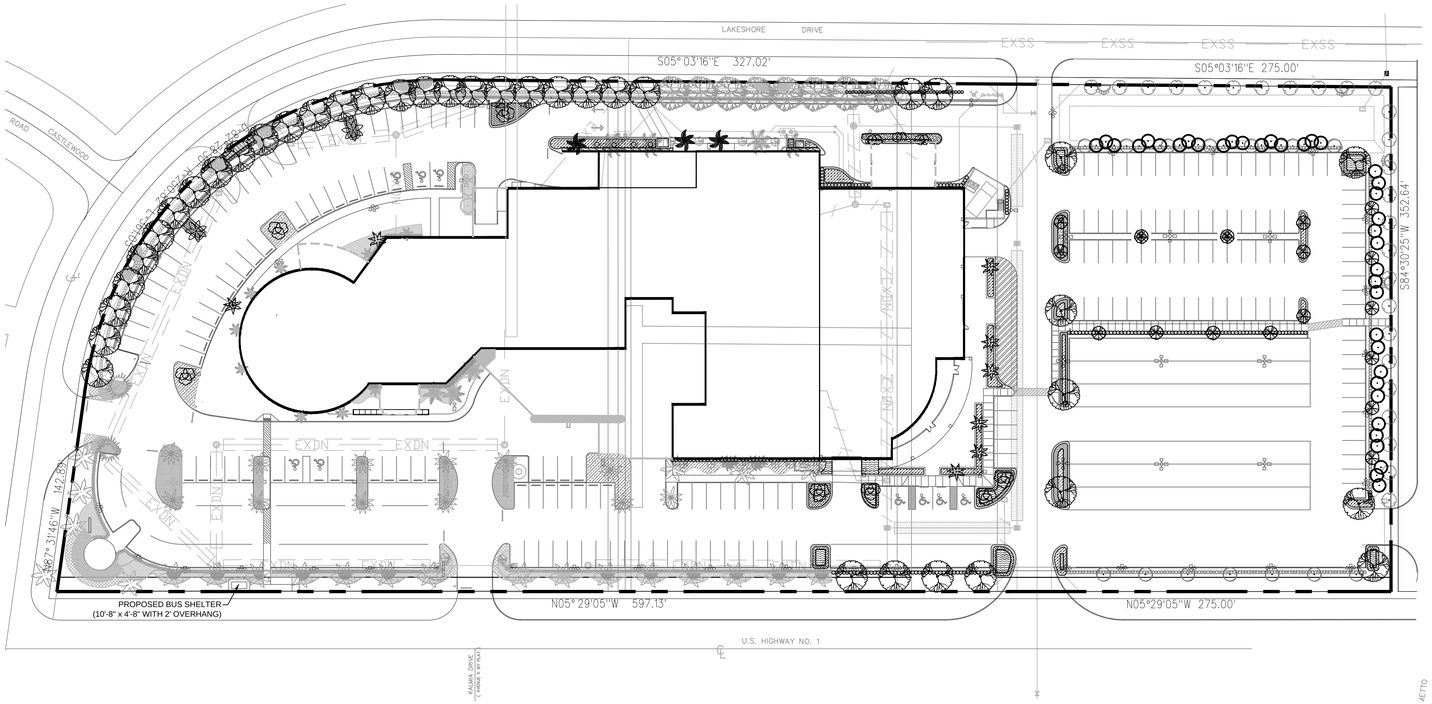
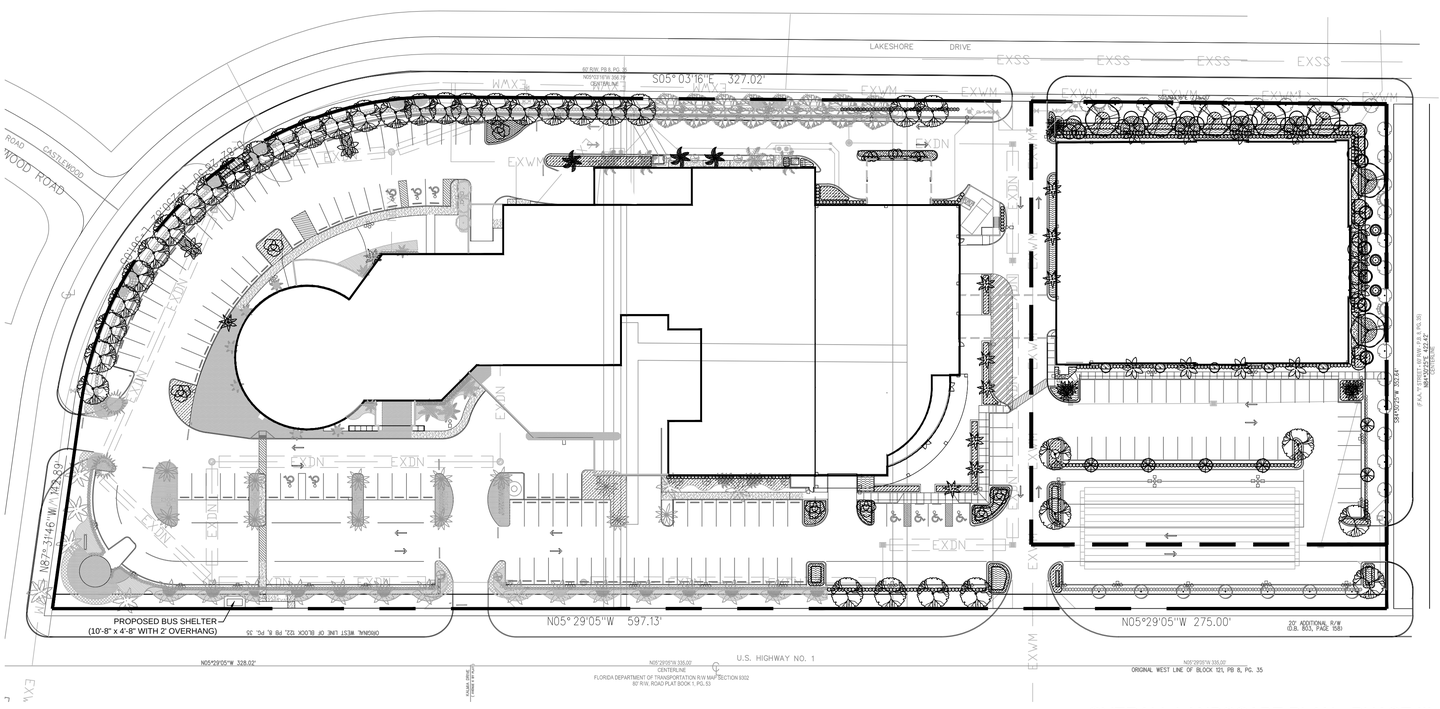


OVERALL LANDSCAPE PLAN - PHASE I

SCALE: 1" = 50'



OVERALL LANDSCAPE PLAN - PHASE III

SCALE: 1" = 50'

PLANT SCHEDULE OVERALL

TREES	CODE	BOTANICAL NAME / COMMON NAME
	CE	Conocarpus erectus / Green Buttonwood *
	CS	Conocarpus erectus sericeus / Silver Button Wood *
	LIG	Ligustrum japonicum / Japanese Privet
	PE2	Ptychosperma elegans / Alexander Palm
	PE3	Ptychosperma elegans / Alexander Palm
	QV	Quercus virginiana / Southern Live Oak *
	RE	Roystonea elata / Florida Royal Palm*
	SP	Sabal palmetto / Cabbage Palmetto*
	SQ	Syagrus romanzoffiana / Queen Palm
	VM3	Veitchia merrillii / Triple Christmas Palm
	VM2	Veitchia montgomeryana / Montgomery Palm
SHRUBS	**CODE**	**BOTANICAL NAME / COMMON NAME**
	CHR	Chrysobalanus icaco `Red Tip` / Red Tip Cocoplum *
	CES	Conocarpus erectus / Silver Buttonwood *
SHRUB AREAS	**CODE**	**BOTANICAL NAME / COMMON NAME**
	CAR	Carissa macrocarpa `Emerald Blanket` / Emerald Blanket Carissa *
	DUR	Duranta erecta `Gold Mound` / Gold Mound Duranta *
	GIF	Ficus microcarpa `Green Island` / Green Island Ficus
	ILE	Ilex vomitoria `Stokes Dwarf` / Dwarf Yaupon *
	JAS	Jasminum multiflorum / Downey Jasmine *
	JAS2	Jasminum volubile / Wax Jasmine *
	PIT	Pittosporum tobira `Variegata` / Variegated Pittosporum *
	PLU	Plumbago auriculata `Imperial Blue` / Blue Plumbago *
	TRA	Trachelospermum jasminoides / Star Jasmine Trellis

* Denotes Town of Lake Park Preferred Plan List species

Phase I - Landscape Area

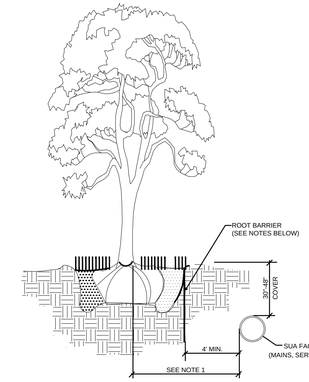
Total Landscape Area	71,945 SF
Total Sod Area	31,223 SF
Dry Retention Area (to be exempt from sod percentage)	9,172 SF
Sod percentage within total Landscape Area	30.7%

Phase III - Affected Area Landscape Area

Total Landscape Area	16,406 SF
Total Sod Area	6,568 SF
Sod percentage within total Landscape Area	40.0%

Preferred Plant List Percentages

Phase I & II Preferred Species Used	97.7%
Phase III Preferred Species Used	95.3%



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. THIS DISTANCE SHALL BE 10' MINIMUM WITH ROOT BARRIER AND 15' MINIMUM IF NO ROOT BARRIER IS USED.

2. ALL ROOT BARRIERS SHALL BE 4' MINIMUM FROM ALL SEACOAST FACILITIES.

3. THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH SEACOAST AND INSPECTED BY SEACOAST PRIOR TO BACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE.

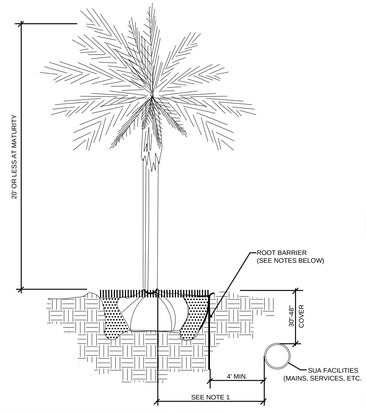
4. ROOT BARRIERS SHALL BE MINIMUM 36" DEEP. APPROVED PRODUCTS INCLUDE "DEEP ROOT" AND "ROOT SOLUTIONS". FLEXIBLE BARRIERS SHALL BE 36" PANELS MANUFACTURED BY BIOBARRIER.

5. ALL ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

6. LARGE PALM TREES INCLUDE ROYAL, WASHINGTONIAN, BISMARK AND SIMILAR SIZED SPECIES.

Typical Canopy Tree, Large or Exotic Palm Tree with Root Barrier

July 25, 2012



OTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

. THIS DISTANCE SHALL BE 7' MINIMUM WITH ROOT BARRIER AND 10' MINIMUM IF NO ROOT BARRIER IS USED.

. ALL ROOT BARRIERS SHALL BE 4'MINIMUM FROM ALL SEACOAST FACILITIES.

. THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH SEACOAST AND INSPECTED BY SEACOAST PRIOR TO ACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE.

. ROOT BARRIERS SHALL BE MINIMUM 36" DEEP. APPROVED PRODUCTS INCLUDE "DEEP ROOT" AND "ROOT SOLUTIONS". LEXIBLE BARRIERS SHALL BE 36" PANELS MANUFACTURED BY BIOBARRIER.

. ALL ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

Typical Small Tree or Palm Tree with Root Barrier

July 25, 2012

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Earl Stewart Toyota

Lake Park, FL
Overall Landscape Plan - Phase I & III

Drawing name: H:\JOBS\Earl Stewart Toyota_03-002\EST_Expansion_SPR_004\Drawings\Landscape Plans\2015-04-22-LP.dwg

NORTH

0 10' 20' 40'

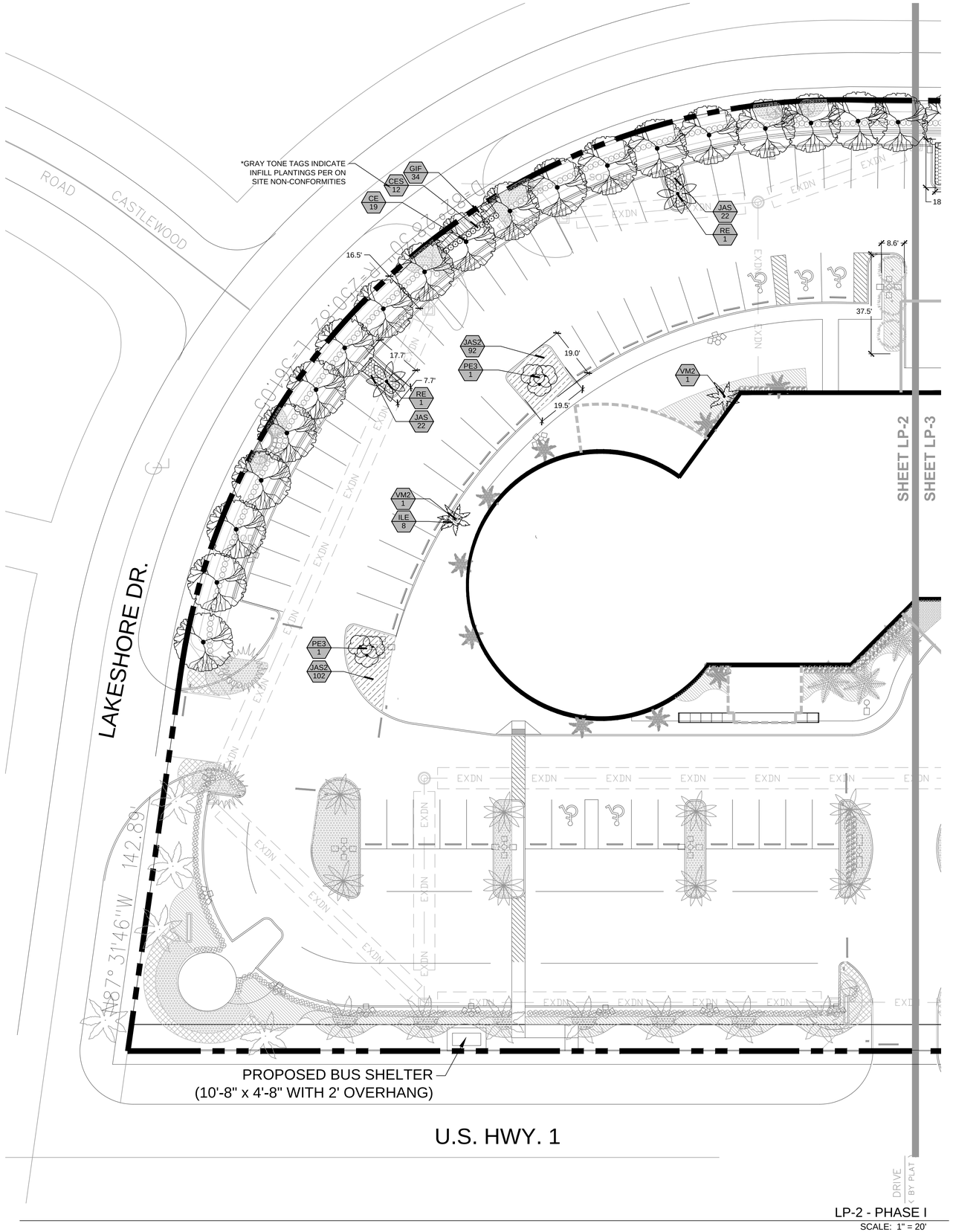
Scale: 1" = 20'-0"

Date:	03.15.2014
Project No.:	03-002.004
Designed By:	TLM
Drawn By:	TLM
Checked By:	SCM/AB

Revision Dates:

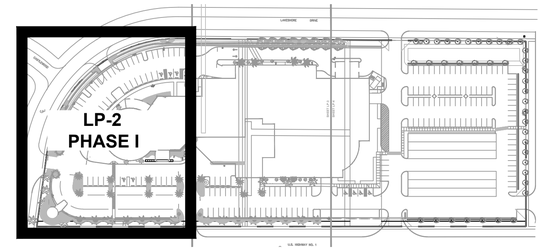
10-01-2014 Revisions
10-29-2014 Revisions
01-07-2015 Revisions
02-18-2015 Revisions
03-11-2015 Revisions
04-24-2015 Revisions

LP-1



LP-2 - PHASE I

SCALE: 1" = 20'



KEY MAP

N.T.S.

PLANT SCHEDULE - INFILL PLANTING

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CE	25	Conocarpus erectus / Green Buttonwood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	CS	6	Conocarpus erectus sericeus / Silver Button Wood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	PE3	3	Ptychosperma elegans / Alexander Palm B&B, triple headed palm, min. 10`, 12`, 14` clear wood, 7-8" cal.
	RE	2	Roystonea elata / Florida Royal Palm* 14` gray wood, 5` spr., single straight trunk, matched, Florida #1, B&B
	SQ	3	Syagrus romanzoffiana / Queen Palm Field Grown, 10` Gray wood, Full dense head
	VM2	2	Veitchia montgomeryana / Montgomery Palm FG, 12` GW, 18` OA HT, Single Straight Trunk 10" CAL, Full Crown
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CHR	44	Chrysobalanus icaco `Red Tip` / Red Tip Cocoplum * 3 gal, min., 24" ht. x 18" spr., 30" o.c., Full to base, full dense shrub
	CES	12	Conocarpus erectus / Silver Buttonwood * 3 gal; 30" ht. x 18" spr., full to base
SHRUB AREAS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CAR	108	Carissa macrocarpa `Emerald Blanket` / Emerald Blanket Carissa * 3 Gal., 12" Ht. x 16" Spr., 24" O.C., Full
	GIF	34	Ficus microcarpa `Green Island` / Green Island Ficus 3 gal. min., 16" ht., 16" spr., full, 24" o.c.
	ILE	8	Ilex vomitoria `Stokes Dwarf` / Dwarf Yaupon * 3 Gal., 12" Ht. x 12" Spr., 18" O.C., Full dense shrub
	JAS	130	Jasminum multiflorum / Downey Jasmine * 3 gal., 18" ht. x 12" spr., full, dense pot
	JAS2	561	Jasminum volubile / Wax Jasmine * 3 GAL, 16" HT x 16" SPR, 24" O.C., Full dense shrub
	PIT	15	Pittosporum tobira `Variegata` / Variegated Pittosporum * 3 gal., 18" ht. x 18" spr., full desnse shrub

PLANT SCHEDULE - PHASE I

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CE	12	Conocarpus erectus / Green Buttonwood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	CS	9	Conocarpus erectus sericeus / Silver Button Wood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	PE2	3	Ptychosperma elegans / Alexander Palm B&B, double headed palm, min. 14` and 18` of clear wood, 7-8" cal.
	PE3	4	Ptychosperma elegans / Alexander Palm B&B, triple headed palm, min. 10`, 12`, 14` clear wood, 7-8" cal.
	SP	38	Sabal palmetto / Cabbage Palmetto* Varing heights in groups 12-16` c.w., hurricane cut
	VM2	6	Veitchia montgomeryana / Montgomery Palm FG, 12` GW, 18` OA HT, Single Straight Trunk 10" CAL, Full Crown
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CHR	167	Chrysobalanus icaco `Red Tip` / Red Tip Cocoplum * 3 gal, min., 24" ht. x 18" spr., 30" o.c., Full to base, full dense shrub
	CES	38	Conocarpus erectus / Silver Buttonwood * 3 gal; 30" ht. x 18" spr., full to base
SHRUB AREAS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CAR	326	Carissa macrocarpa `Emerald Blanket` / Emerald Blanket Carissa * 3 Gal., 12" Ht. x 16" Spr., 24" O.C., Full
	DUR	263	Duranta erecta `Gold Mound` / Gold Mound Duranta * 3 gal, 16" ht. x 16" spr., 24" o.c., Full dense shrub, fully rooted pot
	ILE	308	Ilex vomitoria `Stokes Dwarf` / Dwarf Yaupon * 3 Gal., 12" Ht. x 12" Spr., 18" O.C., Full dense shrub
	JAS2	73	Jasminum volubile / Wax Jasmine * 3 GAL, 16" HT x 16" SPR, 24" O.C., Full dense shrub
	PIT	282	Pittosporum tobira `Variegata` / Variegated Pittosporum * 3 gal., 18" ht. x 18" spr., full desnse shrub
	TRA	52	Trachelospermum jasminoides / Star Jasmine Trellis 3 Gal., Trellis, Fully rooted pot, dense

* Denotes Town of Lake Park Preferred Plan List species

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Earl Stewart Toyota

Lake Park, FL
Landscape Plan - Phase I

Drawing name: H:\JOBS\Earl Stewart Toyota_03-002\EST_Expansion_SPR_004\Drawings\Landscape\Plan\2015-04-22 LP.dwg

NORTH

0 10' 20' 40'

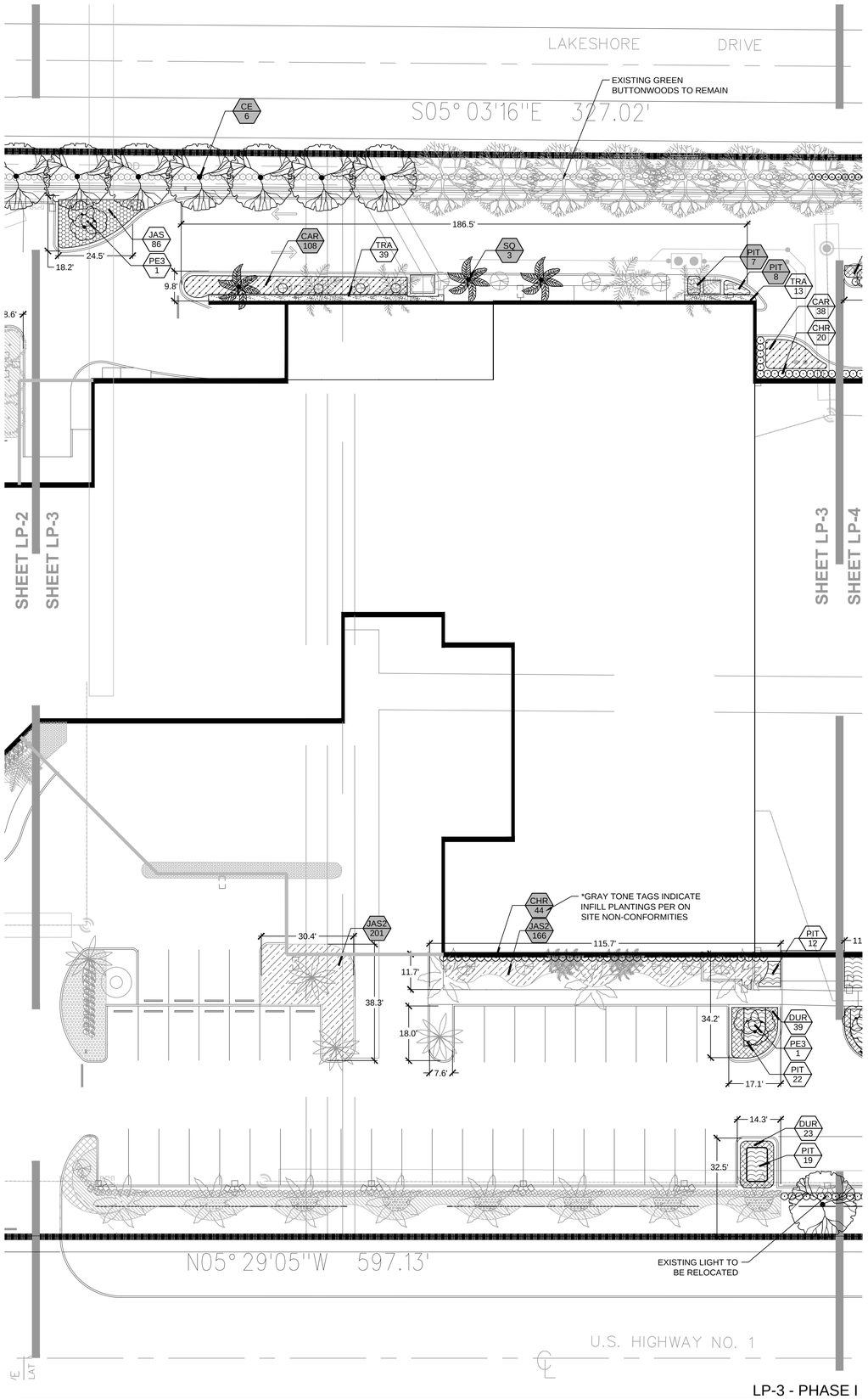
Scale: 1" = 20'-0"

Date:	03.15.2014
Project No.:	03-002.004
Designed By:	TLM
Drawn By:	TLM
Checked By:	SCM/AB

Revision Dates:

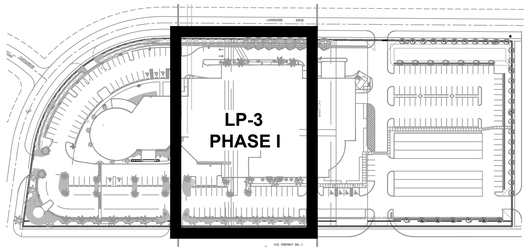
10-01-2014 Revisions
10-29-2014 Revisions
01-07-2015 Revisions
02-18-2015 Revisions
03-11-2015 Revisions
04-24-2015 Revisions

LP-2



LP-3 - PHASE I

SCALE: 1" = 20'



KEY MAP

N.T.S.

PLANT SCHEDULE - INFILL PLANTING

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CE	25	Conocarpus erectus / Green Buttonwood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	CS	6	Conocarpus erectus sericeus / Silver Button Wood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	PE3	3	Ptychosperma elegans / Alexander Palm B&B, triple headed palm, min. 10`, 12`, 14` clear wood, 7-8" cal.
	RE	2	Roystonea elata / Florida Royal Palm* 14` gray wood, 5` spr., single straight trunk, matched, Florida #1, B&B
	SQ	3	Syagrus romanzoffiana / Queen Palm Field Grown, 10` Gray wood, Full dense head
	VM2	2	Veitchia montgomeryana / Montgomery Palm FG, 12` GW, 18` OA HT, Single Straight Trunk 10" CAL, Full Crown
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CHR	44	Chrysobalanus icaco `Red Tip` / Red Tip Cocoplum * 3 gal, min., 24" ht. x 18" spr., 30" o.c., Full to base, full dense shrub
	CES	12	Conocarpus erectus / Silver Buttonwood * 3 gal; 30" ht. x 18" spr., full to base
SHRUB AREAS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CAR	108	Carissa macrocarpa `Emerald Blanket` / Emerald Blanket Carissa * 3 Gal., 12" Ht. x 16" Spr., 24" O.C., Full
	GIF	34	Ficus microcarpa `Green Island` / Green Island Ficus 3 gal. min., 16" ht., 16" spr., full, 24" o.c.
	ILE	8	Ilex vomitoria `Stokes Dwarf` / Dwarf Yaupon * 3 Gal., 12" Ht. x 12" Spr., 18" O.C., Full dense shrub
	JAS	130	Jasminum multiflorum / Downey Jasmine * 3 gal., 18" ht. x 12" spr., full, dense pot
	JAS2	561	Jasminum volubile / Wax Jasmine * 3 GAL, 16" HT x 16" SPR, 24" O.C., Full dense shrub
	PIT	15	Pittosporum tobira `Variegata` / Variegated Pittosporum * 3 gal., 18" ht. x 18" spr., full desnse shrub

PLANT SCHEDULE - PHASE I

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CE	12	Conocarpus erectus / Green Buttonwood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	CS	9	Conocarpus erectus sericeus / Silver Button Wood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	PE2	3	Ptychosperma elegans / Alexander Palm B&B, double headed palm, min. 14` and 18` of clear wood, 7-8" cal.
	PE3	4	Ptychosperma elegans / Alexander Palm B&B, triple headed palm, min. 10`, 12`, 14` clear wood, 7-8" cal.
	SP	38	Sabal palmetto / Cabbage Palmetto* Varing heights in groups 12-16` c.w., hurricane cut
	VM2	6	Veitchia montgomeryana / Montgomery Palm FG, 12` GW, 18` OA HT, Single Straight Trunk 10" CAL, Full Crown
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CHR	167	Chrysobalanus icaco `Red Tip` / Red Tip Cocoplum * 3 gal, min., 24" ht. x 18" spr., 30" o.c., Full to base, full dense shrub
	CES	38	Conocarpus erectus / Silver Buttonwood * 3 gal; 30" ht. x 18" spr., full to base
SHRUB AREAS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CAR	326	Carissa macrocarpa `Emerald Blanket` / Emerald Blanket Carissa * 3 Gal., 12" Ht. x 16" Spr., 24" O.C., Full
	DUR	263	Duranta erecta `Gold Mound` / Gold Mound Duranta * 3 gal, 16" ht. x 16" spr., 24" o.c., Full dense shrub, fully rooted pot
	ILE	308	Ilex vomitoria `Stokes Dwarf` / Dwarf Yaupon * 3 Gal., 12" Ht. x 12" Spr., 18" O.C., Full dense shrub
	JAS2	73	Jasminum volubile / Wax Jasmine * 3 GAL, 16" HT x 16" SPR, 24" O.C., Full dense shrub
	PIT	282	Pittosporum tobira `Variegata` / Variegated Pittosporum * 3 gal., 18" ht. x 18" spr., full desnse shrub
	TRA	52	Trachelospermum jasminoides / Star Jasmine Trellis 3 Gal., Trellis, Fully rooted pot, dense

* Denotes Town of Lake Park Preferred Plan List species

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Earl Stewart Toyota

Lake Park, FL
Landscape Plan - Phase I

Drawing name: H:\JOBS\Earl Stewart Toyota_03-002\EST_Expansion_SPR_004\Drawings\Landscape Plans\2015-04-22 LP.dwg

NORTH

0 10' 20' 40'

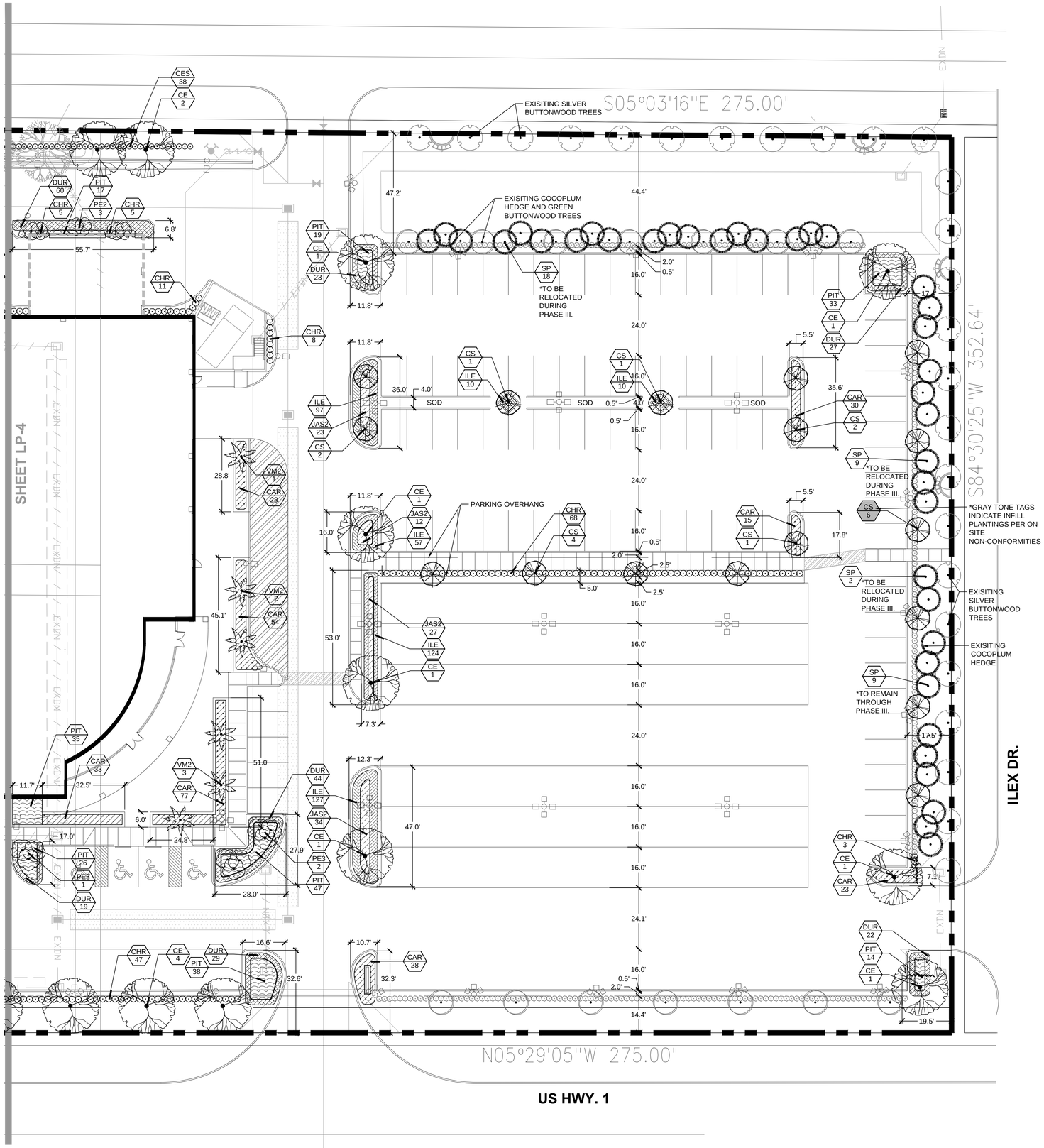
Scale: 1" = 20'-0"

Date:	03.15.2014
Project No.:	03-002.004
Designed By:	TLM
Drawn By:	TLM
Checked By:	SCM/AB

Revision Dates:

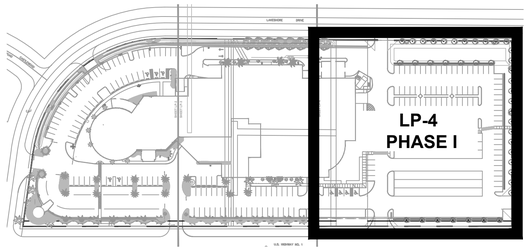
10-01-2014 Revisions
10-29-2014 Revisions
01-07-2015 Revisions
02-18-2015 Revisions
03-11-2015 Revisions
04-24-2015 Revisions

LP-3



LP-4 - PHASE I

SCALE: 1" = 20'



KEY MAP

N.T.S.

PLANT SCHEDULE - INFILL PLANTING

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CE	25	Conocarpus erectus / Green Buttonwood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	CS	6	Conocarpus erectus sericeus / Silver Button Wood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	PE3	3	Ptychosperma elegans / Alexander Palm B&B, triple headed palm, min. 10`, 12`, 14` clear wood, 7-8" cal.
	RE	2	Roystonea elata / Florida Royal Palm* 14` gray wood, 5` spr., single straight trunk, matched, Florida #1, B&B
	SQ	3	Syagrus romanzoffiana / Queen Palm Field Grown, 10` Gray wood, Full dense head
	VM2	2	Veitchia montgomeryana / Montgomery Palm FG, 12` GW, 18` OA HT, Single Straight Trunk 10" CAL, Full Crown
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CHR	44	Chrysobalanus icaco `Red Tip` / Red Tip Cocoplum * 3 gal, min., 24" ht. x 18" spr., 30" o.c., Full to base, full dense shrub
	CES	12	Conocarpus erectus / Silver Buttonwood * 3 gal; 30" ht. x 18" spr., full to base
SHRUB AREAS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CAR	108	Carissa macrocarpa `Emerald Blanket` / Emerald Blanket Carissa * 3 Gal., 12" Ht. x 16" Spr., 24" O.C., Full
	GIF	34	Ficus microcarpa `Green Island` / Green Island Ficus 3 gal. min., 16" ht., 16" spr., full, 24" o.c.
	ILE	8	Ilex vomitoria `Stokes Dwarf` / Dwarf Yaupon * 3 Gal., 12" Ht. x 12" Spr., 18" O.C., Full dense shrub
	JAS	130	Jasminum multiflorum / Downey Jasmine * 3 gal., 18" ht. x 12" spr., full, dense pot
	JAS2	561	Jasminum volubile / Wax Jasmine * 3 GAL, 16" HT x 16" SPR, 24" O.C., Full dense shrub
	PIT	15	Pittosporum tobira `Variegata` / Variegated Pittosporum * 3 gal., 18" ht. x 18" spr., full desnse shrub

PLANT SCHEDULE - PHASE I

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CE	12	Conocarpus erectus / Green Buttonwood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	CS	9	Conocarpus erectus sericeus / Silver Button Wood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	PE2	3	Ptychosperma elegans / Alexander Palm B&B, double headed palm, min. 14` and 18` of clear wood, 7-8" cal.
	PE3	4	Ptychosperma elegans / Alexander Palm B&B, triple headed palm, min. 10`, 12`, 14` clear wood, 7-8" cal.
	SP	38	Sabal palmetto / Cabbage Palmetto* Varing heights in groups 12-16` c.w., hurricane cut
	VM2	6	Veitchia montgomeryana / Montgomery Palm FG, 12` GW, 18` OA HT, Single Straight Trunk 10" CAL, Full Crown
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CHR	167	Chrysobalanus icaco `Red Tip` / Red Tip Cocoplum * 3 gal, min., 24" ht. x 18" spr., 30" o.c., Full to base, full dense shrub
	CES	38	Conocarpus erectus / Silver Buttonwood * 3 gal; 30" ht. x 18" spr., full to base
SHRUB AREAS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CAR	326	Carissa macrocarpa `Emerald Blanket` / Emerald Blanket Carissa * 3 Gal., 12" Ht. x 16" Spr., 24" O.C., Full
	DUR	263	Duranta erecta `Gold Mound` / Gold Mound Duranta * 3 gal, 16" ht. x 16" spr., 24" o.c., Full dense shrub, fully rooted pot
	ILE	308	Ilex vomitoria `Stokes Dwarf` / Dwarf Yaupon * 3 Gal., 12" Ht. x 12" Spr., 18" O.C., Full dense shrub
	JAS2	73	Jasminum volubile / Wax Jasmine * 3 GAL, 16" HT x 16" SPR, 24" O.C., Full dense shrub
	PIT	282	Pittosporum tobira `Variegata` / Variegated Pittosporum * 3 gal., 18" ht. x 18" spr., full desnse shrub
	TRA	52	Trachelospermum jasminoides / Star Jasmine Trellis 3 Gal., Trellis, Fully rooted pot, dense

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Earl Stewart Toyota

Lake Park, FL
Landscape Plan - Phase I

Drawing name: H:\2003\Earl Stewart Toyota_03-003\EST_Expansion_SPR_2004\Drawings\Landscape Plans\2015-04-22 LP.dwg

NORTH

0 10' 20' 40'

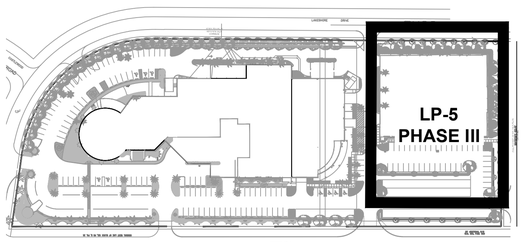
Scale: 1" = 20'-0"

Date:	03.15.2014
Project No.:	03-002.004
Designed By:	TLM
Drawn By:	TLM
Checked By:	SCM/AB

Revision Dates:

10-01-2014 Revisions
10-29-2014 Revisions
01-07-2015 Revisions
02-18-2015 Revisions
03-11-2015 Revisions
04-24-2015 Revisions

LP-4

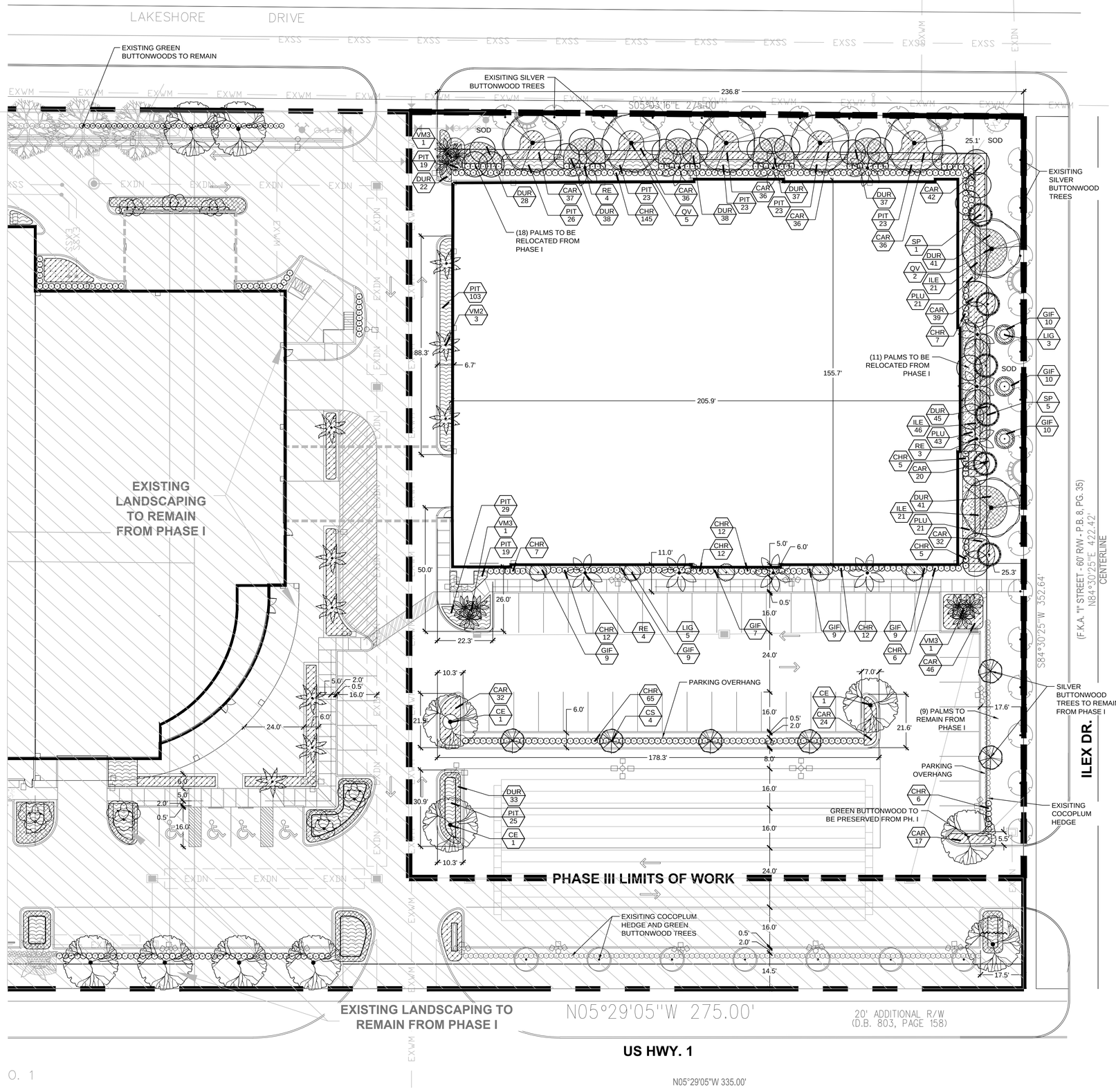


KEY MAP
N.T.S.

PLANT SCHEDULE - PHASE III

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CE	3	Conocarpus erectus / Green Buttonwood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	CS	4	Conocarpus erectus sericeus / Silver Button Wood * 12` ht. x 5` spr., single straight trunk, full head, 3" cal. measured 4.5` above grade, Florida #1, container
	LIG	8	Ligustrum japonicum / Japanese Privet 65 Gal., 7` spr. x 7` ht., 3` CT min., 3-5 trunks, matched, shaped when installed
	QV	7	Quercus virginiana / Southern Live Oak * B&B, min. 18` ht., 8` spr., 6` ct., 4` cal., single straight trunk
	RE	11	Roystonea elata / Florida Royal Palm* 14` gray wood, 5` spr., single straight trunk, matched, Florida #1, B&B
	SP	6	Sabal palmetto / Cabbage Palmetto* Varing heights in groups 12-16` c.w., hurricane cut
	VM3	3	Veitchia merrillii / Triple Christmas Palm B&B, triple headed palm, min. 6`, 8`, 10` gray wood
	VM2	3	Veitchia montgomeryana / Montgomery Palm FG, 12` GW, 18` OA HT, Single Straight Trunk 10" CAL, Full Crown
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CHR	294	Chrysobalanus icaco `Red Tip` / Red Tip Cocoplum * 3 gal, min., 24" ht. x 18" spr., 30" o.c., Full to base, full dense shrub
SHRUB AREAS	CODE	QTY	BOTANICAL NAME / COMMON NAME
	CAR	433	Carissa macrocarpa `Emerald Blanket` / Emerald Blanket Carissa * 3 Gal., 12" Ht. x 16" Spr., 24" O.C., Full
	DUR	360	Duranta erecta `Gold Mound` / Gold Mound Duranta * 3 gal, 16" ht. x 16" spr., 24" o.c., Full dense shrub, fully rooted pot
	GIF	73	Ficus microcarpa `Green Island` / Green Island Ficus 3 gal. min., 16" ht., 16" spr., full, 24" o.c.
	ILE	88	Ilex vomitoria `Stokes Dwarf` / Dwarf Yaupon * 3 Gal., 12" Ht. x 12" Spr., 18" O.C., Full dense shrub
	PIT	313	Pittosporum tobira `Variegata` / Variegated Pittosporum * 3 gal., 18" ht. x 18" spr., full desnse shrub
	PLU	85	Plumbago auriculata `Imperial Blue` / Blue Plumbago * 3 gal, 18" ht. x 16" spr., 30" o.c., Full to base, full dense shrub

* Denotes Town of Lake Park Preferred Plan List species



LP-5 - PHASE III
SCALE: 1" = 20'

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Earl Stewart Toyota

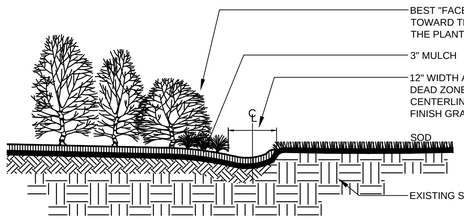
Lake Park, FL
Landscape Plan - Phase III

NORTH
0 10' 20' 40'
Scale: 1" = 20'-0"

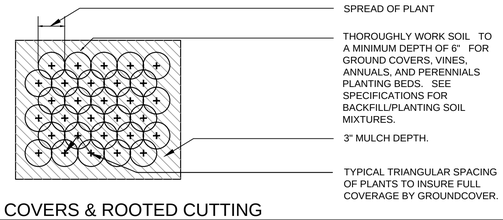
Date:	03.15.2014
Project No.:	03-002.004
Designed By:	TLM
Drawn By:	TLM
Checked By:	SCM/AB

Revision Dates:
10-01-2014 Revisions
10-29-2014 Revisions
01-07-2015 Revisions
02-18-2015 Revisions
03-11-2015 Revisions
04-24-2015 Revisions

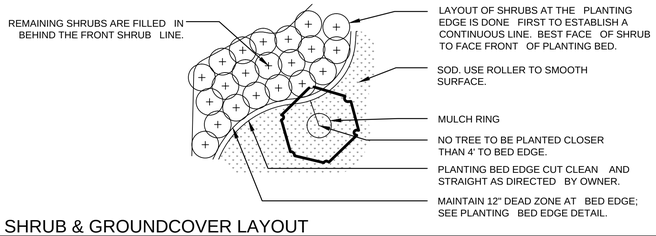
Drawing name: H:\JOBS\Earl Stewart Toyota_03-002\DST_Expansion_SPR_004\Drawings\Landscape Plans\2015-04-22 LP.dwg



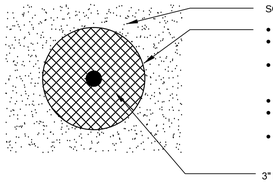
PLANTING BED EDGE
NOT TO SCALE



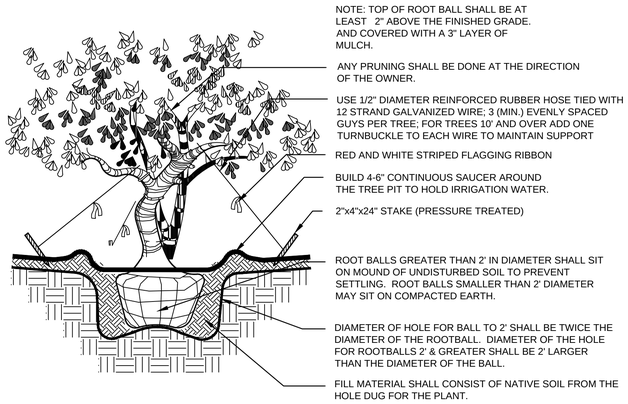
GROUND COVERS & ROOTED CUTTING
NOT TO SCALE



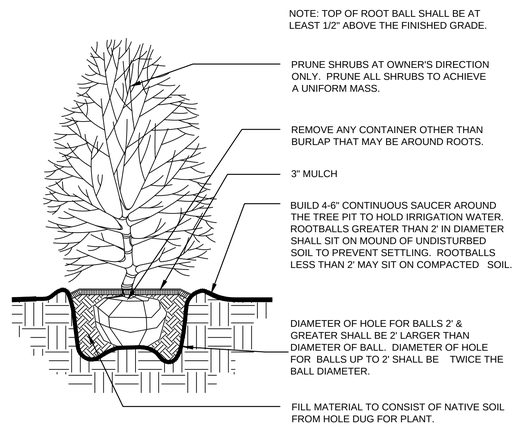
SHRUB & GROUNDCOVER LAYOUT
NOT TO SCALE



MULCH RING IN SOD DETAIL
NOT TO SCALE



IRREGULAR & MULTI-STEM TREE PLANTING
NOT TO SCALE



LARGE SHRUB PLANTING
NOT TO SCALE

ROOT BARRIER TO BE PROVIDED BY DEEP ROOT, SPECIFIED AS PANEL TYPE - UB36-2 OR APPROVED EQUAL. ROOT BARRIER TO BE PROVIDED WHEN A LIVE OAK TREE IS BETWEEN 10-15' FROM SEACOAST UTILITY LINES.

UB 36-2/UB 48-2 Specifications
36" / 48" DeepRoot Tree Root Barrier

Specified tree root barriers are a mechanical barrier and root deflector to prevent tree roots from damaging hardscapes, and landscapes. Assembled in 2' (61 cm) long modules to create varying lengths for linear applications directly beside a hardscape adjacent to one side of the trees or for large perimeter surround applications with a minimum 8' (2.43 m) diameter using 12 panels.

A. Materials

1. The contractor shall furnish and install tree root barriers as specified. The tree root barriers shall be either product # UB 36-2 or UB 48-2 as manufactured by DeepRoot Partners, L.P., 81 Langton Street, Suite 4, San Francisco, CA 94103 (800.458.7668), or approved equal. The barrier shall be black, Extruded Panels, of 0.80" (2.03mm) wall thickness in modules 24" (61cm) long either 36" (91 cm) or 48" (122 cm) deep; manufactured with homopolymer polyethylene with added ultraviolet inhibitors; recyclable. Each 2' (61 cm) section shall have:

Not less than 4 Molded Integral Vertical Root Directing Ribs of a minimum 0.080" (2.03mm) thickness protruding 1/2" (12.7 mm) at 90° from interior of the barrier panel, spaced 6" (152.4 mm) apart. See panel drawing.

An integrated Joining System providing for instant assembly by sliding one panel into another.

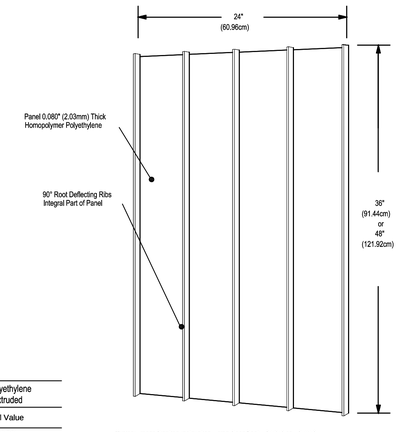
The basic properties of the material shall be:

Material and Thickness		Homopolymer Polyethylene 0.080 inch Extruded
Properties	ASTM Test Method	Typical Value
Tensile stress @ yield	D638	3800 PSI
Elongation @ break %	D638	10%
Tensile Modulus	D638	155,000 PSI
Notched Izod Impact	D256A	0.4 - 4.0
Flexual Modulus ?3 ↕ PSI	D790	145,000
Hardness Shore	D2240	P66

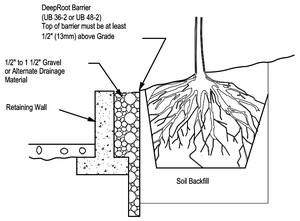
B. Construction and Installation

1. The contractor shall install the tree root barriers with the number of panels and in the manner shown on the drawings. The vertical root directing ribd shall be facing inwards to the root ball and the top edge shall be 1/2" (12.7 mm) above grade. Each of the required number of panels shall be joined in a linear fashion and placed along the adjacent hardscape or where specified connected to form a circle around the root ball.

2. Excavation and preparation shall conform to the drawings.

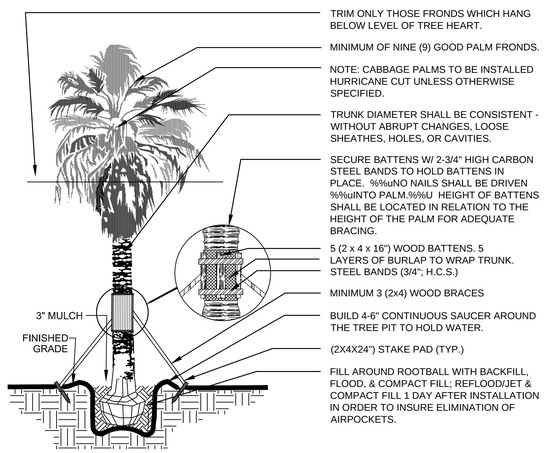


A Typical Linear Planting Installation Using DeepRoot UB 36-2 or UB 48-2



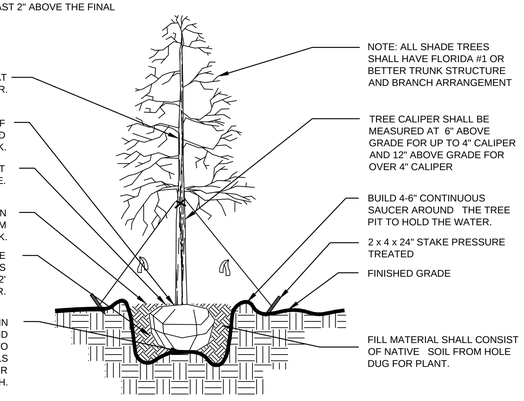
Install DeepRoot UB 36-2 or UB 48-2
6"-12" behind planter or retaining wall.

ROOT BARRIER DETAILS
NOT TO SCALE

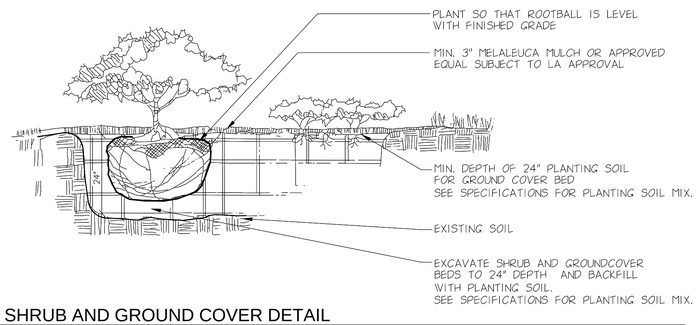


TYPICAL PALM PLANTING
NOT TO SCALE

NOTE:
1. NO NAILS SHALL BE DRIVEN INTO TREE. AND TRUNK SHALL BE FREE OF ANY MAJOR SCARS.
2. TOP OF ROOT BALL SHALL BE AT LEAST 2" ABOVE THE FINAL GRADE



TREE PLANTING (2"-4" CALIPER)
NOT TO SCALE



SHRUB AND GROUND COVER DETAIL
NOT TO SCALE

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Earl Stewart Toyota

Lake Park, FL
Landscape Plan Details

Drawing name: H:\JOBS\Earl Stewart Toyota_03-002\EST_Expansion_SPR_004\Drawings\Landscape Plans\2015-04-22 LP.dwg

Date:	03.15.2014
Project No.:	03-002.004
Designed By:	TLM
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04-24-2015 Revisions

SECTION 02950
TREES, SHRUBS AND GROUND COVER

PART I - GENERAL

By bidding on this project and/or signing a contract for landscape work, the Contractor acknowledges that he/she has read and understood these specifications in their entirety, that he/she has inspected the site, and that he/she will abide by all plans, specifications, and conditions found herein. Any perceived conflicts or concerns within the specifications or on the plant list, including unavailability of materials, are to be brought to the attention of the Landscape Architect prior to bid submission.

1.01 WORK INCLUDED
A. Contractor shall obtain or ensure that all necessary permits have been granted to the Owner for work on the Owner's properties or in any adjacent easements prior to commencement of work.
B. All planting and construction work shall be executed as shown on the provided drawings, schedules, and specifications.
C. Any additional work or materials required to install landscape elements as called for on the plans, specifications or plant list shall be provided and installed by the Contractor.
D. Finish Grade Elevations: 2 inch below top of pathway edging.
E. The Contractor shall be entirely responsible for all work until final acceptance by the Owner. The Contractor shall protect all materials and work against injury and shall provide and maintain all necessary guards for the protection of the public. He shall be held responsible for any negligence during the execution of the work.

1.02 QUALITY ASSURANCE
A. All work specified herein shall be performed by a single firm specializing in landscape work. The Landscape Architect and the Owner retain the right to approve any proposed subcontractors prior to awarding the contract.
B. Ship landscape materials with certificates of inspection required by governing authorities. Comply with all regulations applicable to landscape materials.
C. Package standard products with manufacturers certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agricultural Chemists, wherever applicable.
D. Provide trees, palms, shrubs and groundcover grown in a recognized nursery in accordance with good horticultural practice. Materials must be healthy and vigorous, free of disease, insects, eggs, larvae, and defects such as decay, rot, knots, sun scald, injuries, abrasions, and poor or unusual form. No collected material will be permitted unless specific written approval is granted.
E. Do not make substitutions. If specified landscape material is not available at time of planting, submit proof of non-availability and provide a list of proposed equivalent material. Once authorized, adjustments to the contract will be made. Owner is not financially responsible for unauthorized substitutions.
F. Plant materials of larger size than specified may be used if acceptable to Landscape Architect and if sizes of root balls are increased proportionately. Installation of larger sizes will not increase contract amount unless specifically authorized by Owner.
G. Owner and Landscape Architect reserve the right to inspect, approve or reject at any time plant materials or work either at the nursery or at the site which does not meet the condition in the plans, plant list or specifications.
H. The Contractor shall be responsible for planting the landscape in complete accordance with all applicable codes, ordinances, and laws. Any modification made to conform with said codes, laws and ordinances, after the bid is awarded, shall be completed at the Contractor's expense at no additional cost to the Owner.

1.03 SUBMITTALS
A. Certification: Submit certificates of inspections as required by governmental authorities, and manufacturers or vendor's certified analysis for soil amendments and fertilizer materials. Submit other data substantiating that materials comply with specified requirements.
B. Submit seed vendor's certified statement for each grass seed mixture required, stating botanical and common name, percentage by weight, and percentage of purity, germination, and weed seed for each grass seed species.
C. Planting Schedule: Submit planting schedule showing schedule dates for each type of planting in each area of site.
D. Maintenance Instructions: Submit typewritten procedures for maintenance of landscape work, through final acceptance.

1.04 DELIVERY, STORAGE AND HANDLING
A. Packaged Materials: Deliver packaged materials in original containers showing manufacturer's guaranteed weight analysis and name of manufacturer. Protect materials from damage and deterioration during delivery and storage.
B. Trees, shrubs, and ground covers: Provide freshly dug trees, palms, and shrubs. Do not prune prior to delivery. All plants shall be handled and stored so that they are adequately protected from drying out, from sun or wind burn, and from any other injury at all times. Any plant determined to be wilted or burned may be rejected at any time, whether in the ground or not. Plants shall be handled only by their containers or root balls, not by stems or trunks. Trees that are scraped or scarred during delivery, storage, or planting will be rejected. The on-site storage area shall be approved prior to the delivery of any plant materials. Do not bend or bind plants in such a manner as to damage bark, break branches, or destroy natural shape. Provide protective covering during delivery.
C. Deliver plant materials after preparations for planting are complete, and plant immediately. Roots or balls of all plants shall be adequately protected at all times from sun and/or wind. Balled and burlapped (B&B) plants that cannot be planted immediately upon delivery shall be set on the ground and protected by having soil, wet peat, or other acceptable material covering the roots or balls keeping them moist.
D. Do not remove container grown stock from containers until planting time.
E. Label at least one tree, one palm and one shrub of each variety with a securely attached waterproof tag bearing legible designation of botanical and common name , if requested by Owner.
F. Sod: Time delivery so that sod will be placed within 24 hours after stripping. Protect sod against drying and breaking of rolled strips.

1.05 JOB CONDITIONS
A. Proceed with and complete landscape work as rapidly as portions of site become available.
B. Utilities: Determine location of overhead and underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Forty eight (48) hours prior to digging, call the appropriate Utility Authority to have all utilities identified and marked in order to avoid conflicts.
C. Protection of Existing Structures: All existing buildings, walks, walls, paving, piping, and other items of construction and planting already completed or established shall be protected from damage. All damage resulting from negligence shall be repaired or replaced, including but not limited to marks on pavers and cracks within existing walkways caused by the Contractor. The Owner may, at his discretion have any damage repaired by others and subsequently costs back-charged to the Contractor.
D. Protection of Existing Plant Material: The Contractor shall be responsible for all unauthorized cutting or damage to existing trees or shrubs caused by careless operation of equipment, stockpiling of materials, etc. This shall include compaction by driving or parking inside the drip-line of any tree, or spilling of oil, gasoline, or other deleterious materials within the drip-line of any tree. No materials shall be burned.
E. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Landscape Architect before planting.

PART II - PRODUCTS
2.01 TOPSOIL
A. The Contractor is required to obtain a soil sample and perform a soil analysis test to determine the existing soil composition and conclude whether it complies with the composition criteria below.
B. Where topsoil does not meet the specified limits within the project site, it shall be furnished. Throughout all parts of site where finish grades and contour lines differ from existing contour lines, bring to finish grade contours shown on "Grading Plan."
C. Topsoil shall be friable, fertile soil with representative characteristics of local soils. It shall be free of heavy clay, marl, stone, extraneous lime, plant roots, refuse and/or solid waste, sticks, brush, construction demolition debris, and any other deleterious materials. There shall be no noxious weeds or weed seeds (i.e., nut grass, Bermuda grass and the like). In no case shall there be more than five percent (5%) by dry weight of clay lumps or stones larger than 1". It shall test in the pH range of 6.0 to 7.2 and shall contain no substance that will impede plant growth. The Contractor shall have topsoil laboratory-tested at his expense and approved by Landscape Architect or Owner prior to material delivery.

Topsoil shall conform to the following specifications:

COMPONENTS	DRY WEIGHT MEASURE	PARTICLE SIZE
Organic Matter	2% - 7%	
Silt/Clay	2% - 10%	< 0.074 mm
Sand	85% - 98%	0.075 - 3.00 mm
Gravel	0% - 5%	4.75 mm - 1 inch

The analysis shall also show the following ranges:

Soluble salt	.2 - 1.0mmmhos/cm
Nitrogen	25-150 PPM
Phosphorus	26 - 39 PPM
Potassium	50 - 250 PPM
Calcium	500 - 2500 PPM
Magnesium	50 - 500 PPM
Iron	2.5 - 25 PPM
Manganese	2.5 - 25 PPM
Zinc	2.5 - 25 PPM
Copper	1.3 - 5 PPM
Boron	0.5 - 1.5 PPM
Sulphur	15 - 200 PPM
Chlorine	less than 100 PPM
Sodium	less than 10
Nematodes	none

2.02 SOIL AMENDMENTS AND FERTILIZERS
A. Peat Moss: Peat moss shall be a commercial, baled sphagnum material, free of woody material, minerals, or foreign matter, with a pH range of 3.0 - 5.5.
B. Sand: Sand shall be clean, sharp, and free of all deleterious material.
C. Lime: Natural limestone (Dolomite) containing not less than 85% of total carbonates, ground so that not less than 90% passes a 10-mesh sieve and not less than 50% passes a 100-mesh sieve.
D. Humus Soil Conditioner: Consisting of yard trimmings and biosolids co-compost.
E. Fertilizer: Fertilizer shall be a commercial grade, granular, slow release "pre-plant" type fertilizer.
1. Fertilizer shall be delivered to the site in the original unopened container, bearing the manufacturer's guaranteed analysis. Any opened, caked, or damaged fertilizer will be rejected.
2. Tree, palm, shrub and grass fertilizer shall be "UF (University of Florida) Formulated" product 8-2-12 or 8-2-13 with minor elements as an all-purpose fertilizer, or equal, and applied according to the manufacturer's direction.
3. Application of fertilizer shall be consistent with the current recommendations of the Green Industries - Best Management Practices.
4. Fertilizer shall be applied by an individual who has successfully completed the GI-BMP program and holds a current Urban Fertilizer License or as required by the State and Local Ordinances.

2.03 WATER
A. All water necessary for planting and maintenance shall be of satisfactory quality to sustain adequate growth of plants and shall not contain harmful, natural or man-made elements detrimental to plants.

2.04 OTHER LANDSCAPE PRODUCTS
A. Mulch: Mulch shall be shredded Melaleuca, Eucalyptus, Grade "A" Pine Bark Nuggets, or approved equal, free of foreign materials and weed seeds. Minimum depth after settling shall be 3".
B. Guying and Bracing: Tree guying and bracing shall be the responsibility of the Contractor in accordance with the planting details to insure stability and maintain plants in an upright position.
C. Anti-desiccant: Anti-desiccant shall be "Wiltpruf" or equal, if specified on plans.
D. Tree Wound Paint: Tree wound paint shall be an asphaltic base paint containing an antibacterial agent, specially prepared for tree surgery work.
E. Super Absorbent Polymer: "Terra Sorb" or approved equal as packaged in 3 oz. Handy Pac composed of synthetic acriamide copolymer, potassium, acrylate. Particle size of 1.0 mm to 3.0 mm and absorption rate of 300 times its weight in water, if specified on plans.

Apply dry, using the following amounts:
1. For trees and palms up to 36" diameter root ball, use one 3 oz. Handy Pac.
2. For trees and palms over 36" diameter root ball use two 3 oz.
3. Handy Pacs. Broadcast throughout planting hole and backfill as per manufacturers specifications.

For container grown plants:

Container Size	Application Rate
1 Gallon	1 Handy Pac / 9 Containers
3 Gallons	1 Handy Pac / 4 Containers
7-10 Gallons	1 Handy Pac / 2 Containers
20 Gallons	1 Handy Pac / 1 Container

2.05 PLANT MATERIAL
A. Plant list is part of this specification section. The Contractor shall be responsible for furnishing and installing all plant materials shown on the drawings and plant list. In case of conflict between the two documents, the drawings shall rule.
B. Quality: Trees, palms, shrubs, and other plants shall be Florida #1 or better as defined in the latest edition of Grades and Standards for Nursery Plants, Florida Department of Agriculture and Consumer Services. Multi-trunked trees will not be accepted unless they are specifically specified in the planting plans. All plants shall have a normal habit of growth and shall be sound, healthy, and vigorous. Trees shall have normal well-developed branching structures and vigorous root systems that are not root or container bound.

1. Balled and burlapped plants (BB or b&b) shall be dug with firm, natural balls of earth, of sufficient depth and diameter to include the fibrous and feeding roots. Plants with cracked, dry, or broken balls will not be accepted, nor will plants with root balls of insufficient size.
2. All plants, other than those collected on site, shall be nursery grown in accordance with good horticultural practices and under climatic conditions similar to the site for at least two years. Transplanting or root pruning shall have taken place during growth.

C. Size: Plant sizes shown in the plant list are minimums. When a shrub size is given by height and spread and by container size, the larger of the two shall rule. All trees and shrubs shall be measured when their branches are in a normal position. Spread dimensions specified refer to the main body of the plant and not from extreme branch tip to tip. Height is measured from the soil line to the average height of the canopy. Measurement does not include any terminal growth; the container or root ball is also not included.

Unless otherwise specified, the determining measurement for trees shall be caliper, which shall be measured 6" above the ground for trees up to 4" in caliper, and 12" above the ground for trees over 4" caliper.

2.06 GRASS MATERIALS
A. Types: Sod type shall be as specified on the provided landscape plan and associated plant schedule.
B. Dimensions: The sod shall be taken up in commercial size rectangles, preferably 12-inch x 24-inch.
C. Measurement: Sod shall be measured on the basis of square footage. Contractor shall be responsible for complete coverage based on the square footage shown on plans; therefore, Contractor shall factor in cutting and shrinkage of materials.
D. The sod shall be sufficiently thick to provide a dense stand of live grass. The sod shall be live, fresh and uninjured, at the time of planting. It shall be a soil mat of sufficient thickness, at least 2" thick, adhering firmly to the roots to withstand all necessary handling. It shall be free of weeds and other grasses. It shall be planted as soon as possible after being dug, and shall be shaded and kept moist from the time it is dug until it is planted. After approval, the area from which the sod is to be harvested shall be closely mowed and raked as necessary to remove excessive top growth and debris.

2.07 REJECTION, SUBSTITUTION, AND RELOCATION
A. All plants not conforming to the requirements herein specified shall be considered defective and such plants shall be marked as rejected and removed from the site whether in the ground or not, at the Contractor's expense. Such removal shall take place immediately and new plants shall be brought in as replacements. The plant materials must meet all applicable inspections required by law.
B. The Owner or Landscape Architect also reserves the right to require that plants be relocated after installation if their initial installation does not conform to the plans or the intent of the plans, or if the original location poses an unforeseen threat to other facilities, human life, health, or safety, or to site utilities. Such relocation shall be at the Contractor's expense.

PART III - EXECUTION
3.01 GENERAL
A. Proceed with and complete landscape work as rapidly as portions of the site become available.
B. No planting shall be done until all operations in conjunction with the installation of the sprinkler system have been completed, final grades have been established, planting areas have been properly graded and prepared.
C. Adverse Conditions: When conditions potentially detrimental to plant growth are encountered during work, such as rubble or refuse fill, adverse drainage conditions, or obstructions, notify Owner or Landscape Architect before planting.
D. Work Scheduling: Work is to be scheduled to establish a logical sequence of steps for completion of each type and phase of landscape work, in such a way as to correspond with, and avoid damage and conflict with, other disciplines on site.
E. Coordination with Sod/Lawn: Plant trees, palms, and shrubs only after final grades are established, and prior to sodding or lawn establishment. If such planting must be done after lawn work, protect lawn/sod areas during planting and promptly repair any resulting damage.
F. Timing:
1. Planting work shall not be started until the final subgrade has been established, berms have been constructed and fine finished grading completed.
2. Under no conditions shall work be done if weather or soil conditions are not satisfactory.
G. Clean-up:
1. At all times during the construction and installation, the site shall be maintained in a clean, orderly and safe condition. Streets and pavements shall be kept clean. Materials and equipment for planting work shall be limited to the quantity required for the particular phase of work currently underway on the job site.
2. Protect landscape work and materials from damage due to landscape installation and maintenance operations, operations by other contractors and trades, and trespassers. Maintain protection during installation, Maintenance and Establishment periods. Treat, repair or replace damaged landscape work as directed.

3.02 SOIL PREPARATION
A. Grading and soil preparation work shall be performed only during periods when best results can be obtained. If the moisture content of the soil is high enough that work would damage soil structure, grading and tilling operations shall be suspended.

B. Before mixing in soil amendments, clean topsoil of roots, plants, sods, stones, clay lumps, and other extraneous materials harmful or toxic to plant growth. Apply Herbicide for weed control as needed.
C. Mix specified soil amendments and fertilizers with topsoil at rates specified. Delay mixing of fertilizer if planting will not follow placing of planting soil within a few days.
D. For planting beds, mix planting soil either prior to planting or apply on surface of topsoil and mix thoroughly before planting.

1. Mix lime with dry soil prior to mixing of fertilizer.
2. Prevent lime from contacting roots of acid-loving plants.

E. Unless drawings indicate otherwise, berms shall not exceed a 3:1 slope. Berms near buildings or in potentially troublesome drainage situations shall be checked for correct drainage by the project Engineer or Owner prior to planting.
F. Tree and shrub planting beds which fall within or near parking lot areas shall be completely excavated and back-filled with topsoil. All shell-rock or other base materials, and all subsoil and debris, shall be completely removed from beneath such planting areas, to a minimum depth of 24".
G. All tree and/or shrub planting areas within 36" of building foundations, and any other planting areas where significant buried construction debris is encountered, shall be excavated to a minimum depth of 24" and backfilled with topsoil as specified elsewhere in these specifications.

3.03 TILLING
A. Before mixing, clean soil of roots, plants, clay lumps, stones in excess of 1" in diameter, and other extraneous or potentially harmful materials.
B. After all soil conditioning (and topsoil if called for on plans) has been spread at specified rates, the areas to be planted should be thoroughly rotary-tilled to a depth of six (6) inches. Plowing or dicing is not an acceptable substitute for rotary-tilling.

1. If the sprinkler system is installed after grading and tilling is completed, the backfill shall be retilled in the affected areas.
2. When the subsoil, grading, topsoil addition, soil conditioning, and tilling have been accomplished, all areas so treated shall be compacted and settled by application of heavy irrigation to a minimum depth of twelve (12) inches. Erosion scars shall be repaired.

3.04 FINE FINISH GRADING
A. When preliminary grading has been completed and the soil has dried sufficiently to be readily worked, all lawn and planting areas shall be graded to the elevations indicated on the Engineering Plans. The top four (4) inches shall be completely free of stones larger than one (1) inch. Grades not otherwise indicated shall be uniform levels or slopes between points where elevations are given. Positive drainage away from buildings shall always be maintained. Surface drainage shall be directed as indicated on the drawings by remodeling surfaces to facilitate the natural run-off of water. All depressions where water will stand, all voids, erosion, settled trenches and excavations, and all ridges and rises shall be amended and/or removed leaving a smooth, even finish grade. If additional amended topsoil is required to accomplish the intent of this specification, it shall be according to the foregoing specifications for topsoil.

1. All area shall be graded so that the final grades are 2" below adjacent paved areas, sidewalks, valve boxes, mowing strips, clean-outs, drains, etc., with appropriate adjustments for varying sod thicknesses. The intent is for water always to drain away from paving into lawn/sod areas.
2. Eliminating all erosion scars prior to beginning planting.
3. The Owner and/or his representative shall approve all final finish grades prior to planting.

B. Prior to fine grading or the installation of plant material the Contractor shall obtain certification that the project area is at the grade levels proposed by the Civil Engineer or Landscape Architect from a licensed Surveyor. The Contractor shall fine grade the lawn and planting areas to bring the rough grade up to final finished grade allowing for thickness of sod and/or mulch depth.

3.05 PLANTING TREES AND PALMS
A. Layout individual tree locations and areas for multiple plantings. Stake all locations and outline areas, then secure Landscape Architect's acceptance before the start of planting work.
B. Prior to preparation of tree pits, ascertain the location of all electrical cables, all conduits, all utility lines, oil tanks and supply lines, so that proper precautions may be taken not to disturb or damage any existing conditions. Properly maintain and protect existing utilities. Should such underground or overhead obstructions be encountered that interfere with planting, the Contractor will inform the Landscape Architect or Owner's representative and shall be consulted as to the adjustment of the location of plants to clear such obstruction or the relocation of the obstruction.
C. Tree pit locations shall be staked by the Contractor and approved by the Owner or Landscape Architect before digging. Pits shall be excavated to the depth and width indicated and all subsoil removed.
D. Protect all areas from excessive compaction by foot traffic or machinery when bringing trees to the planting area.
E. All excavated holes shall have vertical sides with roughened surfaces and shall be of a size that is at least twice the width of the original plant container or ball. In all cases the holes shall be large enough to permit handling and planting without damage to the roots or root ball.
F. Excess soil shall be removed or utilized as directed by Owner or the Owner's representative. If the excess soil will not be used, it is the responsibility of the Contractor to remove and dispose of the discarded soil off site in an acceptable manner.
G. Tree pits shall be backfilled with a topsoil mixture as specified elsewhere in these specifications Palm tree pits will be backfilled with a mixture of up to 95% sand and 5% organic material.
H. Add fertilizer to tree pits as specified elsewhere in these specifications.
I. Set balled and burlapped stock on a layer of 50% native soil and 50% topsoil compacted to a 6" depth. Loosen burlap from top of sides of the ball but no burlap shall be pulled from underneath. Remove non-organic binding material (if any) from tree ball. Immediately cut any damaged roots with clean shears. Using a plumb to assure that the tree is properly upright, begin filling the hole and tamping the fill material. When the hole is 2/3 filled, water thoroughly and probe with a stick to be sure that no air pockets remain. Re-plumb, complete filling the hole, re-tamp, and water again.
J. Set container-grown stock as above, taking care not to damage roots when removing the container
K. During planting, do not cover the top of the root ball with the soil mixture. All rope, wires, burlap mesh etc., shall be removed from the root ball. No synthetic burlap is allowed on any plant material. Specifically, Trees shall be planted so that the top of the root ball is 2" above final grade. Allow for settling. Any trees resting deeper or higher must be either reset or replaced at the discretion of the Owner or Landscape Architect; such work shall be at the Contractor's expense.
L. Create a watering basin around each tree at least as wide as the root ball in diameter formed by a circular ridge of soil at least 6" high.
M. Each planting basin shall be mulched to a minimum depth of 3" (after settling). Mulch shall not be applied until the tree has been thoroughly watered and two days have elapsed. Mulch should be placed so that it is not in direct contact with trunks.
N. All trees are to be staked or guyed per these specifications. All stakes shall be painted a conspicuous color or shall be flagged for visibility and public safety; guy wires shall be flagged.
O. Palms shall be planted per above specifications.

3.06 PLANTING SHRUBS, VINES, AND GROUND COVERS
A. The locations of all plants, bed outlines and all other areas to be planted shall be clearly marked with agricultural gypsum or landscape marking paint then approved by the Owner or Landscape Architect before any holes are dug.
B. No planting shall be done until the area concerned has been satisfactorily prepared in accordance with these specifications.
C. No more plants shall be distributed in the planting area on any work day than can be planted and watered in that day.
D. Unless otherwise indicated, all plants shall be planted in pits, centered as called for on the plant list, and set in 24" depth of topsoil as specified elsewhere in these specifications to such depth that the soil line of the plants will match the surrounding grade after settling. Plants shall be planted in a vertical position and oriented to give the best possible appearance or relationship to adjacent structures or features. Remove all inorganic containers or binding. All damaged roots shall be cut away cleanly. Planting soil shall be placed and compacted carefully to fill all voids and avoid root injury. When the hole is 2/3 filled, water thoroughly. The hole shall then be filled to finish grade and a shallow saucer shall be formed around each bed. After settling, soil shall be added as needed to bring the hole to grade level.
E. Azaleas and other ericaceous and acid-loving plants shall be backfilled with a mixture of 20% topsoil and 80% acid peat. They shall be set so that the bases of the plants are slightly higher than they grew in the container or nursery after settling. At no time shall lime in any form be brought into contact with the plants or their roots. Mulch with pine straw unless noted otherwise.
F. Add fertilizer to plants as outlined in section 2.02.
G. Vines shall be planted in pits containing at least 2 cubic feet of prepared topsoil. They shall be planted in the same manner as shrubs, and shall be mulched. Vine stems shall be fastened to walls, trellises, etc. as specified in the drawings.
H. Groundcover plants shall be laid out in their proposed planting locations without being removed from their containers after the soil is properly prepared per these specifications. Planting methodology is the same as for other shrubs.
I. Any plants which, after settling, rest significantly higher or even slightly lower than they grew in the nursery or container are subject to resetting or replacement at the discretion of the OWNER or Landscape Architect. Such work shall be at the Contractor's expense.
J. If called for in the plans, landscape edging shall be installed as specified.
K. All planting beds and individual plantings shall be mulched with a minimum of 3" (after settling) of mulch as specified in this document. Mulch shall be free of weed seeds and other foreign matter.

3.07 ANNUAL AND SEASONAL COLOR BEDS
A. Beds shall be mounded to a height 6" on top of the existing grade and composed of 50% topsoil and 50% compost.
B. Soil shall be covered with ½" - 1" deep layer of Pine Fines Mulch or comparable product.

3.08 PRUNING
A. All pruning shall be done in the presence of, and with the approval of, the Owner or Landscape Architect. Only clean, sharp tools designed for the purpose shall be used. The goal of pruning is always to preserve and enhance the natural character of the plant. Pruning shall be done per modern horticultural practice (see National Arborist Standards, latest edition).
B. Pruning shall be limited to the minimum necessary to remove injured twigs, branches, and fronds, to compensate for root loss suffered during digging and transplanting, and to thin and shape shrubs and trees. In no case shall more than 1/3 of the branching structure be removed. Damaged, scarred, frayed, split, or skinned twigs, branches, or limbs shall be pruned back to the next sound outside lateral bud, branch or limb. The terminal bud or leader shall not be removed.
C. Prune trees and shrubs to retain required height and spread. Remove the minimal amount of wood necessary on flowering trees and shrubs. Remove only dead or dying fronds from palms. Cuts over 3/4" in diameter shall be treated with tree wound paint; all exposed living tissue shall be covered.
D. Existing Trees: If indicated on drawings, Contractor shall prune and thin existing trees on site. The use of climbing spurs is prohibited. All diseased, dead branches and those interfering with healthy plant growth shall be removed. Also, remove root suckers, low branches, and any others as directed by the Owner or Landscape Architect. Cuts shall be flush with the trunk or limb and shall be painted with tree paint. Remove any nails, wires, etc. fastened to the tree.

3.09 PLANTERS - DECORATIVE OR STRUCTURAL
A. If specified, landscaping in planters shall be installed using the following method:

1. Install 4" deep layer of fine crushed stone in bottom of planter.
2. Install filter fabric over stone layer. Turn up edges of fabric all around.
3. Install planting soil mix over filter fabric to within 3½" of top for planter. Do not compact planting soil.
4. Install plant material as specified elsewhere in these specifications.
5. Install 3" of mulch over planting soil.

3.10 SODDING NEW LAWNS
A. The Contractor shall sod all areas indicated and noted on the drawings. No sodding shall occur until areas to be sodded are cleared of any rough grass, weeds and debris, the ground brought to an even grade and specified amendments have been added. See details for specific amendments as per sod type.
B. Whenever a suitable area has been graded and is ready for sodding the Contractor shall, when directed by the Landscape Architect, proceed at once with the sodding of the available areas. Sodding shall be incorporated into the project at the earliest practical time in the life of the contract. No sod which has been cut for more than seventy two (72) hours shall be used unless specifically authorized by the Landscape Architect or Owner after his careful inspection thereof. Any sod which is not planted within twenty four (24) hours after cutting shall be stacked in an approved manner and maintained properly moistened.
C. The sod shall be placed on the prepared surface, with edges in close contact, and shall be firmly and smoothly embedded by light tamping with appropriate tools. Sod shall be rolled with 1,000 lbs. roller unless waived by the Landscape Architect or Owner.
D. Where sodding is used in drainage ditches, sod panels shall be set in a staggered pattern, such as to avoid a continuous seam along the line of flow. Offsets of individual strips shall not exceed six (6) inches. At the inside of the curbs, sod shall abut squarely and evenly.
E. On areas where the sod may slide, due to height and slope, the Landscape Architect or Owner may direct that the sod be pegged, with pegs driven through the sod blocks into firm earth, at suitable intervals.
F. Any pieces of sod which, after placing, show an appearance of extreme dryness shall be removed from the work.
G. Where placement of new sod abuts existing sodded areas, new sod must be placed in such a manner as to produce an even transition to existing sodded areas.
H. It shall be the responsibility of the Contractor to bring the sod edge in a neat, clean manner to the edge of all paving and shrub areas.

PART IV MAINTENANCE, ESTABLISHMENT AND WARRANTY PERIODS
4.01 MAINTENANCE AND ESTABLISHMENT PERIOD
A. The Maintenance Period shall begin immediately after each plant is planted, and the Contractor shall continuously maintain all areas involved in this contract during the progress of the work.
B. The Establishment Period shall begin on the first day after all planting and installation of all landscape elements is completed and initially accepted. The Contractor shall continuously maintain all areas from initial acceptance until final acceptance by the Owner. The Establishment Period shall continue for not less than ninety (90) continuous calendar days. Hurricane cut Sabal Palms shall have an Establishment Period of not less than one hundred and eighty (180) continuous calendar days. The Establishment Period will end at the time the project is given final acceptance. An inspection shall be made by the Owner or Landscape Architect to accept the completed work and issue a determination of substantial completion. Inspections may be performed on all or partially completed phased work under the Contract, as directed by the Owner.
C. Maintenance of new plantings shall consist of, but not necessarily be limited to, pruning, watering, cultivating, weeding, mulching, tightening or replacing guys and stakes, resetting plants to proper grades or upright positions, furnishing and applying sprays as necessary to combat insects and disease, litter control, rolling, fertilizing and replanting.
D. Planting areas and plants shall be protected at all times against damage of any kind for the duration of the maintenance and establishment periods. If any plants are injured or damaged, they shall be treated or replaced as directed by the Owner or Landscape Architect at no additional cost. The Contractor is responsible for acts of vandalism or theft during the maintenance and establishment period unless this responsibility is assumed in writing by another party.
E. Restrict foot and vehicular traffic from all lawn and planting areas after seeding and planting operations. Erect signs and barriers if required and remove when lawn and plantings are well established and accepted by Owner.
F. The Contractor shall be responsible for maintaining adequate protection of the site. Areas damaged by the Landscape Contractor's men or equipment, or the men or equipment of his Subcontractor's, shall be repaired at the Landscape Contractor's expense.
G. The Contractor is responsible for keeping all plant materials adequately watered after installation even if the irrigation system is not operational. Plants shall receive a thorough watering immediately after planting. Afterwards, plants shall be watered during the maintenance and establishment periods per the requirements set forth in "Water Requirements for Newly Planted Grass, Ground Covers, Shrubs and Trees in Florida", distributed by South Florida Water Management District. In those areas where a permanent irrigation system will not be provided, the Contractor is responsible for implementing the Watering Program identified in the Landscape Plans.
H. The Landscape Contractor is responsible for keeping all plant materials adequately fertilized throughout the Maintenance and Establishment Periods. Fertilizer shall be applied at a rate to keep plant materials healthy. All fertilizer shall be done under the direction of a licensed fertilizer operator.
I. The Landscape Contractor shall control disease and pest infestations in the planting area. Upon approval, the Contractor shall implement the control measures, exercising extreme caution in using hazardous materials and taking all necessary steps to protect others on and near the job site. All disease and pest control shall be done under the direction of a licensed disease and pest control operator.
J. Herbicide Weed Control: All landscape areas shall be free of nut grass, torpedo grass, and other noxious weeds until final acceptance of work.

1. "Round-up" shall be applied to all planting areas as needed and determined on-site by the Owner for weed control. Apply per manufacturers specifications.
2. "Ronstar" pre-emergent or OWNER - approved equal, shall be applied 2 weeks before planting. Apply per manufacturers specifications.
3. Apply "Fusilade" in all areas where torpedo grass has emerged. Apply per manufacturers specifications.
4. Apply "Basagram" or "Marage" in all areas where nutgrass has emerged. Apply per manufacturers specifications.

K. Mowing of turf will commence ten (10) days after installation. The height of cut will be 3". After the first cut, the Contractor shall adjust the frequency of mowing so that at each operation not more than 1/3 of the grass blade is removed per cutting.
L. Between the 15th and 20th day of the Establishment Period, the Contractor shall re-sod all spots or areas within the lawn where normal turf growth is not evident. Turf must be well established and free of bare spots and weeds to the satisfaction of the OWNER or Landscape Architect prior to final acceptance. All planted areas other than lawn shall be weeded at intervals of not more than ten (10) days.
M. Application of fertilizer to be done between the fortieth (40) and fiftieth (50) day of the establishment period. Landscape Architect or Owner are to be notified a minimum of forty eight (48) hours in advance.
N. Improper maintenance or poor condition of any planting at the time of the termination of the scheduled Establishment Period may cause postponement of the final acceptance of the contract. Any material found to be dead, missing, or in poor condition during the establishment period shall be replaced immediately. Maintenance shall be continued by the Contractor until the work is acceptable.
O. Inspection and Final Acceptance:

1. In all cases the Landscape Architect will perform an initial and final inspection at the beginning and end of the Establishment Period, respectively. It is the responsibility of the Contractor to notify the Owner or Landscape Architect of the beginning and end of this period and to submit a written request for an inspection ten (10) days in advance.
2. Following inspection(s), Landscape Architect will prepare a listing of outstanding items to be addressed prior to final acceptance. Final acceptance will be given once the outstanding items are completed, and the work performed to the satisfaction of the Landscape Architect and OWNER.
3. Any material that is 25% or more dying shall be considered dead and must be replaced at no charge. A tree shall be considered dead when the main leader has died or when 25% of the crown is dead. A tree that has suffered significant leaf drop but shows signs of life may be left for later re-inspection. Such trees shall be subject to removal and replacement at any time up to and including the first re-inspection, as requested by the Owner or Landscape Architect. The Warranty Period for such trees shall not begin until after the second re-inspection.

4.02 WARRANTY PERIOD
A. Unless a different agreement is reached in writing between the Owner and the Contractor, all trees and other plant material, including ground covers, installed under this agreement shall be guaranteed to live and grow, and shall be warranted against defects, death and unsatisfactory growth for a period of one (1) year from the day of final acceptance of contract work.
B. Non-living landscape elements shall also carry a one (1) year guarantee on materials, labor, and workmanship.
C. Material found to be dead or in poor condition within the Warranty Period shall be replaced by the Contractor within fifteen (15) days of written notification by the Owner's representative. The Owner or Landscape Architect shall be the sole judges as to the condition of the material.
D. Materials and labor involved in the replacing of materials shall be supplied by the Contractor at no additional cost to the Owner.
E. Soil Testing: Should plant materials show yellowing or other signs of soil and/or nutritional problems, the Owner or Landscape Architect may request soil testing and analysis. Such testing will be at the expense of the Contractor.
1. Soil problems (as revealed by testing) shall be corrected by application of corrective chemicals and nutrients, removal and replacement of soil, or other measures as agreed upon by all parties. All such measures shall be at the Contractor's expense unless clear evidence establishes that the soil problem is not pre-existing and is caused by factors beyond the Contractor's control.
F. Replacement and Conditions:
1. Materials will be replaced as many times as necessary to satisfy the OWNER'S representative and the specifications. All replacement costs will be the responsibility of the Contractor.
2. Replacements will be of the same size, species, and specifications as the original. No additional soil additives will be required unless significant amounts of soil mix are lost before or during replacement.
3. Plant losses due to abnormal weather conditions such as floods, excessive wind damage (on properly staked or guyed trees), severe freezing, or hail will not be the responsibility of the Contractor.
4. Deciduous materials will be guaranteed to break dormancy at the proper season. Materials planted during their normal dormant period will be guaranteed to resume normal growth at the proper time for that species.

LANDSCAPE NOTES
GENERAL:
1. All proposed material shall be Florida No. 1 or better as set forth in "Grades & Standards for Nursery Plants," Part 1&2, Florida Dept. of Agriculture and Consumer Services, latest edition. No deviations will be permitted.
2. By submitting a bid, the landscape contractor is responsible for providing the material specified on the plans. No substitutions will be accepted without prior written approval and acceptance by the Owner or his representative, or Landscape Architect.
3. Materials to be hand-selected at the discretion of the Owner or his representative, or Landscape Architect.
4. All work shall proceed in a professional manner in accordance with standard nursery and installation practice.
5. Quantities on plant list are for convenience only. Landscape Contractor is responsible for all plants shown on planting plans. When discrepancies occur between plant list and planting plans, the plans are to override the plant list in all cases. Contractor is responsible for confirming sod quantities and certifying such to the Owner or his representative.
6. Contractor is responsible for locating all underground utilities prior to digging. Notify the Owner or his representative, or the Landscape Architect immediately regarding discrepancies or conflicts.
7. Landscape Contractor to notify the Owner or his representative, or Landscape Architect at least three (3) working days prior to beginning any stage of work.
8. Owner or Landscape Architect to be immediately notified of any discrepancies found in field.
9. Owner or his representative, or Landscape Architect reserve the right to field adjust plant material on-site to avoid conflicts or discrepancies not anticipated in the planning process.
10. Existing plant material to be removed, except as noted.

TREES & PALMS
1. All trees, new and relocated, to be staked and guyed as detailed.
2. No double or multi-trunk trees unless otherwise specified.
3. Face of trees and palms to be located a minimum of 2'-0" off all sidewalks/bike paths or other paved surface, unless otherwise notated on plans.
4. Root suckers on Live Oaks are not acceptable.
5. All trees falling within grassed areas to have a mulch ring 3' in diameter, mulched 3" deep with no more than 1" deep directly adjacent to the trunk of the tree.

PLANTING BEDS
1. Groundcover and shrubs to be laid out in a uniform and consistent pattern.
2. All planting beds to receive mulch per plans.
3. Landscape Contractor is responsible for verifying that clean top soil, meeting the attached specifications, exists in each planting bed prior to planting. Contractor shall add or amend top soil if necessary. Tree pits shall be backfilled as noted in attached specifications. Excavate all shrub and groundcover beds as specified and backfill with planting soil per specifications.
4. All existing paving base material to be removed from planting areas and replaced with clean top soil prior to planting. Final grade within planting areas to be 2" below adjacent paved areas or top of curb.
5. Soil in landscaped areas shall be free of debris, including paving base or fill material, and calcareous materials such as shell, lime rock, concrete, plaster and stucco. Planting areas containing excessive calcareous materials shall be excavated to a minimum depth of (2') two feet.

SOD
1. Landscape Contractor is responsible for replacing any damaged sod.

IRRIGATION
1. All landscape areas (including sod) shall be irrigated