KEYS OVERNIGHT TEMPORARY HOUSING

5537 COLLEGE ROAD
STOCK ISLAND, FL 33040

EXISTING RETENTION AREA

STORM WATER RETENTION

EXISTING RETENTION AREA

STORM WATER RETENTION

BRAZILIAN PEPPER
(Entangled in Fence)

SEASIDE MAHOE
(Against Fence)

BRAZILIAN PEPPER (Entangled in Fence) (to be removed)

GREEN BUTTONWOODS (to remain)

SEASIDE MAHOE
(Against Fence - to be removed)

STRANGLER FIG
(Entangled in Trailer)(to be removed)

EXISTING GUMBO LIMBOS
(to remain)

EXISTING GREEN BUTTONWOOD TREES (to remain)

EXISTING SILVER BUTTONWOOD TREES (to remain)

SILVER BUTTONWOOD
(Off-property but Overhanging P.L.)

EXISTING SILVER BUTTONWOOD HEDGE
(Not on Property, but Overhangs Property)
(to remain)

PROJECT LIMITS

MANGROVES

MHWL

DISTURBED WETLAND AREA

UPLAND

EXISTING STORM WATER RETENTION

LIMITS OF OUTER WETLAND

LIMITS OF OUTER WETLAND

UPLAND

EXISTING STORM WATER RETENTION

01

02

03

gumbo

green buttonwood

silver buttonwood

box

TC

R

NORTH

SCALE: 1" = 20'

REGISTERED LANDSCAPE ARCHITECT
LEO B. ROBERTS
LA 6666852
STATE OF FLORIDA

GENERAL INFORMATION & TREE MITIGATION

GROSS SITE AREA	SEE ARCHITECTURAL	
BUILDING COVERAGE	SEE ARCHITECTURAL	
IMPERVIOUS SURFACE AREA	SEE ARCHITECTURAL/CIVIL	
(LANDSCAPE CALC'S ARE BASED ON PROJECT LIMITS)		
TREE MITIGATION CALCULATIONS	**DSH INCHES REMOVED**	
TREES IMPACTED		
PROTECTED TREES IMPACTED	none	
MITIGATION REQUIRED	none	
DSH INCHES PROVIDED (4" DSH MIN. TREES)	0 Trees /0"	

EXISTING TREE IMPACT SCHEDULE

TREE #	LOCAL NAME	BOTANICAL NAME	NOTES	APPRX. DSH	HEIGHT	Relocate	Remove	CONDITION (Value %) Location	Species	Condition	Mit. Req.	Total Value	Value x DSH Inches Required
1	Brazilian Pepper	Schinus terebinthifolia	Not Protected/Entagled in Fence	6	12'-18'		X	0	0	0	n	**0.0**	0.0
2	Seaside Mahoe	Thespesia populnea	Not Protected/Entagled in Fence	5	12'-18'		X	0	0	0	n	**0.0**	0.0
3	Strangler Fig	Ficus aurea	Not Protected due to Condition / Location	6	12'-18'		X	0	0	0	n	**0.0**	0.0
								0	0	0		**0.0**	0.0
								0	0	0		**0.0**	0.0
								TOTAL TREE MITIGATION INCHES REQUIRED					**0.0**

EXISTING VEGETATION

APPROVAL DOCUMENTS

DATE: 1.14.22

REVISIONS:

No.	Date	Notes
1.		
2.		
3.		
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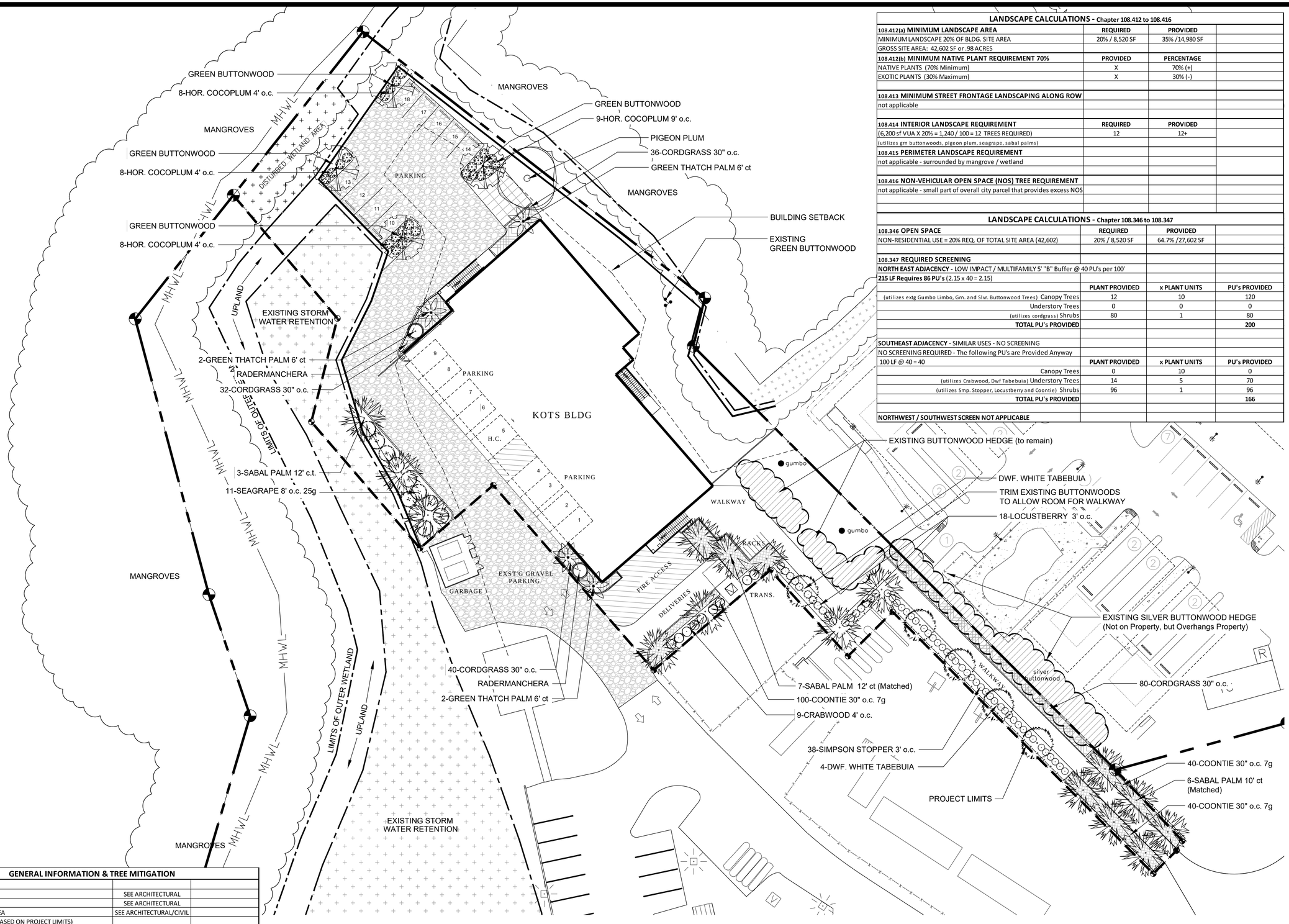
SHEET NUMBER:
L-1

JOB #: 20005 DRAWN BY: LBR

LANDWISE DESIGN
1936 SAN MARCO BLVD. SUITE 101 - JACKSONVILLE, FL 32207 904.343.4184



LANDSCAPE CALCULATIONS - Chapter 108.412 to 108.416			
108.412(a) MINIMUM LANDSCAPE AREA	**REQUIRED**	**PROVIDED**	
MINIMUM LANDSCAPE 20% OF BLDG. SITE AREA	20% / 8,520 SF	35% /14,980 SF	
GROSS SITE AREA: 42,602 SF or .98 ACRES			
108.412(b) MINIMUM NATIVE PLANT REQUIREMENT 70%	**PROVIDED**	**PERCENTAGE**	
NATIVE PLANTS (70% Minimum)	X	70% (+)	
EXOTIC PLANTS (30% Maximum)	X	30% (-)	
108.413 MINIMUM STREET FRONTAGE LANDSCAPING ALONG ROW			
not applicable			
108.414 INTERIOR LANDSCAPE REQUIREMENT	**REQUIRED**	**PROVIDED**	
(6,200 sf VUA X 20% = 1,240 / 100 = 12 TREES REQUIRED)	12	12+	
(utilizes grn buttonwoods, pigeon plum, seagrape, sabal palms)			
108.415 PERIMETER LANDSCAPE REQUIREMENT			
not applicable - surrounded by mangrove / wetland			
108.416 NON-VEHICULAR OPEN SPACE (NOS) TREE REQUIREMENT			
not applicable - small part of overall city parcel that provides excess NOS			

LANDSCAPE CALCULATIONS - Chapter 108.346 to 108.347			
108.346 OPEN SPACE	**REQUIRED**	**PROVIDED**	
NON-RESIDENTIAL USE = 20% REQ. OF TOTAL SITE AREA (42,602)	20% / 8,520 SF	64.7% /27,602 SF	
108.347 REQUIRED SCREENING			
NORTH EAST ADJACENCY - LOW IMPACT / MULTIFAMILY 5' "B" Buffer @ 40 PU's per 100'			
215 LF Requires 86 PU's (2.15 x 40 = 2.15)			
	PLANT PROVIDED	**x PLANT UNITS**	**PU's PROVIDED**
(utilizes extg Gumbo Limbo, Grn. and Slvr. Buttonwood Trees) Canopy Trees	12	10	120
Understory Trees	0	0	0
(utilizes cordgrass) Shrubs	80	1	80
TOTAL PU's PROVIDED			**200**
SOUTHEAST ADJACENCY - SIMILAR USES - NO SCREENING			
NO SCREENING REQUIRED - The following PU's are Provided Anyway			
100 LF @ 40 = 40	**PLANT PROVIDED**	**x PLANT UNITS**	**PU's PROVIDED**
Canopy Trees	0	10	0
(utilizes Crabwood, Dwf Tabebuia) Understory Trees	14	5	70
(utilizes Smp. Stopper, Locustberry and Coontie) Shrubs	96	1	96
TOTAL PU's PROVIDED			**166**
NORTHWEST / SOUTHWEST SCREEN NOT APPLICABLE			

GENERAL INFORMATION & TREE MITIGATION		
GROSS SITE AREA	SEE ARCHITECTURAL	
BUILDING COVERAGE	SEE ARCHITECTURAL	
IMPERVIOUS SURFACE AREA	SEE ARCHITECTURAL/CIVIL	
(LANDSCAPE CALC'S ARE BASED ON PROJECT LIMITS)		
TREE MITIGATION CALCULATIONS	**DSH INCHES REMOVED**	
TREES IMPACTED		
PROTECTED TREES IMPACTED	none	
MITIGATION REQUIRED	none	
DSH INCHES PROVIDED (4" DSH MIN. TREES)	0 Trees /0"	

APPROVAL DOCUMENTS

KEYS OVERNIGHT TEMPORARY HOUSING

5537 COLLEGE ROAD
STOCK ISLAND, FL 33040

NORTH

SCALE: 1" = 20'

REGISTERED LANDSCAPE ARCHITECT
LARRY B. ROBERTS
LA 6666892
STATE OF FLORIDA

LANDSCAPE PLAN (CONCEPTUAL)

DATE: 1.14.22

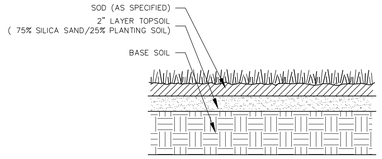
REVISIONS:

No.	Date	Notes
1.		
2.		
3.		
4.		
5.		
6.		
7.		

SHEET NUMBER:
L-2

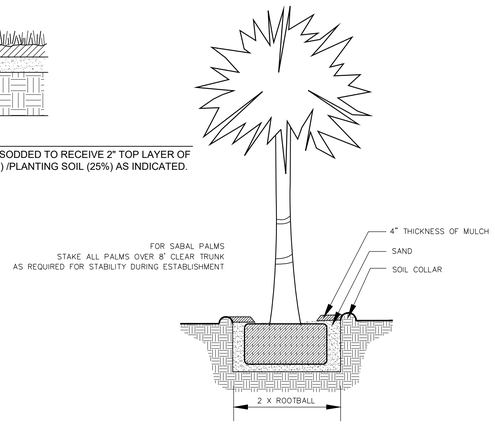
JOB #: 20005 DRAWN BY: LBR

LANDWISE DESIGN
1536 SAN MARCO BLVD. SUITE 101 - JACKSONVILLE, FL 32207 904.343.4166

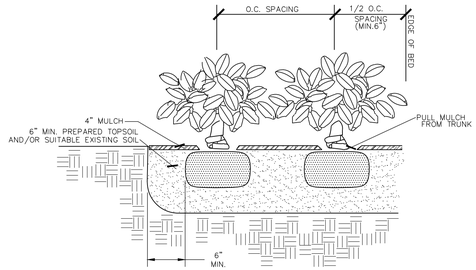


SODDING DETAIL

ALL AREAS TO BE SODDED TO RECEIVE 2" TOP LAYER OF SILICA SAND (75%) /PLANTING SOIL (25%) AS INDICATED.

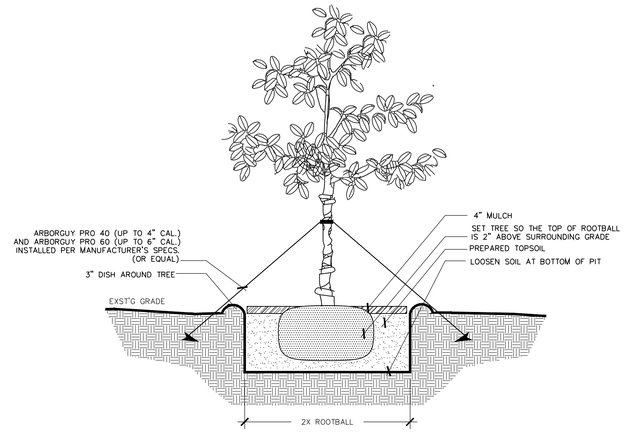


PALM PLANTING DETAIL



SHRUB PLANTING DETAIL

ALL SHRUBS ARE TO BE POSITIONED VERTICALLY REGARDLESS OF THE SLOPE OF THE GROUND IN WHICH THEY ARE PLANTED. WATER RINGS ARE TO BE CONSTRUCTED AT RIGHT ANGLES TO THE TREE OR SHRUB OR IN A MANNER IN WHICH THEY WILL MOST EFFECTIVELY SERVE THE PURPOSE OF RETAINING WATER AT THE BASE OF THE PLANT.



TREE PLANTING DETAIL

ALL TREES ARE TO BE POSITIONED VERTICALLY REGARDLESS OF THE SLOPE OF THE GROUND IN WHICH THEY ARE PLANTED. WATER RINGS ARE TO BE CONSTRUCTED AT RIGHT ANGLES TO THE TREE OR SHRUB OR IN A MANNER IN WHICH THEY WILL MOST EFFECTIVELY SERVE THE PURPOSE OF RETAINING WATER AT THE BASE OF THE PLANT.

THE ROOTBALL OF THE TREE SHOULD BE POSITIONED IN THE HOLE SO THAT THE FINISH GRADE OF THE BACKFILL SOIL AND LANDSCAPE SOIL IS 2" LOWER THAN THE TOP OF THE ROOTBALL. MULCH SHOULD COVER THE EDGE OF THE ROOTBALL, DO NOT MULCH ON TOP OF ROOTBALL.

GENERAL LANDSCAPE NOTES:

1. CHANGES MAY OCCUR DURING THE NORMAL COURSE OF IMPLEMENTATION. VERBAL CHANGE ORDERS WILL NOT BE HONORED. ANY CHANGES MUST BE SUBMITTED TO LANDSCAPE ARCHITECT IN WRITING AS A CHANGE ORDER TO BE REVIEWED AND APPROVED IN WRITING BY OWNER/CLIENT.
2. ALL NEWLY PLANTED AREAS TO RECEIVE 100% COVERAGE BY AUTOMATIC IRRIGATION SYSTEM (DRIP PREFERRED) UNLESS OTHERWISE DIRECT BY OWNER. LANDSCAPE CONTRACTOR TO COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH IRRIGATION CONTRACTOR. IRRIGATION TIME CLOCK TO BE HARD WIRED ON COMPLETION - RESPONSIBILITY OF IRRIGATION CONTRACTOR. LANDSCAPE CONTRACTOR TO HAND WATER OR ARRANGE FOR WATERING DURING PLANTING UNTIL IRRIGATION SYSTEM IS 100% OPERABLE. THIS IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
3. LANDSCAPE CONTRACTOR TO BECOME FAMILIAR WITH THE SCOPE OF WORK AS WELL AS THE SITE, DIGGING CONDITIONS, AND ANY OBSTACLES PRIOR TO BIDDING.
4. LANDSCAPE CONTRACTOR SHALL LOCATE AND VERIFY ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
5. ALL PLANT MATERIAL IS TO BE FLORIDA NO. 1 OR BETTER. FLORIDA DEPARTMENT OF AGRICULTURE GRADES AND STANDARDS, PARTS I & II, 1975, RESPECTIVELY.
6. ALL TREES TO BE STAKED IN A GOOD WORKMAN LIKE MANNER. NO NAIL STAKING PERMITTED.
7. LANDSCAPE PLAN SHALL BE INSTALLED IN COMPLIANCE WITH ALL LOCAL CODES.
8. ALL TREE HOLES TO BE BACK FILLED AROUND AND UNDER ROOT BALL WITH WASHED BEACH SAND AND PLANTING MIX. ALL SHRUB BEDS TO BE INSTALLED WITH WASHED BEACH SAND AND PLANTING MIX.
9. ALL TREES, SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE. ALL PALMS ARE TO GUARANTEED FOR ONE YEAR.
10. ALL PLANTING BEDS SHALL BE WEED AND GRASS FREE.
11. ALL TREES, PALMS, SHRUBS AND GROUND COVER PLANTS SHALL BE FERTILIZED AT INSTALLATION ACCORDING TO MANUFACTURERS' RECOMMENDATIONS. TYPE AND AMOUNT OF FERTILIZER IS UP TO DISCRETION OF LANDSCAPE CONTRACTOR IN ORDER TO AVOID "BURN" ON PLANTS THAT MAY ALREADY CONTAIN FERTILIZER FROM NURSERY AND ENSURE PROPER ESTABLISHMENT TO MAINTAIN CONTRACTORS WARRANTY.
12. PLANTING PLAN SHALL TAKE PRECEDENCE OVER PLANT LIST IN CASE OF DISCREPANCIES.
13. NO CHANGE SHALL BE MADE WITHOUT PRIOR CONSENT OF LANDSCAPE ARCHITECT.
14. ALL MATERIAL SHALL BE SUBJECT TO AVAILABILITY AT TIME OF INSTALLATION. SUBSTITUTIONS MAY BE MADE AFTER CONSULTATION WITH LANDSCAPE ARCHITECT.
15. LANDSCAPE CONTRACTOR TO COORDINATE HIS WORK WITH GENERAL CONTRACTOR, IRRIGATION CONTRACTOR, AND THE ELECTRICAL CONTRACTOR.
16. ALL EXISTING PLANT MATERIAL TO REMAIN SHALL BE PROTECTED.
17. ALL TREES TO BE RELOCATED WILL BE ROOT PRUNED 30 DAYS MINIMUM (OR MORE IF REQUIRED BY SPECIES). UPON RELOCATION, THIN OUT 30% OF THE RELOCATED TREES' CANOPY.
18. AFTER REMOVAL OR RELOCATION OF EXISTING TREES AND PALMS, BACKFILL TREE PIT WITH WASHED BEACH SAND, AND SOD DISTURBED AREA, IF REQUIRED.
19. ALL TREES ON SOD AREA SHALL RECEIVE A MULCH RING 2' IN DIAMETER TYPICAL.
20. ALL TREES SHALL HAVE 2" CALIPER AT D.B.H. MINIMUM FOR A 10' HEIGHT TREE.
21. ALL 1 GALLON MATERIAL TO HAVE 12" SPREAD MINIMUM, ALL 3 GALLON MATERIAL TO HAVE 20-24' SPREAD MINIMUM.
22. LANDSCAPE CONTRACTOR TO BE COUNTY OR CITY LICENSED WHERE WORK IS TO BE PERFORMED. LIABILITY AND WORKMANS COMP INSURANCE IS REQUIRED FOR EACH AND EVERY EMPLOYEE TO BE ON-SITE AT ANY TIME DURING IMPLEMENTATION. PAPERWORK TO THIS EFFECT TO BE PROVIDED ON REQUEST WITHIN 2 BUSINESS DAYS.

END

IRRIGATION NOTES:

1. ALL MAJOR PALMS TO HAVE TWO BUBBLERS ON OPPOSING SIDES OF ROOT BALL. BUBBLERS TO BE HIDDEN FROM VIEW.
2. IRRIGATION CONTRACTOR TO COORDINATE LOCATION OF MAIN LINES WITH LANDSCAPE CONTRACTOR PRIOR TO IMPLEMENTATION. AVOID ROOT BALLS OF TREES AND LARGE PLANT MATERIALS. REFER TO LANDSCAPE DRAWINGS.
3. ALL PIPE TO BE PVC SCHEDULE 40, 8" MINIMUM COVER.
4. ALL HEADS INSTALLED ON FLEXIBLE PVC PIPE AND FITTINGS.
5. PRESSURIZED BACKFLOW, RAIN SWITCH, AND MULTI-PROGRAMMABLE CONTROLLER WITH BATTERY BACKUP REQUIRED.
6. ALL CROSSINGS UNDER PERMANENT CONCRETE TO BE SLEEVED TWO TIMES THE SPRINKLER PIPE SIZE WITH SCHEDULE 40 PVC.
7. ALL VALVES TO HAVE FLOW CONTROL AND BE INSTALLED IN GREEN VALVE BOXES WITH ROOM TO WORK IN FUTURE.
8. ALL VALVE BOXES TO BE LOCATED AWAY FROM WALKWAYS, GARDEN PATHS, AND GROUNDCOVERS - KEEP TO BACK OF BEDS.
9. ALL SPRINKLERS TO BE COMMERCIAL GRADE TORO 570 SERIES 4" AND 12" AND INSTALLED OUT OF SIGHT.
10. IRRIGATION CONTRACTOR TO MEASURE WATER AVAILABLE ON-SITE AND USE NO MORE THAN 75% OF AVAILABLE GPM.
11. WATER CONNECTION TO THE HOUSE, INCLUDING SHUT-OFF VALVES, SHALL NOT BE ALTERED BY PRESSURIZED BACKFLOW.
12. ALL WIRE SPLICES TO BE IN VALVE BOXES AND CLEARLY LABELED AT BACK OF TIME CLOCK. ALL WIRE SPLICES TO BE INSTALLED WITH WATER PROOF CONNECTIONS.
13. 2 SPARE WIRES TO BE RUN TO THE LAST VALVE IN EACH DIRECTION.
14. CONTROLLER TO BE HARD-WIRED AT TIME OF COMPLETION AND INCLUDED IN IRRIGATION CONTRACTORS BID.
15. SYSTEM TO PROVIDE 100% CONTROLLED COVERAGE ON COMPLETION. ADDITIONS/MODIFICATIONS FROM IRRIGATION PLAN MAY BE NECESSARY.
16. IRRIGATION CONTRACTOR TO BE COUNTY AND CITY LICENSED WHERE WORK IS TO BE PERFORMED. LIABILITY AND WORKMANS COMP INSURANCE IS REQUIRED FOR EACH AND EVERY EMPLOYEE TO BE ON-SITE AND AT ANY TIME DURING IMPLEMENTATION. PAPERWORK TO THIS EFFECT TO BE PROVIDED ON REQUEST WITHIN 2 BUSINESS DAYS.
17. AS-BUILT IRRIGATION DRAWING TO BE PROVIDED PRIOR TO FINAL PAYMENT.

END

TREE BRACING NOTES:

2" AND LARGER CALIPER TREES BRACED BY GUYING:

1. CHOOSE THE CORRECT SIZE AND NUMBER OF STAKES AND SIZE OF HOSE AND WIRE. GUYING SHALL BE COMPLETED WITHIN 48 HOURS OF PLANTING THE TREE
2. CUT LENGTHS OF STAKING HOSE TO EXTEND 2 INCHES PAST TREE TRUNK WHEN WRAPPING AROUND.
3. SPACE STAKES EVENLY ON OUTSIDE OF WATER RING AND DRIVE EACH FIRMLY INTO GROUND. STAKES SHOULD BE DRIVEN AT A 30 DEGREE ANGLE WITH THE POINT OF THE STAKE TOWARD THE TREE UNTIL 4 TO 5 INCHES ARE LEFT SHOWING.
4. PLACE THE HOSE AROUND THE TRUNK JUST ABOVE THE LOWEST BRANCH.
5. THREAD THE WIRE THROUGH THE HOSE AND PAST THE STAKE, ALLOWING APPROXIMATELY 2 FEET OF EACH OF THE TWO ENDS BEYOND THE STAKE BEFORE CUTTING THE WIRE.
6. TWIST WIRE AT RUBBER HOSE TO KEEP IT IN PLACE
7. PULL WIRE DOWN AND WIND BOTH ENDS AROUND STAKE TWICE. TWIST WIRE BACK ONTO ITSELF TO SECURE IT BEFORE CUTTING OFF THE EXCESS.
8. THE ABOVE PROCEDURES ARE TO BE FOLLOWED FOR EACH STAKE, KEEPING THE TREE STRAIGHT AT ALL TIMES. THERE SHOULD BE A 1 TO 3 INCH SWAY IN THE TREE (THE WIRES SHOULD NOT BE PULLED TIGHT) FOR BEST ESTABLISHMENT.
9. FLAG THE GUY WIRES WITH SURVEYORS FLAGGING OR APPROVED EQUAL FOR SAFETY.
10. GUYS ARE NOT TO BE REMOVED UNTIL APPROVED BY LANDSCAPE CONTRACTOR.

SPECIMEN TREES AND TALL PALMS BRACED WITH PROPS:

11. CHOOSE THE CORRECT SIZE, LENGTH, AND NUMBER OF PROPS TO BE USED (PRESSURE TREATED (PT) 2"X4", 4"X4").
12. WRAP AT LEAST 5 LAYERS OF BURLAP AROUND TRUNK OF THE PALM AT LEAST 4 INCHES WIDER THAN THE BATTENS BEING USED. BATTENS SHOULD BE MOUNTED AT A POINT ⅔ OF THE DISTANCE FROM GROUND TO THE CLEAR TRUNK OF THE TREE OR PALM, BUT NOT LESS THAN 4 FEET, WHICHEVER IS GREATER.
13. SELECT THE PROPER LENGTH AND SIZE OF BATTENS (PT 2"X4"X12"-16')
14. USE THE SAME NUMBER OF BATTENS AS PROPS BEING USED.
15. PLACE THE BATTENS VERTICALLY AND EVENLY SPACED AGAINST THE BURLAP.
16. PLACE THE BATTENS IN PLACE WITH METAL OR PLASTIC BANDING STRAPS. DO NOT NAIL INTO TREE.
17. WEDGE LOWER END OF PROP INTO SOIL AND SECURE WITH A 2"X4"X30" STAKES. PROPS SHOULD BE INSTALLED AT A 30 TO 40 DEGREE ANGLE FROM THE BATTENS AND OF SUFFICIENT LENGTH TO REACH THE GROUND. NOTE: ON STRAIGHT TREES OR PALMS, SPACE PROPS EQUAL DISTANCE AROUND TREE OR PALM. ON CURVED PALMS OR TREES, SPACE PROPS AGAINST THE FRONT OF THE CURVE OF THE PALM OR TREE.
18. CUT A SMOOTH ANGLE AT THE END OF THE PROPS. ALIGN WITH AND NAIL INTO BATTENS. DO NOT PENETRATE TREE OR PALM WITH NAILS.
19. IF IT APPEARS THAT ADDITIONAL CONSTRUCTION WORK WILL TAKE PLACE NEAR TO OR IN VICINITY OF THE NEWLY BRACED TREES OR PALMS, THEN PROPS ARE TO BE CLEARED LABELED WITH THE STATEMENT "DO NOT REMOVE".
20. PROPS ARE NOT TO BE REMOVED UNTIL APPROVED BY THE LANDSCAPE CONTRACTOR.

END

GENERAL NOTES:

100% OF THE PLANT MATERIAL USED TO SATISFY LANDSCAPING REQUIREMENTS SHALL BE NATIVE and IN ACCORDANCE WITH SECTION 114-105.

100% IRRIGATION COVERAGE SHALL BE PROVIDED TO ALL PROPOSED PLANTING AREAS. SAID SYSTEM SHALL BE DESIGNED IN COMPLIANCE WITH CoKW CODE.

ALL PLANT MATERIAL SHALL BE PLANTED WITH A MINIMUM OF 6" OF PLANTING SOIL AND MULCHED TO A DEPTH OF 4". ALL TREES SHALL BE PROPERLY GUYED OR STAKED AT TIME OF PLANTING.

PLANT SCHEDULE - KOTS - Keys Overnight Temporary Shelter

QTY.	COMMON NAME	BOTANICAL NAME	SIZE	NOTE	NATIVE	MIT. RATIO	MIT. CREDIT
TREES				or Better			
Canopy							
1	PIGEON PLUM	*Coccoloba diversifolia*	3" cal., 12'-14' ph	FL #1	NATIVE	1:1	3
4	GREEN BUTTONWOOD	*Conocarpus erectus*	3" CAL., 10'-12' ph	FL #1	NATIVE	1:1	12
Understory							
11	SEAGRAPE	*Coccoloba uvifera*	3" cal., 25g, multi, min. 6'-8' ph, 4'-5' sprd., full to grnd.	FL #1	NATIVE	1:1	33
5	DWF. WHITE TABEBUIA	*Tabebuia bahamensis*	2"-3" cal.,10'-12' ph, 4'-6' sprd.,	FL #1	NATIVE	1:1	10
12	CRABWOOD	*Gymnanthes lucida*	2" cal., 6''-8' ph, 4' o.c.	FL #1	NATIVE	1:1	24
						Total Tree Inches	**67**
PALMS							
16	SABAL PALM	*Sabal palmetto*	(6) 10' ct, (9) 12' ct, regens, slick-skinny	FL #1	NATIVE		
4	GREEN THATCH PALM	*Thrinax radiatta*	6' c.t., full Canopy	FL #1	NATIVE		
SHRUBS and GROUNDCOVERS							
18	LOCUSTBERRY	*Brysonima lucida*	3 gal., full	FL #1	NATIVE		
2	RADERMACHERA	*radermachera kunming*	7 gal., full	FL #1			
33	HORIZONTAL COCOPLUM	*Chrysobalanus icaco 'Horizontal'*	3 gal., full	FL #1	NATIVE		
38	SIMPSON STOPPER	*Myrcianthes fragrans*	7 gal., 36" hgt, 18-24" sprd	FL #1	NATIVE	1:1	76
180	COONTIE	*Zamia pumilla*	7 gal., 24"-30" sprd./hgt.	FL #1	NATIVE		
188	CORDGRASS	*Spartina bakerii*	3 gal., full	FL #1	NATIVE		
SOD & SUNDRY ITEMS							
0 SF	n/a	*CONTRACTOR TO VERIFY QUANITY*		FL#1			
0 LF	SMALL CORAL ROCKS FOR EDGING						
5,900 SF	CYPRESS MULCH	COLOR: NATURAL CYPRESS MULCH.					
0 SF	BLACK MEXICAN RIVER PEBBLES						
0 LF	BLACK ALUMINUM EDGING						

KEYS OVERNIGHT TEMPORARY HOUSING
5537 COLLEGE ROAD
STOCK ISLAND, FL 33040

NORTH

SCALE: 1" = 20'

REGISTERED LANDSCAPE ARCHITECT
"JOD" B. ROBERTS
LA 6666892
STATE OF FLORIDA

APPROVAL DOCUMENTS

LANDSCAPE SCHEDULE & DETAILS

DATE: 1.14.22

REVISIONS:

No.	Date	Notes
1.		
2.		
3.		
4.		
5.		
6.		
7.		

SHEET NUMBER:
L-3

JOB #: 20005 DRAWN BY: LBR

LANDWISE DESIGN
1536 SAN MARCO BLVD. SUITE 101 - JACKSONVILLE, FL 32207 904.343.4194

SECTION 02950

TREES, PLANTS AND GROUND COVERS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Extent of landscape development work is shown on drawings and in schedules.

B. Sodding of areas disturbed during construction exclusive of paved areas.

C. Transplanting of existing trees, palms and plant material. (thatch palms are currently proposed for this project)

D. Prior to construction activities, all trees, palms and plant material to be relocated.

E. Watering of planted materials

1.02 RELATED SECTIONS

A. Section 02810-Underground Irrigation Specifications

B. Section 02935 Sodding

1.03 SUBMITTALS

A. Comply with provisions of General Conditions

B. Certificates of inspection as required by governmental authorities and manufacturer's or vendor's certified analysis for soil amendments and fertilizer materials. Submit other data substantiating that materials comply with specified requirements.

C. Vendor's certified statement for each grass seed mixture required, stating botanical and common name, percentage by weight, and percentages of purity, germination, and weed seed for each grass seed species.

D. Soil test reports.

E. Maintenance Instructions: Typewritten instructions recommending procedures to be established by Owner for maintenance of landscape work for one full year. Submit prior to expiration of required maintenance periods.

F. Provide reproducible As-Built drawing after final acceptance by owner.

1.04 QUALITY ASSURANCE

A. Landscape work shall be performed by a single firm specializing in landscape work.

B. Obtain agronomic soils tests for all planting areas. Tests shall be performed by an approved agronomic soils testing laboratory and shall include fertility and suitability analysis with written recommendations for soil amendments, fertilizer, and chemical conditioner application rates for soil preparation, planting backfill mix, and post maintenance fertilization program. Submit a copy of soils test to Architect.

C. Obtain soil test from existing stockpiled topsoil, if any, to determine type and amount of amendments needed for areas that are to receive stockpiled topsoil.

D. Ship landscape materials with certificates of inspection as required by governmental authorities. Comply with governing regulations applicable to landscape materials.

E. Substitutions: Do not make substitutions. If specified landscape material is not obtainable, submit proof of non-availability and proposal for use of equivalent material to Architect. When authorized, adjustment of contract amount will be made.

F. Analysis and Standards: Package standard products with manufacturer's 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 or as further specified.

G. Topsoil: Fine sand or loamy fine sand indigenous to the area suitable for plant growth that is free of weeds, roots, stumps, rocks larger than ½inch diameter, organic muck, hard pan, toxic substances detrimental to plant growth, and construction debris such as limerock, concrete, and asphalt pieces. Deliver in normally moist condition, neither muddy nor wet.

H. Trees and Shrubs: Plant names indicated are to comply with "Standard Plant Names" as adopted by latest edition of American Joint Committee of Horticultural Nomenclature. Names of varieties not listed conform generally with names accepted by the nursery trade. Provide stock true to botanical name and legibly tagged. Provide healthy, vigorous stock grown under climactic conditions similar to conditions in locality of project; free of disease, insects, eggs, larvae and defects such as knots, sun-scald, injuries, abrasions or disfigurement. ALL PLANTS TO BE FLORIDA #1 OR BETTER.

I. Sizes: Comply with sizing and grading standards of latest edition of American Standard for Nursery Stock. A plant shall be dimensional as it stands in its natural position. Stock furnished shall be at least minimum size indicated. Larger stock is acceptable at no additional cost unless a written change order is issued.

J. Inspection: Landscape Architect reserves the right to inspect trees and shrubs either at place of growth or at site before planting for compliance with requirements for name, variety, size and quality.
1. Such approval shall not impair the right of inspection and rejection upon delivery at the site during the progress of work.

1.05 DELIVERY, STORAGE AND HANDLING

A. Packaged Materials: Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored at site.

B. Trees and Shrubs: Provide container grown or balled and burlapped trees and shrubs. Do not use trees or shrubs which have been in cold storage or heeled-in. Do not prune prior to delivery. Do not bend or bind-tie trees or shrubs in such manner as to damage bark, break branches or destroy natural shape. Provide protective covering during delivery.

C. Deliver trees and shrubs after preparations for planting have been completed and plant immediately. Cover plants transported on open vehicles with a protective covering to prevent wind burn. If planting is delayed more than six hours after delivery, set trees and shrubs in shade, protect from weather and mechanical damage, and keep roots moist.

D. Do not remove container grown stock from containers until planting time.

E. Label at least one tree and one shrub of each variety with a securely attached waterproof tag bearing legible designation of botanical and common name.

1.06 PROJECT REQUIREMENTS

A. Proceed with and complete landscape work as rapidly as portions of site become available, working within seasonal limitations for each kind of landscape work required.

B. Utilities: Determine location of underground and above ground utilities and perform work in manner which will avoid possible damage. Hand excavate, as required, to minimize possibility of damage to underground utilities. Maintain grade stakes set by others until removal is mutually agreed upon by all parties concerned.

C. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions or obstructions, notify Architect before planting.

D. Planting Schedule: Prepare a proposed planting schedule. Schedule dates for each type of landscape work during normal seasons for such work in area of site. Correlate with specified maintenance periods to provide maintenance until final completion of work under contract.

E. Coordination with Lawns: Plant trees and shrubs after final grades are established and prior to planting of lawns, unless otherwise acceptable to Landscape Architect. If planting of trees and shrubs occurs after lawn work, protect lawn areas and promptly repair damage to lawns resulting from planting operations.

1.07 WARRANTY

A. Warranty trees and shrubs, for a period of one year after date of acceptance, against defects including death and unsatisfactory growth except for defects resulting from neglect by Owner, abuse or damage by others, or unusual phenomena or incidents which are beyond Contractor's control.

B. Warranty shall not include damage or loss of trees, plants or ground covers caused by fires, floods, severe freezes not typical to the region, winds over 75 mph or acts of vandalism.

C. Remove and replace trees, shrubs, or other plants found to be dead or in unhealthy condition during warranty period. Plant missing trees, shrubs and ground covers. Make replacements during growth season following end of warranty period. Furnish and plant replacements which comply with requirements shown and specified. Also, replace trees and shrubs which are in doubtful condition at end of warranty period. Only one replacement shall be required at end of warranty period, except for losses or replacements due to failure to comply with specified requirements.

PART 2 PRODUCTS

2.08 TOPSOIL

A. Topsoil for landscape work is not available at site and shall be furnished as specified.

B. Provide new topsoil which is fertile, friable, natural loam, surface soil, reasonably free of subsoil, clay lumps, brush, weeds and other litter and free of roots, stumps, stones larger than 1/2 inches in any dimension, and other extraneous or toxic matter harmful to plant growth.
1. Obtain topsoil from local sources or from areas having similar soil characteristics to that found at project site.
2. Obtain topsoil only from naturally well-drained sites where topsoil occurs in a depth of not less than four inches; do not obtain from bogs or marshes.

2.09 SOIL AMENDMENTS

A. Lime: Natural limestone containing not less than 85 percent of total carbonates, ground so that not less than 90 percent passes a 10 mesh sieve and not less than 50 percent passes a 100 mesh sieve.

B. Peat Humus: FS Q-P-166 and with texture and pH range suitable for intended use, or Florida muck.

C. Bone Meal: Commercial, raw, finely ground; 4 percent nitrogen and 20 percent phosphoric acid.

D. Superphosphate: Soluble mixture of treated minerals; 20 percent available phosphoric acid.

E. Commercial Fertilizer: Complete fertilizer of neutral character with some elements derived from organic sources and containing following percentages of available plant nutrients:
1. Trees and Shrubs: Minimum 10 percent available phosphoric acid, from 3 percent to 5 percent total nitrogen, and from 3 percent to 5 percent soluble potash.
2. Lawns: Minimum 4 percent phosphoric acid, minimum 2 percent potassium, and percentage of nitrogen required to provide not less than one pound of actual nitrogen per 1,000 sq.ft. of lawn area. Provide nitrogen in a form that will be available to lawn during initial period of growth.
3. Palm Fertilizer - Slow release "Palm Special" granular fertilizer which includes trace elements of iron, magnesium and manganese.

F. Sand: Clean, washed builders sand free of salt, weeds, sticks and other debris.

G. Organic Soil Amendment: Pinebark chunks smaller in size but not greater than 3/4 inches in diameter.

2.10 PLANT MATERIALS - GENERAL

A. Name and Variety: Provide plant materials true to name and variety established by American Joint Committee on Horticultural Nomenclature "Standardized Plant Names".

B. Quality: Provide trees, shrubs and other plants complying with recommendations and requirements of ANSI Z60.1 "Standard for Nursery Stock" and as further specified.

C. Provide plants typical of their species or variety with normal, densely developed branches and vigorous, fibrous root systems. Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sunscald injuries, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers and all other forms of infestation. Plants shall have a fully developed form without voids and open spaces.

D. Dig balled and burlapped plants with firm, natural balls of earth sufficient in diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of plant. Provide ball sizes complying with latest edition of American Standard for Nursery Stock. Cracked or loose balls are not acceptable.

E. Provide tree species true to normal species, character and habit. Single trunk trees will not be acceptable with "Y" shape trunk in the main leader. Culls will not be acceptable.

F. Plants planted in rows shall be matched in form.

G. Plants larger than those specified in the plant list may be used and are acceptable in most instances, but should be verified by Owner.

H. The height of trees, measured from the crown of the ball to the top of the top branch, shall not be less than the minimum size designated in the plant list prior to topping and pruning.

I. Coniferous trees shall be branched to the ground.

2.11 CONTAINER GROWN STOCK

A. Stock shall be grown in container for sufficient length of time for root system to have developed to hold its soil together, firm and whole.

B. No plants shall be loose in the container.

C. Container stock shall not be pot bound.

2.12 SHRUBS AND SMALL PLANTS

A. Requirements for spread and height are indicated in plant list.

B. Measurements for height shall be taken from ground level to the average height of top of plant and not the longest branch.

C. Single stemmed or thin plants will not be acceptable.

D. Side branches shall be generous, well-twigged and, the plant as a whole, well-bushed to ground.

E. Plants shall be in moist, vigorous condition, free from dead wood, bruises or other root or branch injuries.

F. Provide plants established and well-rooted in removable containers or integral peat pots and with less than minimum number and length of runners required by ANSI Z60.1 for post size shown or listed.

2.13 FERTILIZER

A. Plant fertilizer Type A, commercial type, containing at least 12 percent nitrogen, 12 percent phosphoric acid, and 12 percent potash and whose composition is at least 50 percent organic so as to provide a continuous time released character.
1. Preferred Type: Pelletized or briquette form, such as Agriform tablets for use in planting shrubs and trees on an individual basis.
2. Granular Type A to be incorporated into topsoil of planting beds, annual beds and ground cover beds.

2.14 MULCH

A. For Use in Backfill Mixtures: Well-shredded pine bark or native hardwood not larger than 1/2 inch in width.

B. Bed and Tree Dressing Mulch:
1. Premium pine straw; furnish in bales free of sticks and rubbish.

2.15 ACCESSORIES

A. Topsoil: Fertile, friable, natural, of loamy character, without a mixture of subsoil material, shall be obtained from a well-drained arable site, or from on-site stockpile, being reasonably free from clay, lumps, coarse sands, stones, roots, sticks and other foreign materials, with a acidity range of between Ph 6.0 and 6.8.

B. Peat Moss: Brown to black in color, weed and seed free, granulated, raw peat or baled peat, containing not more than 9 percent mineral on a dry basis.

C. Water: Free of substances harmful to plant growth.

D. Stakes for Tree Staking: Common and acceptable in region of project.

E. Guying Wire: 10 or 12 gage galvanized wire.

F. Turnbuckles: Galvanized steel or aluminum of size and gage required to provide tensile strength equal to that of guying wire. Turnbuckles opening shall be at least 3 inches to allow for periodic adjustments.

G. Staking and Guying Hose: Two-ply reinforced garden hose not less than 1/2 inch inside diameter.

H. Erosion Control Fabric: Supergro or equal.

I. Twine: Two-ply jute material.

J. Soil Separator: Heat resistant filter fabric, water permeable and unaffected by freezing and thawing.

K. Drainage Fill: AASHTO M43#6; 3/8 inch to 3/4 inch clean, uniformly graded stone.

L. Erosion Control Fabric: Dewit Weed Barrier or equal.

2.16 ANTI-DESICCANT

A. Emulsion type, film-forming agent designed to permit transpiration but retard excessive loss of moisture from plants.

B. Deliver in manufacturer's fully identified containers and mix in accordance with manufacturer's instructions.

C. Acceptable Manufacturers:
1. Dow Chemical Company; Dowax.
2. Nursery Specialty Products, Inc.; Wilt-Proof.

2.17 PLANTING SOIL MIXTURE

A. Mix: 1/3 parts organic soil amendment to 1/3 parts "Florida Muck" or equivalent to 1/3 parts clean, washed builders sand.

B. Add soil amendments as recommended by soil test in quantities necessary to bring soil mixture to pH rating of between 5.5 and 6.0. Minerals used for pH correction shall be commercially produced for this purpose.

C. For pit and trench type backfill, mix planting soil prior to backfilling and stockpile at site.

D. For ground cover and other planting beds, mix planting soil mixture 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.
3. Apply phosphoric acid fertilizer, other than that constituting a portion of complete fertilizers, directly to subgrade before applying planting soil and tilling.

E. For palms, plant in existing suitable soil or a mixture of 75% sand and 25% perlite.

PART 3 EXECUTION

3.18 EXAMINATION

A. Examine subgrade, verify elevations, observe conditions under which work is to be performed, and correct unsatisfactory conditions before proceeding with the work or notify Landscape Architect if adverse conditions are discovered which will inhibit plant growth.

3.19 PREPARATION

A. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations and outline areas and secure Landscape Architect's acceptance before start of planting work. Make minor adjustments as may be requested.

B. In planting beds, where plants are spaced 3 feet on center or less, work soil amendments as required by soils test. Remove stones over 1-1/2 inches in any dimension, stick, rubbish and other extraneous matter. Use a cutimulcher or other similar equipment to work amendments into soil.

3.20 PLANTERS

A. Place minimum 4 inch layer of gravel in bottom of planters and fill with planting soil mixture. Place soil in lightly compacted layers to an elevation 1-1/2 inches below top of planter allowing for natural settlement. For interior planters, soil mixture shall be a sterile mixture used for interior plantings such as Metromix or equal.

3.21 EXCAVATION - TREES AND SHRUBS

A. Excavate pits, beds, and trenches with vertical sides and with bottom of excavation slightly raised at center to provide proper drainage. Loosen hard subsoil in bottom of excavation.

B. Bare Root Trees and Shrubs: Make excavations minimum 1'-0" wider than root spread and deep enough to allow for setting of roots on a layer of compacted planting soil mixture and with collar set at same grade as in nursery but 2 inches below finished grade at site. Allow for 9 inch setting layer of planting soil mixture.

C. Balled and Burlapped (B&B) Trees and Shrubs: Make excavations minimum twice as wide as ball diameter and equal to ball depth.

D. Container Grown Stock: Excavate as specified for balled and burlapped stock, adjusted to size of container width and depth.

E. Ground Cover Beds: Provide a minimum 10 inches depth, 2 inches of which will be higher than surrounding grade.

F. Annual Beds: Provide minimum of 8 inches in depth, 2 to 5 inches of which shall be higher than surrounding grade.

G. Dispose of subsoil removed from landscape excavations. Do not mix with planting soil or use as backfill.

H. Fill excavations for trees and shrubs with water and allow to percolate out before planting.

3.22 PLANTING TREES AND SHRUBS

A. Set balled and burlapped (B&B) stock on layer of compacted planting soil mixture, plumb and in center of pit or trench with top of ball at same elevation as adjacent finished landscape grades. When set, place additional planting soil mixture around sides and base and eliminate voids and air pockets. Lay back burlap to expose top of root ball to soil mixture. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing final layer of backfill. Remove burlap from sides of balls; retain on bottoms.

B. Set bare root stock on cushion of planting soil mixture. Spread roots, carefully work backfill around roots by hand, and puddle with water until backfill layers are completely saturated. Plumb before backfilling and maintain plumb while working backfill around roots and placing layers above roots. Set collar one inch to two inches below adjacent finish landscape grades. Spread cut roots without tangling or turning up to surface. Cut injured roots clean, do not break.

C. Set container grown stock as specified for balled and burlapped stock, except cut cans on two sides with an approved can cutter. Remove sides of wooden boxes after partial backfilling so as not to damage root balls.

D. Dish top of planting soil mixture to allow for mulching.
1. For spring planting, provide additional backfill berm around edge of excavations to form shallow saucer to collect water.

E. Mulch pits, trenches and planted areas. Provide not less than the following thickness of mulch and work into top of planting soil mixture and finish level with adjacent.
1. Provide 3 inch thickness of mulch.

F. Apply anti-desiccant using power spray to provide an adequate film overtrunks, branches, stems, twigs and foliage.
1. If deciduous trees or shrubs are moved in full-leaf, spray with anti-desiccant at nursery before moving and again two weeks after planting.

G. Do not prune except to remove damaged branches or as directed by landscape architect.

H. Remove and replace excessively pruned or misformed stock resulting from improper pruning.

I. Paint cuts over 1/2 inch in size with standard tree paint or compound covering exposed, living tissue. Use paint which is waterproof, antiseptic, adhesive, elastic and free of kerosene, coal tar, creosote, and other substances harmful to plants. Do not use shellac.

J. Guy and stake trees immediately after planting, as indicated.

3.23 PLANTING PALMS

A. Set stock as indicated in bed. Stake palms as necessary to maintain plumb or at angle shown. Brace with three 2" x 4" wood braces toenailed to three 2" x 4" x 24" battens which are securely banded at two points to palm at a point 2/3 trunk height. Pad trunk with 20 layers of burlap under battens. Place braces 120 degrees apart and secure underground by 2" x 4" x 24" stakes.

B. Water palm thoroughly immediately after planting.

C. Set Date palms a minimum of 4' in the ground. Aerial roots may not extend more than 6 inches above the final finished grade of the palm.

3.24 PLANTING GROUND COVER

A. Space plants as shown or scheduled.

B. Work planting soil mixture around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water. Water thoroughly after planting, taking care not to cover crowns of plants with wet soil.

C. Mulch areas between ground cover plants; place not less than 2 inches thick.

3.25 TRANSPLANTING EXISTING TREES, PALMS AND SHRUBS

A. Refer to Article entitled, Planting Trees and Shrubs.

B. Pruning: Prior to transplanting operations, prune existing branches back 1/3 on trees and shrubs. On existing palms, prune back existing fronds and tie a minimum of four fronds around central growth heart area.

C. Handle plants so that roots are adequately protected at all times.

D. Plant shall not be bound with rope or wire, at any time, that would damage bark, break branches, or destroy its natural shape.

E. Plant transplanted plants immediately after digging.

F. Plants shall be moved with firm, natural balls of soil with minimum ball size conforming to requirements of ANSI Z60.1 Standard for Nursery Stock.

G. Underground Obstruction: If underground construction, utilities or obstructions are encountered in excavation of planting areas or pits, other locations for plant material will be selected by Architect. Changes in locations shall be made without additional cost to Owner.

3.26 MAINTENANCE

A. Begin maintenance immediately after planting. Maintain trees, shrubs and other plants until final acceptance but in no case less than 30 days after planting.

B. Maintain trees, shrubs and other plants by pruning, cultivating and weeding as required for healthy growth. Restore planting saucers. Tighten and repair stake and guy supports and reset trees and shrubs to proper grades or vertical position as required. Restore or replace damaged wrappings. Spray as required to keep trees and shrubs free of insects and disease.

C. Verify watering of trees, plants and ground cover beds within the first 24 hours of initial planting and not less than twice per week until final acceptance.

D. For Date Palms, drench the root zone 2-4 times for the first 4 months after planting with a fungicide labeled for landscape use on soil borne root fungal pathogens. Apply a light surface application of a slow-release "palm special" granular fertilizer at the margins of the root ball 3 months after planting. Apply a foliar spray of soluble micronutrients. When new leaves are evident from the crown, begin a maintenance program for fertilization 3 times a year.

3.27 CLEANING AND PROTECTION

A. During landscape work, store materials and equipment where directed.

B. Keep pavements clean and work area in an orderly condition.

C. Protect landscape work and materials from damage due to landscape operations, operations by other contractors, trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair or replace damaged landscape work.

3.28 INSPECTION AND ACCEPTANCE

A. When landscape work is completed, including maintenance, upon request Architect will make an inspection to determine acceptability.

B. Landscape work may be inspected for acceptance in parts agreeable to Architect, provided work offered for inspection is complete including maintenance and area comprises one complete unit or area of substantial size.

C. Where inspected landscape work does not comply with requirements, replace rejected work and continue specified maintenance until reinspected by Architect and found to be acceptable. Remove rejected plants and materials promptly from project site.

END OF SECTION

APPROVAL DOCUMENTS

LANDSCAPE SPECIFICATIONS

KEYS OVERNIGHT TEMPORARY HOUSING
5537 COLLEGE ROAD
STOCK ISLAND, FL 33040

NORTH

SCALE: 1" = 20'

REGISTERED LANDSCAPE ARCHITECT
"JOHN B. ROBERTS"
LA 6666692
STATE OF FLORIDA

DATE: 1.14.22

REVISIONS:

No.	Date	Notes
1.		
2.		
3.		
4.		
5.		
6.		
7.		

SHEET NUMBER:
L-4

JOB #: 20005 DRAWN BY: LBR

LANDWISE DESIGN
1936 SAN MARCO BLVD. SUITE 101 - JACKSONVILLE, FL 32207 904.343.4194

UNDERGROUND IRRIGATION SPECIFICATIONS

1.0 GENERAL

1.1 SUMMARY: Includes but not limited to:
- A. Furnishing and installing sprinkler system as described in Contract Documents complete with accessories necessary for proper functioning.

1.2 SYSTEM DESCRIPTION:
- A. Design Requirements:
  1. Layout of Irrigation Heads:
     - a. Location of heads shown on Drawings is approximate. Actual placement may vary slightly as is required to achieve full, even coverage without spraying onto buildings, sidewalks, fences, etc.
     - b. During layout, consult with Landscape Architect to verify proper placement and make recommendations, where revisions are advisable.

1.3 QUALITY ASSURANCE:
- A. Regulatory Requirements:
  1. Work and materials shall be in accordance with latest rules and regulations, and other applicable state or local laws. Nothing in Contract Documents is to be construed to permit work not conforming to these codes.
- B. Pre-Installation Conference:
  1. Meet with Owner and Landscape Architect to discuss and clarify all aspects of job requirements prior to commencing work of this Section.
- C. System Adjustments:
  1. Minor adjustments in system will be permitted to avoid existing fixed obstructions.
  2. Mainline, laterals, and valves are shown for clarity purposes only. All irrigation equipment to be with landscape area. Mainline, laterals and valves to be installed as far away from existing and new specimen trees as possible.
- D. 1. Documentation and submittal of actual water supply performance prior to commencing installation.

1.4 SUBMITTALS:
- A. Record Drawings:
  1. Prepare an accurate as-built drawing as installation proceeds to be submitted prior to final inspection. Drawing shall include:
     - a. Detail and dimension changes made during construction.
     - b. Significant details and dimensions not shown in original Bidding Documents.
  2. Maintain, at job site, one copy of Contract Documents (as defined in General Conditions) and relevant shop drawings.
  3. Clearly mark each document "PROJECT RECORD COPY" and maintain in good condition for use of the Landscape Architect and Owner.
  4. As-built drawing shall be provided in pdf format.
  5. Submit product literature for all sprinklers, valves, pipe, wire, wire connectors and controller.
  6. Final payment for system will not be authorized until accurate and complete submittals are delivered to the Landscape Architect.
- B. Instruction Manual:
  1. Provide instruction manual which lists complete instructions for system operation and maintenance.

1.5 PRODUCT STORAGE:
- A. During construction and storage, protect materials from damage and prolonged exposure to sunlight.

1.6 WARRANTY:
- A. Standard one (1) year warranty stipulated in General Conditions shall include:
  1. Completed system including parts and labor.
  2. Filling and repairing depressions and replacing plantings due to settlement of irrigation trenches for one (1) year following final acceptance.
  3. System adjustment to supply proper coverage to areas to receive water.

1.7 MAINTENANCE:
- A. Extra Materials:
  1. In addition to installed system, furnish Owner with the following items at close-out:
     - a. Two sprinkler head bodies of each size and type.
     - b. Two nozzles for each size and type.
     - c. Two adjusting keys for each sprinkler head cover type.

2.0 PRODUCTS:

2.1 PIPE, PIPE FITTINGS, AND CONNECTIONS:
- A. Pipe shall be continuously and permanently marked with Manufacturer's name, size, schedule, type, and working pressure.
- B. Pipe:
  1. Pressure Lines: as indicated on plans.
  2. Lateral Lines: as indicated on plans.
  3. Risers: sch. 80 PVC, gray
- C. Fittings:
  1. Schedule 40 PVC.
- D. Sleeving:
  1. Schedule 40 PVC.

2.2 SPRINKLER HEADS:
- A. Conform to requirements shown on Drawings as to type, radius of throw, pressure, and discharge.

2.3 AUTOMATIC SPRINKLER SYSTEM:
- A. Control valves shall be of size and type indicated on Drawings.
- B. Control wire shall be UL listed, color coded copper conductor direct burial size 14. Use 3M-DBY waterproof wire connectors at splices and locate all splices within valve boxes. Use white or gray color for common wire and other colors for all other wire. Each common wire may serve only one controller.
- C. Add two extra control wires from panel to valves for use if a wire fails and mark it in the control box as extra wires. These wires shall be of a different color than the others.

2.4 VALVES:
- A. Electric Valves:
  1. Make and model shown on Drawings.
- B. Gate valves:
  1. Bronze construction, angle type, 150 pound class, threaded connections, with cross-type operating handle designed to receive operating key.
- C. Automatic Controller:
  1. Make and model shown on Drawings.
- D. Backflow Preventor:
  1. Make and model shown on Drawings.

2.5 VALVE ACCESSORIES:
- A. Valve Boxes:
  1. Ametek or Brooks rectangular heavy duty valve box with locking lid or Landscape Architect approved equal.
  2. Do not install more than one (1) valve in a single box.
  3. Valve boxes shall be large enough for easy removal or maintenance of valves.

3.0 EXECUTION:

3.1 PREPARATION:
- A. Protection:
  1. Work of others damaged by this Section during course of its work shall be replaced or repaired by original installer at this Section's expense.

3.2 INSTALLATION:
- A. Trenching and Backfilling:
  1. Over-excavate trenches by two (2") inches and bring back to indicated depth by filling with fine, rock-free soil or sand.
  2. Cover pipe both top and sides with two (2") inches of material specified in paragraph above. In no case shall there be less than two (2") inches of rock-free soil or sand surrounding pipe.
  3. Do not cover pressure main, sprinkler pipe, or fittings until the Landscape Architect has inspected and approved system.
- B. Installation of Plastic Pipe:
  1. Install plastic pipe in a manner to provide for expansion and contraction as recommended by Manufacturer.
  2. Unless otherwise indicated on Drawings, install main lines with a minimum cover of eighteen (18") inches based on finish grade. Install lateral lines with a minimum cover of twelve (12") inches based on finish grade.
  3. Install pipe and wires under driveways or parking areas in specified sleeves a minimum of eighteen (18") inches below finish grade or as shown on Drawings.
  4. Locate no sprinkler head closer than twelve (12") inches from building foundation. Heads immediately adjacent to mowing strips, walks or curbs shall be one (1") inch below top of mowing strip, walk or curb and have a minimum of one (1") inch clearance between head and mowing strip, walk or curb.
  5. Drawings show arrangement of piping. Should local conditions necessitate rearrangement, obtain approval of Landscape Architect prior to proceeding with work.
  6. Cut plastic pipe square. Remove burrs at cut ends prior to installation so unobstructed flow will result.
  7. Make solvent weld joints in the following manner:
     - a. Clean mating pipe and fitting with clean, dry cloth and apply one (1) coat of P-70 primer to each.
     - b. Apply uniform coat of 711 solvent to outside of pipe.
     - c. Apply solvent to fitting in similar manner.
     - d. Reapply a light coat of solvent to pipe and quickly insert into fitting.
     - e. Give pipe or fitting a quarter turn to insure even distribution of solvent and make sure pipe is inserted to full depth of fitting socket.
     - f. Hold in position for fifteen (15) seconds minimum or long enough to secure joint.
     - g. Wipe off solvent appearing on outer shoulder of fitting.
     - h. Do not use an excessive amount of solvent thereby causing an obstruction to form on the inside of pipe.
     - i. Allow joints to set at least 24 hours before applying pressure to PVC pipe.
  8. Tape threaded connection with teflon tape.
  9. Install concrete thrust blocks wherever change of direction occurs a PVC main pressure lines unless otherwise detailed on Drawings.
- C. Control Valves and Controller:
  1. Install controller, control wires, and valves in accordance with Manufacturer's recommendations and according to applicable electrical code.
  2. Install valves in plastic boxes with reinforced heavy duty plastic covers. Locate valve box tops at finish grade.
  3. Install remote control valves in valve boxes positioned over valve so all parts of valve can be reached for service. Set cover of valve box even with finish grade.
  4. Install all valve boxes over nine (9") inches of gravel for drainage.
- D. Sprinkler Heads:
  1. Prior to the installation of sprinkler heads, open control valves and use full head of water to flush out system.
  2. Set sprinkler heads perpendicular to finish grade.
  3. Set lawn sprinkler heads adjacent to existing walks, curbs, and other paved areas to grade

3.3 FIELD QUALITY CONTROL:
- A. Flushing and Testing:
  1. Test pressure lines at a minimum sustained pressure of 100 psi for two (2) hours. Pressure shall not drop below 95 psi during the two hour test. Notify Landscape Architect 24 hours prior to test. Do not backfill lines until approved by Landscape Architect.

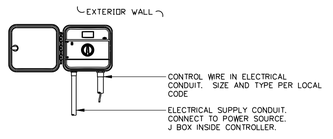
3.4 ADJUSTMENT AND CLEANING:
- A. Adjust heads to proper grade when turf is sufficiently established to allow walking on it without appreciable harm. Such lowering or raising of of heads shall be part of the original contract with no additional charge to the Owner.
- B. Adjust sprinkler heads for proper distribution and trim to ensure spray does not fall on building.
- C. Adjust watering time of valves to provide proper amounts of water to all plants.

3.5 DEMONSTRATION:
- A. After system is installed and approved, instruct Owners Representative in complete operation and maintenance.

END OF SECTION

100% IRRIGATION COVERAGE SHALL BE PROVIDED TO ALL LANDSCAPE AND TURF AREAS.

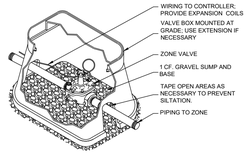
AS-BUILT IRRIGATION PLAN SHALL BE PROVIDED TO OWNER AT COMPLETION OF PROJECT.



NOTE
MOUNT CONTROLLER WITH LCD SCREEN AT EYE LEVEL. CONTROLLER SHALL BE HARD WIRED BY A LICENSED ELECTRICIAN.

CONTROLLER INSTALLATION DETAIL

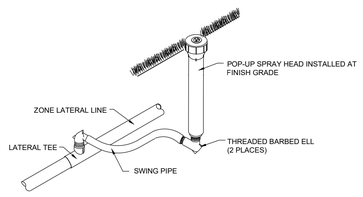
SCALE: NTS



INSTALL TOP OF VALVE A MAXIMUM OF 15" FROM FINISHED GRADE.

ZONE VALVE INSTALLATION DETAIL

SCALE: NTS



SPRAY HEAD INSTALLATION DETAIL

SCALE: NTS

KEYS OVERNIGHT TEMPORARY HOUSING
5537 COLLEGE ROAD
STOCK ISLAND, FL 33040

NORTH

SCALE: 1" = 20'

REGISTERED LANDSCAPE ARCHITECT
"JOE" B. ROBERTS
LA 6666692
STATE OF FLORIDA

APPROVAL DOCUMENTS

IRRIGATION SPECIFICATIONS

DATE: 1.14.22

REVISIONS:

No.	Date	Notes
1.		
2.		
3.		
4.		
5.		
6.		
7.		

SHEET NUMBER:
L-5

JOB #: 20005 DRAWN BY: LBR

LANDWISE DESIGN
1936 SAN MARCO BLVD. SUITE 101 - JACKSONVILLE, FL 32207 904.343.4194

STAFF REPORT

DATE: February 3, 2022

RE: 5537 College Road (permit application # T2022-0002)

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

An application was received requesting the removal of (1) Strangler Fig tree. A site inspection was done and documented the following:

Tree Species: Strangler Fig (Ficus aurea)

Photo showing location of tree.

Photo showing trunk of tree growing against structure, view 1.

Photo of trunk and base of tree against structure, view 2.

Photo showing tree canopy.

Photo showing trunk of tree growing against structure, view 2.

Photo of trunk and base of tree against structure, view 2.

Diameter: 5″
Location: 30% (growing against structure.)
Species: 100% (on protected tree list)
Condition: 50% (overall condition is fair, poor root structure)
Total Average Value = 60%
Value x Diameter = 3 replacement caliper inches

Additional trees referenced on property:

Buttonwood trees growing along wetland edge. Trees will remain and canopy will be trimmed.

Seaside Mahoe tree to be removed. Tree is an invasive, not regulated tree species.

Green Buttonwood clump on the left, to remain and canopy to be trimmed and Brazilian Pepper tree, an invasive exotic tree on fence, to be removed.

STAFF REPORT

DATE: February 3, 2022

RE: **5537 College Road (permit application #TP2022-0002)**

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

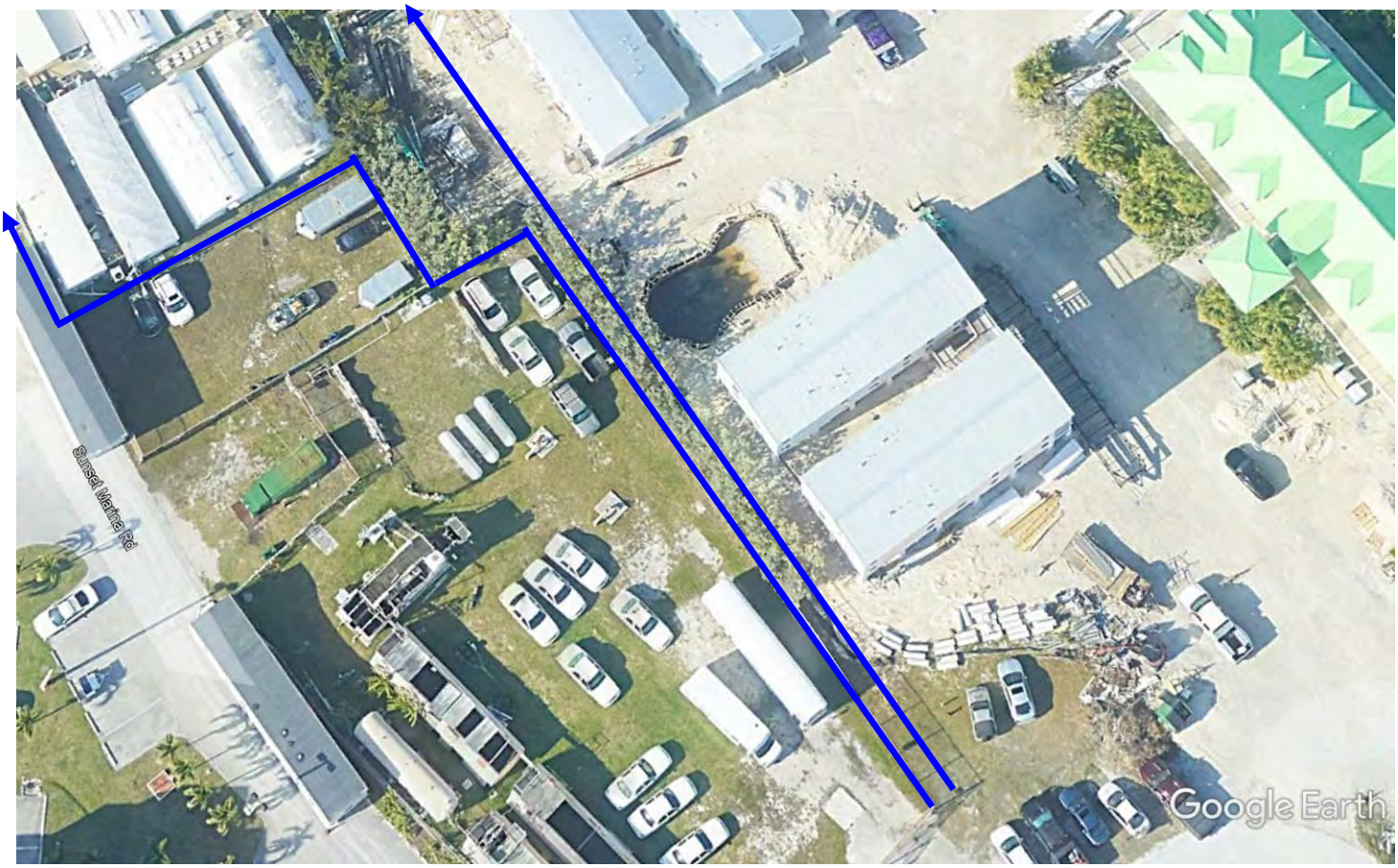
On January 19, 2022, an application was submitted for Landscape Plan approval with tree removal for a major development plan to redevelop the KOTS facility. There is one strangler fig tree growing against an existing structure that has been requested to be removed. Other native trees along the perimeter of the lease area are to remain.

The development plan area is part of a larger, disturbed and developed upland area with wetlands along its perimeter. The Monroe County Sheriff's office and jail facility, a marina and residential area, and an existing KOTS homeless facility currently exist in the area. The lease area for the KOTS facility is currently being reviewed for a major development plan through the Planning department for the redevelopment of the facility that includes demolishing all existing structures and building a raised structure.

The KOTS lease area is bounded by fringing mangroves to the north and west and a storm water retention wetland area to the south. No wetland areas will be negatively impacted by the proposed work. The wetland jurisdictional boundary line has been coordinated and approved by the South Florida Water Management District (SFWMD). In leu of a 25 ft upland buffer area, a structural buffer/wall-fence will be built upland of the jurisdictional wetland line as noted on page A-2 of the submitted and attached plans. Tree canopy overhanging the proposed work areas will be trimmed prior to demolition and construction.

The Landscape Plan is 70% native vegetation, tree species are appropriate for the area, and all the required tree replacements for removal of the strangler fig tree have been incorporated into the landscape plan. Primary areas for the proposed landscaping are the access areas on the east side of the KOTS facility which is highly visible to the public, the Sheriff's facility, and the adjacent marina and residential area.

Aerial view of property location.



Blue lines mark the approximate lease/entry area for KOTS (photo dated February 2018).

Standing near helicopter pad looking north toward KOTS entry and Sunset Marina and Apartments.

Standing near helicopter pad looking northwest at existing KOTS facility.

Looking west, stormwater wetland area is to the left, existing KOTS facility is to the right.

Standing along the western boundary area with the disturbed wetland. The existing fence is the location of the new structural wall-fence in this area, view 1.

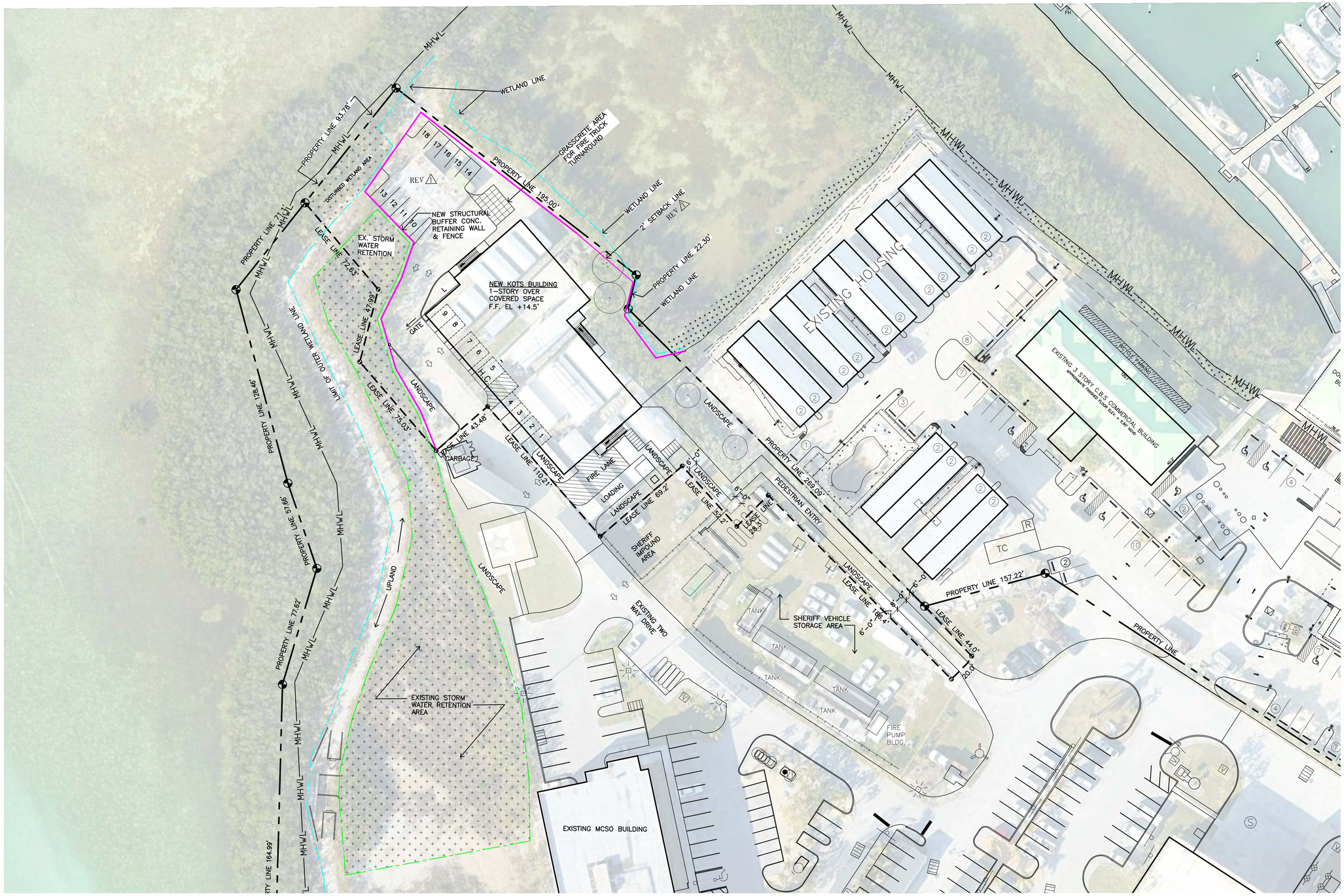
Standing along the western boundary area with the disturbed wetland. The existing fence is the location of the new structural wall-fence in this area, view 2.

View of the northern boundary area looking toward the east. A large mangrove area exists to the left. Buttonwood trees in this photo are to remain.

Photo of northern boundary area looking west toward large mangrove area. In this photo, to the left is a gumbo limbo tree to remain and a line of existing buttonwood trees to remain along the KOTS walkway/entry way.

Photo of existing buttonwood trees along walkway, view 1.

Photo of existing buttonwood trees along walkway, view 2.



PROPOSED SITE PLAN (LEASE AREA)

SITE PLAN BASED ON INFORMATION OBTAINED FROM SURVEY PREPARED BY AVIRON & ASSOCIATES DATED ON 04-08-2021.

SCALE: 1"=30'-0"

KEYS OVERNIGHT TEMPORARY SHELTER (KOTS)

5537 COLLEGE ROAD
KEY WEST, FLORIDA

WILLIAM P. HORN
ARCHITECT, P.A.

915 EATON ST.
KEY WEST,
FLORIDA
33040

TEL. (305) 296-8302
FAX (305) 296-1033

LICENSE NO.
AA 0003040

KEYS OVERNIGHT TEMPORARY SHELTER
5537 COLLEGE RD.
KEY WEST, FLORIDA.

SEAL

DATE
11-04-2021 D.R.C.
11-30-2021 REV 1
12-09-2021 D.R.C.

REVISIONS

DRAWN BY
EMA
JFS
CAB

PROJECT NUMBER
2023

Karen DeMaria

From: Philip Frank <terramar.env@gmail.com>
Sent: Tuesday, February 1, 2022 3:54 PM
To: Katie P. Halloran; Karen DeMaria
Cc: Albiona Balliu; Steven P. McAlearney; WPHORN@aol.com
Subject: [EXTERNAL] KOTS, SFWMS confirmation of wetlands limits and proposed permitting approach.
Attachments: RE_ Keys Overnight Temporary Shelter (KOTS), City of Key West, pre-app meeting review.pdf

Hello Katie, Karen.

I wanted to follow-up on the issues we discussed regarding KOTS and the State of Florida, South Florida Water Management District (SFWMD) site visit and pre-application meeting.

Attached is the pre-application meeting summary (with exhibits) that we sent to SFWMD (Sophie Wild) and also their response. SFWMD confirmed two important items. They confirmed that the wetland delineation we completed was accurate. They also confirmed that they would not require a typical 25' setback buffer for this particular project. Instead, the proposed "structural buffer" (aka retaining wall/fence/signage) will provide adequate assurance for wetland protection, and will result in an overall net improvement over current conditions.

I hope that this coordination with SFWMD is acceptable for your review purposes. As we discussed in the meeting, SFWMD cannot approve a site plan during pre-application coordination, but they do provide clear guidance so that once received, an application is in good form to be reviewed.

Please let me know if you have any questions, and feel free also to contact Sophie directly.

Thank you.

Philip A. Frank, Ph.D.

Terramar Environmental Services, Inc.
1241 Crane Boulevard
Sugarloaf Key, Florida 33042
(305) 393-4200 terramar.env@gmail.com

RE: Keys Overnight Temporary Shelter (KOTS), City of Key West, pre-app meeting review

1 message

Wild, Sophie <swild@sfwmd.gov> Fri, Jan 28, 2022 at 11:20 AM
To: Philip Frank <terramar.env@gmail.com>

Good afternoon Phil,

Yes, this is an accurate description of what we discussed in the field on 11/17/21.

The uplands abutting the wetland have no natural vegetation and do not provide any habitat support due to the existing small structures that are used for temporary housing as shown in the aerials you have provided. Therefore, a 25 foot upland buffer would not be required due to the current state of the uplands and lack of an existing natural buffer. The proposed wall would provide enough of a structural buffer to avoid adverse secondary impacts and the proposed re-development project appears to improve the current conditions on the site.

Please do not hesitate to contact me with any additional comments or concerns!

Thanks,

Sophie

Sophie Wild

Environmental Analyst 3

Environmental Resource Bureau | Regulation Division

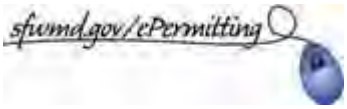
South Florida Water Management District

3301 Gun Club Road, West Palm Beach, FL 33406

Phone: (561) 682-2754

Email: swild@sfwmd.gov

To electronically submit a new application or a response to a request for additional information, go to:



From: Philip Frank <terramar.env@gmail.com>
Sent: Thursday, January 27, 2022 2:44 PM
To: Wild, Sophie <swild@sfwmd.gov>
Subject: Keys Overnight Temporary Shelter (KOTS), City of Key West, pre-app meeting review

[Please remember, this is an external email]

Sophie, hello. Thanks for taking the time to meet Rowena and myself on the Keys Overnight Temporary Shelter (KOTS) property on November 17, 2001. We appreciate your working overtime to fit this site in to your schedule.

I wanted to follow up on the site visit / pre-application meeting. The following are my notes from the meeting, along with a revised site plan. Please review and let me know if this is an accurate reflection of the meeting and what we discussed.

The project is Keys Overnight Temporary Shelter (KOTS), a long-anticipated homeless shelter for the City of Key West and Monroe County. It is a public project, non-profit, government owned. The land is owned by Monroe County and leased (99 years) by the City of Key West.

Attached are the habitat notes from the 11.17.21 site visit, showing the location of the current KOTS facility, the adjacent disturbed wetlands and the mangroves that are located along the shoreline. Please review this exhibit and confirm the approximate location of these wetland areas based on our field review.

As designed, the project would not directly impact the disturbed wetlands adjacent to the site. I am attaching the site plan for review. This site plan was developed following our site visit and incorporates the minimized wetland setbacks and the structural buffer (aka retaining wall) that we discussed. The structural buffer was developed to avoid adverse secondary impacts to the adjacent disturbed wetlands and effectively contain any impacts to the developed portion of the site. The structural buffer will be located 2 feet upland of the disturbed wetland limits to allow for construction. The retaining wall will incorporate a fence and regulatory signage to provide long-term protection for the adjacent wetlands and open space areas. The details of the structural buffer (dimensions, design) will be included in the application package.

Stormwater management will be incorporated within the boundaries of the structural buffer and designed to maintain stormwater impacts on-site. Our stormwater engineer, Allen Perez, is well versed in keys stormwater design and is accustomed to working in tight quarters. The full details of the stormwater plan will be included in the full application package.

Currently the on-site wetlands and other open space areas lacks effective environmental management. There is no stormwater management system in place and adjacent open space areas have accumulated debris (e.g. bleachers, propane tanks, etc.). Portions of the perimeter wetland areas support invasive exotic plants (e.g. Seaside mahoe, Brazilian pepper). The proposed KOTS project will incorporate environmental management into the facility. All non-impacted areas (disturbed wetlands, shoreline mangroves, open space areas) will be cleaned up, all debris removed, all invasive exotic vegetation removed / controlled, and the KOTS site will be fenced to contain all activities within the improved areas of the property.

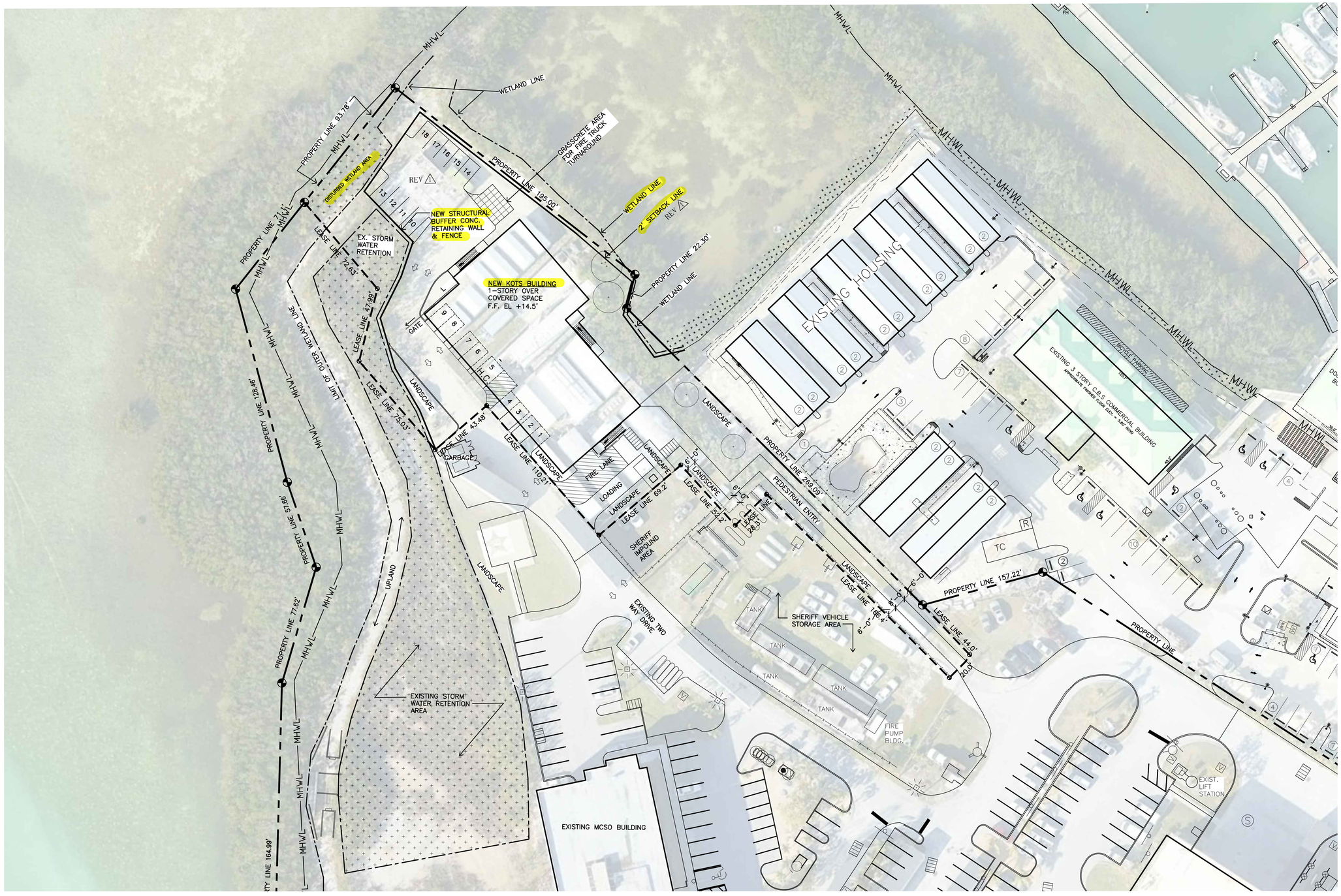
We believe that in the long run, the proposed re-development of the KOTS site will be a net positive for the environment, especially when compared to current conditions. We would like SFWMD to consider the lack of a 25' vegetated buffer as an equal offset for the site improvements: the structural buffer, fencing, signage, and long-term environmental management.

Thanks again for your time and consideration.

Thank you.

Philip A. Frank, Ph.D.

Terramar Environmental Services, Inc.
1241 Crane Boulevard
Sugarloaf Key, Florida 33042
(305) 393-4200 terramar.env@gmail.com



N

W E

S

PROPOSED SITE PLAN (LEASE AREA)

SITE PLAN BASED ON INFORMATION OBTAINED FROM SURVEY PREPARED BY AVIRON & ASSOCIATES DATED ON 04-08-2021.

SCALE: 1"=30'-0"

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KEYS OVERNIGHT TEMPORARY SHELTER
5537 COLLEGE RD.
KEY WEST, FLORIDA.

SEAL

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11-04-2021 D.R.C.
11-30-2021 REV 1
12-09-2021 D.R.C.

REVISIONS

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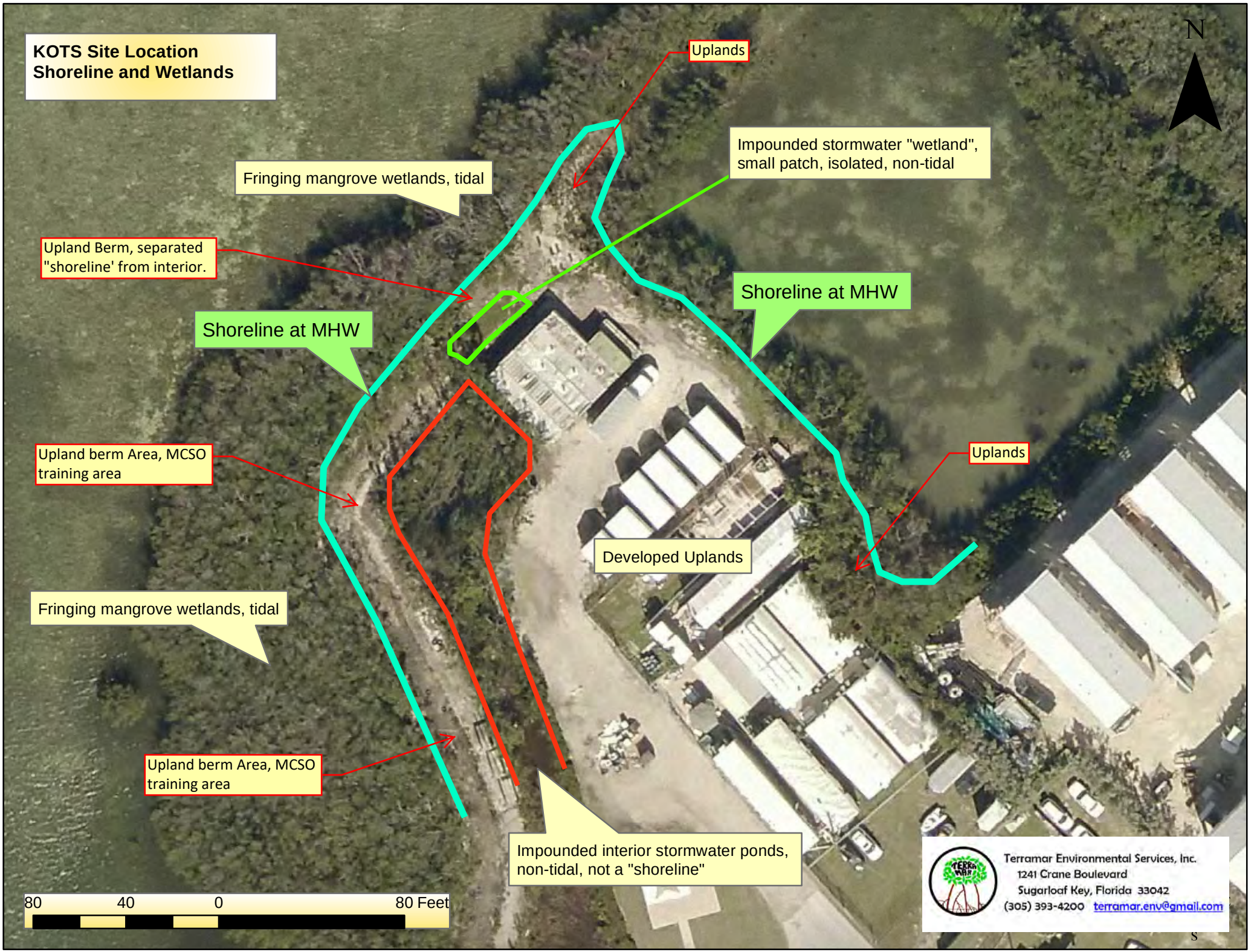
CAB

PROJECT NUMBER
2023

A-2

KEYS OVERNIGHT TEMPORARY SHELTER (KOTS)
5537 COLLEGE ROAD
KEY WEST, FLORIDA

WETLAND LINE
PROPERTY LINE 93.78'
MHWL
DISTURBED WETLAND AREA
GRASSCRETE AREA FOR FIRE TRUCK TURNAROUND
PROPERTY LINE 195.00'
REV
WETLAND LINE
2' SETBACK LINE
NEW STRUCTURAL BUFFER CONC. RETAINING WALL & FENCE
PROPERTY LINE 71.11'
LEASE LINE 72.63'
EX. STORM WATER RETENTION
NEW KOTS BUILDING
1-STORY OVER COVERED SPACE
F.F. EL +14.5'
PROPERTY LINE 22.30'
WETLAND LINE
LIMIT OF OUTER WETLAND LINE
LEASE LINE 47.99'
GATE
H.C.
LANDSCAPE
PROPERTY LINE 128.46'
LEASE LINE 75.03'
LEASE LINE 43.48'
GARBAGE
LEASE LINE 110.21'
FIRE LANE
LOADING
LEASE LINE 69.2'
LEASE LINE 52.2'
PROPERTY LINE 269.09'
PEDESTRIAN ENTRY
6'-0"


KOTS Site Location
Shoreline and Wetlands
N
Uplands
Impounded stormwater "wetland", small patch, isolated, non-tidal
Fringing mangrove wetlands, tidal
Upland Berm, separated "shoreline' from interior.
Shoreline at MHW
Shoreline at MHW
Upland berm Area, MCSO training area
Uplands
Developed Uplands
Fringing mangrove wetlands, tidal
Upland berm Area, MCSO training area
Impounded interior stormwater ponds, non-tidal, not a "shoreline"
80 40 0 80 Feet
Terramar Environmental Services, Inc.
1241 Crane Boulevard
Sugarloaf Key, Florida 33042
(305) 393-4200 terramar.env@gmail.com