

**STREET YARD CALCULATIONS**  
 STREET YARD (S.Y.) = 262 LF - 45 LF (DRIVEWAYS) = 217 LF  
 \*LANDSCAPING FOR EXPANSIONS TO EXISTING PRICIPLE STRUCTURES REQUIRE 1/2 OF THAT REQUIRED FOR NEW CONSTRUCTION  
 REQUIRED S.Y. AREA = 1,953 (217 LF x 18 (MULTIPLIER) x (.50))  
 REQUIRED TREES @ 1/600 SF = 4 TREES  
 PROPOSED TREES = 1 NEW TREE + (CREDIT 3 EX. CANOPY TREES)  
 REQUIRED SHRUBS @ 5/600 SF = 20 SHRUBS  
 PROPOSED SHRUBS = 27  
 ALL PROPOSED VEGETATION WITHIN SITE TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' - 10' [SEC.18-566 COW]

**PARKING LOT SHADE REQUIREMENT**  
 20% SHADE AT MATURITY REQ.  
 PARKING LOT AREA = 90,053 SF  
 REQ. SHADED AREA = 18,010 SF  
 PROVIDED SHADED AREA = 24,658  
 CANOPY TREES = 707 SF  
 UNDERSTORY TREES = 314 SF

**LANDSCAPE ISLAND AREA**

LA-1	504 SF
LA-2	578 SF
LA-3	432 SF
LA-4	216 SF
LA-5	336 SF
LA-6	288 SF
LA-7	869 SF
LA-8	409 SF

**PARKING INTERIOR AREA CALCULATIONS**  
 4% OF TOTAL PARKING AREA  
 PARKING LOT AREA = 91,927 SF  
 REQUIRED VEGETATED AREA = 3,677 SF  
 PROPOSED VEGETATED AREA = 8,262 SF

**PARKING AREA SCREENING**  
 PARKING WITHIN 50' OF A R.O.W. REQUIRES A LOW SCREEN MIN. 3' HIGH AND 5' WIDE  
 \* SCREENING INCLUDED IN STREETYARD PLANTING

**PARKING PERIMETER LANDSCAPING**  
 10' YARD REQ. ALONG SEPERATE PARKING LOTS, DRIVES OR RESIDENTIALLY ZONED AREAS  
 MIN. 1 TREE EVERY 18-27 LF

**FOUNDATION PLANTING AREAS**  
 BUILDING HEIGHT = 24.5 FT  
 REQUIREMENT: LT. X HT. X12%  
 ADDITION  
 135'X24.5'X0.12 = 397 SF (REQUIRED)  
 PROVIDED = 718 SF

**BUFFER YARD**  
 BUFFER YARD REQ. TO SCREEN ANY RESIDENTIAL USE FROM NON-RESIDENTIAL USES OR DISTRICTS  
 \*BUFFER YARD REQ. FOR EXPANSIONS TO EXISTING PRICIPLE STRUCTURES IS FENCING OR 1/2 THE WIDTH OF REQ. BUFFER YARD FOR NEW CONSTRUCTION.  
 REQUIRED: 20' X (50%)  
 PROVIDED: 10' @ 525 LF  
 REQUIRED: (1 TREE/30 LF AVG.) X 230 LF = 8 TREES  
 PROPOSED: 8 NEW TREES  
 100% OPAQUE SHRUB SCREEN  
 SHRUBS MUST BE A MIN. 3' AT PLANTING  
 MIN. 6' IN 3 YEARS  
 PROPOSED: 28 SHRUBS

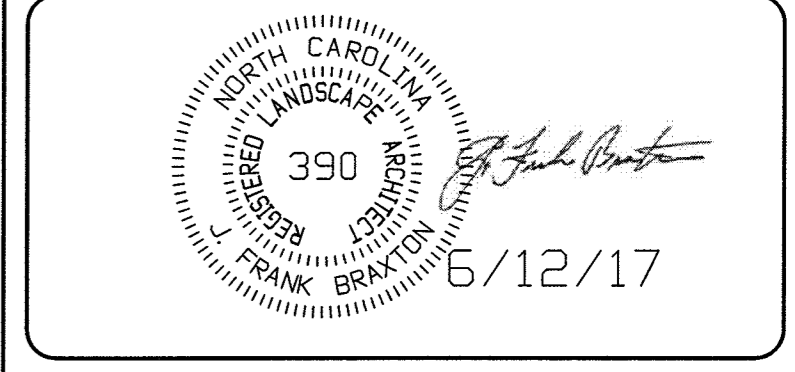
**LEGEND:**

- LIMIT OF DISTURBANCE
- - - LOT LIMIT
- - - PARCELS
- - - EXISTING CONCRETE/ASHPHALT
- - - CHAIN LINK FENCING
- - - TREE PROTECTION FENCING

ISSUED FOR CONSTRUCTION

**BEFORE YOU DIG, CALL**  
**North Carolina 811**  
 www.nc811.org

1	ADD'L TREE REMOVAL	2/2/2018
0	ISSUED FOR CONSTRUCTION	6/12/2017
REV. #	DESCRIPTION	REV. BY DATE
	REVISIONS	



**OWNER:**  
 THE NIR FAMILY YMCA  
 2710 MARKET STREET  
 WILMINGTON, NC 28402

**MASTER LANDSCAPE SCHEDULE (ENTIRE PROJECT)**

BOTANICAL NAME	COMMON NAME	CAL.	HT.	REMARKS	QUAN.	SYMBOL
<b>LARGE SHADE TREES</b>						
QUERCUS VIRGINIANA	LIVE OAK	2.5'			13	LO
GLEDITSIA TRIACANTHOS	HONEY LOCUST	2.5'			4	GT
ULMUS PARVIFOLIA	LACEBARK ELM	2.5'			4	LE
ZELKOVA SERRATA	JAPANESE ZELKOVA	2.5'			4	ZK
<b>SMALL SHADE TREES</b>						
LAGERSTROEMIA INDICA X FAURIEI 'NATCHEZ'	NATCHEZ' CRAPE MYRTLE		8-10'		25 GAL.	2
<b>SHRUBS</b>						
ABELIA X GRANDIFLORA	GLOSSY ABELIA		MIN. 12"		3 GAL.	8
LOROPETALUM CHINENSE VAR. RUBRUM 'RUBY'	RUBY RED LORAPETALUM		MIN. 12"		3 GAL.	9
PENNISETUM ALOPECUROIDES 'HAMELN'	DWARF FOUNTAIN GRASS		MIN. 12"		1 GAL.	38
MERICA CERIFERA	WAX MYRTLE		MIN. 3'		7 GAL.	20
PODOCARPUS MACROPHYLLUS MAKI	SHRUBBY YEW PODOCARPUS		MIN. 12"		7 GAL.	5
RHAPHIOLEPIS INDICA 'ELEANOR TABOR'	INDIAN HAWTHORN		MIN. 12"		3 GAL.	12
LIGUSTRUM JAPONICUM	LIGUSTRUM		MIN. 3'		7 GAL.	8
MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS		MIN. 12"		3 GAL.	8
JUNIPERUS DAURICA 'EXPANSA'	PARSONS JUNIPER		MIN. 12"		3 GAL.	27
THUJA OCCIDENTALIS 'SMARAGO'	EMERALD ARBORVITAE		MIN. 12"		7 GAL.	12
<b>GROUND COVER</b>						
LIRIOPE MUSCARI 'VARIEGATA'	VARIGATED LIRIOPE				1 QT.	130
LIRIOPE MUSCARI 'SUPER BLUE'	SUPER BLUE LIRIOPE				1 QT.	20

**WILMINGTON**  
 Approved Construction Plan  
 Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Planning: \_\_\_\_\_ 2/7/18  
 Traffic: \_\_\_\_\_ 2-9-18  
 File: \_\_\_\_\_ 2/8/18

**WILMINGTON**  
 Public Services Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: 2/8/18 Permit # 197601441  
 Signed: \_\_\_\_\_

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

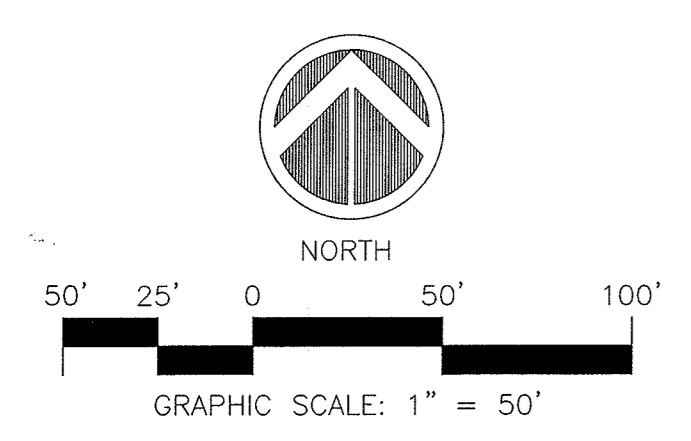
**Coastal Land Design, PLLC**  
 Civil Engineering / Landscape Architecture  
 Land Planning / Construction Management  
 NOBELS Firm License No. P-3959  
 P.O. Box 1172, Wilmington, NC 28402 www.cdeng.com Phone: 910-254-8333 Fax: 910-254-0522

DRAWN : N ALLEN PROJECT NUMBER : 130-00  
 DESIGN : J CARMINE SCALE : 1"=40'  
 CHECK : F BRAXTON DATE : 12 JUNE 2017  
 APPROVED : J PETROFF  
 FILE NAME :

**THE NIR FAMILY YMCA**

**LANDSCAPE PLAN**

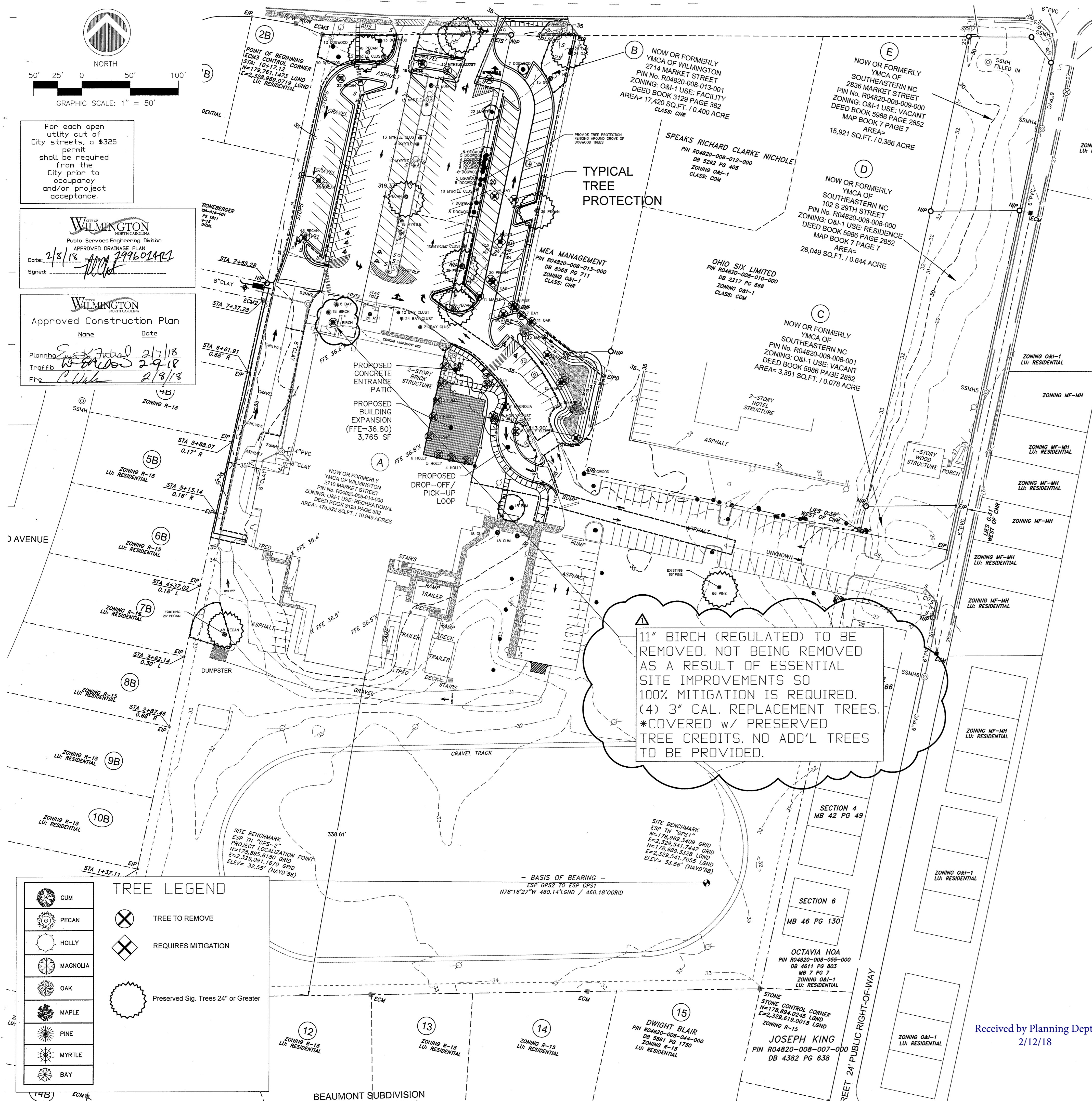
JOB NUMBER: 130-00 SHEET NUMBER: L-1



For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

City of Wilmington  
Public Services Engineering Division  
APPROVED DRAWINGS PLAN  
Date: 2/8/18  
Signed: [Signature]

Approved Construction Plan  
Name: [Name] Date: [Date]  
Planned: [Date]  
Traffic: [Date]  
Fire: [Date]

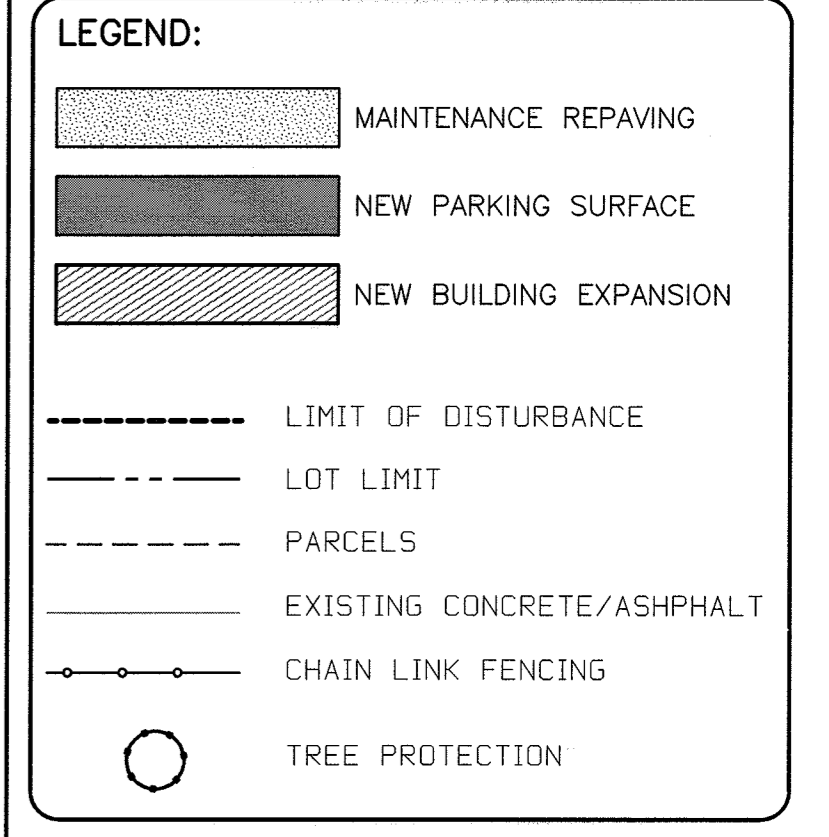
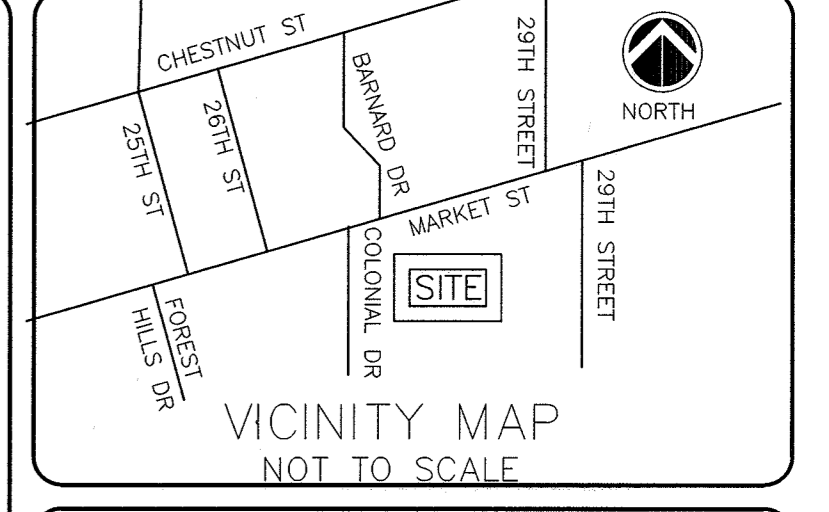


### Proposed Regulated Trees to be Removed

Tree Name	# of Trees	DBH	% Mitigation	Total DBH
Birch	1	11	100	11
Crape Myrtle	2	18	100	36
Crape Myrtle	1	15	100	15
Bay	1	4	100	4
Bay	1	7	100	7
Bay	1	3	100	3
Pecan	1	22	75	16.5
Pecan	1	20	75	15
Oak	1	18	100	18
Oak	1	6	100	6
Oak	1	11	100	11
Magnolia	1	7	100	7
Maple	1	11	100	11
Maple	5	15	100	75
Maple	2	16	100	32
Pine	1	18	100	18
Holly	2	4	100	8
Holly	3	5	100	15
Holly	3	6	100	18
Holly	2	7	100	14
Holly (Cluster)	2	10	100	20
Holly (Cluster)	1	8	100	8

**TOTAL REGULATED TREES PROPOSED FOR REMOVAL = 34**

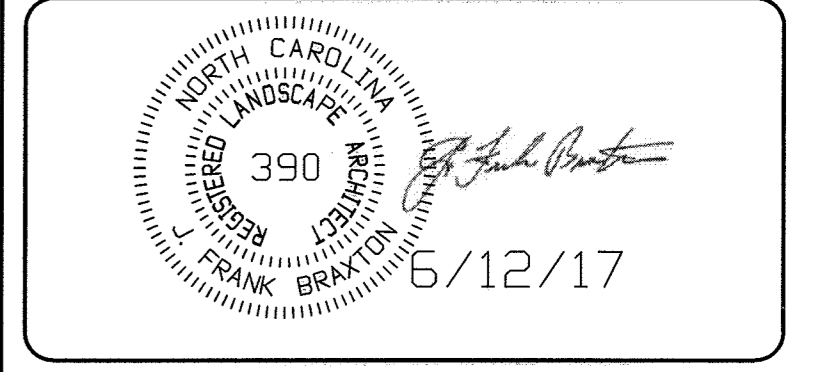
Total DBH of Removed Regulated Trees	<b>368.5</b>
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ISSUED FOR CONSTRUCTION

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REV. #	DESCRIPTION	DATE
1	ADD'L TREE REMOVAL	2/2/2018
0	ISSUED FOR CONSTRUCTION	6/12/2017
	REVISIONS	



**OWNER:**  
THE NIR FAMILY YMCA  
2710 MARKET STREET  
WILMINGTON, NC 28402

**Coastal Land Design, PLLC**  
Civil Engineering / Landscape Architecture  
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N.C.B.E.L. Firm License No. P-0389  
P.O. Box 1172  
Wilmington, NC 28402  
www.cldsg.com  
Phone: 910-254-9533  
Fax: 910-254-0522

DRAWN: R LEWIS	PROJECT NUMBER: 130-00
DESIGN: J CARMINE	SCALE: 1"=50'
CHECK: F BRAXTON	DATE: 12 JUNE 2017
APPROVED: J PETROFF	FILE NAME:

**THE NIR FAMILY YMCA**

**TREE REMOVAL PLAN**

JOB NUMBER: 130-00	SHEET NUMBER: SP-3
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Sec. 18-460 Mitigation: Regulated Trees. The total number of replacement trees shall be determined for regulated trees removed by multiplying the total DBH of the removed regulated tree(s) by the percentage for the type of tree in Table IV and dividing by three (3).

\* Section 18-461 Exceptions to Mitigation: (b) Regulated trees removed within the area of disturbance necessary for essential site improvements are exempt from mitigation, provided the applicant has designed around trees in order to retain as many trees as practicable.

\* All regulated trees proposed for removal are within the limits of disturbance necessary for site improvements and therefore do not require mitigation.

### Proposed Significant Trees to be Removed

Tree Name	# of Trees	DBH	% Mitigation	Total DBH
Pecan		39"	50 (poor health)	39
Pecan		24"	75	24
Pecan		43"	50 (poor health)	43

**Total DBH of Removed Significant Trees = 106"**

Total Trees Req. for Mitigation	=	Total DBH X 2X mitigation %	=	40
		3		

Sec. 18-460 Mitigation: Significant trees. The total number of replacement trees shall be determined by multiplying the total DBH of the removed significant trees by two (2) times the percentage for the type of tree in Table IV and dividing by three (3).

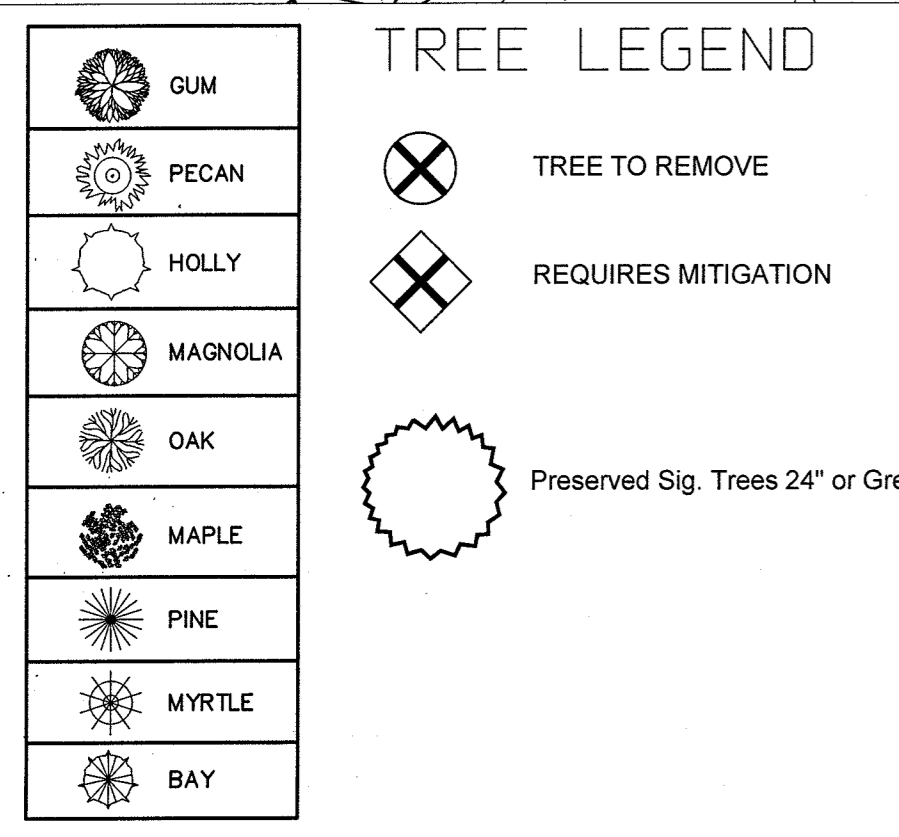
### Credit for Preserved Trees (Sec. 18-448 Table 1)

# of Preserved Trees	Size (DBH)	Credit Given	Resulting Credit
10	6-11"	2	20
7	12-17"	3	21
2	18-23"	4	8
10	>24"	= (DBH/6)	59

**Total resulting Credit for 31 Preserved Trees = 108**

\* With Preserved Tree Credit no additional trees are required for mitigation

**SITE PLANTINGS**  
15 TREES REQ. TO BE PRESERVED OR PLANTED PER DISTURBED ACRE  
TOTAL DISTURBED AREA= 72,456 SF (1.65 ACRES)  
REQUIRED TREES= 25  
PROVIDED TREES= PRESERVED TREE CREDIT APPLIED



11" BIRCH (REGULATED) TO BE REMOVED. NOT BEING REMOVED AS A RESULT OF ESSENTIAL SITE IMPROVEMENTS SO 100% MITIGATION IS REQUIRED. (4) 3" CAL. REPLACEMENT TREES. \*COVERED w/ PRESERVED TREE CREDITS. NO ADD'L TREES TO BE PROVIDED.

Received by Planning Dept. 2/12/18