

GENERAL NOTES:

1. Contractor is responsible for determining all utility locations and installing facilities so as to not conflict. All damage to existing utilities or improvements caused by Contractor shall be repaired at no additional cost to the Owner.
2. Contractor to notify "Sunshine State One Call of Florida, Inc." at 1-800-432-4110 Two Full Business Days prior to digging for underground utility locations.
3. Contractor shall be responsible for providing final grading of all associated planting areas.
4. After final grade, area to be raked to 6" depth and all rock and foreign inorganic materials removed and disposed of properly off-site.
5. Tree protection barricades shall be provided by Landscape Contractor around existing trees that may be impacted by the proposed construction. Prior to any construction a tree protection barricade inspection shall be conducted by the landscape architect, owner or governing municipality. Refer to landscape detail for tree preservation barricade fencing.

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MICHAEL D. GROSSWIRTH, LA6668871 ON 2017-12-04



SHEET TITLE:

LANDSCAPE DETAILS

SHEET NUMBER:

CFG08.2

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 UTILITIES 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.

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 MISAPPEAR AND/OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS (\$100) PER CUBIC YARD (OR AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY PERCENT (20%) PER INCH OVER FOUR INCHES (4") CALIPER AS FIXED AND AGREES, OR AS MAY BE REQUIRED BY THE REGULATING GOVERNMENT AGENCY, WHICHEVER IS GREATER. CALIPER SHALL BE MEASURED AT GREATEST 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 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH "GRASSES 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, WELL-BRANCHED AND FREELY-BRANCHED AND FREE FROM DISEASE, 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 OF 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 SUPERCEDE THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION OF THE WORK. INSPECTION OF BALLS OR ROOTS, LATENT DEFECTS OR INJURIES, PRESENCE OF INSECTS, AND OTHER CONDITIONS THAT MAY HAVE OCCURRED SINCE THE NURSERY INSPECTION BE SUBJECT TO APPROVAL BY THE OWNER, WHERE ANY REQUIREMENTS ARE 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 OBTAINED FROM A WELL-DRAINED, ARABLE SITE. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT VOLATILE COMPOSED ORGANIC MATTER AND SHALL BE FREE FROM HEAVY CLAY, COARSE SAND, STONES, LIME LUMPS, PLANTS, ROOTS OR OTHER FOREIGN MATERIALS, OR NOXIOUS WEEDS. IT SHALL NOT CONTAIN TOXIC SUBSTANCES THAT 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.

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.

1. SHRUBS AND TREES ——— MILORGANITE, OR APPROVED EQUAL
2. ANNUALS AND GROUNDCOVERS ——— OSMOCOTE/SERRA BLEND 14-14-14
3. SOG ——— 8-8-8

- IN ADDITION TO SURFACE APPLIED FERTILIZERS, ALL CONTAINER GROWN AND FIELD GROWN PLANT MATERIAL SHALL RECEIVE "AGRIFORM" PLANTING TABLETS 24-10-5 FORMULA, 21 GRAM OR EQUAL, THESE TABLETS SHALL BE PLACED AT THE RATE AND DEPTH SPECIFIED BY MANUFACTURER.

G. MULCH

1. MULCH SHALL BE FROM SHREDDED WOOD DERIVED FROM MELALEUCA OR OTHER INVASIVE TREE SPECIES AND SHALL BE SET PLUMBED AND TO EFFECTIVELY ELIMINATE ALL SEEDS, SPORES, ETC. AND RENDER THEM 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 CYPRRESS 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

- ANTITRANSPIRANT PRODUCT ("WILT-PRUF" 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 ENCLOSURE THE FIBRILS AND FEEDING ROOTS OF THE PLANTS, AND IN ACCORDANCE WITH "GRADES AND STANDARDS FOR NURSERY PLANTS" FLORIDA PUBLICATION. PRUNING PRACTICED OTHER THAN MINIMAL PRUNING OF FRONDS, PRIMARILY TO REACH A "CLEAR TRUNK" SPECIFICATION, MAY CONSTITUTE REJECTION, OR ALL PLANTS 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.

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 GRASSES AND STANDARDS FOR NURSERY PLANTS' FLORIDA PUBLICATION. PRUNING PRACTICED OTHER THAN MINIMAL PRUNING OF FRONDS, PRIMARILY TO REACH A "CLEAR TRUNK" SPECIFICATION, MAY CONSTITUTE REJECTION, OR ALL PLANTS 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 HARDCAPE 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 IN WHICH 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 TRANSLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIBRUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOTBALL 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 GROW TO INDICATE FULL RECOVERY FROM TRANSLANTING 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 RESPONSIBILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN A BIDDER'S TAKE OFF AND THE PLANT LIST QUANTITY, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO THE SUBMISSION OF BIDS. DRAWINGS 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, DETERMINED 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 ALLOWING FOR THICKNESS OF SOG 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 RUBBER OR OBJECT-COATABLE MATTER, ALL PORTLAND CEMENT, AND TOXIC MATERIALS, SHALL BE COMPLETELY REMOVED FROM THE SITE. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOILS, HE SHALL IMMEDIATELY NOTIFY THE OWNER 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 (JEST 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 LIMESTOCK AND LIMESTOCK 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, IF IMPORTED SOURCE, IF LIMESTOCK CONDITIONS OCCUR IN PLANTED AREAS AFTER 30" DEEP EXCAVATION BY CONTRACTOR, AND POSITIVE DRAINAGE CAN NOT BE ACHIEVED, 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: COMPLY 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 PLANTINGS 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 200.1. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACKFILLED WITH THE PREPARED PLANTING SOIL AS SPECIFIED HEREIN BEFORE (SEE MATERIALS, SECTION D). TEST ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE. PERCOLATION IS AVAILABLE, NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE. IF POOR DRAINAGE EXISTS, UTILIZE PLANTING DETAIL THAT ADDRESSES THIS CONDITION. TREES SHALL BE SET PLUMBED AND IN PROPER POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLOWED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE FURNISHED UNDER PLANTING DETAIL, PLANTING WITH PLANTING PROCEDURE AND UNDER THE SUPERVISION OF A QUALIFIED PLANTING FOREMAN. PROPER "JETTING" IT SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. "JET STOCK" OR EQUAL IS RECOMMENDED.

8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS, CURBS, PAVING, AND OTHER HARDCAPE 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
— ONE (1) TABLET PER 10 GAL. PLANT
— 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 GUYING AND BRACING SHALL BE INSTALLED BY THE LANDSCAPE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. TREES SHALL USE ABSORBATE 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 OTHERWISE 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. 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. STENOPTERUM SECUNDARIUM, FLORIDA UNLESS OTHERWISE NOTED. (ST. AUGUSTINE SOLID SOG).

1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING.

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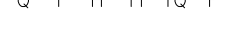


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



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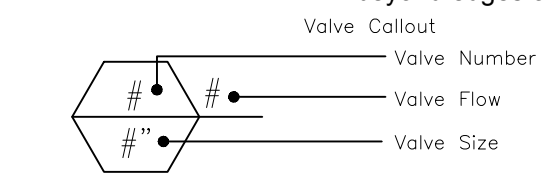
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IRRIGATION SCHEDULE

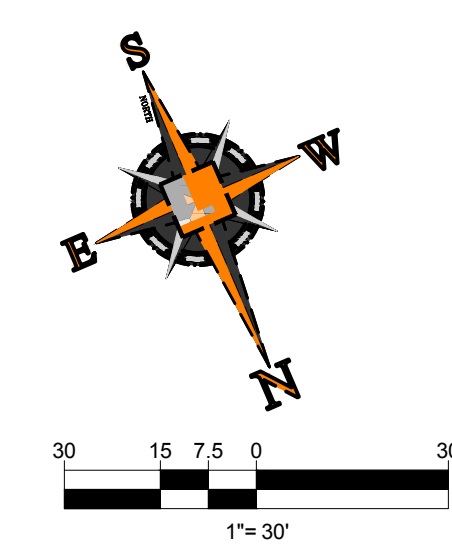
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird 1806-PRS 15 Strip Series Turf Spray 6" pop up with pressure regulator.	15	30
	Rain Bird 1806-PRS 5 Series MPR Turf Spray 6" pop up with pressure regulator.	19	30
	Rain Bird 1806-PRS 8 Series MPR Turf Spray 6" pop up with pressure regulator.	48	30
	Rain Bird 1806-PRS 15 Strip Series Turf Spray 6" pop up with pressure regulator.	80	30
	Rain Bird 1806-PRS 10 Series MPR Turf Spray 6" pop up with pressure regulator.	22	30
	Rain Bird 1806-PRS 12 Series MPR Turf Spray 6" pop up with pressure regulator.	62	30
	Rain Bird 1806-PRS 15 Series MPR Turf Spray 6" pop up with pressure regulator.	52	30
	Rain Bird 1806-PRS ADJ Turf Spray 6" pop up with pressure regulator.	14	30
	Rain Bird 1804-1400 Flood Flood Bubbler 4" pop up	131	40

<u>SYMBOL</u>	<u>MANUFACTURER/MODEL/DESCRIPTION</u>	<u>QTY</u>
	Rain Bird PEB Electric Remote Control Valve	20
	Rain Bird ESP12LXMEF-LXMMSS with (01) ESPLXMSM12 24 Station Commercial Controller. Stainless Steel Metal Cabinet. Flow Sensing	1
	Rain Bird RSD-BEX Rain Sensor, with bracket, extension wire	1
	5hp Submersible Pump 30gpm, 205 TDH at 55 psi	1
	Irrigation Lateral Line: CPVC Schedule 40	6,139 l.f.
	Irrigation Mainline: Polyethylene and PVC Class 200	1,285 l.f.
	Pipe Sleeve: PVC Schedule 80	434.5 l.f.



NOTE! PRIOR TO INSTALLATION, CONTRACTOR SHALL REFER TO ENGINEERS UTILITIES AND PAVING/GRADING/DRAINAGE PLANS FOR LOCATIONS OF UNDERGROUND UTILITIES (WATER, SEWER, DRAINAGE AND ELECTRICAL CONDUIT).

REFER TO SHEET CFG08.5 FOR IRRIGATION
SCHEDULES AND NOTES, AND SHEET CFG08.6 FOR
IRRIGATION DETAILS.

[illegible]

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	PIPE	WIRE	DESIGN PSI	FRICTION LOSS	PSI	PSI @ POC	PRECIP
1	Rain Bird PEB	1-1/2"	Turf Spray	27.30	21	246.9	200.8	30	1.17	34.86	36.51	0.87 in/h
2	Rain Bird PEB	1-1/2"	Turf Spray	22.09	17	154.9	132.3	30	1.09	34.93	35.58	3.37 in/h
3	Rain Bird PEB	1-1/2"	Turf Spray	26.26	32	367.6	132.3	30	1.12	34.87	37.24	1.32 in/h
4	Rain Bird PEB	1-1/2"	Turf Spray	27.50	18	234.5	230.6	30	1.17	34.85	41.52	0.85 in/h
5	Rain Bird PEB	1-1/2"	Turf Spray	29.50	8	129.5	253.6	30	1.02	34.63	43.61	0.87 in/h
6	Rain Bird PEB	1-1/2"	Turf Spray	27.80	16	239.9	161.6	30	1.10	34.76	45.69	0.57 in/h
7	Rain Bird PEB	1-1/2"	Bubbler	13.50	54	156.6	361.8	40	1.36	45.26	48.65	7.66 in/h
8	Rain Bird PEB	1-1/2"	Turf Spray	27.40	17	175.7	324.0	30	1.19	34.88	47.34	0.77 in/h
9	Rain Bird PEB	1-1/2"	Turf Spray	28.52	16	150.9	448.9	30	1.17	34.82	52.51	1.80 in/h
10	Rain Bird PEB	1-1/2"	Turf Spray	25.30	11	210.7	499.5	30	1.16	34.91	50.36	1.27 in/h
11	Rain Bird PEB	1-1/2"	Turf Spray	27.53	14	198.2	561.0	30	1.19	34.86	54.35	1.31 in/h
12	Rain Bird PEB	1-1/2"	Turf Spray	27.05	21	228.3	587.3	30	1.17	34.86	53.83	1.32 in/h
13	Rain Bird PEB	1-1/2"	Turf Spray	25.53	26	400.9	661.3	30	0.70	34.44	51.01	1.14 in/h
14	Rain Bird PEB	1-1/2"	Turf Spray	27.89	21	324.6	583.8	30	1.06	34.73	51.28	1.18 in/h
15	Rain Bird PEB	1-1/2"	Turf Spray	27.64	16	210.2	531.5	30	0.98	34.65	47.62	0.81 in/h
16	Rain Bird PEB	1-1/2"	Bubbler	12.25	62	137.2	387.4	40	1.50	45.40	48.73	7.66 in/h
17	Rain Bird PEB	1-1/2"	Turf Spray	28.52	18	208.9	455.5	30	1.07	34.72	42.33	1.69 in/h
18	Rain Bird PEB	1-1/2"	Turf Spray	25.73	17	206.2	330.0	30	1.03	34.76	38.57	2.28 in/h
19	Rain Bird PEB	1-1/2"	Turf Spray	24.65	23	197.9	257.0	30	1.17	34.94	36.40	0.80 in/h
20	Rain Bird PEB	1-1/2"	Bubbler	10.00	40	555.0	234.8	40	1.38	45.28	45.41	7.66 in/h
	Common Wire					1,285						

NUMBER	MODEL	TYPE	PRECIP	IN/WEEK	MIN/WEEK	GAL/WEEK	GAL/DAY
1	Rain Bird PEB	Turf Spray	0.87 in/h	1	69	1,884	
2	Rain Bird PEB	Turf Spray	3.37 in/h	1	18	397.6	
3	Rain Bird PEB	Turf Spray	1.32 in/h	1	46	1,208	
4	Rain Bird PEB	Turf Spray	0.85 in/h	1	71	1,953	
5	Rain Bird PEB	Turf Spray	0.87 in/h	1	70	2,072	
6	Rain Bird PEB	Turf Spray	7.57 in/h	1	8	222.4	
7	Rain Bird	Bubbler	7.66 in/h	1	8	108	
8	Rain Bird PEB	Turf Spray	0.77 in/h	1	78	2,137	
9	Rain Bird PEB	Turf Spray	1.80 in/h	1	34	969.7	
10	Rain Bird PEB	Turf Spray	1.27 in/h	1	48	1,214	
11	Rain Bird PEB	Turf Spray	1.31 in/h	1	46	1,266	
12	Rain Bird PEB	Turf Spray	1.32 in/h	1	46	1,244	
13	Rain Bird PEB	Turf Spray	1.14 in/h	1	53	1,353	
14	Rain Bird PEB	Turf Spray	1.18 in/h	1	51	1,412	
15	Rain Bird PEB	Turf Spray	0.81 in/h	1	75	2,065	
16	Rain Bird	Bubbler	7.66 in/h	1	8	108	
17	Rain Bird PEB	Turf Spray	1.69 in/h	1	36	1,727	
18	Rain Bird PEB	Turf Spray	2.28 in/h	1	27	694.7	
19	Rain Bird PEB	Turf Spray	0.80 in/h	1	76	1,873	
20	Rain Bird PEB	Bubbler	7.66 in/h	1	8	80	
		TOTALS:			876	23,255	

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P.O.C. NUMBER: 01	
Water Source Information:	30gpm, 205 TDH at 55 psi
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FLOW AVAILABLE	
Custom Max Flow:	30.00 gpm
Flow Available:	30.00 gpm
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PRESSURE AVAILABLE	
Static Pressure at POC:	55.00 psi
Pressure Available:	55.00 psi
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DESIGN ANALYSIS	
Maximum Station Flow:	26.42 gpm
Flow Available at POC:	30.00 gpm
Residual Flow Available:	3.58 gpm
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Critical Station:	9
Design Pressure:	30.00 psi
Friction Loss:	1.15 psi
Fittings Loss:	0.02 psi
Elevation Loss:	0.00 psi
Loss through Valve:	3.64 psi
Pressure Req. at Critical Station:	34.82 psi
Loss for Fittings:	1.78 psi
Loss for Main Line:	17.84 psi
Loss for POC to Valve Elevation:	0.00 psi
Loss for Backflow:	0.00 psi
Critical Station Pressure at POC:	54.44 psi
Pressure Available:	55.00 psi
Residual Pressure Available:	0.56 psi

3. 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.
2. 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.
3. THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
5. THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. CONTRACTOR TO RECERTIFY EXISTING PUMP AND PVB IF APPLICABLE.

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.

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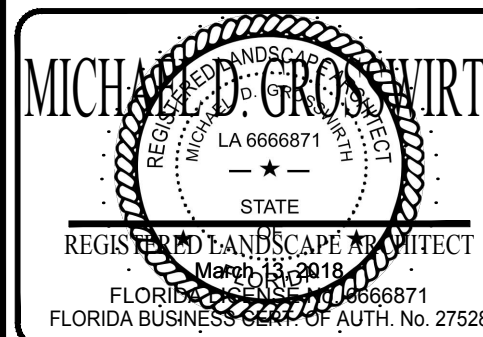
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DRAWN BY:	JF
CHECKED BY:	MD
DATE:	01-09-201
CAD I.D.:	F160039 IRRIGATION PLAN

PROJECT:

— FOR —
CUMBERLAND FARMS

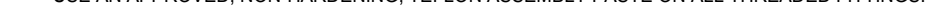
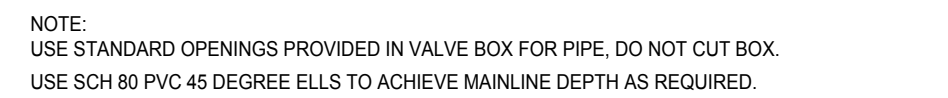
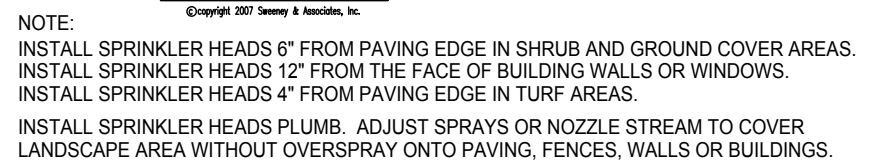
HOLLYWOOD
FLORIDA

RADICE III
1000 CORPORATE DRIVE, SUITE 250
FORT LAUDERDALE, FL 33334
PH: (954) 202-7000
FX: (954) 202-7070
www.ThomasEngineeringGroup.com



SHEET TITLE

SHEET NUMBER:
CFG08.5



- ___ FLOW METER
- ___ REFILL TIME CLOCK 24 HOURS
- ___ LEVEL FLOAT SWITCHES

Diagram illustrating the MWD system components and well casing requirements:

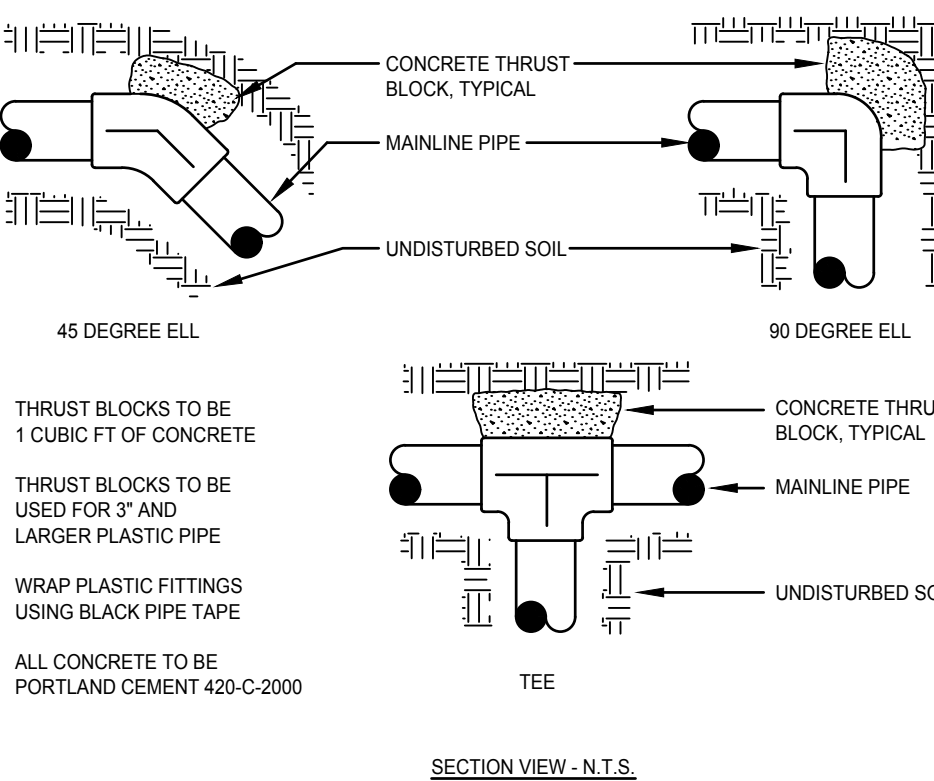
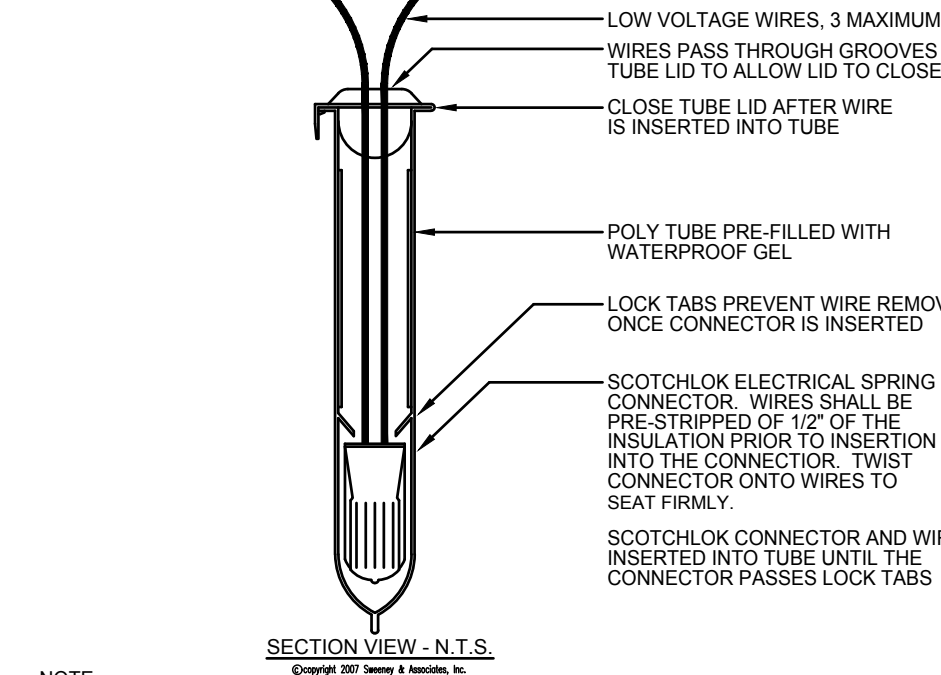
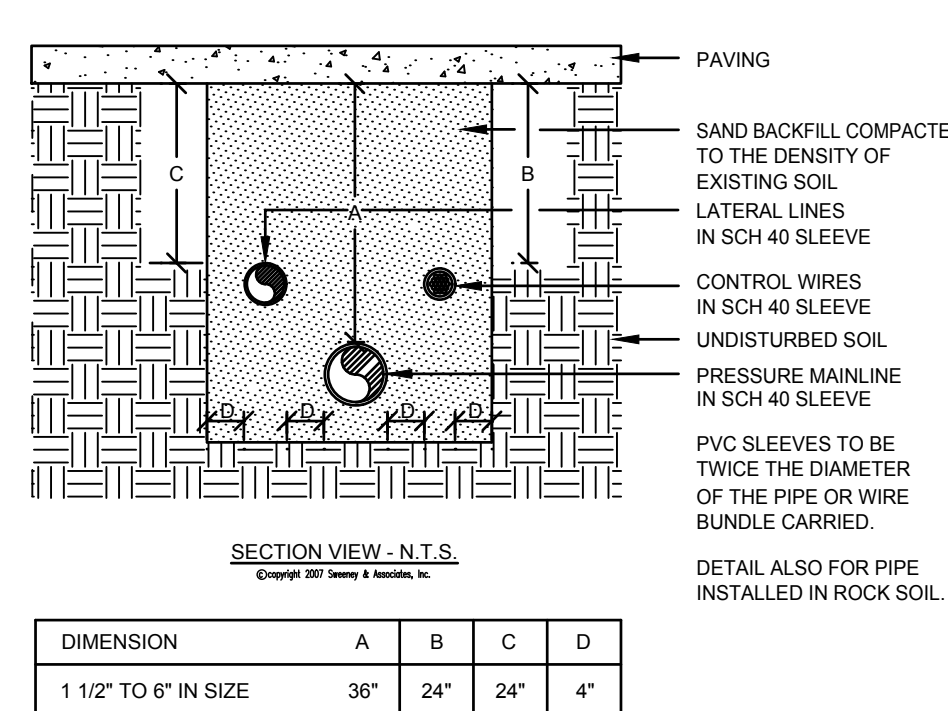
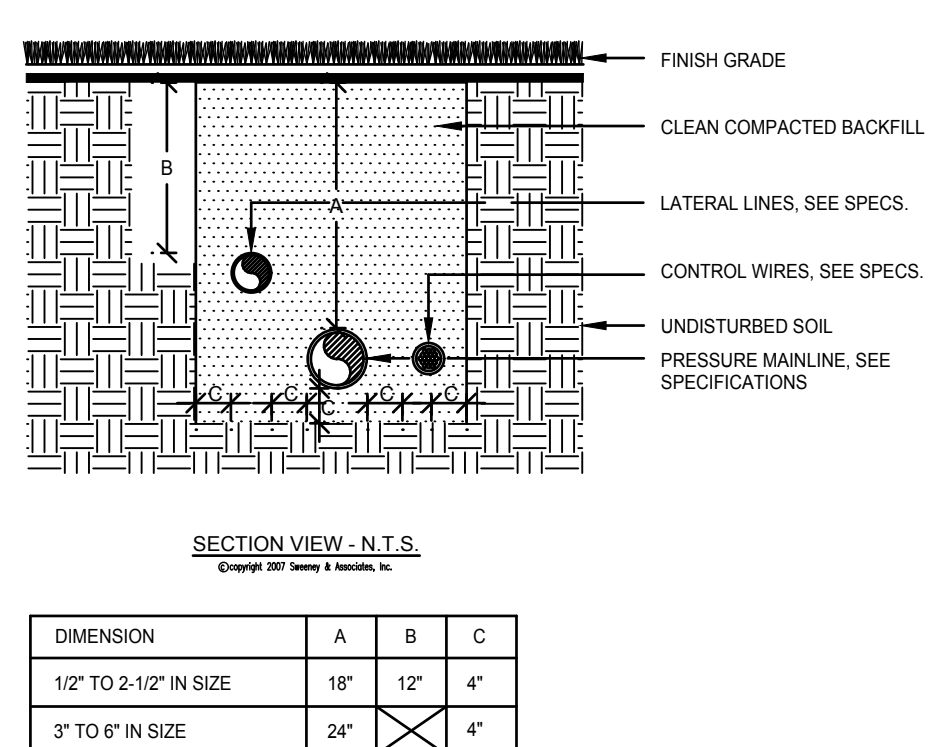
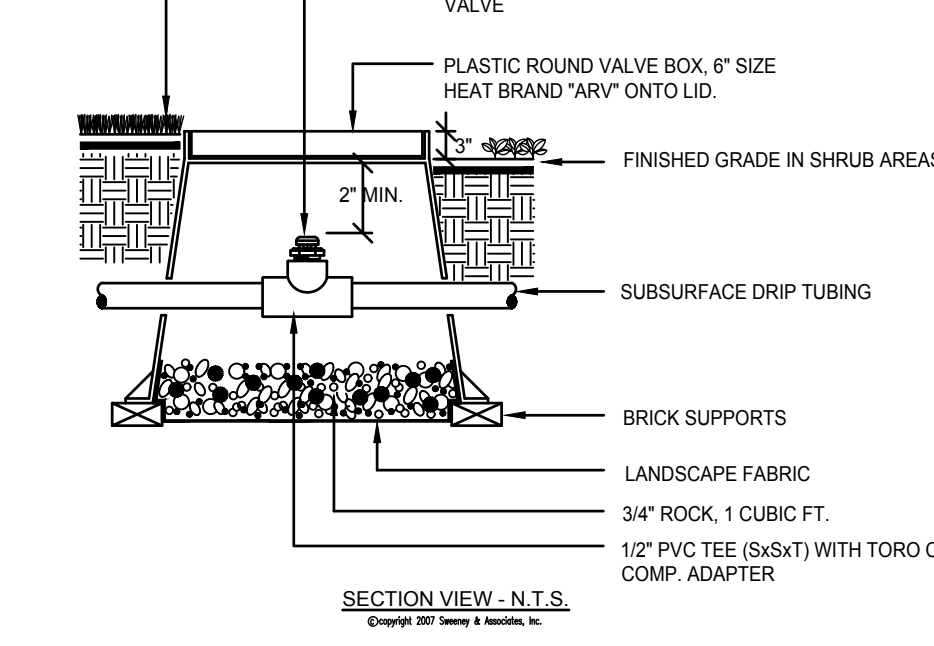
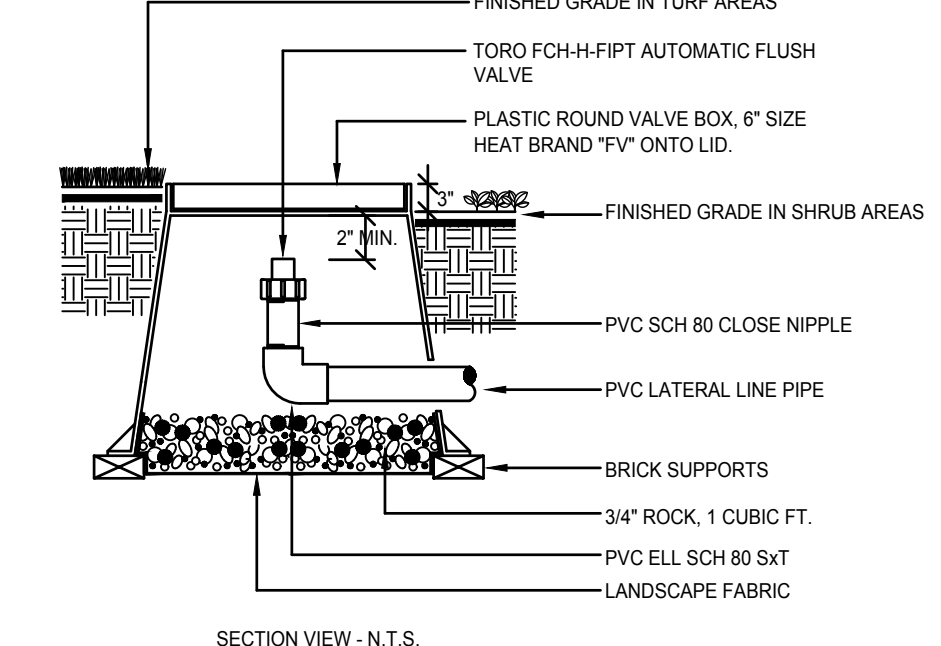
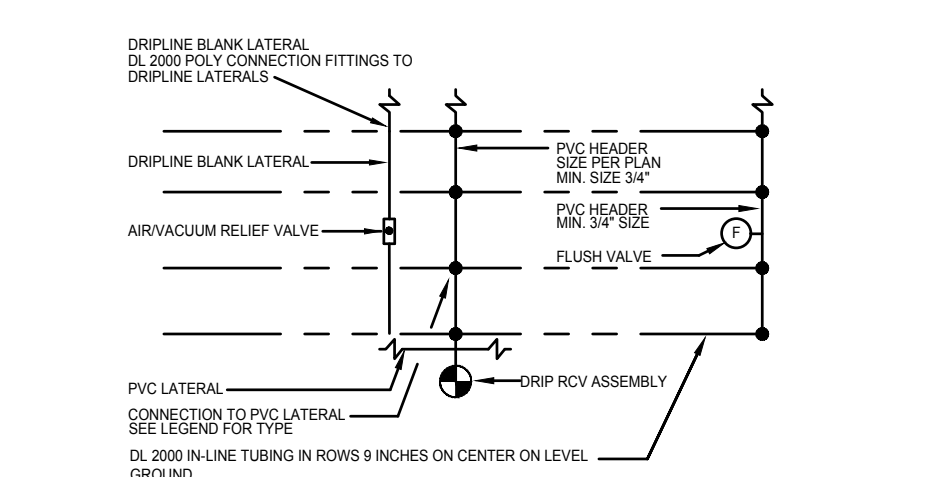
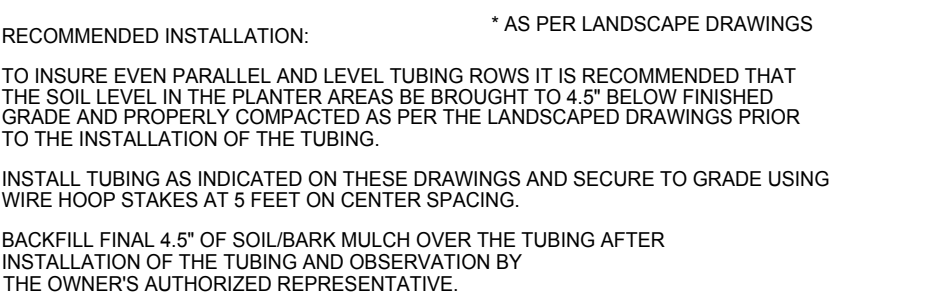
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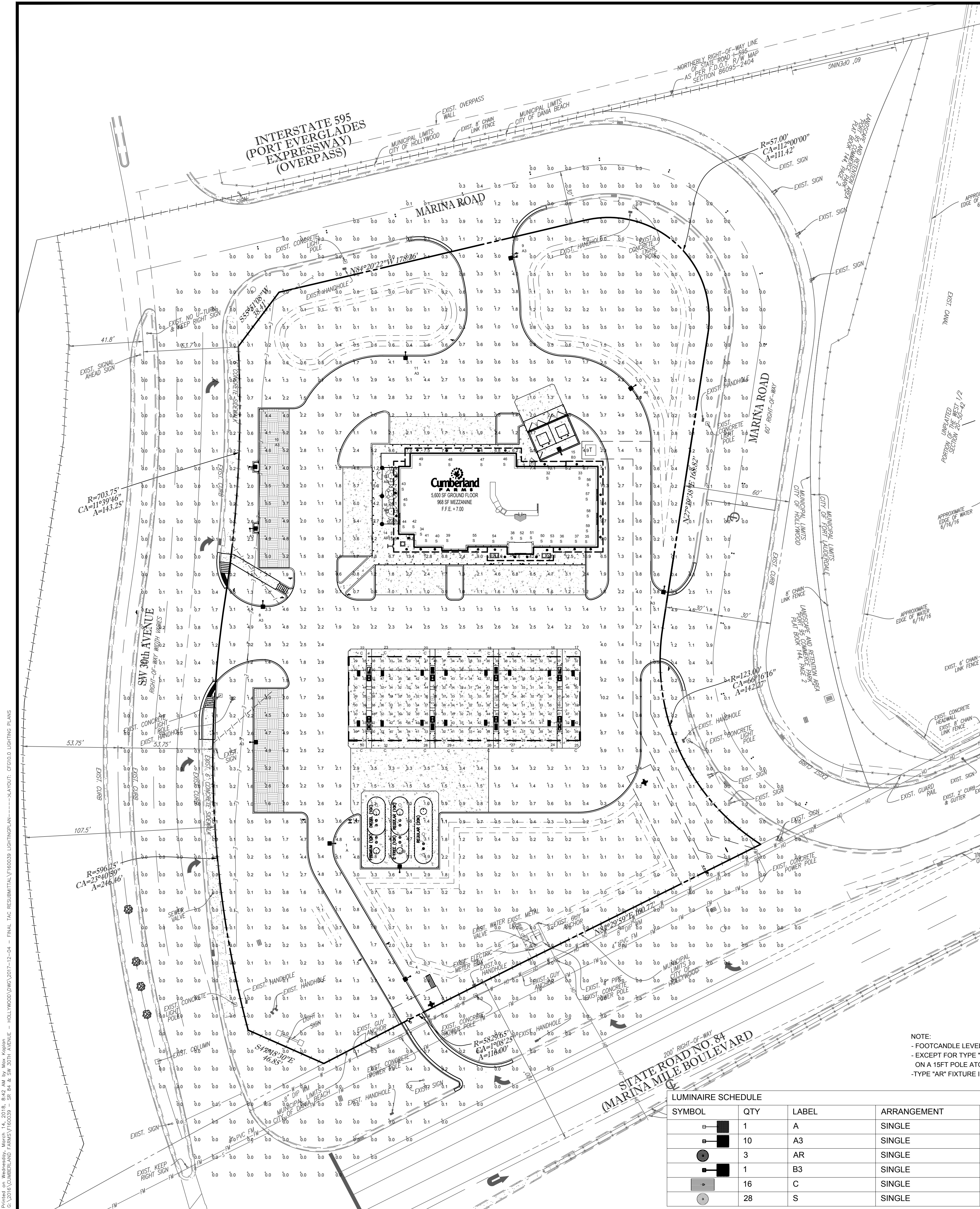
MINIMUM 5" DIAMETER WELL CASING REQUIRED

ELECTRIC SERVICE TO BE, IN ORDER OF PREFERENCE:
460V 3-PHASE, 230V CLOSED-DELTA 3-PHASE, 208 WYE 3-PHASE,
230 1-PHASE, 208V 1-PHASE, 230 OPEN-DELTA 3-PHASE.

PUMP PERFORMANCE
30 GPM @ 205 TDH, 55 PSI

HOOVER PUMPING MODEL: HSF-5CSV-230/3-W,Z FILE PN13834.DWG 12/15
Pompano Beach, Florida, Tel: 954-971-7350

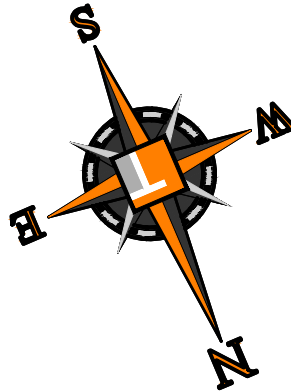
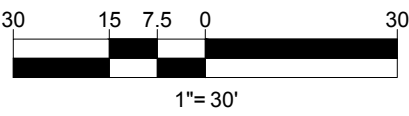




LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	A	15
2	A3	15
3	A3	15
4	A3	15
5	A3	15
6	A3	15
7	A3	15
8	A3	15
9	A3	15
10	A3	15
11	A3	15
12	AR	8
13	AR	8
14	AR	8
15	B3	15
16	C	14
17	C	14
18	C	14
19	C	14
20	C	14
21	C	14
22	C	14
23	C	14
24	C	14
25	C	14
26	C	14
27	C	14
28	C	14
29	C	14
30	C	14
31	C	14
32	S	12
33	S	12
34	S	12
35	S	12
36	S	12
37	S	12
38	S	15.5
39	S	12
40	S	12
41	S	12
42	S	12
43	S	12
44	S	12
45	S	12
46	S	12
47	S	12
48	S	12
49	S	12
50	S	15.5
51	S	16.945
52	S	16.945
53	S	12
54	S	12
55	S	12
56	S	12
57	S	12
58	S	12
59	S	12

CALCULATION SUMMARY					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
CANOPY	35.50	50	27	1.31	1.85
PAVED AREA	3.13	24.1	0.3	10.43	80.33
UNDEFINED AREA	0.29	5.1	0.0	N.A.	N.A.

LUMINAIRE SCHEDULE								DESCRIPTION
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	ARR. WATTS	TOTAL WATTS	MANUFACTURER
	1	A	SINGLE	10706	1.000	132.5	132.5	CREE, INC.
	10	A3	SINGLE	7896	1.000	134	1340	CREE, INC.
	3	AR	SINGLE	7985	1.000	92	276	CREE INC.
	1	B3	SINGLE	8480	1.000	134	134	CREE INC.
	16	C	SINGLE	21340	1.000	205.98	3295.68	Cree Inc
	28	S	SINGLE	1757	1.000	19.8	554.4	Cree Lighting - Recessed Downlight



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PROJECT NO.:	F160039
DRAWN BY:	JFV
CHECKED BY:	MAT
DATE:	01-09-2018
CAD I.D.:	F160039 LIGHTINGPLAN

PROJECT:
**CUMBERLAND FARMS
STATE ROAD 84 &
SW 30TH AVENUE**

FOR
**CUMBERLAND
FARMS, INC.**

CITY OF HOLLYWOOD
BROWARD COUNTY, FLORIDA

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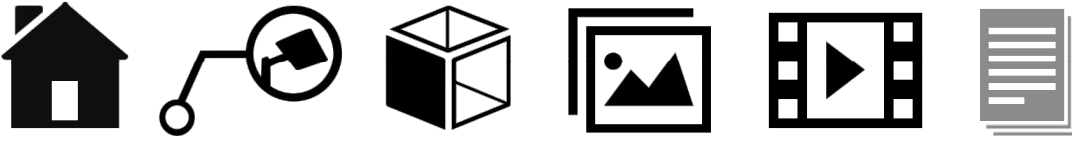
PROFESSIONAL ENGINEER
March 14, 2018
FLORIDA LICENSE NO. 50572
FLORIDA BUSINESS CERT. OF AUTH. NO. 27528

SHEET TITLE:

LIGHTING PLAN

SHEET NUMBER:

CFG10.0



AREA

SYMBOL:	QTY:	LABEL:
	1	A

ARE-EDG-3M-DA-06-E-UL-WH-700-57K

	10	A3
--	----	----

ARE-EDG-3MB-DA-06-E-UL-WH-700-57K

	1	B3
--	---	----

ARE-EDG-4MB-DA-06-E-UL-WH-700-57K

Cree Edge™ Series

LED Area Flood Luminaire

Product Description
The Cree Edge™ Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weatherproof LED driver compartment and high performance aluminum heat sinks. Integral mounting brackets, adjustable Arm, Direct Arm, Direct Arm Long, or Side Arm (shown on page 1), includes a built-in lighting panel.

Applications: Parking lots, walkways, canopies, car washes, drive-through, and general site lighting applications.

Performance Summary	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years on luminaires/10 years on Colorfast Defaulant™ finish	

Accessories	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years on luminaires/10 years on Colorfast Defaulant™ finish	

Ordering Information
Part No. ARE-EDG-3M-DA-06-E-UL-WH-700-57K

Product	Specs	Mounting	Material	LED Driver	Color	Notes	Options
ARE-EDG-3M-DA-06-E-UL-WH-700-57K	3M x 3M x 3M	Direct Arm	Aluminum	100K	White	100K	100K
ARE-EDG-3MB-DA-06-E-UL-WH-700-57K	3M x 3M x 3M	Direct Arm	Aluminum	100K	White	100K	100K
ARE-EDG-4MB-DA-06-E-UL-WH-700-57K	4M x 4M x 4M	Direct Arm	Aluminum	100K	White	100K	100K

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Canada: www.cree.com/canada T 800.224-4880 F 3242.504-5415

Cree Edge™ LED Area Flood Luminaire

Product Specifications

CONSTRUCTION MATERIALS

• Slim, low profile, extruded aluminum housing

• Luminaires are rugged cast aluminum with integral, weatherproof LED driver compartment and high performance aluminum heat sinks

• DA and DL mount utilizes convenient interlocking mounting method, mounting is rugged cast aluminum, mounts to 2" x 1/2" threaded rod

• DA and DL mount utilizes convenient interlocking mounting method, mounting is rugged cast aluminum, mounts to 2" x 1/2" threaded rod

• Includes built-in lighting panel

• Exclusive Colorfast Defaulant™ finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available

• Weight: See Dimensions and Weight charts on pages 1 and 2

ELECTRICAL SYSTEM

• Input Voltage: 120-277V or 347-480V, 50/60Hz, Class 1 drivers

• Power Factor: > 0.9 full load

• Total Harmonic Distortion: < 2% at full load

• Integral DMX range expansion (optional)

• When not address lighting, a slow down fuse or type CDF breaker should be used to address fault current

• Maximum 10W Source Current: 10 LED (250mA), 10W, 21 LED (200mA), 10W, and 10 LED (200mA), 10W, 10 LED (200mA)

REGULATOR & VOLTAGE QUALIFICATIONS

• Class A Listed

• Suitable for wet locations

• Suitable for use in Class I, II, III, and Class II, Division 1 hazardous locations when ordered with AL, DA and DL mounts

• Complies with NEC 410.16, 410.17, and 410.18

• Complies with NEC 410.16, 410.17, and 410.18

• Meets FC2 Part 15, Subpart C, Class A standards for conducted and radiated emissions

• Luminaires and finish resistance tested to withstand 5,000 hours of ambient ambient fog conditions as defined in ASTM Standard B 117

• UL Classified. Enclosure type when ordered with full building control for most common information

• Meets Bay American requirements within ARRA

AREA

SYMBOL:	QTY:	LABEL:
	3	AR

ARE-EDR-5M-R5-04-E-UL-XX-700-57K

Cree Edge™ Series

LED Area Luminaire - Round

Product Description
The Cree Edge™ Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weatherproof LED driver compartment and high performance aluminum heat sinks and built-in lighting panel.

Applications: Parking lots, walkways, canopies, car washes, drive-through, and general site lighting applications.

Performance Summary	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years on luminaires/10 years on Colorfast Defaulant™ finish	

Accessories	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years on luminaires/10 years on Colorfast Defaulant™ finish	

Accessories	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years on luminaires/10 years on Colorfast Defaulant™ finish	

Ordering Information
Part No. ARE-EDR-5M-R5-04-E-UL-XX-700-57K

Product	Specs	Mounting	Material	LED Driver	Color	Notes	Options
ARE-EDR-5M-R5-04-E-UL-XX-700-57K	5M x 5M x 5M	Direct Arm	Aluminum	100K	White	100K	100K
ARE-EDR-5MB-R5-04-E-UL-XX-700-57K	5M x 5M x 5M	Direct Arm	Aluminum	100K	White	100K	100K
ARE-EDR-5MB-R5-04-E-UL-XX-700-57K	5M x 5M x 5M	Direct Arm	Aluminum	100K	White	100K	100K

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Canada: www.cree.com/canada T 800.224-4880 F 3242.504-5415

Cree Edge™ LED Area Luminaire - Round

Product Specifications

CONSTRUCTION MATERIALS

• Slim, low profile, extruded aluminum housing

• Luminaires are rugged cast aluminum with integral, weatherproof LED driver compartment and high performance aluminum heat sinks

• DA and DL mount utilizes convenient interlocking mounting method, mounting is rugged cast aluminum, mounts to 2" x 1/2" threaded rod

• DA and DL mount utilizes convenient interlocking mounting method, mounting is rugged cast aluminum, mounts to 2" x 1/2" threaded rod

• Includes built-in lighting panel

• Exclusive Colorfast Defaulant™ finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available

• Weight: See Dimensions and Weight charts on pages 1 and 2

ELECTRICAL SYSTEM

• Input Voltage: 120-277V or 347-480V, 50/60Hz, Class 1 drivers

• Power Factor: > 0.9 full load

• Total Harmonic Distortion: < 2% at full load

• Integral DMX range expansion (optional)

• When not address lighting, a slow down fuse or type CDF breaker should be used to address fault current

• Maximum 10W Source Current: 10 LED (250mA), 10W, 21 LED (200mA), 10W, and 10 LED (200mA), 10W, 10 LED (200mA)

REGULATOR & VOLTAGE QUALIFICATIONS

• Class A Listed

• Suitable for wet locations

• Suitable for use in Class I, II, III, and Class II, Division 1 hazardous locations when ordered with AL, DA and DL mounts

• Complies with NEC 410.16, 410.17, and 410.18

• Complies with NEC 410.16, 410.17, and 410.18

• Meets FC2 Part 15, Subpart C, Class A standards for conducted and radiated emissions

• Luminaires and finish resistance tested to withstand 5,000 hours of ambient ambient fog conditions as defined in ASTM Standard B 117

• UL Classified. Enclosure type when ordered with full building control for most common information

• Meets Bay American requirements within ARRA

CANOPY

SYMBOL:	QTY:	LABEL:
	16	C

CAN-228-SL-RM-09-E-UL-WH-700-57K

228 Series™

LED Recessed Canopy Luminaire

Product Description
Slim, low profile, extruded aluminum housing. Luminaires are rugged cast aluminum with high performance extruded aluminum heat sinks specifically designed for LED. Luminaires mount directly to the canopy deck and is secured in place with compression molded trim frame. Luminaires housing is provided with factory applied finish and provided for a weatherproof seal between luminaire housing and canopy deck. Suitable for use in single or double deck canopies with 1/2" (12mm) or 1" (25mm) depth. Designed for canopies up to 12' (3.6m) deep.

Applications: Parking decks, canopies, drive-thru, car washes, and general site lighting applications.

Performance Summary	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years on luminaires/10 years on Colorfast Defaulant™ finish	

Accessories	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years on luminaires/10 years on Colorfast Defaulant™ finish	

Accessories	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years on luminaires/10 years on Colorfast Defaulant™ finish	

Ordering Information
Part No. CAN-228-SL-RM-09-E-UL-WH-700-57K

Product	Specs	Mounting	Material	LED Driver	Color	Notes	Options
CAN-228-SL-RM-09-E-UL-WH-700-57K	228 x 228 x 228	Direct Arm	Aluminum	100K	White	100K	100K
CAN-228-SL-RM-09-E-UL-WH-700-57K	228 x 228 x 228	Direct Arm	Aluminum	100K	White	100K	100K
CAN-228-SL-RM-09-E-UL-WH-700-57K	228 x 228 x 228	Direct Arm	Aluminum	100K	White	100K	100K

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Canada: www.cree.com/canada T 800.224-4880 F 3242.504-5415

228 Series™ LED Recessed Canopy Luminaire

Product Specifications

CONSTRUCTION MATERIALS

• Slim, low profile, extruded aluminum housing

• Luminaires are rugged cast aluminum with high performance extruded aluminum heat sinks specifically designed for LED

• Luminaires mount directly to the canopy deck and is secured in place with compression molded trim frame

• Luminaires housing is provided with factory applied finish and provided for a weatherproof seal between luminaire housing and canopy deck

• Suitable for use in single or double deck canopies with 1/2" (12mm) or 1" (25mm) depth. Designed for canopies up to 12' (3.6m) deep

• Includes built-in lighting panel

• Exclusive Colorfast Defaulant™ finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available

• Weight: See Dimensions and Weight chart on page 1

ELECTRICAL SYSTEM

• Input Voltage: 120-277V or 347-480V, 50/60Hz, Class 1 drivers

• Power Factor: > 0.9 full load

• Total Harmonic Distortion: < 2% at full load

• Integral DMX range expansion (optional)

• When not address lighting, a slow down fuse or type CDF breaker should be used to address fault current

• Maximum 10W Source Current: 10 LED (250mA), 10W, 21 LED (200mA), 10W, and 10 LED (200mA), 10W, 10 LED (200mA)

REGULATOR & VOLTAGE QUALIFICATIONS

• Class A Listed

• Suitable for wet locations

• Suitable for use in Class I, II, III, and Class II, Division 1 hazardous locations when ordered with AL, DA and DL mounts

• Complies with NEC 410.16, 410.17, and 410.18

• Complies with NEC 410.16, 410.17, and 410.18

• Meets FC2 Part 15, Subpart C, Class A standards for conducted and radiated emissions

• Luminaires and finish resistance tested to withstand 5,000 hours of ambient ambient fog conditions as defined in ASTM Standard B 117

• UL Classified. Enclosure type when ordered with full building control for most common information

• Meets Bay American requirements within ARRA

SOFFIT

SYMBOL:	QTY:	LABEL:
	28	S

LR618L-40K-120V-A-DR +RC6 HOUSING

LR6 Series

LR6™ LED Downlight - 6"

Product Description
The LR6™ downlight is an unparalleled combination of light quality and efficiency - bringing outstanding performance and value to the retrofit downlight space. Delivering up to 1800 lumens of exceptional 90+ CRI light while achieving up to 100 lumens per watt, this luminaire's performance is achieved by combining the high efficiency and high quality light of Cree's NanoSight™ technology with an integrated drive and thermal management design. The LR6™ downlight is available in warm or neutral color temperatures, three beam patterns, and offers a wide range of options.

Applications: Commercial new construction and retrofit

Performance Summary	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years	
Lifetime Designed to last 50,000 hours	
Dimming: Dimmable to 1%	

Accessories	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years on luminaires/10 years on Colorfast Defaulant™ finish	

Accessories	
Patented NanoSight™ Product Technology	
Made in the U.S.A. of U.S. and Imported parts	
CEC Marking: YES	
CEC 400K (4' - 300K) 100K (4' - 300K) standard	
Limited Warranty: 10 years on luminaires/10 years on Colorfast Defaulant™ finish	

Ordering Information
Part No. LR618L-40K-120V-A-DR +RC6 HOUSING

Product	Specs	Mounting	Material	LED Driver	Color	Notes	Options
LR618L-40K-120V-A-DR +RC6 HOUSING	18" x 18" x 18"	Direct Arm	Aluminum	100K	White	100K	100K
LR618L-40K-120V-A-DR +RC6 HOUSING	18" x 18" x 18"	Direct Arm	Aluminum	100K	White	100K	100K
LR618L-40K-120V-A-DR +RC6 HOUSING	18" x 18" x 18"	Direct Arm	Aluminum	100K	White	100K	100K

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Canada: www.cree.com/canada T 800.224-4880 F 3242.504-5415

LR6 Series™ LED Downlight - 6"

Product Specifications

CONSTRUCTION MATERIALS

• Slim, low profile, extruded aluminum housing

• Luminaires are rugged cast aluminum with high performance extruded aluminum heat sinks specifically designed for LED

• Luminaires mount directly to the canopy deck and is secured in place with compression molded trim frame

• Luminaires housing is provided with factory applied finish and provided for a weatherproof seal between luminaire housing and canopy deck

• Suitable for use in single or double deck canopies with 1/2" (12mm) or 1" (25mm) depth. Designed for canopies up to 12' (3.6m) deep

• Includes built-in lighting panel

• Exclusive Colorfast Defaulant™ finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available

• Weight: See Dimensions and Weight chart on page 1

ELECTRICAL SYSTEM

• Input Voltage: 120-277V or 347-480V, 50/60Hz, Class 1 drivers

• Power Factor: > 0.9 full load

• Total Harmonic Distortion: < 2% at full load

• Integral DMX range expansion (optional)

• When not address lighting, a slow down fuse or type CDF breaker should be used to address fault current

• Maximum 10W Source Current: 10 LED (250mA), 10W, 21 LED (200mA), 10W, and 10 LED (200mA), 10W, 10 LED (200mA)

REGULATOR & VOLTAGE QUALIFICATIONS

• Class A Listed

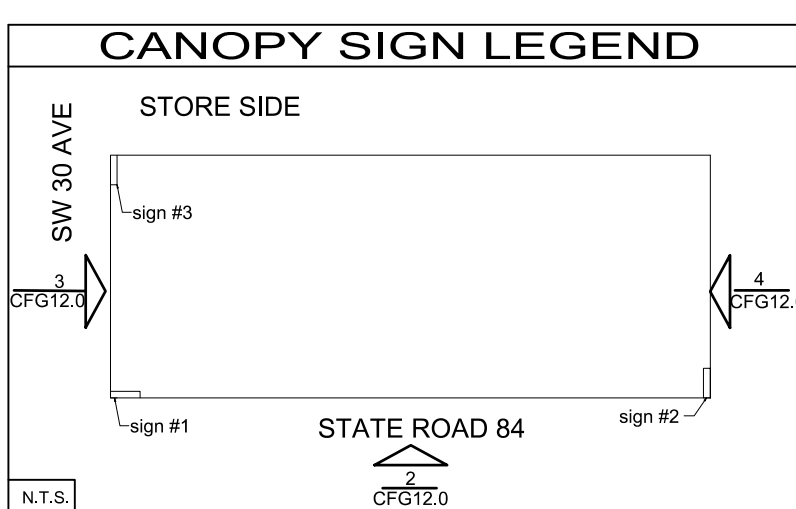
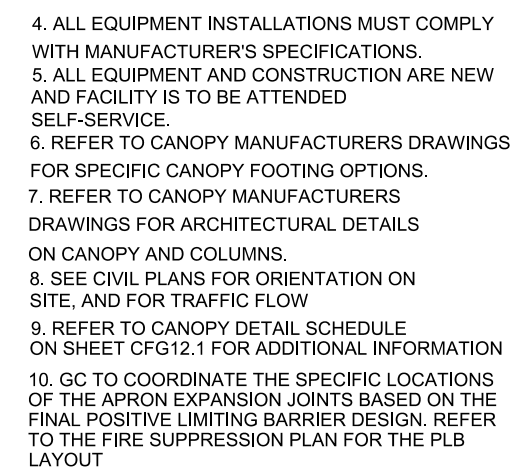
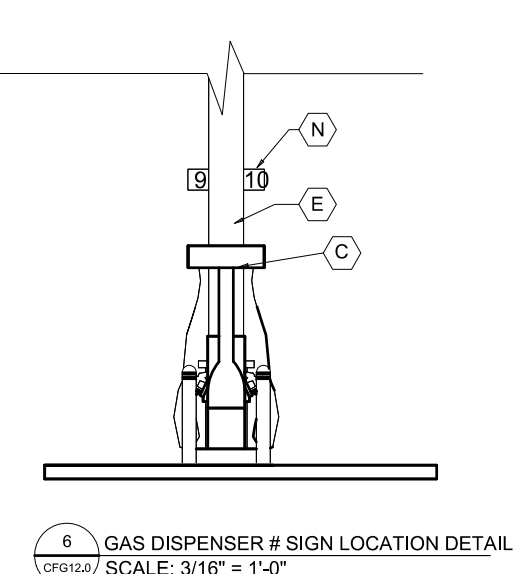
• Suitable for wet locations

• Suitable for use in Class I, II, III, and Class II, Division 1 hazardous locations when ordered with AL, DA and DL mounts

• Complies with NEC 410.16, 410.17, and 410.18

• Complies with NEC 410.16, 410.17, and 410.18

• Meets FC2 Part 15, Subpart C, Class A standards for conducted and radiated emissions



SHEET TITLE:	
CANOPY ELEVATIONS	
SHEET NUMBER:	
CFG12.0	