

LANDSCAPE GENERAL NOTES

A. SCOPE OF WORK

1. THE WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS HEREIN SPECIFIED.

2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL PLANTING AREAS OF THIS CONTRACT UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER.

B. PROTECTION OF EXISTING STRUCTURES

1. ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, AND OTHER ITEMS OF CONSTRUCTION AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THIS CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.

C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS, EXISTING OR OTHERWISE, CAUSED BY CARELESS OPERATION OF EQUIPMENT, STOCKPILING OF MATERIALS, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP—LINE OR THE SPILLING OF OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP—LINE.

2. NO MATERIALS SHALL BE BURNED WHERE THE HEAT WILL DAMAGE ANY PLANT. TREES KILLED OR DAMAGED SO THAT THEY ARE MISLEAFY AND/OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS (\$100) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY PERCENT (20%) PER INCH OVER FOUR INCHES (4") CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES, OR AS MAY BE REQUIRED BY THE REGULATING GOVERNMENT AGENCY, WHICHEVER IS GREATER. CALIPER SHALL BE MEASURED AT BREAST HEIGHT OR FOUR FEET (4') ABOVE SURROUNDING GROUND.

D. MATERIALS

1. SUBMITTALS: GENERAL SAMPLES OF PLANTING MATERIALS AS LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, ON THE SITE OR AS OTHERWISE DETERMINED BY THE OWNER, UPON APPROVAL OF SAMPLES, DELIVERY OF MATERIALS MAY BEGIN.

MATERIALS SAMPLE SUBMITTALS
MULCH ONE (1) CUBIC FOOT
TOPSOIL ONE (1) CUBIC FOOT
PLANTS ONE (1) REPRESENTATIVE SAMPLE OF EACH VARIETY.

2. PLANT MATERIALS
a) GENERAL: PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. NOMENCLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES, 1990 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH "GRADES AND STANDARDS FOR NURSERY PLANTS" PARTS I AND II, LATEST EDITION PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORIDA NO. 1 AS AN ABSOLUTE MINIMUM UNLESS OTHERWISE SUPERCEDED BY A FLORIDA FANCY DESIGNATION, AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. ALL PLANTS SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL—BRANCHED AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE, AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER, WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE OWNER.

b) MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE TOP OF ROOTBALL (TRUNK FLARE) AND/OR ACROSS THE AVERAGE SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE BALL OR EARTH OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.
c) INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER. FOR QUALITY, SIZE, AND VARIETY, SUCH PRELIMINARY APPROVAL SHALL NOT SUPERSEDE THE RIGHT OF INSPECTION AND APPROVAL AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF BALLS OR ROOTS, LATENT DEFECTS OR INJURIES, PRESENCE OF INSECTS, AND OTHER CONDITIONS THAT MAY HAVE OCCURRED SINCE THE NURSERY INSPECTION. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.
d) AMENDED PLANTING SOIL: PLANTING SOIL FOR USE IN BACK FILLING PLANTING HOLES SHALL BE FORTY PERCENT (40%) TOPSOIL AND SIXTY PERCENT (60%) SAND AND BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER, WITHOUT MIXTURE OF SUBSOIL MATERIALS, AND OBTAIN FROM A VULCANIC, ARABLE SITE. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND SHALL BE FREE FROM HEAVY CLAY, COARSE SAND, STONES, LIME, PLANTS, PLANTS, ROOTS OR OTHER FOREIGN MATERIALS, OR NOXIOUS WEEDS. IT SHALL NOT CONTAIN TOXIC SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. PH RANGE SHALL BE 5.0 TO 7.0 INCLUSIVE.

e) SAND SHALL BE CLEAN, WELL DRAINING NATIVE SAND. IF REQUESTED, CONTRACTOR SHALL AT ANY TIME AND AT NO COST TO OWNER SUBMIT RESULTS OF SOIL TESTS FOR TOPSOIL, AND SAND PROPOSED FOR USE UNDER THIS CONTRACT FOR APPROVAL BY OWNER.

f) AMENDED PLANTING SOIL: PLANTING SOIL FOR USE IN BACK FILLING PLANTING HOLES SHALL BE FORTY PERCENT (40%) TOPSOIL AND SIXTY PERCENT (60%) SAND AND BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER, WITHOUT MIXTURE OF SUBSOIL MATERIALS, AND OBTAIN FROM A VULCANIC, ARABLE SITE. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND SHALL BE FREE FROM HEAVY CLAY, COARSE SAND, STONES, LIME, PLANTS, PLANTS, ROOTS OR OTHER FOREIGN MATERIALS, OR NOXIOUS WEEDS. IT SHALL NOT CONTAIN TOXIC SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. PH RANGE SHALL BE 5.0 TO 7.0 INCLUSIVE.

g) SAND SHALL BE CLEAN, WELL DRAINING NATIVE SAND. IF REQUESTED, CONTRACTOR SHALL AT ANY TIME AND AT NO COST TO OWNER SUBMIT RESULTS OF SOIL TESTS FOR TOPSOIL, AND SAND PROPOSED FOR USE UNDER THIS CONTRACT FOR APPROVAL BY OWNER.

E. WATER

1. WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN AN ADEQUATE GROWTH OF PLANTS AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN—MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC. IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SUCH SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.

F. COMMERCIAL FERTILIZER

1. COMMERCIAL FERTILIZER SHALL BE A COMPLETE FORMULA. IT SHALL BE UNIFORM IN COMPOSITION, DRY AND FREE FLOWING. THIS FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED CONTAINERS, EACH BEARING THE MANUFACTURER'S GUARANTEED STATEMENT OF ANALYSIS.

FIFTY PERCENT (50%) OF THE NITROGEN SHALL BE DELIVERED FROM NATURAL ORGANIC SOURCES. THE FOLLOWING FERTILIZERS SHALL BE USED AND APPLIED AT RATES AS SUGGESTED BY MANUFACTURER'S SPECIFICATIONS.

- SHRUBS AND TREES — MILORGANITE, OR APPROVED EQUIV.
- ANNUALS AND GROUNDCOVERS — OSMOCOTE/SIERRA BLEND 14—14—14
- 3:00 — 8—8—8

IN ADDITION TO SURFACE APPLIED FERTILIZERS, ALL CONTAINER GROWN AND FIELD GROWN PLANT MATERIALS SHALL RECEIVE AGRIFORM PLANTING TABLETS—21—GRAM FORMULA, 21 GRAM OR EQUIV. THESE TABLETS SHALL BE PLACED AT THE RATE AND DEPTH SPECIFIED BY MANUFACTURER.

G. MULCH

1. MULCH SHALL BE FROM SHREDDED WOOD DERIVED FROM MELALUCA OR OTHER INVASIVE TREE SPECIES AND SHALL BE STERILIZED TO EFFECTIVELY ELIMINATE ALL SEEDS, SPORES, ETC. AND RENDER THEIR BARREN.

2. MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A DEPTH OF THREE INCHES (3").

3. MULCH SHALL BE GRADE 'B' SHREDDED, AND SHALL BE APPLIED EVENLY AND SMOOTH TO PLANTED AREAS.

4. NO RED OR COLORED MULCH SHALL BE ACCEPTED UNLESS SPECIFIED ACCORDINGLY. NO CYPRUS MULCH SHALL BE USED.

H. DIGGING AND HANDLING

1. PROTECT ROOT SYSTEMS OR ROOTBALLS OF PLANTS AT ALL TIMES FROM SUN AND DRYING WINDS, WATER EROSION, AND OTHER HARMFUL CRITERIA AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT BREAKING AND DRYING OUT DURING LOADING, TRANSIT, AND UNLOADING. PLANTING TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO SITE SHALL BE SPRAYED WITH AN

ANTI/TRANSPIRANT PRODUCT ("WILTPROOF" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.

2. BALLED AND BURLAPPED PLANTS (B&B) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS, AND IN ACCORDANCE WITH "GRADES AND STANDARDS FOR NURSERY PLANTS" (FLORIDA PUBLICATION). NO PLANT NOT WITH A ROOTBALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS BALLED AND BURLAPPED OR CONTAINER GROWN SHALL NOT BE HANDLED BY STEMS.

3. PLANTS MARKED "BR" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS. THE ROOTS SHALL NOT BE CUT WITHIN THE MINIMUM SPREAD SPECIFIED IN THE PLANT LIST. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT IN MOVING AND PRIOR TO PLANTING.

4. PROTECTION OF PALMS (IF APPLICABLE): ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE AS BY "GRADES AND STANDARDS FOR NURSERY PLANTS" (FLORIDA PUBLICATION). PRUNING PRACTICES OTHER THAN MINIMAL PRUNING OF FRONDS, PRIMARILY TO REACH A "CLEAR TRUNK" SPECIFICATION, MAY CONSTITUTE REJECTION. OR ALL PALMS SUBJECT TO SUCH PRACTICE, LIKEWISE EXCESSIVE PRUNING OR "SHAVING" OF ROOTBALLS TO MEET "CLEAR TRUNK" CRITERIA MAY CONSTITUTE REJECTION ON SITE. ALL PALMS SHALL BE BRACED PER PALM PLANTING DETAIL ON THE PLANTING DETAILS SHEET.

5. EXCAVATION OF PLANTING HOLES SHALL BE DONE USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS, AND PREPARED SUB—BASES.

I. CONTAINER GROWN STOCK

1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL—ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER SUCH THAT THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION, AND SHALL MEET MINIMUM SPECIFICATIONS IN THE PLANT LIST.

2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIRMS ROOTS TO HAVE DEVELOPED, SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.

3. PLANT ROOTS BOUND IN CONTAINERS SHALL NOT BE ACCEPTABLE.

4. SUBSTITUTION OF NON—CONTAINER GROWN MATERIAL FOR MATERIAL EXPLICITLY SPECIFIED TO BE CONTAINER GROWN WILL NEED AUTHORIZATION FROM THE OWNER.

J. COLLECTED STOCK

1. WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED ON THE PLANT LIST SCHEDULE, THE MINIMUM SIZES OF ROOT BALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.

K. NATIVE STOCK

1. PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED GROWN WHEN THEY HAVE BEEN SUCCESSFULLY REESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO INDICATE FULL RECOVERY FROM TRANSPLANTING INTO THE NURSERY ROW.

L. MATERIALS LIST

1. QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE QUANTITIES SHOWN ON THE PLANT LIST QUANTITY, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO THE SUBMISSION OF BIDS. DRAWING SHALL TAKE PRECEDENCE. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.

M. FINE GRADING

1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS, BERMING AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR, UNLESS OTHERWISE NOTED.

2. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE. THE FINISHED GRADE FOR THICKNESS OF SOIL AND/OR MULCH DEPTH. THIS CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT—END LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.

3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS.

N. PLANTING PROCEDURES

1. CLEANING UP BEFORE COMMENCING WORK, THE CONTRACTOR SHALL CLEAN UP WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBSTRUCTION MATTER. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE COMPLETELY REMOVED FROM THE SITE. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL, SHOULD THE CONTRACTOR FIND SUCH SOIL, CONDITIONS BENEATH THE SOIL, WHICH WILL IN ANY WAY AFFECT THAT VIABILITY OF THE PLANTS TO BE INSTALLED. HE/SHE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S CONSTRUCTION MANAGER OR DESIGNEE.
2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORM WATER LINES, CABLE AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES.

3. SUBGRADE EXCAVATION: CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMELOCK AND LIMELOCK SUB—BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF APPROXIMATELY 20% GREATER THAN RECOMMENDED PLANTING SOIL DEPTH. CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON SITE SOURCE OR AN IMPORTED SOURCE. IF LIMELOCK CONDITIONS OCCUR IN PLANTED AREAS AFTER 36" DEEP EXCAVATION BY CONTRACTOR, AND POSITIVE DRAINAGE CAN NOT BE ACHIEVED, THE CONTRACTOR SHALL UTILIZE PLANTING DETAIL THAT ADDRESSES POOR DRAINAGE OR CONTACT OWNER'S CONSTRUCTION MANAGER OR DESIGNEE FOR RESOLUTION.

4. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS HEREIN SPECIFIED AND REQUIRED. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.

5. GENERAL COMPLIANCE WITH FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. PLANTS SHALL BE PROTECTED UPON ARRIVAL AT THE SITE BY BEING THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS SHALL NOT REMAIN UNPROTECTED FOR A PERIOD EXCEEDING TWENTY—FOUR (24) HOURS. AT ALL TIMES WORKMANLIKE METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.

6. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE THE PLANTING WITH THE IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION ITEMS AND PLANTS.

7. ALL PLANTING HOLES SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USA STANDARD TO NURSERY STOCK 280.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACKFILLED WITH THE PREPARED PLANTING SOIL AS SPECIFIED HEREIN BEFORE (EVEN MAX) IRRIGATION DRAINAGE DETAIL THAT ADDRESSES THIS CONDITION. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURE AND UNDER THE SUPERVISION OF A QUALIFIED PLANTING FOREMAN. PROPER "JETING IN" SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. "JET STICK" OR EQUAL IS RECOMMENDED.

8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS, CURBS, PAVING, AND OTHER HARDSCAPE MATERIALS WHILE INSTALLING TREES.

9. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION D (MATERIALS) OF THESE SPECIFICATIONS. IN ADDITION, EACH PLANTING HOLE SHALL RECEIVE 21—GRAM "AGRIFORM" PLANTING TABLETS PER MANUFACTURER'S SPECIFICATIONS OR AS FOLLOWS:
— TWO (2) TABLETS PER 1 GAL. PLANT
— THREE (3) TABLETS PER 3 GAL. PLANT
— FOUR (4) TABLETS PER 10 GAL. PLANT
— LARGER MATERIAL
— TWO (2) TABLETS PER HALF INCH (1/2") OF TRUNK CALIPER

10. TREES AND SHRUBS SHALL BE SET STRAIGHT AND AT SUCH A LEVEL, THAT AFTER SETTLEMENT, THE TOP OF THE ROOT SYSTEM (FOR SHRUBS AND GROUNDCOVER) OR TRUNK FLARE (TREES AND PALMS) WILL STAND ONE (1) TO TWO (2) INCHES ABOVE FINAL GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PLANTING HOLE. PLANTING SOIL MIXTURE SHALL BE BACKFILLED AND THOROUGHLY TAMPED AROUND THE BALL AND SHALL BE SETTLED BY WATER AFTER TAMPING.

11. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, TURNING SOIL IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET OR OTHER TAMPING DEVICE. ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE. ONLY WITH MULCH. ALL BURLAP, ROPE, WIRES, ETC., SHALL BE PULLED FROM UNDERNEATH.

12. PRUNING: FOR DAMAGED OR BROKEN LIMBS, EACH TREE SHALL BE PRUNED TO PRESERVE THE NATURAL CHARACTER OF THE SPECIES. ALL SUCKER GROWTH SHALL BE COMPLETELY REMOVED PRIOR TO DIGGING.

13. SHRUBS AND GROUNDCOVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED IN THE PLANT LIST. CULTIVATE ALL MASS PLANTING AREAS TO A MINIMUM DEPTH OF 6". REMOVE AND DISPOSED ALL DEBRIS, TILL 4" OF PLANTING SOIL MIX INTO THE NEWLY TILLED PLANTING BED FOR GENERAL NUTRIENT DISBURSEMENT. MASS PLANTING BED IS NOW READY TO RECEIVE HOLES FOR NEW PLANTS. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.

14. TREE GUYS AND BRACING SHALL BE INSTALLED BY THE LANDSCAPE CONTRACTOR IN ACCORDANCE WITH THE PLANTS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. TREES SHALL USE ABORTIVE AS PER DETAIL SHEET. PALMS SHALL USE WOOD BRACING PER DETAIL SHEET.

15. MULCHING: PROVIDE A THREE INCH (3") MINIMUM LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUNDCOVER AND VINE BED, AND TREE PIT (FOR TREES AND PALMS, MIN. THREE INCH (3") FROM EDGE OF TRUNKS). — UNLESS OTHER REQUIRED BY LOCAL CODES AND SPECIFIED AS SUCH.

16. SYSTEMIC HERBICIDE WEED CONTROL: ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER OR THEIR DESIGNEE, A SYSTEMIC HERBICIDE SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. AFTER MULCH HAS BEEN APPLIED TO PLANTING BEDS AND TREE RINGS, TREAT ALL MULCHED AREAS WITH AN APPROVED PRE—EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER.

O. LAWN SODDING

1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING.
2. COMPLETE IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A GRASS LAWN ACCEPTABLE TO THE OWNER AND GOVERNING AGENCIES.

2. LAWN BED PREPARATION: ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROADS, GRASSES, WEEDS, AND SOIL. THE SOIL SHALL BE EVENLY PREPARED GRADE TO ALLOW FOR SOIL PREPARATION BELOW.

3. SOIL PREPARATION: PREPARE LOOSE BED FOUR INCHES (4") DEEP. APPLY FERTILIZER AT A RATE OF TWENTY (20) POUNDS PER ONE THOUSAND (1000) SQUARE FEET. APPLICATION SHALL BE UNIFORM. UTILIZE A SPREADER OR BROADCAST SPREADERS. MIX FERTILIZER THOROUGHLY WITH THE SOIL TO A DEPTH OF THREE INCHES (3"). HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY TO PREPARE FOR SOD INSTALLATION.

4. SODDING: THE CONTRACTOR SHALL SOD ALL PERVIOUS AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS TO CREATE A UNIFORM, NEW TURF BLANKET FOR THE SITE.

a) THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETY TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS, AND DISEASE OF ANY KIND. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER TO MAKE A SOD, SODDING LAWN AREA.

b) SOD SHALL BE LAID IN ROWS WITH EVERY OTHER ROW STAGGERED HALFWAY BETWEEN THE NEXT TO INSURE NO CONTINUOUS STACKED JOINTS. SEW JOINTS OF SOD TO INSURE A TIGHT FIT AT JOINTS.

c) SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS, ADJACENT TO BUILDINGS, AND CURB INCH (4") MULCH STRIP SHALL BE PROVIDED. MULCH SHALL BE LAYED UNIFORMLY. THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER. CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED TO THOROUGHLY MOISTEN THE SOIL BENEATH. IF, IN THE OPINION OF THE OWNER, TOP—DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND AS APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN.

5. DURING DELIVERY, PRIOR TO AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO THE SUN. ALL SOD SHALL BE INSTALLED DURING THE DAY OF ITS ARRIVAL.

6. LAWN MAINTENANCE:

a) WITHIN THE SITE, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL—ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE—SODDING OF ALL ERODED, SUNKEN OR BARE SPOTS UNTIL CERTIFICATION OF ACCEPTABILITY BY OWNER OR AS IN THE ORIGINAL WORK SCOPE AND PROCESS (INCLUDING REGRADING, IF NECESSARY).

b) WATER EVERY DAY FOR FOURTEEN (14) SUCCESSIVE DAYS, THEN WATER THREE (3) TIMES PER WEEK (AT EVEN INTERVALS) UNTIL FULLY ESTABLISHED. THE CONTRACTOR UNTIL AUTOMATIC IRRIGATION SYSTEM IS FULLY OPERATIONAL AND PROGRAMMED ACCORDINGLY. COORDINATE WATERING SCHEDULE WITH NATURAL RAINFALL. RAINFALL EVENTS IN DURATION OF TWENTY (20) MINUTES OR MORE THAT PRODUCE MORE THAN A HALF INCH (1/2") OF PRECIPITATION WILL NEGATE THE NEED FOR WATERING FOR THE FOLLOWING DAY IF PREVIOUSLY SCHEDULED. WATERING SHALL BE OF SUFFICIENT QUANTITY TO WET OR RESTORE WATER TO A DEPTH OF FOUR INCHES (4").

P. CLEANUP

1. UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

Q. PLANT MATERIAL MAINTENANCE

1. ALL PLANTS AND PLANTING MATERIALS INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE—STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER OR OWNER'S DESIGNEE. MAINTENANCE AFTER CERTIFICATION OF ACCEPTABILITY SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS IN THIS SECTION. CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE TO COVER LANDSCAPE AND IRRIGATION MAINTENANCE FOR A PERIOD OF NINETY (90) CALENDAR DAYS COMMENCING AFTER ACCEPTANCE (SEE NEXT SECTION).

R. MAINTENANCE (ALTERNATE BID ITEM)

1. CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE FOR LANDSCAPE AND IRRIGATION MAINTENANCE FOLLOWING THE INITIAL 90—DAY MAINTENANCE PERIOD ON A COST PER MONTH BASIS.

S. GUARANTEE

1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED BY THE CONTRACTOR SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER OR OWNER'S DESIGNEE.

2. THE LIFE AND SATISFACTORY CONDITION OF ALL SOD INSTALLED BY THE CONTRACTOR SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM OF NINETY (90) CALENDAR DAYS, COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNERS OR OWNER'S DESIGNEE.

3. REPLACEMENT: ANY PLANT NOT IN A HEALTHY, THRIVING GROWING CONDITION SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. SHOULD THE OWNER ELECT, TREES AND PALMS MAY BE GIVEN A PERIOD OF NINETY (90) DAYS BEFORE REMOVAL TO ALLOW THE CONTRACTOR TO RESURRECT THE TREE OR PALM IN QUESTION AND BRING IT TO A THRIVING, HEALTHY CONDITION. ALL REPLACEMENTS SHALL BE PLANTS OF LIKE KIND AND CONDITION AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED, PLANTED AND MULCHED AS SPECIFIED WITHIN THESE SPECIFICATIONS. AT NO ADDITIONAL COST TO THE OWNER, ANY REPAIRS FROM THIS REPLACEMENT MATERIAL SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY. REPLACEMENT MATERIAL SHALL BE GUARANTEED TO A ONE (1) YEAR PERIOD FROM THE DAY OF REPLACEMENT ACCEPTANCE BY THE OWNER. SHOULD REPLACEMENT MATERIAL FAIL WITHIN THE GUARANTEE PERIOD, OWNER MAY OPT FOR A CREDIT OF THE MONETARY AMOUNT FOR THE REPLACEMENT

MATERIALS, AT A RATE OF THE ORIGINAL CONTRACT BID RATE, IN LIEU OF AN ADDITIONAL REPLACEMENT.

4. IN THE EVENT THE OWNER ELECTS NOT TO CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE (AND IRRIGATION) MAINTENANCE, THE CONTRACTOR IS ENCOURAGED TO VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE (1) YEAR PERIOD TO EVALUATE MAINTENANCE REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND PERFORMING OF THE MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH OF ITEMS UNDER REPLACEMENT. THE CONTRACTOR IS SUGGESTED SUCH SITE VISITS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE.

T. FINAL INSPECTION AND ACCEPTANCE OF WORK

1. FINAL INSPECTION BY OWNER OR THEIR DESIGNEE AT THE END OF THE GUARANTEE PERIOD SHALL INCLUDE PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY PLANTS NOT MEETING THE CRITERIA OF HEALTHY, VIGOROUS, AND THRIVING AT THIS TIME, AND THAT HAVE NOT ALREADY BEEN REPLACED PREVIOUSLY UNDER SAID WARRANTY, SHALL BE SUBJECT TO THE SAME ONE (1) YEAR GUARANTEE (OR AS SPECIFIED BY THE OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.

U. GRADING & DRAINAGE NOTES

1. PRIOR TO COMMENCING ANY EXCAVATION WORK, THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH THE DIG SAFE! NOTIFICATION PROCEDURES PROMOTED BY THE RESPECTIVE UTILITY COMPANIES IN FLORIDA, CALL FLORIDA SUNSHINE AT 811.

2. CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR ROUNDINGS AT ALL TOP AND BOTTOM OF SLOPES.
3. FITCH EVENLY BETWEEN SLOP GRADES. ALL PAVED AREAS MUST FITCH TO DRAIN AT A MINIMUM SLOPE OF ONE—EIGHTH INCH (1/8") PER FEET.
4. DO NOT ALLOWING THIS TO OCCUR SHALL BE CONSIDERED BY THE OWNER PRIOR TO CONTINUING WORK.

4. WHERE NEW PAVING OR EARTHWORK EXISTS EXISTING PAVING OR EARTHWORK, SMOOTHLY BLEND LINE AND GRADE OF EXISTING WITH NEW, WHERE EXISTING VEGETATION IS TO REMAIN, MEET EXISTING GRADES; DO NOT FILL ABOVE BASAL FLARE OF EXISTING TREES.

V. UTILITY PLAN NOTES

1. CONTRACTOR SHALL INSTALL SCHEDULE 40 PVC CONDUIT (SLEEVES) FOR ALL IRRIGATION PIPING UNDER ALL PAVEMENT AREAS TO CONNECT ALL LANDSCAPE AREAS.

W. SITE PREPARATION

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL MEET THE OWNER AND IDENTIFY TREES AND SHRUBS WHICH ARE TO BE PROTECTED AS WELL AS THOSE WHICH ARE TO BE REMOVED. DO NO CLEARING WITHOUT A CLEAR UNDERSTANDING OF EXISTING CONDITIONS TO BE PRESERVED.

2. TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED BY THE INSTALLATION OF FENCING AT THE DRIP LINE OR AS DIRECTED BY THE OWNER (SEE LANDSCAPE DETAIL SHEET). PROTECTIVE FENCING SHALL BE INSTALLED PRIOR TO CONSTRUCTION. PROTECTIVE FENCING SHALL BE SUFFICIENT TO PREVENT CONSTRUCTION EQUIPMENT FROM COMPACTING SOIL AT THE ROOT ZONE AND DAMAGING TRUNKS AND BRANCHES.

3. IF, IN ORDER TO PERFORM EXCAVATION WORK, IT SHOULD BECOME NECESSARY TO CUT ROOTS OF PLANTS TO BE SAVED, SUCH ROOTS SHOULD BE CUT NEARLY WITH A SMOOTH CLEAN CUT BY A SHARP SAW, COVERED WITH BURLAP, AND KEPT MOIST UNTIL ROOTS ARE BACK FILLED. TEARS OR JAGGED CUTS TO ROOTS ARE UNACCEPTABLE.

4. TREE AND SHRUB REMOVAL SHALL INCLUDE THE FILLING, CUTTING, GRUBBING OUT OF ENTIRE ROOT SYSTEMS AND SATISFACTORY OFF—SITE DISPOSAL OF ALL TREES, SHRUBS, STUMPS, VEGETATIVE AND EXTRANEOUS DEBRIS PRODUCED BY THE REMOVAL OPERATIONS.

5. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE INSIDE AND OUTSIDE THE LIMITS OF CONSTRUCTION DUE TO HIS CONTRACT OPERATIONS.

6. ALL REFUSE, DEBRIS, UNSUITABLE MATERIALS AND MISCELLANEOUS MATERIALS TO BE REMOVED SHALL BE LEGALLY DISPOSED OF OFF—SITE BY CONTRACTOR.

7. ALL INVASIVE EXOTIC VEGETATION SHALL BE DISPOSED BY OR TREATED AS PER THE LOCAL OR REGIONAL GOVERNING AUTHORITIES, REQUIREMENTS OR RECOMMENDATIONS.

X. ROOT CONTROL BARRIER

1. ROOT CONTROL PRODUCT SHALL BE A BIOLOGICAL BARRIER PRODUCT. PRODUCT SHALL BE BIO—BARRIER ROOT CONTROL SYSTEM, AS MANUFACTURED BY BSA FIBERWEB/REEMAY, INC. AND DISTRIBUTED BY HORT ENTERPRISES, INC.

2. PRODUCT SHALL BE BIOLOGICAL BARRIER UTILIZING LINE—RELEASE CAPSULES INTEGRATED INTO A GEOTEXTILE FABRIC. ACTIVE HERBICIDE SHALL BE TRIFLURALIN, AND MINIMUM TIME RELEASE OF EFFECTIVE PRODUCT SHALL BE 1—5 YEARS IN THE MOST ADVERSE CONDITIONS FOR SUCH A PRODUCT.

3. PRODUCT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS FOR ROOT CONTROL SYSTEMS.

4. USE PRODUCT WHERE TREES ARE WITHIN EIGHT FEET (8') OR LESS OF HARDSCAPE SURFACES INCLUDING CURBS, SIDEWALKS, STEPS, AND ROADWAYS.

5. SPECIFY 1.9" S DITCH OPTION.

6. WHERE CONDITIONS REQUIRE PRODUCT AS SET FORTH IN NO. 4 ABOVE, USE PRODUCT AT LEAST TEN FEET (10') IN EITHER DIRECTION FROM THE CENTER OF TRUNK ALONG LINEAR FEATURES SUCH AS CURBS, WALKWAYS, ETC. THE INTENT OF THIS SPECIFICATION IS TO PROVIDE A ROOT CONTROL SYSTEM WHERE ROOTS WOULD LIKELY CAUSE PHYSICAL DAMAGE TO ADJACENT HARDSCAPE SURFACES, FOUNDATIONS, OR OTHER ELEMENTS THAT MAY RECEIVE DAMAGE FROM ROOT SYSTEMS OF TREES.</



NUMBER	MODEL	SIZE	TYPE	WIRE	PSI	PSI @ POC	GPM	HEAD ELEV	VALVE ELEV	PRECIP
1	Rain Bird PEB	1-1/2"	Turf Spray	311.2	36.2	45.95	35.64	0.00 ft	0.00 ft	1.88 in/h
2	Rain Bird PEB	1-1/2"	Turf Spray	284.7	36.73	46.64	34.42	0.00 ft	0.00 ft	1.09 in/h
3	Rain Bird PEB	1-1/2"	Bubbler	255.9	40.09	51.98	6.75	0.00 ft	0.00 ft	7.66 in/h
4	Rain Bird PEB	1-1/2"	Turf Spray	150.1	35.63	47.31	36.02	0.00 ft	0.00 ft	1.48 in/h
5	Rain Bird PEB	1-1/2"	Turf Spray	19.1	36.54	44.56	27.31	0.00 ft	0.00 ft	1.32 in/h
6	Rain Bird PEB	1-1/2"	Turf Spray	129.4	36.06	48.35	34.74	0.00 ft	0.00 ft	1.00 in/h
7	Rain Bird XCZ-100-PRF-BF	1-1/2"	Area for Dripline	21.9	40.68	43.40	3.08	0.00 ft	0.00 ft	0.45 in/h
8	Rain Bird PEB	1-1/2"	Bubbler	308.3	48.66	61.66	7.50	0.00 ft	0.00 ft	7.66 in/h
9	Rain Bird XCZ-100-PRF-BF	1-1/2"	Area for Dripline	308.1	41.30	44.01	2.19	0.00 ft	0.00 ft	0.45 in/h
10	Rain Bird PEB	1-1/2"	Turf Spray	327.6	35.76	48.70	35.53	0.00 ft	0.00 ft	0.96 in/h
11	Rain Bird PEB	1-1/2"	Shrub Rotor	346.2	31.46	35.20	12.45	0.00 ft	0.00 ft	0.94 in/h
	Common Wire			941.8						

NUMBER	MODEL	TYPE	PRECIP	IN/WEEK	MIN/WEEK	GAL/WEEK	GAL/DAY
1	Rain Bird PEB	Turf Spray	1.88 in/h	1	32	1,140	
2	Rain Bird PEB	Turf Spray	1.09 in/h	1	55	1,893	
3	Rain Bird PEB	Bubbler	7.66 in/h	1	8	54	
4	Rain Bird PEB	Turf Spray	1.48 in/h	1	41	1,477	
5	Rain Bird PEB	Turf Spray	1.32 in/h	1	46	1,256	
6	Rain Bird PEB	Turf Spray	1.00 in/h	1	61	2,119	
8	Rain Bird XCZ-100-PRF-BF	Area for Dripline	0.45 in/h	1	133	409.9	
9	Rain Bird PEB	Bubbler	7.66 in/h	1	8	60	
9	Rain Bird XCZ-100-PRF-BF	Area for Dripline	0.45 in/h	1	133	291.7	
10	Rain Bird PEB	Turf Spray	0.96 in/h	1	63	2,301	
11	Rain Bird PEB	Shrub Rotor	0.94 in/h	1	64	796.8	
		TOTALS:			644	11,800	

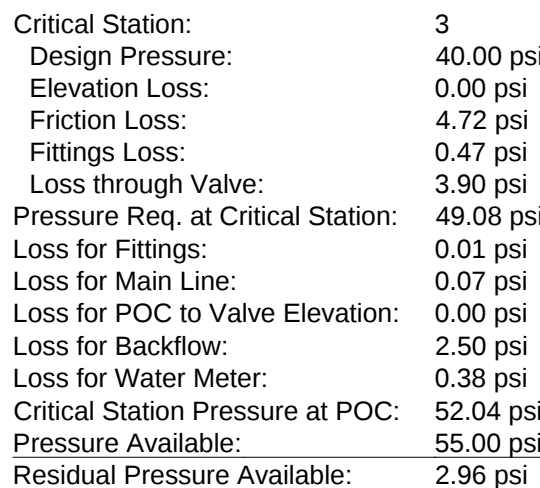
Valve Callout

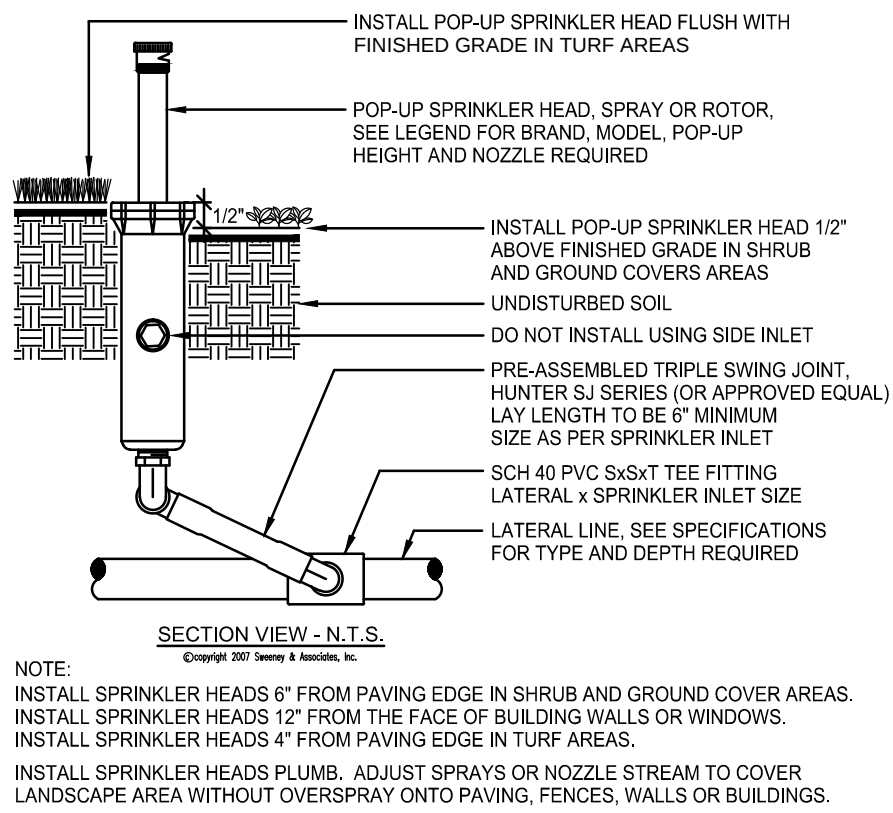
Valve Number

Valve Flow

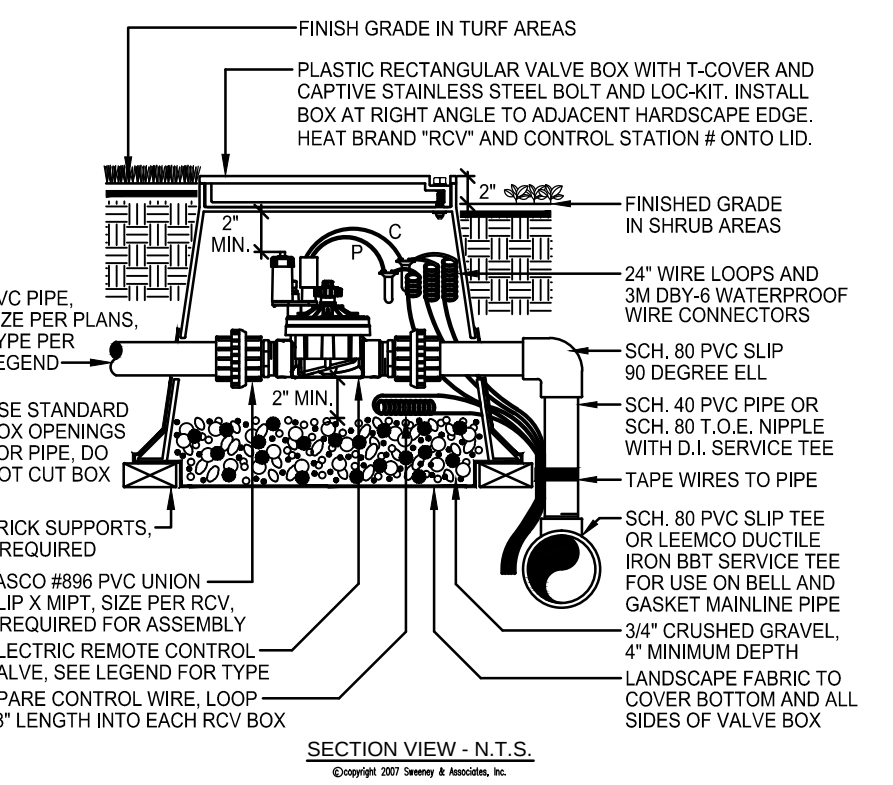
Valve Size

NOTE E:
BUBBLERS AND LATERAL LINES ARE SHOWN WITHIN PAVING FOR CLARITY ONLY, ACTUAL LOCATION TO BE WITHIN PLANTER. BUBBLERS SHALL BE ALIGNED WITH TREES AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

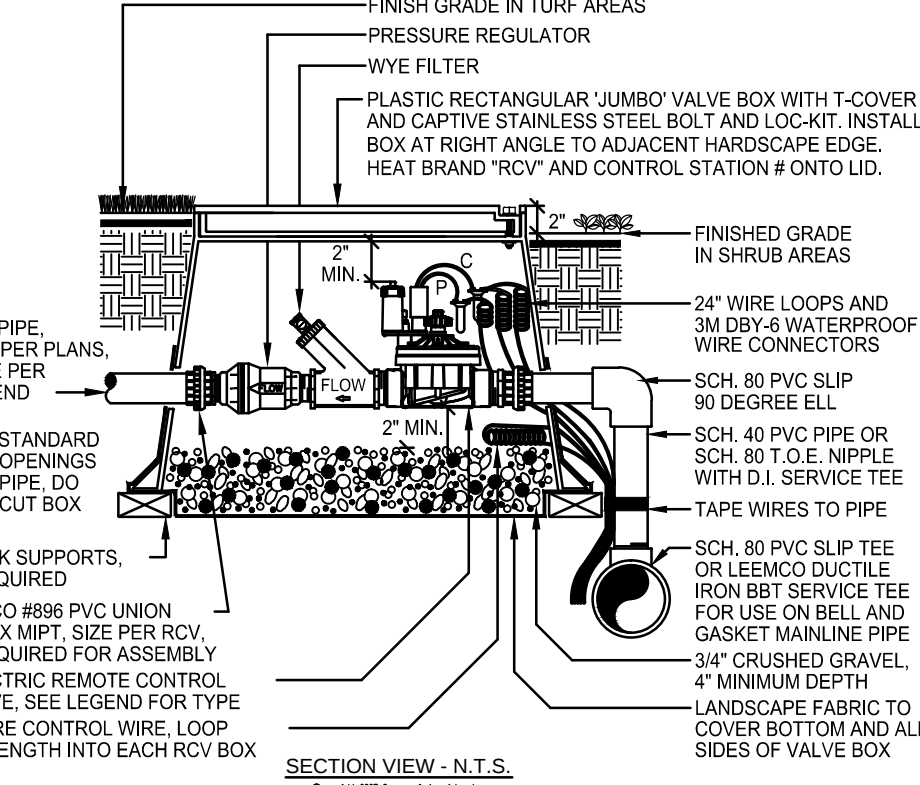
[illegible]



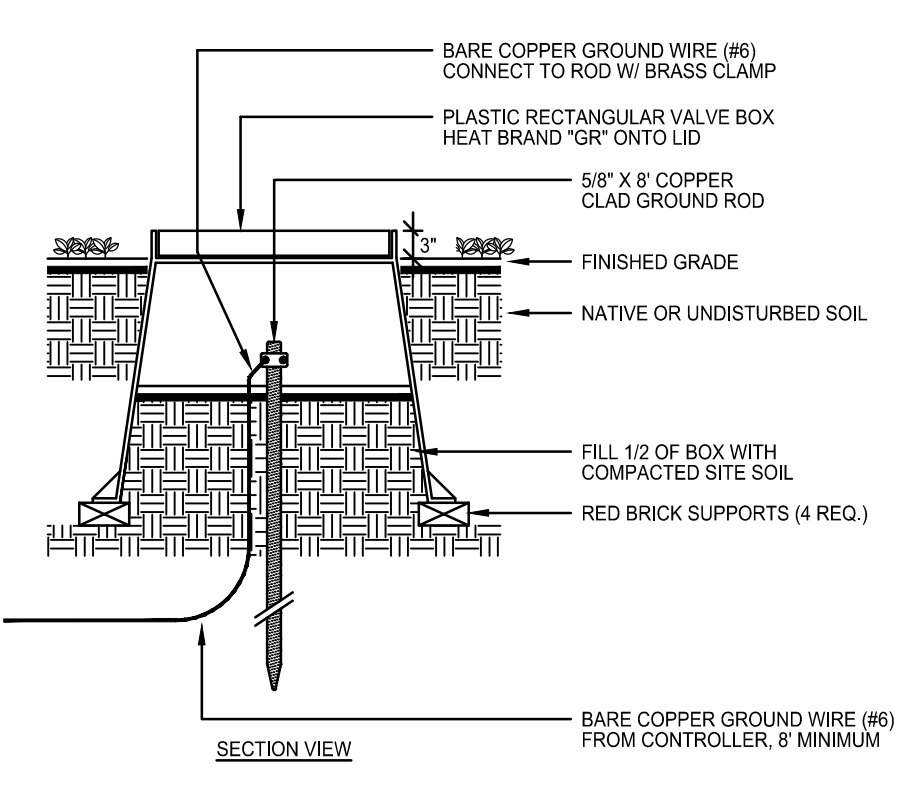
(A) POP-UP SPRINKLER



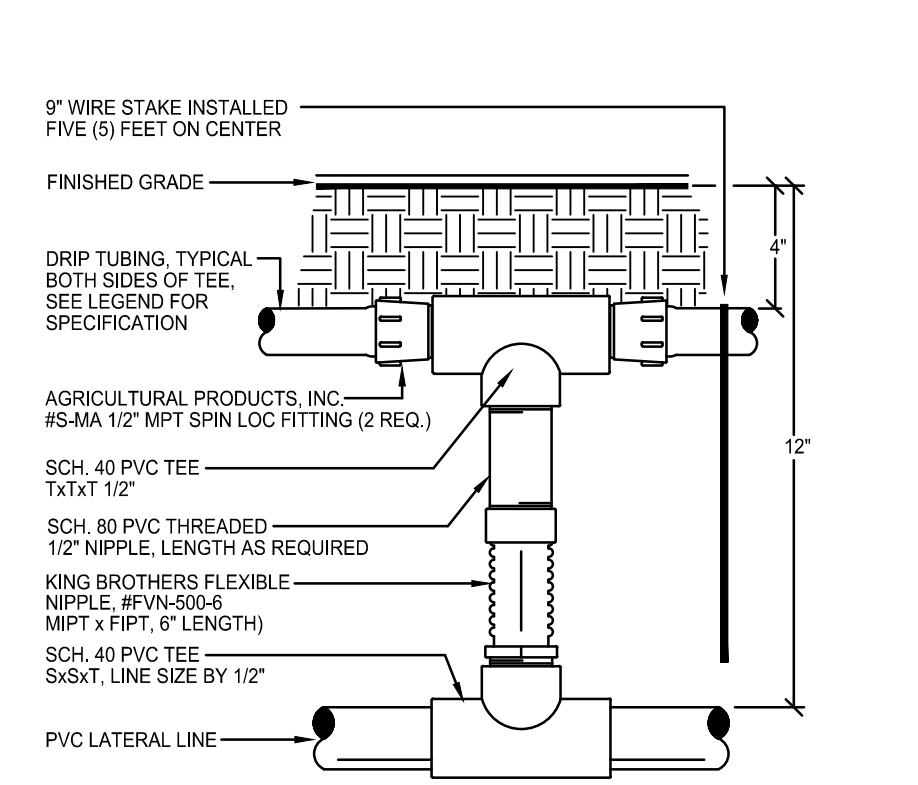
(C) FLOW SENSOR



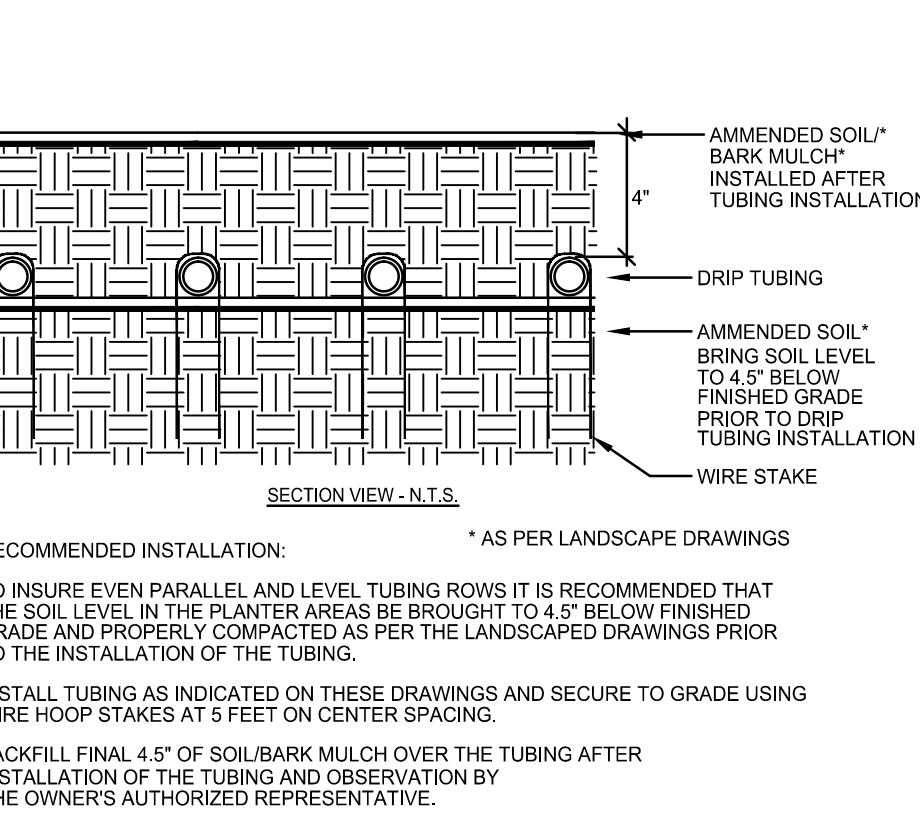
(D) BALL VALVE



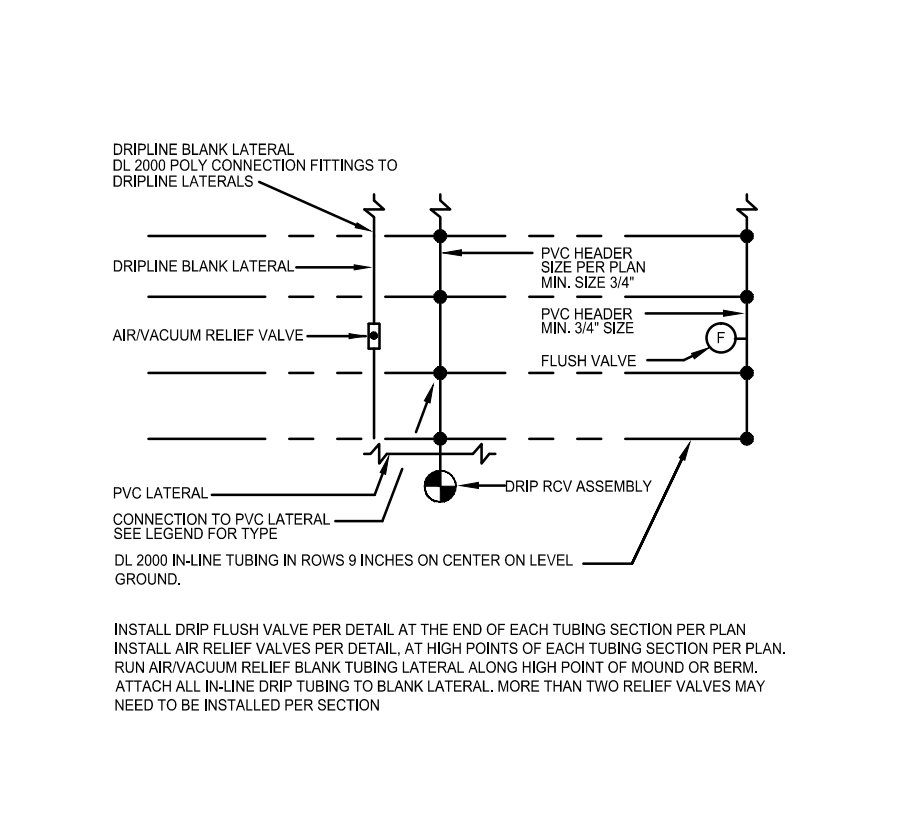
(E) QUICK COUPLER VALVE



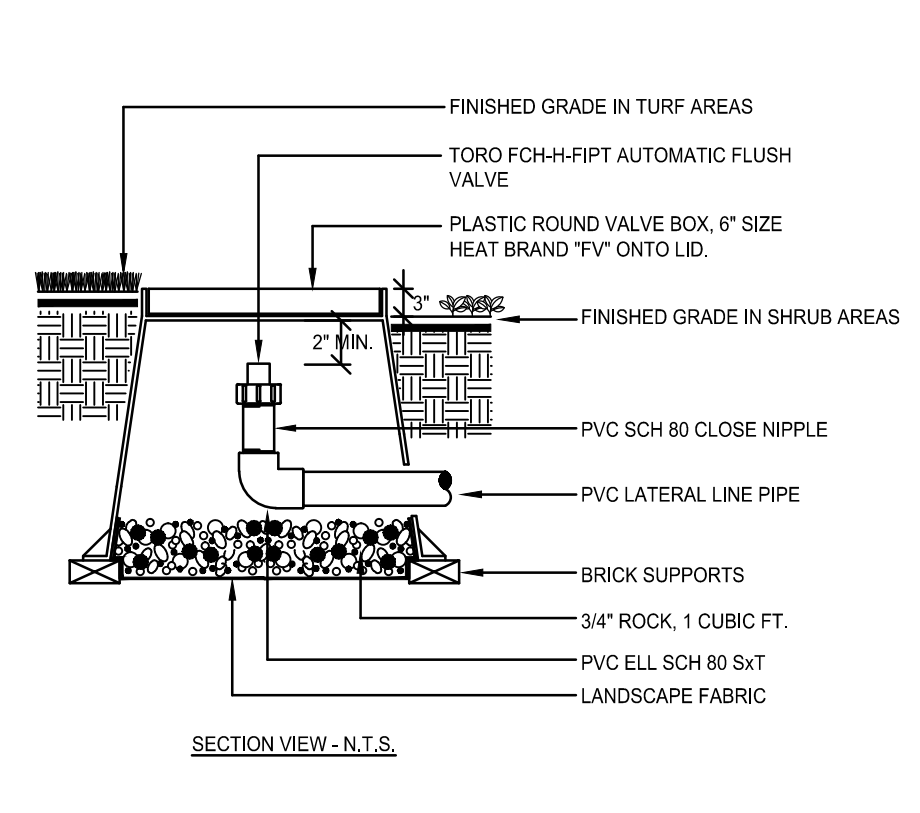
(F) REMOTE CONTROL VALVE



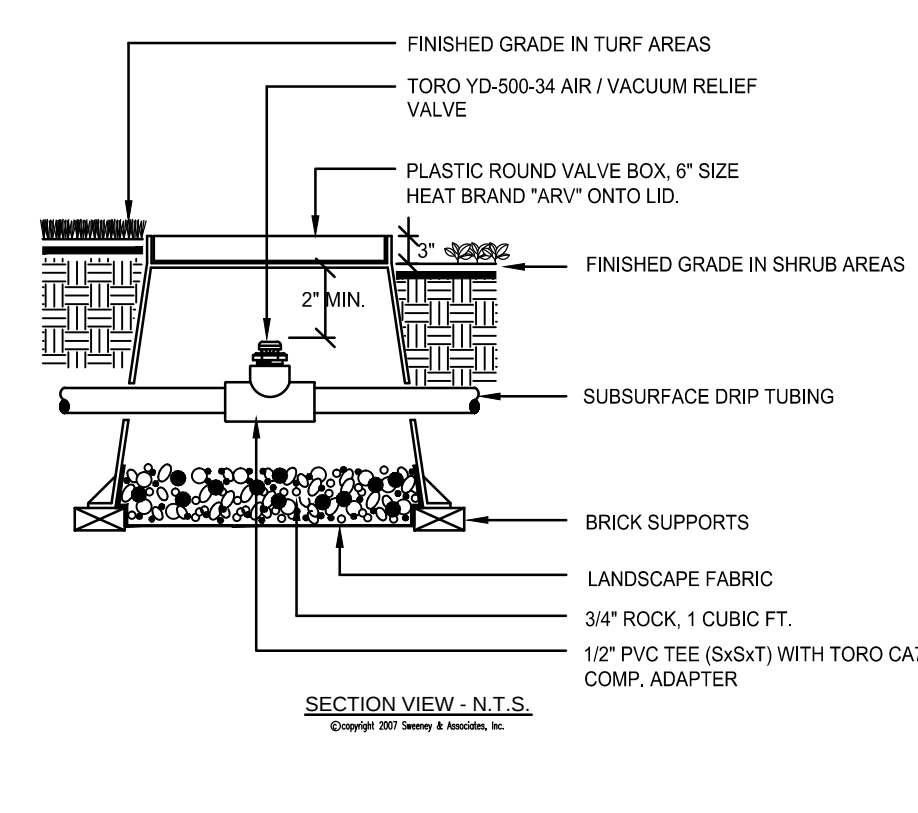
(G) DRIP RCV ASSEMBLY



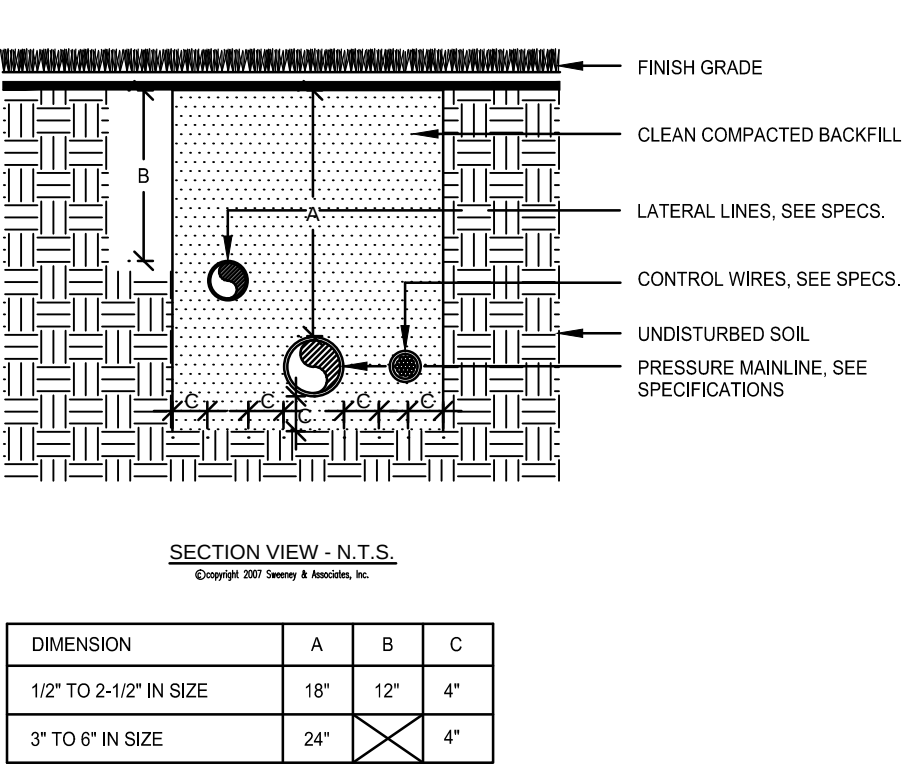
(I) GROUND ROD INSTALLATION



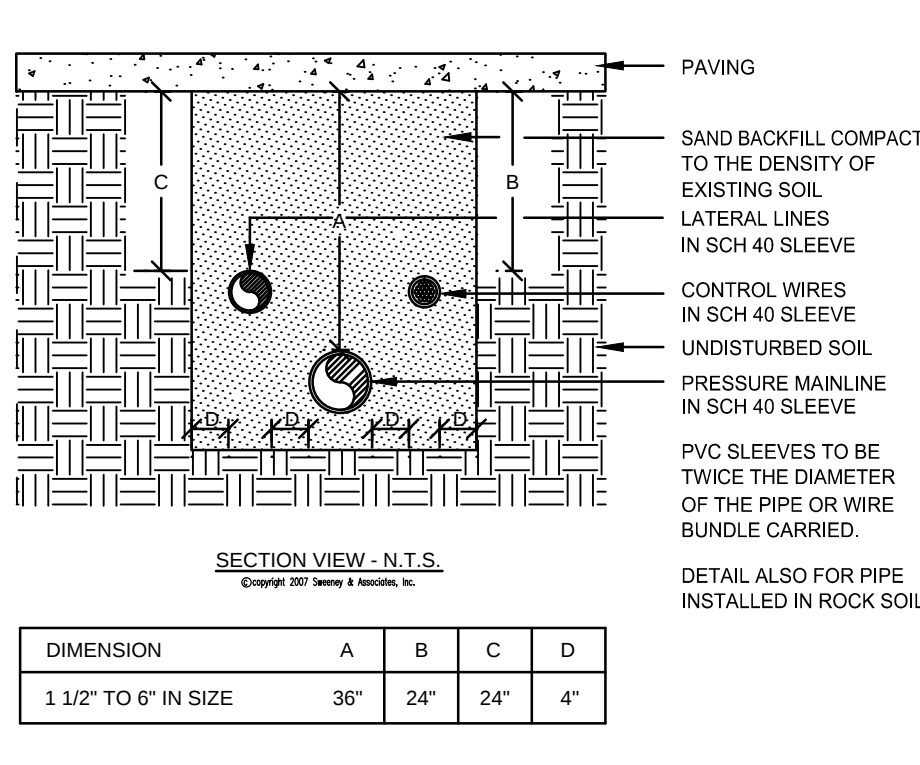
(J) DRIPLINE TUBING



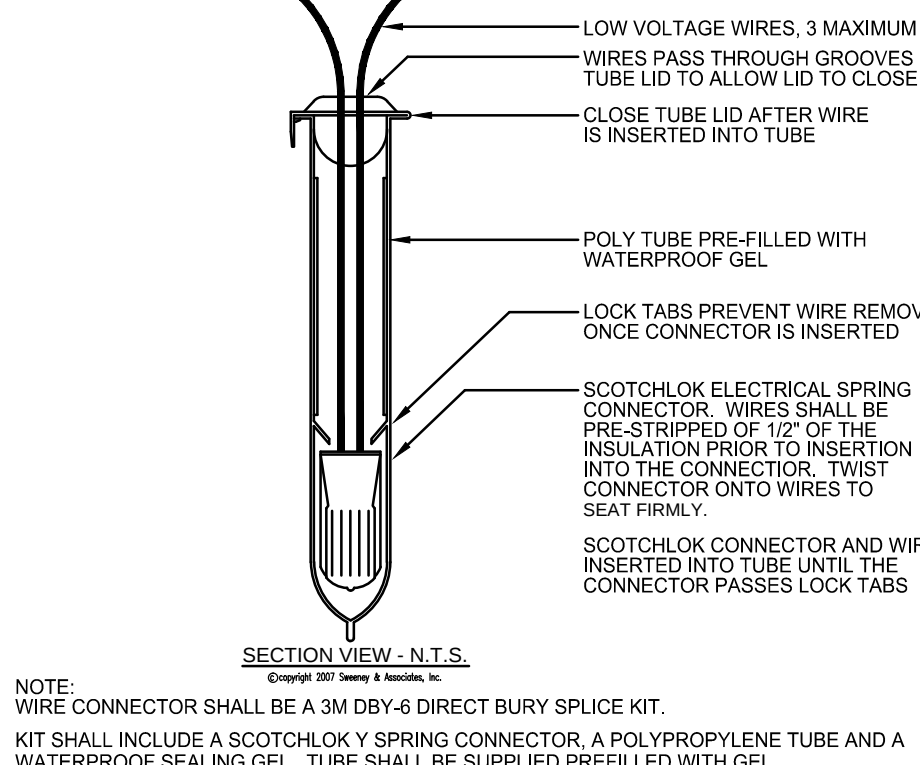
(K) DRIPLINE CONNECTION(SECTION)



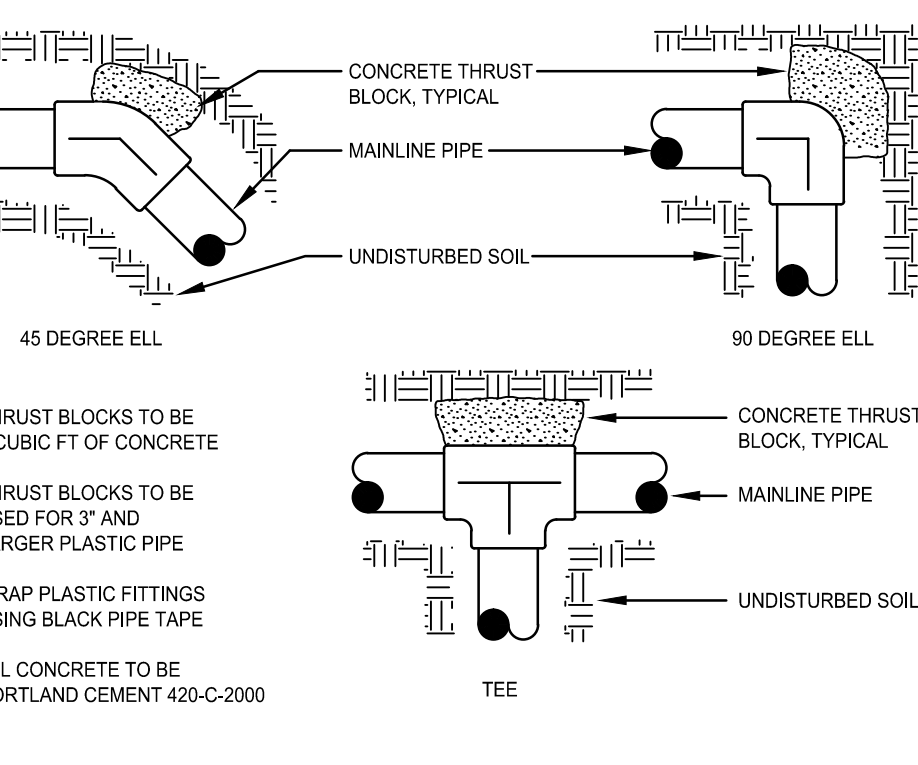
(L) DRIPLINE CONNECTION(PLAN)



(M) DRIP FLUSH VALVE



(N) DRIP AIR RELIEF VALVE



(O) PIPE INSTALLATION



(P) SLEEVE INSTALLATION



(Q) WIRE CONNECTION



(R) THRUST BLOCKING



IRRIGATION NOTES

- ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
- THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.
- THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.
- INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR BOTH EQUIPMENT AND INSTALLATION.
- ACTUAL LOCATION FOR THE INSTALLATION OF THE BACKFLOW PREVENTER AND THE AUTOMATIC CONTROLLER IS TO BE DETERMINED IN THE FIELD BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
- CONTRACTOR IS TO PROVIDE AN ADDITIONAL PILOT WIRE FROM CONTROLLER ALONG ENTIRETY OF MAIN LINE TO THE LAST RCV ON EACH AND EVERY LEG OF MAIN LINE. LABEL SPARE WIRES AT BOTH ENDS.
- ALL PIPE UNDER PAVED AREAS TO BE INSTALLED IN SLEEVING TWICE THE DIAMETER OF THE PIPE CARRIED. SEE LEGEND FOR TYPE. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE REQUIRED TO EASILY PULL WIRE THROUGH. ALL SLEEVES TO BE INSTALLED WITH A MINIMUM DEPTH AS SHOWN ON THE SLEEVING DETAILS. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING.
- ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED AS SHOWN ON THE INSTALLATION DETAILS. INSTALL ALL QUICK COUPLER AND REMOTE CONTROL VALVES WITHIN 18" OF HARDSCAPE.
- ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS.
- THE CONTRACTOR SHALL USE PROPER GROUNDING TECHNIQUES FOR GROUNDING THE CONTROLLER AND RELATED EQUIPMENT PER MANUFACTURERS SPECIFICATIONS. THOMAS ENGINEERING GROUP RECOMMENDS MEASURING FOR PROPER GROUND AT LEAST ONCE ANNUALLY, AND NECESSARY ADJUSTMENTS MADE TO COMPLY WITH MANUFACTURER SPECIFICATIONS.
- CONTRACTOR TO RECERTIFY EXISTING PUMP AND PVB IF APPLICABLE.

THOMAS ENGINEERING GROUP

CIVIL ENGINEERS - PROJECT MANAGERS - LAND PLANNING - LANDSCAPE ARCHITECTS

1000 CORPORATE DR. FORT LAUDERDALE, FL 33304
P: (954) 202-7000
F: (954) 202-7070
WWW.THOMASENGINEERINGGROUP.COM

4950 W. KENNEDY BLVD. SUITE 250
FORT LAUDERDALE, FL 33309
P: (954) 202-7000
F: (954) 202-7070
WWW.THOMASENGINEERINGGROUP.COM

811 KNOW WHAT'S BELOW
ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

PROJECT NO.: F160002
DRAWN BY: RJK
CHECKED BY: MDG
DATE: 02/07/16
CAD L.D.: F160002-IRRIGATION PLAN

PROJECT:

BURGER KING

FOR

PHOENIX DEVELOPMENT

MARGATE, FLORIDA

THOMAS ENGINEERING GROUP

RADICE III
1000 CORPORATE DRIVE, SUITE 250
FORT LAUDERDALE, FL 33304
PH: (954) 202-7000
FX: (954) 202-7070
www.ThomasEngineeringGroup.com

MICHAEL D. GROSSWIRTH

REGISTERED LANDSCAPE ARCHITECT
February 22, 2016
FLORIDA LICENSE NO. 0666871
FLORIDA BUSINESS CERT. OF AUTH. NO. 27528

SHEET TITLE:

IRRIGATION DETAILS & NOTES

SHEET NUMBER:

L-05