYERS BUT BECOME UNSTABLE IN HIGH WIND EVENTS.
2. AMENDMENT: MATERIAL INCORPORATED INTO THE SOIL TO MODIFY PROPERTIES OR FUNCTIONS, SUCH AS DRAINAGE, AGGREGATION AND SOIL STRUCTURE, WATER AND NUTRIENT RETENTION, POROSITY, INFILTRATION, DRAINAGE, AND ROOTING DEPTH. AMENDMENTS ARE CLASSIFIED AS ORGANIC OR INORGANIC.
3. AMENDMENT, INORGANIC: AMENDMENTS SUCH AS PERLITE, VERMICULITE, OR VOLCANIC GLASS USED FOR THEIR PHYSICAL AND CHEMICAL PROPERTIES; NOT BIOLOGICALLY ACTIVE.
4. AMENDMENT, NON-ORGANIC: BIOLOGICALLY ACTIVE AMENDMENTS SUCH AS MYCORRHIZAL ADDITIVES, COMPOST TEA, OR OTHER PRODUCTS.
5. CARBON DIOXIDE EVOLUTION RATE: A MEASUREMENT OF THE BIODEGRADATION RATE OF THE ORGANIC MATTER IN COMPOST BY MEASURING RESPIRATION RATE AT WHICH THE COMPOST SAMPLE IS RELEASING CARBON DIOXIDE (CO<sub>2</sub>) UNDER OPTIMIZED MOISTURE AND TEMPERATURE CONDITIONS.
6. COMPACTED SOIL: SOIL WHERE THE DENSITY OF THE SOIL IS GREATER THAT THE THRESHOLD FOR ROOT LIMITING.
7. COMPOST: WELL DECOMPOSED STABLE ORGANIC MATERIAL OF BLENDED AND GROUND LEAF, WOOD, AND OTHER PLANT BASED MATERIAL, COMPOSTED FOR A MINIMUM OF NINE (9) MONTHS AND AT TEMPERATURES SUFFICIENT TO BREAK DOWN ALL WOODY FIBERS, SEEDS AND LEAF STRUCTURES, FREE OF TOXIC MATERIAL AT LEVELS THAT ARE HARMFUL TO PLANTS OR HUMANS. SOURCE MATERIAL SHALL BE YARD WASTE TRIMMINGS BLENDED WITH OTHER PLANT OR MANURE BASED MATERIAL DESIGNED TO PRODUCE COMPOST HIGH IN FUNGAL MATERIAL.
8. COMPOST MATURITY: A PROCEDURE MEASURING A RATIO BETWEEN CARBON DIOXIDE (CO<sub>2</sub>) AND NITROGEN (N) PRODUCED BY DECOMPOSING ORGANIC MATERIAL. A C:N RATIO IS AN INDICATOR OF COMPOST STABILITY AND NITROGEN AVAILABILITY.
9. DRAINAGE: THE RATE AT WHICH SOIL WATER MOVES THROUGH THE SOIL TRANSITIONING THE SOIL FROM SATURATED CONDITION TO FIELD CAPACITY. MOST OFTEN EXPRESSED AS SATURATED HYDRAULIC CONDUCTIVITY (K<sub>SAT</sub>; UNITS ARE INCHES PER HOUR).
10. EXISTING SOIL: SURFACE SOIL IN THE AREAS DESIGNATED ON THE SOILS PLAN AS EXISTING SOIL, THAT IS NOT ALTERED, COMPACTED TO ROOT LIMITING DENSITY, GRADED OR CONTAMINATED BEFORE OR DURING THE CONSTRUCTION PROCESS AND CONSIDERED ACCEPTABLE FOR PLANTING AND LONG TERM HEALTH OF THE PLANTS SPECIFIED EITHER AS IT EXISTS OR WITH ONLY MINOR MODIFICATION.
11. FERTILIZER: INORGANIC AMENDMENT USED FOR THE PURPOSE OF ADJUSTING SOIL NUTRIENT COMPOSITION AND PH BALANCE.
12. FINE GRADING: THE FINAL GRADING OF THE SOIL TO ACHIEVE EXACT CONTOURS AND POSITIVE DRAINAGE, OFTEN ACCOMPLISHED BY HAND RAKES OR DRAG RAKES OTHER SUITABLE DEVICES.
13. FINISHED GRADE: SURFACE OR ELEVATION OF PLANTING SOIL AFTER FINAL GRADING AND TWELVE (12) MONTHS OF SETTLEMENT OF THE SOIL.
14. GRADED SOIL: SOIL WHERE THE A HORIZON HAS BEEN STRIPPED AND RELOCATED OR RE-SPREAD; CUTS AND FILLS DEEPER THAN TWELVE INCHES (12"), AND.
15. IMPORTED TOPSOIL: FERTILE, FRIABLE SOIL CONTAINING LESS THAN FIVE PERCENT (5%) TOTAL VOLUME OF THE COMBINATION OF SUBSOIL, REFUSE, ROOTS LARGER THAN ONE INCH (1") DIAMETER, HEAVY, STICKY OR STIFF CLAY, STONES LARGER THAN TWO INCHES (2") IN DIAMETER, NOXIOUS SEEDS, STICKS, BRUSH, LITTER, OR ANY SUBSTANCES DELETERIOUS TO PLANT GROWTH. THE PERCENT (%) OF THE ABOVE OBJECTS SHALL BE CONTROLLED BY SOURCE SELECTION AND NOT BY SCREENING THE SOIL.
16. INSTALLED SOIL: PLANTING SOIL AND EXISTING SITE SOIL THAT IS SPREAD AND OR GRADED TO FORM A PLANTING SOIL.
17. MINOR DISTURBANCE: MINOR GRADING AS PART OF AGRICULTURAL WORK THAT ONLY ADJUSTS THE A HORIZON SOIL, MINOR SURFACE COMPACTION IN THE TOP SIX INCHES (6") OF THE SOIL, APPLICATIONS OF FERTILIZERS, INSTALLATION OF UTILITY PIPES SMALLER THAN EIGHTEEN INCHES (18") IN DIAMETER THRU THE SOIL ZONE.
18. MIXED SOIL: MIXES OF EXISTING SOIL OR IMPORTED TOPSOIL, COARSE SAND, AND/OR COMPOST TO MAKE A NEW SOIL THAT MEETS THE PROJECT GOALS FOR THE INDICATED PLANTING AREA. THESE MIXED SOILS MAY BE MIXED OFF SITE OR ONSITE AND WILL VARY IN MIX COMPONENTS AND PROPORTIONS AS INDICATED.
19. PED: A CLUMP OR CLOD OF SOIL HELD TOGETHER BY A COMBINATION OF CLAY, ORGANIC MATTER, AND FUNGAL HYPHAE, RETAINING THE ORIGINAL STRUCTURE OF THE HARVESTED SOIL.
20. PLANTING SOIL: TOPSOIL, OR PLANTING SOIL MIXES WHICH ARE IMPORTED OR EXISTING AT THE SITE, OR MADE FROM COMPONENTS THAT EXIST AT THE SITE, OR ARE IMPORTED TO THE SITE.
21. POOR DRAINAGE: SOIL DRAINAGE THAT IS SLOWER THAN THAT TO WHICH THE PLANTS CAN ADAPT. GENERALLY, IF THE SOIL IS TURNING GREY IN COLOR, IT IS REASONABLE PREFERABLE TO EITHER TO PLANT MOISTURE ADAPTIVE PLANTS AT SMALLER SIZES THAT ARE YOUNG IN AGE WITH SHALLOW ROOT BALLS OR LOOK AT OPTIONS TO IMPROVE THE DRAINAGE
22. SCARIFY: LOOSENING AND ROUGHENING THE SURFACE OF SOIL AND SUB SOIL PRIOR TO ADDING ADDITIONAL SOIL ON TOP, AND FURTHER DEFINED IN THIS SPECIFICATION.
23. SOIL FRACTURING: DEEP LOOSENING THE SOIL TO THE DEPTHS SPECIFIED BY USING A BACKHOE.
24. SOIL HORIZONS: LAYERS OF SOIL VISIBLY SHARING PROPERTIES SUCH AS COLOR, TEXTURE, STRUCTURE, AND THICKNESS, AND SHARING TESTABLE PROPERTIES SUCH AS CHEMICAL AND MINERAL CONTENT, CONSISTENCE, AND REACTION.
25. SOIL HORIZON, 'O': LAYER OF PREDOMINATELY ORGANIC SOIL DERIVING FROM DEAD PLANT AND ANIMAL RESIDUE COMMON IN FORESTS AND GENERALLY ABSENT IN GRASSLANDS.
26. SOIL HORIZON, 'A': TOPMOST LAYER OF PREDOMINATELY MINERAL SOILS CONTAINING ENOUGH DECOMPOSED ORGANIC MATTER TO GIVE THE SOIL A DARKER COLOR THAN LOWER SOIL HORIZONS. GENERALLY REFERRED TO AS 'TOPSOIL' AND CONTAINS THE MAJORITY OF PLANT FEEDER ROOTS.
27. SOIL SALT: COMPOST SOLUBLE SALT MEASURES THE SALT CONTENT IN SOIL AND COMPOST MEASURED BY AN ELECTRICAL CONNECTIVITY TEST WITH RESULTING UNITS OF MILLIMHOS PER CENTIMETER (MMHO/CM). COMPOST SOLUBLE SALT LEVELS TYPICALLY RANGE FROM 1 TO 10 MMHOS/CM. HIGH SALINITY MAY BE TOXIC TO PLANTS. IDEAL SOLUBLE SALT LEVELS WILL DEPEND ON THE END USE OF THE COMPOST.
28. SOIL RIPPING: LOOSENING THE SOIL BY DRAGGING A RIPPING SHANK OR CHISEL THRU THE SOIL TO THE DEPTHS AND SPACING SPECIFIED.
29. SOIL TILLING: LOOSENING THE SURFACE OF THE SOIL TO THE DEPTHS SPECIFIED WITH A ROTARY TINE TILLING MACHINE, ROTO TILLER, (OR SPADE TILLER).
30. SOIL TRENCHING: CUTTING NARROW TRENCHES THRU THE SOIL AT THE DEPTHS AND SPACING SPECIFIED TO LOOSEN THE SOIL PROFILE.
31. SUBGRADE: SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER COMPLETING EXCAVATION, OR TOP SURFACE OF A FILL OR BACKFILL, BEFORE PLACING PLANTING SOIL.
32. TOPSOIL: SEE SOIL HORIZON, 'A'.
33. UNDISTURBED SOIL: SOILS WITH THE ORIGINAL 'A' HORIZON INTACT THAT HAVE NOT BEEN GRADED OR COMPACTED. SOILS MAY HAVE BEEN FARMED, SUBJECTED TO FIRE, OR LOGGED, BUT

NOT GRADED.

**B. BASIS OF DESIGN SOIL AMENDMENT PRODUCTS**

1. IMPORTED TOPSOIL:
  - a. IMPORTED TOPSOIL SHALL BE SUITABLE FOR THE GERMINATION OF SEEDS AND THE SUPPORT OF VEGETATIVE GROWTH. IMPORTED TOPSOIL SHALL NOT CONTAIN WEED SEEDS IN QUANTITIES THAT CAUSE NOTICEABLE WEED INFESTATIONS IN THE FINAL PLANTING BEDS.
  - b. IMPORTED TOPSOIL SHALL BE A HARVESTED SOIL FROM FIELDS OR DEVELOPMENT SITES. THE ORGANIC CONTENT AND PARTICLE SIZE DISTRIBUTION SHALL BE THE RESULT OF NATURAL SOIL FORMATION. MANUFACTURED SOILS WHERE COARSE SAND, COMPOSTED ORGANIC MATERIAL OR CHEMICAL ADDITIVES HAS BEEN ADDED TO THE SOIL TO MEET THE REQUIREMENTS OF THESE NOTES SHALL NOT BE ACCEPTABLE. RETAINED SOIL PEDS SHALL BE THE SAME COLOR ON THE INSIDE AS IS VISIBLE ON THE OUTSIDE.
  - c. IMPORTED TOPSOIL FOR PLANTING SOIL SHALL NOT HAVE BEEN SCREENED AND SHALL RETAIN SOIL PEDS OR CLODS LARGER THAN TWO INCHES (2") IN DIAMETER THROUGHOUT THE STOCKPILE AFTER HARVESTING.
2. COMPOST:
  - a. COMPOST SHALL BE COMMERCIALY PREPARED BY AN STA-CERTIFIED PRODUCER WHICH WILL PROVIDE A CURRENT TEST RESULT OF THEIR PRODUCT.
  - b. A LIST OF STA-CERTIFIED COMPOST PRODUCERS CAN BE FOUND ONLINE AT <<https://www.compostingcouncil.org/page/participants>>.
  - c. THE BASIS OF DESIGN PRODUCER IS INDIANHEAD BIOMASS, 2020 COUNTY ROAD 214, SAINT AUGUSTINE, FLORIDA, 32084-9210.
  - d. THE POINT OF CONTACT IS JOE WILLIAMS AT (904) 806-0187.
3. COMPOST SHALL COMPLY WITH THE FOLLOWING PARAMETERS:
  - 1) PH VALUE: 5.5 TO 8.0
  - 2) SOIL SALT (ELECTRICAL CONDUCTIVITY): MAX FIVE (5) DS/M (MMHOS/CM)
  - 3) MOISTURE CONTENT PERCENT (WET WEIGHT BASIS): THIRTY-SIXTY (30-60)
  - 4) PARTICLE SIZE (DRY WEIGHT BASIS): NINETY-EIGHT PERCENT (98%) PASS THROUGH THREE-QUARTER INCH (3/4") SCREEN OR SMEAR TEST.
  - 5) STABILITY CARBON DIOXIDE EVOLUTION RATE: LESS THAN TWO (-2) MG CO<sub>2</sub>-C/G OM/DAY.
  - 6) MATURITY TEST: GREATER THAN SIX (>6)
  - 7) PHYSICAL CONTAMINANTS (INERTS), % DRY WEIGHT BASIS: LESS THAN ONE PERCENT (<1%).
  - 8) CHEMICAL CONTAMINANTS PER U.S. ENVIRONMENTAL PROTECTION AGENCY CLASS A STANDARD, 40 CFR 5503.13, TABLES 1 AND 3 LEVELS.
  - 9) BIOLOGICAL CONTAMINANTS (SELECT PATHOGENS: FECAL COLIFORM BACTERIA, OR SALMONELLA) PER U.S. EPA CLASS A STANDARD, 40 CFR § 503.32(A) LEVEL REQUIREMENTS.
  - d. SUBMIT A ONE-HALF (1/2) GALLON SAMPLE FROM ALL COMPOST SOURCES WITH MANUFACTURER'S LITERATURE AND MATERIAL CERTIFICATION THAT THE PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT.
3. COARSE SAND
  - a. COARSE SANDS SHALL BE CLEAN, SHARP, NATURAL COARSE SANDS FREE OF LIMESTONE, SHALE AND SLATE PARTICLES. MANUFACTURED COARSE SAND SHALL NOT BE PERMITTED.
  - 1) PH VALUE SHALL BE LOWER THAN 7.0.
  - b. PROVIDE COARSE SAND WITH THE FOLLOWING PARTICLE SIZE DISTRIBUTION:

SIETVE	PERCENT PASSING
3/8 INCH (9.5 MM)	100%
NO. 4 (4.75 MM)	95-100%
NO. 8 (2.36 MM)	80-100%
NO. 16 (1.18 MM)	50-85%
NO. 30 (0.60 MM)	25-60%
NO. 50 (0.30 MM)	10-30%
NO. 100 (0.15 MM)	2-10%
NO. 200 (0.75 MM)	2-5%

- a. SUBMIT A ONE-HALF (1/2) GALLON SAMPLE FROM ALL COARSE SAND SOURCES WITH MANUFACTURER'S LITERATURE AND MATERIAL CERTIFICATION THAT THE PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT.
4. LIME
  - a. AGRICULTURAL LIMESTONE CONTAINING A MINIMUM EIGHTY PERCENT (80%) CALCIUM CARBONATE EQUIVALENT AND AS FOLLOWS:
  - b. CLASS T WITH A MINIMUM NINETY-NINE PERCENT (99%) PASSING THROUGH NO. 8 (2.36-MM) SIEVE AND A MINIMUM SEVENTY-FIVE PERCENT (75%) PASSING THROUGH NO. 60 (0.25-MM) SIEVE.
  - c. PROVIDE LIME IN FORM OF DOLOMITIC LIMESTONE.
  - d. SUBMIT MANUFACTURER'S LITERATURE AND MATERIAL CERTIFICATION THAT THE PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT.
5. EXISTING SOIL
  - a. PROTECT EXISTING SOIL FROM COMPACTION, CONTAMINATION, AND DEGRADATION DURING THE CONSTRUCTION PROCESS.
  - b. UNLESS OTHERWISE INSTRUCTED, REMOVE ALL EXISTING PLANTS, ROOT THATCH, AND NON-SOIL DEBRIS FROM THE SURFACE OF THE SOIL USING EQUIPMENT THAT DOES NOT INCREASE COMPACTION OF SOIL TO ROOT LIMITING LEVELS.
  - c. USE EXISTING SOIL SUITABLE FOR THE GERMINATION OF SEEDS AND THE SUPPORT OF VEGETATIVE GROWTH. EXISTING SOIL SHALL NOT CONTAIN WEED SEEDS IN QUANTITIES THAT CAUSE NOTICEABLE WEED INFESTATIONS IN THE FINAL PLANTING BEDS.
  - d. THE CONTRACTOR SHALL PAY FOR THE COLLECTION, SHIPPING, AND SUBMISSION OF THE EXISTING SOIL FOR TESTING BASED ON LOCATIONS IDENTIFIED IN THE LANDSCAPE ARCHITECTURAL DRAWINGS.
    - 1) THE BASIS OF DESIGN FOR SOIL TESTING IS PROVIDED THROUGH THE UNIVERSITY OF FLORIDA/INSTITUTE FOR FOOD AND AGRICULTURAL STUDIES (UF/IFAS) AGRICULTURAL EXTENSION SOIL TESTING LABORATORY, OR OTHER RECOGNIZED LABORATORY. A MAP OF TESTING LABORATORIES IS ONLINE AT: <<https://sfl.ifas.ufl.edu/find-your-local-office/>>.
    - 2) THE BASIS OF DESIGN SOIL TEST IS THE UF/IFAS LANDSCAPE AND VEGETABLE GARDEN TEST FORM AVAILABLE ONLINE AT <<https://edis.ifas.ufl.edu/pdffiles/SS/SS18700.pdf>>.
      - a. SELECT TEST "B".
      - e. EXISTING SOIL SHALL BE TESTED BEFORE THE INSTALLATION OF THE IRRIGATION SYSTEM AND WITH ENOUGH TIME TO RECEIVE RESULTS TO AMEND SOILS AND INSTALL THE LANDSCAPING.
      - f. THE TEST SHALL PROVIDE RESULTS FOR THE FOLLOWING:
        - 1) SOIL PH
        - 2) LIME REQUIREMENT
        - 3) MINERAL CONTENT (P, K, CA, MG, S, CU, MN, and ZN)
      - g. IF THE CONTRACTOR STOCKPILES THE EXISTING TOPSOIL, THEN SUBMIT SAMPLES FOR TESTING AFTER DISTRIBUTING IT AROUND THE PROJECT SITE TO CONFIRM IT MEETS THE ABOVE CRITERIA AND IS ACCEPTABLE FOR USE.
      - 1) THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN TO THE LANDSCAPE ARCHITECT FOR DISTRIBUTING AND TESTING THE STOCKPILED EXISTING SOIL.
      - h. SUBMIT COPIES OF ALL SOIL TEST REPORT(S) OF EXISTING SOILS LISTED ABOVE TO THE LANDSCAPE ARCHITECT.
      6. MIXED SOILS FOR PLANTING

a. MIXED SOILS FOR TREES AND SHRUB BEDS SHALL BE DESIGNED FOR MODERATELY SLOW DRAINAGE.

- 1) MIXED SOILS SHALL COMPRISE A COMBINATION OF IMPORTED TOPSOIL, COARSE SAND, AND COMPOST. THE APPROXIMATE MIX SHALL BE:

MIX COMPONENT	PERCENT BY MOIST VOLUME
IMPORTED TOP SOIL UNSCREENED	45-50%
COARSE SAND	40-45%
COMPOST	10%

- b. MIX THE COARSE SAND AND COMPOST TOGETHER FIRST AND THEN ADD TO THE TOPSOIL. MIX WITH A LOADER BUCKET TO LOOSELY INCORPORATE THE TOPSOIL INTO THE COARSE SAND/COMPOST MIX. DO NOT OVER MIX BY USING A SOIL BLENDING MACHINE. DO NOT SCREEN THE SOIL. CLUMPS OF SOIL, COMPOST, AND COARSE SAND WILL BE PERMITTED IN THE OVERALL MIX.
7. CHEMICAL ADJUSTMENT
  - a. ADD ANY REQUIRED FERTILIZER AT RATES RECOMMENDED BY THE SOIL TEST RESULTS.
    - 1) THE CONTRACTOR SHALL SUBMIT A WRITTEN DESCRIBING QUANTITIES AND APPLICATION METHODS FOR ADDING FERTILIZERS TO THE LANDSCAPE ARCHITECT FOR APPROVAL.
    - 2) AT FINAL GRADING, TILL SURFACE SOIL DOWN TO SIX INCHES (6") OR GREATER AFTER CHEMICAL ADJUSTMENTS HAVE BEEN APPLIED.
  8. TUBULAR SOIL SAMPLER
    - a. FOR SOIL TESTS, USE A TUBULAR SOIL SAMPLER (SOIL PROBE) PROVIDING FOR A SAMPLE MINIMUM OF SIX INCHES (6") IN DEPTH AND ONE-HALF INCH (1/2") IN DIAMETER.
    - b. MODEL 0137, ITEM #76971, BY FORESTRY SUPPLIERS <<https://www.forestry-suppliers.com/p/76971/43231/tubular-soil-sampler>>, OR APPROVED EQUIVALENT.
    9. SOIL COMPACTION TESTER
      - a. FOR ASSESSING SOIL COMPACTION, USE A SPONTON® DIGITAL SOIL COMPACTION METER.
      - b. MODEL 29360, AVAILABLE THROUGH FORESTRY SUPPLIERS <<https://gemplers.com/products/spoton-digital-soil-compaction-meter>>, OR APPROVED EQUIVALENT.
      - c. SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL.
      10. DELIVERY, STORAGE, AND HANDLING OF SOIL AMENDMENT PRODUCTS
        - a. DO NOT MIX, DELIVER, PLACE OR GRADE SOILS WHEN FROZEN OR WITH MOISTURE ABOVE FIELD CAPACITY (I.E. DURING RAIN EVENTS).
        - b. PROTECT SOIL AND SOIL STOCKPILES, INCLUDING THE STOCKPILES AT THE SOIL BLENDER'S YARD, FROM WIND, RAIN AND WASHING THAT CAN ERODE SOIL OR SEPARATE FINES AND COARSE MATERIAL, AND CONTAMINATION BY CHEMICALS, DUST AND DEBRIS THAT MAY BE DETRIMENTAL TO PLANTS OR SOIL DRAINAGE. COVER STOCKPILES WITH PLASTIC SHEETING OR FABRIC AT THE END OF EACH WORKDAY.
        - c. ALL MANUFACTURED PACKAGED PRODUCTS AND MATERIAL SHALL BE DELIVERED TO THE SITE IN UNOPENED CONTAINERS AND STORED IN A DRY ENCLOSED SPACE SUITABLE FOR THE MATERIAL AND MEETING ALL ENVIRONMENTAL REGULATIONS. BIOLOGICAL ADDITIVES SHALL BE PROTECTED FROM EXTREME COLD AND HEAT. ALL PRODUCTS SHALL BE FRESHLY MANUFACTURED AND DATED FOR THE YEAR IN WHICH THE PRODUCTS ARE TO BE USED.
        - d. DELIVER ALL CHEMICAL AMENDMENTS IN ORIGINAL, UNOPENED CONTAINERS WITH ORIGINAL LABELS INTACT AND LEGIBLE, WHICH STATE THE GUARANTEED CHEMICAL ANALYSIS. STORE ALL CHEMICALS IN A WEATHER PROTECTED ENCLOSURE.

**PART II. AMENDING SOIL**

**A. SITE PREPARATION**

1. EXCAVATE TO THE PROPOSED SUBGRADE. MAINTAIN ALL REQUIRED ANGLES OF REPOSE OF THE ADJACENT MATERIALS AS SHOWN ON THE DRAWINGS OR AS REQUIRED BY THIS SPECIFICATION. DO NOT OVER EXCAVATE COMPACTED SUBGRADES OF ADJACENT PAVEMENT OR STRUCTURES. MAINTAIN A SUPPORTING ONE-TO-ONE (1:1) RATIO SIDE SLOPE OF COMPACTED SUBGRADE MATERIAL ALONG THE EDGES OF ALL PAVING AND STRUCTURES WHERE THE BOTTOM OF THE PAVING OR STRUCTURE IS ABOVE THE BOTTOM ELEVATION OF THE EXCAVATED PLANTING AREA.
2. REMOVE ALL CONSTRUCTION DEBRIS AND MATERIAL INCLUDING ANY CONSTRUCTION MATERIALS FROM THE SUBGRADE.
3. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED. SUBGRADE ELEVATIONS SHALL SLOPE APPROXIMATELY PARALLEL TO THE FINISHED GRADE AND/OR TOWARD THE SUBSURFACE DRAIN LINES AS SHOWN ON THE DRAWINGS.
4. IN AREAS WHERE PLANTING SOIL IS TO BE SPREAD, CONFIRM SUBGRADE HAS BEEN SCARIFIED.
5. PROTECT ADJACENT WALLS, WALKS AND UTILITIES FROM DAMAGE OR STAINING BY THE SOIL. USE ONE-HALF INCH (1/2") PLYWOOD OR PLASTIC SHEETING TO COVER EXISTING CONCRETE, METAL AND MASONRY WORK, AND OTHER INSTALLED ITEMS.
- a. AT THE END OF EACH WORKING DAY, CLEAN OFF ANY SOIL SPILLED ON ANY PAVED SURFACE.

**B. PLANTING SOIL**

1. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING FOR FURNISHING, DELIVERY, AND INSTALLATION OF PLANTING SOIL AND/OR THE MODIFICATION OF EXISTING SITE SOIL FOR USE AS PLANTING SOIL.
  - a. LOCATE, PURCHASE, DELIVER AND INSTALL IMPORTED PLANTING SOIL AND SOIL AMENDMENTS.
  - b. HARVEST AND STOCKPILE EXISTING SITE SOILS SUITABLE FOR PLANTING SOIL.
  - c. MODIFY EXISTING STOCKPILED SITE SOIL
    - 1) MODIFY EXISTING SITE SOIL IN PLACE FOR USE AS PLANTING SOIL.
    - 2) INSTALL EXISTING OR MODIFIED EXISTING SOIL FOR USE AS PLANTING SOIL.
  - d. LOCATE, PURCHASE, DELIVER AND INSTALL SUBSURFACE DRAIN LINES.
  - e. FINE GRADE PLANTING SOIL.
  - f. INSTALL COMPOST INTO PLANTING SOIL.
2. IMPORTED PLANTING TOP SOILS AND HARVESTED EXISTING SITE SOILS SHALL BE TESTED PRIOR TO DELIVERY BY THE UNIVERSITY OF FLORIDA/INSTITUTE FOR FOOD AND AGRICULTURAL STUDIES (UF/IFAS) ANALYTICAL SERVICES LABORATORIES, ATTN: EXTENSION SOIL TESTING LABORATORY, 2390 MOWRY ROAD/PO BOX 110740/WALLACE BUILDING 631, GAINESVILLE, FLORIDA 32611-0740.
  - a. IMPORTED PLANTING TOP SOILS SHALL BE TESTED AT THEIR SOURCE PRIOR TO DELIVERY AND APPLICATION.
  - b. STOCKPILED EXISTING SITE SOIL SHALL BE TESTED PRIOR TO APPLICATION.
  3. PROVIDE A MINIMUM OF 1-1/2 CUP SAMPLE FROM A HOLE DUG SIX INCHES (6") INTO THE GRADE, OR USE A SOIL PROBE TO TAKE A MINIMUM SIX-INCH-DEEP (6") AND ONE-HALF INCH (1/2") DIAMETER SAMPLE.
    - a. PLACE THE SAMPLE IN A ZIP-LOCK BAG AND ALLOW IT TO DRY BEFORE SEALING AND SHIPPING TO UF/IFAS.
    - b. COMPLETE THE LANDSCAPE AND VEGETABLE GARDEN TEST FORM AVAILABLE ONLINE AT <<https://edis.ifas.ufl.edu/pdffiles/SS/SS18700.pdf>>.
    - 1) SELECT TEST "B".
    - 2) THE TEST SHALL PROVIDE RESULTS FOR THE FOLLOWING:
      - 1) SOIL PH
      - b) LIME REQUIREMENT
      - c) MINERAL CONTENT (P, K, CA, MG, S, CU, MN, and ZN)
    - c. PROVIDE COPIES OF THE TEST RESULTS FOR IMPORTED PLANTING TOP SOILS AND HARVESTED EXISTING SITE SOILS TO THE LANDSCAPE ARCHITECT.

**C. SOIL MOISTURE**

1. PRIOR TO, DURING, AND AFTER PLANTING, THE CONTRACTOR SHALL MAINTAIN VOLUMETRIC SOIL MOISTURE LEVEL. IN BOTH THE PLANTING SOIL AND THE ROOT BALLS OF ALL PLANTS, AT ABOVE PERMANENT WILT POINT AND BELOW FIELD CAPACITY FOR EACH TYPE OF SOIL TEXTURE, WITHIN THE FOLLOWING RANGES.

SOIL TYPE	PERMANENT WILT POINT	FIELD CAPACITY
SAND, LOAMY SAND, SANDY LOAM	5-8%	12-18%
LOAM, SANDY CLAY, SANDY CLAY LOAM	14-25%	27-36%
CLAY LOAM, SILT LOAM	11-22%	31-36%
SILTY CLAY, SILTY CLAY LOAM	22-27%	38-41%

- a. IF THE MOISTURE IS FOUND TO BE TOO LOW, THE PLANTING HOLES SHALL BE FILLED WITH WATER AND ALLOWED TO DRAIN BEFORE STARTING ANY PLANTING OPERATIONS. IF THE MOISTURE IS TOO HIGH, SUSPEND PLANTING OPERATIONS UNTIL THE SOIL MOISTURE DRAINS TO BELOW FIELD CAPACITY.

**D. PLANTING SOIL AND PLANTING SOIL MIX INSTALLATION**

1. THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE LANDSCAPE ARCHITECT FIVE (5) BUSINESS DAYS PRIOR TO INSTALLING ANY SOILS FOR PLANTING.
  - a. PRIOR TO INSTALLING ANY PLANTING SOIL FROM STOCKPILES OR PLANTING SOIL MIXES BLENDED OFF SITE, THE LANDSCAPE ARCHITECT SHALL APPROVE THE CONDITION OF THE SUBGRADE AND THE PREVIOUSLY INSTALLED SUBGRADE PREPARATION.
  2. ALL EQUIPMENT UTILIZED TO INSTALL OR GRADE PLANTING SOILS SHALL BE WIDE TRACK OR BALLOON TIRE MACHINES RATED WITH A GROUND PRESSURE OF FOUR (4) PSI OR LESS. ALL GRADING AND SOIL DELIVERY EQUIPMENT SHALL HAVE BUCKETS EQUIPPED WITH SIX INCH (6") LONG TEETH TO SCARIFY ANY SOIL THAT BECOMES COMPACTED.
  3. IN AREAS OF SOIL INSTALLATION ABOVE EXISTING SUBSOIL, SCARIFY THE SUBGRADE MATERIAL PRIOR TO INSTALLING PLANTING SOIL.
    - a. SCARIFY THE SUBSOIL OF THE SUBGRADE TO A DEPTH OF THREE TO SIX INCHES (3" TO 6") WITH THE TEETH OF THE BACKHOE OR LOADER BUCKET, TILLER, OR OTHER SUITABLE DEVICE.
    - b. IMMEDIATELY INSTALL THE PLANTING SOIL. PROTECT THE LOOSENED AREA FROM TRAFFIC. DO NOT ALLOW THE LOOSENED SUBGRADE TO BECOME COMPACTED.
    - c. IN THE EVENT THAT THE LOOSENED AREA BECOMES OVERLY COMPACTED, LOOSEN THE AREA PRIOR TO INSTALLING THE PLANTING SOIL.
  4. INSTALL THE PLANTING SOIL IN TWELVE TO EIGHTEEN INCH (12" TO 18") LIFTS TO THE REQUIRED DEPTHS. APPLY COMPACTION FORCES TO EACH LIFT AS REQUIRED TO ATTAIN THE REQUIRED COMPACTION. SCARIFY THE TOP OF EACH LIFT PRIOR TO ADDING MORE PLANTING SOIL BY DRAGGING THE TEETH OF A LOADER BUCKET OR BACKHOE ACROSS THE SOIL SURFACE TO ROUGHEN THE SURFACE.
  5. PHASE WORK SUCH THAT EQUIPMENT TO DELIVER OR GRADE SOIL DOES NOT HAVE TO OPERATE OVER PREVIOUSLY INSTALLED PLANTING SOIL. WORK IN ROWS OF LIFTS THE WIDTH OF THE EXTENSION OF THE BUCKET ON THE LOADER. INSTALL ALL LIFTS IN ONE ROW BEFORE PROCEEDING TO THE NEXT. WORK OUT FROM THE FURTHEST PART OF EACH BED FROM THE SOIL DELIVERY POINT TO THE EDGE OF THE EACH BED AREA.
  6. WHERE POSSIBLE PLACE LARGE TREES FIRST AND FILL PLANTING SOIL AROUND THE ROOT BALL.
  7. INSTALLING SOIL WITH SOIL OR MULCH BLOWERS OR SOIL SLINGERS SHALL NOT BE PERMITTED DUE TO THE OVER MIXING AND SOIL PED BREAKDOWN CAUSE BY THIS TYPE OF EQUIPMENT.
  8. WHERE TRAVEL OVER INSTALLED SOIL IS UNAVOIDABLE, LIMIT PATHS OF TRAFFIC TO REDUCE THE IMPACT OF COMPACTION IN PLANTING SOIL. EACH TIME EQUIPMENT PASSES OVER THE INSTALLED SOIL IT SHALL REVERSE OUT OF THE AREA ALONG THE SAME PATH WITH THE TEETH OF THE BUCKET DROPPED TO SCARIFY THE SOIL.
  9. THE DEPTHS AND GRADES SHOWN ON THE DRAWINGS ARE THE FINAL GRADES AFTER SETTLEMENT AND SHRINKAGE OF THE COMPOST MATERIAL. THE CONTRACTOR SHALL INSTALL THE PLANTING SOIL AT A HIGHER LEVEL TO ANTICIPATE THIS REDUCTION OF PLANTING SOIL VOLUME. A MINIMUM SETTLEMENT OF APPROXIMATELY TEN TO FIFTEEN PERCENT (10% TO 15%) OF THE SOIL DEPTH IS EXPECTED. ALL GRADE INCREASES ARE ASSUMED TO BE AS MEASURED PRIOR TO THE ADDITION OF SURFACE COMPOST TILL LAYER, MULCH, OR SOD.

**E. COMPACTION REQUIREMENTS FOR INSTALLED OR MODIFIED PLANTING SOIL**

1. EXISTING SOIL THAT IS MODIFIED BY TILLING, RIPPING, OR FRACTURING SHALL HAVE A DENSITY TO THE DEPTH OF THE MODIFICATION, AFTER COMPLETION OF THE LOOSENING, SUCH THAT A PENETROMETER READS APPROXIMATELY SEVENTY-FIVE TO TWO-HUNDRED AND FIFTY (75 TO 250) PSI AT SOIL MOISTURE APPROXIMATELY THE MID-POINT BETWEEN WILTING POINT AND FIELD CAPACITY. THIS WILL BE APPROXIMATELY BETWEEN SEVENTY-FIVE AND EIGHTY-TWO PERCENT (75% AND 82%) OF MAXIMUM DRY DENSITY STANDARD PROCTOR.
2. INSTALLED PLANTING SOIL MIX AND RE-SPREAD EXISTING SOIL SHALL HAVE A SOIL DENSITY THROUGH THE REQUIRED DEPTH OF THE INSTALLED LAYERS OF SOIL, SUCH THAT THE PENETROMETER READS APPROXIMATELY SEVENTY-FIVE TO TWO-HUNDRED AND FIFTY (75 TO 250) PSI AT SOIL MOISTURE APPROXIMATELY THE MID-POINT BETWEEN WILT POINT AND FIELD CAPACITY. THIS WILL BE APPROXIMATELY BETWEEN SEVENTY-FIVE AND EIGHTY-TWO PERCENT (75% AND 82%) OF MAXIMUM DRY DENSITY STANDARD PROCTOR.
3. PLANTING SOIL COMPACTION SHALL BE TESTED AT EACH LIFT USING A PENETROMETER.
4. MAINTAIN MOISTURE CONDITIONS WITHIN THE PLANTING SOIL DURING INSTALLATION OR MODIFICATION TO ALLOW FOR SATISFACTORY COMPACTION. SUSPEND OPERATIONS IF THE PLANTING SOIL BECOMES WET. APPLY WATER IF THE SOIL IS OVERLY DRY.
5. PROVIDE ADEQUATE EQUIPMENT TO ACHIEVE CONSISTENT AND UNIFORM COMPACTION OF THE PLANTING SOILS. USE THE SMALLEST EQUIPMENT THAT CAN REASONABLY PERFORM THE TASK OF SPREADING AND COMPACTION. USE THE SAME EQUIPMENT AND METHODS OF COMPACTION USED TO CONSTRUCT THE PLANTING SOIL MOCKUP.
6. DO NOT PASS MOTORIZED EQUIPMENT OVER PREVIOUSLY INSTALLED AND COMPACTED SOIL EXCEPT AS AUTHORIZED BELOW.
  - a. LIGHT WEIGHT EQUIPMENT SUCH AS TRENCHING MACHINES OR MOTORIZED WHEELBARROWS IS PERMITTED TO PASS OVER FINISHED SOIL WORK.
  - b. IF WORK AFTER THE INSTALLATION AND COMPACTION OF SOIL COMPACTS THE SOIL TO LEVELS GREATER THAN THE ABOVE REQUIREMENTS, FOLLOW THE REQUIREMENTS OF THE OVER COMPACTION REDUCTION GUIDELINES BELOW.
  7. OVER COMPACTION REDUCTION
    - a. ANY SOIL THAT BECOMES COMPACTED TO A DENSITY GREATER THAN THE SPECIFIED DENSITY AND/OR THE DENSITY IN THE APPROVED MOCKUP SHALL BE DUG UP AND RE-INSTALLED. THIS REQUIREMENT INCLUDES COMPACTION CAUSED BY OTHER SUB-CONTRACTORS AFTER THE PLANTING SOIL IS INSTALLED AND APPROVED.
    - b. SURFACE ROTO TILLING SHALL NOT BE CONSIDERED ADEQUATE TO REDUCE OVER COMPACTION AT LEVELS SIX INCHES (6") OR GREATER BELOW FINISHED GRADE.

**F. INSTALLATION OF CHEMICAL ADDITIVES**

1. FOLLOWING THE INSTALLATION OF EACH SOIL, AND PRIOR TO FINE GRADING AND INSTALLATION OF THE COMPOST TILL LAYER, APPLY CHEMICAL ADDITIVES AS RECOMMENDED BY THE SOIL TEST, AND APPROPRIATE TO THE SOIL AND SPECIFIC PLANTS TO BE INSTALLED.

**G. FINE GRADING**

1. THE LANDSCAPE ARCHITECT SHALL APPROVE ALL ROUGH GRADING PRIOR TO THE INSTALLATION OF COMPOST, FINE GRADING, PLANTING, AND MULCHING.
2. GRADE THE FINISH SURFACE OF ALL PLANTED AREAS TO MEET THE GRADES SHOWN ON THE DRAWINGS, ALLOWING THE FINISHED GRADES TO REMAIN HIGHER THAN THE GRADES ON THE GRADING PLAN TO ANTICIPATE SETTLEMENT OVER THE FIRST YEAR.
3. UTILIZE HAND EQUIPMENT, SMALL GARDEN TRACTORS WITH RAKES, OR SMALL GARDEN TRACTORS WITH BUCKETS WITH TEETH FOR FINE GRADING TO KEEP SURFACE ROUGH WITHOUT FURTHER COMPACTION. DO NOT USE THE FLAT BOTTOM OF A LOADER BUCKET TO FINE GRADE, AS IT WILL CAUSE THE FINISHED GRADE TO BECOME OVERLY SMOOTH AND OR SLIGHTLY COMPRESSED.
4. PROVIDE FOR POSITIVE DRAINAGE FROM ALL AREAS TOWARD THE EXISTING INLETS, DRAINAGE STRUCTURES AND OR THE EDGES OF PLANTING BEDS. ADJUST GRADES AS DIRECTED TO REFLECT ACTUAL CONSTRUCTED FIELD CONDITIONS OF PAVING, WALL AND INLET ELEVATIONS. NOTIFY THE LANDSCAPE ARCHITECT IN THE EVENT THAT CONDITIONS MAKE IT IMPOSSIBLE TO ACHIEVE POSITIVE DRAINAGE.
5. PROVIDE SMOOTH, ROUNDED TRANSITIONS BETWEEN SLOPES OF DIFFERENT GRADINGS AND DIRECTION. MODIFY THE GRADE SO THAT THE FINISH GRADE BEFORE ADDING MULCH AND AFTER SETTLEMENT IS ONE OR TWO INCHES (1" OR 2") BELOW ALL PAVING SURFACES OR AS DIRECTED BY THE DRAWINGS.
6. FILL ALL DIPS AND REMOVE ANY BUMPS IN THE OVERALL PLANE OF THE SLOPE. THE TOLERANCE FOR DIPS AND BUMPS IN SHRUB AND GROUND COVER PLANTING AREAS SHALL BE A TWO INCH (2") DEVIATION FROM THE PLANE IN TEN FEET (10'). THE TOLERANCE FOR DIPS AND BUMPS IN LAWN AREAS SHALL BE A ONE INCH (1") DEVIATION FROM THE PLANE IN TEN FEET (10').

**H. INSTALLATION OF COMPOST TILL LAYER**

1. AFTER PLANTING SOIL MIXES ARE INSTALLED IN PLANTING BED AREAS AND JUST PRIOR TO THE INSTALLATION OF SHRUB OR GROUND COVER PLANTINGS, SPREAD THREE TO FOUR INCHES (3" TO 4") OF COMPOST OVER THE BEDS AND ROTO TILL INTO THE TOP FOUR TO SIX INCHES (4" TO 6") OF THE PLANTING SOIL. THIS STEP WILL RAISE GRADES SLIGHTLY ABOVE THE GRADES REQUIRED IN PARAGRAPH "FINE GRADING." THIS SPECIFICATION ANTICIPATES THAT THE RAISE IN GRADE DUE TO THIS TILLING WILL SETTLE WITHIN A FEW MONTHS AFTER INSTALLATION AS COMPOST BREAKS DOWN.

**I. CLEAN-UP**

1. DURING INSTALLATION, KEEP THE AREAS OF SOILS FOR PLANTING FREE OF TRASH AND CONSTRUCTION DEBRIS.
  - a. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY.
  2. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM THE SITE.
  - a. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE TO THE WORK OR OTHER WORK AT THE SITE.
  - b. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR.

□ DENOTES GUIDELINES FOR CONTRACTOR SUBMITTAL TO LANDSCAPE ARCHITECT.

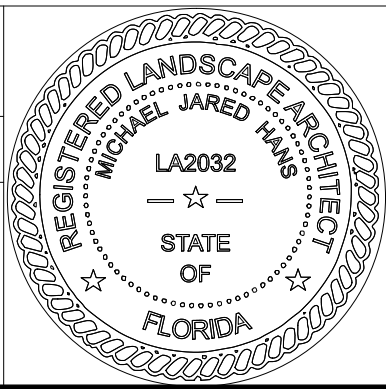
--- END OF SOIL AMENDMENT NOTES ---  
--- LANDSCAPE INSTALLATION NOTES CONTINUE ON SHEET LP-02 ---

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

LANDSCAPE ARCHITECT OF RECORD: MICHAEL J. HANS, R.L.A. FLORIDA LICENSE LA2032

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MICHAEL J. HANS, R.L.A. ON THE DATE ADJACENT TO THE SEAL.

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**SUPPLEMENTAL LANDSCAPE ARCHITECT NOTES  
FOR SOIL AMENDMENTS AND LANDSCAPE  
INSTALLATION (CONTINUED):**

**F. INSTALLATION OF PLANTS: GENERAL**

a. MODIFICATIONS, AT THE TIME OF PLANTING, TO MEET THE SPECIFICATIONS FOR THE DEPTH OF THE ROOT COLLAR AND REMOVAL OF STEM GIRDLING ROOTS AND CIRCLING ROOTS MAY MAKE THE PLANT UNSTABLE OR STRESS THE PLANT TO THE POINT THAT THE LANDSCAPE ARCHITECT MAY CHOOSE TO REJECT THE PLANT RATHER THAN PERMITTING THE MODIFICATION.

b. MODIFICATIONS TO MAKE THE ROOT SYSTEM CONFORM TO THE PLANT QUALITY STANDARDS OR OTHER REQUIREMENTS RELATED TO THE PERMITTED ROOT BALL PACKAGE, SHALL NOT BE CONSIDERED AS GROUNDS TO MODIFY OR VOID ANY PLANT WARRANTY.

c. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND UTILITY LINES OR OTHER BELOW GRADE FEATURES. SUBMIT A NOTIFICATION TO THE LANDSCAPE ARCHITECT OF ANY CONFLICTS ENCOUNTERED IMMEDIATELY IN VIA TELEPHONE AND EMAIL WITH PHOTO.

d. THE RESULTING ROOT BALL MAY NEED ADDITIONAL STAKING AND WATER AFTER PLANTING. THE LANDSCAPE ARCHITECT MAY REJECT THE PLANT IF THE ROOT MODIFICATION PROCESS MAKES THE TREE UNSTABLE OR IF THE TREE IS UNHEALTHY.

e. THE CONTRACTOR REMAINS RESPONSIBLE TO CONFIRM THAT THE GROWER HAS MADE ALL REQUIRED ROOT MODIFICATIONS NOTED DURING ANY NURSERY OBSERVATIONS.

4. CONTAINER AND BOXED ROOT BALL SHAVING: THE OUTER SURFACES OF ALL PLANTS IN CONTAINERS AND BOXES, INCLUDING THE TOP, SIDES AND BOTTOM OF THE ROOT BALL SHALL BE SHAVED TO REMOVE ALL CIRCLING, DESCENDING, AND MATTED ROOTS. SHAVING SHALL BE PERFORMED USING SAWS, KNIVES, SHARP SHOVELS OR OTHER SUITABLE EQUIPMENT THAT IS CAPABLE OF MAKING CLEAN CUTS ON THE ROOTS.

a. SHAVING SHALL REMOVE A MINIMUM OF ONE INCH (1") OF ROOT MAT OR UP TO TWO INCHES (2") AS REQUIRED TO REMOVE ALL ROOT SEGMENTS THAT ARE NOT GROWING REASONABLY RADIAL TO THE TRUNK.

5. EXPOSED STEM TISSUE AFTER MODIFICATION: THE REQUIRED ROOT BALL MODIFICATIONS MAY RESULT IN STEM TISSUE THAT HAS NOT FORMED TRUNK BARK BEING EXPOSED ABOVE THE SOIL LINE. IF SUCH CONDITION OCCURS, WRAP THE EXPOSED PORTION OF THE STEM IN A PROTECTIVE WRAPPING WITH A WHITE FILTER FABRIC, SECURE THE FABRIC WITH BIODEGRADABLE MASKING TAPE. DO NOT USE STRINGS, TWINE, GREEN NURSERY TIES OR ANY OTHER MATERIAL THAT MAY GIRDLING THE TRUNK IF NOT REMOVED.

6. EXCAVATION OF THE PLANTING SPACE: USING HAND TOOLS OR TRACKED MINI-EXCAVATOR, EXCAVATE THE PLANTING HOLE INTO THE PLANTING SOIL TO THE DEPTH OF THE ROOT BALL MEASURED AFTER ANY ROOT BALL MODIFICATION TO CORRECT ROOT PROBLEMS, AND WIDE ENOUGH FOR WORKING ROOM AROUND THE ROOT BALL OR TO THE SIZE INDICATED ON THE DRAWING OR AS NOTED BELOW.

a. FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED TO A DEPTH OF AT LEAST TWELVE INCHES (12") OVER A DISTANCE OF MORE THAN TEN FEET (10') RADIUS FROM EACH TREE, OR FIVE FEET (5') RADIUS FROM EACH SHRUB, THE SOIL AROUND THE ROOT BALL SHALL BE REWORKED AS DEFINED BELOW OR AS INDICATED ON THE LANDSCAPE ARCHITECTURAL DETAIL DRAWINGS.

1) THE AREA OF LOOSENING SHALL BE A MINIMUM OF THREE (3) TIMES THE DIAMETER OF THE ROOT BALL AT THE SURFACE SLOPING TO TWO (2) TIMES THE DIAMETER OF THE ROOT BALL AT THE DEPTH OF THE ROOT BALL.

2) LOOSENING IS DEFINED AS DIGGING INTO THE SOIL AND TURNING THE SOIL TO REDUCE THE COMPACTION. THE SOIL DOES NOT HAVE TO BE REMOVED FROM THE HOLE, JUST DUG, LIFTED AND TURNED. LIFTING AND TURNING MAY BE ACCOMPLISHED WITH A TRACKED MINI EXCAVATOR, OR HAND SHOVELS.

b. IF AN AUGER IS USED TO DIG THE INITIAL PLANTING HOLE, THE SOIL AROUND THE AUGER HOLE SHALL BE LOOSENEED AS DEFINED ABOVE FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED.

c. THE MEASURING POINT FOR ROOT BALL DEPTH SHALL BE THE AVERAGE HEIGHT OF THE OUTER EDGE OF THE ROOT BALL AFTER ANY REQUIRED ROOT BALL MODIFICATION.

d. IF MOTORIZED EQUIPMENT IS USED TO DELIVER PLANTS TO THE PLANTING AREA OVER EXPOSED PLANTING BEDS OR USED TO LOOSEN THE SOIL OR DIG THE PLANTING HOLES, ALL SOIL THAT HAS BEEN DRIVEN OVER SHALL BE TILLED TO A DEPTH OF SIX INCHES (6").

7. FOR TREES TO BE PLANTED IN PREPARED PLANTING SOIL THAT IS DEEPER THAN THE ROOT BALL DEPTH, COMPACT THE SOIL UNDER THE ROOT BALL USING A MECHANICAL TAMPER TO ASSURE A FIRM BEDDING FOR THE ROOT BALL. IF THERE IS MORE THAN TWELVE INCHES (12") OF PLANTING SOIL UNDER THE ROOT BALL EXCAVATE AND TAMP THE PLANTING SOIL IN LIFTS NOT TO EXCEED TWELVE INCHES (12").

8. SET TOP OUTER EDGE OF THE ROOT BALL AT THE AVERAGE ELEVATION OF THE PROPOSED FINISH. SET THE PLANT PLUMB AND UPRIGHT IN THE CENTER OF THE PLANTING HOLE. THE TREE GRAFT, IF APPLICABLE, SHALL BE VISIBLE ABOVE THE GRADE. DO NOT PLACE SOIL ON TOP OF THE ROOT BALL.

9. BACKFILL THE SPACE AROUND THE ROOT BALL WITH THE SAME PLANTING SOIL OR EXISTING SOIL THAT WAS EXCAVATED FOR THE PLANTING SPACE. SEE NOTES ON SOIL AMENDMENTS FOR REQUIREMENTS TO MODIFY THE SOIL WITHIN THE PLANTING BED.

10. BRACE ROOT BALL BY TAMPING PLANTING SOIL AROUND THE LOWER PORTION OF THE ROOT BALL. PLACE ADDITIONAL PLANTING SOIL AROUND THE BASE AND SIDES OF BALL IN SIX-INCH (6") LIFTS. LIGHTLY TAMP EACH LIFT USING FOOT PRESSURE OR HAND TOOLS TO SETTLE BACKFILL, SUPPORT THE TREE AND ELIMINATE VOIDS. DO NOT OVER COMPACT THE BACKFILL OR USE MECHANICAL OR PNEUMATIC TAMPING EQUIPMENT. OVER COMPACTION SHALL BE DEFINED AS GREATER THAN EIGHTY-FIVE PERCENT (85%) OF MAXIMUM DRY DENSITY, STANDARD PROCTOR OR GREATER THAN TWO-HUNDRED AND FIFTY (250) PSI AS MEASURED BY A CONE PENETROMETER WHEN THE VOLUMETRIC SOIL MOISTURE IS LOWER THAN FIELD CAPACITY.

a. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED TO THREE QUARTERS OF ITS DEPTH, WATER SHALL BE POURED AROUND THE ROOT BALL AND ALLOWED TO SOAK INTO THE SOIL TO SETTLE THE SOIL. DO NOT FLOOD THE PLANTING SPACE. IF THE SOIL IS ABOVE FIELD CAPACITY, ALLOW THE SOIL TO DRAIN TO BELOW FIELD CAPACITY BEFORE FINISHING THE PLANTING. AIR POCKETS SHALL BE ELIMINATED AND BACKFILL CONTINUED UNTIL THE PLANTING SOIL IS BROUGHT TO GRADE LEVEL.

11. WHERE INDICATED ON THE DRAWINGS, BUILD A FOUR INCH (4") HIGH, LEVEL BERM OF PLANTING SOIL AROUND THE OUTSIDE OF THE ROOT BALL TO RETAIN WATER. TAMP THE BERM TO REDUCE LEAKING AND EROSION OF THE SAUCER.

12. THOROUGHLY WATER THE PLANTING SOIL AND ROOT BALL IMMEDIATELY AFTER PLANTING.

13. REMOVE ANY CORRUGATED CARDBOARD TRUNK PROTECTION AFTER PLANTING.

14. FOLLOW ADDITIONAL REQUIREMENTS FOR THE PERMITTED ROOT BALL PACKAGES.

**G. PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS**

1. BALLED AND BURLAPPED PLANTS

a. AFTER THE ROOT BALL HAS BEEN BACKFILLED, REMOVE ALL TWINE AND BURLAP FROM THE TOP OF THE ROOT BALL. CUT THE BURLAP AWAY; DO NOT FOLD DOWN ONTO THE PLANTING SOIL.

b. IF THE PLANT IS SHIPPED WITH A WIRE BASKET THAT DOES NOT MEET THE REQUIREMENTS OF A "LOW RISE" BASKET, REMOVE THE TOP SIX TO EIGHT INCHES (6" TO 8") OF THE BASKET WIRES JUST BEFORE THE FINAL BACKFILLING OF THE TREE.

c. EARTH ROOT BALLS SHALL BE KEPT INTACT EXCEPT FOR ANY MODIFICATIONS REQUIRED BY THE LANDSCAPE ARCHITECT OR CONSULTING ARBORIST.

2. CONTAINER (INCLUDES BOXED AND ABOVE-GROUND FABRIC CONTAINERS) PLANTS

a. THIS SPECIFICATION ASSUMES THAT MOST CONTAINER PLANTS HAVE SIGNIFICANT STEM GIRDLING AND CIRCLING ROOTS, AND THAT THE ROOT COLLAR IS TOO LOW IN THE ROOT BALL.

b. REMOVE THE CONTAINER.

c. PERFORM ROOT BALL SHAVING AS DEFINED IN INSTALLATION OF PLANTS.

d. REMOVE ALL ROOTS AND SUBSTRATE ABOVE THE ROOT COLLAR AND THE MAIN STRUCTURAL ROOTS ACCORDING TO ROOT CORRECTION DETAILS SO ROOT SYSTEM CONFORMS

TO ROOT OBSERVATIONS DETAIL.

e. REMOVE ALL SUBSTRATE AT THE BOTTOM OF THE ROOT BALL THAT DOES NOT CONTAIN ROOTS.

f. USING A HOSE, POWER WASHER OR AIR EXCAVATION DEVICE, WASH OUT THE SUBSTRATE FROM AROUND THE TRUNK AND TOP OF THE REMAINING ROOT BALL AND FIND AND REMOVE ALL STEM GIRDLING ROOTS WITHIN THE ROOT BALL ABOVE THE TOP OF THE STRUCTURAL ROOTS.

**H. GROUND COVER, PERENNIAL AND ANNUAL PLANTS**

1. ENSURE THAT SOIL MOISTURE IS WITHIN THE REQUIRED LEVELS PRIOR TO PLANTING. IRRIGATION, IF REQUIRED, SHALL BE APPLIED AT LEAST TWELVE (12) HOURS PRIOR TO PLANTING TO AVOID PLANTING IN MUDDY SOILS.

2. ENSURE THAT SOIL GRADES IN THE BEDS ARE SMOOTH AND AS SHOWN ON THE PLANS.

3. PLANTS SHALL BE PLANTED IN EVEN, TRIANGULARLY SPACED ROWS, AT THE INTERVALS CALLED OUT FOR ON THE DRAWINGS, UNLESS OTHERWISE NOTED. THE FIRST ROW OF ANNUAL FLOWER PLANTS SHALL BE 6 INCHES (6") FROM THE BED EDGE UNLESS OTHERWISE DIRECTED.

4. DIG PLANTING HOLES SUFFICIENTLY LARGE ENOUGH TO INSERT THE ROOT SYSTEM WITHOUT DEFORMING THE ROOTS. SET THE TOP OF THE ROOT SYSTEM AT THE GRADE OF THE SOIL.

5. SCHEDULE THE PLANTING TO OCCUR PRIOR TO APPLICATION OF THE MULCH.

a. IF THE BED IS ALREADY MULCHED, PULL THE MULCH FROM AROUND THE HOLE AND PLANT INTO THE SOIL. DO NOT PLANT THE ROOT SYSTEM IN THE MULCH. PULL MULCH BACK SO IT IS NOT ON THE ROOT BALL SURFACE.

6. PRESS SOIL TO BRING THE ROOT SYSTEM IN CONTACT WITH THE SOIL.

7. SPREAD ANY EXCESS SOIL AROUND IN THE SPACES BETWEEN PLANTS.

8. APPLY MULCH TO THE BED BEING SURE NOT TO COVER THE TOPS OF THE PLANTS WITH OR THE TOPS OF THE ROOT BALL WITH MULCH.

9. WATER EACH PLANTING AREA AS SOON AS THE PLANTING IS COMPLETED. APPLY ADDITIONAL WATER TO KEEP THE SOIL MOISTURE AT THE REQUIRED LEVELS. DO NOT OVER WATER.

**I. PALM PLANTING**

1. PALM TREES SHALL BE PLACED AT GRADE MAKING SURE NOT TO PLANT THE TREE ANY DEEPER IN THE GROUND THAN THE PALM TREES ORIGINALLY STOOD.

2. THE TREES SHALL BE PLACED WITH THEIR VERTICAL AXIS IN A PLUMB POSITION.

3. ALL BACKFILL SHALL BE NATIVE SOIL EXCEPT IN CASES WHERE PLANTING IN ROCK WATER-SETTLE THE BACK FILL.

4. DO NOT COVER ROOT BALL WITH MULCH OR TOPSOIL.

5. PROVIDE A WATERING BERM AT EACH PALM.

a. BERMS SHALL EXTEND A MINIMUM OF EIGHTEEN INCHES (18") OUT FROM THE TRUNK ALL AROUND AND SHALL BE A MINIMUM OF SIX INCHES (6") HIGH.

6. REMOVE TWINE WHICH TIES FRONDS TOGETHER AFTER PLACING PALM IN PLANTING HOLE AND SECURING IT IN THE UPRIGHT POSITION.

**J. TREE STAPLING, STAKING, GUYING, AND BARK PROTECTION**

1. DO NOT STAKE OR GUY TREES UNLESS THE CONTRACTOR FEELS THAT STAKING IS THE ONLY ALTERNATIVE WAY TO KEEP PARTICULAR TREES PLUMB.

a. THE LANDSCAPE ARCHITECT AND CONSULTING ARBORIST SHALL HAVE THE AUTHORITY TO REQUIRE TREES ARE STAPLED, STAKED, OR TO REJECT STAKING AS AN ALTERNATIVE WAY TO STABILIZE THE TREE.

b. TREES THAT REQUIRED HEAVILY MODIFIED ROOT BALLS TO MEET THE ROOT QUALITY STANDARDS MAY BECOME UNSTABLE.

1) THE LANDSCAPE ARCHITECT MAY CHOOSE TO REJECT THESE TREES RATHER THAN UTILIZE STAKING TO TEMPORARILY SUPPORT THE TREE.

2. TREES THAT ARE GUYED SHALL HAVE THEIR GUYS AND STAKES REMOVED AFTER ONE FULL GROWING SEASON OR AT OTHER TIMES AS REQUIRED BY THE LANDSCAPE ARCHITECT.

c. THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE OWNER AND LANDSCAPE ARCHITECT FOR THE REMOVAL OF GUYS AND STAKES.

b. TREE GUYING SHALL UTILIZE THE TREE STAKING AND GUYING MATERIALS SPECIFIED. GUYING TO BE TIED IN SUCH A MANNER AS TO CREATE A MINIMUM TWELVE INCH (12") LOOP TO PREVENT GIRDLING.

c. PLANTS SHALL STAND PLUMB AFTER STAPLING, STAKING, OR GUYING UNLESS OTHERWISE SPECIFIED IN THESE DETAIL AND PLAN DRAWINGS.

d. FOR TREES PLANTED IN PLANTING MIX OVER WATERPROOFED MEMBRANE, USE DEAD MEN BURIED TWENTY-FOUR INCHES (24") TO THE TOP OF THE DEAD MAN, IN THE SOIL. TIE THE GUY TO THE DEAD MAN WITH A DOUBLE WRAP OF LINE AROUND THE DEAD MAN FOLLOWED BY A DOUBLE HALF HITCH. WHEN GUYS ARE REMOVED, LEAVE THE DEAD MEN IN PLACE AND CUT THE GUY TAPE TWELVE INCHES (12") ABOVE THE GROUND, LEAVING THE TAPE END COVERED IN MULCH.

e. STRAIGHTEN ALL TREES THAT MOVE OUT OF PLUMB INCLUDING THOSE NOT STAKED. PLANTS TO BE STRAIGHTENED SHALL BE EXCAVATED AND THE ROOT BALL MOVED TO A PLUMB POSITION, AND THEN RE-BACKFILLED.

f. DO NOT STRAIGHTEN PLANTS BY PULLING THE TRUNK WITH GUYS.

3. TREE BARK PROTECTORS SHALL INDICATED, AS NECESSARY, ON THESE DETAIL AND PLAN DRAWINGS.

**K. INSTALLATION OF FERTILIZER AND OTHER CHEMICAL ADDITIVES**

1. DO NOT APPLY ANY SOLUBLE FERTILIZER TO PLANTINGS DURING THE FIRST YEAR AFTER TRANSPLANTING UNLESS SOIL TEST DETERMINES THAT FERTILIZER OR OTHER CHEMICAL ADDITIVES IS REQUIRED. APPLY CHEMICAL ADDITIVES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT OR A CONSULTING ARBORIST.

2. THE CONTRACTOR SHALL APPLY CONTROLLED RELEASE FERTILIZERS ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND STANDARD HORTICULTURAL PRACTICES.

**L. PRUNING OF TREES AND SHRUBS**

1. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS, AND THE CONTRACTOR SHALL CLEAN TOOLS, AFTER EVERY USE, IF NECESSARY, TO PREVENT THE SPREAD OF DISEASE BETWEEN TREES AND PLANTS.

2. PRUNING TREES SHALL BE LIMITED TO ADDRESSING STRUCTURAL DEFECTS AS SHOWN IN LANDSCAPE ARCHITECTURAL DETAILS AND DRAWINGS.

a. ALL PRUNING SHALL BE PERFORMED BY A PERSON EXPERIENCED IN STRUCTURAL TREE PRUNING.

b. EXCEPT FOR PLANTS SPECIFIED AS MULTI-STEMMED OR AS OTHERWISE INSTRUCTED BY THE LANDSCAPE ARCHITECT, PRESERVE OR CREATE A CENTRAL LEADER.

c. PRUNING OF LARGE TREES SHALL BE DONE USING POLE PRUNERS OR IF NEEDED, FROM A LADDER OR HYDRAULIC LIFT TO GAIN ACCESS TO THE TOP OF THE TREE. DO NOT CLIMB IN NEWLY PLANTED TREES. SMALL TREES CAN BE STRUCTURALLY PRUNED BY LAYING THEM OVER BEFORE PLANTING. PRUNING MAY ALSO BE PERFORMED AT THE NURSERY PRIOR TO SHIPPING.

d. REMOVE AND REPLACE EXCESSIVELY PRUNED OR MALFORMED STOCK RESULTING FROM IMPROPER PRUNING THAT OCCURRED IN THE NURSERY OR AFTER.

3. NO TREE PAINT OR SEALANTS SHALL BE USED.

**M. MULCHING OF PLANTS**

1. APPLY THREE INCHES (3") OF MULCH OR PINE STRAW BEFORE SETTLEMENT, COVERING THE ENTIRE PLANTING BED AREA.

a. INSTALL NO MORE THAN ONE INCH (1") OF MULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER TO TWO INCHES (2") WHEN ABUTTING PAVEMENT.

2. FOR TREES PLANTED IN LAWN AREAS THE MULCH SHALL EXTEND TO A FOUR FOOT (4') RADIUS AROUND THE TREE OR TO THE EXTENT INDICATED ON THESE DETAIL AND PLAN DRAWINGS.

3. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF SMALL PLANTS OUT OF THE MULCH IF COVERED.

**N. PLANTING BED FINISHING**

1. AFTER PLANTING, SMOOTH OUT ALL GRADES BETWEEN PLANTS BEFORE MULCHING.

2. SEPARATE THE EDGES OF PLANTING BEDS AND LAWN AREAS WITH A SMOOTH, FORMED EDGE CUT INTO THE TURF WITH THE BED MULCH LEVEL SLIGHTLY LOWER, ONE AND TWO INCHES (1" AND 2"), THAN THE ADJACENT TURF SOD OR AS DIRECTED BY THE LANDSCAPE ARCHITECT.

3. BED EDGE LINES SHALL BE DEPICTED ON THE LANDSCAPE ARCHITECTURAL DETAILS AND DRAWINGS.

**O. WATERING**

1. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO ENSURE THAT ADEQUATE WATER IS PROVIDED TO ALL PLANTS FROM THE POINT OF INSTALLATION UNTIL THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE. THE CONTRACTOR SHALL ADJUST THE AUTOMATIC IRRIGATION SYSTEM, IF AVAILABLE, AND APPLY ADDITIONAL OR ADJUST FOR LESS WATER USING HOSES, SLOW-RELEASE WATERING BAGS, ETC. AS REQUIRED.

2. DAILY TEST THE MOISTURE CONTENT IN EACH ROOT BALL AND THE SOIL OUTSIDE THE ROOT BALL TO DETERMINE THE WATER CONTENT.

3. HAND WATER ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE ROOT BALLS HAVE MOISTURE ABOVE WILT POINT AND BELOW FIELD CAPACITY.

**P. CLEAN-UP**

1. DURING INSTALLATION, KEEP THE SITE FREE OF TRASH, PAVEMENTS REASONABLY CLEAN AND WORK AREA IN AN ORDERLY CONDITION AT THE END OF EACH DAY. REMOVE TRASH AND DEBRIS IN CONTAINERS FROM THE SITE NO LESS THAN ONCE A WEEK.

a. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY.

2. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM THE SITE. THE LANDSCAPE ARCHITECT'S SEALS ARE TO REMAIN ON THE TREES AND REMOVED AT THE END OF ANY APPLICABLE WARRANTY PERIOD.

3. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE BY THE PLANT INSTALLER TO THE WORK OR OTHER WORK AT THE SITE. D. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR.

**Q. PLANT MAINTENANCE PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE**

1. DURING THE PROJECT WORK PERIOD AND PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE, THE CONTRACTOR SHALL MAINTAIN ALL PLANTS.

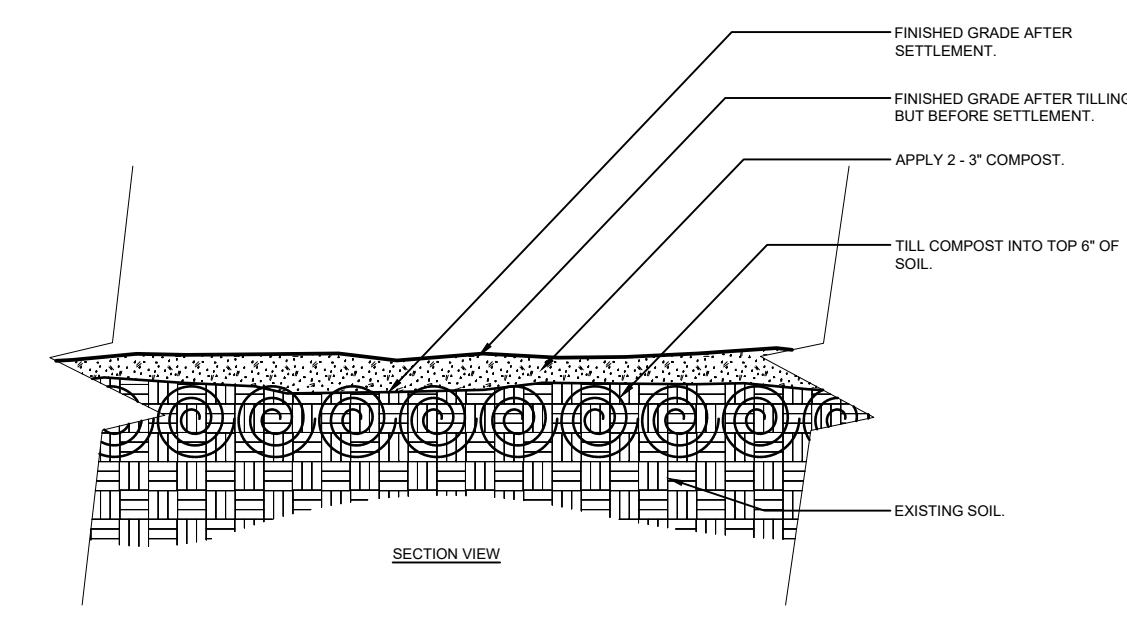
2. MAINTENANCE DURING THE PERIOD PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE SHALL CONSIST OF PRUNING, WATERING, CULTIVATING, WEEDING, MULCHING, REMOVAL OF DEAD MATERIAL, REPAIRING AND REPLACING OF TREE STAPLES AND/OR STAKES, TIGHTENING AND REPAIRING OF GUYS, REPAIRING AND REPLACING OF DAMAGED TREE WRAP MATERIAL, RESETTING PLANTS TO PROPER GRADES AND UPRIGHT POSITION, AND FURNISHING AND APPLYING SUCH SPRAYS AS ARE NECESSARY TO KEEP PLANTINGS REASONABLY FREE OF DAMAGING INSECTS AND DISEASE, AND IN HEALTHY CONDITION.

a. THE THRESHOLD FOR APPLYING INSECTICIDES AND HERBICIDE SHALL FOLLOW ESTABLISHED INTEGRATED PEST MANAGEMENT (IPM) PROCEDURES.

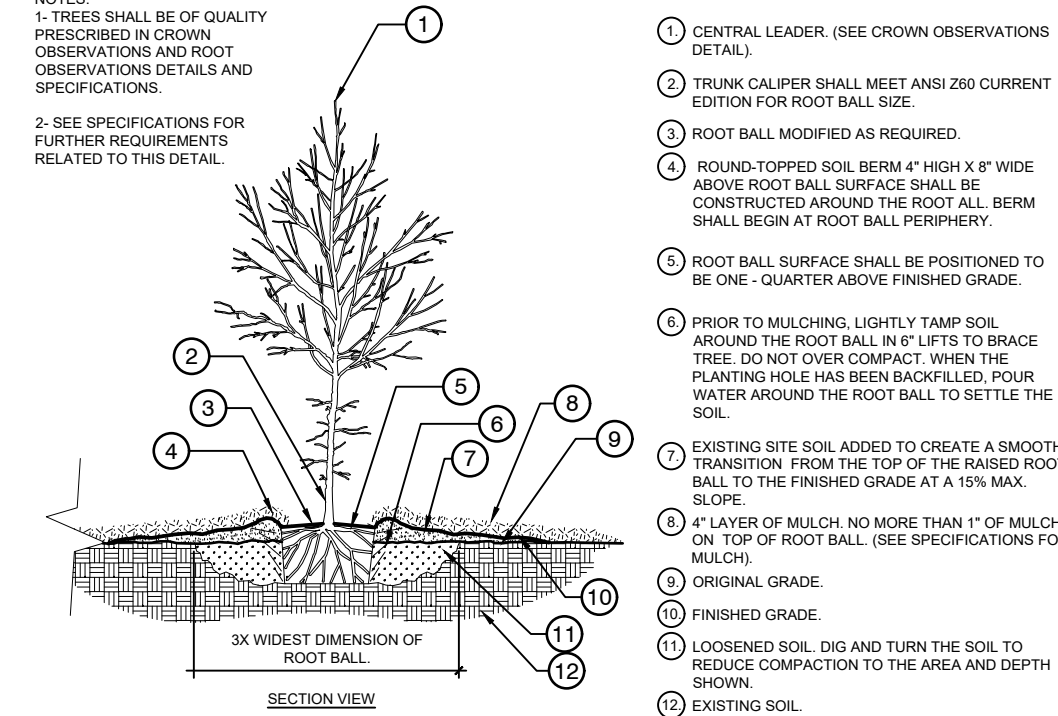
b. MULCH AREAS SHALL BE KEPT REASONABLY FREE OF WEEDS, GRASS.

□ DENOTES GUIDELINES FOR CONTRACTOR SUBMITTAL TO LANDSCAPE ARCHITECT.

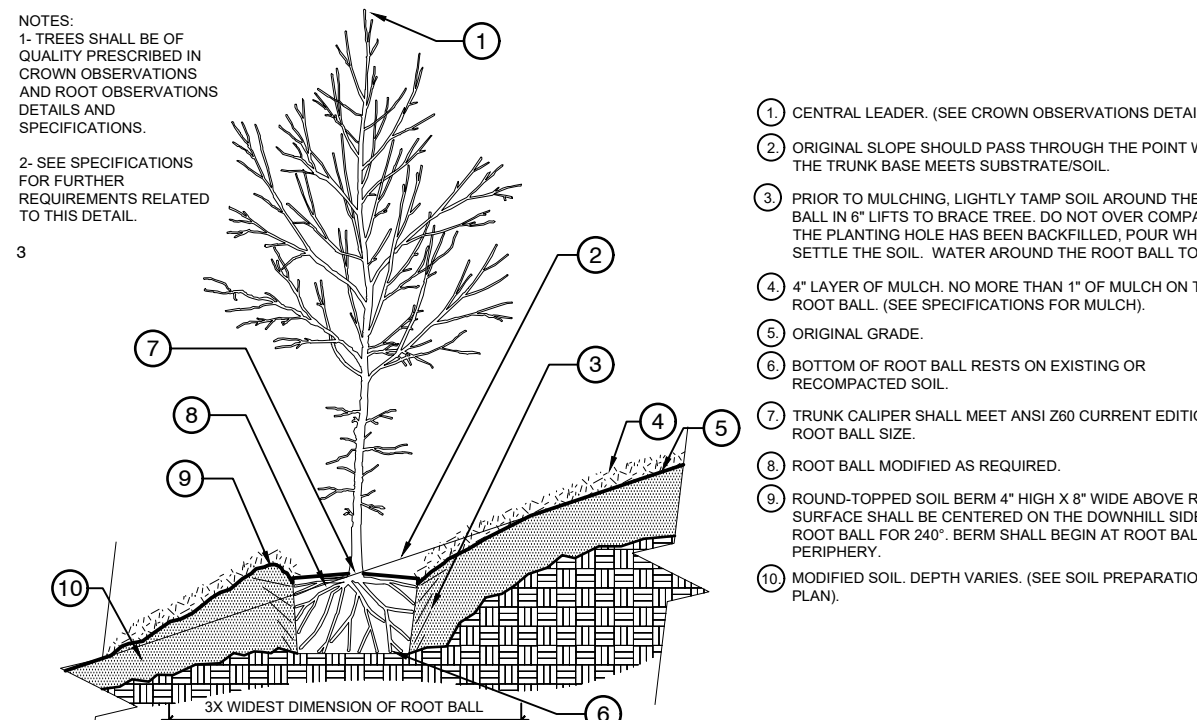
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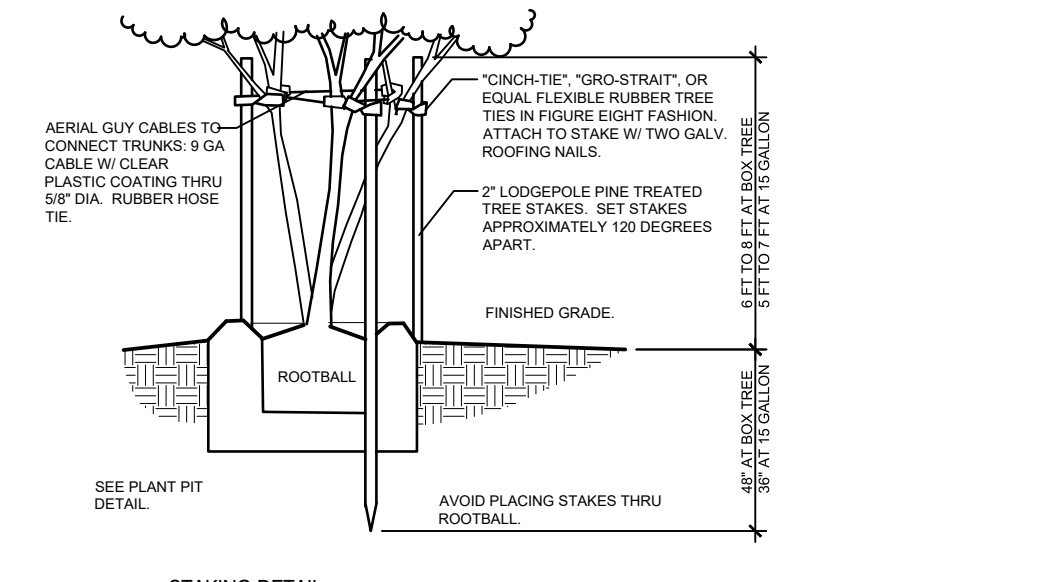
NOTES:  
1. SEE PLANTING SOIL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.  
**1 MODIFIED EXISTING SOIL - COMPACTED SURFACE SOIL**  
NTS



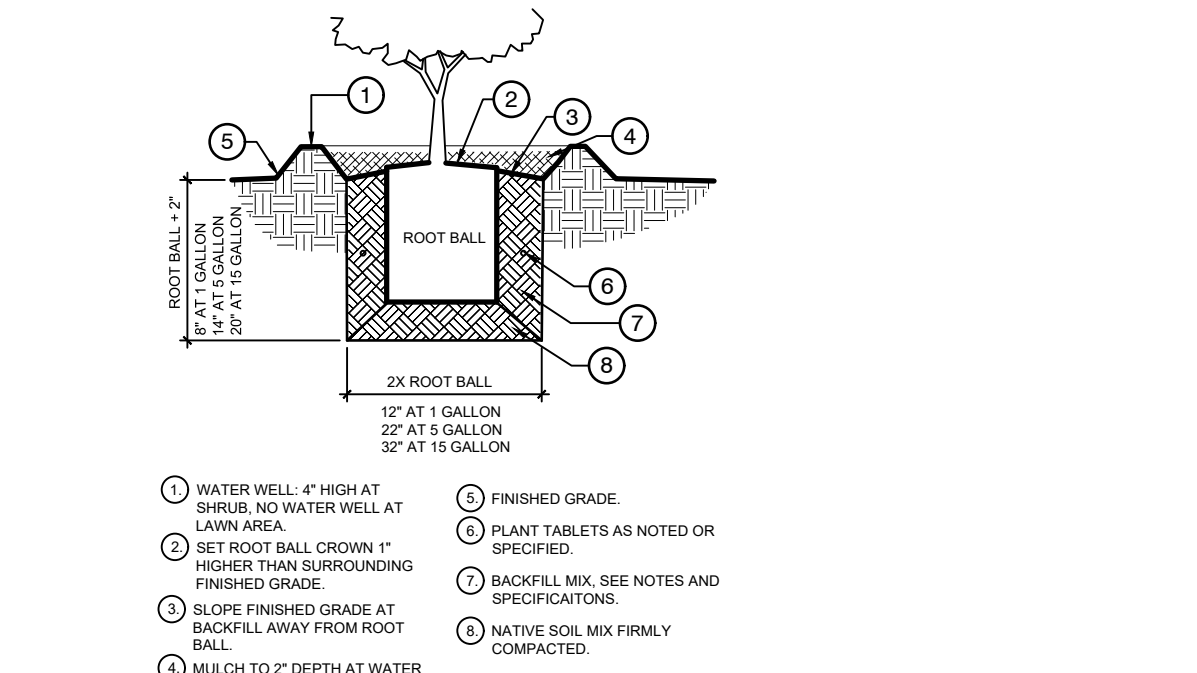
NOTES:  
1. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.  
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.  
**2 TREE W/ BERM (EXISTING SOIL NOT MODIFIED)**  
NTS



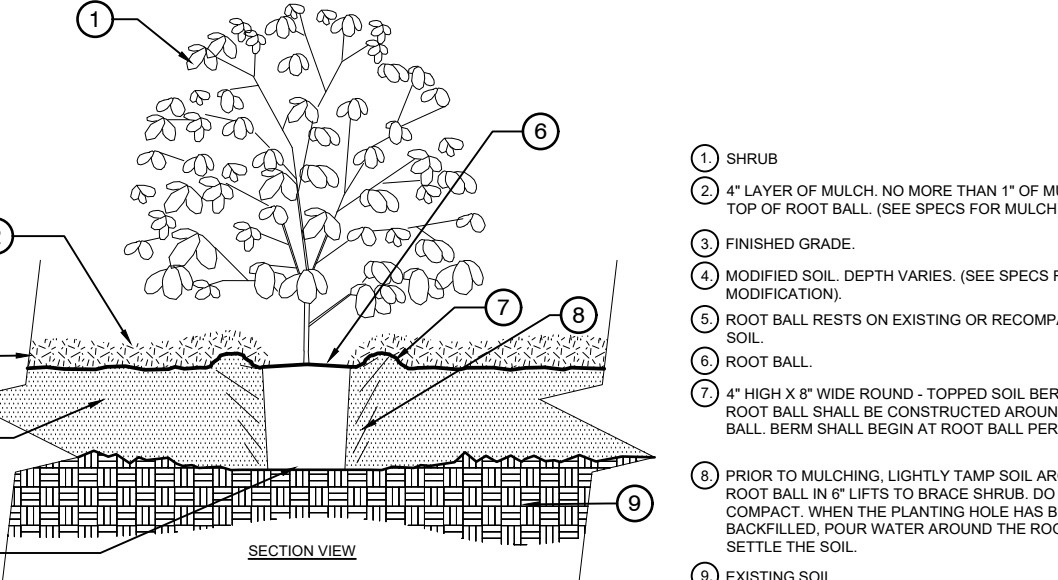
NOTES:  
1. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.  
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.  
**3 TREE ON SLOPE - UNMODIFIED SOIL. SLOPE 5% (20:1) TO 50% (2:1)**  
NTS



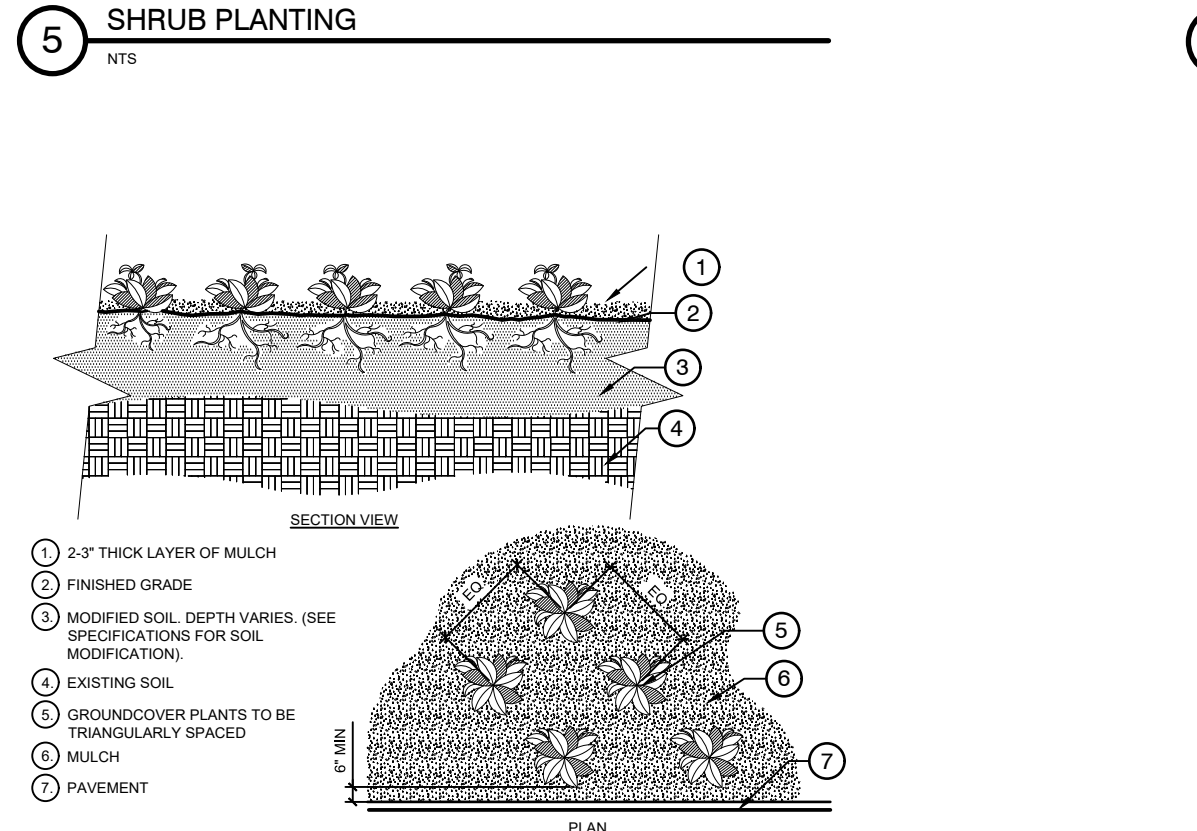
NOTES:  
1. SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.  
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.  
**4 TREE PLANTING MULTI-STAKE**  
NTS



NOTES:  
1. SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.  
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.  
**5 SHRUB PLANTING**  
NTS



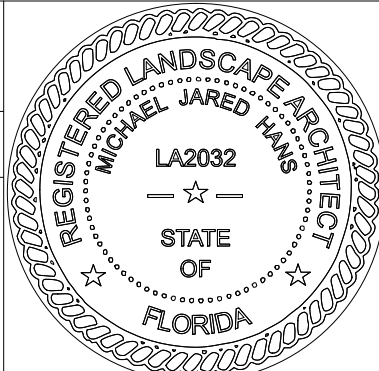
NOTES:  
1. SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.  
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.  
**6 SHRUB - MODIFIED SOIL**  
NTS



NOTES:  
1. SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.  
2. SMALL ROOTS (LIVE OR DEAD) THAT GROW AROUND, UP, OR OVER THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL).  
3. SETTLE SOIL AROUND GROUNDCOVER PRIOR TO MULCHING.  
**7 GROUNDCOVER**  
NTS

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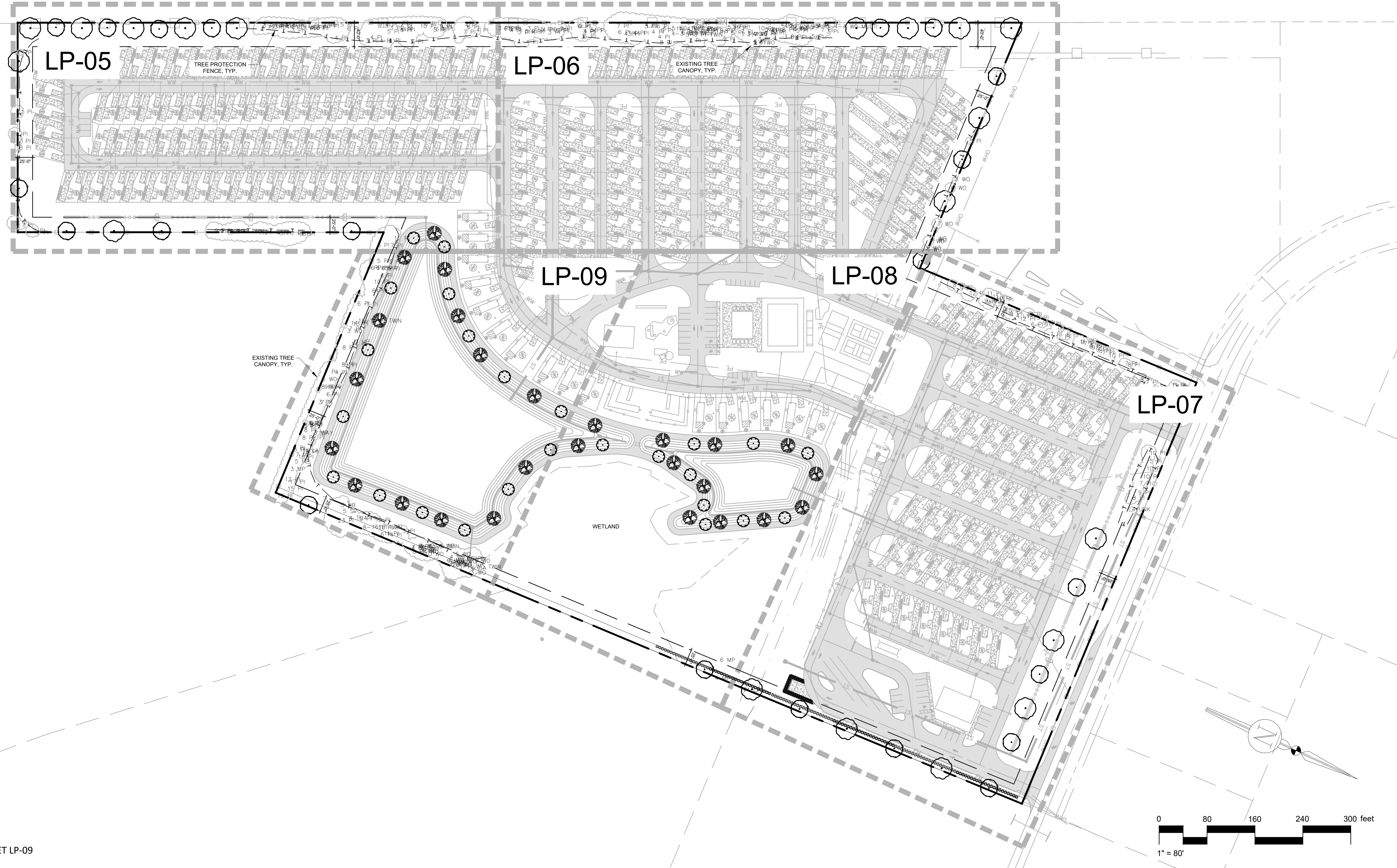
LANDSCAPE ARCHITECT OF RECORD:	MICHAEL J. HANS, R.L.A. FLORIDA LICENSE LA2032
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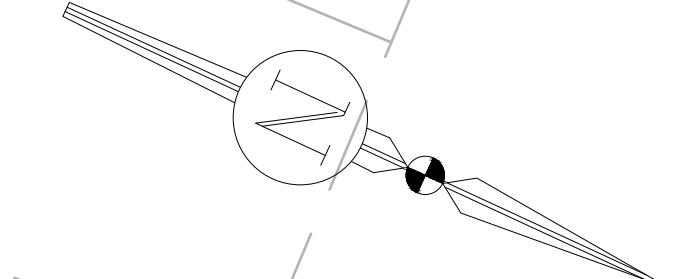
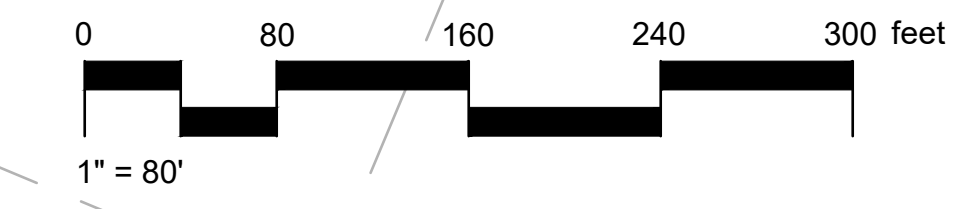
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Gainesville: (352) 375-8999 | St. Augustine: (904) 789-8999  
Toll Free: (844) Go-JBP Pro | E-mail: contact@jbpro.com

SHEET TITLE: <b>SOIL AND LANDSCAPE MATERIAL DETAILS</b>		DATE: <b>FEBRUARY 2026</b>
CLIENT: <b>FLORIDA GATEWAY RV RESORT, LLC</b> LAKE CITY, FLORIDA		PROJECT NO: <b>370-23-01</b>
PROJECT: <b>PARADISE RV RESORT</b>		SHEET NO: <b>LP-03</b>

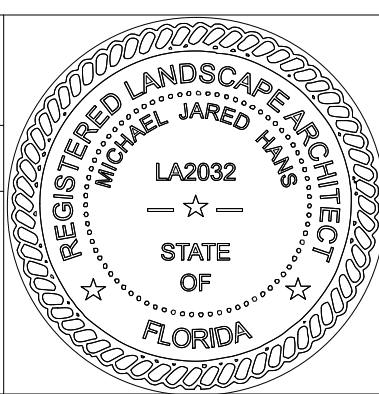


NOTE:  
SEE PLANTING SCHEDULE SHEET LP-09



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NO.	DATE	DESCRIPTION	

**Michael J Hans**  
 LANDSCAPE ARCHITECT  
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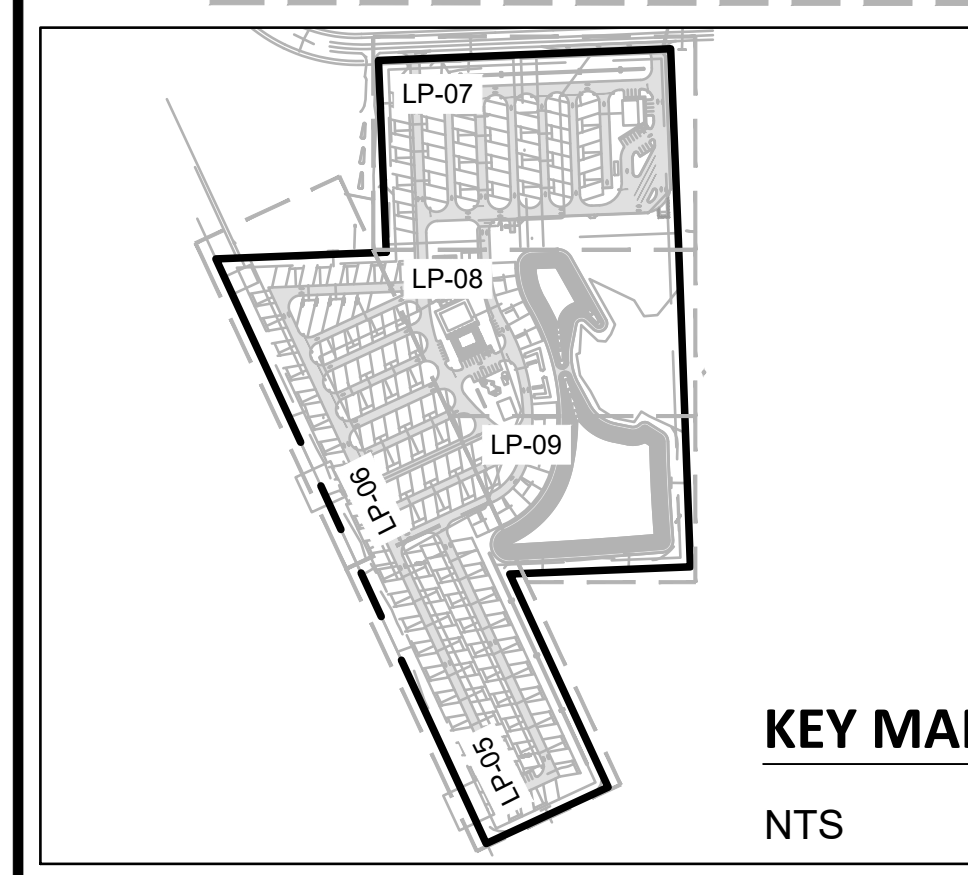
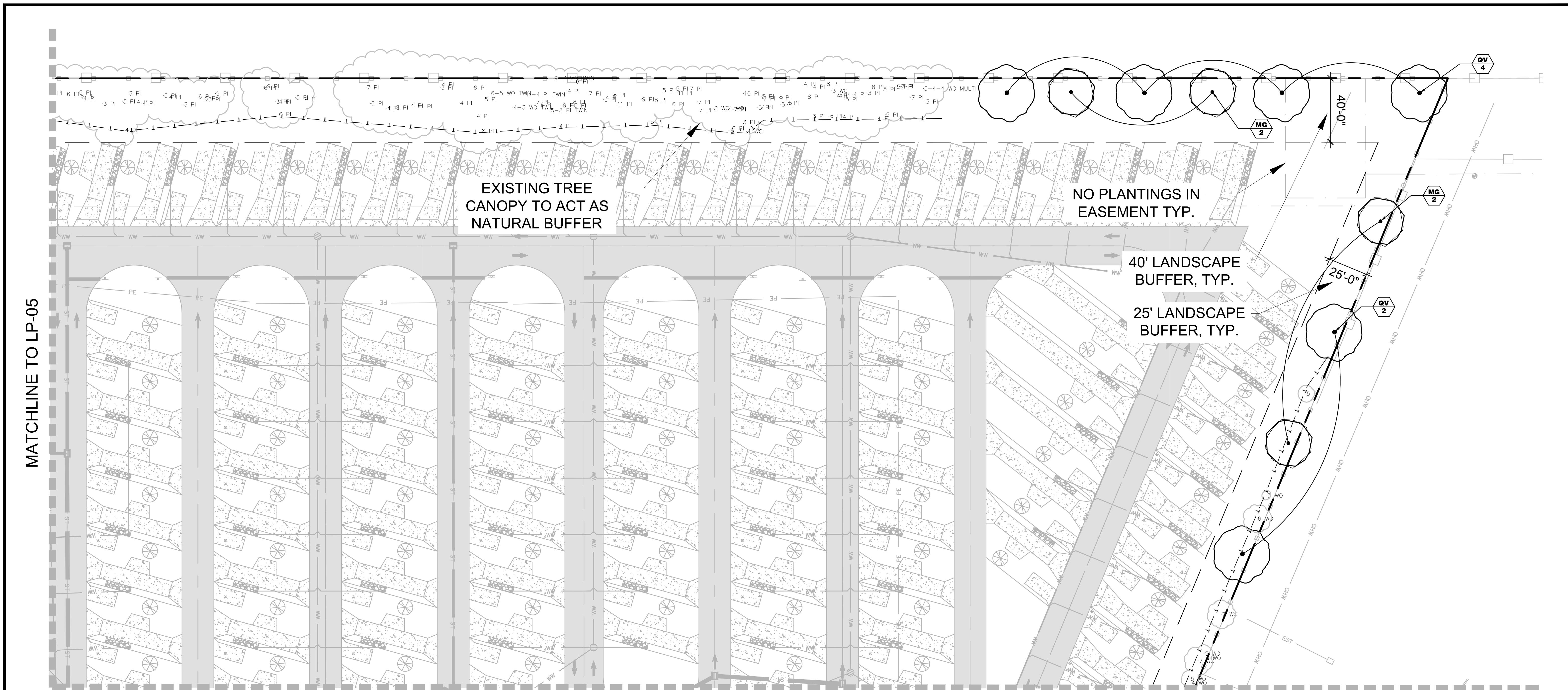
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SHEET TITLE:  
**LANDSCAPE PLAN**  
 CLIENT:  
**FLORIDA GATEWAY RV RESORT, LLC**  
 LAKE CITY, FLORIDA

PROJECT:  
**PARADISE RV RESORT**

DATE:  
**FEBRUARY 2026**  
 PROJECT NO:  
**370-23-01**  
 SHEET NO:  
**LP-04**





**NOTE:**  
SEE PLANTING SCHEDULE SHEET LP-09

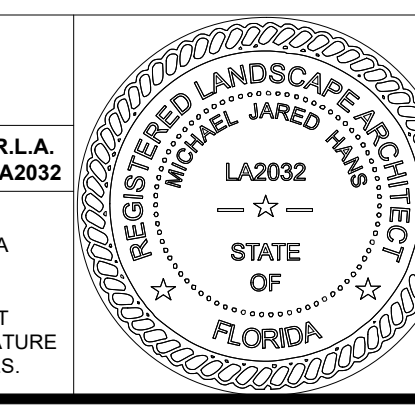
0 30 60 90 120 feet  
1" = 30'

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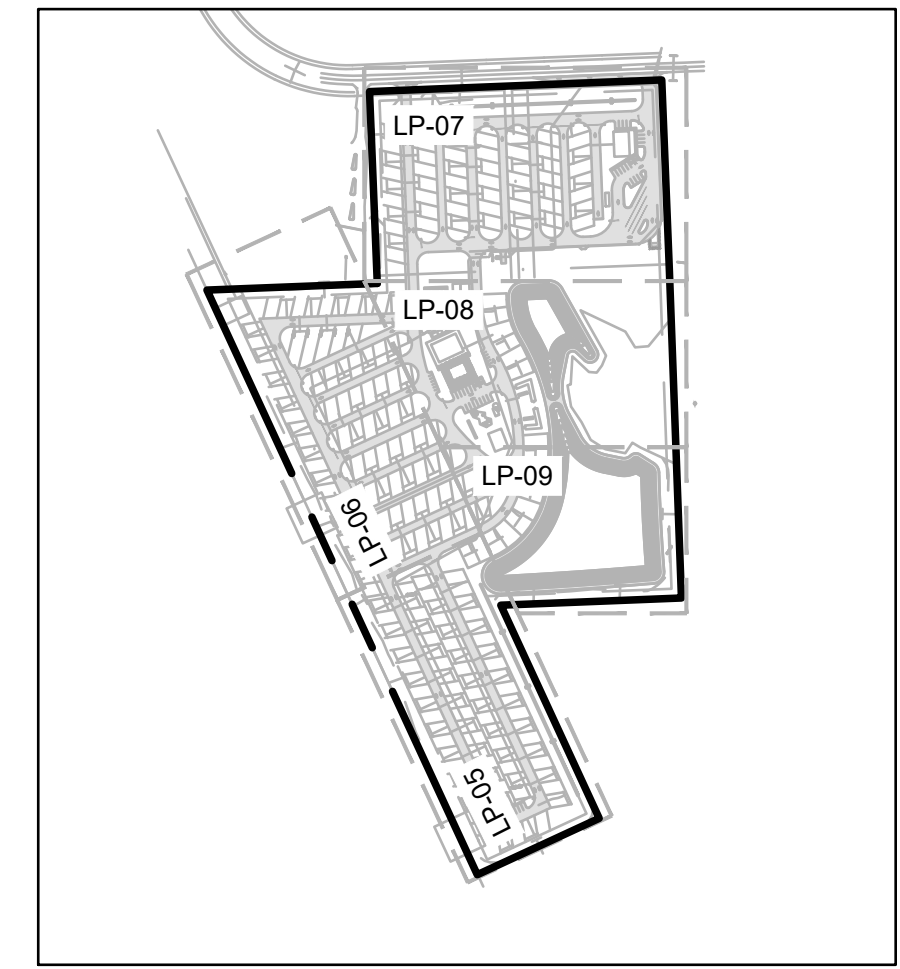
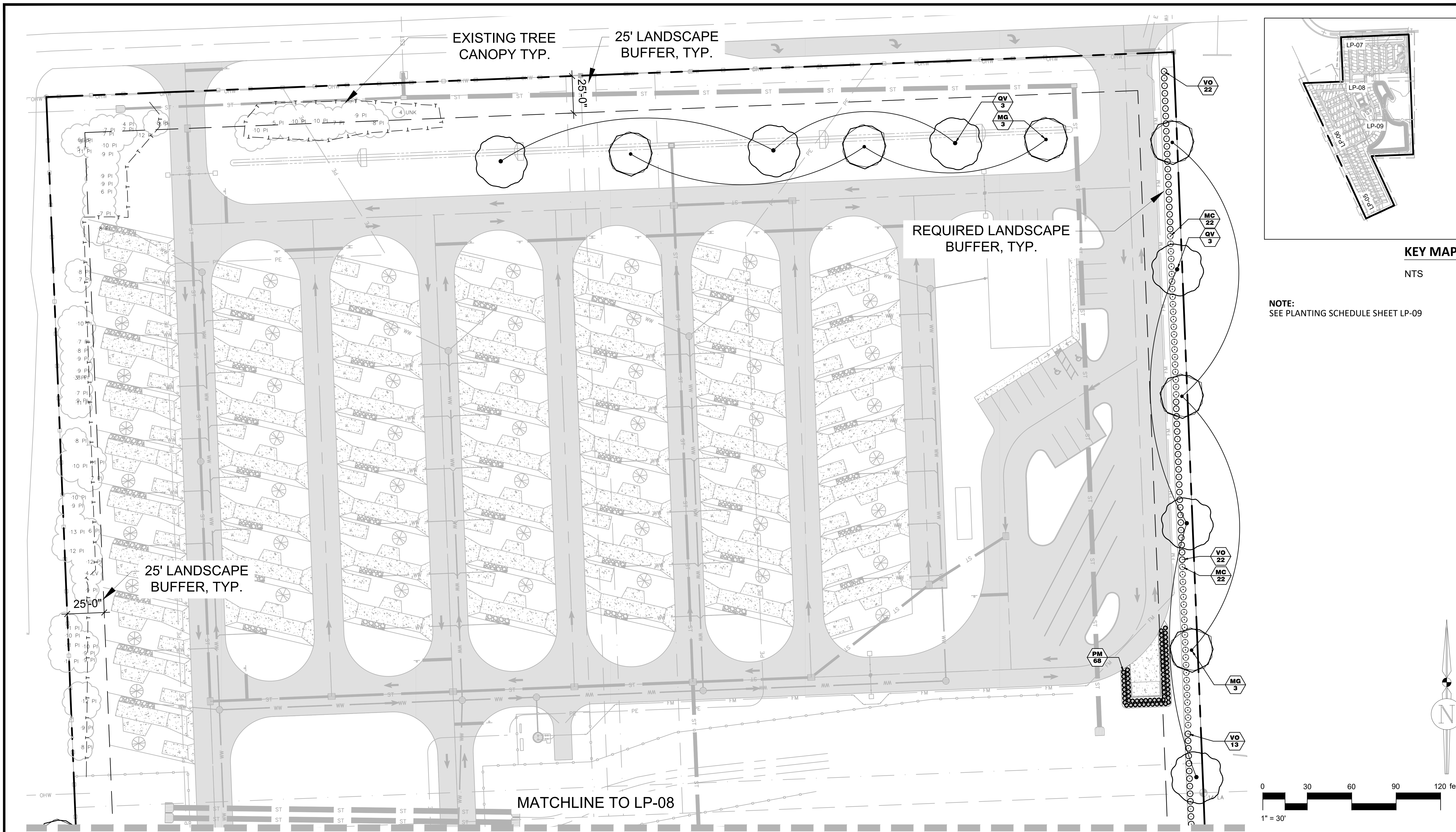


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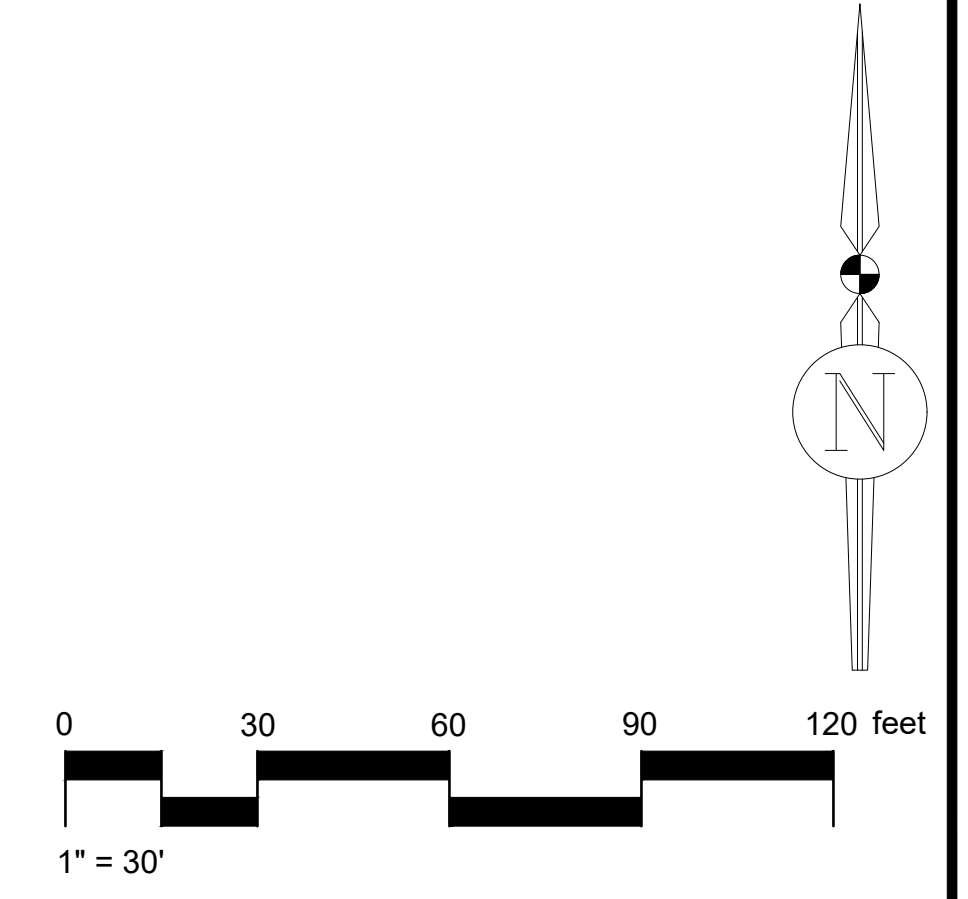
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Toll Free: (844) Go-JBPro | E-mail: [contact@jbpro.com](mailto:contact@jbpro.com)

SHEET TITLE: <b>LANDSCAPE PLAN</b>	DATE: <b>FEBRUARY 2026</b>
CLIENT: <b>FLORIDA GATEWAY RV RESORT, LLC</b> LAKE CITY, FLORIDA	PROJECT: <b>PARADISE RV RESORT</b>
PROJECT NO: <b>370-23-01</b>	
SHEET NO: <b>LP-06</b>	



**KEY MAP:**  
NTS

**NOTE:**  
SEE PLANTING SCHEDULE SHEET LP-09

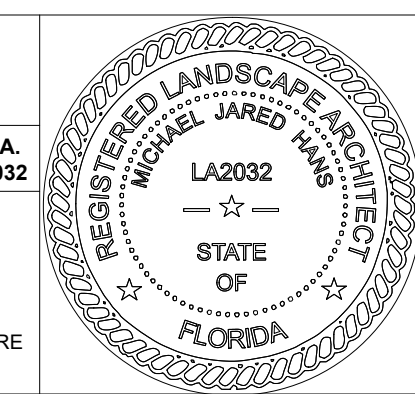


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SHEET TITLE: **LANDSCAPE PLAN**

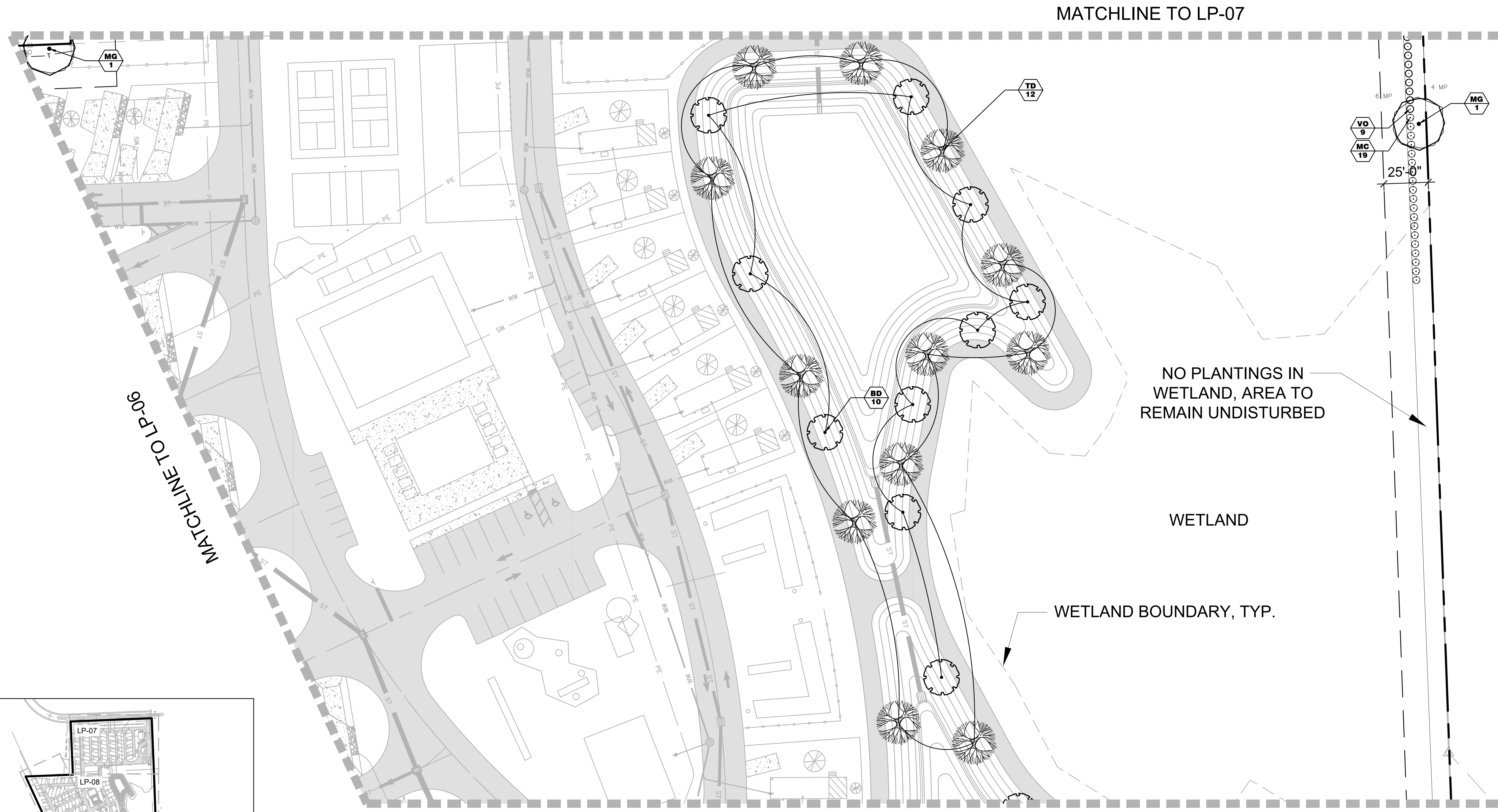
CLIENT: **FLORIDA GATEWAY RV RESORT, LLC**  
LAKE CITY, FLORIDA

PROJECT: **PARADISE RV RESORT**

DATE: **FEBRUARY 2026**

PROJECT NO: **370-23-01**

SHEET NO: **LP-07**



MATCHLINE TO LP-06

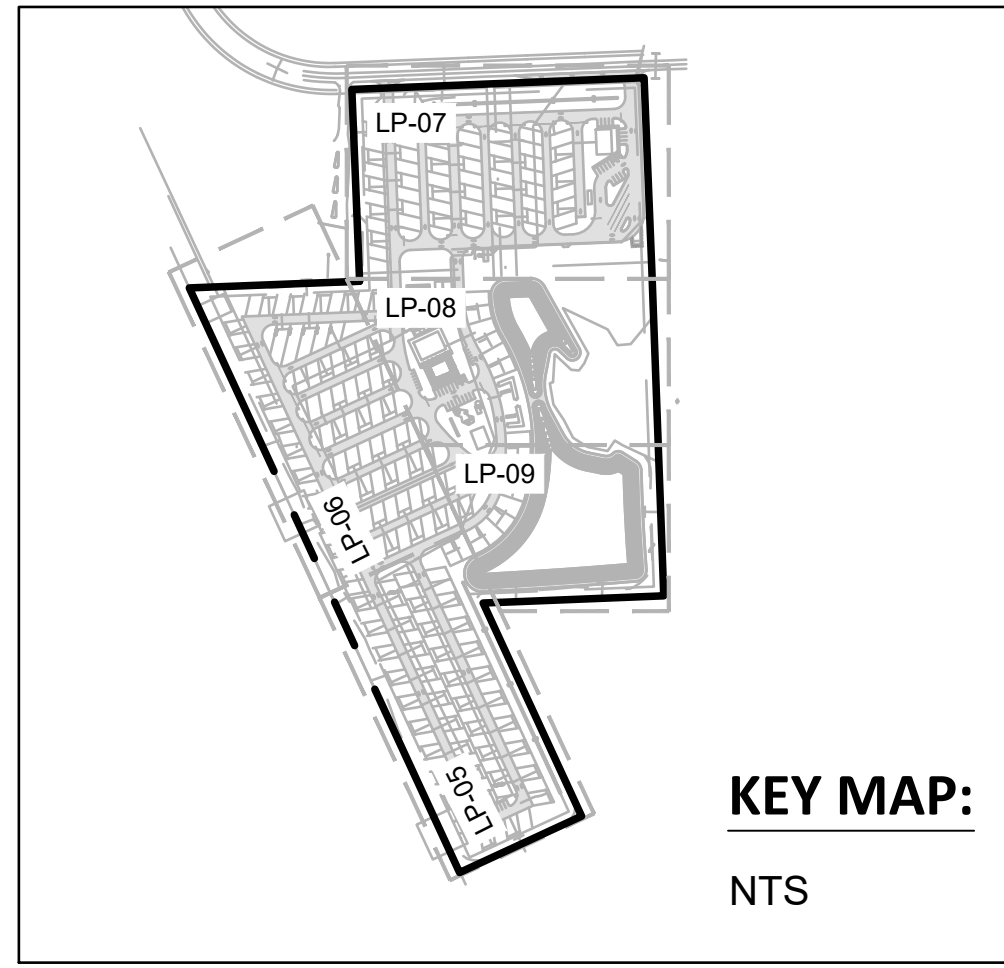
MATCHLINE TO LP-07

MATCHLINE TO LP-09

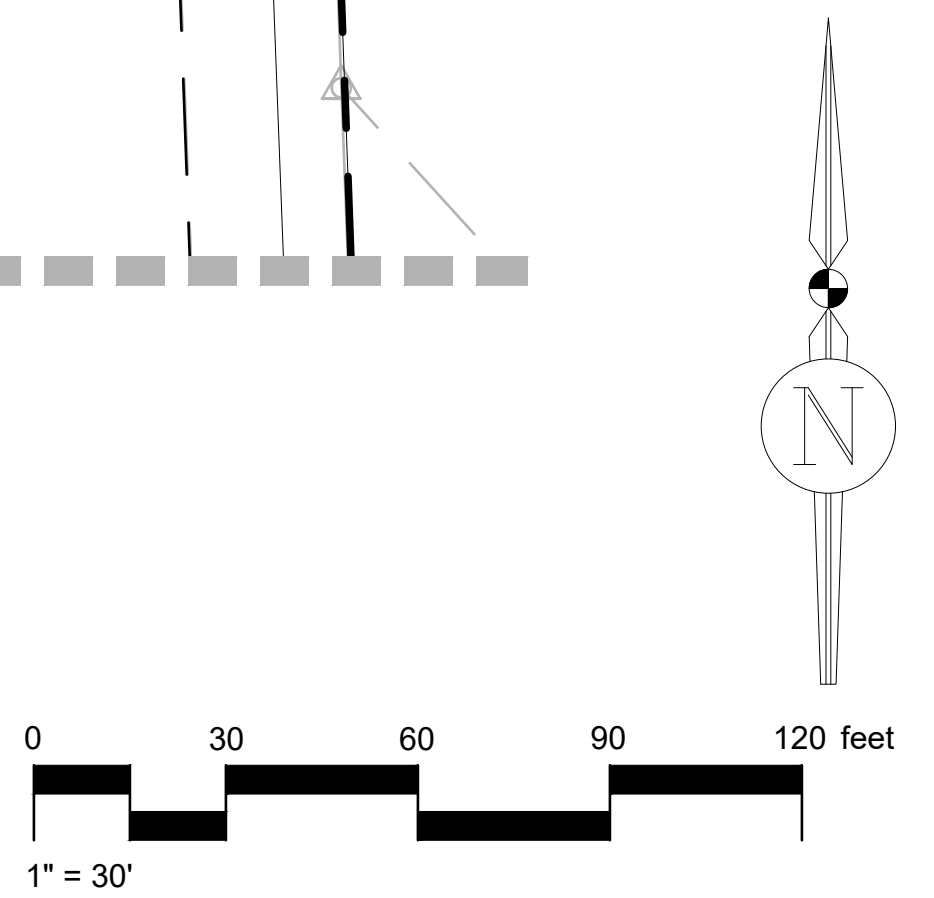
NO PLANTINGS IN WETLAND, AREA TO REMAIN UNDISTURBED

WETLAND

WETLAND BOUNDARY, TYP.



**NOTE:**  
SEE PLANTING SCHEDULE SHEET LP-09

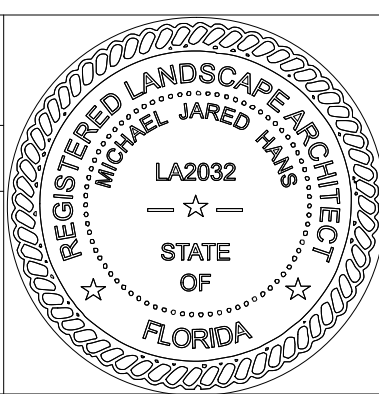


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SHEET TITLE: **LANDSCAPE PLAN**

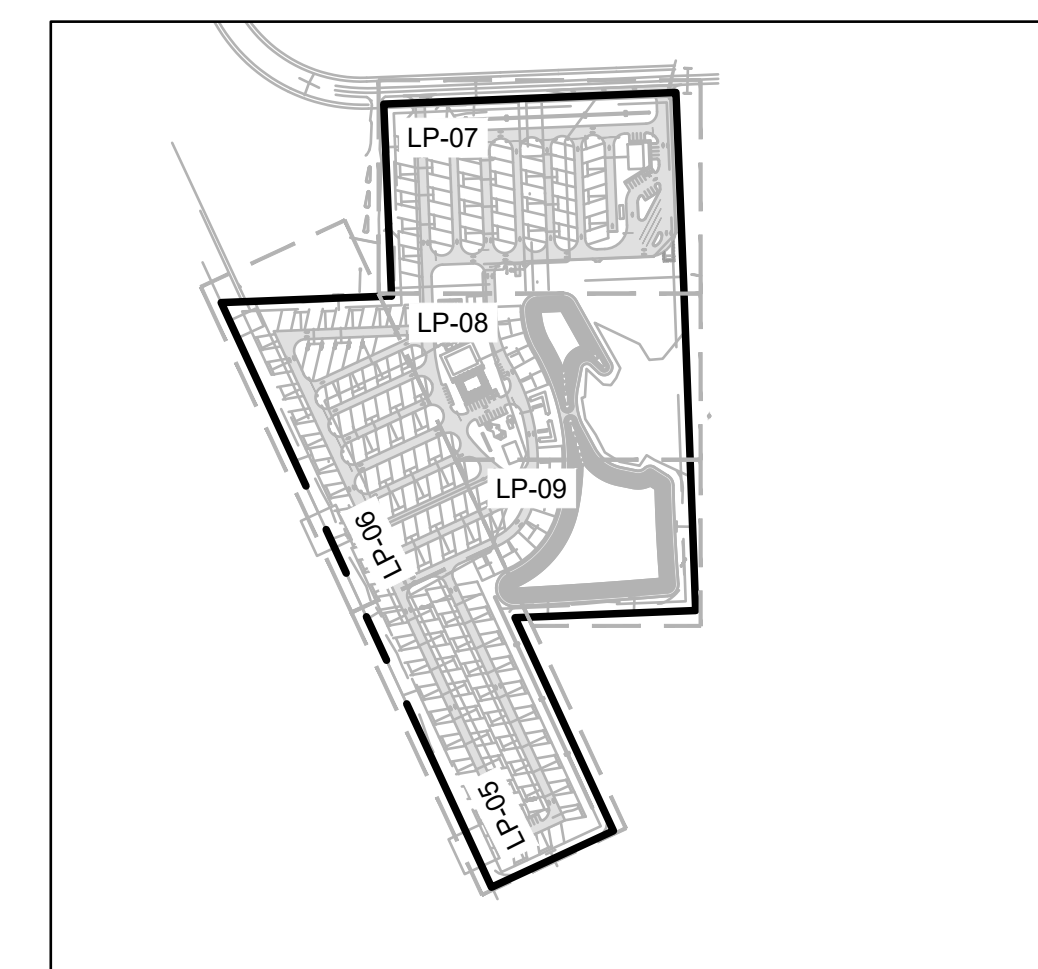
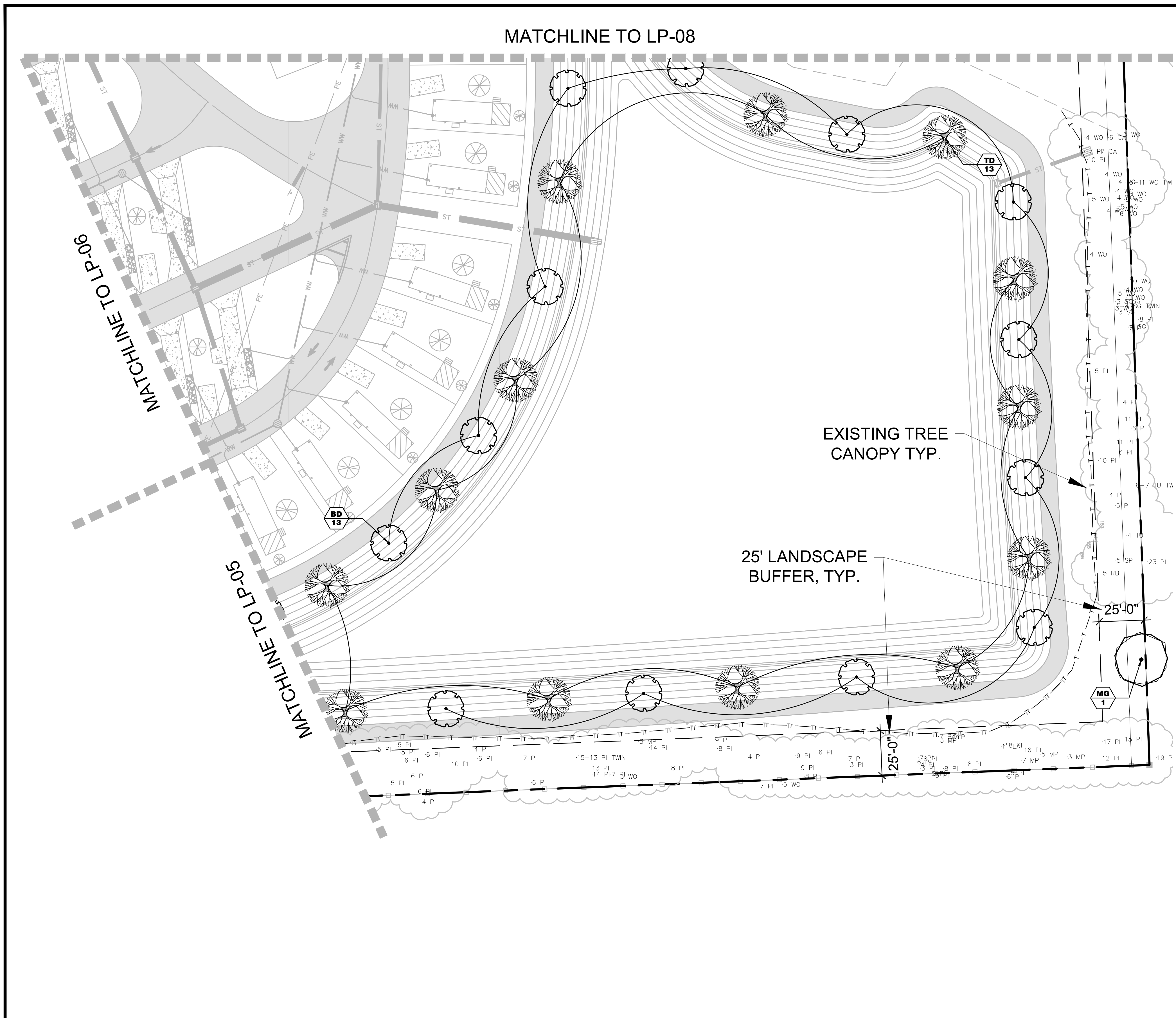
CLIENT: **FLORIDA GATEWAY RV RESORT, LLC**  
LAKE CITY, FLORIDA

PROJECT: **PARADISE RV RESORT**

DATE: **FEBRUARY 2026**

PROJECT NO: **370-23-01**

SHEET NO: **LP-08**



**KEY MAP:**  
NTS

**PLANT SCHEDULE**

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	CAL/HT	CANOPY/UNDERSTORY	FL GRADE	QTY
<b>TREES</b>							
	BD	BETULA NIGRA 'BNMTF' / DURA HEAT® RIVER BIRCH	25 GAL.	2" CAL.	UNDERSTORY	FL #1	25
	MG	MAGNOLIA GRANDIFLORA / SOUTHERN MAGNOLIA	25 GAL.	2" CAL.	UNDERSTORY	FL #1	21
	QV	QUERCUS VIRGINIANA / SOUTHERN LIVE OAK	25 GAL.	2-IN / 10-FT (MIN.)	CANOPY	FL #1	19
	TD	TAXODIUM DISTICHUM / BALD CYPRESS	25 GAL.	2-IN / 10-FT (MIN.)	CANOPY	FL #1	26
<b>SHRUBS</b>							
	MC	MORELLA CERIFERA / WAX MYRTLE	3 GAL.	2-FT	AS SHOWN	FL #1	63
	PM	PODOCARPUS MACROPHYLLUS / YEW PODOCARPUS	5 GAL.	2-FT	AS SHOWN	FL #1	68
	VO	VIBURNUM OBOVATUM / WALTER'S VIBURNUM	3 GAL.	2-FT	AS SHOWN	FL #1	66

**NOTE:**

- TREES PROPOSED IN THE BUFFERS SHALL BE PLANTED AROUND EXISTING TREES IN THE BUFFER. CONTRACTOR TO ENSURE THAT THE PLANTING OF NEW TREES SHALL NOT NEGATIVELY IMPACT THE ROOT ZONE OF EXISTING TREES.
- MULCH SHALL BE ORGANIC HARDWOOD MULCH MIN. DEPTH OF 3 INCHES IN ALL PLANTING AREAS AND AROUND THE BASES OF TREES.

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SHEET TITLE: **LANDSCAPE PLAN**

CLIENT: **FLORIDA GATEWAY RV RESORT, LLC**  
LAKE CITY, FLORIDA

PROJECT: **PARADISE RV RESORT**

DATE: **FEBRUARY 2026**  
PROJECT NO: **370-23-01**  
SHEET NO: **LP-09**