

STAFF REPORT

DATE: June 3, 2021

RE: **1319 William Street & 1316 Royal Street
(permit application # TP2021-0002)**

FROM: Karen DeMaria, City of Key West Urban Forestry Manager

An application was received for Final Landscape Plan Approval with Tree Removal. The Tree Commission gave Conceptual Approval for the landscape plan and the tree removal on January 11, 2021. The Planning Board approved the project with landscape waivers on April 22, 2021 and the project was approved by HARC on May 25, 2021.

The Planning Board approved landscape waivers that allow for a reduced buffer width for the required street landscaping along Royal and William Streets and a waiver for the perimeter parking area screening.

The Final Landscape Plan submitted does incorporate all the required tree removal replacements and is over 70% native vegetation. The Tree Commission did request with the Conceptual Landscape plan approval more diversity of plant species in the final plan and wanted trees in the parking islands along William Street. The final landscape plan submitted includes trees in the parking islands and added Paradise trees, Spanish stopper trees, and golden creeper groundcover to the plant list.

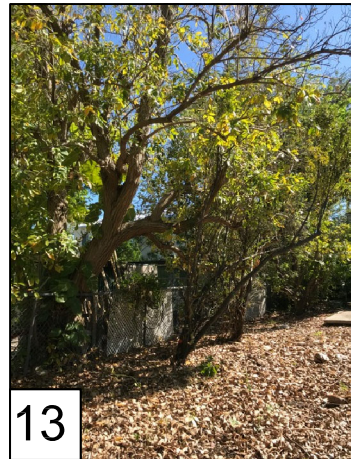
Recommendation: Recommend approval of the Final Landscape Plan With Tree Removal at 1319 William and 1316 Royal Streets to include the removal of 8-Small Leaf Clusia (#104, #105, #106, #107, #109, #136, #138, and #143), 3-Red Coco Plum (#122, #187, and #191), 1-Fiddle Wood (#168), 1-Frangipani (#78), 5-Gumbo Limbo (#81, #112, #161, #175, and #177), 14-Jamaican Caper (#90, #92, #94, #95, #98, #99, #121, #123, #125, #126, #132, #134, #160, and #186), 1-Mahogany (#172), 1-Raintree (#163), 2-Satin Leaf (#82 and #88), 2-Silver Buttonwood (#188 and #192), 1-Sweet Acacia (#68), 1-White Stopper (#184), 3-Christmas Palms (#70, #72, and #77), 1-Fiji Fan Palm (#111), 1-Royal Palm (#190), and 2-Washingtonia Palms (#73 and #159) to be replaced with 248.3 caliper inches of approved dicot trees, FL#1 from the approved list and 7 approved palms, minimum 4 ft tall each palm, to be planted onsite and the transplantation on site of 2-Christmas Palms (#14 and #15), 7-Thatch Palms, Florida (#91, #93, #164, #165, #166, #167, and #181), and 3-Thatch Palms, Keys (#154, #155, and #156).

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Common Name/Botanical Name	Size	Status	Cond	Remain/Remove/Transplant	Arborist Remarks
1 Ixora/Ixora coccinea	Shrub 6-8' oa	npr	good	Remain	photo 2
2 Ixora/Ixora coccinea	Shrub 6-8' oa	npr	good	Remain	
3 Gumbo Limbo/Bursea simaruba	16.7" dsh 18'x15'w	regulated	fair	Remain	
4 Ixora/Ixora coccinea	Shrub	npr	good	Remain	
5 Ixora/Ixora coccinea	Shrub	npr	good	Remain	
6 Ixora/Ixora coccinea	Shrub	npr	good	Remain	neighbors property, codominant @2', leaning south
7 Ixora/Ixora coccinea	Shrub	npr	good	Remain	
8 Pink Tabebuia/Tabebuia heterophylla	17.5" dsh 25'x15'w	npr	poor	Remain	
9 Pink Tabebuia/Tabebuia heterophylla	13.25" dsh 20'x10'w	npr	poor	Remain	
10 Pink Tabebuia/Tabebuia heterophylla	20" dsh 40'x20'w	npr	poor	Remain	
11 Jamaican Caper/Capparis cynophallophora	3.3" dsh 10-12'x8'w	regulated	good	Remain	shared tree, ccdominant branches with included bark, leaning south, in utility lines, topped, growing under concrete pad
12 Strangler Fig/Ficus aurea	6.33" dsh B 40'x30'w	regulated	good	Remain	
13 Green Island Ficus/Ficus microcarpa	Shrub 3' oa	npr	fair	Remain	
14 Christmas Palm/Adonidia merrillii	Double 13' oa	regulated	good	Transplant	
15 Christmas Palm/Adonidia merrillii	Double 13' oa	regulated	good	Transplant	
16 Plumbago/Ceratostigma plumbaginoides	Shrub	npr	good	Remain	in planter, 42'x4'
17 Arboricola/shefflera arboricola	Shrub	npr	good	Remain	
18 Christmas Palm/Adonidia merrillii	Triple 8' oa	npr	good	Remain	
19 Arboricola/shefflera arboricola	Shrub	npr	good	Remain	
20 Plumbago/plumbago ariculata	Shrub	npr	good	Remain	
21 Arboricola/shefflera arboricola	Shrub	npr	good	Remove	affected by prepposed plans
22 Bougainvillea species	Trellised	npr	poor	Remove	
23 Arboricola/shefflera arboricola	Shrub 3' oa	npr	good	Remove	
24 Arboricola/shefflera arboricola	Shrub 3' oa	npr	good	Remove	
25 Arboricola/shefflera arboricola	Shrub 3' oa	npr	good	Remove	
26 Bougainvillea species	Trellised	npr	poor	Remove	affected by prepposed plans, poor condition
27 Golden Dewdrop/Duranta erecta	Shrub 4'x3'	npr	fair	Remove	
28 Golden Dewdrop/Duranta erecta	Shrub 4'x3'	npr	fair	Remove	
29 Bougainvillea species	Trellised	npr	poor	Remove	
30 Arboricola/shefflera arboricola	Shrub 3'x3'	npr	fair	Remove	
31 Arboricola/shefflera arboricola	Shrub 3'x3'	npr	fair	Remove	affected by prepposed plans
32 Arboricola/shefflera arboricola	Shrub 3'x3'	npr	fair	Remove	
33 Bougainvillea species	Trellised	npr	poor	Remove	
34 Arboricola/shefflera arboricola	Shrub 3'x3'	npr	fair	Remove	
35 Arboricola/shefflera arboricola	Shrub 3'x3'	npr	fair	Remove	
36 Arboricola/shefflera arboricola	Shrub 3'x3'	npr	fair	Remove	affected by prepposed plans
37 Draceana species/	Shrub	npr	fair	Remain	
38 Yucca/	Shrub 8' h	npr	fair	Remain	
39 Fishtail Palm/caryota mitis	18' h	npr	poor	Remove	
40 White Bird of Paradise/Strelitzia nicolai	4'x2' 2' h	npr	good	Remain	
41 Ponytail Palm/Beaucarnea recurvata	5'x10'	npr	fair	Remain	remove, poor condition
42 Fishtail Palm/caryota mitis	6-7' h	npr	poor	Remove	
43 Fishtail Palm/caryota mitis	18' h	npr	poor	Remove	
44 Draceana species	Shrub 4' h	npr	fair	Remain	
45 Green Island Ficus/Ficus microcarpa	Shrub 3.5'x1'	npr	fair	Remain	
46 Pink Tabebuia/Tabebuia heterophylla	5.2" dsh 12'x5'w	npr	poor	Remain	leaning west, remain, outside property
47 Pink Tabebuia/Tabebuia heterophylla	15" dsh 25'x15'w	npr	poor	Remain	
48 Pink Tabebuia/Tabebuia heterophylla	6" dsh	npr	poor	Remain	
49 Pink Tabebuia/Tabebuia heterophylla	6.7" dsh	npr	poor	Remain	
50 Pink Tabebuia/Tabebuia heterophylla	5" dsh	npr	poor	Remain	
51 Pink Tabebuia/Tabebuia heterophylla	2" dsh	npr	poor	Remain	seedling, north side of fence, topped, remain, outside property
52 Pink Tabebuia/Tabebuia heterophylla	3" dsh	npr	poor	Remain	
53 Pink Tabebuia/Tabebuia heterophylla	8.5" dsh	npr	poor	Remain	
54 Pink Tabebuia/Tabebuia heterophylla	5.5" dsh 25'x10'w	npr	poor	Remain	
55 Pink Tabebuia/Tabebuia heterophylla	14.75" dsh 35'x15'w	npr	poor	Remain	
56 Pink Tabebuia/Tabebuia heterophylla	1.75" dsh	npr	poor	Remain	seedling, north side of fence, through fence, remain, outside property
57 Neem/Azadirachta indica	2.5" dsh 12'x4'w	npr	poor	Remain	
58 Pink Tabebuia/Tabebuia heterophylla	10.5" dsh 23'x12'w	npr	poor	Remain	
59 Pink Tabebuia/Tabebuia heterophylla	3" dsh 20'x4'w	npr	poor	Remain	
60 Pink Tabebuia/Tabebuia heterophylla	4.2" dsh 22'x8'w	npr	poor	Remove	
61 Christmas Palm/Adonidia merrillii	Triple 10'-16' oa	regulated	fair	Remain	north side of fence, growing through fence, remain, outside property
62 Pink Tabebuia/Tabebuia heterophylla	14" dsh 30'x20'w	npr	poor	Remain	
63 Christmas Palm/Adonidia merrillii	20' h	regulated	fair	Remain	
64 Bamboo Plm/Chamaedorea seifrizii	Cluster 7 canes	npr	poor	Remove	
65 Bamboo Plm/Chamaedorea seifrizii	Cluster 4 canes	npr	poor	Remove	
66 Bamboo Plm/Chamaedorea seifrizii	Cluster 8 canes	npr	poor	Remove	remove, poor condition
67 Pink Tabebuia/Tabebuia heterophylla	14" dsh 37'x15'w	npr	fair	Remain	
68 Sweet Acacia/Acacia farnesiana	14.6" dsh 12'x15'w	regulated	poor	Remove	
69 Areca Palm/Dypsis lutescens	Grouping 10'-12' oa	npr	fair	Remain	
70 Christmas Palm/Adonidia merrillii	Cluster 11 6-18' oa	regulated	fair	Remove	
71 Christmas Palm/Adonidia merrillii	Cluster of 8 20'-22' oa	regulated	fair	Remain	remove, affected by proposed design
72 Christmas Palm/Adonidia merrillii	Cluster of 5 8'-18' oa	regulated	fair	Remove	
73 Washingtonia Palm/Washingtonia robusta	40' oa	regulated	poor	Remove	
74 Pink Tabebuia/Tabebuia heterophylla	8" dsh 25'x10'w	npr	poor	Remove	
75 Pink Tabebuia/Tabebuia heterophylla	12" dsh 30'x20'w	npr	poor	Remove	
76 Areca Palm/Dypsis lutescens	Cluster 10'x6'w	npr	fair	Remain	north of fence outside property
77 Christmas Palm/Adonidia merrillii	18'-20' oa	regulated	good	Remove	
78 Frangipani/Plumeria	10.5" dsh 20'x18'w	regulated	fair	Remove	
79 Draceana species	Shrub 10'x5'w	npr	poor	Remain	
80 Gumbo Limbo/Bursea simaruba	10.6" dsh 20'x20'w	regulated	fair	Remain	
81 Gumbo Limbo/Bursea simaruba	3.3" dsh 18'x4'w	regulated	poor	Remove	4 codominant branches, remain, to be trimmed 4' CT
82 Satin Leaf/Chrysophyllum olidiforme	6" dsh 20'x8'w	regulated	poor	Remove	
83 Pink Tabebuia/Tabebuia heterophylla	20.2" dsh 22'x15'w	npr	poor	Remove	
84 Coconut Palm/cocos nucifera	35'-40' oa	regulated	fair	Remain	
85 Satin Leaf/Chrysophyllum olidiforme	5" dsh 10'x14'w	regulated	fair	Remain	
86 Gumbo Limbo/Bursea simaruba	9.5" dsh 20'x10'w	regulated	fair	Remain	leaving west
87 Jamaican Caper/Capparis cynophallophora	Multi 12" dsh 15'x10'w	regulated	fair	Remain	
88 Satin Leaf/Chrysophyllum olidiforme	4.4" dsh 13'h	regulated	poor	Remove	
89 Royal Poiniana/Delonix regia	16.4" dsh 18'h 25'w	regulated	fair	Remain	
90 Jamaican Caper/Capparis cynophallophora	Multi 7.5" dsh 18'x8'w	regulated	fair	Remove	
91 Florida Thatch Palm/Thrinax radiata	8' oa	regulated	good	Transplant	transplant, see L3.00
92 Jamaican Caper/Capparis cynophallophora	Multi 2" dsh 10' oa	regulated	poor	Remove	
93 Florida Thatch Palm/Thrinax radiata	10' h	regulated	good	Transplant	
94 Jamaican Caper/Capparis cynophallophora	2" dsh	regulated	poor	Remove	
95 Jamaican Caper/Capparis cynophallophora	Multi 10" dsh 16'x8'w	regulated	fair	Remove	
96 Jamaican Caper/Capparis cynophallophora	Multi 1" dsh	npr	poor	Remove	through fence, remove, poor condition
97 Jamaican Caper/Capparis cynophallophora	.75" dsh 5' oa	npr	fair	Remove	
98 Jamaican Caper/Capparis cynophallophora	Multi 14" dsh 18'x15'w	regulated	fair	Remove	
99 Jamaican Caper/Capparis cynophallophora	Multi 12" dsh 14'0h	regulated	poor	Remove	
100 Bamboo Plm/Chamaedorea seifrizii	3' h 1 cane	npr	poor	Remove	

* Items listed in RED are regulated trees NOT in poor condition.

101 Gumbo Limbo/Bursea simaruba	8.5" dsh 25'x8'w	regulated	good	Remain	remain, work with city arborist
102 Royal Poinciana/Delonix regia	21" dsh 18'x20'w	regulated	fair	Remain	remain Photo 11
103 Jamaican Caper/Capparis cynophallophora	.5" dsh	npr	poor	Remove	seedling, through fence, remove, poor condition
104 Small Leaf Clusia/Clusia guttifera	14" dsh 20'x8'w	regulated	poor	Remove	partially uprooted, remove
105 Small Leaf Clusia/Clusia guttifera	14.3" dsh 20'x20'w	regulated	poor	Remove	remove, poor condition
106 Small Leaf Clusia/Clusia guttifera	16" dsh 20'x15'w	regulated	poor	Remove	partially uprooted, remove, poor condition
107 Small Leaf Clusia/Clusia guttifera	12.7" dsh 18'x20'w	regulated	poor	Remove	remove
108 Royal Poinciana/Delonix regia	25" dsh 25'x25'w	regulated	fair	Remain	retain and protect
109 Small Leaf Clusia/Clusia guttifera	18" dsh 20'x20w	regulated	poor	Remove	uprooted, remove, poor condition
110 Jamaican Caper/Capparis cynophallophora	.5" dsh 7'x3'w	npr	fair	Remove	remove, no regulated, close proximity to 108
111 Fiji Fan Palm/Pritchardia pacifica	25' h	regulated	fair	Remove	remove, affected by proposed design
112 Gumbo Limbo/Bursea simaruba	4.7" dsh 14'x6'w	regulated	poor	Remove	topped, restricted growth due to overhead canopy, leaning south with dog leg, remove
113 Sabal Palm/Sabal palmetto	16' oa	regulated	poor	Remain	may require trimming to not conflict with utilities, city property
114 Pink Tabebuia/Tabebuia heterophylla	10" dsh 20'x10'w	npr	poor	Remove	remove, conflict with utilities, city property
115 Jamaican Caper/Capparis cynophallophora	.5"	npr	poor	Remove	seedling, remove, poor condition
116 Coconut Palm/cocos nucifera	40'	regulated	fair	Remain	retain and protect
117 Coconut Palm/cocos nucifera	Seedlings (5) 2'-4' oa	npr	good	Remove	remove, affected by proposed design
118 Brazilian Pepper/Schinus terebinthifolius	4" dsh	npr	poor	Remove	over fence, remove invasive
119 Pink Tabebuia/Tabebuia heterophylla	12" dsh 16'x8'w	npr	poor	Remove	uprooted, remove
120 Aralia/Polyscias	Shrub 3" dsh 12't 4'w	npr	poor	Remove	uprooted, broken, remove
121 Jamaican Caper/Capparis cynophallophora	18" dsh 18'x10'w	regulated	poor	Remove	partially uprooted, remove
122 Red Coco Plum/Chrysobalanus icaco v. red tip	7" dsh	regulated	poor	Remove	partially uprooted, remove
123 Jamaican Caper/Capparis cynophallophora	6" dsh 18'x10'w	regulated	poor	Remove	uprooted, remove
124 Gumbo Limbo/Bursea simaruba	1.3" dsh 8'-9'oa	regulated	poor	Remain	seedling, remain, outside property
125 Jamaican Caper/Capparis cynophallophora	15" dsh 18'x20'w	regulated	poor	Remove	uprooted,, damaged, remove
126 Jamaican Caper/Capparis cynophallophora	14.6" dsh	regulated	poor	Remove	partially uprooted, remove
127 Pink Tabebuia/Tabebuia heterophylla	6" dsh 18'x8'w	npr	poor	Remain	through fence, remain, outside property
128 Surinam Cherry/Eugenia uniflora	Shrub 1" dsh 4'-5'oa	npr	poor	Remain	remain, outside property, invasive exotic
129 Veitchia/Veitchia spec.	<10 ft CT	npr	good	Remove	remove, affected by proposed design
130 Pink Tabebuia/Tabebuia heterophylla	27" dsh 32'x15'w	regulated	poor	Remain	retain and protect
131 Bamboo Palm/Chamaedorea seifrizii	2 canes 12' oa	npr	poor	Remove	remove, poor condition
132 Jamaican Caper/Capparis cynophallophora	multi 10" dsh 18'x6'w	regulated	poor	Remove	partially uprooted, remove
133 Pink Tabebuia/Tabebuia heterophylla	16.5" dsh	npr	poor	Remain	neighbor property south side of fence, on fence, 16.5" dia. branch growing north into property 12', remove limb Photo 13
134 Jamaican Caper/Capparis cynophallophora	12" dsh 12'x10'w	regulated	poor	Remove	uprooted, remove
135 Jamaican Caper/Capparis cynophallophora	3" dsh 15'x5'w	regulated	poor	Remain	through fence, remain
136 Small Leaf Clusia/Clusia guttifera	6.7" dsh 10'x10'w	regulated	poor	Remove	partially uprooted, topped, remove
137 Pink Tabebuia/Tabebuia heterophylla	3.4" dsh 16'x6'w	npr	poor	Remove	remove, invasive exotic
138 Small Leaf Clusia/Clusia guttifera	7.5" dsh 15'x20'w	regulated	poor	Remove	uprooted, through fence, remove
139 Royal Poinciana/Delonix regia	7.1" dsh 30'x15'w	regulated	fair	Remain	retain and protect
140 Christmas Palm/Adonidia merrillii	18' oa	regulated	good	Remain	Remain , outside property
141 Gumbo Limbo/Bursea simaruba	18.1" dsh 30'x20'w	regulated	fair	Remain	on fence, leaning south at utility pole, remain, heavy maintenance trim Photo 14
142 NOT USED					
143 Small Leaf Clusia/Clusia guttifera	6.2" dsh 10'x8'w	regulated	poor	Remove	partially uprooted, remove
144 Draceana species	Shrub 7'x5'w	npr	poor	Remove	remove, not regulated, affected by proposed design
145 Myrsine/Rapanea punctata	<1" dsh Shrub 6'-10' h	npr	poor	Remain	Remain , outside property
146 Myrsine/Rapanea punctata	<1" dsh Shrub 6'-10' h	npr	poor	Remain	Remain , outside property
147 Myrsine/Rapanea punctata	<1" dsh Shrub 6'-10' h	npr	poor	Remain	Remain , outside property
148 Areca Palm/Dypsis lutescens	3 canes 7'-8'	npr	fair	Remove	remove, not regulated, affected by proposed design
149 Areca Palm/Dypsis lutescens	4 canes 8'-10'	npr	fair	Remove	remove, not regulated, affected by proposed design
150 Areca Palm/Dypsis lutescens	10-14'oa 10 canes	npr	fair	Remove	remove, not regulated, affected by proposed design
151 Pink Tabebuia/Tabebuia heterophylla	5" dsh 18'x4'w	npr	poor	Remove	on roof, roots under structure, remove
152 Bamboo Palm/Chamaedorea seifrizii	5 canes 4' h	npr	poor	Remove	remove, poor condition
153 Christmas Palm/Adonidia merrillii	6' oa	npr	good	Remove	remove, not regulated, affected by proposed design
154 Keys Thatch Palm/Leucothrinax morrisii	double 8',3' h	regulated	good	Transplant	transplant, see L3.00
155 Keys Thatch Palm/Leucothrinax morrisii	triple, 6'-11' h	regulated	good	Transplant	transplant, see L3.00
156 Keys Thatch Palm/Leucothrinax morrisii	triple 5'-6' h	regulated	good	Transplant	transplant, see L3.00
157 Pink Tabebuia/Tabebuia heterophylla	13.6" @base 30'x10'w	npr	poor	Remove	remove, invasive exotic
158 Pink Tabebuia/Tabebuia heterophylla	11.3" dsh 30'x20'w	npr	poor	Remove	remove, invasive exotic
159 Washingtonia Palm/Washingtonia robusta	40' oa	regulated	poor	Remove	remove, poor condition
160 Jamaican Caper/Capparis cynophallophora	2" dsh 5.5'x5'w	regulated	poor	Remove	hedged, remove
161 Gumbo Limbo/Bursea simaruba	6.5" dsh 15'x12'w	regulated	poor	Remove	leaning south, under canopy, remove
162 Washingtonia Palm/Washingtonia robusta	4'oa	npr	poor	Remove	remove, invasive exotic
163 Raintree Tree/Samanea saman	25' @3'h	regulated	poor	Remove	tree in decline, sunscald, fungus, dead limbs, remove Photo 15, 16, 17, 18
164 Green Thatch Palm/Thrinax radiata	5' oa	regulated	good	Transplant	transplant, see L3.00 Photo 19
165 Green Thatch Palm/Thrinax radiata	6' oa	regulated	good	Transplant	transplant, see L3.00
166 Green Thatch Palm/Thrinax radiata	6' oa	regulated	good	Transplant	transplant, see L3.00
167 Green Thatch Palm/Thrinax radiata	6' oa	regulated	good	Transplant	clump, transplant, see L3.00
168 Fiddle Wood/Citharexylum spinosum	7.3" dsh 13'x10'w	regulated	poor	Remove	remove, poor condition
169 Pink Tabebuia/Tabebuia heterophylla	5.8" dsh 20'x8'w	npr	poor	Remove	remove, invasive exotic
170 Pink Tabebuia/Tabebuia heterophylla	2.7" dsh 13'x6'w	npr	poor	Remove	remove, invasive exotic
171 Pygmy Date Palm/Phoenix roebellenii	Triple 6'-12' oa	npr	poor	Remove	remove, poor condition
172 Mahogany/Swietenia mahogoni	9.7" dsh 20'x12'w	regulated	poor	Remove	remove, poor condition
173 Pink Tabebuia/Tabebuia heterophylla	9" dsh 20'x8'w	npr	poor	Remove	remove, invasive exotic
174 Pink Tabebuia/Tabebuia heterophylla	4.7" dsh 25'x6'w	npr	poor	Remove	remove, invasive exotic
175 Gumbo Limbo/Bursea simaruba	6.4" dsh 18'x10'w	regulated	poor	Remove	codominant branches, remove Photo 20
176 Pink Tabebuia/Tabebuia heterophylla	8.4" dsh 25'x12'w	npr	poor	Remove	remove, invasive exotic
177 Gumbo Limbo/Bursea simaruba	8.5" dsh 8'x20'w	regulated	poor	Remove	remove, poor condition
178 Pink Tabebuia/Tabebuia heterophylla	5.2" dsh 18'x6'w	npr	poor	Remove	leaning south, remove
179 Pink Tabebuia/Tabebuia heterophylla	8.9" dsh 23'x12'w	npr	poor	Remove	under concrete walkway, remove
180 Crinum Lilly/Crinum spp.	2 plants 3' oa	npr	fair	Remove	remove
181 Green Thatch Palm/Thrinax radiata	6' oa	regulated	good	Transplant	transplant, see L3.00
182 Lignum Vitae/Guaicum sanctum	7.5" dsh 8'x12'w	regulated	fair	Remain	Retain and protect, root prune

[illegible]

DRAWING NAME
TREE PHOTOS

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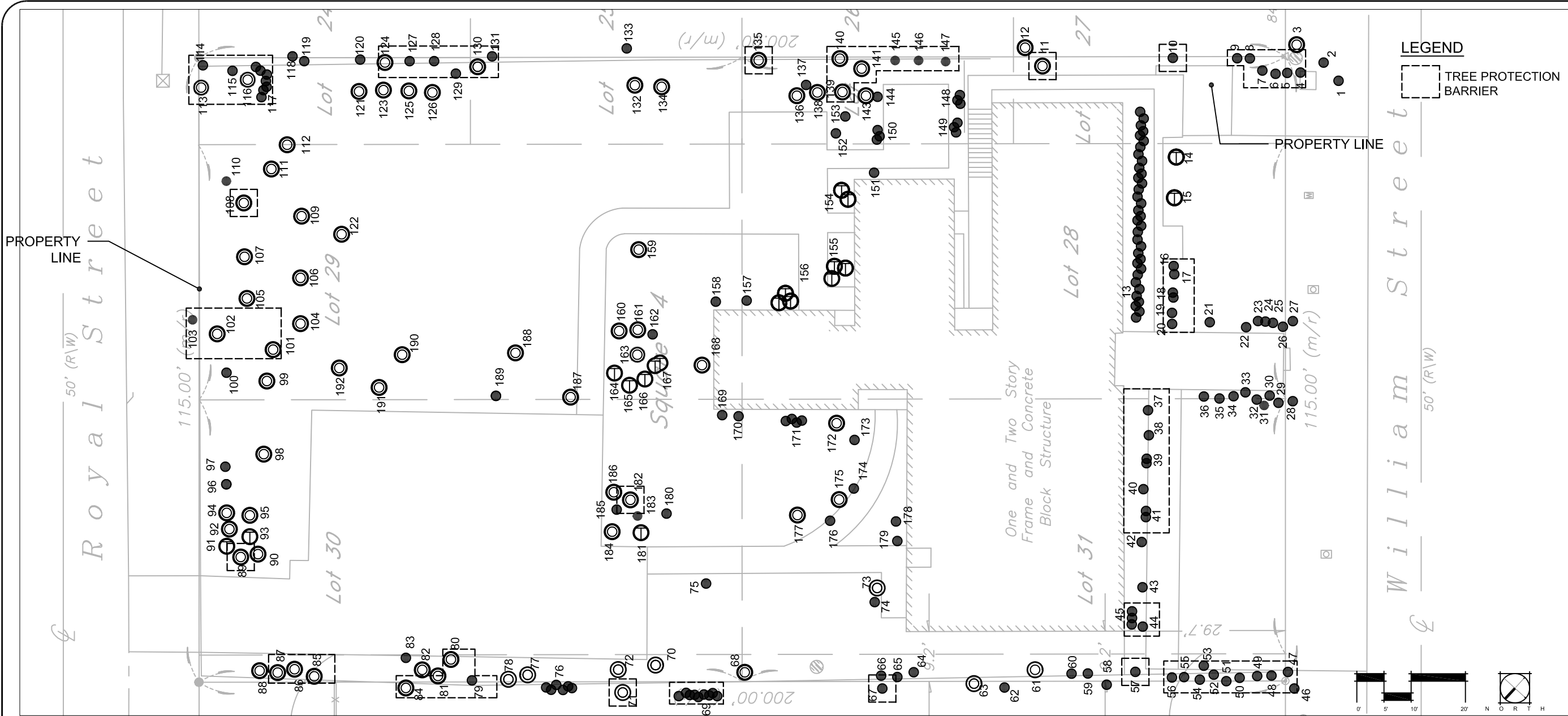
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L.004

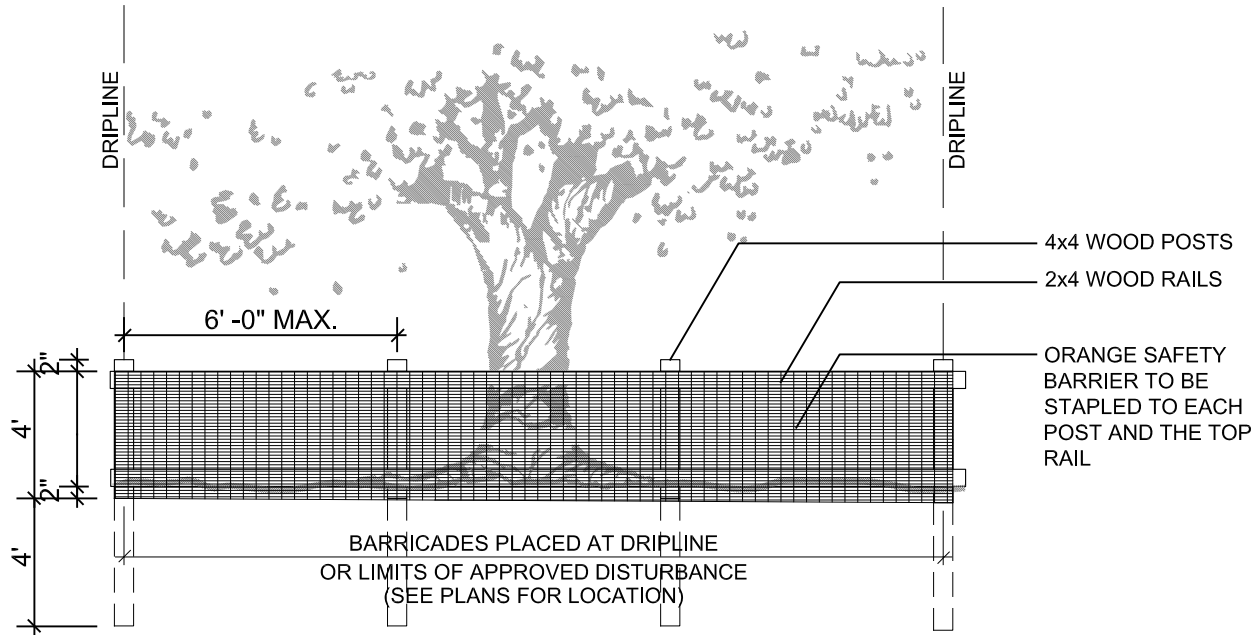
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TREE PHOTOS



TREE PROTECTION AND PRESERVATION NOTES

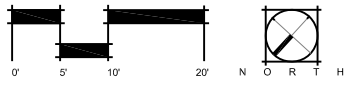
- Protect designated existing trees scheduled to remain against:
 - Unnecessary cutting, breaking, or skinning of roots
 - Skinning and bruising of bark
 - Smothering of trees by stockpiling construction or excavation materials within protection barrier
- Protection barriers (tree barricades) shall be plainly visible and shall create a continuous boundary around trees or vegetation clusters in order to prevent encroachment within the barricade.
- For all trees to be preserved, see Tree Protection and Barricade Elevation detail.
- No grade changes shall be made within the protective barrier zones without prior approval.
- The method of protection is to make certain that 50% of the area under the canopy dripline remains undisturbed (no grade change or root cut) and there shall be no disturbance to the root plate.
- General contractor shall be responsible for the replacement and mitigation costs of trees damaged beyond repair that have been identified as protected and preserved. If trees are harmed through lack of protection or through negligence on the part of the contractor, the contractor shall bear the burden of the cost of repair or replacement.
- Root pruning shall be done by or under supervision of an ISA certified arborist, and meet or exceed ANSI A300 or approved tree care industry standards. A certified arborist must be onsite during the entirety of root pruning.
- No root pruning shall be done within a distance of 3x the diameter the tree unless authorized by the arborist.
- No more than 30% of the trees roots may be pruned.
- A pruning trench shall be cleared in a way that exposes the roots while leaving them intact. Use hand tools or an air knife. Limits of trench to be determined by the arborist.
- All roots outside of the protective barricade to be removed during the development shall be severed clean using a sharp tool to provide a clean cut. Roots shall be left with clean smooth ends and no ragged edges and a two-inch layer of mulch shall be applied over the surface of exposed roots during development within one hour of damage or exposure.
- After pruning, tree roots shall be covered and kept moist. Fill pruning trench with topsoil and water daily for a period determined by the arborist.



1316 ROYAL STREET
KEY WEST, FLORIDA

PROJECT NUMBER	DRAWING NUMBER	DRAWING NAME
	L.005	TREE PROTECTION PLAN

NO.	DATE	DESCRIPTION	BY	CHK	APV
	02.24.21	Issued for Review	IM	KO	KO



NOTES:

1. TOTAL LANDSCAPE AREA SHALL BE A MINIMUM OF 20% THE TOTAL SITE AREA.
2. *ALL SIMPSONS STOPPER (MYRICANTHES FRAGANS) SHALL NOT BE HEDGED AND MUST BE MAINTAINED AT 5' HT MIN.
3. ALL 100% LANDSCAPE MATERIALS USE TO BE NATIVE
4. PALM TREES USED IS 25% OF ALL TREES PROPOSED.
5. TEMPORARY IRRIGATION TO BE PROVIDED DURING PLANT ESTABLISHMENT.
6. NO ROOTS ARE TO BE CUT DURING THE INSTALLATION OF IRRIGATION.

[illegible]

ZONE CHART

ZONE	PLANT (TYPE)	IRRIGATION (TYPE)	WATER (DEMAND)	PRECIP. (RATE)	APPLIC. (IN. PER WEEK REQ.)	GPM (GPM)	MINUTES (PER CYCLE)	TOTAL (GALLONS)
1	PLANT	DRIP	LOW	1.5	0.5	15	10	150
2	PLANT	DRIP	LOW	1.5	0.5	12	10	120
3	PLANT	DRIP	LOW	1.5	0.5	13	10	130
						40	30	400

TOTAL GPM PER RUN CYCLE	800
TOTAL GPM PER WEEK (PEAK WEEKLY DEMAND)	

THE RUN TIMES SHOWN FOR THE ZONE IS FOR ONE RUN CYCLE AND WILL PROVIDE HALF THE REQUIRED AMOUNT OF WATER NEEDED PER WEEK. TWO RUN CYCLES PER WEEK ARE REQUIRED TO PROVIDE THE TOTAL WEEKLY REQUIREMENT. ALL RUN TIMES SHALL BE SET TO FOLLOW THE CURRENT WATER MANAGEMENT DISTRICT REGULATIONS AND REDUCED TO ONLY ONE RUN TIME PER WEEK WHEN RESTRICTED BY DAYLIGHT SAVINGS TIME OR WATER RESTRICTIONS. THE ZONE CHART IS PROVIDED AS A GENERAL OUTLINE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE TO SET THE RUN TIMES BASED ON THE SPECIFIC SITE CONDITIONS AND PLANT REQUIREMENTS. THIS SHALL INCLUDE, BUT NOT LIMITED TO, SOIL TYPE, DRAINAGE, SLOPES, SUN EXPOSURE AND THE ESTABLISHMENT PERIOD. THE TOTAL GPM REQUIRED PER YEAR WILL BE LESS THAN THE PEAK DEMAND PER WEEK TIMES 52 WEEKS, BASED ON THE RUN TIMES BEING REDUCED BY SENSORS AND A REDUCED WATER DEMAND IN THE WINTER MONTHS.

GENERAL NOTES

- 1) INSTALL ALL DRIP TUBING AT GROUND LEVEL AFTER PLANT INSTALLATION. INSTALL NETAFIM TLS6 U SHAPED WIRE STABILIZERS A MIN. OF 4' O.C. TO HOLD THE LINES IN PLACE.
- 2) KEEP ALL DRIP LINE CLEAN AT ALL TIMES BEFORE THE FINAL CONNECTION. ALL TUBE ENDS SHALL BE INTERCONNECTED TO ALL OTHER DRIP TUBES. DO NOT DEAD END TUBING. SINGLE ROWS SHALL HAVE A END CAP AND NOT BENT OVER OR TAPED.
- 3) AVOID SHARP BENDS IN THE TUBING. DO NOT BEND THE TUBING WITH LESS THEN A 12" RADIUS. THERE SHALL NOT BE ANY KINKS IN THE TUBING.
- 4) ALL DRIP TUBING SHALL HAVE UNIFORM SPACING AND BURIAL DEPTH. THE PLAN DOES NOT ALWAYS REFLECT THE EXACT SPACING OR LAYOUT OF THE TUBING. LAYOUT THE TUBING DOWN THE LONGEST WIDTH WHEN POSSIBLE. ADAPT THE TUBING TO CURVED BEDS OR PLANTERS AS REQUIRED. ADJUST AND ADAPT THE TUBING FOR ALL TREES. REFER TO THE TREE DRIP RING DETAIL.
- 5) INSTALL DRIP TUBING TO ALL AREAS THAT SHALL RECEIVE PLANT MATERIAL.
SEE THE LANDSCAPE PLAN FOR THE EXACT LOCATIONS. THERE SHALL BE A MINIMUM OF TWO ROWS OF TUBING ON A SINGLE ROW OF PLANTS.
- 6) SPACE TUBING AS NOTED ON THE PLAN. DO NOT SNAKE TUBING BACK AND FORTH EXCEPT WHERE SHOWN ON THE PLAN. ALWAYS INSTALL A HEADER PIPE UNLESS THE TOTAL GALLONAGE OF AN AREA IS 3 GPM OR LESS.
- 7) REFER TO THE MANUFACTURERS DRIP INSTALLATION MANUAL FOR INSTALLATION INSTRUCTIONS. ALL FITTINGS SHALL BE THE SAME TYPE AND MANUFACTURER AS THE DRIP TUBING.
- 8) ALWAYS FLUSH ALL LINES BEFORE FINAL CONNECTION.
- 9) INSTALL A "SYSTEM ON" INDICATOR FLAG ON EVERY ZONE WHERE IT IS SEEN FROM THE CONTROL VALVE.
- 10) ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
- 11) ALL CONTROL WIRES SPLICES SHALL BE MADE IN VALVE BOXES USING 3M DBR-Y CONNECTORS AND SEALANT AND ALL WIRE SHALL BE 14 GAUGE, EXCEPT AS DETAILED FOR TWO-WIRE SYSTEMS.
- 12) ANY PIPING SHOWN OUTSIDE THE PROPERTY LINE OR RUNNING OUTSIDE A LANDSCAPE AREA IS SHOWN THERE FOR CLARITY ONLY. ALL LINES SHALL BE INSTALLED ON THE PROPERTY AND INSIDE THE LANDSCAPE AREAS OR INSIDE A SCH. 40 SLEEVE.
- 13) THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY THEIR WORK.
- 14) INSTALL FLUSH VALVES WHERE SHOWN AT THE ENDS OF EACH RUN OF DRIP TUBING AND ONE FOR EVERY 15 GPM OF TUBING.
- 15) CLEARLY AND NEATLY MARK THE TOP OF EACH VALVE BOX WITH THE TYPE OF EQUIPMENT THAT IT CONTAINS. (I.E. VALVE, FLUSH VALVE, ETC.)
- 16) THE DRIP ZONE VALVE ASSEMBLY SHALL BE PLACED INSIDE AN ARMOR JUMBO VALVE BOX. THE VALVE SHALL BE INSTALLED AS PER THE DETAIL ON THE PLANS.
- 17) THE DRIP TUBING SHALL HAVE EMITTERS EVERY 12" AND SHALL BE SPACED 12" APART IN GROUND COVER BEDS AND A MINIMUM OF TWO RUNS FOR EACH ROW OF SHRUBS WHEN THE SHRUBS ARE SPACED FARTHER THAN 2' ON CENTER.
- 18) REFER TO THE ZONE CONTROL KIT DETAIL FOR FILTER SIZES.
- 19) THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THEIR WORK WITH THE LANDSCAPE CONTRACTOR.
- 20) REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES AND SHRUBS. HAND DIG AROUND ANY EXISTING TREES. DO NOT CUT ANY ROOTS OVER 2" IN DIAMETER.
- 21) THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING SHOWING ALL IRRIGATION INSTALLATION. THE CONTRACTOR SHALL NEATLY MARK IN RED INK ON WHITE BOND PAPER ANY INSTALLATION THAT DEVIATES FROM THE PLAN. THE AS-BUILT DRAWING SHALL ALSO LOCATE ALL MAINLINE AND VALVES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES. MEASUREMENTS SHALL BE MARKED ON THE PLAN EVEN WHEN THE EQUIPMENT IS INSTALLED IN THE EXACT LOCATION AS THE PLAN.
- 22) ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP. (OR AS OUTLINED IN THE WRITTEN SPECIFICATIONS)
- 24) 48 HOURS BEFORE DIGGING, CALL 1-800-432-4770 (SUNSHINE STATE ONE CALL CENTER)

1316 ROYAL STREET
KEY WEST, FLORIDA

[illegible]

PROJECT NUMBER

DRAWING NUMBER

L.401

DRAWING NAME

IRRIGATION DETAILS

Diagram illustrating the installation of Rainbird Xeri-Bubblers and Netafim dripline loops around a tree root ball.

The diagram shows a cross-section of a tree root ball with a central trunk. A horizontal line at the top represents the ground surface, with a label "DRIP TUBING/PVC LATERAL" pointing to it. A vertical line extends from the ground down to the root ball, labeled "6\"".

Three Rainbird Xeri-Bubblers are shown installed around the root ball, indicated by arrows and the label "RAINBIRD XERI-BUBBLER".

The root ball is labeled "TREE ROOT BALL". A circular line around the root ball is labeled "NETAFIM DRIPLINE LOOP".

Dimensions are provided: a vertical dimension of "6\"" and a horizontal dimension of "12\"".

INSTALL THREE RAINBIRD XERI-BUBBLERS (UXB-360) 0-35 GPH ON ALL CANOPY TREES AND ANY TREE 65 GALLON OR LARGER (1 TO 2 GPM) OR AS REQUIRED TO PROVIDE PROPER COVERAGE.

A schematic diagram showing the connection of a drip tubing system to a main PVC pipe. A horizontal line at the top is labeled "DRIp TUBING". Below it is a thick black horizontal band labeled "MULCH". A vertical pipe, labeled "3/4\" SCH. 40 PVC NIPPLE", passes through the mulch. At the top of this vertical pipe, where it meets the mulch, is a "BARB TEE ADAPTER". The vertical pipe is connected to a horizontal pipe at a 90-degree angle, labeled "3/4\" ELBOW". This horizontal pipe is labeled "PVC PIPE TO VALVE".

PLAN VIEW

10

6

4

3

8

7

2

1

5

9

1. A. HUNTER ICZ-101 1" CONTROL ZONE KIT. (0-20 GPM)
B. HUNTER ICZ-151 1 1/2" CONTROL ZONE KIT. (21-60 GPM)
2. CONTINUE 14 GAUGE WIRE TO THE CONTROLLER. INSTALL THE WIRE UNDER THE MAIN. INSTALL IN CONDUIT WHERE THE MAIN DOES NOT CONTINUE. (EXCEPT TWO-WIRE SYSTEMS)
3. HUNTER ICV VALVE
4. WATERPROOF CONNECTORS (DBY ON TWO-WIRE SYS.)
5. PVC UNION FOR SERVICING ASSEMBLY.
6. JUMBO PLASTIC VALVE BOX.
7. PVC PIPE FROM POINT OF CONNECTION. (45 OR 90 DEG.)
8. PVC PIPE TO IRRIGATION ZONE.
9. SOIL SEPARATOR FABRIC W/ BRICK UNDER EACH CORNER
10. FINISHED GRADE.

A cross-sectional diagram of a Rainbird subterranean emitter box. The box is a rectangular structure with a lid. The lid is labeled "BRAND F-VALVE INTO LID FOR FLUSH VALVE". The box is labeled "FINISH GRADE RAINBIRD SUBTERRANEAN EMITTER BOX". The box is filled with "MULCH". The box is labeled "AUTO FLUSH VALVE". The box is labeled "BLANK TUBING".

Diagram illustrating the components of the Superflex UV White Tubing Stake and Indicator Flag assembly:

- INDICATOR FLAG
- SUPER FLEX UV WHITE TUBING
- STAKE
- FINISH GRADE
- BARB x BARB CONNECTOR
- TUBING

Diagram illustrating the trench cross-section for pipe installation. The diagram shows a trench with a pipe at the bottom. The surrounding soil is labeled "EXISTING SOIL". The backfill material is labeled "COMPACT THE BACKFILL TO AVOID SETTLING". The pipe is labeled "LATERAL OR MAINLINE". The trench depth is specified as "12\" FOR LATERAL PIPE AND 18\" FOR THE MAIN.". The bottom of the trench is labeled "CONTROL WIRES".

RAIN SENSOR

ATTACH TO BUILDING

SEE INSERT FOR CONTINUATION TO HUNTER TO MINI-CLIK

EXTEND PAST EAVE OF BLDG.

ELECTRICAL CONDUIT 120 V.

PVC CONDUIT TO THE START OF THE MAINLINE. PLACE WIRES UNDER MAINLINE OR INSIDE CONDUIT.

GROUND WITH 5/8" X 8' COPPER COATED RODS TO 10 OHM'S OR LESS. MAKE CONNECTION WITH CADWELD PLUS ONE SHOT.

WALL OF BUILDING

GROUND ROD

CADWELD PLUS ONE SHOT.

1316 ROYAL STREET
KEY WEST, FLORIDA

[illegible]

L.402

DRAWING NAME
IRRIGATION DETAILS