

- 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. Contact meter(s) cannot be released until all requirements are met and NCEM/NR has issued their "Final Approval". Call 343-3910 for information.
  - Any backflow prevention device required by the CPWA will need to be installed as approved device by USFCCOHR or ASSE.
  - Water & sewer services can not be activated on new mains until the Engineer's Certification and cross-connection is reviewed and "Final Approval" issued by the Public Water Supply Section of NCEM/NR and "Final Engineering Certification" issued by Division of Water Quality Section of NCEM/NR.
  - 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 box.
  - When PUV water mains and services are proposed, the plans are to be marked with No. 12 insulated, angle-iron 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-LOO at 1-800-532-4949. Contractor is responsible for the repair and replacement of any utilities, curb & gutter, pavement, etc. that may be damaged during construction. All items shall be repaired to at least the quality or workmanship found in the original item.
  - The contractor shall contact Steve Doyonoff, Building Industry Consultant, at 910-392-9712. Contact him prior to starting the project in order to facilitate good communication and maximum feasibility.
  - The process for telephone cable placement:
    - Final grade will need to be established.
    - Power will place their cable first - approximately 3' deep.
    - BellSouth & Cable TV will then place their cable at approximately 2' deep.
  - Solid waste disposal is by privately contracted dumpster pickup.

- 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 right-of-way & for driveway use to be thermoplastic & meet City and/or NCEM 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 sidewalks, driveway panels, and curbing will be replaced.
  - Contact Karen Dean at 341-7888 to discuss street lighting options. The landscaping plan will be needed to determine street light locations.
  - Traffic warning signs 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, including 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 341-5880 for more details. In certain cases an entire resurfacing of the area being open cut may be required.

**PLANT LIST**

KEY	NO.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	PLANTING REMARKS
AG	16	ABELIA GRANDIFLORA "LITTLE RICHARD"	GLOSSY ABELIA	36" HGT.	SM. SHRUB
IV	40	ILEX VOMITORIA "YAUPEON"	DWARF YAUPEON HOLLY	12-15" HGT.	SM. SHRUB
LI	6	LAGERSTROMIA INDICA "CAROLINA BEAUTY"	CREPE-MYRTLE	6-8' CAL.	SM. SHADE TREE
QV	5	QUERCUS VIRGINIANA	LIVE OAK	8-10' / 2.5" CAL.	L.G. SHADE TREE

D.C. - "ON CENTER" CAL. - "CALIPER AT 6" ABOVE GRADE" GAL. - "GALLON CONTAINER"

**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)

**Landscape Calculations:**

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

Location	Req'd.	Prov'd.
Cardinal Dr. Primary Streetyard 223 l.f. frontage - 48 l.f. driveways = 175 l.f. X 18 (0&1-1 District factor) / 2	1575 s.f.	Existing
① 1 Lg. Shade tree / 600 s.f. / 2	3	4
⑥ 6 shrubs / 600 s.f. / 2	16	16
Hillsdale Dr. Secondary Streetyard 250 l.f. frontage (w/ low buffer) X 9 (1/2 0&1-1 District factor) / 2	1125 s.f.	Existing
③ 3 Under-story trees / 600 s.f. / 2	6	6
⑥ 6 shrubs / 600 s.f. / 2	11	12
Parking Area Interior Median - 38,174 s.f. x 8% / 2	1527 s.f.	1582 s.f. (+ existing)
Parking Area Perimeter - N/A		
Foundation Plantings -	Existing	
Bufferyard - N/A		
Overall Site - 1.87 ac. ± development area x 15 trees/ac.	28	28+
Mitigation - N/A		

**Landscape Notes:**

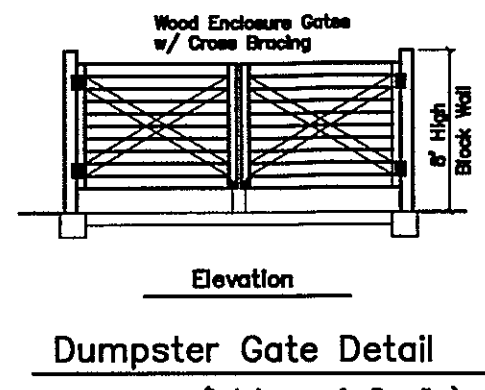
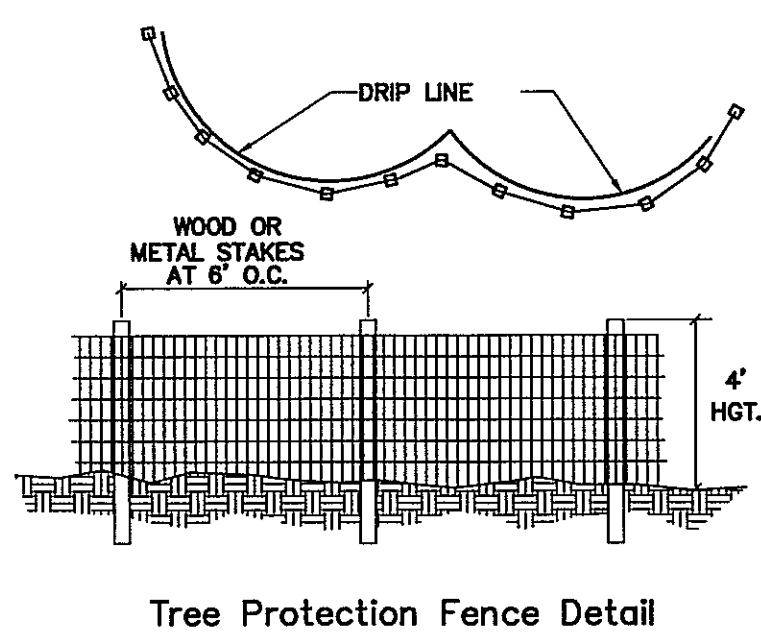
- Key letters refer to Plant List.
- All plants shall meet or exceed the minimum standards set forth in "The American Standard for Nursery Stock" by the American Association of Nurserymen.
- All planting beds shall receive a min. of 4" pine bark mulch.
- All areas disturbed and not specified as mulched 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 & re-planting trees which are blown over.
- Contractor shall warranty 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.

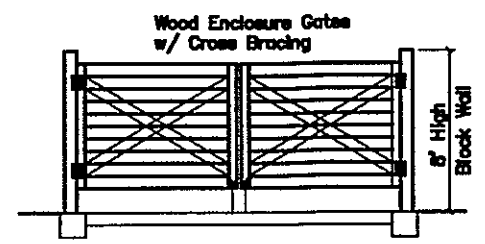
**ENGINEERING NOTES:**

- 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=38.29) 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.



(Include area for Recycling)

- 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 acre, in both English & Spanish "Tree Protection Area: Do Not Enter".



(Include area for Recycling)

**Elevation**

(Include area for Recycling)

**Tree Protection Fence Detail**

(Include area for Recycling)

**Dumpster Gate Detail**

(Include area for Recycling)

**Wood Enclosure Gate**

(Include area for Recycling)

**Elevation**

(Include area for Recycling)

**Tree Protection Fence Detail**

(Include area for Recycling)

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(Include area for Recycling)

**Elevation**

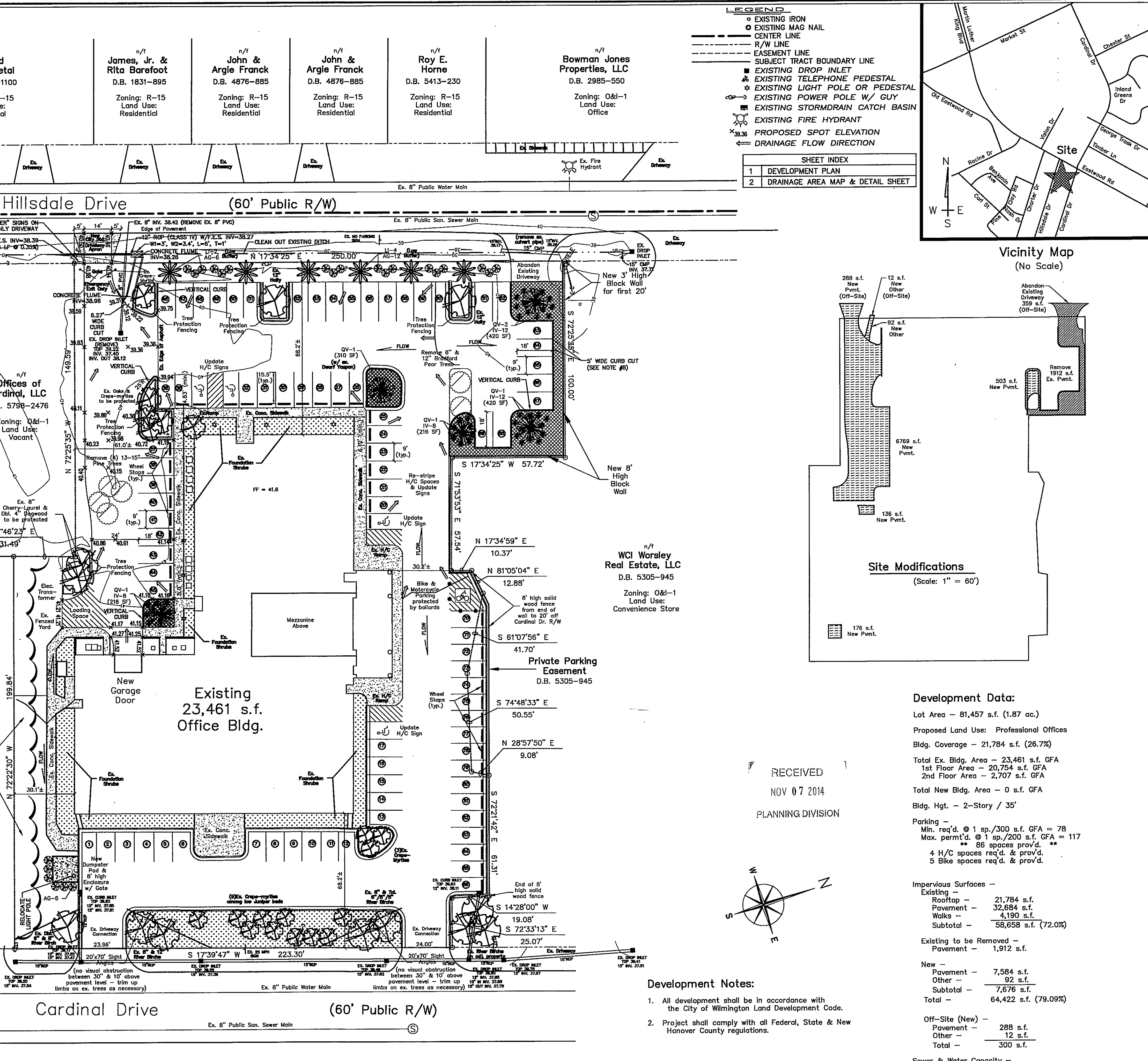
(Include area for Recycling)

**Tree Protection Fence Detail**

(Include area for Recycling)

**Dumpster Gate Detail**

(Include area for Recycling)



**FINAL DRAWING FOR REVIEW PURPOSES ONLY**

**RECEIVED NOV 07 2014 PLANNING DIVISION**

**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 314819.50.2888 [PID 5014-012-022-000]
- Total Tract Area: 1.87 ac. ±
- Zoning District: O&1-1 (w/ Eastwood Street Overlay) Setbacks - 20' Front, 20' Corner, 25' Rear, 10' Interior Side
- CAMA Land Classification: Urban

**Graphic Scale:** 0 10 20 30 40 50 60

**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

**Professional Seal:** MALPASS ENGINEERING & SURVEYING, P.C. 1154 SHIPBOARD BOULEVARD WILMINGTON, NORTH CAROLINA 28412 Phone 910-392-5248 Fax 910-392-5233 License No. C-2320

**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_ Traffic: \_\_\_\_\_ Fire: \_\_\_\_\_

Project No: 2014-17 Owner: Offices on Cardinal, L.L.C. 10 Cardinal Drive Wilmington, NC 28403

Scale: 1" = 30' Date: 09/09/14 Revisions: 10/07/14 for TRC comments

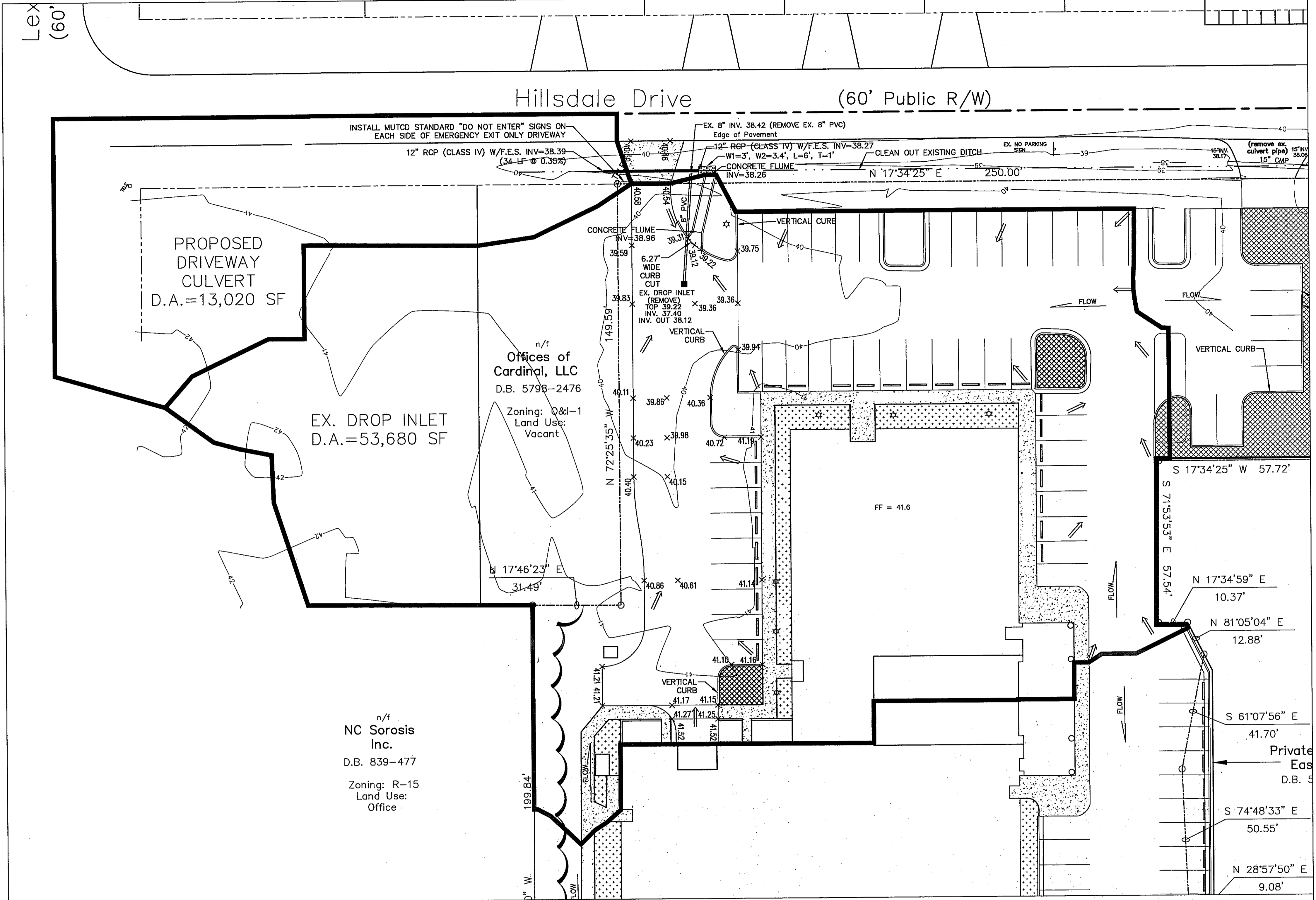
**Development Plan for Parking Expansion**

Property Address: 10 Cardinal Drive

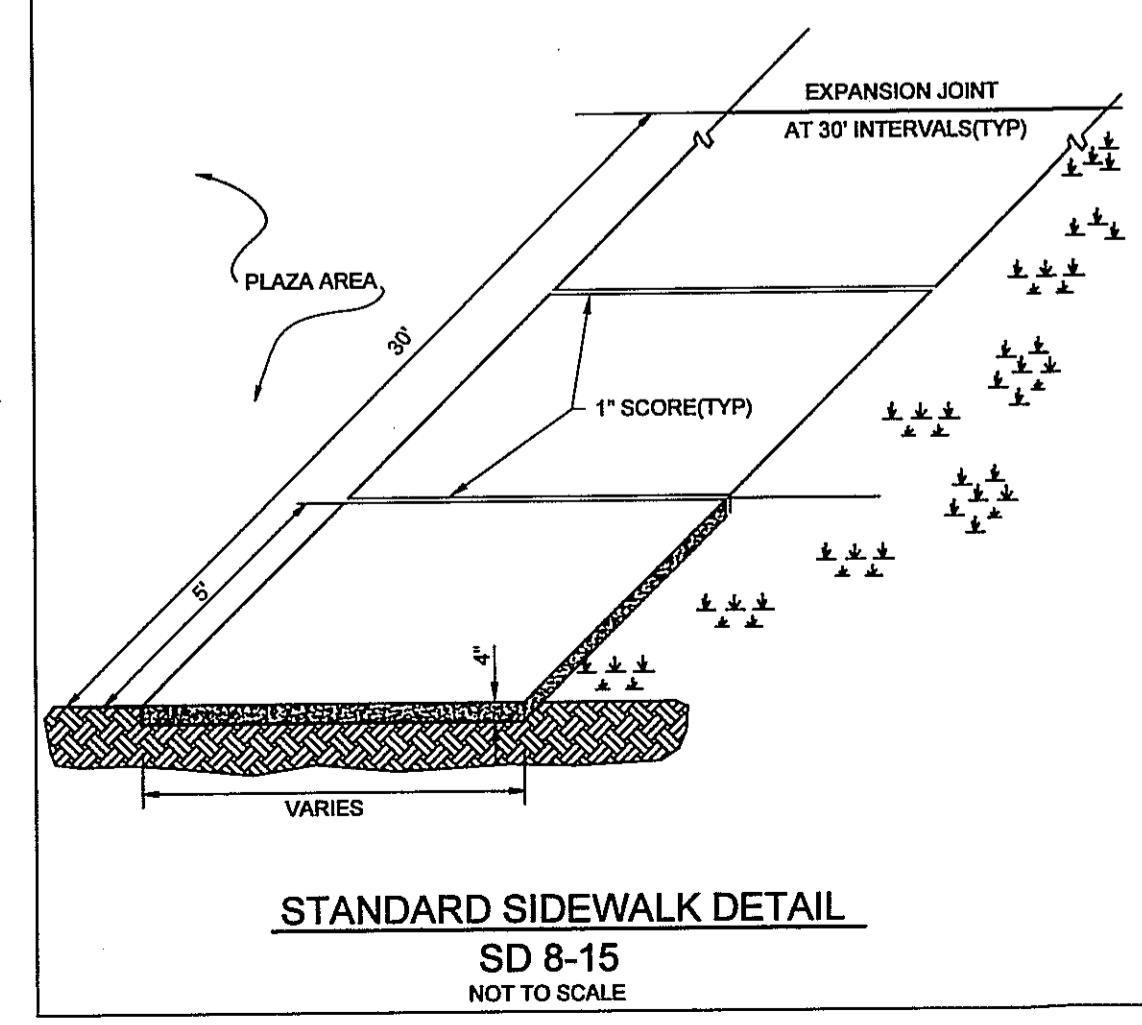
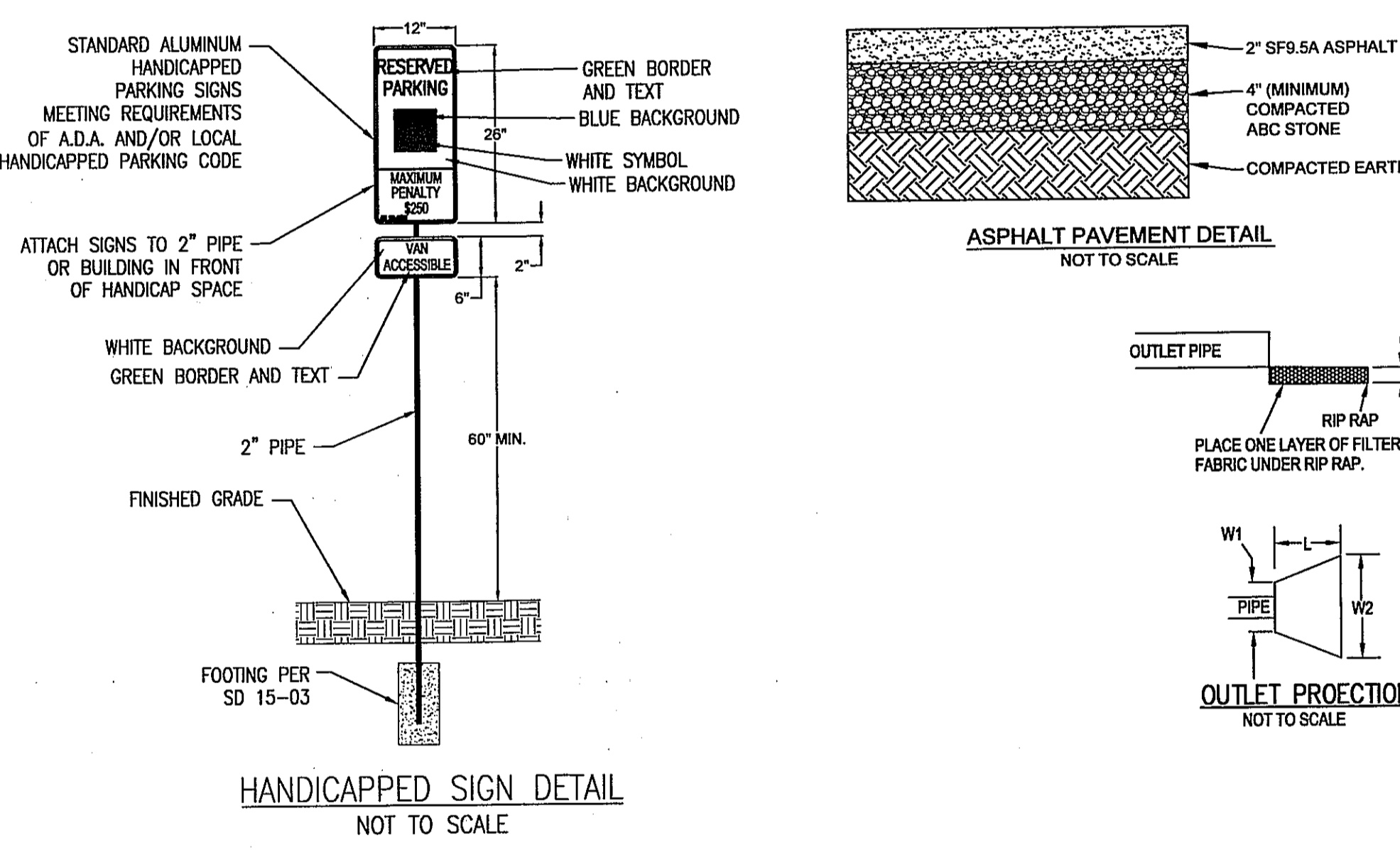
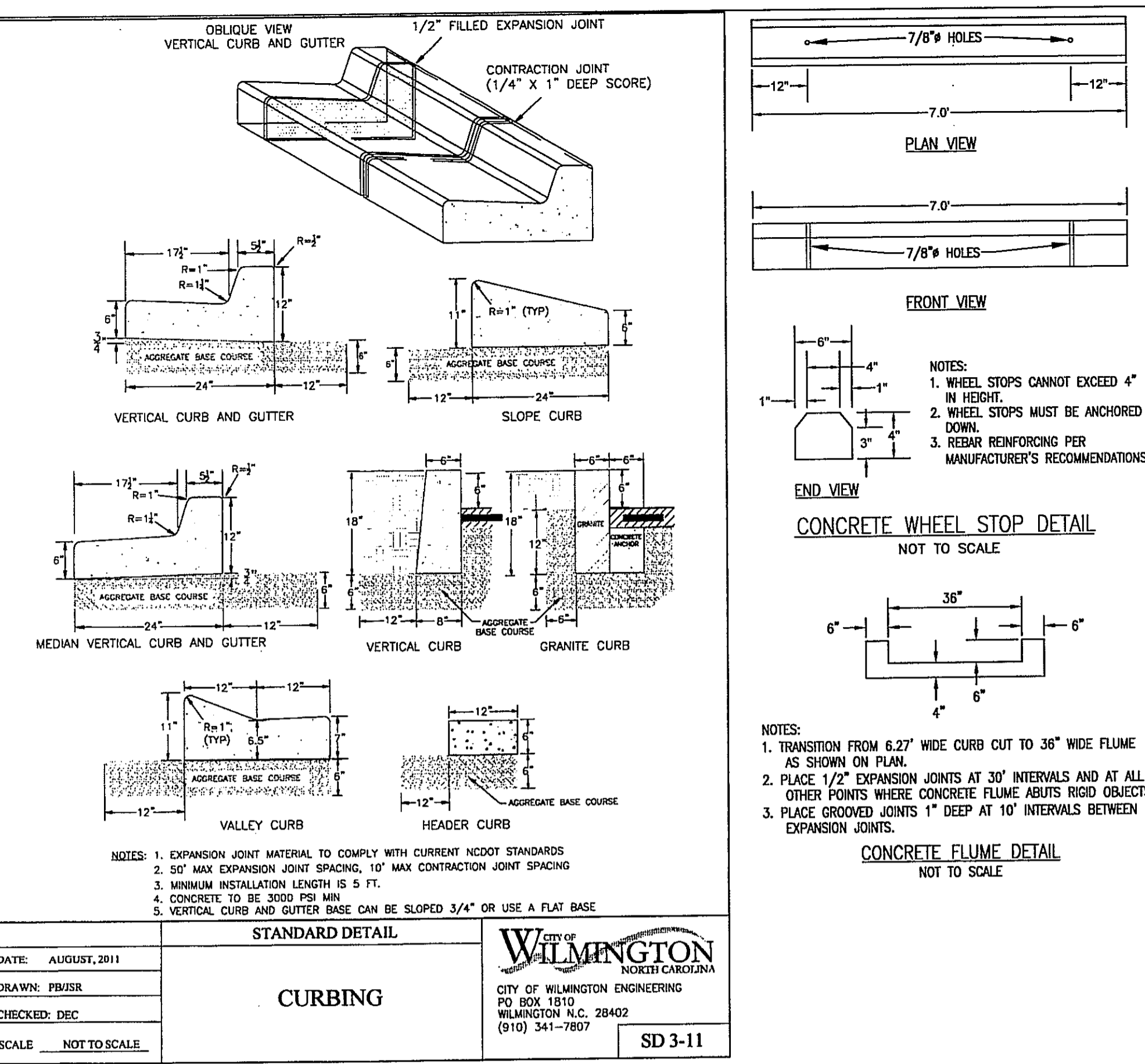
**Tribute Properties Office** 1 of 2

Wilmington Township / New Hanover County / North Carolina

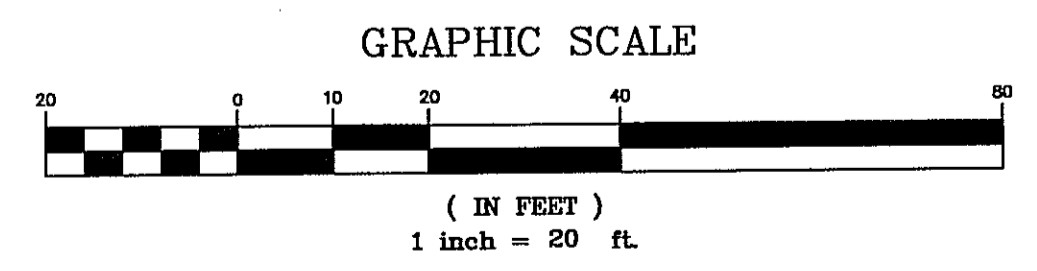




DRAINAGE AREA MAP  
SCALE: 1"=20'



STANDARD SIDEWALK DETAIL  
SD 8-15  
NOT TO SCALE



REV. NO.	DESCRIPTION	DATE

Public Services • Engineering Division  
APPROVED DRAINAGE PLAN

Date: \_\_\_\_\_ Permit #: \_\_\_\_\_  
Signed: \_\_\_\_\_

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_

DRAINAGE AREA MAP & DETAIL SHEET

**TRIBUTE PROPERTIES OFFICE**

WILMINGTON TOWNSHIP NEW HANOVER COUNTY NORTH CAROLINA

MALPASS ENGINEERING & SURVEYING, P.C.  
1134 SHIPYARD BOULEVARD  
WILMINGTON, NORTH CAROLINA 28412  
Phone: 810-392-6545 Fax: 810-392-6203 License No. C-2320

Owner: OFFICES ON CARDINAL LLC  
10 CARDINAL DRIVE  
WILMINGTON, NC 28403

DATE: 11-7-14  
SCALE: 1"=20'  
DRAWN: JCB  
CHECKED: JBM  
PROJECT NO: 251

SHEET NO: 2  
OF: 2