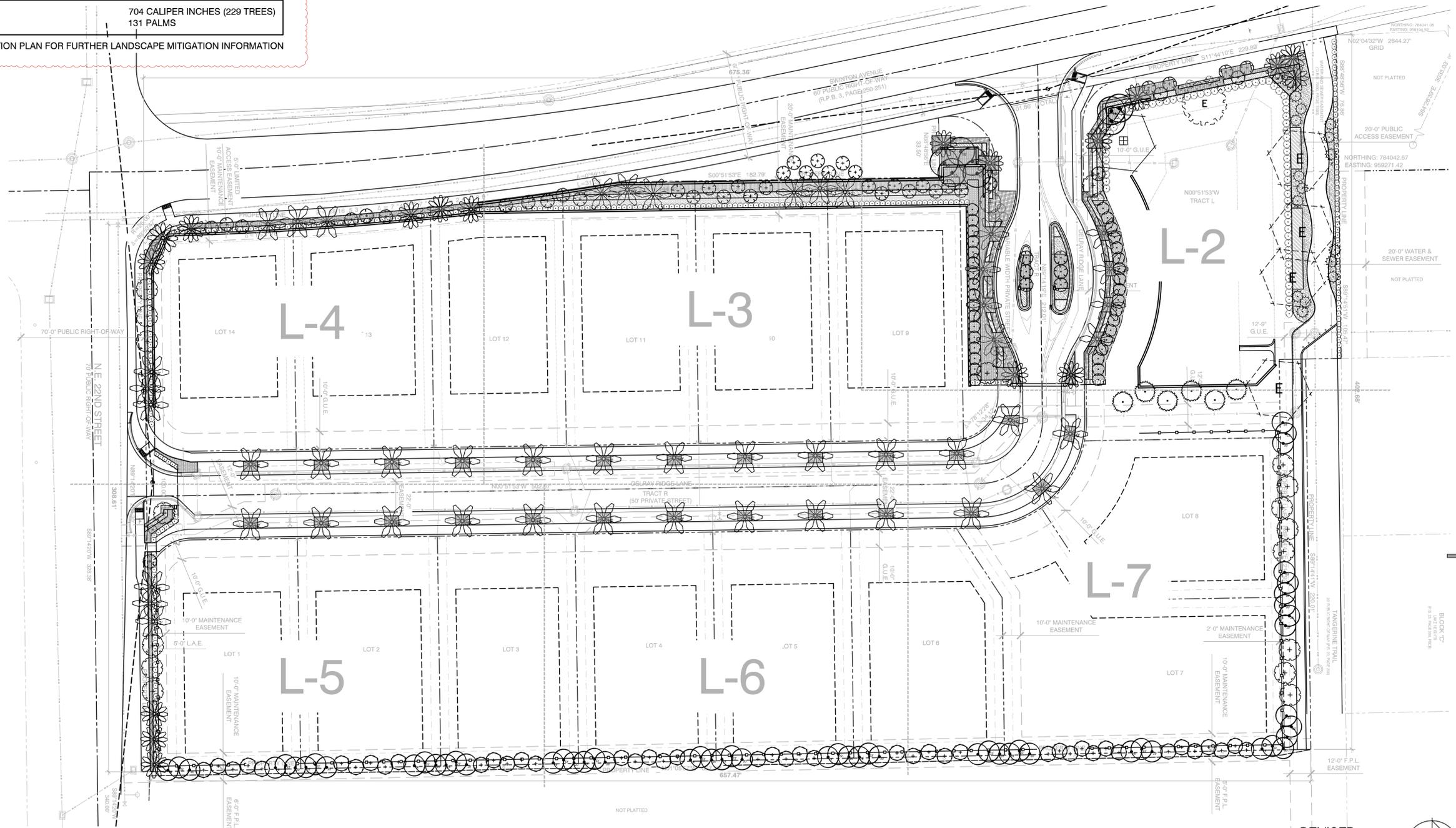


LANDSCAPE MITIGATION 	
REQUIRED	PROVIDED
ABOVE 50% CONDITION (REPLACE AT INCHES CALIPER OR HEIGHT OR 100% IN LIEU FEE)	
TREE CALIPER INCHES REMOVED = 316.8"	326.5 INCHES PROVIDED
PALMS REMOVED = 97	0 TREES IN LIEU FEE 118 PALMS PROVIDED 7 PALMS IN LIEU FEE
BETWEEN 25% AND 50% CONDITION (REPLACE AT 1 FOR 1 OR TREES 50% IN LIEU FEE)	
TREES REMOVED = 44	TREES REPLACED = 44
PALMS REMOVED = 9	0 TREES IN LIEU FEE PALMS REPLACED = 9
BELOW 50% CONDITION (REPLACE AT 1 FOR 1)	
TREES REMOVED = 112	TREES REPLACED = 112
PALMS REMOVED = 4	PALMS REPLACED = 4
TOTAL PROPOSED	
	704 CALIPER INCHES (229 TREES) 131 PALMS

*REFER TO TREE PRESERVATION PLAN FOR FURTHER LANDSCAPE MITIGATION INFORMATION



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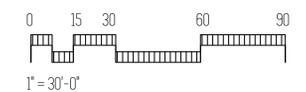
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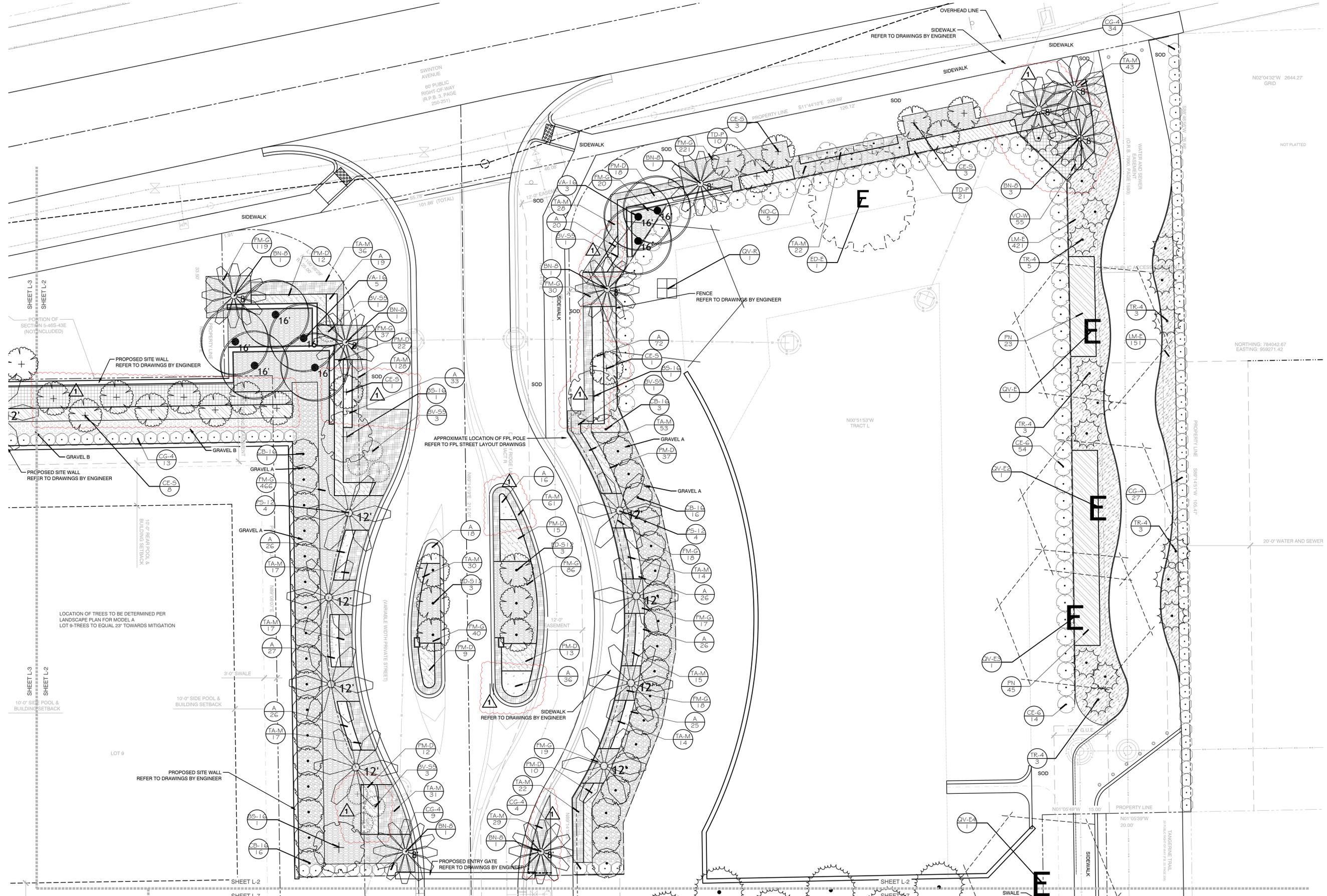
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L-1

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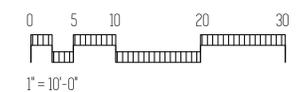
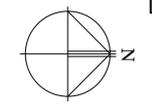
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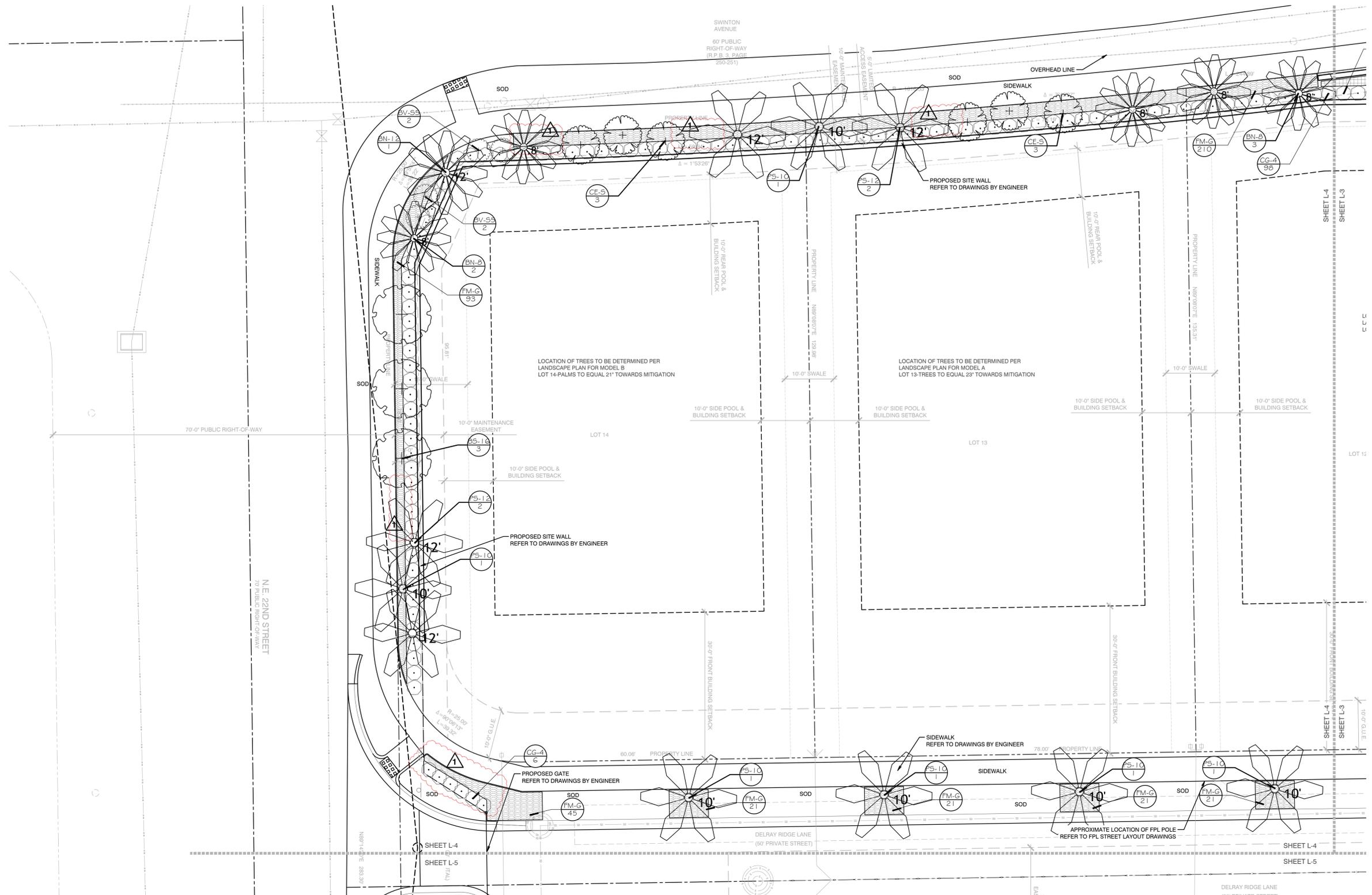
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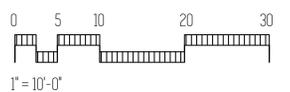
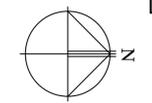
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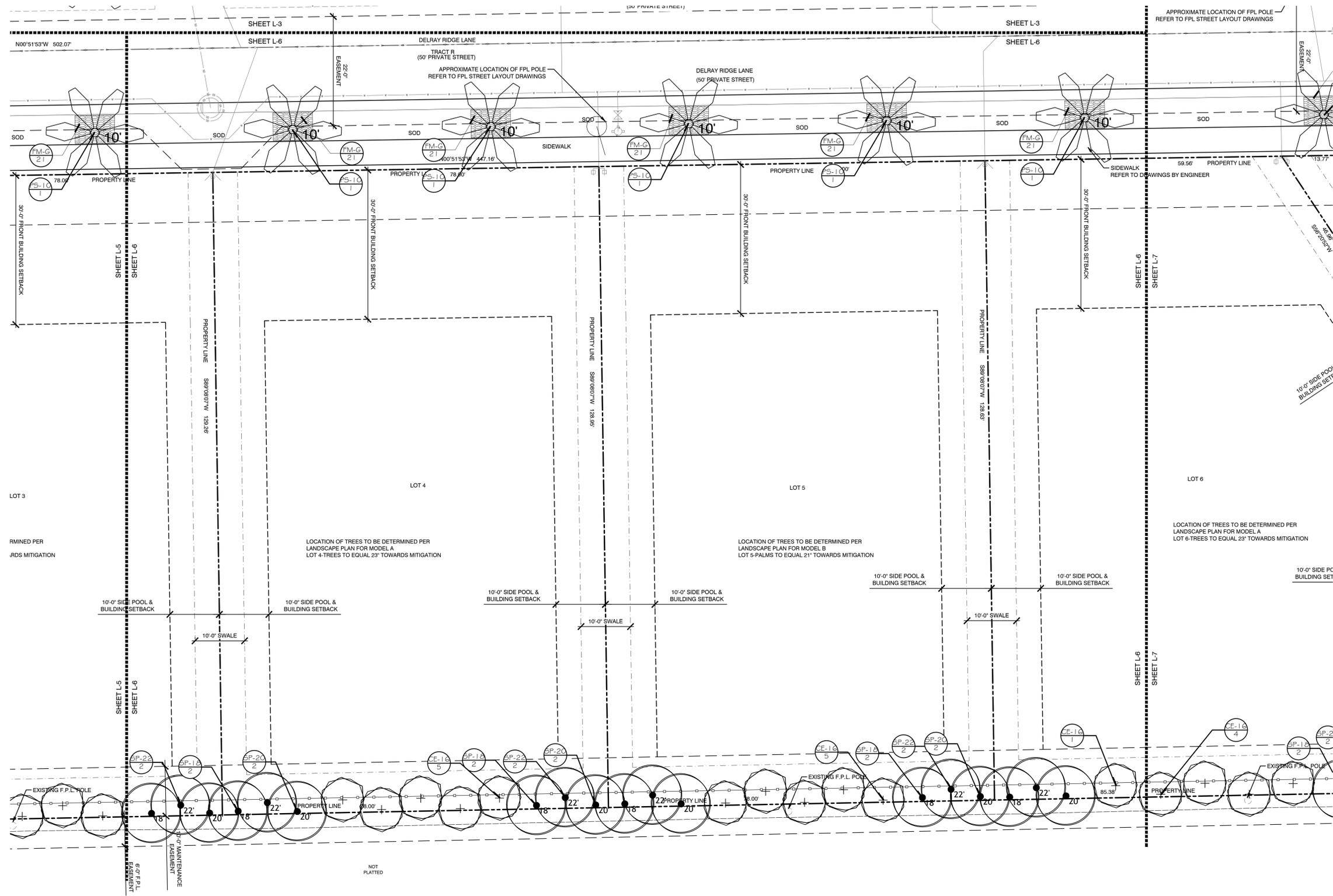
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L-4

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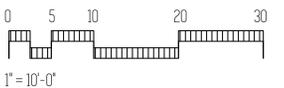


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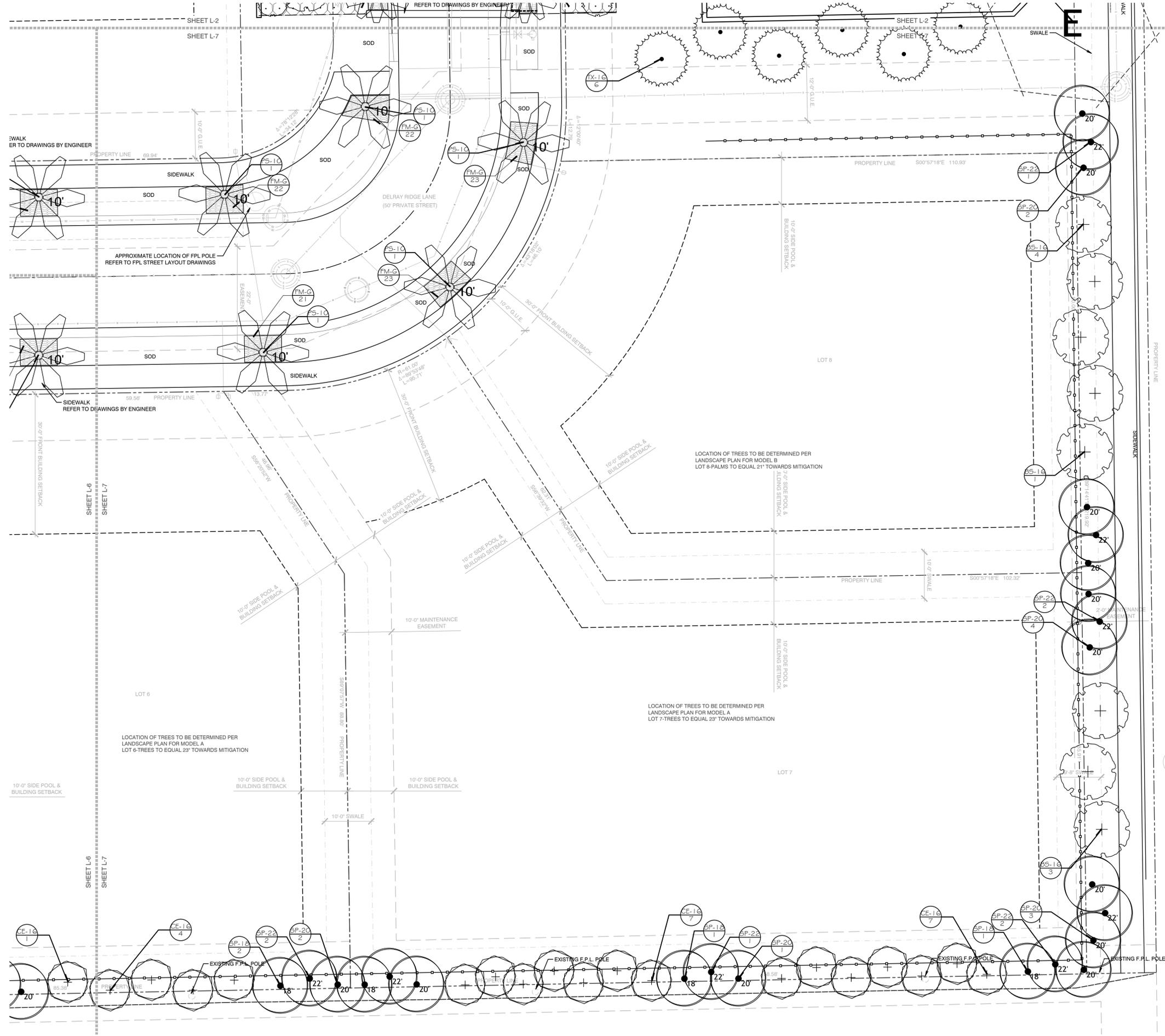


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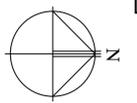
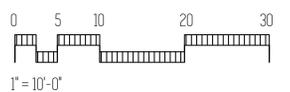
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LANDSCAPE PLAN

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PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	CONT	CAL	HT	SPD	NAT	QTY	REMARKS
BS-16	Bursera simaruba / Gumbo Limbo	100G	4" CAL	16' HT	7' SPD	NATIVE	18	FULL DENSE, SYMMETRICAL CANOPY WITH CHARACTER. SUBMIT PHOTO TO LA FOR APPROVAL.
CB-16	Calophyllum brasiliense / Brazilian Beautyleaf	B&B	3" CAL	16' HT	7'-8' SPD	NON-NATIVE	36	FLORIDA FANCY, SINGLE LEADER, FULL DENSE, SYMMETRICAL CANOPY, 8' CT. MATCHING-SUBMIT PHOTO TO LA FOR APPROVAL.
CE-16	Conocarpus erectus / Green Buttonwood	100G	3" CAL	16' HT	7' SPD	NATIVE	44	Grade #1, SINGLE LEADER, FULL DENSE CANOPY, NO VOIDS. STRAIGHT, UNSCARRED TRUNK, 8' CT-MATCHING.
CE-S	Conocarpus erectus 'Sericeus' / Silver Buttonwood	45G	3" CAL	16' HT	7'-8' SPD	NATIVE	42	MULTI TURNK, DENSE, SYMMETRICAL CANOPY
ED-S12	Elaeocarpus decipiens / Japanese Blueberry Tree	65G	3" CAL	12' HT	6' SPD	NON-NATIVE	6	STANDARD/TREE FORM, DENSE, SYMMETRICAL CROWN, STRAIGHT TRUNK, 4" CT, MATCHING-SUBMIT PHOTO
ED-E	Eucalyptus deglupta / Eucalyptus Tree	N/A	22" CAL	40' HT			1	EXISTING
QV-E4	Quercus virginiana / Southern Live Oak	N/A	15.25" CAL	35' HT			1	EXISTING
QV-E2	Quercus virginiana / Southern Live Oak	N/A	16.5" CAL	35' HT			1	EXISTING
QV-R	Quercus virginiana / Southern Live Oak	N/A	21" CAL	25' HT			1	RELOCATE
QV-E3	Quercus virginiana / Southern Live Oak	N/A	23" CAL	35' HT			1	EXISTING
QV-E	Quercus virginiana / Southern Live Oak	N/A	23" CAL	35' HT			1	EXISTING
TX-16	Taxodium distichum / Bald Cypress	FIELD GROWN	4" CAL	16' HT	7' SPD	NATIVE	6	STANDARD-DENSE, SYMMETRICAL, DEEP GREEN FOLIAGE, NO VOIDS, STRAIGHT TRUNK, 8' CT, MATCHING
PALM TREES	BOTANICAL / COMMON NAME	CONT	CAL	HT	SPD	NAT	QTY	REMARKS
BN-12	Bismarckia nobilis 'Silver' / Silver Bismarck Palm	FIELD GROWN		12' CT	16' SPD	NON-NATIVE	1	FLORIDA FANCY, HEAVY, INTACT FRONDS. MATCHING-SUBMIT PHOTO
BN-8	Bismarckia nobilis 'Silver' / Silver Bismarck Palm	FIELD GROWN		8' CT	12' SPD	NON-NATIVE	17	FLORIDA FANCY, HEAVY, INTACT FRONDS. MATCHING-SUBMIT PHOTO
PS-10	Phoenix sylvestris / Wild Date Palm	B&B		10' CT	16' SPD	NON-NATIVE	30	FULL HEAD, HEAVY CALIPER, STRAIGHT TRUNK, MATCHING
PS-12	Phoenix sylvestris / Wild Date Palm	B&B		12' CT	16' SPD	NON-NATIVE	18	FULL HEAD, HEAVY CALIPER, STRAIGHT TRUNK, MATCHING
SP-18	Sabal palmetto / Cabbage Palmetto	FIELD GROWN		18' CT		NATIVE	15	FLORIDA FANCY, SLICK-MATCHING. SUBMIT PHOTO TO LA FOR APPROVAL.
SP-20	Sabal palmetto / Cabbage Palmetto	FIELD GROWN		20' CT		NATIVE	23	FLORIDA FANCY, SLICK-MATCHING. SUBMIT PHOTO TO LA FOR APPROVAL.
SP-22	Sabal palmetto / Cabbage Palmetto	FIELD GROWN		22' CT		NATIVE	19	FLORIDA FANCY, SLICK-MATCHING. SUBMIT PHOTO TO LA FOR APPROVAL.
TR-4	Thrinax radiata / Florida Thatch Palm	25G		4' HT	3'-4' SPD	NATIVE	17	SINGLE, FULL, INTACT FRONDS, GOOD COLOR
VA-16	Veitchia arecina / Montgomery Palm	B&B		16' HT	16' SPD	NON-NATIVE	8	SINGLE, FULL HEAD, STRAIGHT UNSCARRED TRUNK, 8' CT MIN.
SHRUBS	BOTANICAL / COMMON NAME	CONT	HT	W				REMARKS
BV-S5	Bougainvillea x 'Barbara Karst' / Barbara Karst Bougainvillea	25G/21"	5' HT	4'-5" W			14	STANDARD, FULL, DENSE, SYMMETRICAL HEAD. MATCHING
CG-4	Clusia guttifera / Small-Leaf Clusia	7G/14"	4' HT	30" W			320	FULL TO BASE, LOW BRANCHING, DENSE INTACT FOLIAGE, NO VOIDS
CE-6	Conocarpus erectus / Green Buttonwood	15G/17"	6' HT	36" W			68	FULL TO BASE, LOW BRANCHING, DENSE INTACT FOLIAGE, NO VOIDS
NO-C	Nerium oleander 'Calypso' / Calypso Oleander	30G	6'-8' HT	36" W			9	FULL TO BASE, PINK, FULL, DENSE FOLIAGE TO BASE.
SHRUB AREAS	BOTANICAL / COMMON NAME	CONT	HT	W				REMARKS
A	Annuals / Annuals TBS	4" POT	10"				370	FULL POTS, BLOOMING. TO BE SELECTED BY OWNER AT TIME OF INSTALL
FM-G	Ficus microcarpa 'Green Island' / Green Island Ficus	3G/10"	16"	14"			2,113	FULL, DENSE FOLIAGE, GOOD COLOR
LM-E	Liriope muscari 'Emerald Goddess' / Liriope	1G/6"	12"	10"			572	FULL, DENSE POTS. GOOD COLOR
PM-D	Podocarpus macrophyllus 'Dwarf Pringles' / Dwarf Podocarpus	3G/10"	16"	14"			158	FULL, DENSE, FOLIAGE TO BASE
PN	Psychotria nervosa / Wild Coffee	3G/10"	24"	24"			185	FULL, DENSE FOLIAGE TO BASE
TD-P	Tabernaemontana divaricata 'Pinwheel Jasmine' / Pinwheel Jasmine	3G/10"	18"	18"			31	FULL, DENSE FOLIAGE, FULL TO BASE, GOOD COLOR
TA-M	Trachelospermum asiaticum 'Minima' / Minima Jasmine	1G/6"	14"	14"			595	FULL POT, DENSE FOLIAGE
VO-W	Viburnum obovatum / Walter's Viburnum	3G/10"	18"	18"			586	DENSE, SYMMETRICAL FOLIAGE. NO VOIDS

MISC	BOTANICAL NAME / COMMON NAME	QTY	REMARKS
BIO	Bio Barrier-Typar or equal	Verify LF in field	PROVIDE BIO BARRIER ROOT CONTROL AT ROOTBALLS AS REQUIRED BY UTILITIES
GRAVEL A	Selected by client	Verify quantity in field	PROVIDE MIN. 2" THICK APPLICATION PROVIDE OPTIONAL BLACK ALUMINUM EDGING ALONG LANDSCAPE BEDS-PERMALOC 'CLEAN LINE' OR EQUAL
GRAVEL B	Selected by client	Verify quantity in field	PROVIDE MIN. 2" THICK APPLICATION PROVIDE OPTIONAL BLACK ALUMINUM EDGING ALONG LANDSCAPE BEDS-PERMALOC 'CLEAN LINE' OR EQUAL
MULCH	Grade B+ Cypress Mulch	Verify quantity in field	MINIMUM 3" DEPTH
SOD	'Empire' Zoysia	Verify SF in field	MINIMUM 16"X24" PIECES, GRADED #1 OR BETTER, SEE LANDSCAPE SPECIFICATIONS SHEET

NOTES

TREES OR PALMS PLANTED IN SOD SHALL HAVE MULCH RINGS TO PROTECT THEM FROM LAWN MAINTENANCE EQUIPMENT AND STRING TRIMMERS.

ALL PLANT MATERIAL SHALL BE FLORIDA #1 OR BETTER, AS DESCRIBED IN GRADES AND STANDARDS FOR NURSERY PLANTS, STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, TALLAHASSEE FLORIDA, LATEST EDITION.

TO PROTECT AGAINST GANODERMA PALM FUNGUS, ALWAYS REMOVE ALL PALM STUMPS FROM PROPERTY.

PLA DESIGN STUDIO TO APPROVE STAKED LAYOUT OF ALL TREES AND PLANTING LAYOUT PRIOR TO INSTALLATION.

ALL IRRIGATION, IRRIGATION EQUIPMENT AND IRRIGATION BOXES TO BE CONCEALED.

PLEASE NOTE:

- ALL PLANT MATERIAL SHALL BE FLORIDA #1 GRADE OR BETTER
- MULCH SHALL BE APPLIED TO A MINIMUM DEPT OF THREE (3) INCHES IN ALL PLANTING BEDS
- ALL PROHIBITED PLANT SPECIES SHALL BE ERADICATED FROM THE SITE
- ALL LANDSCAPE AREAS SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM, AUTOMATICALLY OPERATED, TO PROVIDE COMPLETE COVERAGE TO ALL PLANT MATERIALS AND GRASS
- THREE (3) PALMS ARE EQUIVALENT TO (1) SHADE TREE
- SOD AND IRRIGATION SHALL BE PROVIDED WITHIN THE UNPAVED PORTION OF THE RIGHT OF WAY ADJACENT TO THE PROPERTY LINE
- REINFORCED CONCRETE CURBING AT LEAST SIX INCHES IN HEIGHT SHALL BE PROVIDED AROUND ALL LANDSCAPE ISLANDS AND AS A SEPARATOR BETWEEN ALL LANDSCAPE AREAS THAT ARE ADJACENT TO VEHICULAR USE AREAS UNLESS SUCH CURBING WILL INTERFERE WITH THE DRAINAGE NO MORE THAN 50% OF REQUIRED TREES SHALL BE PALMS



LANDSCAPE CHART		
A	TOTAL LOT AREA*	72,376 SF
B	STRUCTURES, PARKING WALKWAYS, DRIVES, ETC	33,081 SF
C	TOTAL PVIOUS LOT AREA	C= (A-B) 39,295 SF
D	AREA OF SHRUBS AND GROUND COVER REQ'D	D= (CX.30) 11,789 SF
E	AREA OF SHRUBS AND GROUND COVER PROVIDED	12,464 SF
F	NATIVE VEGETATION REQ'D	F= (D X.25) 2,947 SF
G	NATIVE VEGETATION PROVIDED	3,814 SF
H	TOTAL PAVED VEHICULAR USE AREA	18,977 SF
I	TOTAL INTERIOR LANDSCAPE AREA REQUIRED	I=(H X.10) 1,898 SF
J	TOTAL INTERIOR LANDSCAPE AREA PROVIDED	4,969 SF
K	TOTAL INTERIOR SHADE TREES REQUIRED	K=I/125 SF 16 TREES
L	TOTAL INTERIOR SHADE TREES PROVIDED	53 TREES
M	TOTAL LF SURROUNDING PARKING/VEHICULAR USE AREAS	0 LF
N	TOTAL NUMBER OF PERIMETER TREES REQUIRED	N=(M/30) IF ADJACENT TO RESIDENTIAL USE 0 TREES
O	TOTAL NUMBER OF PERIMETER TREES PROVIDED	0 TREES
P	TOTAL NUMBER OF EXISTING TREES TO BE SAVED ON SITE	6 TREES
Q	TOTAL NUMBER OF NATIVE TREES REQUIRED	Q=[(K+N) X .50] 8 TREES
R	TOTAL NUMBER OF NATIVE TREES PROVIDED	100 TREES
S	TOTAL NUMBER TREES ON PLAN PROVIDED	158 TREES

*AREA OF SINGLE FAMILY LOTS HAS BEEN SUBTRACTED FROM TOTAL

LANDSCAPE AREAS CHART	
REQUIRED	PROVIDED
WEST STREET BUFFER	
1 TREE PER 30 LINEAL FEET 675 LINEAL FEET = 23 TREES 50% NATIVE TREES = 12 TREES 50% TREES = 12 TREES	51 TREES PROPOSED 33 NATIVE TREES PROPOSED 33 TREES PROPOSED
NORTH BUFFER	
1 TREE PER 25 LINEAL FEET 403 LINEAL FEET = 17 TREES 50% NATIVE TREES = 9 TREES 50 % TREES = 9 TREES	19 TREES PROPOSED 17 NATIVE TREES PROPOSED 12 TREES PROPOSED
SOUTH STREET BUFFER	
1 TREE PER 30 LINEAL FEET 309 LINEAL FEET = 11 TREES 50% NATIVE TREES = 6 TREES 50 % TREES = 6 TREES	14 TREES PROPOSED 8 NATIVE TREES PROPOSED 8 TREES PROPOSED
EAST BUFFER	
1 TREE PER 25 LINEAL FEET 658 LINEAL FEET = 27 TREES 50% NATIVE TREES = 14 TREES 50% TREES = 14 TREES	44 TREES PROPOSED 59 NATIVE TREES PROPOSED 44 TREES PROPOSED
INTERIOR	
10% SF OF PARKING/ACCESSWAYS 1 TREE PER 125 SF 16,759 SF * 10% = 1,676 SF 1,676 SF = 14 TREES 50% NATIVE TREES = 7 TREES 50 % TREES = 7 TREES	53 TREES PROVIDED 10 NATIVE TREES PROVIDED 45 TREES PROVIDED

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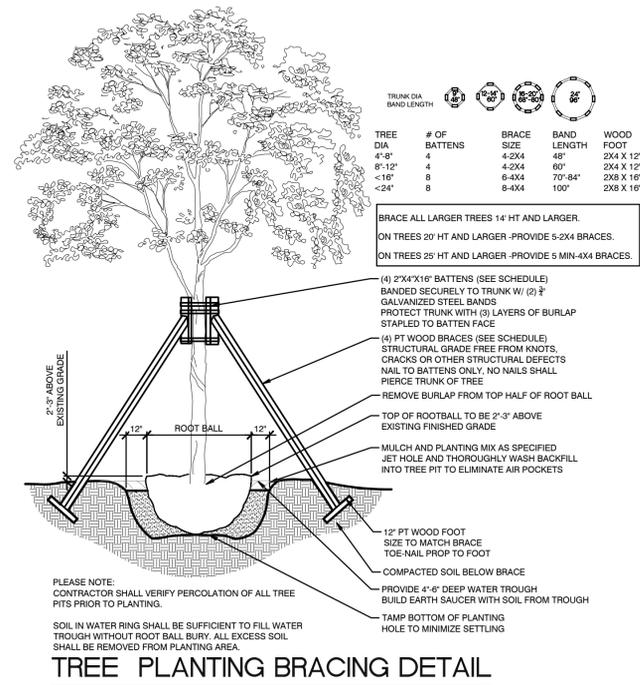
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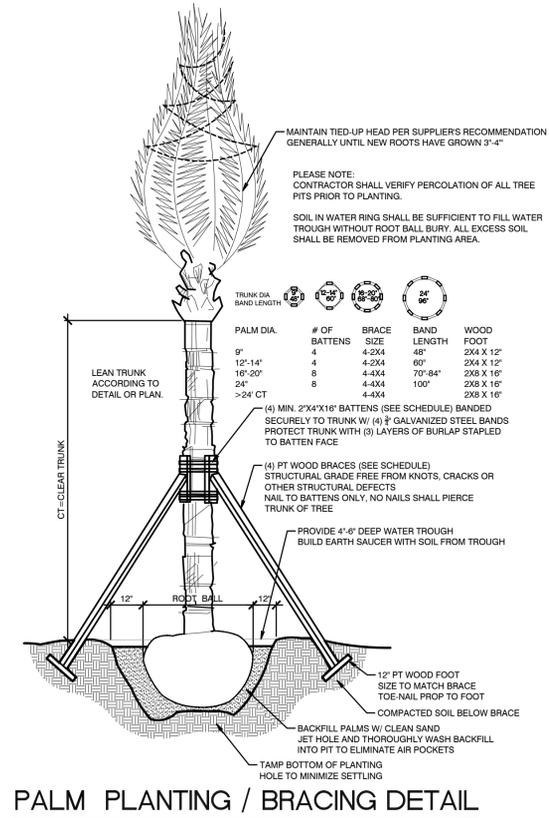
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LANDSCAPE SCHEDULE

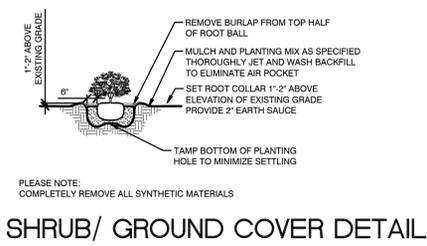
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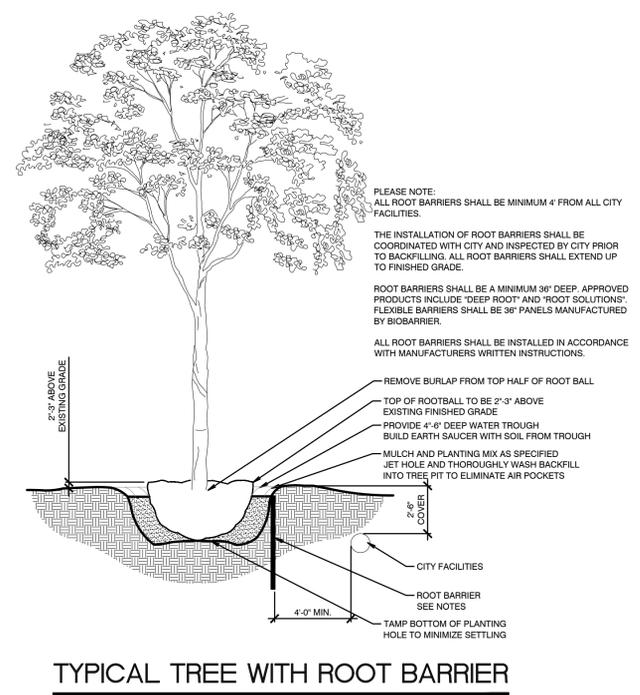
TREE PLANTING BRACING DETAIL



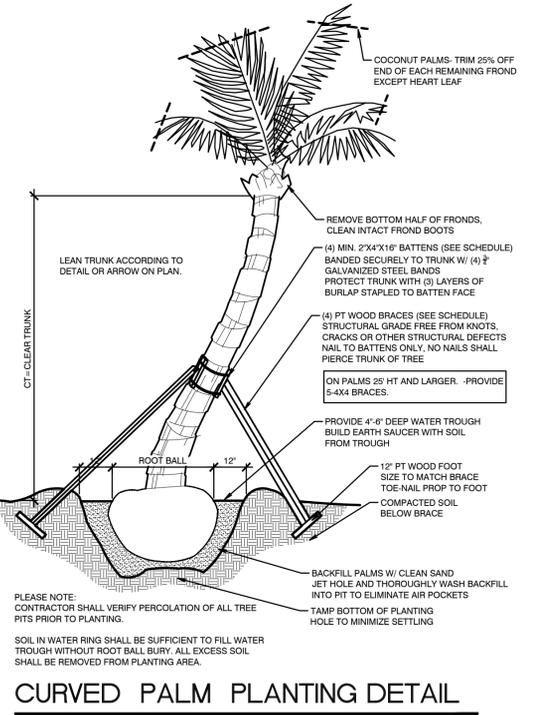
PALM PLANTING / BRACING DETAIL



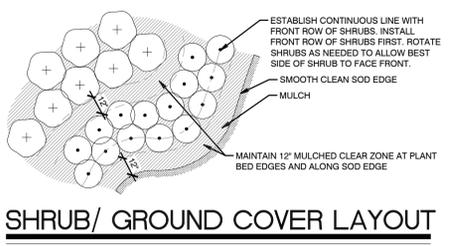
SHRUB/ GROUND COVER DETAIL



TYPICAL TREE WITH ROOT BARRIER



CURVED PALM PLANTING DETAIL



SHRUB/ GROUND COVER LAYOUT

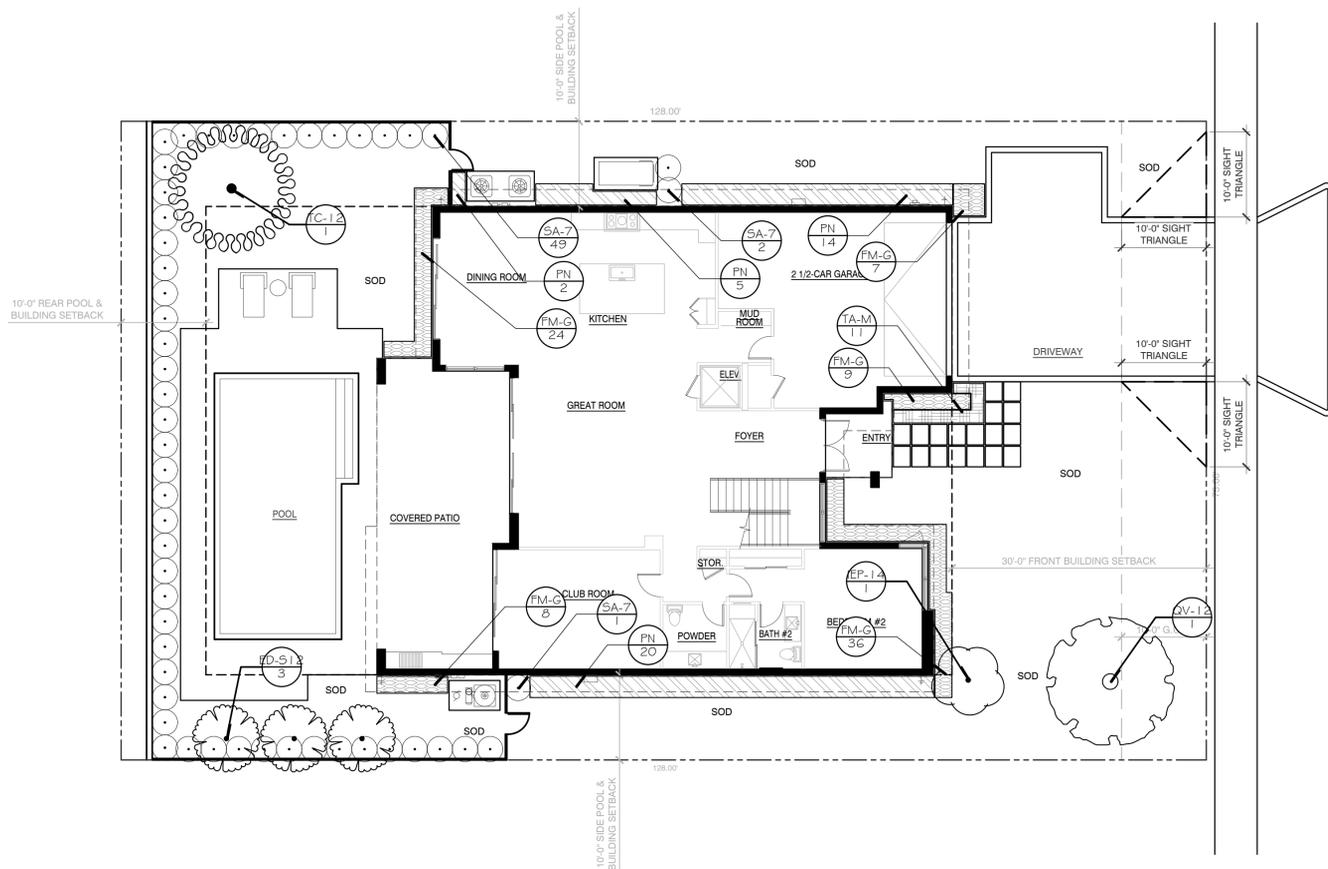
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LANDSCAPE
 DETAILS

sheet number
 L-9



LANDSCAPE CHART		
A	TOTAL LOT AREA	9,600 SF
B	STRUCTURES, PARKING WALKWAYS, DRIVES, ETC	5,414 SF
C	TOTAL PERVIOUS LOT AREA C= (A-B)	4,186 SF
D	AREA OF SHRUBS AND GROUND COVER REQ'D D= (C X .20)	838 SF
E	AREA OF SHRUBS AND GROUND COVER PROVIDED	856 SF
F	NATIVE VEGETATION REQ'D F= (D X .25)	210 SF
G	NATIVE VEGETATION PROVIDED	228 SF
H	TOTAL NUMBER OF TREES EXISTING ON SITE	0
I	TOTAL NUMBER OF TREES REQ'D I= (A/2500 SF)	4
J	TOTAL NUMBER OF TREES ON PLAN PROVIDED	6
K	TOTAL NUMBER OF NATIVE TREES REQ'D K= (I X .5)	2
L	TOTAL NUMBER OF NATIVE TREES PROVIDED	2

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	CONT	CAL	HT	SPD	NAT	QTY	REMARKS
ED-S12	Elaeocarpus decipiens / Japanese Blueberry Tree	65G	3" CAL	12' HT	6' SPD	NON-NATIVE	3	STANDARD/TREE FORM, DENSE, SYMMETRICAL CROWN, STRAIGHT TRUNK, 4' CT, MATCHING-SUBMIT PHOTO
IEP-14	Ilex x attenuata 'East Palatka' / East Palatka Holly	45G	3" CAL	12'-14' HT	4'-5' SPD	NATIVE	1	STANDARD-DENSE, SYMMETRICAL, DEEP GREEN FOLIAGE, NO VOIDS, STRAIGHT TRUNK, 5' CT, MATCHING
OV-12	Quercus virginiana / Southern Live Oak	45G	2.5" CAL	12' HT	5' SPD	NATIVE	1	SINGLE LEADER, DENSE, SYMMETRICAL CANOPY, STRAIGHT TRUNK, 5' CT
TC-12	Tabebuia caraiba / Silver Trumpet	FIELD GROWN	2.5" CAL	10'-12' HT	7'-8' SPD	NON-NATIVE	1	FULL, DENSE CANOPY, CHARACTER TRUNK. SUBMIT PHOTO TO LA FOR APPROVAL
SHRUBS	BOTANICAL / COMMON NAME	CONT	HT	W				
SA-7	Schefflera arboricola / Dwarf Schefflera Green	7G/14"	3'-4' HT	3'-4' W	52	GREEN-BUSH, FULL TO BASE, UPRIGHT GROWTH, NO VOIDS.GOOD COLOR		
SHRUB AREAS	BOTANICAL / COMMON NAME	CONT	HT	W				
FM-G	Ficus microcarpa 'Green Island' / Green Island Ficus	3G/10"	16"	14"	84	FULL, DENSE FOLIAGE, GOOD COLOR		
PN	Psychotria nervosa / Wild Coffee	3G/10"	24"	24"	41	FULL, DENSE FOLIAGE TO BASE		
TA-M	Trachelospermum asiaticum 'Minima' / Minima Jasmine	1G/6"	14"	14"	11	FULL POT, DENSE FOLIAGE		
MISC	BOTANICAL NAME / COMMON NAME	QTY	REMARKS					
BIO	Bio Barrier-Typar or equal	Verify LF in field	PROVIDE BIO BARRIER ROOT CONTROL AT ROOTBALLS AS REQUIRED BY UTILITIES					
GRAVEL	Selected by client	Verify quantity in field	PROVIDE MIN. 2" THICK APPLICATION PROVIDE OPTIONAL BLACK ALUMINUM EDGING ALONG LANDSCAPE BEDS-PERMALOC 'CLEAN LINE' OR EQUAL					
MULCH	Grade B+ Cypress Mulch	Verify quantity in field	MINIMUM 3" DEPTH					
SOD	'Empire' Zoysia	Verify SF in field	MINIMUM 16"X24" PIECES, GRADED #1 OR BETTER, SEE LANDSCAPE SPECIFICATIONS SHEET					

NOTES

TREES OR PALMS PLANTED IN SOD SHALL HAVE MULCH RINGS TO PROTECT THEM FROM LAWN MAINTENANCE EQUIPMENT AND STRING TRIMMERS.

ALL PLANT MATERIAL SHALL BE FLORIDA #1 OR BETTER, AS DESCRIBED IN GRADES AND STANDARDS FOR NURSERY PLANTS, STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, TALLAHASSEE FLORIDA, LATEST EDITION.

TO PROTECT AGAINST GANODERMA PALM FUNGUS, ALWAYS REMOVE ALL PALM STUMPS FROM PROPERTY.

PLA DESIGN STUDIO TO APPROVE STAKED LAYOUT OF ALL TREES AND PLANTING LAYOUT PRIOR TO INSTALLATION.

ALL IRRIGATION, IRRIGATION EQUIPMENT AND IRRIGATION BOXES TO BE CONCEALED.

PLEASE NOTE:

- ALL PLANT MATERIAL SHALL BE FLORIDA #1 GRADE OR BETTER
- MULCH SHALL BE APPLIED TO A MINIMUM DEPT OF THREE (3) INCHES IN ALL PLANTING BEDS
- ALL PROHIBITED PLANT SPECIES SHALL BE ERADICATED FROM THE SITE
- ALL LANDSCAPE AREAS SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM, AUTOMATICALLY OPERATED, TO PROVIDE COMPLETE COVERAGE TO ALL PLANT MATERIALS AND GRASS
- SOD AND IRRIGATION SHALL BE PROVIDED WITHIN THE UNPAVED PORTION OF THE RIGHT-OF-WAY ADJACENT TO THE PROPERTY LINE
- THREE (3) PALMS ARE EQUIVALENT TO (1) SHADE TREE
- ANY TREES PLACED WITHIN THE WATER, SEWER OR DRAINAGE EASEMENTS SHALL CONFORM TO THE CITY OF DELRAY BEACH STANDARD DETAILS: LD 1.1 AND LD1.2
- NO MORE THAN 50% OF REQUIRED TREES SHALL BE PALMS

Delray Ridge Model A
 Delray Beach, FL



Stephanie Portus FL Reg LA 6667215
 Certificate of Authorization LC26009690
 project number
 20-102
 sheet name

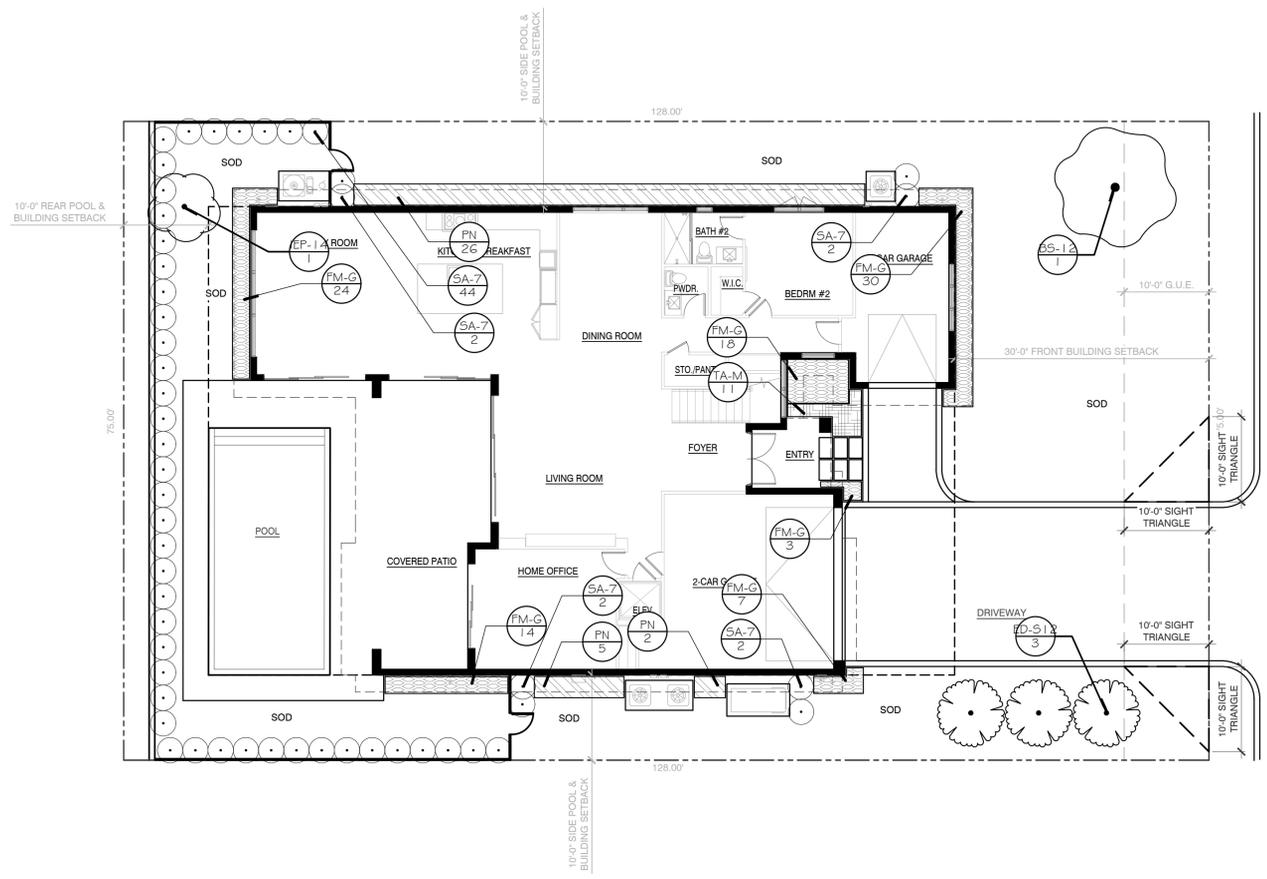
REVISED 09/01/21

LANDSCAPE PLAN

sheet number L-10

1" = 10'-0"

09/01/21
ISSUED FOR:
1. SUBMISSION 07/14/21
2. REVISED 09/01/21
3.
4.
5.
6.
7.
8.
9.
10.



LANDSCAPE CHART		
A	TOTAL LOT AREA	9,600 SF
B	STRUCTURES, PARKING WALKWAYS, DRIVES, ETC	6,064 SF
C	TOTAL PVIOUS LOT AREA	C= (A-B) 3,536 SF
D	AREA OF SHRUBS AND GROUND COVER REQ'D	D= (C X .20) 708 SF
E	AREA OF SHRUBS AND GROUND COVER PROVIDED	738 SF
F	NATIVE VEGETATION REQ'D	F= (D X .25) 177 SF
G	NATIVE VEGETATION PROVIDED	186 SF
H	TOTAL NUMBER OF TREES EXISTING ON SITE	0
I	TOTAL NUMBER OF TREES REQ'D	I= (A/2500 SF) 4
J	TOTAL NUMBER OF TREES ON PLAN PROVIDED	5
K	TOTAL NUMBER OF NATIVE TREES REQ'D	K= (I X .5) 2
L	TOTAL NUMBER OF NATIVE TREES PROVIDED	2

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	CONT	CAL	HT	SPD	QTY	REMARKS
BS-12	Bursera simaruba / Gumbo Limbo	45G	3" CAL	12' HT	10' SPD	1	FULL, DENSE, SYMMETRICAL CANOPY WITH CHARACTER. SUBMIT PHOTO TO LA FOR APPROVAL
ED-S12	Elaeocarpus decipiens / Japanese Blueberry Tree	65G	3" CAL	12' HT	6' SPD	3	STANDARD/TREE FORM, DENSE, SYMMETRICAL CROWN, STRAIGHT TRUNK, 4" CT, MATCHING-SUBMIT PHOTO
IEP-14	Ilex x attenuata 'East Palatka' / East Palatka Holly	45G	3" CAL	12'-14' HT	4'-5' SPD	1	STANDARD-DENSE, SYMMETRICAL, DEEP GREEN FOLIAGE, NO VOIDS, STRAIGHT TRUNK, 5" CT, MATCHING
SHRUBS	BOTANICAL / COMMON NAME	CONT	HT	W	QTY	REMARKS	
SA-7	Schefflera arboricola / Dwarf Schefflera Green	7G/14"	3'-4" HT	3'-4" W	52	GREEN-BUSH, FULL TO BASE, UPRIGHT GROWTH, NO VOIDS. GOOD COLOR	
SHRUB AREAS	BOTANICAL / COMMON NAME	CONT	HT	W	SPACING	QTY	REMARKS
FM-G	Ficus microcarpa 'Green Island' / Green Island Ficus	3G/10"	16"	14"	18" O.C.	96	FULL, DENSE FOLIAGE, GOOD COLOR
PN	Psychotria nervosa / Wild Coffee	3G/10"	24"	24"	30" O.C.	33	FULL, DENSE FOLIAGE TO BASE
TA-M	Trachelospermum asiaticum 'Minima' / Minima Jasmine	1G/6"	14"	14"	18" O.C.	11	FULL POT, DENSE FOLIAGE
MISC	BOTANICAL NAME / COMMON NAME	QTY	REMARKS				
BIO	Bio Barrier-Typar or equal	Verify LF in field	PROVIDE BIO BARRIER ROOT CONTROL AT ROOTBALLS AS REQUIRED BY UTILITIES				
GRAVEL	Selected by client	Verify quantity in field	PROVIDE MIN. 2" THICK APPLICATION PROVIDE OPTIONAL BLACK ALUMINUM EDGING ALONG LANDSCAPE BEDS-PERMALOC 'CLEAN LINE' OR EQUAL				
MULCH	Grade B+ Cypress Mulch	Verify quantity in field	MINIMUM 3" DEPTH				
SOD	'Empire' Zoysia	Verify SF in field	MINIMUM 16"X24" PIECES, GRADED #1 OR BETTER, SEE LANDSCAPE SPECIFICATIONS SHEET				

NOTES

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- NO MORE THAN 50% OF REQUIRED TREES SHALL BE PALMS

Delray Ridge Model B
Delray Beach, FL

PLA DESIGN STUDIO, PLLC
2885 NW Executive Center Dr., Ste. 240
Boca Raton, FL 33431
Tel: 561-318-5256
estudio@pladesignstudio.com

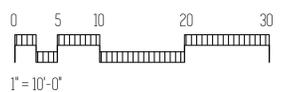
LANDSCAPE ARCHITECTURE

Stephanie Portus FL Reg LA 6667215
Certificate of Authorization LC28000680
project number
20-102
sheet name

REVISED
08/30/21



LANDSCAPE PLAN



sheet number
L-11

1.0 GENERAL

1.1 DESCRIPTION OF WORK:

A. Extent of landscape development work is shown on the Drawings and in the related Schedules.

B. The work consists of furnishing all plants, materials, equipment, necessary specialties and labor required for the installation of plant and other materials as shown on the Drawings and/or in the Specifications.

C. Excavation, filling and grading required to establish elevations shown on the Drawings are not specified in this Section. Refer to earthwork Section.

1.2 REFERENCE PUBLICATIONS:

The following standards form a part of the Specifications:

A. Florida Department of Agriculture "Grades and Standards for Nursery Plants", most recent edition.

B. American Joint Committee on Horticultural Nomenclature "Standardized Plant Names Dictionary"

C. The American Standard for Nursery Stock" (2004 edition).

D. American National Standards Institute-ANSI

-ANSI A300 and ANSI Z60.1-most recent edition

E. Florida Friendly Best Management Practices for Protection of Water Resources

by Green Industries, Florida Dept of Environmental Protection, Rev Dec 2008

F. IFAS -Institute of Food and Agricultural Sciences, University of Florida. <http://hort.ufl.edu/woody/index.html>

1.3 INSTALLER - CONTRACTOR QUALIFICATIONS:

A. The Contractor shall be State licensed and regularly engaged in the installation of living plant material. Labor crews shall be controlled and directed by a landscape foreman professionally trained and well versed in landscape installation, plant materials, reading blueprints and coordination between the job and nursery and shall be able to communicate with the Owner and the Landscape Architect.

B. The Contractor shall be licensed and shall carry any necessary insurance and shall protect the Landscape Architect and Owner against all liabilities, claims or demands for injuries or damage to any person or property growing out of the performance of the work under this contract. All workers shall be covered by Workmen's Compensation Insurance.

1.4 SUBMITTALS: Refer to schedule of submittals.

1.5 COORDINATION:

A. Coordinate and cooperate with other trades and contractors to enable the work to proceed as rapidly and efficiently as possible.

B. Irrigation work shall normally precede plant installation. Install trees, large B&B material, shrubs, and ground cover plants before lawns are installed.

C. Commencement of Work: Landscape Contractor shall notify Landscape Architect at least 7 days in advance of scheduled commencement of work. Landscape Contractor shall review plans and/or field layouts with Landscape Architect at least 2 days prior to installation or on the site as needed

1.6 INSPECTION OF SITE: Prior to the award of the contract, the Contractor shall acquaint himself with all site conditions. Should utilities or other improvements not shown on the Drawings be found during excavations, Contractor shall promptly notify the Landscape Architect or Owner for instructions as to further action. Failure to do so will make Contractor liable for any and all damage arising from his operations subsequent to discovery of such utilities not shown on Drawings.

1.7 PROTECTION OF EXISTING PLANTS AND SITE CONDITIONS:

A. The Contractor shall provide, install and maintain the necessary precautions to protect all persons and property, including the general public from harm or injury due to the work.

B. The Contractor shall take precautions to protect existing site conditions. Should damage be incurred, the Contractor shall repair the damage to return the object or area to its original condition at no additional charge.

C. Utility Locates - Regardless of utilities that may or may not be shown on the drawings, the Contractor shall be responsible to have utilities located in the area of work before the work commences. The Contractor shall also verify and comply with any requirements or clearances to plant materials that may be required of any Utility company.

1.8 CHANGES IN THE WORK: The Owner reserves the right to substitute, add or delete any material or work as the work progresses. Adjustment to the Contract Sum shall be approved by the Owner by a written Change Order, prior to execution. The Owner shall be given (2) week notice for the opportunity to review and approve all plant materials delivered to the job site prior to installation. When unit prices have been established, they shall prevail for all Contract Additions. For Contract Reductions, the Owner shall receive full credit, based on unit pricing, if changes are implemented prior to delivery of plant materials. If Owner changes are made prior to installation, Owner shall receive a credit for labor to install plants, less costs associated with purchase and delivery. The Landscape Architect assumes no financial or material responsibility for any changes made by, or on behalf of the Owner.

1.9 OWNER'S OBSERVATION:

A. The Landscape Architect of Owner assumes no responsibility for the Contractor's means and methods in the execution of this contract beyond the observation to ensure, to the Owner's satisfaction, that the Design Intent of the Drawings and Specifications are being properly interpreted. This observation and checking will not relieve the Contractor of any responsibility for the performance of his work in accordance with the Drawings and the Specifications (including proper planting practices or other material or performance deficiencies).

B. The Landscape Architect and Owner reserve the right to reject any portion of the work, material or workmanship which does not conform to the Contract Documents and Standard set forth herein. Rejected work shall be removed and/or corrected by the Contractor, at his own expense, at the earliest possible time and prior to final payment.

1.10 PROJECT CONDITIONS:

A. Familiarization with Overall Project Requirements: The Contractor shall review and become familiar with the Design Intent of the Drawings and Specifications related to the Contractor's Work, including but not limited to: Civil engineering and Drainage Plans, Architectural layout of project area access, contractor equipment access, existing and proposed utility locations, Irrigation Plans, Outdoor Lighting Plans, Paving Plans, Project Sequence and Timing plans, Town/HOA/neighborhood requirements, etc.

B. Obstructions: The Contractor shall exercise care in digging and other work so as not to damage existing work, including underground pipes, sprinklers, control cables and hydrants of watering systems. Should such overhead or underground obstruction be encountered which interferes with planting, the Landscape Architect shall be consulted for consideration for alternate installation of plants to clear such obstructions. The Contractor shall be responsible for the installation of any chain caused by his work.

C. After notice to proceed, the Contractor shall complete landscape work in a timely manner, as portions of site become available. Actual planting shall be performed only when weather and soil conditions are suitable in accordance with locally accepted practice.

D. Contractor shall coordinate landscape and planting work with other trades, such as, the irrigation (sprinkler) installer, electrician, lighting installer, paving installer, and sod installer; Landscape installer shall coordinate to ensure that no plantings will interfere with the proper functioning of the sprinkler system. The Contractor shall point out to the Irrigation installer situations where minor adjustment or relocation or addition of sprinkler heads may be most beneficial for the whole. The location of specimen plant materials, trees, palms and large shrubs shall prevail over irrigation head placement.

1.11 ACCEPTANCE:

A. At the discretion of the Owner, early acceptance of the work may be obtained for progress payment of approved phases; or when the time between commencement of the work and substantial completion exceeds 90 days (at no fault of the contractor). Early acceptance shall be contingent upon a satisfactory inspection of the completed landscape work by the Landscape Architect and/or the Owner.

B. Substantial Completion of the Work is the point in construction when the Work is sufficiently complete in accordance with the Contract Documents; all related clean-up has been performed; and the Landscape Architect provides an opinion that the Owner can utilize the work as intended.

C. Final Completion is the completion of all work included in the Contract Documents except the Contractor's responsibility to correct the work to the satisfaction of the Owner and the Landscape Architect. The Warranty Period and Maintenance period shall commence upon Final Acceptance.

1.12 WARRANTY PERIOD AND CORRECTION OF THE WORK:

A. For a period of twelve months from the date of acceptance, all new plant materials except grass shall be alive and healthy, upright and in satisfactory growth for each specific kind of plant. There shall be no signs of nutrient deficiency, disease or insect infestations.

B. Dead plants which are rejected shall be replaced or corrected within two weeks of rejection. Replacement material shall be the same species, size and quality as called for in the Contract. A new correction of the work period of twelve (12) months shall begin upon replacement and acceptance by the Landscape Architect of all replacement plants, this includes plants which are discovered at any time to have been planted at an improper depth.

C. The installer shall repair damage to other plants or lawns that occurs during the plant replacement process at no cost to the Owner.

D. Plants which have been approved and subsequently die or are damaged by washout, wind storm, traffic, vandalism, or demonstrable failure of the Owner to maintain after Substantial Completion of the Work is not covered in this correction of the work provision

2.0 PRODUCTS

2.1 MATERIALS LIST:

A. Plant species and size shall conform with the Plant List and information noted on the Drawings.

B. The quantities given in the Plant List are intended for the convenience and as a guide for the bidder and does not relieve the bidder of his responsibility to do a comprehensive plant take off from the Drawings. Information on the drawings control.

2.2 PLANT MATERIALS:

A. All plant material shall be nursery grown unless otherwise noted. Plants shall be graded Florida No. 1 or better and shall be sized as outlined under Grades & Standards for Nursery Plants, State Plant Code of Florida. Palms shall be grown from certified seed.

B. Collected material when specified or approved shall be in good health, free from disease, insect or weed infestation. Testing may be required at the discretion of the Landscape Architect and/or the Owner and shall be provided at no additional cost.

C. Plants materials must equal or exceed the measurements specified in the plant list, which are the minimum acceptable sizes. Those plants specified as specimens are to be approved by the Landscape Architect before being brought to the site. Unless otherwise noted on the drawings, these plants shall be Florida Fancy.

D. Height of plant materials shall be measured from the top of the ball to the top of the plant with branches (or fronds) in cluster position. Their width shall be measured across the normal spread of the branches (or fronds). In cluster type palms the main trunk shall meet the height requirement and all other trunks shall be 3/4 or more of the required height unless otherwise noted on the drawings. Where symmetry is required, match plants used as nearly as possible to the satisfaction of the Landscape Architect.

E. Plants that meet the height requirements, specified, but do not have the normal balance of height and spread typical for the respective plant, shall not be accepted.

F. Abbreviations on the Drawings are as follows:

B&B - field grown plant "balled and burlapped".

Cal - caliper/diameter measured at (152.4 mm) above soil line. For trunks larger than 4" (88.4 mm) diameter, the caliper measurement shall be determined at 12" above soil line.

CT - clear trunk measurement from top of ball to first branching.

CW - clear wood, in palms the distance from soil line to lowest living frond leaf base. **DBH** - caliper or diameter measured 4 feet (1.22 meters) above soil line

OA - Greywood, in palms, mature trunk from ground to base of the green crown shaft.

GW - overall height from top of ball to top of current season's growth or last open frond in normal position in palms.

Spd - spread or average distance across the average diameter of plant branching structure.

G. Root packaging and Containers: Plant materials in containers shall have a well established root system and shall not be root bound. All plant materials not in containers shall be balled and burlapped and dug with a firm natural ball of earth. Balls shall be firmly wrapped with burlap or similar biodegradable materials and bound with twine, cord or wire mesh. The minimum ball sizes will be in accordance with "Grades & Standards for Nursery Plants". No plant shall be accepted if the root ball has been cracked or broken. All containers and root balls shall be kept moist at all times. All plants which cannot be planted immediately on delivery shall be kept moist and protected from drying winds and sun.

H. Container Grown Plants: Plants grown in containers will be accepted as "B&B", providing that all other specified requirements are met. Container grown plants shall meet plant sizes as specified on the drawings. Drawings and Specifications shall prevail. Plants in containers shall be balled and burlapped and dug with a firm natural ball of earth. Balls shall be firmly wrapped with burlap or similar biodegradable materials and bound with twine, cord or wire mesh. The minimum ball sizes will be in accordance with "Grades & Standards for Nursery Plants". No plant shall be accepted if the root ball has been cracked or broken. All containers and root balls shall be kept moist at all times. All plants which cannot be planted immediately on delivery shall be kept moist and protected from drying winds and sun.

I. Substitution: Plant substitution by the Contractor will be considered by Landscape Architect only upon submission of proof that the plant is not obtainable in the type and size specified. Should the specified plant indeed not be available, the Landscape Architect shall determine the nearest equivalent replacement in an obtainable size and variety. The unit price of the substitute item shall not exceed the bid item replaced, without owner approval.

2.3 PLANTING SOIL: Planting soil shall be free draining, sandy loam and shall contain a 5% minimum and a 15% maximum amount of decomposed organic matter. Planting soil shall be free of clay, stones, plants, roots, and other foreign materials which might be a hindrance to planting operations or be detrimental to good plant growth. It shall have a pH between 6.0 and 7.0. Soil shall be delivered in a loose friable condition and applied in accordance with the planting specifications.

2.4 PEAT: Horticultural peat composed of not less than 60% decomposed organic matter by weight, on an oven dried basis. Peat shall be delivered to the site in a workable condition free from lumps.

2.5 WATER:

A. Clean Water for planting will be available at the site and shall be provided by the Owner unless special provision is determined in the Contract Documents.

B. Contractor shall determine the source and suitability of the Owner's water. In the event the water source is not suitable, the Owner shall be given written notice of such at least two weeks prior to the commencement of Work.

2.6 SOIL TESTING:

A. Landscape Contractor shall provide testing of existing soils on Site for all soil types, including imported soils, in the planting area. No less than 2 representative samples shall be submitted to and tested by an independent professional testing lab for analysis and fertility recommendations.

B. Soil Testing Lab - Call for info, testing services, fees and Import permit.

Micro-Macro International P 706-548-4557 F 706-548-4891 Web: www.mmilabs.com
183 Paradise Blvd, Suite 10B, Athens, Georgia, 30607

2.7 COMMERCIAL FERTILIZER AND PLANTING AMENDMENTS:

A. Fertilizer and fertilization rates for the project shall be provided and applied based on the results of the soils test. Follow all Manufacturer's Label Rates and application recommendations.

B. Commercial fertilizer shall be slow-release organic formulation containing nitrogen, phosphorus and potassium, not to exceed an analysis of 6-6-6. Nitrogen shall be not less than 50% of the total N. Organic nitrogen shall not be derived from the sodium form of nitrate. Iron shall be in the chelated form, not be less than 2% and magnesium shall not be less than 2%. Fertilizers shall be delivered to the site unopened in original containers, each bearing the manufacturer's ingredients and guaranteed analysis. Submit a copy of the Manufacturer's guaranteed analysis and proof of delivery to the Landscape Architect. Any fertilizer that becomes caked or otherwise damaged is unacceptable.

C. Microbial Additives: Mycorrhizal and microbial additives shall provided as specified in the Schedule of Soil amendments. Contractor shall submit a copy of the manufacturer's label/ product use instructions that include: all ingredients, guaranteed analysis and application rates. All supplements shall be supplied in fresh, unopened packaging prior to product expiration. Product that becomes caked or otherwise damaged is unacceptable and shall not be used.

2.8 MISCELLANEOUS LANDSCAPE MATERIALS:

A. Mulch: Shredded hardwood mulch -grade "A" -verifies color. Mulch shall not contain chunks larger than 1 inch (25.4 mm) in diameter, branches, stones or other foreign material that will prevent its eventual decay.

Alternate Mulches: Pine Bark Nuggets - Jumbo size, Pine Straw

B. Gravel Mulch: Provide samples of all gravels to Landscape Architect for approval prior to ordering. Gravel shall be used only where specifically indicated on the plans of the size and type shown. Unless otherwise specified it shall be water-worn, hard, durable gravel, washed free of loam, sand, clay and other foreign substances. It shall be a minimum of 2" (44.2 mm) deep and shall be contained with gravel stops. It shall be a maximum of 1-1/2" (38.1 mm), a minimum of 3/4" (19 mm) and of a readily-available natural gravel color range.

C. Braces, Battens and Stakes-Provide braces, battens, stakes and deadman of sound new pressure-treated lumber, free of knot holes and other defects. Braces shall be pressure-treated 2x lumber (4x lumber where appropriate) and shall be secured to battens and stakes with a min of (2) -16D, db) head galv. forming nails. Battens shall be 2x4 pressure treated lumber and padded with burlap. Battens shall be secured to tree trunks with 3/4" Stainless steel or galvanized banding. Stakes shall be pressure-treated 2x lumber and shall be driven to within 2" of the surrounding grade. All exposed ground-stakes shall be painted with a high-visibility, contrasting fluorescent paint until substantial completion. Braces and stakes shall be repainted a dark walnut brown stain unless otherwise noted. Stakes and braces shall be placed within mulch beads and oriented away from walking areas.

D. Guys and Anchors: Provide one of the following: 1) wire guys shall be two- strand, twisted, pliable galvanized iron wire not lighter than 12 gauge. Provide new hose cut to required lengths to protect tree trunks from damage by wires. Hose shall be not less than 1/2" (12.7 mm) dia. 2) Woven Polyethylene Webbing -shall be min 2" wide. Trunks and stems shall be wrapped at least twice and secured with adjustable knots. Stakes per Sec C, above.

E. Soil Mix for annual or seasonal color beds: 2 parts top soil, 1 part fine pine bark mulch 1/2" (12.7 mm) pieces, 1 part coarse sand and 50 pounds (1,866.2 kg) composted cow manure per cubic yard (.76455 cubic meters). Mix in Osmocote fertilizer and micro-organisms at label rates, see 2.7C.

F. Planter Soil Mixture: a loose, friable blend consisting of: 5 parts coarse sand, 2 parts peat humus or bagged topsoil and 3 parts pinebark; Mix in Osmocote fertilizer and microorganisms at label rates, see 2.7C.

3.0 EXECUTION

3.1 PREPARATION, SITE WORK AND COORDINATION:

A. Grading: Contractor shall inspect the site to verify that finish grades (accurate within 2" (51 mm), have been established in accordance with Civil Engineer's Drainage Plan and the Landscape Architect's shaping and grading Plan or other job requirements prior to beginning any planting operations. Coordinate with Landscape Architect and General Contractor for release of areas before planting operations begin.

B. Rough Grading and Shaping - Rough grading and bulk filling of site shall be the general responsibility of the General Contractor unless otherwise noted. Rough grade shall include placement and distribution of bulk fill material sufficient to generally be within -4" of final grade for landscape and within -2" of final grade for sod areas. Rough grades shall conform with the general intent of the drainage and grading plans. Rough grades may be field adjusted to allow for fill as generated by planting activities.

C. Finish Grading - Finish and final grading shall be reviewed, approved and released by Landscape Architect or authorized Project Manager. Landscape Contractor shall notify LA/ Project Manager, in writing, 3 days before planting work in a given area is expected to commence. Finish Grades are the responsibility of the Landscape Contractor -including box blading and leveling of open sod areas

Finish grades of all planting areas shall be at 2" below pavement, after planting unless otherwise noted. Finish grades shall include any top soil and soil amendments as specified. If at any time the sub-grades as determined to be inadequate for proper design, the Project Manager should be given notification in writing.

D. Top soils -The supply, placement and grading of Top soils shall be the responsibility of the Landscape Contractor unless other determined in the Construction Documents.

E. Irrigation-The Landscape Contractor shall closely coordinate with the Irrigation installer. Irrigation system shall be installed according to Irrigation Plans and Specifications with any necessary field adjustments to complement the Landscaping Plans. Spray zones for sod and planted areas as described shall have 105% head to head coverage, matched precipitation rates and uniform water distribution with equipment as outlined. Drip emitters shall be installed per schedule. Drip and spray irrigation shall be fully operational and accepted before any mulch, stone, mulch or burlap covers are installed. Landscape contractor is responsible for all fine grading subject to review and acceptance by Landscape Architect, before sod is installed.

F. Landscape Lighting - The Landscape Contractor shall closely coordinate with the Lighting installer. Outdoor and site lighting system shall be installed according to the Lighting Plans and Specifications with any necessary field adjustments to complement the Landscaping Plans. Landscape lighting conduit shall be coordinated and installed in conjunction with irrigation trenching where ever utility lines are installed and/or adjust AFTER major trees and palms are installed and before shrubs/ground covers are installed. In-ground fixtures or other work requiring excavation, must be installed before sod, stone mulch and landscape mulch are installed. Lighting stub-ups/placements shall be reviewed approved and released by Landscape Architect before mulch, stone, ground covers or sod are installed.

G. Mulch, Edging and Stone Mulch-Before mulch of any kind is installed, Finish Grading, Operational Irrigation, Lighting conduit, in-ground fixtures and metal edging shall be in place and accepted and released by either Landscape Architect or General Contractor.

H. Sod - Before sod of any kind will be installed, Finish Grading, Operational Irrigation, Lighting conduit, in-ground fixtures, metal edging and mulch shall be in place and accepted and accepted by Landscape Architect. As noted above, landscape contractor is responsible for all fine grading subject to review and acceptance by Landscape Architect, before sod is installed.

I. Removal of Rubbish: Any objectionable materials, such as stones/construction debris be encountered during planting operations, they shall be promptly removed from the site by the landscape installer.

3.2 PROTECTION OF PLANTS:

A. Root Protection: All field grown trees, palms and plants shall be hand dug with sharp shovels or approved tree-spade. Backhoe-dug trees shall not be accepted. Roots shall be cleanly cut with sharp instruments. Balled and burlapped plants: plants designated "B&B" shall be dug with firm, moist soil of sufficient diameter above, landscape contractor is responsible for all fine grading system, necessary for full recovery of plant. Balls shall be firmly wrapped with burlap or similar materials and bound with twine, cord, or wire mesh. All collected plants shall be "B&B". Trees, palms and plants shall not be dug during periods of excessive heat or drought unless supplemental water is applied for at least 5-7 days in advance.

B. Handling -containerized plants shall be handled by their container w/ proper support given to all parts of plant to prevent damage. Trees and palms shall only be handled w/ padded slings rated for 10x the weight of carried load. Trunks shall be wrapped min. 2X prior to cinch loop. No chain, rope or padded webbing shall be used to handle trees and palms.

C. Protection During Transporting: All plant material shall be protected from possible injury or breakage of branches. Provide all necessary splints, stakes, kraft paper wrapping and sleeves to secure and protect roots, stems and foliage of plant materials during shipment. All plants transported by open trucks or sea-containers shall be adequately covered to prevent windburn, drying or damage to plants.

D. Protection After Delivery: Plants which cannot be planted immediately on delivery to the site shall be kept moist at all times and provided protection from the drying of wind and sun. All plants shall be kept moist as necessary until planted. Storage period shall not exceed 72 hours. In plants cannot be installed within 48 hours, they shall be "heeled-in" earth trench rows and maintained in healthy, moist condition until installation.

E. Protection of Palms: A minimum number of fronds shall be removed from the crown of palm trees to facilitate moving/handling. Remaining fronds shall be tied and braced if required.

F. Protection During Planting: Trees moved by winch or crane shall be thoroughly protected from chain marks, girdling or bark slippage by means of burlap, padding, wood battens or other approved methods.

G. Plants that show symptoms of bark compression, girdling or bark slippage or other damage are unacceptable.

H. Special Treatment and Handling: Sabal Palms (Cabbage Palms) shall be "hurricane cut" in the field prior to transport. Clear trunk shall be as specified after the minimum number of fronds have been removed. Sabal Palms shall be taken from moist, black growing areas. All field dug palms, Sabal Palm trunks shall be removed. Collected or Field Dug Specimen Palms: All field dug palms, (except-Adonidia, Cocos, Phoenix, Washingtonia, Ptychosperma, Hypophorbe sp.) palms shall be root pruned for 2 months in advance of being lifted and moved. All palms shall be watered for 1 week prior to digging in the field. Heads shall have the lower 50% of fronds removed or as otherwise determined by Supplier. Heads shall be securely tied and secured before transporting. Heads shall remain tied-up until new root growth is visible or as otherwise determined by Supplier. All Palms shall have heads tied and braced during shipping & handling. Canary Date Palms shall have heads securely stabilized with 4x4 wood splints

3.3 PLANTING OPERATIONS:

A. Layout: The location for plants and outlines of areas to be planted are indicated on the Drawings. All plant locations shall be laid out, painted/flagged in field by the Contractor, to the satisfaction of the Landscape Architect before planting operations commence. In general, all trees, palms and accent plants shall be laid out, planted and approved by the Landscape Architect prior to the layout of shrubs/ground covers. Notify Landscape Architect and Owner for directions if site conditions requires the addition of soil over existing roots or where construction or utilities below ground or overhead are encountered, or where changes have been made in the construction - DO NOT PROCEED - Any necessary adjustments will be directed by the Landscape Architect.

B. Clearances: Shrub/hedge material shall be planted a min. of 30" (0.75 m) away from wall or other obstructions (including parking stops). Groundcover (1 gal or less) material (except sod) shall be planted 16" (10.41 m) away from pavement or edging unless otherwise noted. Vines shall be attached with copper wire to brass screws in lead anchors to walls. Make minor adjustments as may be required.

C. All planting holes shall have straight, vertical sides and flat horizontal bottoms. The diameter of a hole shall not be less than twice the diameter of the root ball or 24 inches (609.6 mm) greater than the root ball, whichever is smaller. The depth of a hole shall not be deeper than the root ball. The bottoms of planting holes shall be tamped to minimize settling.

D. Contractor shall confirm that all planting holes are free draining and percolate water. If hardpan, compacted soils, clay or rock are encountered, immediately notify Landscape Architect to determine remedial measures.

E. Backfill and Soil Amendments-Backfill shall be clean, fine, granular loamy soil unless otherwise noted. All palms shall be backfilled w/ clean, washed, salt-free sand. Clumpy or rocky soils shall be screened or replaced w/ appropriate material prior to backfilling. Refer to soil report recommendation for fertilizer type/rates. Additionally, Mycorrhizae and soil bacteria shall be added at the manufacturer's recommended rates (see 2.7c). The following minimum rates of soil mix apply: 1/2 cubic yard per tree and 1 cubic yard per 50 shrubs.

F. All plants shall be handled and installed in accordance w/ the Construction Documents and best available horticultural practices. The soil and mulch shall be placed in the hole and set in the proper size of planting pit so that the top surface of the Root Collar/root ball will be 1"-2" above the final grade. Verify adequate percolation of the planting hole. Set plants straight and plumb unless otherwise noted. Select trees, palms and accents shall be leaned, oriented or faced as determined by Landscape Architect or as shown on the drawings.

G. B&B plants are set with bottom 1/3 of planting pit backfilled w/ existing site soil. Remove burlap, rope, wires, etc. from any trunk and top surface of balls. Do not remove burlap from underneath. All remaining wrapping material shall be biodegradable. No material shall encircle the trunk. Complete backfilling w/ native soil (or specified soil mix) and water thoroughly to remove voids. After planting has been completed, form a rough mulch base, then extend to the limits of the pit. Some wire wrapping and bundling may remain to maintain the integrity of the root ball. Review removal requirements in advance with the Landscape Architect.

H. Container Grown Plants: Shall, when delivered, have sufficient root growth to hold earth intact when removed from container and shall not be root bound. Plant pits for container materials shall be formed flat on the bottom to avoid air pockets at the bottom of root balls. Containers shall be removed carefully to prevent damage to plant or root system.

3.0 EXECUTION CONT.

1. Remediation of Root Defects - The Contractor shall inspect all plant material for root defects including but not limited to: root-bound containers, circling roots; girdling roots; sub grade, embedded root collars; adventitious roots; etc. All Root Collars shall be exposed and visible at the time of planting. Plants with two (2) or more girdling roots; plants from root-bound containers; or plants with circling roots greater than 75% of the pot circumference shall be rejected and replaced at the Contractor's expense. Plants with minor root defects shall be trimmed with clean, sanitized, sharp tools according to proper horticultural practice prior to planting. Plants shall be well watered prior to, and after, root trimming procedures. Plants that die as a result of root pruning are considered excessively defective and shall be replaced at Contractor's expense.

External Circling Roots - shear off outer 1"-2" of rootball circumference

Internal Circling Roots - radial cuts to interrupt circle, remove 2" min. section of root.

Girdling Roots-cut and remove the 2" min. section of the girdling root at the surface.

Root Knots - trim or remove. For more information- refer to University of Florida- IFAS Website

<http://hort.ufl.edu/woody/index.html>

For Root management -Refer to <http://hort.ufl.edu/woody/roots.html>

J. Setting Trees and Shrubs: Unless otherwise specified, all trees and shrubs shall be planted in pits, centered to such depths that the finished grade level of the Root Collar, after settlement, shall be the same as, or slightly above, that at which the plant was originally grown. They shall be planted upright and faced to give the best appearance or relationship to adjacent structures. The Contractor shall be responsible to raise and re-set all plant materials where root collars are found below finish grade at their own expense.

Along slopes, a soil terrace shall be formed so that the top of the Root Collar is level with existing grade on the up-slope side. No burlap shall be pulled out from under the balls. Tree boxes, platforms, wire, lifting loops and surplus binding from top and sides of the balls, shall be removed. Some wire or binding may remain if tight and necessary for rootball integrity. Any broken and frayed roots shall be cut off cleanly. Backfill soil shall be placed and tamped thoroughly and shall be settled by watering. No filling around trunks or on top of root balls will be permitted. After the backfill settles, additional soil shall be filled in to the level of the finished grade allowing for 2" (44.1 mm) of mulch. Form a shallow saucer around each plant by digging a trough of soil along the edge of the plant pit. This trough shall be 3"-4" (75 mm) diameter. Specimen trees and Palms shall be equipped with supplemental irrigation (bubblers). **K.** Setting Palms: All palms shall be planted in sand thoroughly washed in during planting operations and with a shallow saucer depression left at the soil line for future watering. **L.** Backfilling: When the plant pit has been excavated as specified above and the plant has been set, the pit shall be backfilled with clean soil mix. All backfill shall be watered thoroughly to settle and consolidate soil and eliminate voids. Provide a shall trough around the outside of the rootball for water retention. Tops of all rootballs shall be left exposed and free of soil backfill materials. Do not distribute any excess soil in any existing planted bed.

M. Pruning: Remove dead/broken branches from all plant material. Thin out internal branching and prune to retain type, growth habit of individual species with as much height and spread as is practicable. Make all pruning cuts with a sharp instrument next to branch collar to ensure elimination of stubs. Headback" or "Hat Rack" cuts, right angle to line of growth, will not be permitted.

N. Guying and Staking: Guy and stake all trees, including palms, immediately after planting. Trees less than 1 1/2" (38.1 mm) in caliper shall be staked with vertical wood or metal stakes along the trunk. Stake shall be driven through the root ball and embed 12" min. into sub-grade. Attach tree trunk to the stake with 3/4" width elastic pruning tape. Double wrap trunk to avoid chaffing. Tie firmly, but not tightly to the stake. Stake shall be cut off at least 12" below the top of the plant. Trees 1 1/2" (38.1 mm) in caliper and greater but less than 12" OA shall be guyed in 3 directions with double strands of No. 12 galvanized wire (or rated woven polyethylene webbing) attached to approved stakes or anchors driven into the ground. Stakes shall be placed above the ground surface and equipped with supplemental irrigation (bubblers).

O. Staking and Bracing: When staking palms and broadleaf trees, no nails or fasteners shall directly penetrate the trunks. Wood battens: 12" -16" min (304-406 mm) min. length; separated from trunk by burlap; attached to the trunk of the trees with galvanized or stainless steel metal banding. Stakes and burlap shall be sufficient diameter above, landscape contractor is responsible for all fine grading system, necessary for full recovery of plant. Balls shall be firmly wrapped with burlap or similar materials and bound with twine, cord, or wire mesh. All collected plants shall be "B&B". Trees, palms and plants shall not be dug during periods of excessive heat or drought unless supplemental water is applied for at