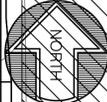
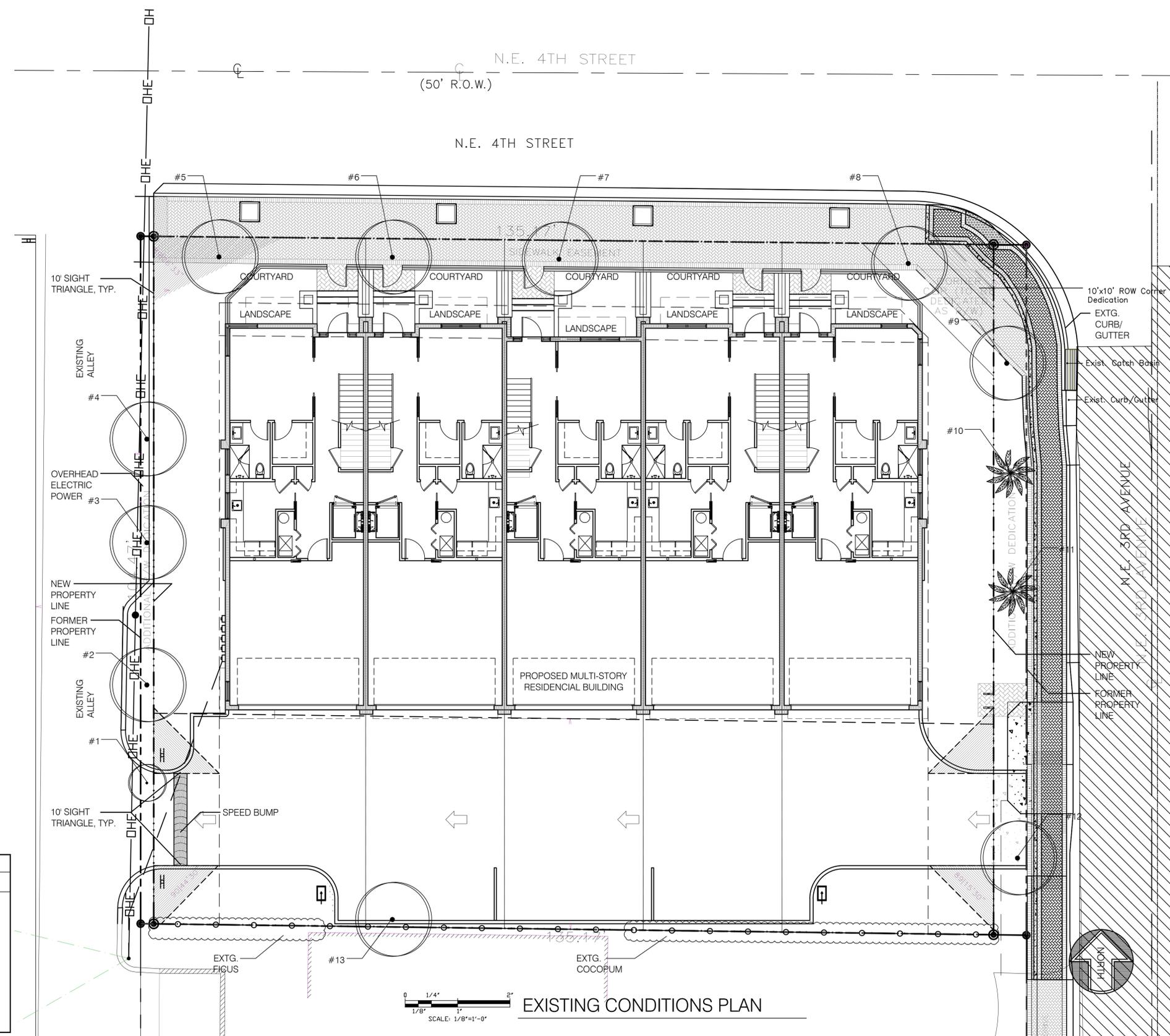


REVISIONS	BY
Revised 12/3/18 Per City Comments, Tree Mitigation	
Revised 2/14/19 Per Revised Site Plan	

DESIGNED BY:  
**CARTER & ASSOCIATES**  
**LANDSCAPE ARCHITECTS INC.**  
 74 N.E. 5th AVE. Delray Beach, FL 33483  
 LA. 831  
 561-272-9621

Landscape & Irrigation Plans for:  
**TOWNHOMES**  
**AT 214 4TH**  
 214 NE 4TH STREET  
 Delray Beach, Florida 33444

DRAWN	SKP
CHECKED	D.H.C.
DATE	2/7/18
SCALE	1/8" = 1'-0"
JOB NO.	121517
SHEET	
	
<b>L-1</b> OF 3 SHEETS	



**RELOCATION NOTES:**

- All canopy trees designated as relocated on the plans, are to be root-pruned for a minimum of 3 months prior to the relocation process.
- The root ball size for each tree will depend on the caliper of the individual tree to be relocated. The size of the root ball shall be adequate to support & sustain the viability of the individual tree.
- All root cuts shall be "clean cuts", and the back fill material shall be well drained planting soils, or pre-approved equal. All road rock, and undesirable fill materials shall be removed from root-prune trench.
- Temporary irrigation shall be provided to all root-pruned trees during the root-pruning process, and after the tree's have been relocated to their location for a minimum of 4 months, or as necessary to insure their survivability.
- The canopies of all tree's shall be reduced by a minimum of 20% at time of root pruning.
- All tree's shall be relocated with machinery (i.e., crane, front-end loader, tree spade, or equal) capable of handling the material without damaging any portion of the tree. The Landscape Architect will pre-approve all methods utilized for the relocation process.
- All relocation work shall comply with the National Arborists Standards.

**REMOVAL NOTES:**

- All tree's to be removed shall be completely removed from the site.
- The root systems, of the removals, shall be removed in such a manner to facilitate the installation of new tree's, or palms. Root system removal shall be a minimum of 24" depth, and a 6 foot diameter around the trunk.
- TREE REMOVAL PERMITS WILL BE REQUIRED BY THE GOVERNING MUNICIPALITY, AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS.

ALL UNDERGROUND UTILITIES SHALL BE LOCATED PRIOR TO COMMENCING ANY WORK ON THE SITE, PER FLORIDA LAW.

New Materials To conform To City Of Delray Beach Requirements. All Tree Replacements Shall Also Replace Said Tree's Caliper Inches So As To Maintain Caliper Sizes. All Tree Replacements Shall Be Florida #1 Grade.

**NOTE:**  
 Remove All Exotic Nuisance Species, Including But Not Limited To (Fl. Holly, Australian Pine, Melaleuca, etc.) Per State and Local Zoning & Landscape Code(s).

TREE LIST			
TREE#	SPECIES	SIZE	DISPOSITION
1	Yucca elephantipes/ Spineless Yucca	16	To Be Removed
2	Bursera Simaruba/ Gumbo Limbo Tree	16x16 Multi-Stem	To Be Removed
3	Coccoloba E. Sarcocolla/ Silver Buttonwood	12x12	To Be Removed
4	Bursera Simaruba/ Gumbo Limbo Tree	12x10	To Be Removed
5	Swietenia mahogany/ Mahogany Tree	30x30	To Be Removed
6	Delonix reggea/ Royal Poinciana Tree	25x30	To Be Removed
7	Swietenia mahogany/ Mahogany Tree	30x30	To Be Removed
8	Bucida buceras/ Shady Lady Black Olive	30x20	To Be Removed
9	Bucida buceras/ Shady Lady Black Olive	30x30	To Be Removed
10	Thrinax/ Thatch Palm	14, 16, 18	To Be Removed
11	Thrinax/ Thatch Palm	14, 16, 18	To Be Removed
12	Bucida buceras/ Shady Lady Black Olive	40x40	To Be Removed
13	Bucida buceras/ Shady Lady Black Olive	16 Multi-Stem	To Be Removed

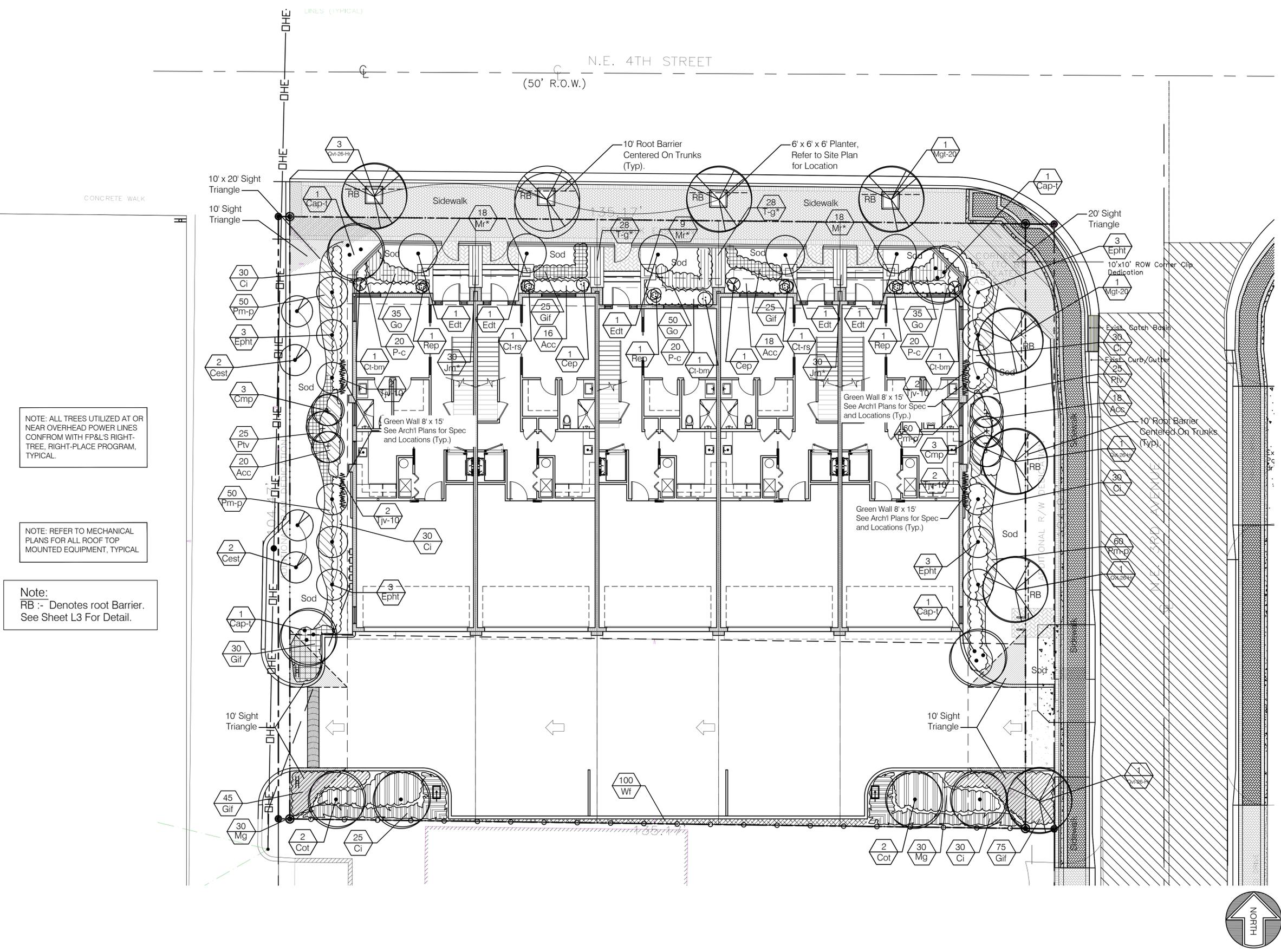
SCALE: 1/8" = 1'-0"  
 EXISTING CONDITIONS PLAN

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<b>L-2</b>	
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NOTE: ALL TREES UTILIZED AT OR NEAR OVERHEAD POWER LINES CONFORM WITH FP&L'S RIGHT-TREE, RIGHT-PLACE PROGRAM, TYPICAL.

NOTE: REFER TO MECHANICAL PLANS FOR ALL ROOF TOP MOUNTED EQUIPMENT, TYPICAL.

Note:  
 RB :- Denotes root Barrier.  
 See Sheet L3 For Detail.

Landscape Plan

TREE & PALM PRESERVATION MITIGATION SUMMARY (per LDR 4.6.19 (D))						
QTY & MATERIAL	SIZE	CONDITION	MITIGATION REQUIREMENTS			
1 Gumbo limbo tree	8" DBH (18x18ft)	70	8	\$450.00	\$3,600.00	
1 Silver buttonwood tree	7" dbh (21x21ft)	50	7	\$450.00	\$3,150.00	
1 Gumbo limbo tree	4"	4	4	\$450.00	\$1,800.00	
1 Silver buttonwood tree	7" dbh (21x21ft)	50	7	\$450.00	\$3,150.00	
1 Mahogany tree	13" DBH	60	8	\$450.00	\$3,600.00	
			5	\$650.00	\$3,250.00	
1 Royal poinciana tree	12.5" DBH	70	8	\$450.00	\$3,600.00	
			4.5	\$650.00	\$2,925.00	
1 Mahogany tree	16"	70	8	\$450.00	\$3,600.00	
			5	\$650.00	\$5,200.00	
1 Black olive tree	12" DBH	50	8	\$450.00	\$3,600.00	
			4	\$650.00	\$2,600.00	
1 Black olive tree	18" DBH	70	8	\$450.00	\$3,600.00	
			10	\$650.00	\$6,500.00	
3 Thatch palms	9-11ft. oa.	80				
1 Black olive tree	18" DBH	70	8	\$450.00	\$3,600.00	
			10	\$650.00	\$6,500.00	
						Total \$90,925.00
Total Caliper Inches		97" DBH				
Code Tree Requirements	Req'd.	Provided	Above Code Remarks			
Interior shade	3	4	1			
Perimeter shade	15.4	35	20 (CODE TABULATION DOES NOT ACCOUNT FOR building facade requirements)			
MITIGATION REQUIREMENTS			EXCESS CALIP			
ADDITIONAL CALIPER PROVIDED ON PLAN		6-QVT-26 @ 8" CALIPER	6 @ 4" CALIPER = 24"			

LANDSCAPE CALCULATIONS		
(MULTI-FAMILY, COMMERCIAL, INDUSTRIAL)		
A. TOTAL LOT AREA		13,416 Sq. ft.
B. STRUCTURES, PARKING, WALKWAYS, DRIVES, ETC...		9,684 Sq. ft.
C. TOTAL PERVIOUS LOT AREA		3,732 Sq. ft.
D. AREA OF SHRUBS & GROUND COVERS REQUIRED (C X .30)		1,120 Sq. ft.
E. AREA OF SHRUBS & GROUND COVERS PROVIDED (D X .25)		3,732 Sq. ft.
F. NATIVE VEGETATION REQUIRED		933 Sq. ft.
G. NATIVE VEGETATION PROVIDED		1,775 Sq. ft.
H. TOTAL PAVED VEHICULAR USE AREA		3,496 Sq. ft.
I. TOTAL INTERIOR LANDSCAPE AREA REQUIRED (H X .10)		350 Sq. ft.
J. TOTAL INTERIOR LANDSCAPE AREA PROVIDED		400 Sq. ft.
K. TOTAL INTERIOR SHADE TREES REQUIRED (I / 125 SQ. FT.)		3 Trees
L. TOTAL INTERIOR SHADE TREES PROVIDED		4 Trees
M. TOTAL LINEAR FEET SURROUNDING PARKING, OR VEHICULAR USE AREAS		104 Lin. Ft.
N. TOTAL NUMBER OF PERIMETER TREES REQUIRED (M / 30)		15.4 Trees
O. TOTAL NUMBER OF PERIMETER TREES PROVIDED		35 Trees
P. TOTAL NUMBER OF EXTG. TREES TO BE PRESERVED ON SITE		0 Trees
Q. TOTAL NUMBER OF NATIVE TREES REQUIRED [(K + N) X .50]		8 Trees
R. TOTAL NUMBER OF NATIVE TREES PROVIDED		20 Trees
S. TOTAL NUMBER OF TREES ON PLAN PROVIDED		43 Trees

XERISCAPE CALCULATIONS		
Required shrubs & ground covers (30% of required interior & perimeter greenspace)		1,469.20 Sq. ft.
Shrubs & ground cover provided		1,775 Sq. ft.
Required native plant materials (25% of required shrubs & ground covers)		367 Sq. ft.
Native plant materials provided		787 Sq. ft.
Number of native trees required (50% of required trees)		8 Trees
Native trees provided		20 Trees

MATERIAL SCHEDULE			
Qty.	Key	Botanical / common name	Size
6	Qvt-26-Hr*	Quercus virginiana/ High Rise Live oak tree	26x12", 12'ct. 8" calip mtchg. specimens
2	Mgt-20*	Magnolia grandiflora / S. Magnolia tree	20x10", 10'ct. mtchg. specimens
12	Epht*	Ilex spp / east palatka holly tree	16x7" full to base, mtchg.
5	Edt	Elaeocarpus decipens/Japanese blueberry tree	14x6", 7'ct. conical-shaped, mtchg.
4	Cot*	Chrysophyllum oliviforme/ Satin leaf	16x7", 8'ct mtchg.
4	Cap-t	Carpentaria acuminensis/Carpenters Palm	18-20"oa. triple. hvy. calip. mtchg.
2	Cep	Chamaedorea erumpens/Bamboo palm	5x3" multi stem mtchg.
3	Rip	Rapis excolata/ Lady palm	6'x4" hvy. multi. mtchg.
6	Cmp	Caryota mitis/ Fishtail Palm	22-24"oa. 3-5 stems max. hvy. calip.
4	Cest*	Conocarpus E. Sericeus / Silver buttonwood tree	10-12' x 5'
8	Tjv-10	Trachelospermum jasminoides/ Confederate jasmine vine	8x4' trellis
220	Pm-p	Podocarpus macrophyllus pringles/ Dwarf	12" -15"3g @15"oc.
175	Cl*	Chrysobalanus icaco/ Cocoplum	24"x24" @2"oc.
200	Mgt*	Muhly Grass	18"x18" @2"oc.
72	Acc	Alcassia calif. compacta/ Dwf. Alocasia	24"3g @30"oc.
3	Ct-bm	Cordyline terminalis/ Black magic ti plant	4.5-5' hvy. multi. mtchg.
2	Ct-rs	Cordyline fruticosal/ red sister	4.5-5' hvy. multi. mtchg.
60	P-c	Philodendron congo/ Congo	18"3g @2"oc.
120	Go	Spathoglottis plicata/ Ground orchid	15"2g @18"oc.
200	Gif*	Ficus microcarpa/ Green island ficus	18"3g @15" oc.
50	Ptv	Pittosporum tobira Variegata/ Variegated pitt	15"3g @18"oc.
100	Wf*	Polypodium scop/ Wart fern	10"1g @1' oc.
112	T-g	Tibouchina / Purple Glory groundcover	6" 1g. (28 per planter)
120	Jm*	Jasmine minima / Jasmine	10" 1g. (30 per planter)
90	Mr	Moss Rose	6" 1g. (9 per planter urn)

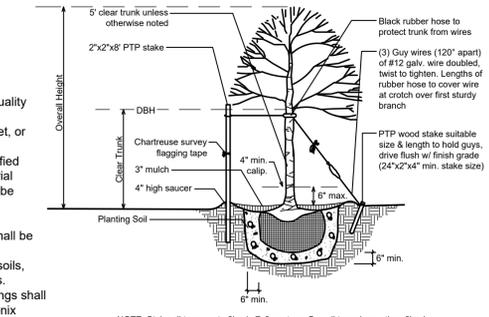
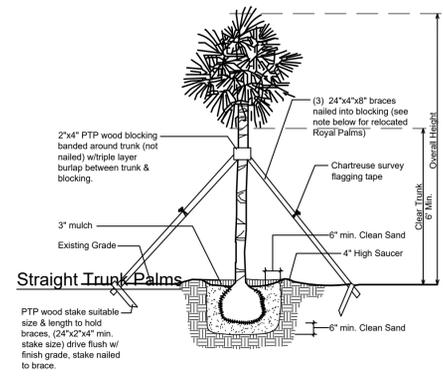
Planting soils & mulch, see specs. & details  
Sod, Empire Zoysia

**GENERAL LANDSCAPE NOTES:**

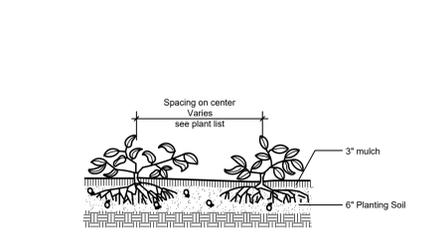
- All plant material shall be F1, #1, or better, as per the latest addition of F1, Grades & standards. All "specimen" quality materials shall be F, Fancy, and shall be pre-approved by the Landscape Architect.
- All plant materials shall be true to name & size, as per F1, Grades & Standards. Plant materials which do not meet, or exceed these standards will not be accepted.
- Quantities, sizes, and locations of plants will be determined by the plan and material schedule. Sizes of the specified plants shall take precedence over the container size. Spacing of the ground covers will be determined by the material schedule. Quantities shown on the material schedule are to be used as a guideline. The landscape contractor shall be responsible for the actual quantities shown on the plan. The plans will take precedence over the material schedule. Discrepancies shall be brought to the attention of the Landscape Architect, prior to commencing.
- No substitutions shall be accepted without the Landscape Architect's written approval. All substitution requests shall be made in writing.
- Planting soils shall be clean, sterile, and free of debris. Soil shall consist of 40% F1, muck & 60% existing native soils, mixed thoroughly together, clean sand. Tree's shall be installed with a minimum of 6" on sides & bottom of root balls. Shrubs, plants & ground covers shall be installed with a minimum of 6" on sides & bottom of root balls. Rooted cuttings shall be installed with a minimum of 4" of planting soils worked into the top 6" of the existing soils. Sabal palms and Phoenix specie shall be installed with a clean well drained sand.
- Milorganite, or equal, fertilizer shall be applied to all plantings, per manufacturers recommendations. In addition, "Agriform" tablets (20-10-5) shall also be applied to all plants 1 gal., and above, per manufacturers recommendations.
- All tree's & palms shall be mulched with a 3ft. diameter circle. 3" minimum depth. All planting beds shall receive 3" finished depth, mulch upon completion of planting process. Mulch shall be "Pine Needle", or approved equal. NO CYPRESS MULCH SHALL BE UTILIZED ON THE PROJECT.
- All plants shall be planted at soil levels which they were previously grown. Shrubs and hedges are to be planted 2ft. away from any wall, or structures. Materials with a six greater than overhangs shall be planted so as not to impede the natural growth habit of the plant.
- All materials are to be watered-in immediately after planting, so as to remove all air pockets. BIB materials are to be hand-watered for a minimum of 1 week after installation, and there-after as required. Contractor shall advise the owner of any additional hand-watering requirements.
- All tree's 8ft., or larger, are to be staked, or guyed, to provide ample support such that materials remain straight & true in an up-right position through the guarantee period. Staking & guying shall be performed at the option of the landscape contractor, except where required by code. However, the landscape contractor shall be responsible for all tree's & palms remaining straight & true through the guarantee period. In the event that a material shifts after it has been properly staked, or guyed, the landscape contractor shall not be held responsible.
- All sod shall be "Floratom", unless otherwise specified. Sod shall be dense, green, well-rooted, and free of debris, weeds, disease, or insects. A complete 6-6-6 fertilizer shall be applied at a rate of 10lbs. per 1,000sq.ft. Sod is to be watered to a depth of 3" immediately after installation. Grades are to be raked smooth, and all debris removed, prior to installation.
- All tree's, plants & ground-covers shall be guaranteed for a period of 120 days, and all palms are for a period of one year, after the date of substantial completion. Phoenix canariensis & dactylifera palms are to be maintained, per growers/suppliers recommendations, by a qualified person, or firm. Said maintenance program shall be the responsibility of the owner.
- The landscape invoice will be deemed as rejection of the plant materials. The landscape contractor shall remove any, or all of the rejected materials from the site as their discretion.
- The removal of "base rock" is not included in the landscape contract.
- All grades are to be within 2" of finished grades, prior to the landscape contractor commencing work.

- NOTES:**
- All Trees, Shrubs & Plants used on this site shall conform to the requirements of "Low watering needs" materials as specified in the South Florida Water Management District's "Waterwise" publication.
  - All proposed utility structures shall be planted on three sides with "Waterwise" Cocoplum hedges
  - All landscape areas containing trees and vegetation shall be first filled with city inspected clean fill soil.
  - Clean fill. All planted areas on the site shall first be filled with clean fill to a depth of one foot from the surface along the entire length of the green space, island, or landscape buffer.
  - Inspection. The city shall inspect all clean fill, irrigation systems and landscape improvements prior to installation.

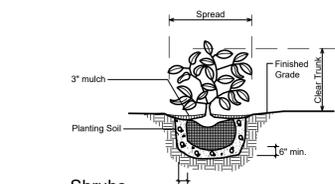
**NOTE: All Landscape With-in Sight Triangles Shall Provide Unobstructed Cross-visibility At A Horizontal Level Between 30 Inches And 8 Feet, Including Trunks From Pavement.**



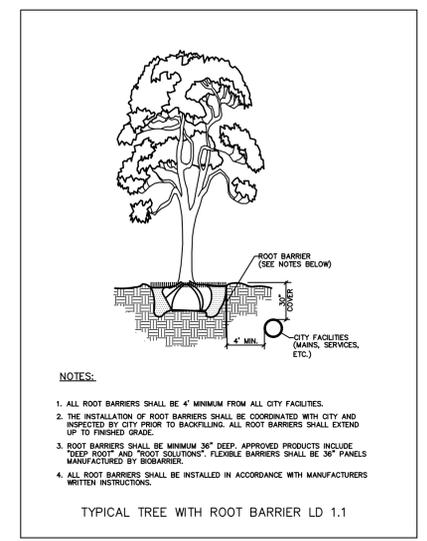
**Trees**



**Groundcovers**



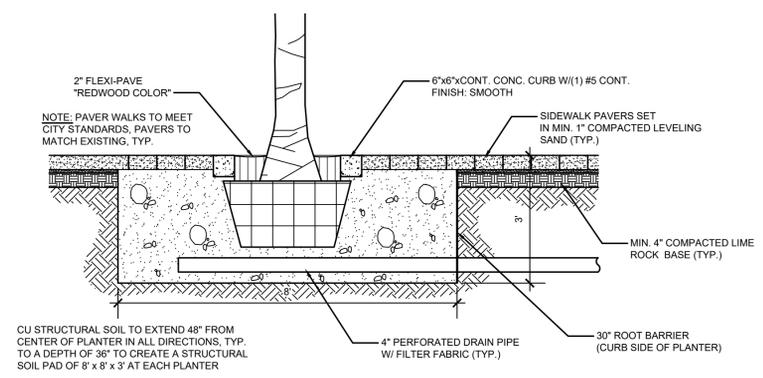
**Shrubs**



- NOTES:**
- ALL ROOT BARRIERS SHALL BE 4" MINIMUM FROM ALL CITY FACILITIES.
  - THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH CITY AND INSPECTED BY CITY PRIOR TO BACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE.
  - ROOT BARRIERS SHALL BE MINIMUM 36" DEEP. APPROVED PRODUCTS INCLUDE "KEEP ROOT" AND "ROOT SOLUTIONS". FLEXIBLE BARRIERS SHALL BE 36" PANELS MANUFACTURED BY BIOBARRIER.
  - ALL ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.
- TYPICAL TREE WITH ROOT BARRIER LD 1.1**

Any Trees or shrubs placed within water, sewer or drainage easements shall conform to Details L.D. 1.1 requirements.

Automatic Irrigation system to provide 100% irrigation coverage, with 100% overlap minimum, with a programmable controller and rain sensor. Shrub & Turf zones are to be separated. THERE SHALL BE NO TREES OR SHRUBS PLACED WITHIN WATER, SEWER OR DRAINAGE EASEMENTS



**Structural Soil Detail at Planter**

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