

Utility Notes:

- Existing water and sanitary sewer services are currently available to the site from Cape Fear Public Utility Authority public mains.
- All utility services, such as electric power, CATV, gas & telephone shall be installed underground.
- All water & sewer utilities to be installed per CPWA Technical Specifications & Standards.
- Project shall comply with CPWA Cross Connection Control requirements. Water meter(s) cannot be released until all requirements are met and N.C.D.E.N.R. has issued their "Final Approval". Call 343-3810 for information.
- Any backflow prevention device required by the CPWA will need to be on the list of approved devices by USFCCOE or ASSE.
- Water & sewer services can not be activated on new mains until the Engineer's Certification and as-built are received and "Final Approval" issued by the Public Water Supply Section of NCDENR, and "Final Engineering Certification" issued by Division of Water Quality Section of NCDENR.
- If contractor desires CPWA water for construction, he shall apply in advance for this service and must provide a reduced pressure zone (RPZ) backflow prevention device on the developer's side of the water meter loss.
- When PVC water mains and services are proposed, the pipes are to be marked with No. 10 Insulated, single-strand copper wire installed & strapped to the pipes with duct tape. This is to be accessible in all valves and meter boxes to aid in future location of facilities.
- The contractor is responsible for the location and protection of existing utilities during construction. Call U-LOD at 1-800-832-4948.
- Contractor is responsible for the repair and replacement of any utilities, curb & gutter, pavement, etc. that may be damaged during construction. Damaged items shall be repaired to at least the quality or workmanship found in the original item.
- The BelSouth contact is Steve Daywalt, Building Industry Consultant, at 910-392-8712. Contact him prior to starting the project in order to facilitate good communication and maximum flexibility.
- The process for telephone cable placement:
 - Final grade will need to be established.
 - Power will place their cable first - approximately 3' deep.
 - BelSouth & Cable TV will then place their cable at approximately 2' deep.
- Solid waste disposal is by privately contracted dumpster pickup.

PLANT LIST

KEY	NO.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	PLANTING REMARKS
AG	18	ABELIA GRANDIFLORA 'LITTLE RICHARD'	GLOSSY ABELIA	36" HGT.	SM. SHRUB
IV	40	ILEX VOMITORIA 'NANA'	DWARF YAUPOON HOLLY	12-15" HGT.	SM. SHRUB
LI	6	LAGERSTROEMIA INDICA 'CAROLINA BEAUTY'	CREPE-MYRTLE	6-8' MULTI-STEM	SM. SHADE TREE
QV	5	QUERCUS VIRGINIANA	LIVE OAK	8-10' 2.5" GAL.	LG. SHADE TREE

O.C. - "ON CENTER" GAL. - "GALLON AT 6" ABOVE GRADE" GAL. - "GALLON CONTAINER"

Landscape Calculations:

(Site Improvement: "5-20 new park'g. sp." ** 1/2 Landscape Upgrade req'd. **

Cardinal Dr. Primary Streetyard

223 l.f. frontage - 48 l.f. driveways=

175 l.f. X 18 (O&I-1 District factor) / 2

1 Lg. Shade tree / 600 s.f. / 2

6 shrubs / 600 s.f. / 2

Hillsdale Dr. Secondary Streetyard

250 l.f. frontage (w/ low buffer)

X 9 (1/2 O&I-1 District factor) / 2

3 Under-story trees / 600 s.f. / 2

6 shrubs / 600 s.f. / 2

Parking Area Interior Median -

38,174 s.f. x 8% / 2

Parking Area Perimeter - N/A

Foundation Plantings -

Bufferyard - N/A

Overall Site -

1.87 ac.± development area x 15 trees/ac.

Mitigation - N/A

Landscape Notes:

- Key letters refer to Plant List.
- All plants shall meet or exceed the minimum standards set forth in "The American Standard for Nursery Stock" by the American Association of Nurserymen.
- All planting beds shall receive a min. of 4" pine bark mulch.
- All areas disturbed and not specified as mulched planting beds will be grassed. Lawn areas may be seeded with grass.
- Contractor shall use whatever method of tree staking he deems fit. However, he will be held liable for any damages caused to trees by improper staking methods (or absence of staking) and is responsible for uprighting & replanting trees which are blown over.
- Contractor shall warrant all trees & shrubs for a period of one (1) year from the date of final acceptance of the work of the landscape plan.
- If discrepancy or lack of availability is found in the plant species and/or minimum sizes req'd., contractor shall notify Landscape Architect. Authorization will be made for substitutions, as long as the plants follow the original intended form & function.

Additional City requirements:

- All plantings shall be curbed or otherwise physically protected from vehicular traffic.
- All planted and retained living material, required to meet the provisions (landscaping) of this section, shall be perpetually protected and maintained to professionally accepted standards by joint and several responsibility of the owner, occupant, tenant, and/or respective agents of the property on which the material is located.

Stormwater Management Notes:

- Stormwater management will meet City & State requirements. Total limits of disturbance will be under one (1) acre. No erosion control or State stormwater permits will be required.

Traffic Notes:

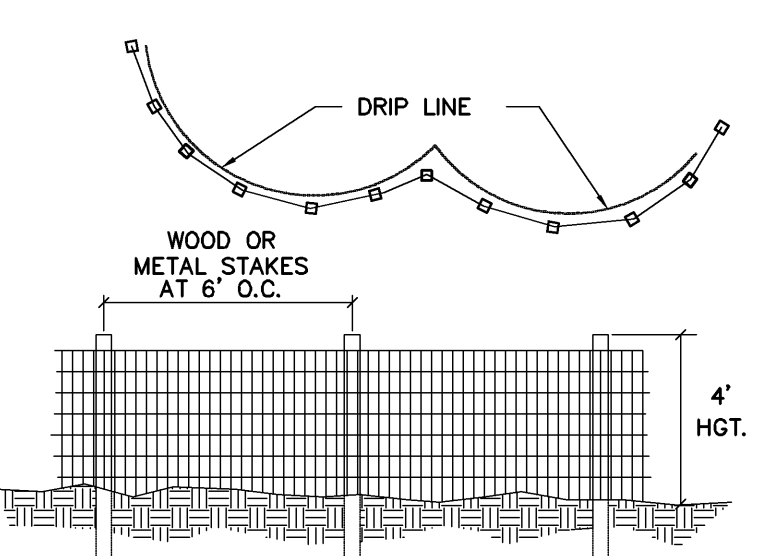
- All pavement markings in public rights-of-way for driveway are to be thermoplastic & meet City and/or NCDOT standards.
- Traffic control devices (including signs and pavement markings) in areas open to public traffic are to meet MUTCD (Manual on Uniform Traffic Control Devices) standards.
- Contact Traffic Engineering at 341-7888 prior to any excavation in the right of way.
- Any broken or missing sidewalk panels, driveway panels, and curbing will be replaced.
- Contact Karen Dixon at 341-7888 to discuss street lighting options. The landscaping plan will be needed to determining street light locations.
- Tactile warning mats to be installed at all wheelchair ramps.
- Once streets are ready to be open to public traffic, contact the Traffic Engineering Division to request installation of traffic and street name signs. Proposed street names must be approved prior to installation of street name signs.
- A landscaping plan, indicating the location of required street trees shall be submitted to the Traffic Engineering Division and Parks & Recreation Department for review and approval prior to the recording of the Final Plat. Plan shall adhere to SD 15-17.
- All traffic control signs and markings off the right of way are to be maintained by the property owner in accordance with MUTCD standards.
- All parking stall markings and lane arrows within the parking areas shall be white.
- A utility cut permit is required for each open cut of a City street. Contact 341-5888 for more details. In certain cases an entire resurfacing of the area being open may be required.

Plant Key

- Existing trees to be removed
- Existing trees to be protected
- AG (Glossy Abelia)
- IV (Dwarf Yaupon Holly)
- LI (Crepe-Myrtle)
- QV (Live Oak)

Tree Protection Notes:

- Tree Preservation / Removal Permit is required prior to clearing & land disturbance.
- Prior to any clearing, grading or construction activity, tree protection fencing will be installed around protected trees or groves of trees and no construction workers, tools, materials, or vehicles are permitted within the tree protection fencing.
- Protective fencing is to be maintained throughout the duration of the project. Land clearing and construction contractors shall receive adequate instruction on tree protection requirements and methods.
- Label protective fencing with signs to be placed every 50 linear feet, or at least two (2) per area, in both English & Spanish "Tree Protection Area: Do Not Enter".



Tree Protection Fence Detail

ENGINEERING NOTES:

- CONTRACTOR SHALL CLEAN OUT ROADSIDE DITCH ALONG HILLSDALE DRIVE. PROVIDE CONSTANT SLOPE FROM DOWNSTREAM END OF PROPOSED DRIVEWAY CULVERT (INV=38.27) TO UPSTREAM END OF EXISTING PIPE LOCATED DOWNSTREAM OF SITE (INV=37.71). PROVIDE CONSTANT SLOPE FROM UPSTREAM END OF PROPOSED DRIVEWAY CULVERT (INV=38.39) TO EXISTING DITCH BOTTOM LOCATED 30' UPSTREAM OF PROPOSED DRIVEWAY CULVERT.
- SPOT ELEVATIONS SHOWN ON THE PLAN ARE PROPOSED & CONTOURS SHOWN ON THE PLAN ARE EXISTING.
- PROPOSED CURB SHALL BE VERTICAL CURB (SEE SD 3-11 ON SHEET 2).
- SITE LAYOUT & LANDSCAPE DESIGN BY DESIGN SOLUTIONS.
- STORMWATER & GRADING DESIGN BY MALPASS ENGINEERING & SURVEYING, P.C.
- ANY CHANGES MADE TO THE INFORMATION IN THE SITE DATA TABLE WERE MADE WITH THE BASELINE BEING THE INFORMATION IN THE SITE DATA TABLE ON THE DEVELOPMENT PLAN PROVIDED TO MALPASS ENGINEERING & SURVEYING, P.C. BY DESIGN SERVICES WITH A REVISION DATE OF 10/7/14.
- OPENINGS SHALL BE PROVIDED AT GROUND LEVEL IN THE PROPOSED WALL ALONG THE NORTH SIDE OF THE EXISTING PARKING LOT TO MAINTAIN THE CURRENT DRAINAGE PATTERN.
- CONTRACTOR TO ADJUST LOCATION OF CURB CUT OR PROVIDE ADDITIONAL CURB CUT(S), IF NECESSARY, TO ENSURE A CURB CUT IS PROVIDED IN THE PROPOSED VERTICAL CURB AT ALL EXISTING LOW POINTS IN THE EXISTING PARKING LOT.
- ONLY PROPOSED SPOT ELEVATIONS SHALL BE USED FOR GRADING OF THE DRIVEWAY (SLOPES SHOWN ON SD 8-05 SHALL NOT BE USED).

Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

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 DRAINAGE PLAN

Date: _____ Permit # _____

Signed: _____

Project No: 2014-17

Scale: 1" = 30'

Date: 09/09/14

Revisions: 10/07/14 for TRC comments

Owner: Offices on Cardinal, L.L.C. 10 Cardinal Drive Wilmington, NC 28403

Development Plan for Parking Expansion

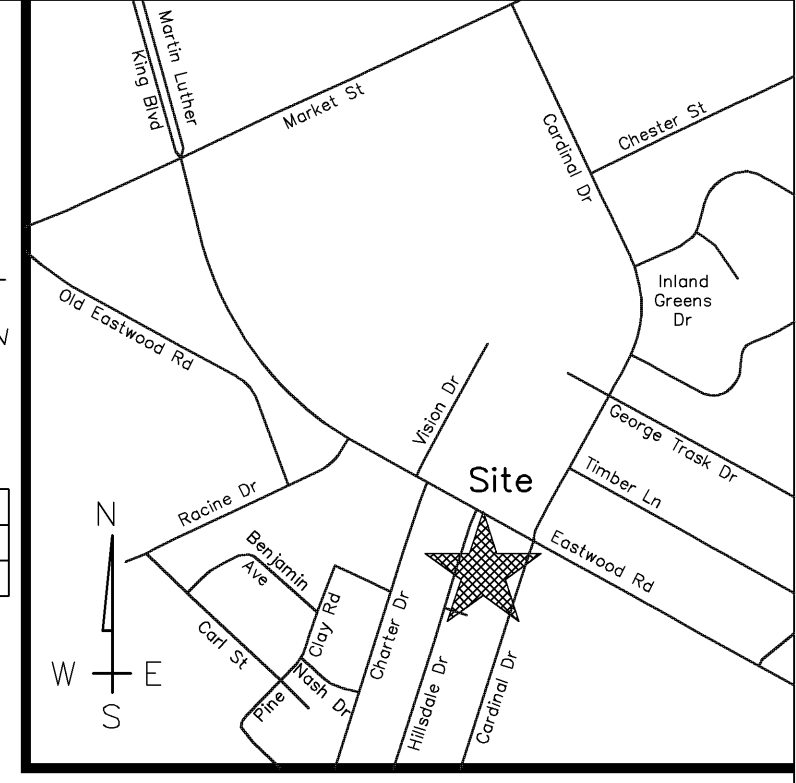
Tribute Properties Office

Wilmington Township / New Hanover County / North Carolina

Sheet No. 1 of 2

- LEGEND**
- EXISTING IRON
 - EXISTING MAG NAIL
 - CENTER LINE
 - R/W LINE
 - EASEMENT LINE
 - SUBJECT TRACT BOUNDARY LINE
 - EXISTING DROP INLET
 - EXISTING TELEPHONE PEDESTAL
 - EXISTING LIGHT POLE OR PEDESTAL
 - EXISTING POWER POLE W/ GUY
 - EXISTING STORMDRAIN CATCH BASIN
 - EXISTING FIRE HYDRANT
 - PROPOSED SPOT ELEVATION
 - DRAINAGE FLOW DIRECTION

SHEET INDEX
1 DEVELOPMENT PLAN
2 DRAINAGE AREA MAP & DETAIL SHEET



Site Modifications

(Scale: 1" = 60')

Development Data:

Lot Area - 81,457 s.f. (1.87 ac.)

Proposed Land Use: Professional Offices

Bldg. Coverage - 21,784 s.f. (26.7%)

Total Ex. Bldg. Area - 23,461 s.f. GFA

1st Floor Area - 20,754 s.f. GFA

2nd Floor Area - 2,707 s.f. GFA

Total New Bldg. Area - 0 s.f. GFA

Bldg. Hgt. - 2-Story / 35'

Parking -

Min. req'd. 1 sp./300 s.f. GFA = 78

Max. perm'd. 1 sp./200 s.f. GFA = 117

** 86 spaces prov'd. **

4 H/C spaces req'd. & prov'd.

5 Bike spaces req'd. & prov'd.

Impervious Surfaces -

Existing -

Rooftop - 21,784 s.f.

Pavement - 32,684 s.f.

Walks - 4,190 s.f.

Subtotal - 58,658 s.f. (72.0%)

Existing to be Removed -

Pavement - 1,912 s.f.

New -

Pavement - 7,584 s.f.

Other - 92 s.f.

Subtotal - 7,676 s.f.

Total - 64,422 s.f. (79.0%)

Off-Site (New) -

Pavement - 288 s.f.

Other - 12 s.f.

Total - 300 s.f.

Sewer & Water Capacity -

Existing Sewer Usage - 1950 GPD

(@ 25 GPD/employee)

Existing Water Usage - 2438 GPD

(@ 125% Sewer Usage)

** No Changes **

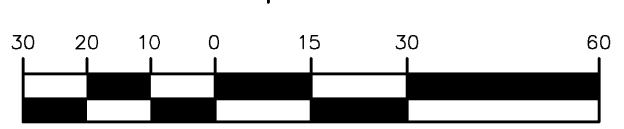
Development Notes:

- All development shall be in accordance with the City of Wilmington Land Development Code.
- Project shall comply with all Federal, State & New Hanover County regulations.

General Notes:

- New Hanover County Parcel Nos.: PIN 314819.50.2569 [PID: 5014-012-022-000]
- Total Tract Area: 1.87 ac.±
- Zoning District: O&I-1 (w/ Eastwood SHOD Overlay) Setbacks - 20' Front 20' Corner 25' Rear 10' Interior Side
- CAMA Land Classification: Urban

Graphic Scale



Boundary & existing conditions data compiled from an actual field survey by:

Arnold W. Carson PLS, P.C.

406 North Third Street

Wilmington, NC 28401

Tel. (910) 772-8113

REV. NO.	DESCRIPTION	DATE
1	REVISED PER TRC COMMENTS.	11-7-14
2	REVISED PER TRC COMMENTS.	12-15-14

FINAL DRAWING FOR REVIEW PURPOSES ONLY

PRELIMINARY PLAT NOT FOR RECORDATION, CONVEYANCES, OR SALES

MALPASS ENGINEERING & SURVEYING, P.C.
1134 SHIPYARD BOULEVARD
WILMINGTON, NORTH CAROLINA 28412
Phone 910-392-5940
Fax 910-392-6203
License No. C-2320



