



## Application for URBAN DESIGN COMMITTEE Review

Department of Planning and Development Review  
Planning & Preservation Division  
900 E. Broad Street, Room 510  
Richmond, Virginia 23219  
(804) 646-6335

<http://www.richmondgov.com/CommitteeUrbanDesign>

### Application Type

- Addition/Alteration to Existing Structure  
 New Construction  
 Streetscape  
 Site Amenity

- Encroachment  
 Master Plan  
 Sign  
 Other

### Review Type

- Conceptual  
 Final

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

Brief Project Description (this is not a replacement for the required detailed narrative) : \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Applicant Information

(on all applications other than encroachments, a City agency representative must be the applicant)

Name: \_\_\_\_\_ Email: \_\_\_\_\_

City Agency: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Main Contact (if different from Applicant): \_\_\_\_\_

Company: \_\_\_\_\_ Phone: \_\_\_\_\_

Email: \_\_\_\_\_

### Submittal Deadlines

All applications and support materials must be filed no later than 21 days prior to the scheduled meeting of the Urban Design Committee (UDC). Please see the schedule on page 3 as actual deadlines are adjusted due to City holidays. **Late or incomplete submissions will be deferred to the next meeting.**

### Filing

Applications can be mailed or delivered to the attention of "Urban Design Committee" at the address listed at the top of this page. **It is important that the applicant discuss the proposal with appropriate City agencies, Zoning Administration staff, and area civic associations and residents prior to filing the application with the UDC.**

### UDC Background

The UDC is a ten member committee created by City Council in 1968 whose purpose is to advise the City Planning Commission on the design of projects on City property or right-of-way. The UDC provides advice of an aesthetic nature in connection with the performance of the duties of the Commission under Sections 17.05, 17.06 and 17.07 of the City Charter. The UDC also advises the Department of Public Works in regards to private encroachments in the public right-of-way.

Date: October 1, 2014

## **Brookland Park Boulevard Streetscape Project Narrative and Scope of Work**

### **LOCATION:**

**From:** Montrose Avenue

**To:** Lamb Avenue

### **CONSTRUCTION BUDGET**

Estimated Construction Cost, based on 90% Plans:

Phase 1 - Barton to Garland = \$600,000

Phase 2 - Garland to Fendall = \$600,000

Phase 3 - Fendall to Montrose = \$650,000

### **FUNDING SOURCE:**

Design Fund: City funded from Miscellaneous Street and Neighborhood Sidewalk Funds

Construction Fund: Unknown at this time. Construction funding will be based on the final engineering opinion of probable cost after completion of the construction documents.

### **Project Schedule:**

Anticipated Final Design Completion by : November 2014

Construction: TBD pending construction funding appropriation. Construction of improvements will be completed in several phases pending on the available fund.

### **PROJECT DESCRIPTION**

Brookland Park Boulevard is an existing two-lane roadway with on street parking and concrete curb between the intersection with Montrose Avenue and the intersection with Lamb Avenue. In 2011, the City of Richmond constructed curb chokers with landscaping and ADA curb ramps along Brookland Park Boulevard at the intersections of Lamb Avenue and Woodrow Avenue.

This project will extend the construction of curb chokers and landscaping along Brookland Park Boulevard to the west at the intersections with Barton Avenue, Garland Avenue, Hanes Avenue, Fendall Avenue, Griffin Avenue, Edgewood Avenue and Montrose Avenue. The Department of Public Works Traffic Engineering group recently upgraded the signal equipment and ADA curb ramps at the intersection of Brookland Park Boulevard and North Avenue, therefore no additional improvements are planned at this existing signalized intersection.

The sidewalk along the south side of Brookland Park Boulevard will be replaced and reconstructed to comply with ADA guidelines along with the installation of appropriately spaced street trees from Montrose Avenue to Griffin Avenue as recommended by the City Arborist.

Additional 10 ornamental lights similar to the existing lights on the existing poles will be added within project corridor. Curb chokers will also be constructed at the mid-block alley intersections of each block within the commercial core of the project corridor (i.e. from Fendall Avenue to North Avenue).

**Urban Design Committee recommends:**

UDC File No. 12-38

Agenda Item No. 14b

- 1- That the final plans show the location of any legal on-street parking spaces that will be lost as part of the improvement project.

(Sheet 2F(1) to 2F(2)) – The legal on-street parking spaces are shown.

- 2- That the final plans show the location and dimensions and of any GRTC bus stops along the project corridor.

(Sheet 2F(1) to 2F(2)) – The GRTC bus stops are shown.

- 3- That the applicant considers providing a paved line along the corridor delineating the on-street parking area.

The City TE division does not support marking the edge line within the corridor.

- 4- That the applicant considers providing markings that delineate the individual on street parking spaces.

Sheet 13(1) to 13(2) – TED is considering adding knuckles to the spaces as depicted on the plans.

- 5- That the curb extensions provided by the alleys are reduced to their minimum size to increase space for on-street parking.

Kimley-Horn reduced the curb extensions as the alley to the minimum size.

- 6- That the applicant work with property owners in the corridor to narrow, eliminate, or move to side streets the vehicular access to their properties.

The plan depicts several entrances being closed that would interfere with the proposed improvements.

- 7- That the applicant identifies new locations for freestanding ornamental lights, to match the existing fixture, and to identify locations where fixtures can be mounted to the rear of utility poles, as is currently done.

DPU developed locations for ornamental lights (attached to the existing utility poles) along the corridor, and these locations are identified in the plans.

- 8- That the applicant consider providing long and narrow tree wells in the western area of the corridor where there are residential uses fronting on the side streets, allowing both for additional street trees and areas of widened sidewalks.

(Sheets 7 and 8) Long and narrow tree wells were added to save the existing trees south of Edgewood Avenue and supplement the proposed improvements between Grayland and Edgewood.

- 9- That the final plans show the precise location of the proposed street trees, and provides a landscaping schedule indicating plant species, quantity, and size at the

time of installation.

(Sheets 7 through 12) The requested landscape details and information is provided on the landscape plans.

- 10- That the planting palette is reflective of the plants utilized for the “6 Points” roundabout further east on Brookland Park Boulevard.

(Sheets 7 through 12) The planting palette was coordinated with the Urban Forestry Division and is reflective of that used for the “Six Points” roundabout project.

- 11- That more trees are provided in the project area, especially in the commercial area.

Kimley-Horn conducted a study of introducing plants within the commercial area. Based on the existing constraints within this area of the corridor, it is recommended to not reintroducing the street trees. The constraints include both sidewalk width and existing utilities running both parallel to the building faces, as well as laterally to service the businesses. Note that street trees were removed from this area of the corridor based on complaints and desire of the adjacent businesses and residents. Further, the City received comments from the adjacent businesses and residents during a presentation to the neighborhood community association not in support of street trees in the commercial areas.

- 12- That prior to final review, the applicant provide evidence that the landscaping plan has been reviewed and approved by the Urban Forestry division of the Department of Public Works.

The Urban Forestry Division has reviewed the landscaping plans.

- 13- That the final plans indicate the number and location of any amenities such as benches, trash receptacles, etc.

(Landscape Plans) The landscape plans indicate number and location of street furniture amenities to be constructed with the project.

# CITY OF RICHMOND, VIRGINIA

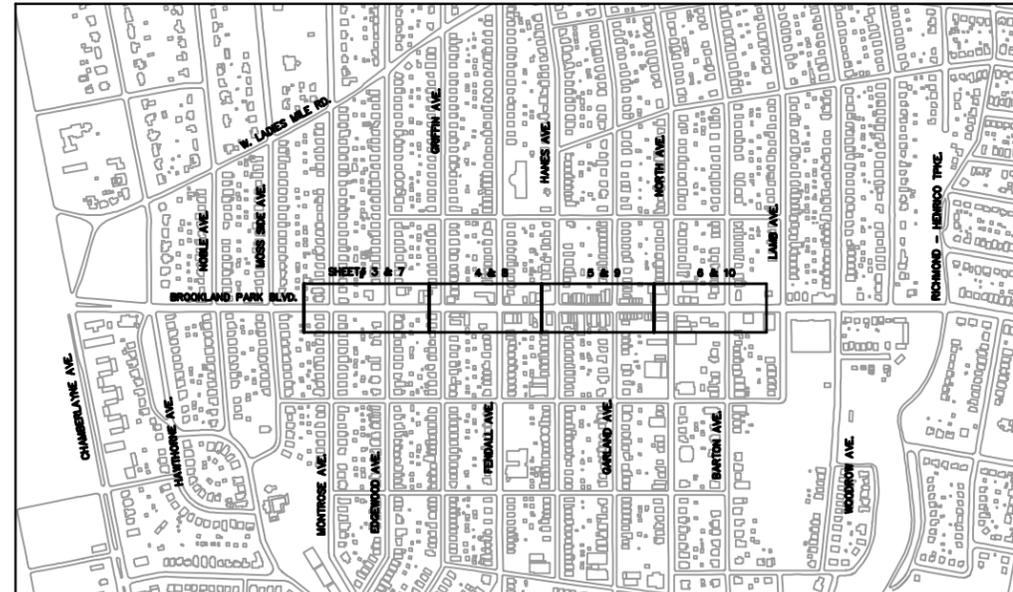
## DEPARTMENT OF PUBLIC WORKS

### ENGINEERING & TECHNICAL SERVICES

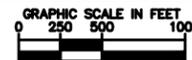


FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
URBAN MINOR ARTERIAL 25 MPH DESIGN SPEED	
From:	550' West of Montrose Avenue
To:	595' East of Barton Avenue
ADT(2012)	9400
DHV AM/PM	745
D (%)	59.9%
T (%)	1%
V (MPH)	25 MPH

SHEET INDEX	
Sheet Number	Sheet Title
1	TITLE SHEET
1A(1)	SURVEY ALIGNMENT DATA
1A(2)	SURVEY DATA - EXISTING SANITARY SEWER DATA
1A(3)	SURVEY DATA - EXISTING STORM SEWER DATA
1B	CONSTRUCTION ALIGNMENT DATA SHEET
1C(1)	TRAFFIC MANAGEMENT PLAN
1C(2)	TYPICAL MOT PLAN
1C(3)	TYPICAL MOT PLAN
1C(4)	TYPICAL MOT PLAN
1C(5)	TYPICAL MOT PLAN
2	GENERAL NOTES
2A	TYPICAL SECTIONS
2B(1)	INSERTABLE SHEETS
2B(2)	INSERTABLE SHEETS
2B(3)	INSERTABLE SHEETS
2B(4)	INSERTABLE SHEETS
2B(5)	INSERTABLE SHEETS
2B(6)	INSERTABLE SHEETS
2C(1)	INTERSECTION CHOKER DETAILS
2C(2)	INTERSECTION CHOKER DETAILS
2C(3)	INTERSECTION CHOKER DETAILS
2C(4)	INTERSECTION CHOKER DETAILS
2C(5)	INTERSECTION CHOKER DETAILS
2D	CONCRETE PAVER CROSSWALK DETAIL
2E(1)	MODIFIED TRAP BASIN DETAIL SHEET
2E(2)	MODIFIED TRAP BASIN DETAIL SHEET
2E(3)	MODIFIED TRAP BASIN DETAIL SHEET
2F(1)	ON-STREET PARKING SUMMARY
2F(2)	PARKING SUMMARY
3	MONTROSE AVE TO EDGEWOOD AVE
3A	MONTROSE AVE TO EDGEWOOD AVE E&SC
3B	MONTROSE AVE TO EDGEWOOD AVE ALLEY PROFILES
3C	MONTROSE AVE TO EDGEWOOD AVE STORM PROFILES
4	GRIFFIN AVE TO FENDALL AVE
4A	GRIFFIN AVE TO FENDALL AVE E&SC
4B	GRIFFIN AVE TO FENDALL AVE ALLEY PROFILES
4C	GRIFFIN AVE TO FENDALL AVE STORM PROFILES
5	HANES AVE TO GARLAND AVE
5A	HANES AVE TO GARLAND AVE E&SC
5B	HANES AVE TO GARLAND AVE ALLEY PROFILES
5C	HANES AVE TO GARLAND AVE STORM PROFILES
6	NORTH AVE TO BARTON AVE
6A	NORTH AVE TO BARTON AVE E&SC
6B	NORTH AVE TO BARTON AVE STORM PROFILES
7	MONTROSE AVE TO EDGEWOOD AVE LANDSCAPE PLAN
8	GRIFFIN AVE TO FENDALL AVE LANDSCAPE PLAN
9	HANES AVE TO GARLAND AVE LANDSCAPE PLAN
10	NORTH AVE TO BARTON AVE LANDSCAPE PLAN
11	LANDSCAPE DETAILS
12	LANDSCAPE DETAILS
13(1)	MONTROSE AVE TO FENDALL AVE SIGNAGE AND STRIPING
13(2)	HANES AVE TO BARTON AVE SIGNAGE AND STRIPING



#### VICINITY MAP



SEPTEMBER 15, 2014

# BROOKLAND PARK BOULEVARD STREETSCAPE

FROM: Montrose Avenue  
TO: Barton Avenue

**OWNER:**  
CITY OF RICHMOND  
DEPT. OF PUBLIC WORKS  
CITY HALL, RM 603, RICHMOND, VA  
PROJECT MANAGER - Manouchehr Nosrati  
CONTACT # 804-646-6319

**AGENT:**

## Kimley»Horn

2014 KIMLEY-HORN AND ASSOCIATES, INC.  
1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
PHONE: (804) 673-3882 FAX: (804) 673-3980

#### CITY OF RICHMOND

##### APPROVED FOR CONSTRUCTION

DATE	SURVEYS SUPERINTENDENT
DATE	PROJECT MANAGER
DATE	MAINTENANCE ENGINEER
DATE	CITY TRAFFIC ENGINEER
DATE	CAPITAL PROJECTS ADMINISTRATOR
DATE	CITY ENGINEER
DATE	DIRECTOR OF PUBLIC WORKS

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF RICHMOND DESIGN AND CONSTRUCTION STANDARDS MANUAL, 2007 VDOT ROAD AND BRIDGE SPECIFICATIONS, 2008 VDOT ROAD AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL, AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE PAPER VERSION OF THE PLAN ASSEMBLY INCLUDING ALL REVISIONS.

ALL WORK IS CONTAINED WITH-IN EXISTING RIGHT-OF-WAY AND NO PROPOSED RIGHT-OF-WAY OR EASEMENT IS REQUIRED.

THE ORIGINAL SIGNED/APPROVED TITLE SHEET, INCLUDING ORIGINAL SIGNATURES, IS FILED IN THE CITY OF RICHMOND DEPARTMENT OF PUBLIC WORKS OFFICE.

FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

#### REVISIONS

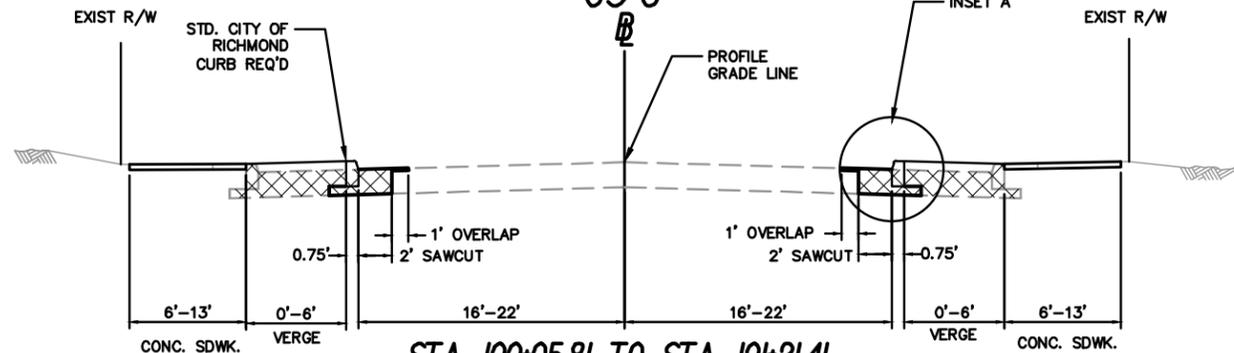
NO.	DATE	COMMENTS

DRAWING NO.: O-28558

TYPICAL SECTIONS  
NOT TO SCALE

BROOKLAND PARK BLVD.

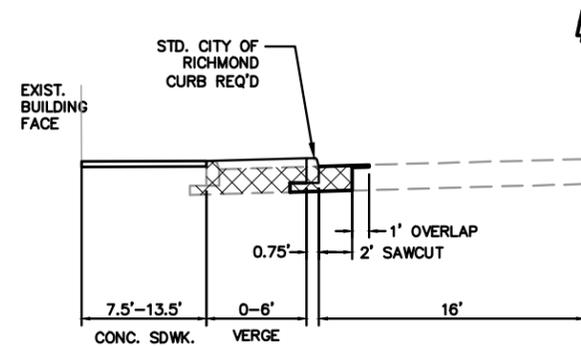
GS-6



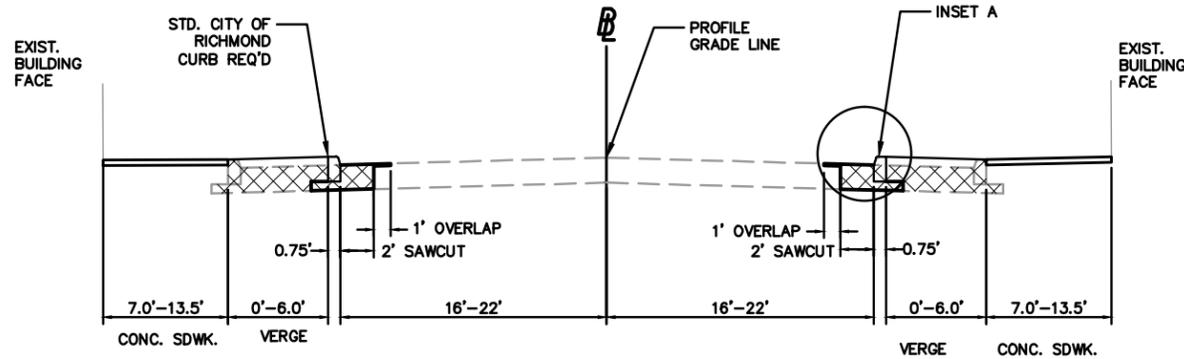
STA. 100+05.81 TO STA. 101+21.41  
STA. 103+25.47 TO STA. 104+66.73  
STA. 106+62.64 TO STA. 107+23.55  
STA. 123+64.97 TO STA. 124+89.87

BROOKLAND PARK BLVD.

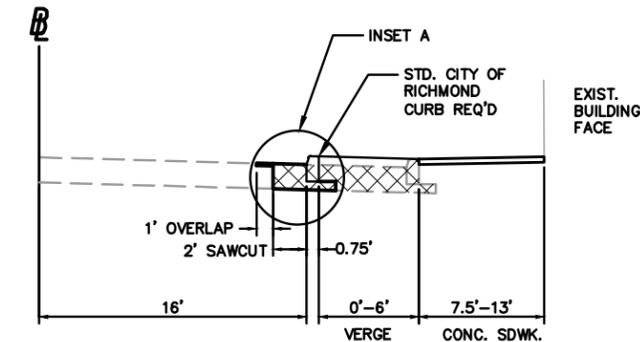
GS-6



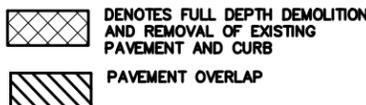
STA. 109+94.46 TO STA. 110+57.23



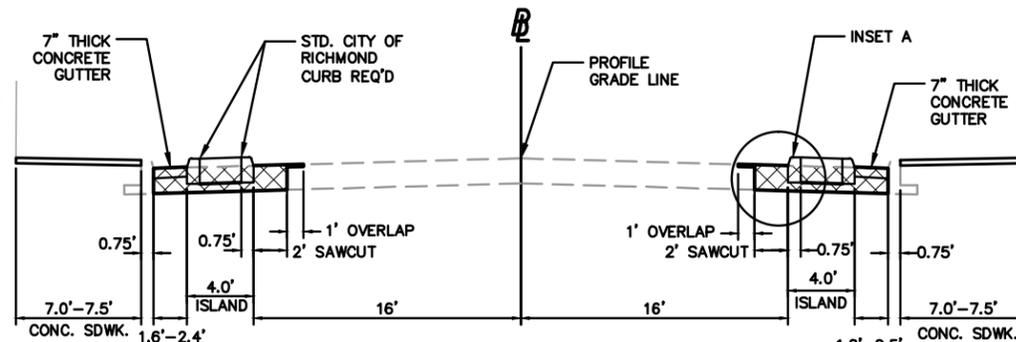
STA. 107+42.65 TO STA. 107+91.44  
STA. 113+56.44 TO STA. 114+78.40  
STA. 116+97.88 TO STA. 118+28.19



STA. 110+86.28 TO STA. 111+39.49  
STA. 112+82.56 TO STA. 112+97.67

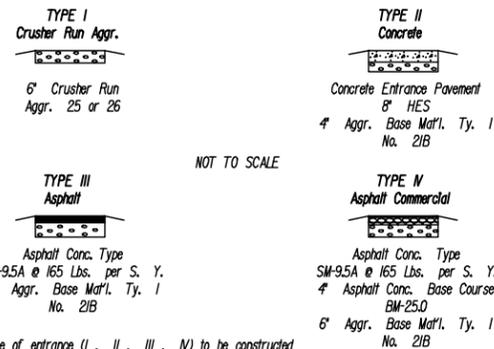


- NOTES:**
- SEE PLANS AND CROSS SECTIONS FOR PAVEMENT AND SIDEWALK TRANSITIONS.
  - TIE ALL UNDERDRAINS INTO DROP INLETS UNLESS OTHERWISE INDICATED.
  - CURB & GUTTER EXTENSIONS WILL GENERALLY MATCH THE EXISTING ROADWAY CROSS SLOPE.
  - DURING CONSTRUCTION IF SOILS DEEMED TO BE "UNSUITABLE" ARE FOUND THE CONTRACTOR SHALL REMOVE THIS MATERIAL UP TO 1' BELOW SUBGRADE, PLACE SUITABLE BACKFILL, AND/OR GEOTEXTILE FABRIC AS DIRECTED BY THE FIELD ENGINEER.
  - PAVEMENT CORE SAMPLES WERE DRILLED AND THE BROOKLAND PARK BLVD. MAINLINE WAS FOUND TO BE 9" OF CEMENT CONCRETE WITH 3" BITUMINOUS PAVEMENT OVERLAY AND THE EXISTING SIDE ROADS TO BE 9" BITUMINOUS PAVEMENT.



STA. 112+06.31 TO STA. 112+82.56  
STA. 115+51.81 TO STA. 116+29.30  
STA. 118+97.33 TO STA. 119+74.42

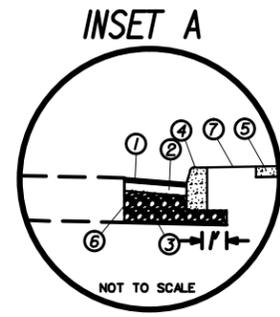
PRIVATE AND COMMERCIAL ENTRANCES



The type of entrance (I, II, III, IV) to be constructed will be determined by the existing condition at the time of construction.



VICINITY SKETCH  
(NOT TO SCALE)



- INSET A  
NOT TO SCALE
- 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE SM-9.5A @ 220 LB/SY
  - 7" ASPHALT CONCRETE BASE COURSE, TYPE BM-25.0A
  - 10.0" AGGREGATE SUBBASE COURSE, VDOT NO. 21B
  - STD. CITY OF RICHMOND CURB REQ'D
  - 4" HYDRAULIC CONCRETE, CLASS A-3
  - 2' WIDE SAWCUT OF EXIST. HYDRAULIC CEMENT CONCRETE PAVEMENT
  - VARIES GRASS OR CONCRETE

FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

**Kimley»Horn**

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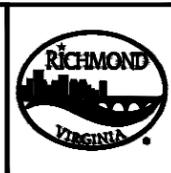
BROOKLAND PARK BOULEVARD  
STREETSCAPE  
TYPICAL SECTIONS

DESIGN BY: JO DRAWN BY: S.J. CHECKED BY: BM	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO. 0-28558	SHEET NO. 2A
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DESIGNED BY: Kimley-Horn

<b>NOTES</b>	<b>LEGEND</b>
<ol style="list-style-type: none"> <li>Lot dimensions in parentheses are from deed.</li> <li>Property owners correct as of July 11, 2013</li> <li>Ordinance Number _____</li> <li>Adopted _____</li> <li>Accepted _____</li> </ol>	<p><b>Existing Curb &amp; Gutter</b></p> <ul style="list-style-type: none"> <li>Sidewalk</li> <li>Storm Sewer</li> <li>Sanitary / Storm / Manhole</li> <li>Sanitary Sewer</li> <li>Gas Line</li> <li>Overhead Electric Line</li> <li>Underground Utilities</li> <li>Water Line</li> <li>Fence</li> <li>Edge of Pavement</li> <li>Property Line</li> </ul> <p><b>Proposed Asphalt Pavement</b></p> <ul style="list-style-type: none"> <li>Concrete Pavement</li> <li>Brick Pavers</li> </ul>

<p><b>Existing Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>Alley Crossing/Driveway</li> <li>Tire Symbol</li> <li>Sign</li> <li>Utility Pole</li> <li>Light Pole</li> <li>Traffic Control Structure / Cabinet</li> <li>Retaining Wall</li> <li>Tree / Shrub</li> </ul> <p><b>Proposed Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>Curb</li> <li>Basin</li> <li>Sanitary / Storm Manhole</li> </ul>	<p><b>Ex. Castings: Valve / Meter</b></p> <ul style="list-style-type: none"> <li>Gas Drop</li> <li>Gas Valve / Meter / Manhole</li> <li>Telephone Manhole</li> <li>Electric Manhole</li> <li>Clean Out</li> <li>Gas Monitoring Well</li> <li>Electric Hand Box</li> </ul>
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<b>Technical</b>	<b>Administrative</b>
Survey Superintendent	Project Engineer
Project Engineer	Capital Project Administrator
Maintenance Engineer	Deputy Director for Transportation / Public Works
City Traffic Engineer	Director of Public Works

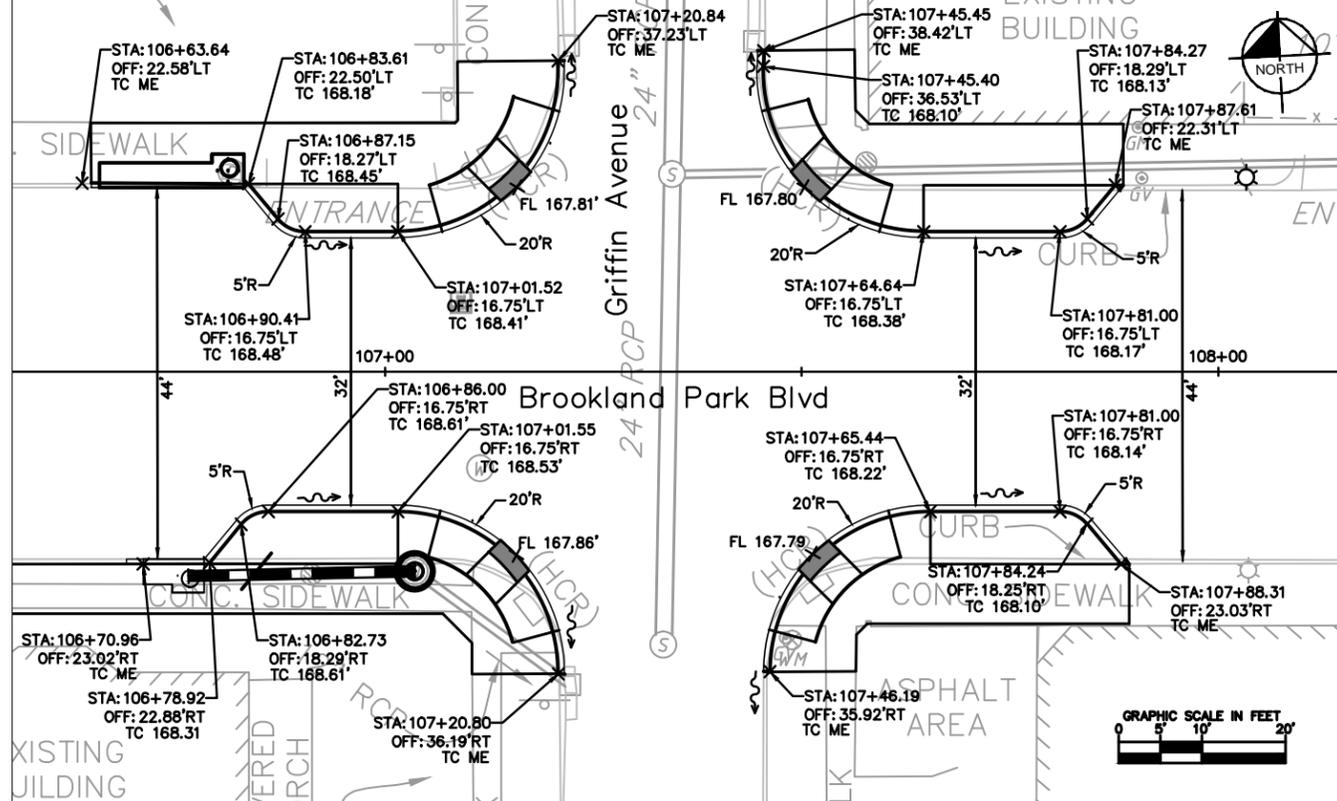
DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

CIP: 100-582	DESIGN BY: JO	DRAWN BY: S.J.	CHECKED BY: BM	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO. 0-28558	SHEET NO. 2A
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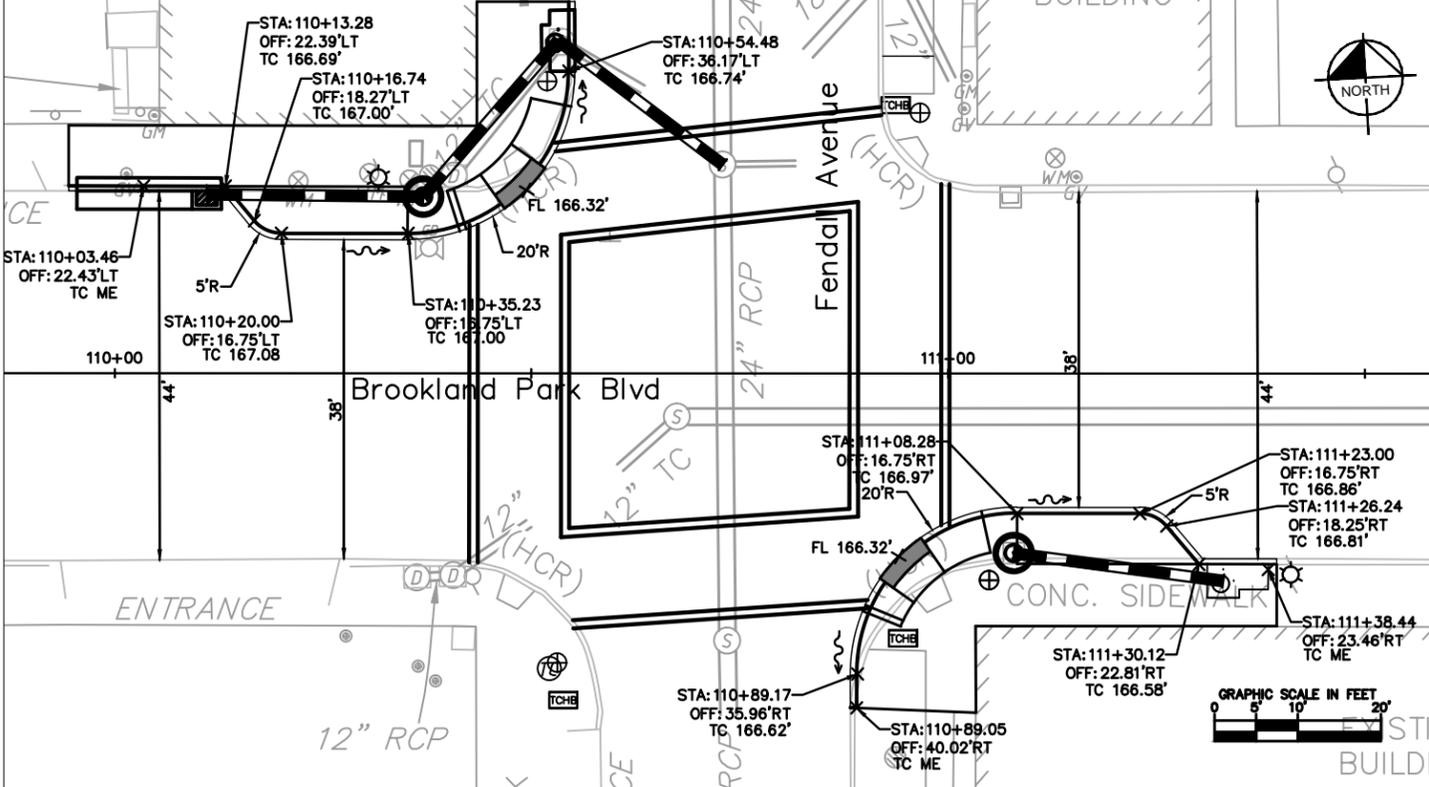
DESIGNED BY: Kimley-Horn

### INTERSECTION OF GRIFFIN AVE AND BROOKLAND PARK BLVD



Kimley-Horn & Associates, Inc.  
Richmond, Virginia  
ROADWAY ENGINEER

### INTERSECTION OF FENDALL AVE AND BROOKLAND PARK BLVD



FINAL UDC PLANS - 9/15/14  
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**NOTES**

1. Lot dimensions in parentheses are from deed.
2. Property owners correct as of July 11, 2013
3. Ordinance Number \_\_\_\_\_
4. Adopted \_\_\_\_\_
5. Accepted \_\_\_\_\_

**REFERENCES**  
M.C. 221 AM, MC 206, SE

Existing	Proposed
<ul style="list-style-type: none"> <li>Existing Curb</li> <li>Existing Sidewalk</li> <li>Existing Storm Sewer</li> <li>Existing Sanitary / Storm / Misc. Manhole</li> <li>Existing Gas Line</li> <li>Existing Overhead Electric Line</li> <li>Existing Overhead Telephone</li> <li>Existing Water Line</li> <li>Existing Fence</li> <li>Existing Edge of Pavement</li> <li>Existing Property Line</li> </ul>	<ul style="list-style-type: none"> <li>Proposed Curb</li> <li>Proposed Sidewalk</li> <li>Proposed Storm Sewer</li> <li>Proposed Sanitary / Storm / Misc. Manhole</li> <li>Proposed Gas Line</li> <li>Proposed Overhead Electric Line</li> <li>Proposed Overhead Telephone</li> <li>Proposed Water Line</li> <li>Proposed Fence</li> <li>Proposed Edge of Pavement</li> <li>Proposed Property Line</li> </ul>

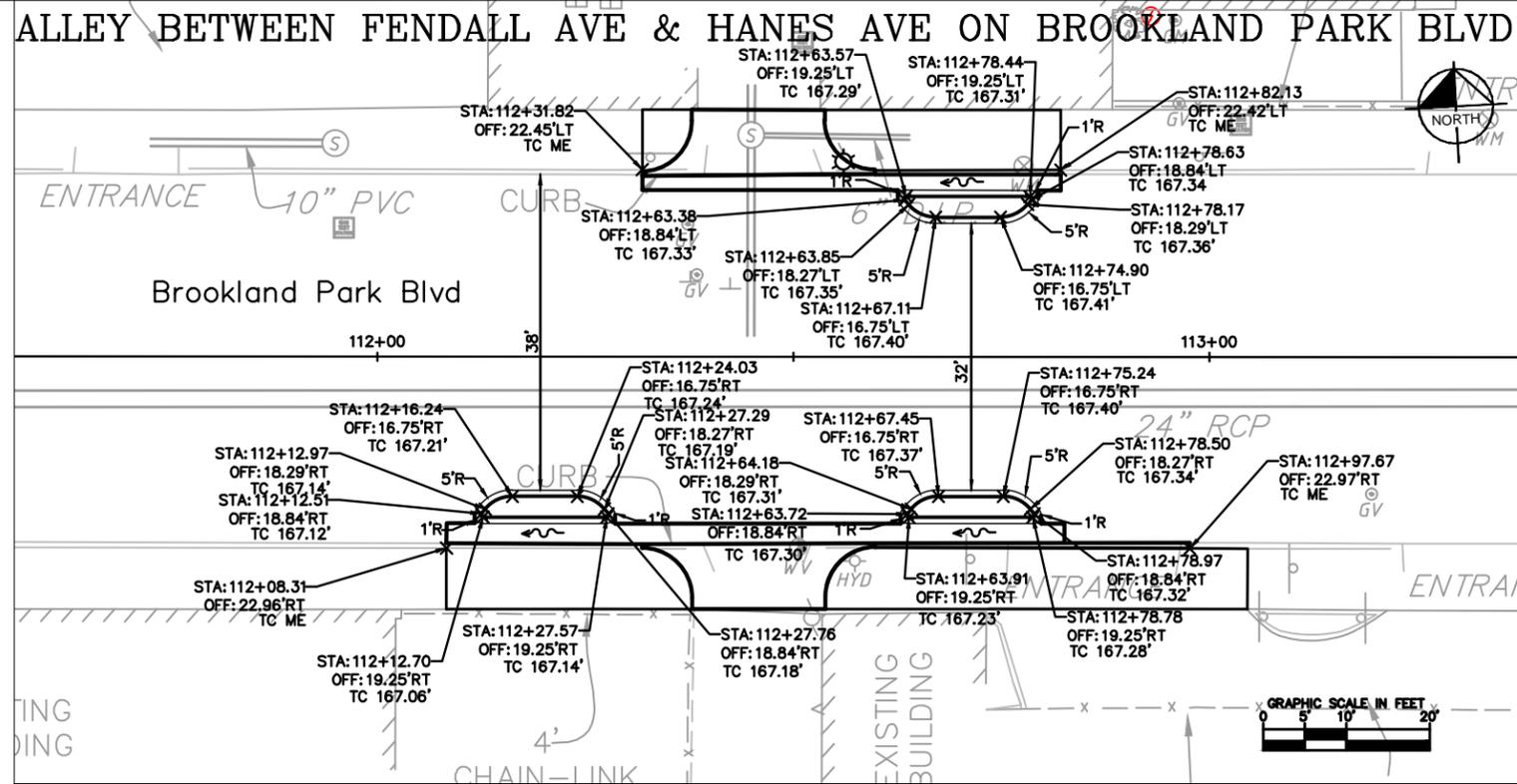


Technical	Administrative
<ul style="list-style-type: none"> <li>Survey Superintendent</li> <li>Project Engineer</li> <li>Maintenance Engineer</li> <li>City Traffic Engineer</li> </ul>	<ul style="list-style-type: none"> <li>Capital Project Administrator</li> <li>Deputy Director for Transportation / Public Works</li> <li>Director of Public Works</li> </ul>

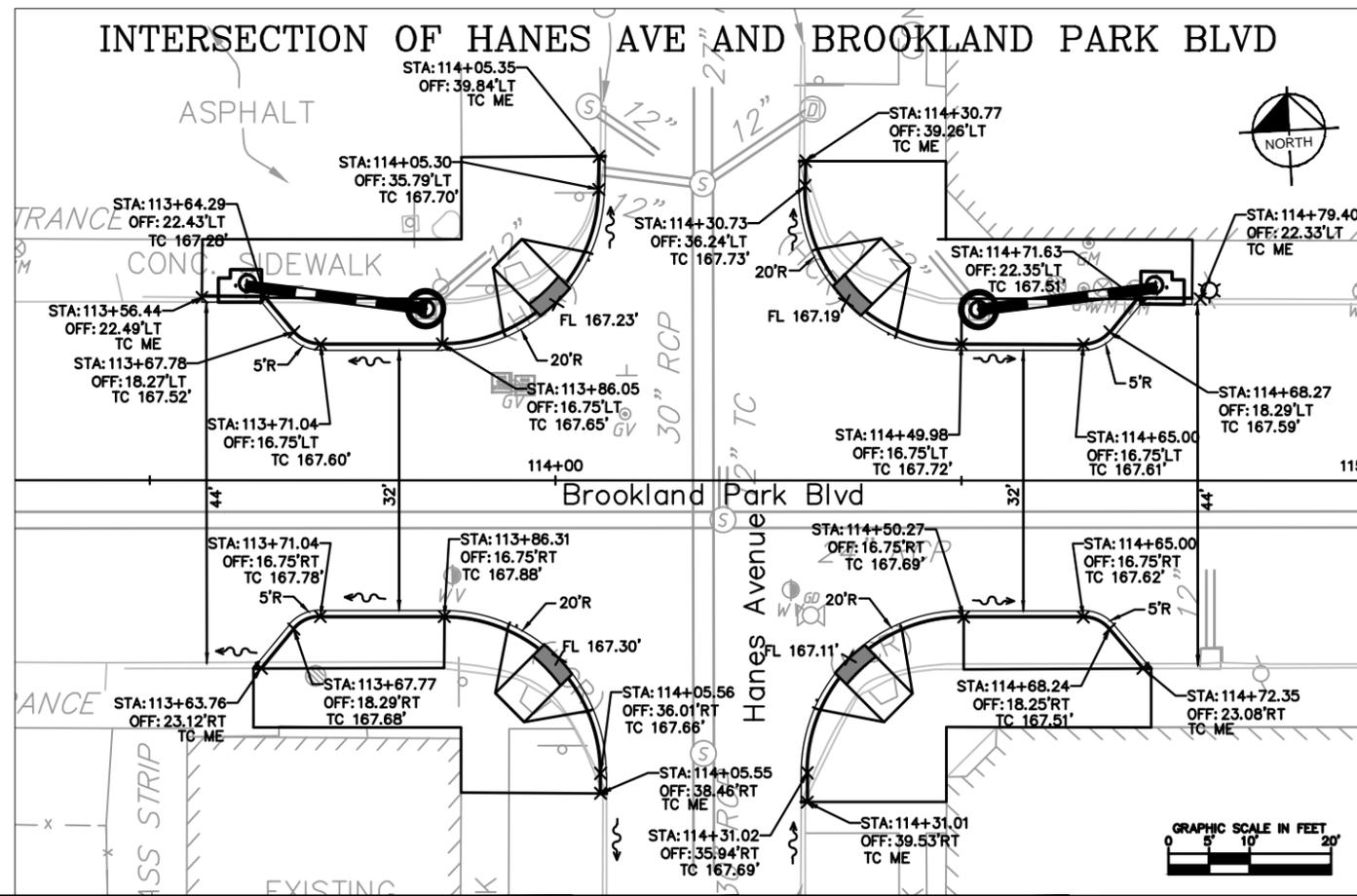
DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

BROOKLAND PARK BOULEVARD  
STREETSCAPE  
INTERSECTION CHOKER DETAILS

CIP: 100-582	DESIGN BY: JO	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 20(2)
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VICINITY SKETCH  
(NOT TO SCALE)



FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

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BROOKLAND PARK BOULEVARD  
STREETSCAPE  
INTERSECTION CHOKER DETAILS

- NOTES**
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- Existing**
- Curb & Gutter
  - Sidewalk
  - Storm Sewer
  - Sanitary / Storm / Manhole
  - Sanitary Sewer
  - Gas Line
  - Overhead Electric Line
  - Underground Utilities
  - Water Line
  - Fence
  - Edge of Pavement
  - Property Line

- Proposed**
- Alley Crossing/Driveway
  - Fire Hydrant
  - Sign
  - Utility Pole
  - Light Pole
  - Traffic Control Structure / Cabinet
  - Retaining Wall
  - Tree / Shrub
  - Proposed Asphalt Pavement
  - Concrete Pavement
  - Brick Pavers

- Ex. Castings: Valve / Meter**
- Gas Trap
  - Gas Valve / Meter / Meter
  - Telephone Manhole
  - Electric Manhole
  - Clean Out
  - Gas Monitoring Well
  - Electric Head Box
- Proposed Curb Cut Ramp**
- Curb
  - Basin
  - Sanitary / Storm Manhole



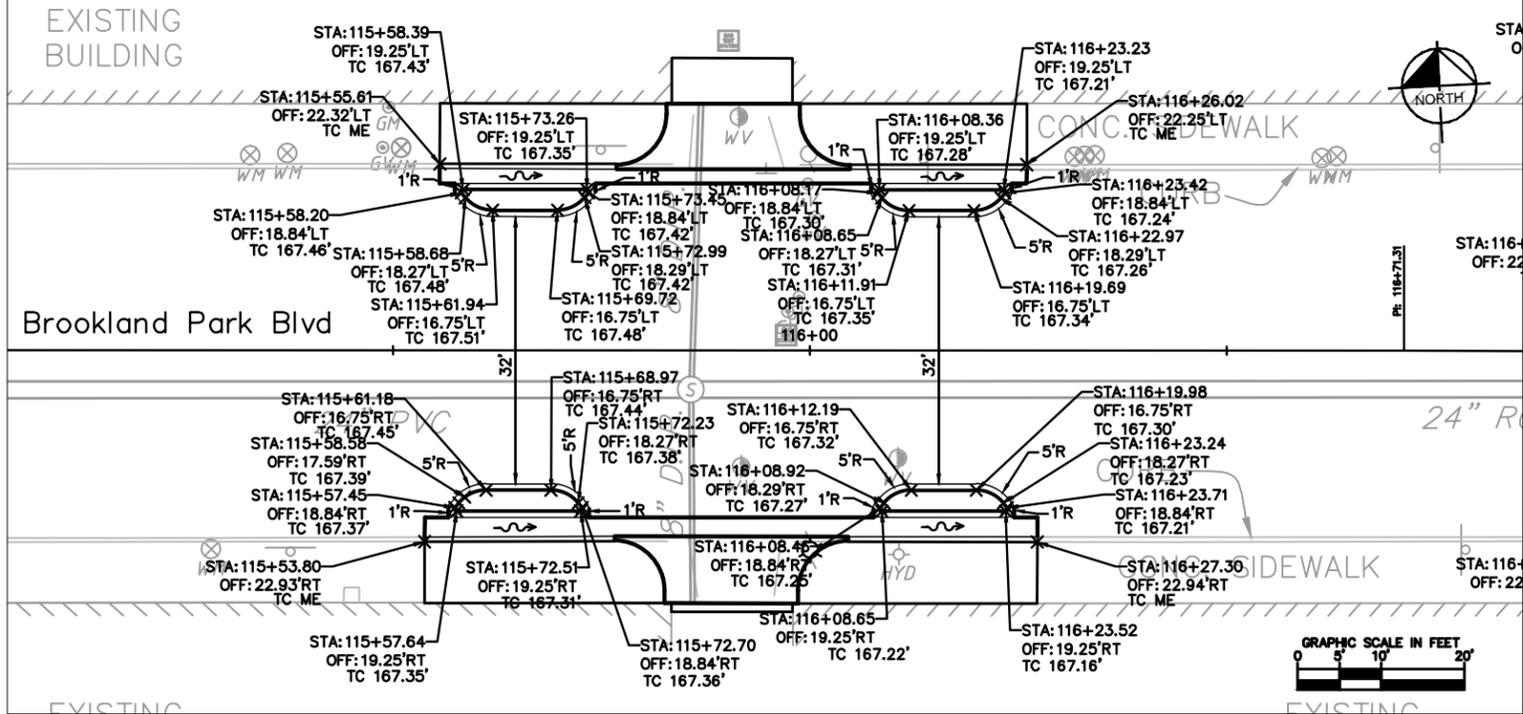
Technical	Administrative
Survey Superintendent	Capital Project Administrator
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City Traffic Engineer	

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

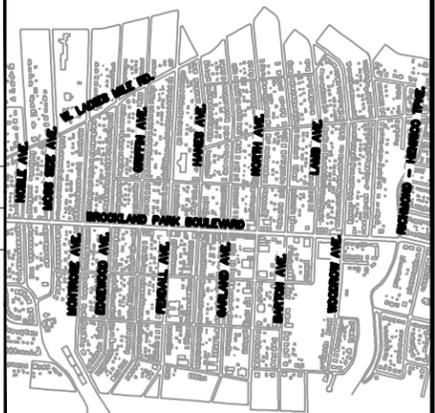
CIP: 100-582	DESIGN BY: JO	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 20(3)
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DESIGNED BY: Kimley-Horn

ALLEY BETWEEN HANES AVE & GARLAND AVE ON BROOKLAND PARK BLVD

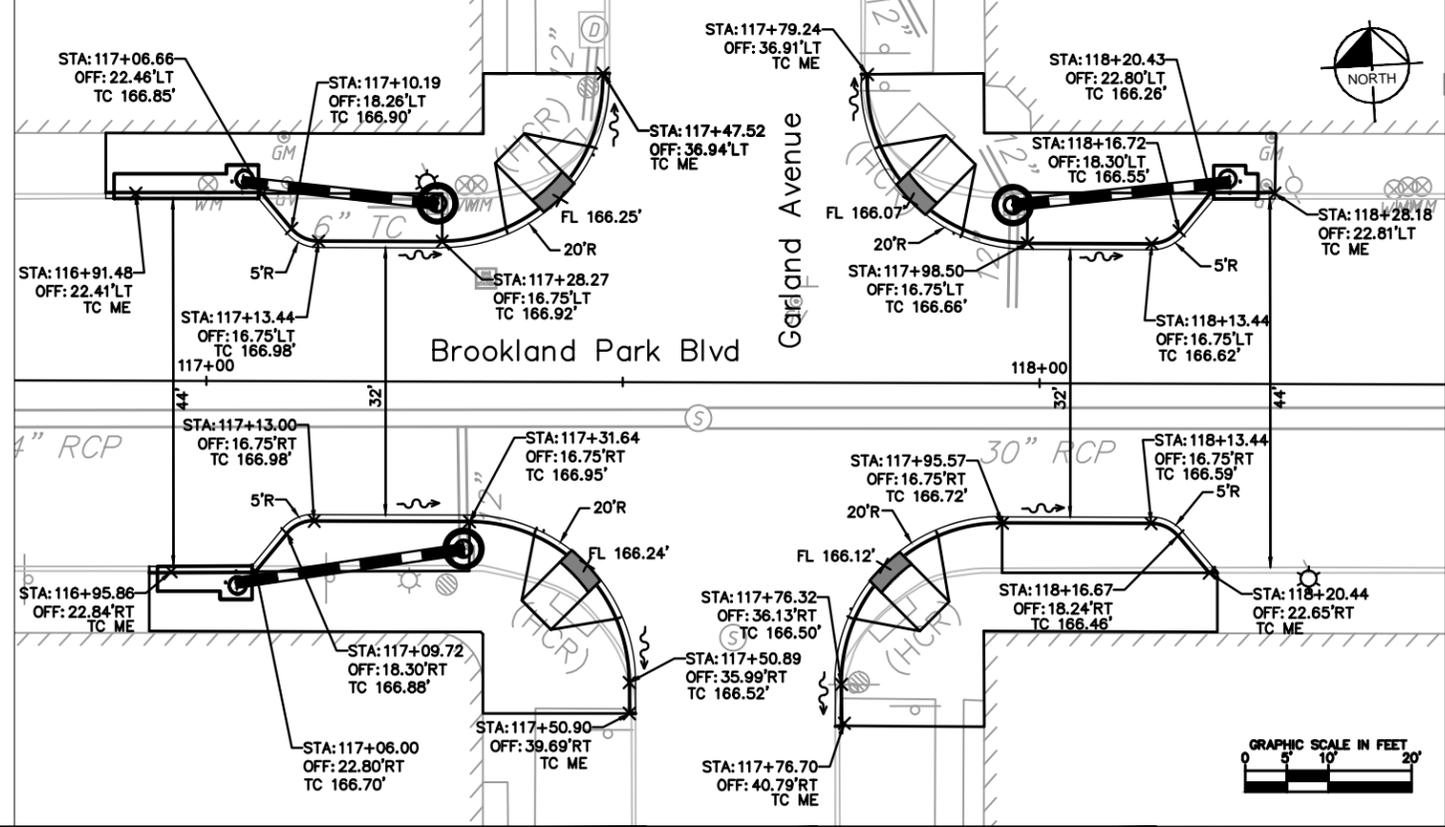


Kimley-Horn & Associates, Inc.  
Richmond, Virginia  
ROADWAY ENGINEER



VICINITY SKETCH  
(NOT TO SCALE)

INTERSECTION OF GARLAND AVE AND BROOKLAND PARK BLVD



FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

**Kimley»Horn**

2014 KIMLEY-HORN AND ASSOCIATES, INC.  
1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
STREETSCAPE  
INTERSECTION CHOKER DETAILS

DESIGNED BY: Kimley-Horn

**NOTES**

1. Lot dimensions in parentheses are from deed.
2. Property owners correct as of July 11, 2013
3. Ordinance Number \_\_\_\_\_
4. Adopted \_\_\_\_\_
5. Accepted \_\_\_\_\_

**LEGEND**

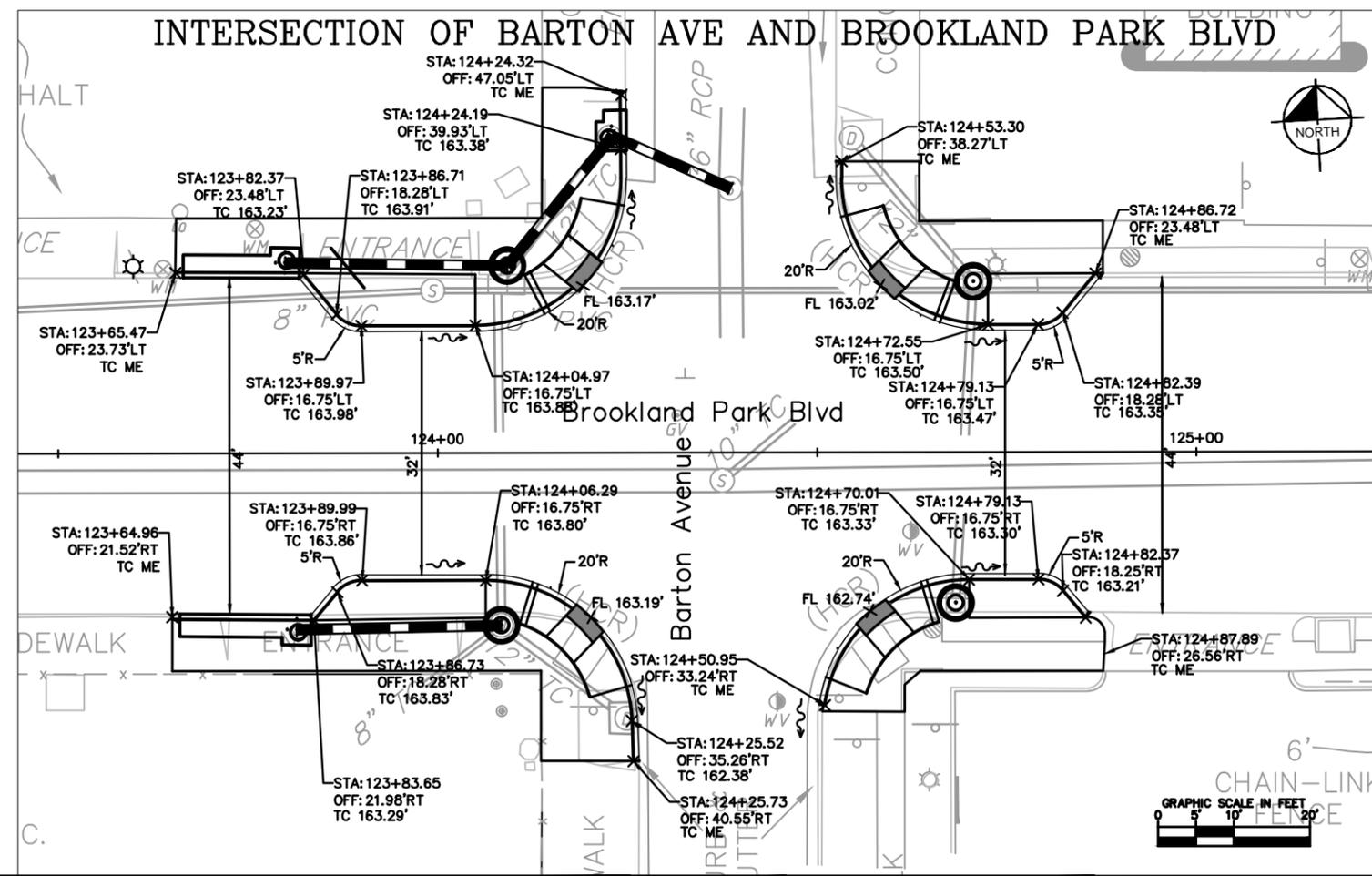
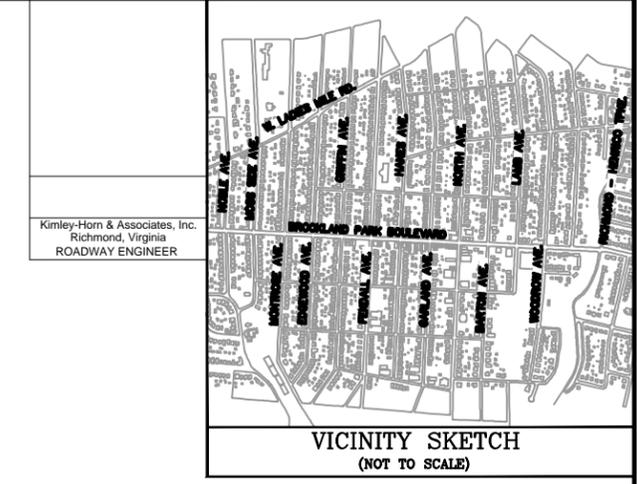
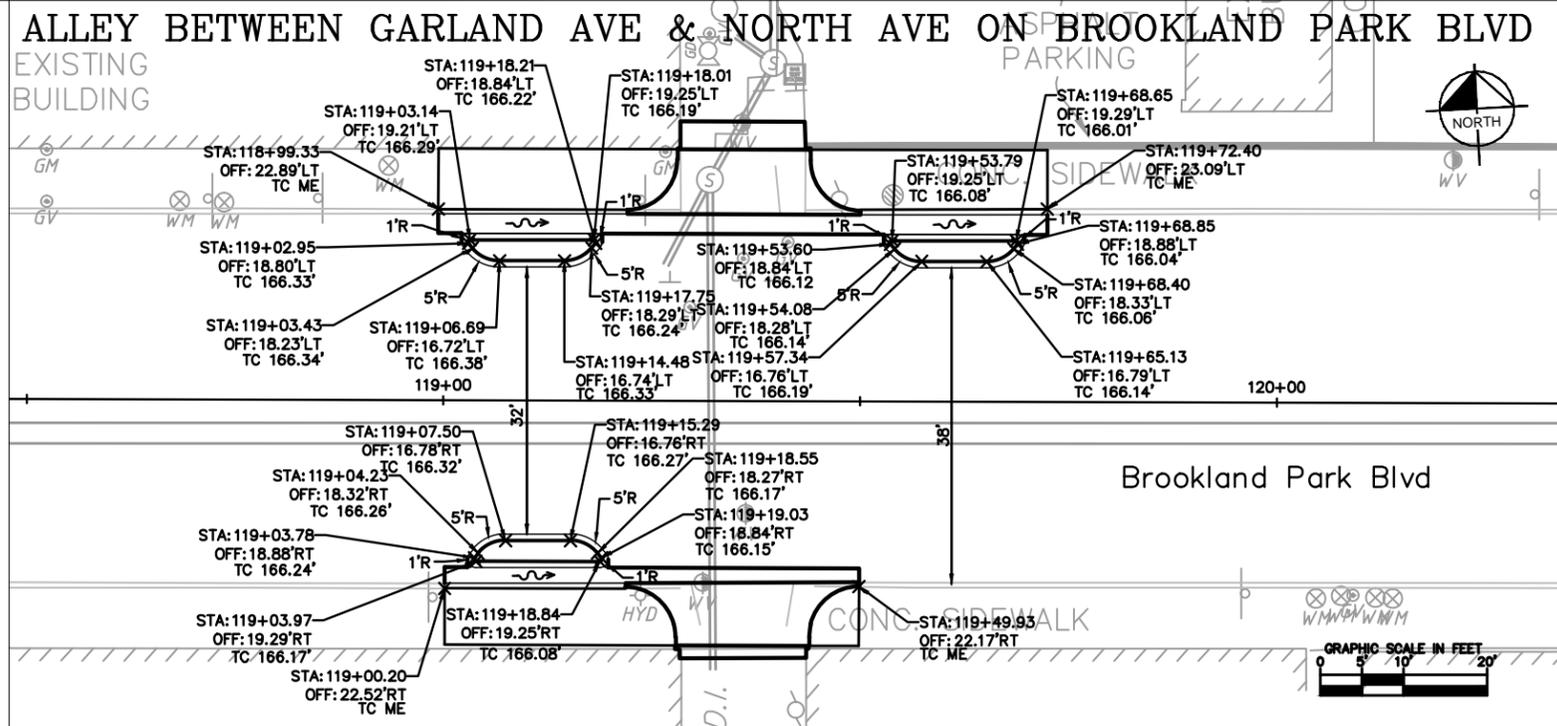
Existing Curb	CONC. SIDEWALK	Existing Curb Cut Ramp	Proposed Asphalt Pavement
Curb & Gutter		Alley Crossing/Driveway	Concrete Pavement
Sidewalk		Fire Hydrant	Brick Pavers
Storm Sewer		Utility Pole	
Sanitary / Storm / Misc. Manhole		Light Pole	
Sanitary Sewer		Traffic Control Structure / Cabinet	
Gas Line		Retaining Wall	
Overhead Electric Line		Tree / Shrub	
Underground Utilities		Proposed Asphalt Pavement	
Water Line		Concrete Pavement	
Fence		Brick Pavers	
Edge of Pavement			
Property Line			

Ex. Castings: Valve / Meter	Proposed Curb Cut Ramp
Gas Drop	Curb
Gas Valve / Meter / Meter	Basin
Telephone Manhole	Sanitary / Storm Manhole
Electric Manhole	
Clean Out	
Gas Monitoring Well	
Electric Head Box	



<b>Technical</b>	<b>Administrative</b>
Survey Superintendent	Project Engineer
Project Engineer	Capital Project Administrator
Maintenance Engineer	Deputy Director for Transportation / Public Works
City Traffic Engineer	Director of Public Works

DEPARTMENT OF PUBLIC WORKS RICHMOND, VIRGINIA	CIP: 100-582	DESIGN BY: JO	CHECKED BY: BM	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 20(4)
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FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

## Kimley»Horn

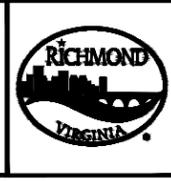
2014 KIMLEY-HORN AND ASSOCIATES, INC.  
1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
STREETSCAPE  
INTERSECTION CHOKER DETAILS

DESIGNED BY: Kimley-Horn

NOTES	
1. Lot dimensions in parentheses are from deed.	
2. Property owners correct as of July 11, 2013	
3. Ordinance Number _____	
4. Adopted _____	
5. Accepted _____	
REFERENCES	REVISIONS
AS NOTED	

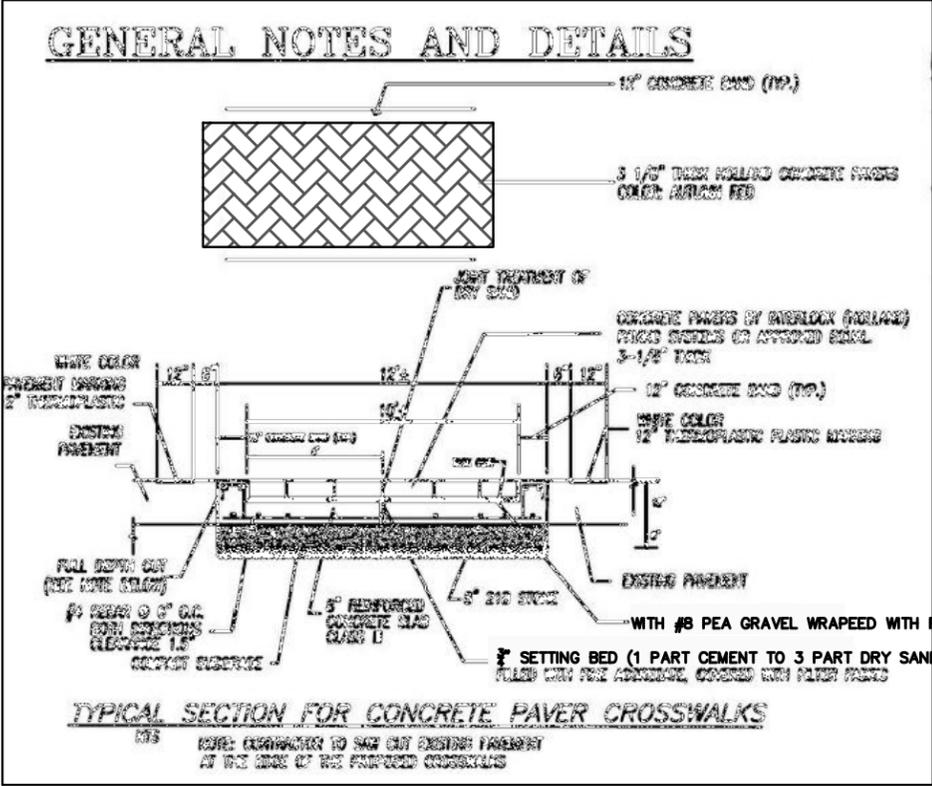
Existing	Proposed
<ul style="list-style-type: none"> <li>• Curb &amp; Gutter</li> <li>• Sidewalk</li> <li>• Storm Sewer</li> <li>• Sanitary / Storm / Manhole</li> <li>• Gas Line</li> <li>• Overhead Electric Line</li> <li>• Underhead Utilities</li> <li>• Underhead Telephone</li> <li>• Water Line</li> <li>• Fence</li> <li>• Edge of Pavement</li> <li>• Property Line</li> </ul>	<ul style="list-style-type: none"> <li>• Alley Crossing/Driveway</li> <li>• Fire Hydrant</li> <li>• Sign</li> <li>• Utility Pole</li> <li>• Light Pole</li> <li>• Traffic Control Structure / Cabinet</li> <li>• Retaining Wall</li> <li>• Tree / Shrub</li> <li>• Proposed Asphalt Pavement</li> <li>• Concrete Pavement</li> <li>• Brick Pavers</li> </ul>



Technical	Administrative
Survey Superintendent	Project Engineer
Project Engineer	Capital Project Administrator
Maintenance Engineer	Deputy Director for Transportation / Public Works
City Traffic Engineer	Director of Public Works

CIP: 100-582	DESIGN BY: JO	DRAWN BY: SJ	CHECKED BY: BM	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 20(5)
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DESIGNED BY: Kimley-Horn



FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

## Kimley»Horn

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1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
STREETSCAPE  
CONCRETE PAVER CROSSWALK DETAIL

**NOTES**

1. Lot dimensions in parentheses are from deed.
2. Property owners correct as of July 11, 2013
3. Ordinance Number \_\_\_\_\_
4. Adopted \_\_\_\_\_
5. Accepted \_\_\_\_\_

**REFERENCES**  
AS NOTED

**-LEGEND-**

<p><b>Existing Curb</b></p> <ul style="list-style-type: none"> <li>• Curb &amp; Gutter</li> <li>• Sidewalk</li> <li>• Bush</li> <li>• Storm Sewer</li> <li>• Sanitary / Storm / Man. Manhole</li> <li>• Sanitary Sewer</li> <li>• Gas Line</li> <li>• Overhead Electric Line</li> <li>• Overhead Utilities</li> <li>• Underground Telephones</li> <li>• Water Line</li> <li>• Fence</li> <li>• Edge of Pavement</li> <li>• Property Line</li> </ul>	<p><b>CONC. SIDEWALK</b></p> <p><b>Existing Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>• Alley Crossing/Driveway</li> <li>• Fire Hydrant</li> <li>• Sign</li> <li>• Utility Pole</li> <li>• Light Pole</li> <li>• Traffic Control Structure / Cabinet</li> <li>• Retaining Wall</li> <li>• Tree / Shrub</li> <li>• Proposed Asphalt Pavement</li> <li>• Concrete Pavement</li> <li>• Brick Pavers</li> </ul>	<p><b>Ex. Cuttings: Valve/Meter</b></p> <ul style="list-style-type: none"> <li>• Gas Drop</li> <li>• Gas Valve/Marker/Meter</li> <li>• Telephone Manhole</li> <li>• Electric Manhole</li> <li>• Clean Out</li> <li>• Gas Monitoring Well</li> <li>• Electric Hand Box</li> </ul> <p><b>Proposed Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>• Curb</li> <li>• Bush</li> <li>• Sanitary / Storm Manhole</li> </ul>
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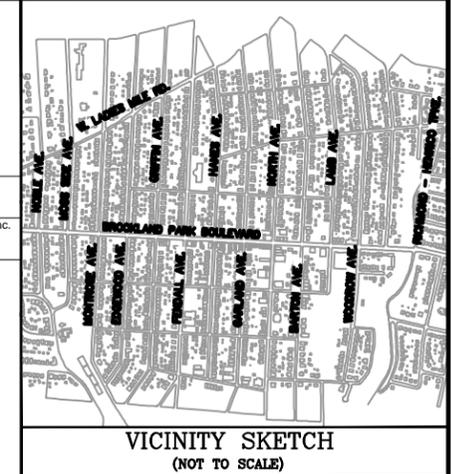
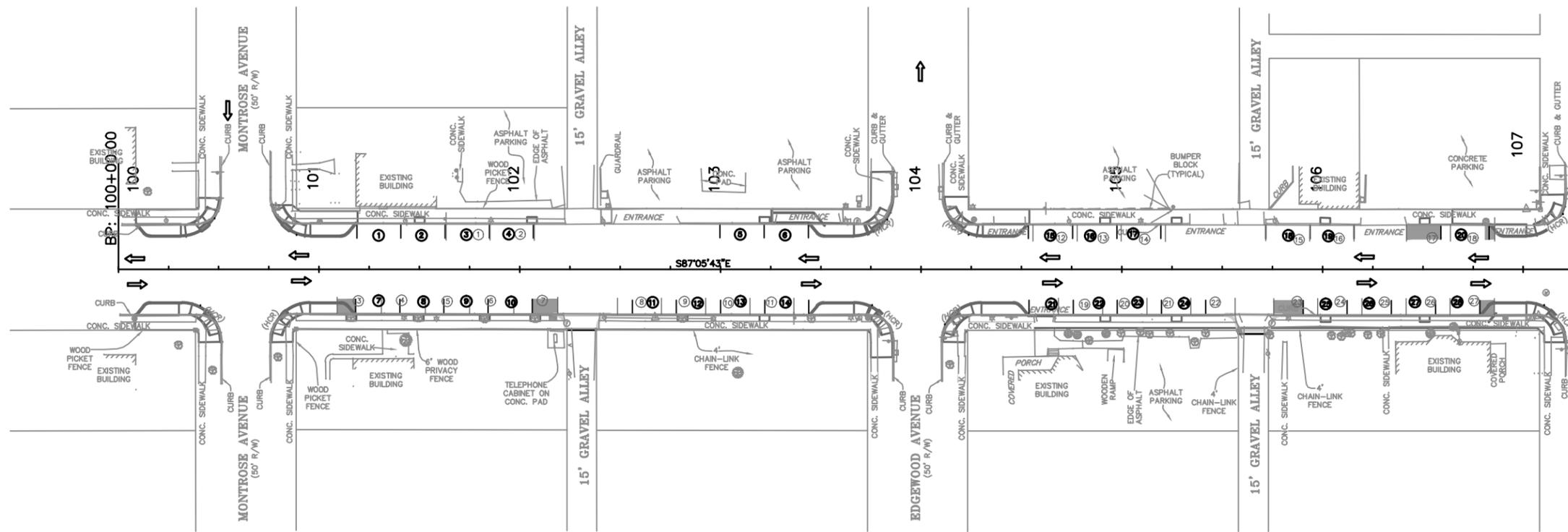


Technical	Administrative
Survey Superintendent	Project Engineer
Project Engineer	Capital Project Administrator
Maintenance Engineer	Deputy Director for Transportation / Public Works
City Traffic Engineer	Director of Public Works

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

CIP: 100-582	DESIGN BY: JO	DRAWN BY: SJ	CHECKED BY: BM	REVIEWED BY	FIELD NOTES	SCALE	DATE	DRAWING NO.	SHEET NO.
						AS NOTED	09/15/14	0-28558	20

DESIGNED BY: Kimley-Horn



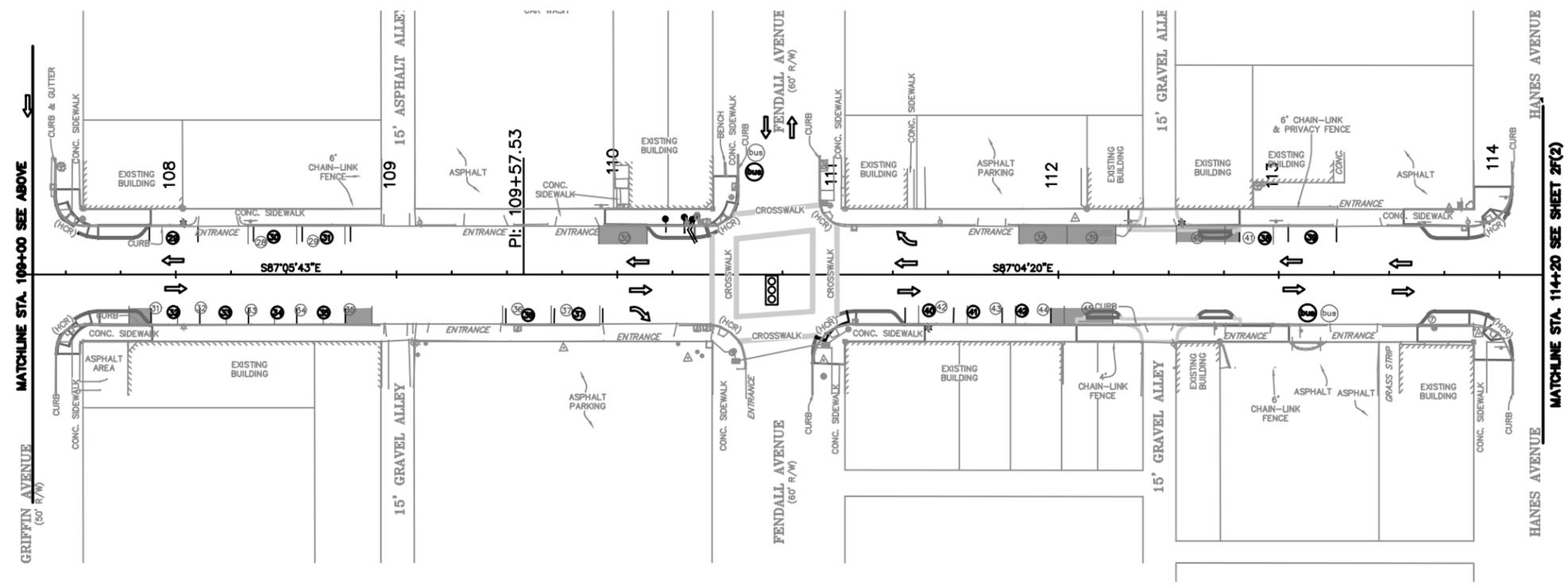
PARKING SUMMARY	
	# OF SPACES*
EXISTING	120
PROPOSED	102
DIFFERENCE	LOSS OF 18

\* FOR ENTIRE PROJECT

Kimley-Horn & Associates, Inc.  
Richmond, Virginia  
ROADWAY ENGINEER

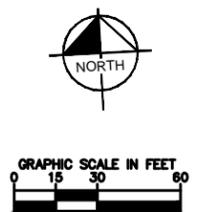
MATCHLINE STA. 107+35 SEE BELOW

GRIFFIN AVENUE



**LEGEND**

- EXISTING PARKING SPACE #
- PROPOSED PARKING SPACE #
- LEGAL PARKING SPACE AREA NO LONGER AVAILABLE DUE TO PROPOSED CONSTRUCTION
- EXISTING BUS STOP
- PROPOSED BUS STOP



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PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
STREETSCAPE  
ON-STREET PARKING SUMMARY

**NOTES**

- Lot dimensions in parentheses are from deed.
- Property owners correct as of July 11, 2013
- Ordinance Number \_\_\_\_\_
- Adopted \_\_\_\_\_
- Accepted \_\_\_\_\_

**LEGEND**

<ul style="list-style-type: none"> <li>Existing Curb</li> <li>Curb &amp; Gutter</li> <li>Sidewalk</li> <li>Storm Sewer</li> <li>Sanitary / Storm / Man. Manhole</li> <li>Sanitary Sewer</li> <li>Gas Line</li> <li>Overhead Electric Line</li> <li>Underground Utilities</li> <li>Underground Telephone</li> <li>Water Line</li> <li>Fence</li> <li>Edge of Pavement</li> <li>Property Line</li> </ul>	<ul style="list-style-type: none"> <li>CONC. SIDEWALK</li> <li>GAS</li> <li>OH</li> <li>UCT</li> <li>W</li> <li>X</li> </ul>	<ul style="list-style-type: none"> <li>Existing Curb Cut Ramp</li> <li>Alley Crossing/Driveway</li> <li>Fire Hydrant</li> <li>Sign</li> <li>Utility Pole</li> <li>Light Pole</li> <li>Traffic Control Structure / Cabinet</li> <li>Retaining Wall</li> <li>Tree / Shrub</li> <li>Proposed Asphalt Pavement</li> <li>Concrete Pavement</li> <li>Brick Pavers</li> </ul>	<ul style="list-style-type: none"> <li>Ex. Castings: Valve/Meter</li> <li>Gas Trap</li> <li>Gas Valve/Marker/Meter</li> <li>Telephone Manhole</li> <li>Electric Manhole</li> <li>Clean Out</li> <li>Gas Monitoring Well</li> <li>Electric Hand Box</li> <li>Proposed Curb Cut Ramp</li> <li>Curb</li> <li>Basin</li> <li>Sanitary / Storm Manhole</li> </ul>
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Technical	Administrative
Survey Superintendent	Capital Project Administrator
Project Engineer	Deputy Director for Transportation / Public Works
Maintenance Engineer	Director of Public Works
City Traffic Engineer	

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

CIP: 100-582

DESIGN BY: JO	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 2F(1)
DRAWN BY: CL						
CHECKED BY: BM						



**DRAINAGE DESCRIPTIONS**

3-1	1 St'd. DI-38 Req'd. L= 16', H= 3.7', Inv. 166.20 St'd IS-1 Req'd	3-4	1 St'd DI-38 Req'd L= 4', H= 3.5', Inv. 166.15 St'd IS-1 Req'd
3-1 to 3-2	28'-15" Storm Sewer Pipe Req'd (2' Cover) Inv. (In) 166.20 Inv. (Out) 164.50	3-4 to 3-5	30'-15" Storm Sewer Pipe Req'd (2' Cover) Inv. (In) 166.15 Inv. (Out) 165.90
3-2	4.8 Lin. Ft. MH-1 or MH-2 Req'd. 1 St'd MH-1 Frame and Cover Req'd Inv. 164.40, St'd IS-1 Req'd	3-5	3.2 Lin. Ft. MH-1 or MH-2 Req'd 1 St'd MH-1 Frame and Cover Req'd Inv. 165.80, St'd IS-1 Req'd
3-2 to 3-3	24'-15" Storm Sewer Pipe Req'd (4' Cover) Inv. (In) 164.40 Inv. (Out) 163.00	3-5 to Ex. 3-2	21'-15" Storm Sewer Pipe Req'd (2' Cover) Inv. (In) 165.80 Inv. (Out) 165.60 Connect to Existing Structure
3-3	1 St'd DI-38 w/ Trap Req'd (See Detail Sheet 2E) L= 10', H= 6.8', Inv. 162.90 St'd IS-1 Req'd		
3-3 to EX3-1	14'-15" Storm Sewer Pipe Req'd (5' Cover) Inv. (In) 162.90 Inv. (Out) 161.90 Connect to Existing Structure		

**UTILITY CONTACTS**

**STREET LIGHTING**  
Mr. Brian Culver  
400 Jefferson Davis Hwy  
Richmond, VA 23224  
804-646-8105

**WATER - DEPT. OF PUBLIC UTILITIES**  
Mr. Vann Davis  
900 E. Broad St, Room 115  
Richmond, VA 23219  
804-646-8516

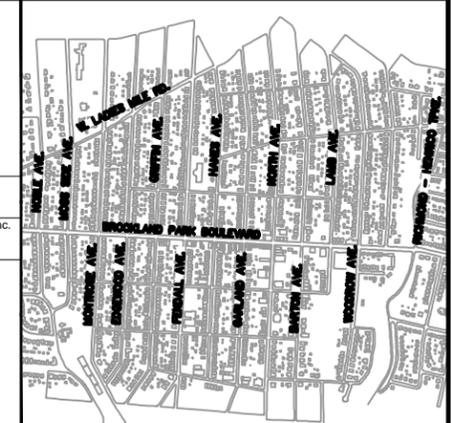
**GAS - DEPT. OF PUBLIC UTILITIES**  
Mr. Daniel Rifenburg  
900 E. Broad St, Room 115  
Richmond, VA 23219  
804-646-8537

**STORM/SANITARY SEWER - DEPT. OF PUBLIC UTILITIES**  
Mr. Shawn Macintosh  
730 E. Broad St, 6th Floor  
Richmond, VA 23219  
804-646-1399

**REFERENCES**  
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, TC.)

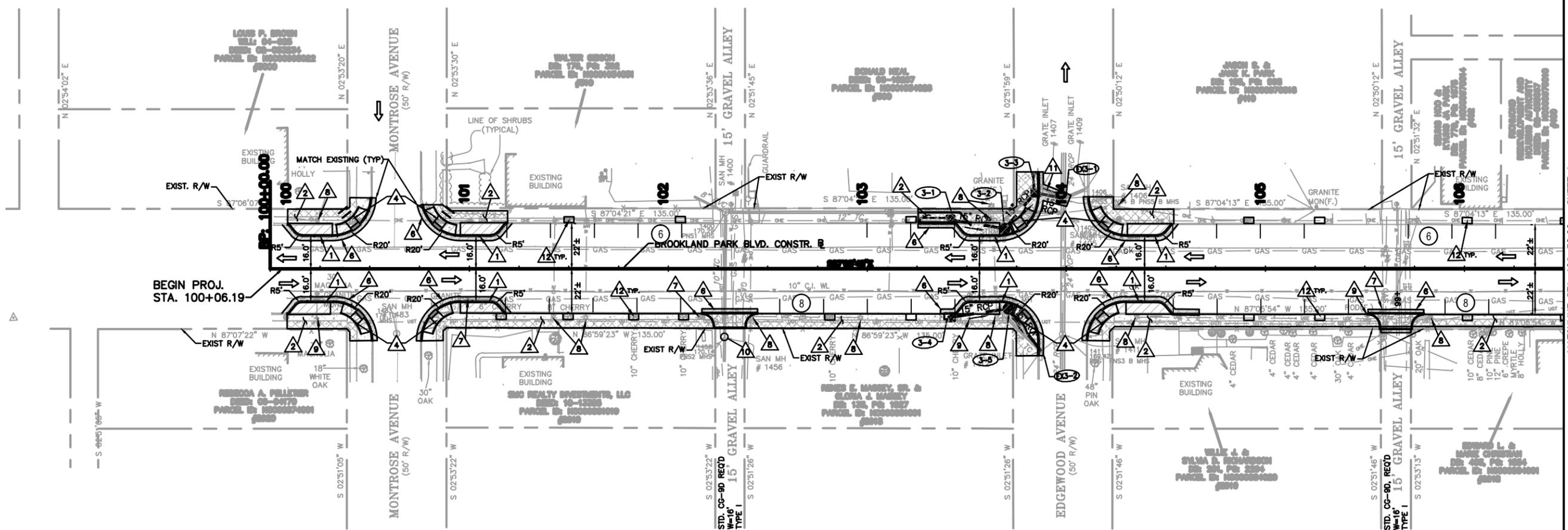
SURVEY ALIGNMENT DATA	1A(1)
SEWER/STORM SEWER DATA	1A(2)-1A(3)
CONSTR. ALIGNMENT DATA	1B
CHOKER STAKING DETAIL	2C(1)
MOD. TRAP BASIN DETAIL	2E(1)
E&S PLAN	3A
DRIVEWAY PROFILES	3B
STORM SEWER PROFILE	3C
LANDSCAPE PLAN	7
SIGNING & MARKING PLAN	13(1)-13(2)

Kimley-Horn & Associates, Inc.  
Richmond, Virginia  
ROADWAY ENGINEER



**VICINITY SKETCH**  
(NOT TO SCALE)

DESIGNED BY: Kimley-Horn

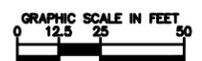


**LEGEND**

	PROPOSED CONC. SIDEWALK		RAISE EXISTING UTILITY TO GRADE
	PROPOSED ASPHALT		EXISTING UTILITY POLE TO REMAIN
	DEMOLISH PAVEMENT		EXISTING FIRE HYDRANT TO REMAIN
	DEMOLISH CONC. SIDEWALK		ADJUST EXIST. MАНHOLE TO GRADE
	MILL AND OVERLAY ASPHALT		PIPE TO BE ABANDONED
	STD. CITY OF RICHMOND CURB		3' X 5' TREE PIT
	STD. HYD. CONCR. SIDEWALK REQ'D., W = VARIES		CLEAN-OUT EXIST. PIPE
	STD. CG-12A CURB CUT RAMP REQ'D.		RELOCATE EXIST. WATER METER
	STD. CG-12B CURB CUT RAMP REQ'D.		ON-STREET PARKING COUNT
	CONCRETE PAVER CROSSWALK, 10' WIDE (SEE SHEET 2D FOR DETAIL)		ALL EXISTING TREES TO REMAIN
	SAWCUT AND PAVEMENT REPAIR		PROPOSED ORNAMENTAL LIGHT LOCATION

**NOTES:**

1. THE CONTRACTOR SHALL OPERATE WITH CARE WHEN WORKING AROUND THE EXISTING TREES TO REMAIN ALONG THE SOUTH SIDE OF BROOKLAND PARK BLVD. BETWEEN MONTROSE AVENUE AND EDGEWOOD AVENUE.



FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

**Kimley»Horn**

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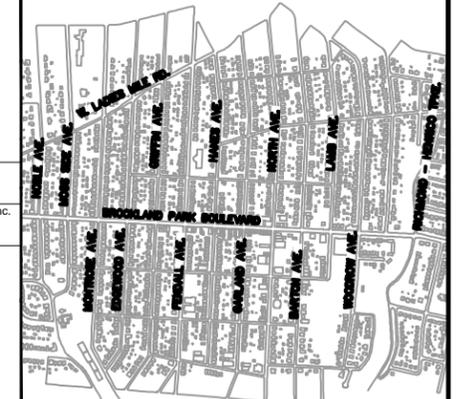
<p><b>NOTES</b></p> <ol style="list-style-type: none"> <li>1. Lot dimensions in parentheses are from deed.</li> <li>2. Property owners correct as of July 11, 2013</li> <li>3. Ordinance Number _____</li> <li>4. Adopted _____</li> <li>5. Accepted _____</li> </ol>		<p><b>LEGEND</b></p> <table border="0"> <tr> <td>Existing Curb</td> <td>•</td> <td>Proposed Curb Cut Ramp</td> <td></td> </tr> <tr> <td>Curb &amp; Gutter</td> <td>•</td> <td>Ex. Castings: Valve/Meter</td> <td></td> </tr> <tr> <td>Sidewalk</td> <td>•</td> <td>Gas Drop</td> <td></td> </tr> <tr> <td>Storm Sewer</td> <td>•</td> <td>Gas Valve/Manhole/Meter</td> <td></td> </tr> <tr> <td>Sanitary / Storm / Man. Manhole</td> <td></td> <td>Telephone Manhole</td> <td></td> </tr> <tr> <td>Sanitary Sewer</td> <td>•</td> <td>Electric Manhole</td> <td></td> </tr> <tr> <td>Gas Line</td> <td></td> <td>Clean Out</td> <td></td> </tr> <tr> <td>Overhead Electric Line</td> <td></td> <td>Gas Monitoring Well</td> <td></td> </tr> <tr> <td>Underground Utilities</td> <td></td> <td>Electric Hand Box</td> <td></td> </tr> <tr> <td>Water Line</td> <td></td> <td>Proposed Curb Cut Ramp</td> <td></td> </tr> <tr> <td>Fence</td> <td></td> <td>Curb</td> <td></td> </tr> <tr> <td>Edge of Pavement</td> <td></td> <td>Basin</td> <td></td> </tr> <tr> <td>Property Line</td> <td></td> <td>Sanitary / Storm Manhole</td> <td></td> </tr> </table>		Existing Curb	•	Proposed Curb Cut Ramp		Curb & Gutter	•	Ex. Castings: Valve/Meter		Sidewalk	•	Gas Drop		Storm Sewer	•	Gas Valve/Manhole/Meter		Sanitary / Storm / Man. Manhole		Telephone Manhole		Sanitary Sewer	•	Electric Manhole		Gas Line		Clean Out		Overhead Electric Line		Gas Monitoring Well		Underground Utilities		Electric Hand Box		Water Line		Proposed Curb Cut Ramp		Fence		Curb		Edge of Pavement		Basin		Property Line		Sanitary / Storm Manhole		<p><b>Richmond Virginia</b></p> <p>DEPARTMENT OF PUBLIC WORKS RICHMOND, VIRGINIA</p>		<table border="1"> <tr> <th colspan="2">Technical</th> <th colspan="2">Administrative</th> </tr> <tr> <td>Survey Superintendent</td> <td></td> <td>Capital Project Administrator</td> <td></td> </tr> <tr> <td>Project Engineer</td> <td></td> <td>Deputy Director for Transportation / Public Works</td> <td></td> </tr> <tr> <td>Maintenance Engineer</td> <td></td> <td>Director of Public Works</td> <td></td> </tr> <tr> <td>City Traffic Engineer</td> <td></td> <td></td> <td></td> </tr> </table>		Technical		Administrative		Survey Superintendent		Capital Project Administrator		Project Engineer		Deputy Director for Transportation / Public Works		Maintenance Engineer		Director of Public Works		City Traffic Engineer				<p>BROOKLAND PARK BOULEVARD STREETSCAPE MONTROSE AVE TO EDGEWOOD AVE</p> <p>CIP: 100-582</p>	
Existing Curb	•	Proposed Curb Cut Ramp																																																																															
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DESIGNED BY: JO	CHECKED BY: BM	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 3																																																																										

NOTES:  
 1. THE EXISTING TRAFFIC SIGNAL AT FENDALL AVENUE/BROOKLAND PARK BLVD IS TO REMAIN. THE CONTRACTOR SHALL TAKE CARE TO PROTECT ALL EXISTING SIGNAL EQUIPMENT DURING CONSTRUCTION.

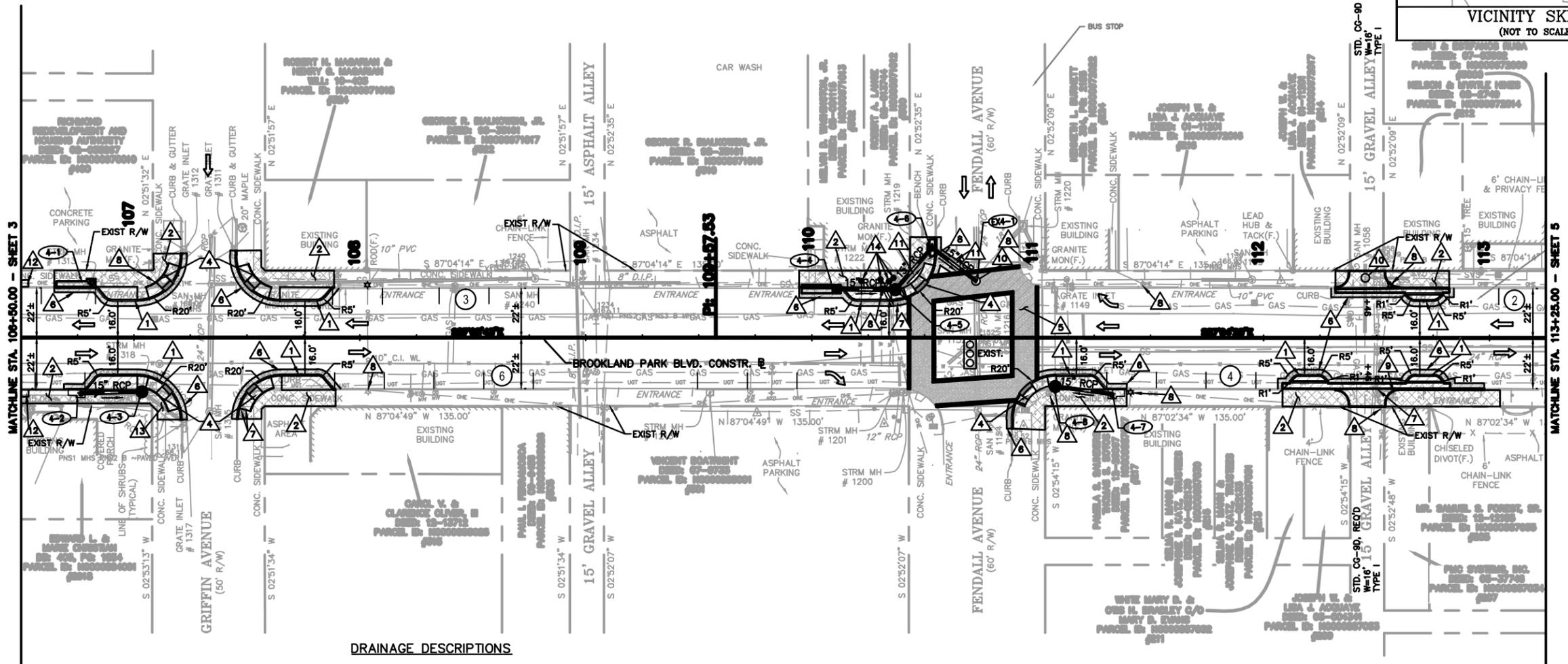
PI STA. 109+57.63  
 PI NO CURVE  
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REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, TC.)	
SURVEY ALIGNMENT DATA	1A(1)
SEWER/STORM SEWER DATA	1A(2)-1A(3)
CONSTR. ALIGNMENT DATA	1B
CHOKER STAKING DETAIL	2C(2)-2C(3)
CROSSWALK PAVEMENT DETAIL	2D
MOD. TRAP BASIN DETAIL	2E(1)
E&S PLAN	4A
DRIVEWAY PROFILES	4B
STORM SEWER PROFILE	4C
LANDSCAPE PLAN	8
SIGNING & MARKING PLAN	13(1)-13(2)

Kimley-Horn & Associates, Inc.  
 Richmond, Virginia  
 ROADWAY ENGINEER



VICINITY SKETCH  
(NOT TO SCALE)



DESIGNED BY: Kimley-Horn

MATCHLINE STA. 106+50.00 - SHEET 3

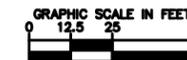
MATCHLINE STA. 113+25.00 - SHEET 5

**DRAINAGE DESCRIPTIONS**

4-1	Modify Existing Structure Add DI-3B, L=16' Top	4-4	1 St'd DI-2B Req'd. L=16', H=6.6', Inv. 163.05 St'd IS-1 Req'd.	4-6	1 St'd DI-3C w/ Trap Req'd (See Detail Sheet 2E) L=6', H=4.7', Inv. 162.05 St'd IS-1 Req'd.
4-2	1 St'd DI-3B Req'd L=6', H=2.8', Inv. 165.55 St'd IS-1 Req'd.	4-4 to 4-5	26'-15" Storm Sewer Pipe Req'd (3' Cover) Inv. (In) 163.05 Inv. (Out) 162.65	4-6 to EX-4-1	25'-15" Storm Sewer Pipe Req'd (3' Cover) Inv. (In) 162.05 Inv. (Out) 161.25 Connect to Existing Structure
4-2 to 4-3	27'-15" Storm Sewer Pipe Req'd (1' Cover) Inv. (In) 165.55 Inv. (Out) 165.41	4-5	3.6 Lin. Ft. MH-1 or MH-2 Req'd 1 St'd MH-1 Frame and Cover Req'd Inv. 162.55, Rim 166.85 St'd IS-1 Req'd.	4-7	1 St'd DI-3B Req'd L=6', H=4.0', Inv. 162.65 St'd IS-1 Req'd.
4-3	Convert Existing DI to Manhole 1 St'd MH-1 Frame and Cover Req'd Modify to Accept 15" Storm Sewer Pipe Rim 168.36	4-5 to 4-6	25'-15" Storm Sewer Pipe Req'd (3' Cover) Inv. (In) 162.55 Inv. (Out) 162.15	4-7 to 4-8	25'-15" Storm Sewer Pipe Req'd (3' Cover) Inv. (In) 162.65 Inv. (Out) 162.40
				4-8	Convert Existing DI to Manhole 1 St'd MH-1 Frame and Cover Req'd, Rim 166.75 Modify to Accept 15" Storm Sewer Pipe

**LEGEND**

- |  |  |  |                                    |
|--|--|--|------------------------------------|
|  | PROPOSED CONC. SIDEWALK  |  | RAISE EXISTING UTILITY TO GRADE    |
|  | PROPOSED ASPHALT   |  | EXISTING UTILITY POLE TO REMAIN    |
|  | DEMOLISH PAVEMENT  |  | EXISTING FIRE HYDRANT TO REMAIN    |
|  | DEMOLISH CONC. SIDEWALK  |  | ADJUST EXIST. MANHOLE TO GRADE     |
|  | MILL AND OVERLAY ASPHALT   |  | PIPE TO BE ABANDONED               |
|  | STD. CITY OF RICHMOND CURB   |  | 3' X 5' TREE PIT                   |
|  | STD. HYD. CONC. SIDEWALK REQ'D., W = VARIES                        |  | CLEAN-OUT EXIST. PIPE              |
|  | STD. CG-12A CURB CUT RAMP REQ'D.                                   |  | RELOCATE EXIST. WATER METER        |
|  | STD. CG-12B CURB CUT RAMP REQ'D.                                   |  | ON-STREET PARKING COUNT            |
|  | CONCRETE PAVEMENT CROSSWALK, 10' WIDE<br>(SEE SHEET 2D FOR DETAIL) |  | ALL EXISTING TREES TO REMAIN       |
|  | SAWCUT AND PAVEMENT REPAIR   |  | PROPOSED ORNAMENTAL LIGHT LOCATION |



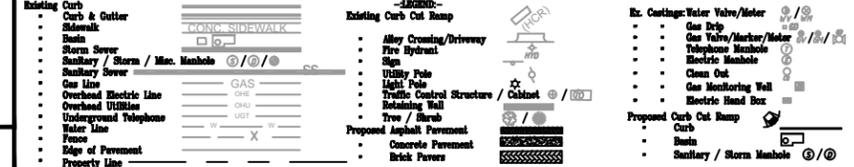
FINAL UDC PLANS - 9/15/14  
 NOT FOR CONSTRUCTION

**Kimley-Horn**

2014 KIMLEY-HORN AND ASSOCIATES, INC.  
 1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
 PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
 STREETScape  
 GRIFFIN AVE TO FENDALL AVE

**NOTES**  
 1. Lot dimensions in parentheses are from deed.  
 2. Property owners correct as of July 11, 2013  
 3. Ordinance Number \_\_\_\_\_  
 4. Adopted \_\_\_\_\_  
 5. Accepted \_\_\_\_\_



Technical	Administrative
Surveys Superintendent	Capital Project Administrator
Project Engineer	Deputy Director for Transportation / Public Works
Maintenance Engineer	Director of Public Works
City Traffic Engineer	

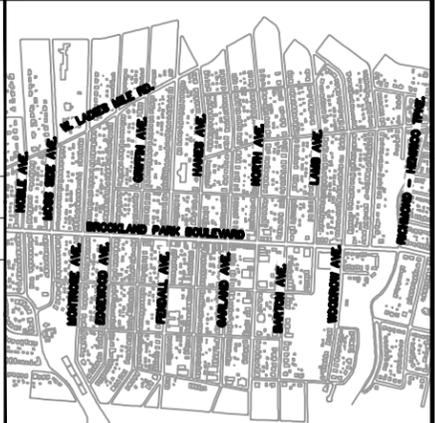
DEPARTMENT OF PUBLIC WORKS  
 RICHMOND, VIRGINIA

CIP: 100-582	DESIGN BY: JO	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 4
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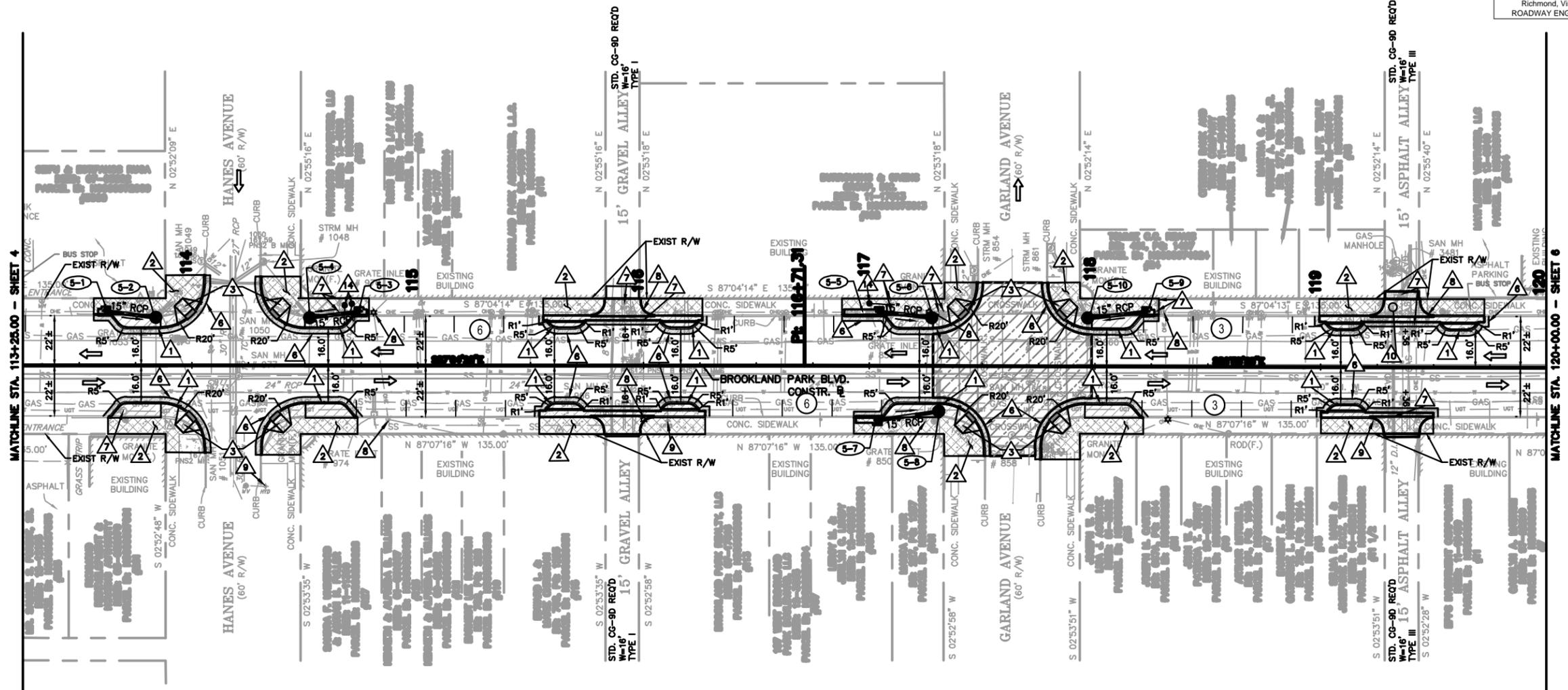
DESIGNED BY: Kimley-Horn

PI STA. 116+71.31  
 PI NO CURVE  
 Δ = 00° 08' 27" RT.

Kimley-Horn & Associates, Inc.  
 Richmond, Virginia  
 ROADWAY ENGINEER



VICINITY SKETCH  
 (NOT TO SCALE)



NOTES:  
 1. CONTRACTOR TO TAKE CARE WHEN EXCAVATING IN VICINITY OF GAS VALVES DURING INSTALLATION OF STORM PIPE 5-3 TO 5-4 AND INSTALLATION OF STRUCTURE 5-9.

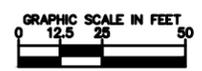
REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, TC.)	
SURVEY ALIGNMENT DATA	1A(1)
SEWER/STORM SEWER DATA	1A(2)-1A(3)
CONSTR. ALIGNMENT DATA	1B
CHOKER STAKING DETAIL	2C(3)-2C(5)
E&S PLAN	5A
DRIVEWAY PROFILES	5B
STORM SEWER PROFILE	5C
LANDSCAPE PLAN	9
SIGNING & MARKING PLAN	13(2)

**DRAINAGE DESCRIPTIONS**

5-1	1 St'd DI-38 Req'd L=4', H=2.5', Inv. 164.85 St'd IS-1 Req'd	5-5	1 St'd DI-38 Req'd L=16', H=3.8', Inv. 163.05 St'd IS-1 Req'd	5-9	1 St'd DI-38 Req'd L=4', H=3.3', Inv. 163.00 St'd IS-1 Req'd
5-1 to 5-2	22'-15" Storm Sewer Pipe Req'd (1' Cover) Inv. (In) 164.85 Inv. (Out) 164.64	5-5 to 5-6	24'-15" Storm Sewer Pipe Req'd (2' Cover) Inv. (In) 163.05 Inv. (Out) 162.62	5-9 to 5-10	26'-15" Storm Sewer Pipe Req'd (2' Cover) Inv. (In) 163.00 Inv. (Out) 162.87
5-2	Convert Existing DI to Manhole 1 St'd MH-1 Frame and Cover Req'd, Rim 167.45 Modify to Accept 15" Storm Sewer Pipe	5-6	Convert Existing DI to Manhole 1 St'd MH-1 Frame and Cover Req'd, Rim 166.95 Modify to Accept 15" Storm Sewer Pipe	5-10	Convert Existing DI to Manhole 1 St'd MH-1 Frame and Cover Req'd, Rim 166.48 Modify to Accept 15" Storm Sewer Pipe
5-3	1 St'd DI-38 Req'd L=4', H=2.8', Inv. 164.70 St'd IS-1 Req'd	5-7	1 St'd DI-38 Req'd L=10', H=3.7', Inv. 163.00 St'd IS-1 Req'd		
5-3 to 5-4	22'-15" Storm Sewer Pipe Req'd (1' Cover) Inv. (In) 164.70 Inv. (Out) 164.46	5-7 to 5-8	28'-15" Storm Sewer Pipe Req'd (2' Cover) Inv. (In) 163.00 Inv. (Out) 162.70		
5-4	Convert Existing DI to Manhole 1 St'd MH-1 Frame and Cover Req'd, Rim 167.62 Modify to Accept 15" Storm Sewer Pipe	5-8	Convert Existing DI to Manhole 1 St'd MH-1 Frame and Cover Req'd, Rim 166.87 Modify to Accept 15" Storm Sewer Pipe		

**LEGEND**

- PROPOSED CONC. SIDEWALK
- PROPOSED ASPHALT
- DEMOLISH PAVEMENT
- DEMOLISH CONC. SIDEWALK
- MILL AND OVERLAY ASPHALT
- STD. CITY OF RICHMOND CURB
- STD. HYD. CONCR. SIDEWALK REQ'D., W = VARIES
- STD. CG-12A CURB CUT RAMP REQ'D.
- STD. CG-12B CURB CUT RAMP REQ'D.
- CONCRETE PAVER CROSSWALK, 10' WIDE (SEE SHEET 2D FOR DETAIL)
- SAWCUT AND PAVEMENT REPAIR
- RAISE EXISTING UTILITY TO GRADE
- EXISTING UTILITY POLE TO REMAIN
- EXISTING FIRE HYDRANT TO REMAIN
- ADJUST EXIST. MANHOLE TO GRADE
- PIPE TO BE ABANDONED
- 3' X 5' TREE PIT
- RELOCATE EXIST. PIPE
- RELOCATE EXIST. WATER METER
- ON-STREET PARKING COUNT
- ALL EXISTING TREES TO REMAIN
- PROPOSED ORNAMENTAL LIGHT LOCATION



FINAL UDC PLANS - 9/15/14  
 NOT FOR CONSTRUCTION

**Kimley»Horn**

2014 KIMLEY-HORN AND ASSOCIATES, INC.  
 1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
 PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
 STREETSCAPE  
 HANES AVE TO GARLAND AVE

**NOTES**  
 1. Lot dimensions in parentheses are from deed.  
 2. Property owners correct as of July 11, 2013  
 3. Ordinance Number \_\_\_\_\_  
 4. Adopted \_\_\_\_\_  
 5. Accepted \_\_\_\_\_

Existing Curb	Existing Curb Cut Ramp	Ex. Castings: Valve/Meter
<ul style="list-style-type: none"> <li>Curbs &amp; Gutters</li> <li>Sidewalk</li> <li>Storm Sewer</li> <li>Sanitary / Storm / Min. Manhole</li> <li>Sanitary Sewer</li> <li>Gas Line</li> <li>Overhead Electric Line</li> <li>Underground Utilities</li> <li>Underground Telephone</li> <li>Water Line</li> <li>Fence</li> <li>Edge of Pavement</li> <li>Property Line</li> </ul>	<ul style="list-style-type: none"> <li>Alley Crossing/Driveway</li> <li>Fire Hydrant</li> <li>Utility Pole</li> <li>Light Pole</li> <li>Traffic Control Structure / Cabinet</li> <li>Retaining Wall</li> <li>Tree / Shrub</li> <li>Proposed Asphalt Pavement</li> <li>Concrete Pavement</li> <li>Brick Pavers</li> </ul>	<ul style="list-style-type: none"> <li>Gas Drop</li> <li>Gas Valve/Marker/Meter</li> <li>Telephone Manhole</li> <li>Electric Manhole</li> <li>Clean Out</li> <li>Gas Monitoring Well</li> <li>Electric Hand Box</li> </ul>



Technical	Administrative
Surveys Superintendent	Capital Project Administrator
Project Engineer	Deputy Director for Transportation / Public Works
Maintenance Engineer	Director of Public Works
City Traffic Engineer	

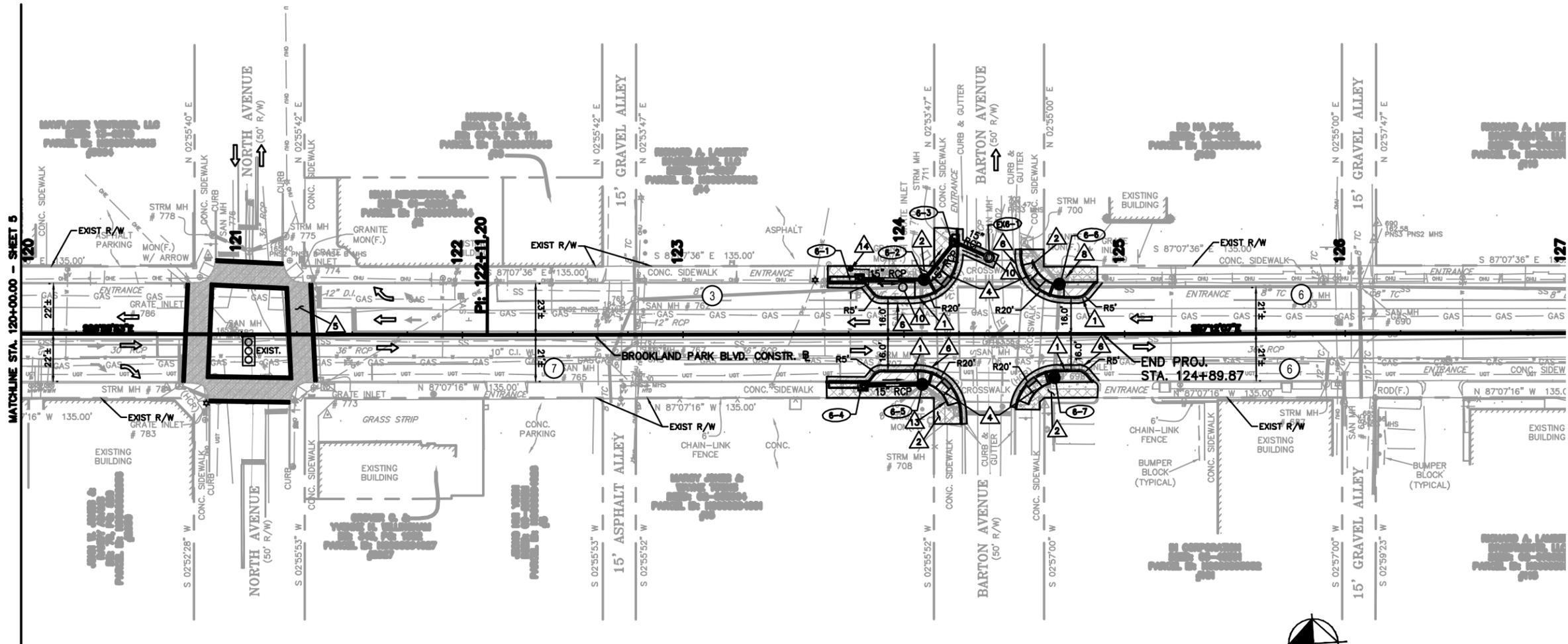
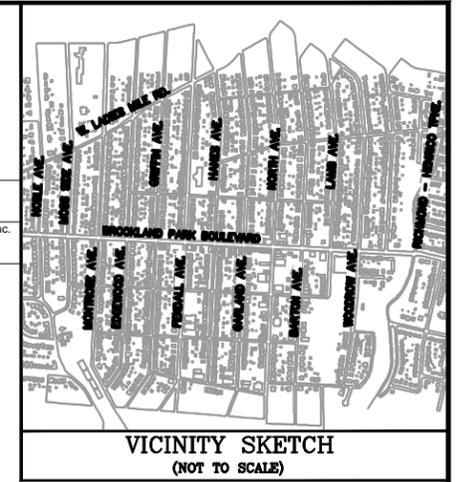
DEPARTMENT OF PUBLIC WORKS  
 RICHMOND, VIRGINIA

CIP: 100-582	DRAWN BY: JO	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 5
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NOTES:  
 1. THE EXISTING TRAFFIC SIGNAL AT NORTH AVENUE/BROOKLAND PARK BLVD IS TO REMAIN. THE CONTRACTOR SHALL TAKE CARE TO PROTECT ALL EXISTING SIGNAL EQUIPMENT DURING CONSTRUCTION.

PI STA. 122+11.20  
 PI NO CURVE  
 $\Delta = 00^\circ 16' 13''$  LT.

Kimley-Horn & Associates, Inc.  
 Richmond, Virginia  
 ROADWAY ENGINEER



REFERENCES  
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, TC.)

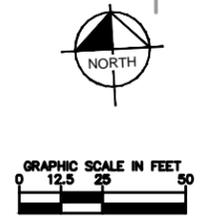
SURVEY ALIGNMENT DATA	1A(1)
SEWER/STORM SEWER DATA	1A(2)-1A(3)
CONSTR. ALIGNMENT DATA	1B
CHOKER STAKING DETAIL	2C(5)
CROSSWALK PAVEMENT DETAIL	2D
MOD. TRAP BASIN DETAIL	2E(1)
E&S PLAN	6A
STORM SEWER PROFILE	6B
LANDSCAPE PLAN	10
SIGNING & MARKING PLAN	13(2)

DRAINAGE DESCRIPTIONS

6-1	1 St'd DI-38 Req'd L=12', H=3.5', Inv. 160.00 St'd IS-1 Req'd	6-4	1 St'd DI-38 Req'd L=16', H=3.4', Inv. 159.90 St'd IS-1 Req'd
6-1 to 6-2	39"-15" Storm Sewer Pipe Req'd (2' Cover) Inv. (In) 160.00 Inv. (Out) 159.60	6-4 to 6-5	27"-15" Storm Sewer Pipe Req'd (2' Cover) Inv. (In) 159.90 Inv. (Out) 159.40
6-2	3.3 Lin. Ft. MH-1 or MH-2 Req'd 1 St'd MH-1 Frame and Cover Req'd, Rim 163.48 Inv. 159.50, St'd IS-1 Req'd	6-5	Convert Existing DI to Manhole 1 St'd MH-1 Frame and Cover Req'd, Rim 163.27 Modify to Accept 15" Storm Sewer Pipe
6-2 to 6-3	22"-15" Storm Sewer Pipe Req'd (2' Cover) Inv. (In) 159.50 Inv. (Out) 159.20	6-6	Convert Existing DI to Manhole 1 St'd MH-1 Frame and Cover Req'd Modify to Accept 15" Storm Sewer Pipe Rim 163.15
6-3	1 St'd DI-38 w/ Trap Req'd (See Detail Sheet 2E) L=4', H=4.5', Inv. 159.10 St'd IS-1 Req'd	6-7	Convert Existing DI to Manhole 1 St'd MH-1 Frame and Cover Req'd Modify to Accept 15" Storm Sewer Pipe Rim 162.95
6-3 to EX-6-1	17"-15" Storm Sewer Pipe Req'd (3' Cover) Inv. (In) 159.10 Inv. (Out) 158.50 Connect to Existing Structure		

LEGEND

- PROPOSED CONC. SIDEWALK
- PROPOSED ASPHALT
- DEMOLISH PAVEMENT
- DEMOLISH CONC. SIDEWALK
- MILL AND OVERLAY ASPHALT
- STD. CITY OF RICHMOND CURB
- STD. HYD. CONC. SIDEWALK REQ'D., W = VARIES
- STD. CG-12A CURB CUT RAMP REQ'D.
- STD. CG-12B CURB CUT RAMP REQ'D.
- CONCRETE PAVEMENT CROSSWALK, 10' WIDE (SEE SHEET 2D FOR DETAIL)
- SAWCUT AND PAVEMENT REPAIR
- RAISE EXISTING UTILITY TO GRADE
- EXISTING UTILITY POLE TO REMAIN
- EXISTING FIRE HYDRANT TO REMAIN
- ADJUST EXIST. MANHOLE TO GRADE
- PIPE TO BE ABANDONED
- 3' X 5' TREE PIT
- CLEAN-OUT EXIST. PIPE
- RELOCATE EXIST. WATER METER
- ON-STREET PARKING COUNT
- ALL EXISTING TREES TO REMAIN
- PROPOSED ORNAMENTAL LIGHT LOCATION



FINAL UDC PLANS - 9/15/14  
 NOT FOR CONSTRUCTION

**Kimley»Horn**

2014 KIMLEY-HORN AND ASSOCIATES, INC.  
 1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
 PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
 STREETSCAPE  
 NORTH AVE TO BARTON AVE

NOTES  
 1. Lot dimensions in parentheses are from deed.  
 2. Property owners correct as of July 11, 2014  
 3. Ordinance Number \_\_\_\_\_  
 4. Adopted \_\_\_\_\_  
 5. Accepted \_\_\_\_\_

<ul style="list-style-type: none"> <li>Existing Curb</li> <li>Curbs &amp; Gutters</li> <li>Manhole</li> <li>Storm Sewer</li> <li>Sanitary / Storm / Min. Manhole</li> <li>Sanitary Sewer</li> <li>Gas Line</li> <li>Overhead Electric Line</li> <li>Underground Utilities</li> <li>Underground Telephone</li> <li>Water Line</li> <li>Fence</li> <li>Edge of Pavement</li> <li>Property Line</li> </ul>	<ul style="list-style-type: none"> <li>CONC. SIDEWALK</li> <li>GAS</li> <li>OH</li> <li>UGT</li> <li>W</li> <li>X</li> </ul>	<ul style="list-style-type: none"> <li>Existing Curb Cut Ramp</li> <li>Alley Crossing/Driveway</li> <li>Fire Hydrant</li> <li>Utility Pole</li> <li>Light Pole</li> <li>Traffic Control Structure / Cabinet</li> <li>Retaining Wall</li> <li>Tree / Shrub</li> <li>Proposed Asphalt Pavement</li> <li>Concrete Pavement</li> <li>Brick Pavers</li> </ul>	<ul style="list-style-type: none"> <li>Ex. Castings: Valve / Meter</li> <li>Gas Inlet</li> <li>Gas Valve / Meter / Meter</li> <li>Telephone Manhole</li> <li>Electric Manhole</li> <li>Clean Out</li> <li>Gas Monitoring Well</li> <li>Electric Hand Box</li> <li>Proposed Curb Cut Ramp</li> <li>Curb</li> <li>Drain</li> <li>Sanitary / Storm Manhole</li> </ul>
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Technical	Administrative
Survey Superintendent Project Engineer Maintenance Engineer City Traffic Engineer	Capital Project Administrator Deputy Director for Transportation / Public Works Director of Public Works

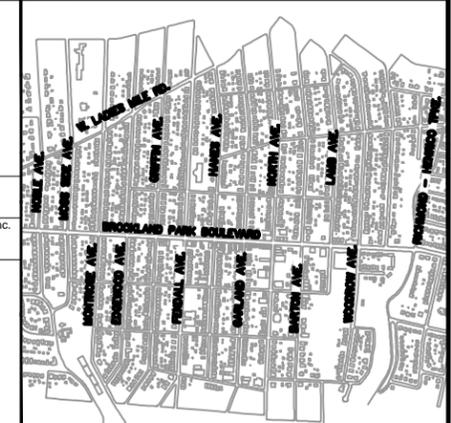
DEPARTMENT OF PUBLIC WORKS  
 RICHMOND, VIRGINIA

CIP: 100-582	DRAWN BY: JO	DESIGNED BY: SJ	FIELD NOTES	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 6
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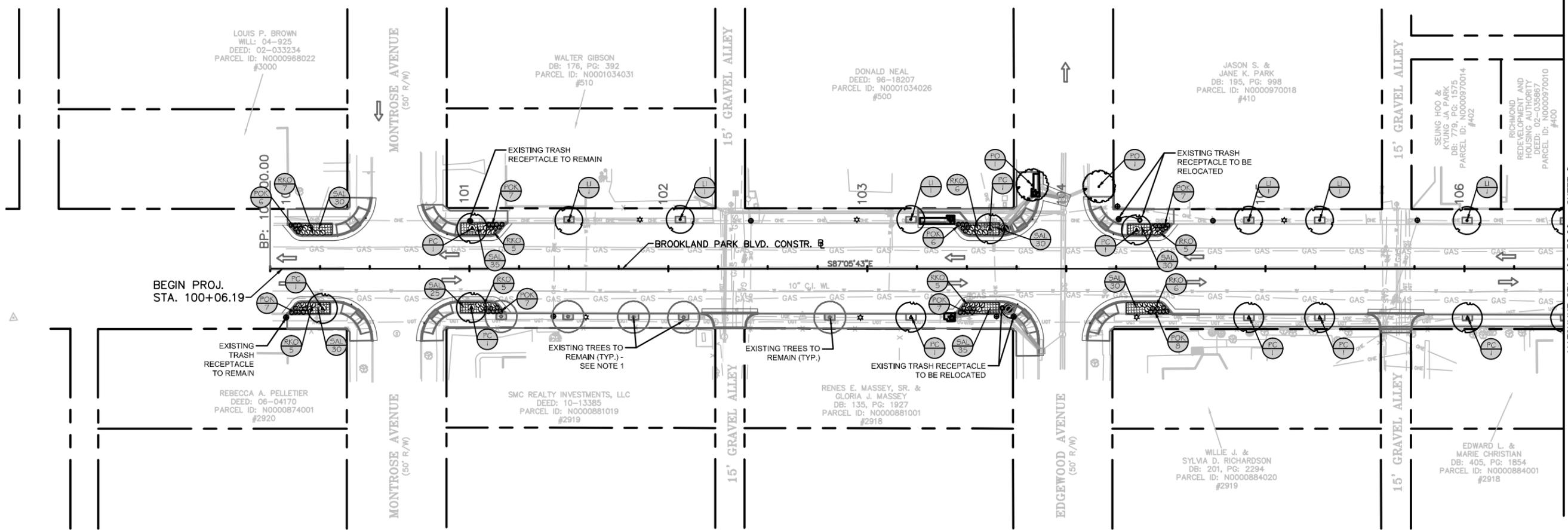
DESIGNED BY: L. Kimley-Horn

DESIGNED BY: Kimley-Horn

Kimley-Horn & Associates, Inc.  
Richmond, Virginia  
ROADWAY ENGINEER

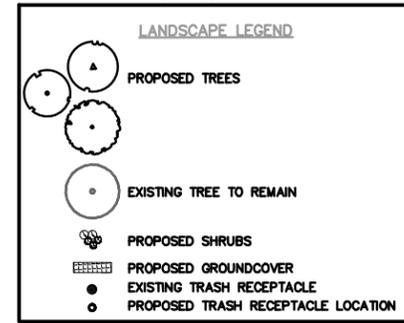


VICINITY SKETCH  
(NOT TO SCALE)

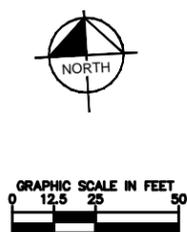


BEGIN PROJ.  
STA. 100+06.19

MATCHLINE STA. 106+50.00 - SHEET 8



- NOTES:**
- EXISTING TREES TO REMAIN IN PLACE. DUE TO THE CLOSE PROXIMITY OF SIDEWALK CONSTRUCTION TO THE TREES, AN ARBORIST SHALL BE ONSITE WHILE CONSTRUCTION IS BEING DONE WITHIN DRIP LINE OF EXISTING TREES.
  - SEE SHEET 11 - LANDSCAPE DETAILS FOR PLANT TABLE AND PLANTING DETAILS.
  - SEE SHEET 12 - LANDSCAPE DETAILS FOR SITE FURNISHINGS.
  - CONTRACTOR TO CONFIRM LOCATIONS OF EXISTING UTILITIES TO REMAIN PRIOR TO CONSTRUCTION.



FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

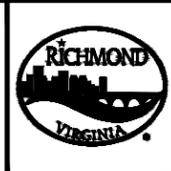
**Kimley»Horn**

2014 KIMLEY-HORN AND ASSOCIATES, INC.  
1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
PHONE: (804) 673-3882 FAX: (804) 673-3980

**NOTES**

- Lot dimensions in parentheses are from deed.
- Property owners correct as of July 11, 2013
- Ordinance Number \_\_\_\_\_
- Adopted \_\_\_\_\_
- Accepted \_\_\_\_\_

Existing Curb	Proposed	Existing Curb Cut Ramp	Proposed
Curbside	Concrete	Alloy Grating/Driveway	Alloy Grating
Sidewalk	Concrete	Tire Symbol	Tire Symbol
Storm Sewer	Concrete	Utility Pole	Utility Pole
Sanitary / Storm / Misc. Manhole	Concrete	Light Pole	Light Pole
Sanitary Sewer	Concrete	Traffic Control Structure / Cabinet	Traffic Control Structure
Gas Line	Concrete	Retaining Wall	Retaining Wall
Overhead Electric Line	Concrete	Tree / Shrub	Tree / Shrub
Gas Line	Concrete	Proposed Asphalt Pavement	Asphalt
Underground Utilities	Concrete	Proposed Concrete Pavement	Concrete
Water Line	Concrete	Proposed Brick Pavers	Brick Pavers
Fence	Concrete		
Edge of Pavement	Concrete		
Property Line	Concrete		



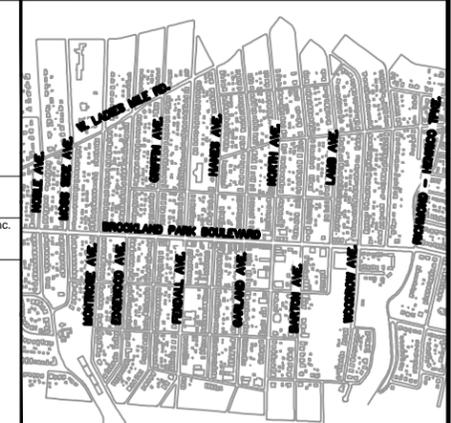
Technical	Administrative
Survey Superintendent	Capital Project Administrator
Project Engineer	Deputy Director for Transportation / Public Works
Maintenance Engineer	Director of Public Works
City Traffic Engineer	

BROOKLAND PARK BOULEVARD STREETSCAPE MONTROSE AVE TO EDGEWOOD AVE LANDSCAPE PLAN		CIP: 100-582
DESIGN BY: JNJ	REVIEWED BY:	FIELD NOTES:
DRAWN BY: JNJ	SCALE: AS NOTED	DATE: 09/15/14
CHECKED BY: KWA	DRAWING NO. 0-28558	SHEET NO. 7

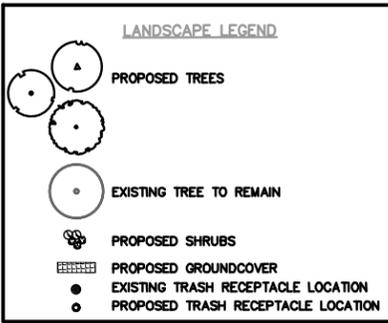
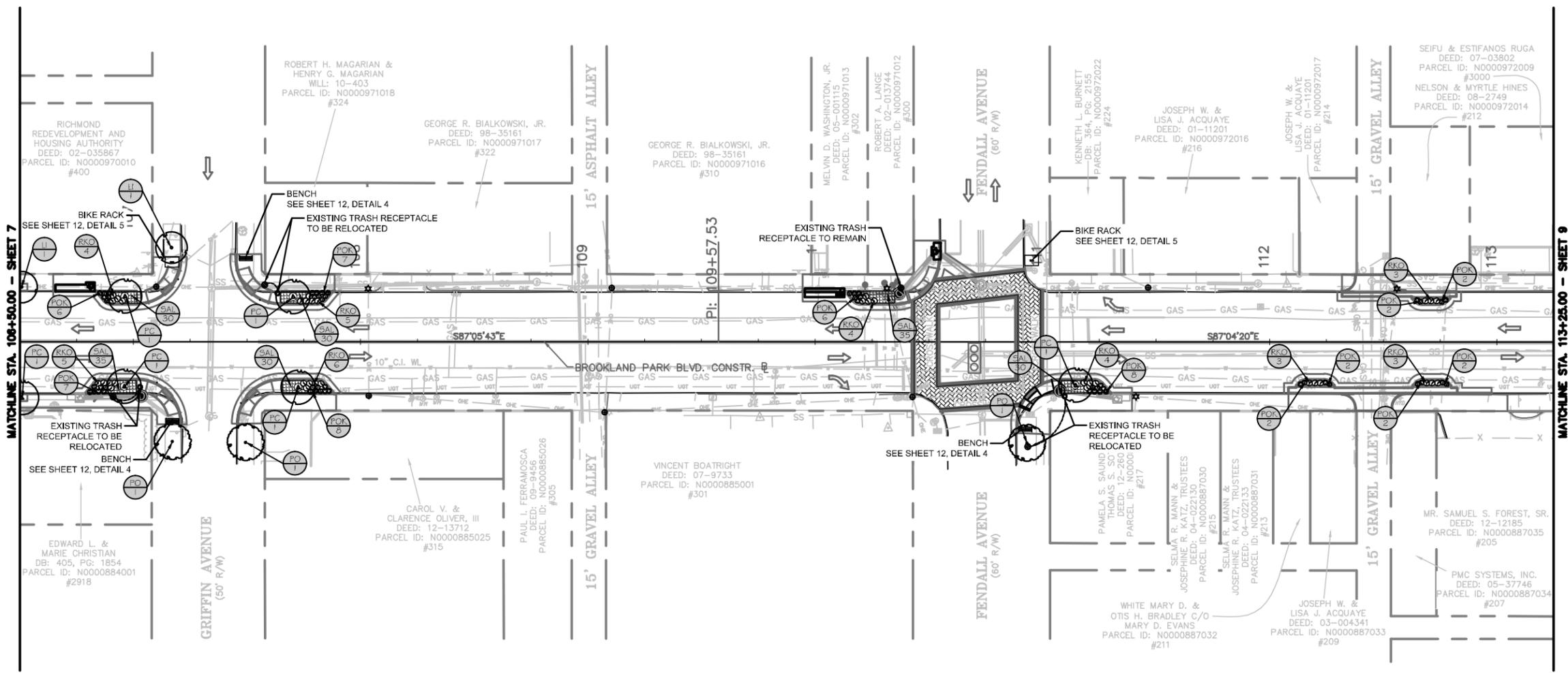
DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

DESIGNED BY: Kimley-Horn

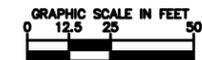
Kimley-Horn & Associates, Inc.  
Richmond, Virginia  
ROADWAY ENGINEER



VICINITY SKETCH  
(NOT TO SCALE)



- NOTES:**
- EXISTING TREES TO REMAIN IN PLACE. DUE TO THE CLOSE PROXIMITY OF SIDEWALK CONSTRUCTION TO THE TREES, AN ARBORIST SHALL BE ONSITE WHILE CONSTRUCTION IS BEING DONE WITHIN DRIP LINE OF EXISTING TREES.
  - SEE SHEET 11 - LANDSCAPE DETAILS FOR PLANT TABLE AND PLANTING DETAILS.
  - SEE SHEET 12 - LANDSCAPE DETAILS FOR SITE FURNISHINGS.
  - CONTRACTOR TO CONFIRM LOCATIONS OF EXISTING UTILITIES TO REMAIN PRIOR TO CONSTRUCTION.



FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

**Kimley»Horn**

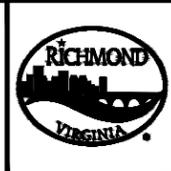
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1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
STREETSCAPE  
GRIFFIN AVE TO FENDALL AVE LANDSCAPE PLAN

**NOTES**

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- Property owners correct as of July 11, 2013
- Ordinance Number \_\_\_\_\_
- Adopted \_\_\_\_\_
- Accepted \_\_\_\_\_

<p><b>Existing Curb</b></p> <ul style="list-style-type: none"> <li>Curb &amp; Gutter</li> <li>Sidewalk</li> <li>Stain</li> <li>Storm Sewer</li> <li>Sanitary / Storm / Man. Manhole</li> <li>Sanitary Sewer</li> <li>Gas Line</li> <li>Overhead Electric Line</li> <li>Light Pole</li> <li>Overhead Utilities</li> <li>Underground Telephone</li> <li>Water Line</li> <li>Fence</li> <li>Edge of Pavement</li> <li>Property Line</li> </ul>	<p><b>Legend</b></p> <p><b>CONC. SIDEWALK</b></p> <p><b>Existing Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>Alley Crossing/Driveway</li> <li>Fire Hydrant</li> <li>Sign</li> <li>Utility Pole</li> <li>Light Pole</li> <li>Traffic Control Structure / Cabinet</li> <li>Retaining Wall</li> <li>Tree / Shrub</li> <li>Proposed Asphalt Pavement</li> <li>Concrete Pavement</li> <li>Brick Pavers</li> </ul>	<p><b>Ex. Castings: Valve / Meter</b></p> <ul style="list-style-type: none"> <li>Gas Drop</li> <li>Gas Valve/Marker/Meter</li> <li>Telephone Manhole</li> <li>Electric Manhole</li> <li>Clean Out</li> <li>Gas Monitoring Well</li> <li>Electric Head Box</li> </ul> <p><b>Proposed Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>Curb</li> <li>Stain</li> <li>Sanitary / Storm Manhole</li> </ul>
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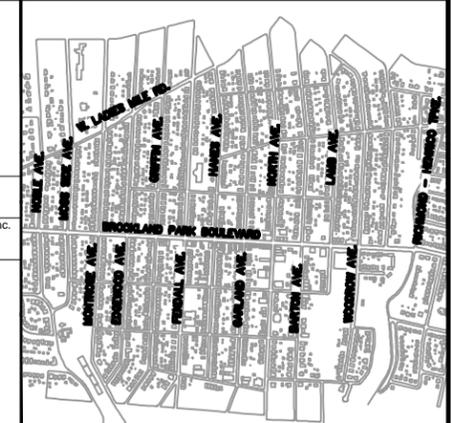
<b>Technical</b>	<b>Administrative</b>
Survey Superintendent	Project Engineer
Project Engineer	Capital Project Administrator
Maintenance Engineer	Deputy Director for Transportation / Public Works
City Traffic Engineer	Director of Public Works

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

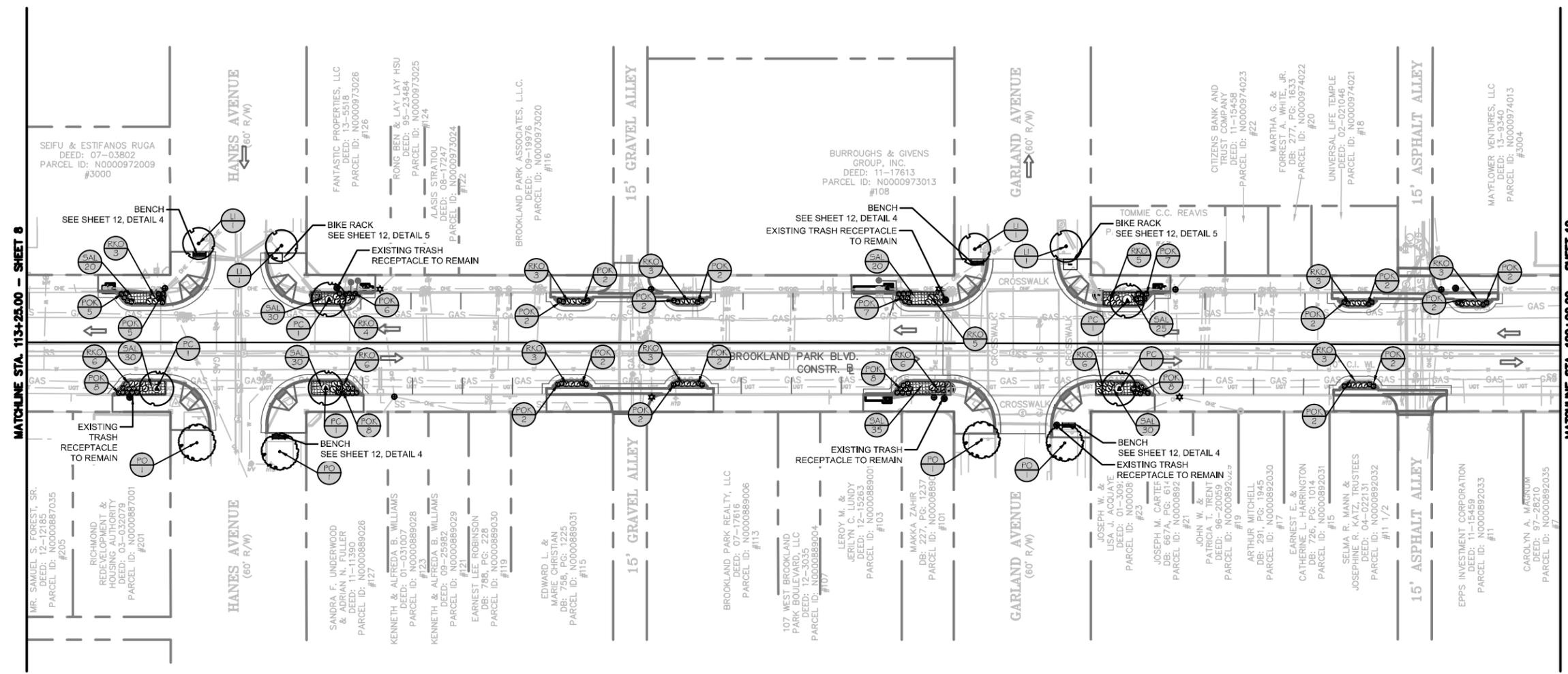
CIP: 100-582	DESIGN BY: JNJ	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO. 0-28558	SHEET NO. 8
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DESIGNED BY: Kimley-Horn

Kimley-Horn & Associates, Inc.  
Richmond, Virginia  
ROADWAY ENGINEER

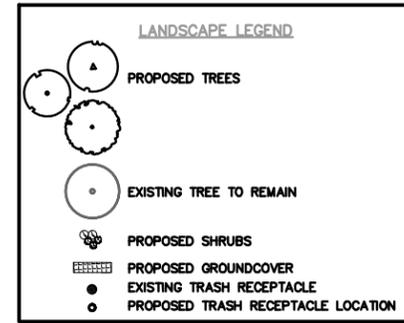


VICINITY SKETCH  
(NOT TO SCALE)

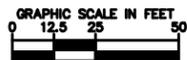


MATCHLINE STA. 113+25.00 - SHEET 8

MATCHLINE STA. 120+00.00 - SHEET 10



- NOTES:**
- EXISTING TREES TO REMAIN IN PLACE. DUE TO THE CLOSE PROXIMITY OF SIDEWALK CONSTRUCTION TO THE TREES, AN ARBORIST SHALL BE ONSITE WHILE CONSTRUCTION IS BEING DONE WITHIN DRIP LINE OF EXISTING TREES.
  - SEE SHEET 11 - LANDSCAPE DETAILS FOR PLANT TABLE AND PLANTING DETAILS.
  - SEE SHEET 12 - LANDSCAPE DETAILS FOR SITE FURNISHINGS.
  - CONTRACTOR TO CONFIRM LOCATIONS OF EXISTING UTILITIES TO REMAIN PRIOR TO CONSTRUCTION.



FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

**Kimley»Horn**

2014 KIMLEY-HORN AND ASSOCIATES, INC.  
1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
STREETSCAPE  
HANES AVE TO GARLAND AVE LANDSCAPE PLAN

**NOTES**

- Lot dimensions in parentheses are from deed.
- Property owners correct as of July 11, 2013
- Ordinance Number \_\_\_\_\_
- Adopted \_\_\_\_\_
- Accepted \_\_\_\_\_

Existing Curb	Proposed Sidewalk	Existing Curb Cut Ramp	Proposed Curb Cut Ramp
<ul style="list-style-type: none"> <li>Curb &amp; Gutter</li> <li>Sidewalk</li> <li>Storm Sewer</li> <li>Sanitary / Storm / Manhole</li> <li>Sanitary Sewer</li> <li>Gas Line</li> <li>Overhead Electric Line</li> <li>Overhead Utilities</li> <li>Underground Telephone</li> <li>Water Line</li> <li>Fence</li> <li>Edge of Pavement</li> <li>Property Line</li> </ul>	<ul style="list-style-type: none"> <li>CONCRETE SIDEWALK</li> <li>ASPHALT SIDEWALK</li> <li>GRASS</li> <li>WOOD</li> <li>BRICK</li> <li>OTHER</li> </ul>	<ul style="list-style-type: none"> <li>Alley Crossing/Driveway</li> <li>Fire Hydrant</li> <li>Utility Pole</li> <li>Light Pole</li> <li>Traffic Control Structure / Cabinet</li> <li>Retaining Wall</li> <li>Tree / Shrub</li> <li>Proposed Asphalt Pavement</li> <li>Concrete Pavement</li> <li>Brick Pavers</li> </ul>	<ul style="list-style-type: none"> <li>Gas Drop</li> <li>Gas Valve/Marker/Meter</li> <li>Telephone Manhole</li> <li>Electric Manhole</li> <li>Clean Out</li> <li>Gas Monitoring Well</li> <li>Electric Hand Box</li> <li>Proposed Curb Cut Ramp</li> <li>Curb</li> <li>Basin</li> <li>Sanitary / Storm Manhole</li> </ul>



Technical	Administrative
<ul style="list-style-type: none"> <li>Survey Superintendent</li> <li>Project Engineer</li> <li>Maintenance Engineer</li> <li>City Traffic Engineer</li> </ul>	<ul style="list-style-type: none"> <li>Capital Project Administrator</li> <li>Deputy Director for Transportation / Public Works</li> <li>Director of Public Works</li> </ul>

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

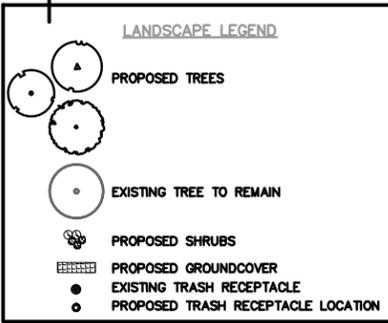
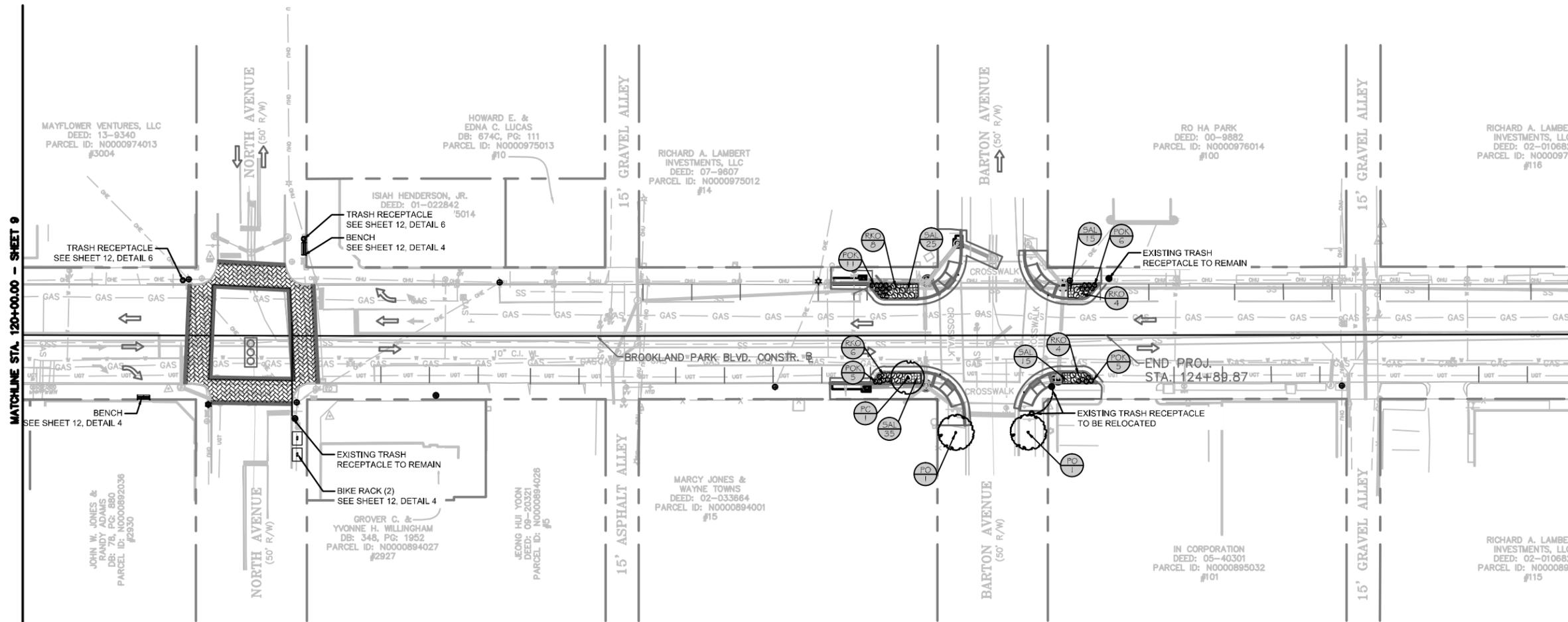
CIP: 100-582	DESIGN BY: JNJ	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 9
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DESIGNED BY: Kimley-Horn

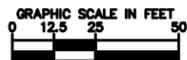
Kimley-Horn & Associates, Inc.  
Richmond, Virginia  
ROADWAY ENGINEER



VICINITY SKETCH  
(NOT TO SCALE)



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PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
STREETSCAPE  
NORTH AVE TO BARTON AVE LANDSCAPE PLAN

**NOTES**

- Lot dimensions in parentheses are from deed.
- Property owners correct as of July 11, 2013
- Ordinance Number \_\_\_\_\_
- Adopted \_\_\_\_\_
- Accepted \_\_\_\_\_

<p><b>Existing Curb</b></p> <ul style="list-style-type: none"> <li>Curb &amp; Gutter</li> <li>Manhole</li> <li>Storm</li> <li>Sanitary / Storm / Min. Manhole</li> <li>Sanitary Sewer</li> <li>Gas Line</li> <li>Overhead Electric Line</li> <li>Overhead Utilities</li> <li>Underground Telephone</li> <li>Water Line</li> <li>Fence</li> <li>Edge of Pavement</li> <li>Property Line</li> </ul>	<p><b>CONC. SIDEWALK</b></p> <ul style="list-style-type: none"> <li>GAS</li> <li>OH</li> <li>UGT</li> <li>W</li> <li>X</li> </ul>	<p><b>Existing Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>Alley Crossing/Driveway</li> <li>Fire Hydrant</li> <li>Sign</li> <li>Utility Pole</li> <li>Light Pole</li> <li>Traffic Control Structure / Cabinet</li> <li>Retaining Wall</li> <li>Tree / Shrub</li> <li>Proposed Asphalt Pavement</li> <li>Concrete Pavement</li> <li>Brick Pavers</li> </ul>	<p><b>Ex. Castings: Valve / Meter</b></p> <ul style="list-style-type: none"> <li>Gas Inlet</li> <li>Gas Valve / Meter / Meter</li> <li>Telephone Manhole</li> <li>Electric Manhole</li> <li>Clean Out</li> <li>Gas Monitoring Well</li> <li>Electric Hand Box</li> </ul> <p><b>Proposed Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>Curb</li> <li>Manhole</li> <li>Sanitary / Storm Manhole</li> </ul>
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Technical	Administrative
<p>Survey Superintendent</p> <p>Project Engineer</p> <p>Maintenance Engineer</p> <p>City Traffic Engineer</p>	<p>Capital Project Administrator</p> <p>Deputy Director for Transportation / Public Works</p> <p>Director of Public Works</p>
<p>DEPARTMENT OF PUBLIC WORKS RICHMOND, VIRGINIA</p>	

CIP: 100-582	DESIGNED BY: JNJ	DRAWN BY: JNJ	CHECKED BY: KWA	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 10
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**GENERAL PLANTING NOTES:**

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, ETC. NECESSARY TO COMPLETE ALL PLANTING AS SHOWN ON THE PLANTING PLANS, AS SPECIFIED HEREON OR IN SUPPLEMENTAL SPECIFICATIONS, AND/OR AS REQUIRED BY JOB CONDITIONS. THE WORK IN GENERAL INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

- (1) SOIL PREPARATION;
- (2) PROVIDING TOPSOIL AND ALL SOIL AMENDMENTS;
- (3) EXCAVATION OF PLANTING PITS;
- (4) PROVIDING ALL PLANT MATERIAL AND MULCH AS INDICATED ON PLANS;
- (5) FERTILIZING;
- (6) STAKING;
- (7) CHEMICAL APPLICATION;
- (8) MAINTENANCE AND GUARANTEE;
- (9) ALL OTHER ITEMS NECESSARY TO MAKE WORK COMPLETE.

THE PLANTING CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK WITH THE OTHER CONTRACTORS. THIS PLAN DOES NOT GUARANTEE THE EXISTENCE OR NON-EXISTENCE OF ANY UTILITIES PRIOR TO ANY CONSTRUCTION. EXCAVATION OR ROTOTILLING THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY OF VERIFYING THE LOCATIONS OF ALL UTILITIES ABOVE AND/OR BELOW GROUND, PUBLIC AND/OR PRIVATE THAT MAY EXIST AND CROSS THROUGH THE AREAS OF CONSTRUCTION.

(1) SOIL PREPARATION  
(1.1) BECAUSE OF SOIL COMPACTION DURING CONSTRUCTION, ALL PLANTING AREAS SHALL BE ROTOTILLED TO A DEPTH AS SHOWN IN DETAILS OR AS SPECIFIED IN WRITTEN SPECIFICATIONS. A PLANTING AREA IS ANY AREA IN WHICH NEW PLANTING OCCURS. EXCAVATE THE ENTIRE AREA BOUNDED BY WALLS, FENCES, ETC. REMOVE SPOT MATERIAL AS DIRECTED BY OWNER OR THE OWNER'S REPRESENTATIVE.

(1.2) EXCAVATED SOIL SHOULD BE USED AS BACKFILL MATERIAL IN ORDER TO ELIMINATE OR MINIMIZE THE OCCURRENCE OF HYDROLOGIC DISCONTINUITIES AND/OR SOIL INTERFACE PROBLEMS COMMON TO PLANTING BEDS CONTAINING SOILS OF DIFFERENT TEXTURE. WHERE THE TEXTURE OF THE EXISTING SOIL IS UNDESIRABLE FOR THE PLANT SPECIES BEING PLANTED (i.e. HEAVY CLAY, PURE SAND) AND WHERE THE pH OF THE EXISTING SOIL IS SUITABLE FOR THE SPECIES BEING PLANTED, THE SOIL SHALL BE BLENDED 90% EXISTING SOIL WITH 10% AMENDED SOIL.

(1.3) WHERE IT IS DETERMINED THAT THE EXISTING SOIL EXCAVATED IS TOTALLY UNSUITABLE FOR USE AS BACKFILL MATERIAL BECAUSE OF IMPROPER pH OR THE PRESENCE OF DEBRIS OR OTHER DELETERIOUS MATTER, THE BACKFILL MATERIAL SHALL BE 100% AMENDED SOIL, MIXING AS DESCRIBED BELOW WITH THE ADDITION OF 10% FINE SAND.

AMENDED SOIL PLANTING SOIL FOR AMENDING BACKFILL SHALL BE 10% TOPSOIL WITH AMENDMENTS ADDED ACCORDING TO THE RECOMMENDATIONS OF THE SOILS TEST REPORT TO BRING THE pH VALUE OF THE PLANTING BACKFILL MIXTURE WITHIN THE RANGES DESCRIBED BELOW. THE TOPSOIL AND AMENDMENTS SHALL BE MIXED AT AN ON-SITE LOCATION. PLANTING SOIL SHALL NOT BE MIXED AT INDIVIDUAL PLANT LOCATIONS.

(2) TOPSOIL AND ALL SOIL AMENDMENTS

(2.1) NECESSARY QUANTITIES OF TOPSOIL SHALL BE SUPPLIED BY THE CONTRACTOR AND APPROVED BY THE OWNER OR HIS REPRESENTATIVE. THE CONTRACTOR SHALL APPLY TOPSOIL ONLY AFTER SECURING SOIL TEST (V.P.1), APPLYING RECOMMENDED TREATMENT THEREOF, AND SUBMITTING FOR APPROVAL.

(2.2) ON-SITE TOPSOIL MEETING THE CONDITIONS FOR THESE NOTES MAY BE USED, OR IF INSUFFICIENT QUANTITIES ARE AVAILABLE, OUTSIDE TOPSOIL MEETING THE FOLLOWING CONDITIONS SHALL BE PROVIDED:

(2.3) ON-SITE TOPSOIL SHALL BE STOCKPILED TOPSOIL THAT HAS BEEN SALVAGED IN ACCORDANCE WITH SECTION 303.03(A) OF THE V.O.D.T. SPECIFICATIONS. IT SHALL BE FREE FROM REFUSE, OR ANY MATERIAL TOXIC TO PLANT GROWTH, AND REASONABLY FREE FROM SUBSOIL, STUMPS, ROOTS, BRUSH, STONES, CLAY LUMPS, OR SIMILAR OBJECTS LARGER THAN 3" IN THEIR GREATEST DIMENSION.

(2.4) OFF-SITE TOPSOIL, IF NEEDED, SHALL BE TOPSOIL FURNISHED FROM SOURCES OUTSIDE THE PROJECT LIMITS AND SHALL BE THE ORIGINAL TOP LAYER OF SOIL, NATURAL CONDITIONS, TECHNICALLY DEFINED AS THE "A" HORIZON BY THE SOIL SOCIETY OF AMERICA. IT SHALL CONSIST OF NATURAL, FRAGILE LOAMY SOIL, WITHOUT ADMIXTURES OF SUBSOIL, OR OTHER FOREIGN MATERIALS, AND SHALL BE REASONABLY FREE FROM STONES, HEAVY CLAY, SILT, CLAY, SILT, ROCKS, NOXIOUS WEEDS, BRUSH, OR OTHER LITTER. IT SHALL HAVE DEMONSTRATED BY EVIDENCE OF HEALTHY VEGETATION GROWING, OR HAVING GROWN ON IT PRIOR TO STRIPPING, THAT IT IS REASONABLY WELL DRAINED AND DOES NOT CONTAIN SUBSTANCES TOXIC TO PLANTS.

(2.4.1) "A" HORIZON "A" HORIZONS SHALL BE MINERAL HORIZONS CONSISTING OF (1) HORIZONS OR ORGANIC MATTER ACCUMULATION FORMED OR FORMING AT OR ADJACENT TO THE SURFACE; (2) HORIZONS THAT HAVE LOAMY CLAY, IRON, OR ALUMINUM, WITH RESULTANT CONCENTRATIONS OF QUARTZ OR OTHER RESISTANT MINERALS OF SAND OR SILT SIZE; OR (3) HORIZONS DOMINATED BY 1 OR 2 ABOVE BUT TRANSITIONAL TO AN UNDERLYING B HORIZON.

(2.4.2) "A" HORIZON SUBDIVISIONS: A HORIZONS SHALL BE MINERAL HORIZONS, FORMED OR FORMING AT OR ADJACENT TO THE SURFACE, IN WHICH THE FEATURE EMPHASIZED IS AN ACCUMULATION OF HUMIFIED ORGANIC MATTER INTIMATELY ASSOCIATED WITH THE MINERAL FRACTION, THE SOIL IS A DARK OR DARKER THAN UNDERLYING HORIZONS BECAUSE OF THE PRESENCE OF ORGANIC MATTER. THE ORGANIC MATERIAL IS PLANT AND ANIMAL REMAINS, INCLUDING FRAGMENTS OF PLANT AND ANIMAL REMAINS DEPOSITED ON THE SOIL OR DEPOSITED WITHIN THE HORIZON WITHOUT APPRECIABLE TRANSLLOCATION.

A2 HORIZONS SHALL BE MINERAL HORIZONS IN WHICH THE FEATURE EMPHASIZED IS LOSS OF CLAY, IRON OR ALUMINUM, WITH RESULTANT CONCENTRATION OF QUARTZ OR OTHER RESISTANT MINERALS IN SAND AND SILT SIZES.

(2.4.3) "A" HORIZON TOPSOIL CONTENT: "A" HORIZON TOPSOIL SHALL BE IN ACCORDANCE WITH THE FOLLOWING MATERIALS BY PERCENTAGE OF VOLUME:

- SILT 43-59%
- SAND 15-20%
- CLAY 12-15%
- ORGANIC MATERIAL 12-18%

(2.5) TOPSOIL SHALL HAVE A pH IN THE RANGE OF 6.0 TO 7.2 PRIOR TO MIXING WITH AMENDMENTS. IF THE pH IS NOT WITHIN THIS RANGE, THE pH SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE OR A DIFFERENT SOURCE OF SUPPLY SHALL BE SELECTED. TOPSOIL SHALL BE SUBJECT TO INSPECTION BY THE OWNER OR THE OWNER'S REPRESENTATIVE AT THE SOURCE OF SUPPLY AND IMMEDIATELY PRIOR TO USE IN THE PLANTING OPERATIONS.

(2.6) PLANTING SOIL AFTER AMENDING FOR DECIDUOUS PLANTS SHALL HAVE a pH VALUE BETWEEN 6.0 AND 7.0, AND FOR EVERGREEN OR SEMI-EVERGREEN PLANTS SHALL HAVE A pH VALUE BETWEEN 6.0 AND 6.5. A REPRESENTATIVE SAMPLE FROM THE EXCAVATED SOIL SHALL BE FIELD TESTED FOR pH AND SOIL MOISTURE. THE pH VALUE OF THE NATURAL SOIL BACKFILL MATERIAL MAY BE AMENDED BY ADDING LIMESTONE OR ALUMINUM SULFATE AS NEEDED.

(3) EXCAVATION OF PLANT PITS

(3.1) PRIOR TO EXCAVATION OF TREE PITS, AN AREA EQUAL TO TWO TIMES THE DIAMETER OF THE ROOT BALL SHALL BE ROTOTILLED TO A DEPTH EQUAL TO THE DEPTH OF THE ROOT BALL.

(3.2) IN CONTINUOUS SHRUB AND GROUND COVER BEDS, THE ROTOTILLED PERIMETER SHOULD EXTEND TO A DISTANCE OF ONE FOOT BEYOND THE DIAMETER OF A SINGLE ROOTBALL. THE BED SHALL BE TILLED TO A DEPTH EQUAL TO THE ROOT BALL DEPTH PLUS 4".

(3.3) TREE PITS FOR WELL DRAINED SOILS SHALL BE DUG SO THAT THE BOTTOM OF THE ROOT BALL WILL REST ON UNDISTURBED SOIL AND THE TOP OF THE ROOT BALL WILL BE FLUSH WITH FINISH GRADE. IN POORLY DRAINED SOILS THE TREE PIT SHALL BE DUG SO THAT THE ROOT BALL RESTS ON UNDISTURBED SOIL AND THE TOP OF THE ROOT BALL IS 1" ABOVE FINISH GRADE. PLANT PIT WALLS SHALL BE SCARIFIED PRIOR TO PLANT INSTALLATION.

(3.4) SHRUB BEDS SHALL BE EXCAVATED TO 4" BELOW THE SHOULDER OF THE SHRUB.

(3.5) ALL AIR POCKETS SHALL BE REMOVED FROM PLANT PIT UPON BACK FILLING WITH PLANTING SOIL BY FILLING APPROXIMATELY 12 TO 25 OF THE PIT WITH PLANTING BACKFILL MATERIAL, TAMPING BACKFILL MATERIAL, AND THEN WATERING TO ENSURE SETTLEMENT OF THE MATERIAL. BACKFILL MATERIAL SHALL THEN BE PLACED WITHIN THE REMAINING CAVITIES OF THE PLANT PIT, TAMPING AND WATERED AGAIN TO ENSURE SETTLEMENT OF THE BACKFILL MATERIAL. UNDER NO CIRCUMSTANCES SHALL ANY SOIL OR BACKFILL MATERIAL BE APPLIED ABOVE THE ROOT BALL OF THE PLANTS.

(3.6) GROUND COVERS SHALL BE PLANTED IN BEDS HAVING A MINIMUM DEPTH OF 4" BELOW THE PROPOSED ROOT DEPTH. PLANTS SHALL BE EVENLY SPACED AND SET TO MAINTAIN THE ORIGINAL GRADING DEPTH WHILE ALLOWING FOR A 2" TOP DRESSING OF MULCH.

(4) PLANT MATERIAL AND MULCH

(4.1) THE NAMES OF PLANTS REQUIRED UNDER THIS CONTRACT CONFORM TO THOSE GIVEN IN L.H. BAILEY'S HORTUS THRID, 1976 EDITION. NAMES OF VARIETIES NOT INCLUDED THEREIN CONFORM GENERALLY WITH NAMES ACCEPTED IN THE NURSERY TRADE. ALL PLANTS SHALL HAVE A HABIT OF GROWTH THAT IS NORMAL FOR THEIR SPECIES AND THEY SHALL BE SOUND, HEALTHY AND VIGOROUS, WITH WELL DEVELOPED ROOT SYSTEMS. ALL PLANT MATERIAL SHALL BE FREE FROM INSECT PESTS, PLANT DISEASES, AND INJURIES. ALL PLANTS SHALL EQUAL OR EXCEED THE MEASUREMENTS SPECIFIED IN THE PLANT LIST, WHICH ARE MINIMUM ACCEPTABLE SIZES. TREES SHALL HAVE SINGLE TRUNKS EXCEPT AS NOTED. ALL SHRUBS SHALL BE HEALTHY, VIGOROUS, AND OF GOOD COLOR, ONLY DAMAGED OR BROKEN BRANCHES OF PLANT MATERIAL MAY BE PRUNED AND ANY NECESSARY PRUNING SHALL BE DONE AT THE TIME OF PLANTING HOWEVER, UNDER NO CIRCUMSTANCES SHALL THE CENTRAL LEADER OF A PLANT BE PRUNED.

(4.2) ALL TAGS, STRINGS OR ANY OTHER MATERIAL ATTACHED TO THE PLANTS SHALL BE REMOVED AT THE TIME OF THE PLANTING. BAILING AND BURLAPPING OF PLANTS SHALL FOLLOW THE CODE OF STANDARDS CURRENTLY RECOMMENDED BY THE AMERICAN STANDARD FOR NURSERY STOCK.

(4.3) SUBSTITUTIONS WILL BE PERMITTED ONLY UPON SUBMISSION OF PROOF THAT ANY PLANT IS NOT OBTAINABLE. ALL SUBSTITUTIONS MUST BE AUTHORIZED BY THE OWNER OR THE OWNER'S REPRESENTATIVE IN WRITING PROVIDING FOR USE OF THE NEAREST EQUIVALENT OBTAINABLE SIZE OR VARIETY OF PLANT HAVING THE SAME ESSENTIAL CHARACTERISTICS AS THE ORIGINAL VARIETY WITH AN EQUIVALENT ADJUSTMENT OF CONTRACT PRICE.

(4.4) BALLED AND BURLAPPED PLANTS (BBB) SHALL BE DUG WITH FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR FULL RECOVERY OF THE PLANT. BALLS SHALL BE FIRMLY WRAPPED WITH BURLAP OR SIMILAR MATERIAL AND BOUND WITH TWINE OR CORD. BURLAP SHALL NOT BE PULLED OUT FROM UNDER BALLS DURING PLANTING OPERATIONS. BBB PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY ON DELIVERY SHALL BE COVERED WITH MOIST SOIL, MULCH, OR OTHER MATERIAL TO PROVIDE PROTECTION FROM DRYING WINDS AND SUN.

(4.5) PLANTS NOTED "CONTAINER" ON THE PLANT LIST MUST BE CONTAINER GROWN WITH WELL ESTABLISHED ROOT SYSTEMS. LOOSE CONTAINERIZED PLANT MATERIAL WILL NOT BE ACCEPTED. ALL PLANTS INJURED AND PLANTS WITH ROOT BALLS BROKEN DURING TRANSPORT OR PLANTING OPERATIONS WILL BE REJECTED. BARE-ROOTED PLANTS (BR) SHALL BE PLANTED OR HEeled-IN IMMEDIATELY UPON DELIVERY. ALL PLANTS SHALL BE WATERED AS NECESSARY UNTIL PLANTED.

(4.6) NEW PLANTINGS SHALL BE LOCATED WHERE SHOWN ON THE PLAN EXCEPT WHERE OBSTRUCTIONS BELOW GROUND ARE ENCOUNTERED OR WHERE CHANGES HAVE BEEN MADE IN THE PROPOSED CONSTRUCTION. NECESSARY ADJUSTMENTS SHALL BE MADE ONLY AFTER APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE. REASONABLE CARE SHALL BE EXERCISED TO HAVE PLANTING PITS DUG AND SOIL PREPARED PRIOR TO MOVING PLANTS TO THEIR RESPECTIVE LOCATIONS TO ENSURE THAT THEY WILL NOT BE UNNECESSARILY EXPOSED TO DRYING OR PHYSICAL DAMAGE.

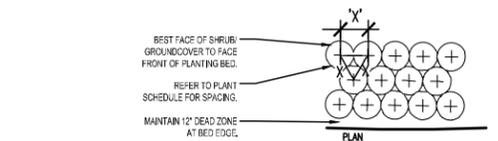
(4.7) A LIST OF PLANTS, INCLUDING SIZES, QUANTITIES AND OTHER REQUIREMENTS, IS SHOWN ON THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE QUANTITIES AND OTHER REQUIREMENTS, IF DISCREPANCIES OCCUR IN THE QUANTITIES SHOWN, THE PLANTING PLANS SHALL GOVERN.

(4.8) THE PLANTING CONTRACTOR WILL BE NOTIFIED BY THE GENERAL CONTRACTOR WHEN OTHER DIVISIONS OF THE WORK HAVE PROGRESSED SUFFICIENTLY TO COMMENCE WORK ON THE PLANTING OPERATION. THEREAFTER, PLANTING OPERATIONS SHALL BE CONDUCTED UNDER FAVORABLE WEATHER CONDITIONS DURING THE WET SEASON, OR SEASONS WHICH ARE NORMAL FOR SUCH WORK. REMOVAL OF ROCK OR OTHER UNDERGROUND OBSTRUCTIONS, RELOCATIONS TO AVOID OBSTRUCTIONS, AND PROVISION OF DRAINAGE FOR PLANTING AREAS SHALL BE DONE ONLY AS DIRECTED BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

(4.9) ALL PLANTS SHALL BE PLANTED UPRIGHT AND FACED TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT STRUCTURES. ROOTS SHALL BE SPREAD IN THEIR NORMAL POSITION. ALL BROKEN OR FRAYED ROOTS SHALL BE CUT OFF CLEANLY. PLANTS WITH CURLING ROOTS SHALL NOT BE ACCEPTED. BURLAP TWINE AND OTHER FASTENING MATERIAL SHALL BE CUT AND PUSHED TO THE BOTTOM OF THE PLANTING PIT PRIOR TO BACKFILL MATERIAL. REINFORCING THE PLANT SHALL NOT BE ROCKED BACK AND FORTH TO ENTIRELY REMOVE THE WRAPPING MATERIAL NOR SHALL ANY OTHER PRACTICE BE PERFORMED WHICH COULD CAUSE THE ROOT BALL TO BREAK APART. WHEN WIRE BASKETS ARE USED ON THE ROOT BALL OF PLANTS THE WIRE SHALL BE REMOVED TO AT LEAST 6" BELOW THE TOP OF THE ROOT BALL.

**PLANT LIST**

KEY	QTY.	BOTANICAL / COMMON NAME	SIZE	ROOT	COMMENTS
LARGE DECIDUOUS TREES					
PO	11	<i>Platanus occidentalis</i> American Sycamore	2" cal.	B&B	Symmetrical Form
MEDIUM DECIDUOUS TREES					
PC	21	<i>Pistacia chinensis</i> Chinese Pistache	2" cal.	B&B	Symmetrical Form, Strong central leader
SMALL DECIDUOUS TREES					
LI	12	<i>Lagerstroemia indica x fauriei</i> 'Natchez' Natchez Crape Myrtle	1.5" cal.	B&B	Single leader, Symmetrical Form
SHRUBS/GRASSES					
RKO	163	<i>Rosa x 'Radiko' PP# 16202</i> Double Knock-Out Rose	18" ht.	Cont.	Full, dense
POK	227	<i>Pennisetum orientale</i> 'Karley Rose' Oriental Fountain Grass	1 gal.	Cont.	Full, dense
GROUNDCOVERS					
SAL	745	<i>Salvia x sylvestris</i> 'Blue Hill' Blue Hill Meadow Sage	1 qt.	Cont.	15" o.c. Full, Dense



- NOTES:**
1. TOP OF SHRUB ROOTBALLS TO BE PLANTED 1" - 2" HIGH WITH SOIL MOUNDING UP TO THE TOP OF ROOTBALL.
  2. PRUNE ALL SHRUBS TO ACHIEVE A UNIFORM MASS/HEIGHT.
  3. 3" MINIMUM MULCH AS SPECIFIED.
  4. EXCAVATE ENTIRE BED SPECIFIED FOR GROUND COVER BED.
  5. FINISHED GRADE (SEE GRADING PLAN).
  6. PREPARED PLANTING SOIL AS SPECIFIED. (SEE LANDSCAPE NOTES) NOTE: WHEN GROUND COVERS AND SHRUBS USED IN MASSES, ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED.
  7. SCARIFY ROOTBALL SIDES AND BOTTOM.
  8. APPROVED WEED BARRIER.
- ALL SHRUBS AND GROUNDCOVERS SHALL BE PLUMB VERTICALLY, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.

**2 SHRUB / GROUND COVER PLANTING PLAN/SECTION NTS**

WIRE OR CABLE SIZES SHALL BE AS FOLLOWS:  
TREES UP TO 40MM (1.5 IN) DIA. CAULIP: 14 GAUGE  
TREES 65 MM (2.5 IN) TO 75 MM (3 IN) CAULIP: 12 GAUGE  
TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 3 TIMES 1.5 IN. OF GROWTH AND BUFFER ALL BRANCHES FROM THE WIRE. TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED. ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM OF 12 MM (0.5 IN).

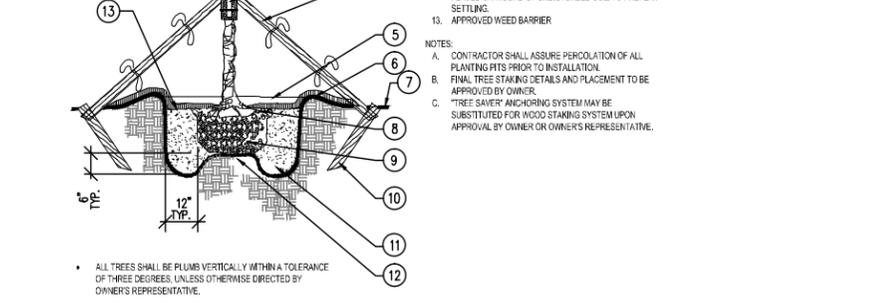
(6.3) WOODEN STAKES AND WIRE TIES SHOULD BE REMOVED AFTER ONE YEAR.  
(7) CHEMICAL APPLICATION  
(7.1) ALL PRODUCTS OF RECOGNIZED COMMERCIAL MANUFACTURERS, AND SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL PESTICIDE LAWS. PESTICIDES SHALL BE APPLIED WITH CALIBRATED EQUIPMENT ACCORDING TO EPA LABEL RESTRICTIONS AND REGULATORY AGENCIES. ANY DAMAGE INCURRED TO THE SITE, ADJACENT PROPERTIES, OR APPLICATOR DURING PESTICIDE APPLICATIONS WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.  
(7.2) PESTICIDES SHOULD BE USED ONLY WHEN NECESSARY TO TREAT AN OUTBREAK OF A HARMFUL PEST OR DISEASE PROBLEM. THE OWNER OR THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED 24 HOURS PRIOR TO THE APPLICATION OF ANY PESTICIDE.

(8) INSPECTION OF THE WORK TO DETERMINE COMPLETION OF THE CONTRACT EXCLUSIVE OF THE POSSIBLE REPLACEMENT OF PLANTINGS WILL BE DONE BY THE OWNER OR THE OWNER'S REPRESENTATIVE AT THE CONCLUSION OF THE INSTALLATION PERIOD UPON WRITTEN NOTICE REQUESTING SUCH INSPECTION. REQUEST SHALL BE SUBMITTED BY CONTRACTOR AT LEAST 24 HOURS PRIOR TO INSPECTION. AFTER INSPECTION, THE CONTRACTOR WILL BE NOTIFIED IN WRITING BY THE OWNER OR THE OWNER'S REPRESENTATIVE OF ACCEPTANCE OF THE WORK, EXCLUSIVE OF THE POSSIBLE REPLACEMENT OF PLANTS SUBJECT TO GUARANTEE, OR, IF THERE ARE ANY DEFICIENCIES, THE CONTRACTOR WILL BE NOTIFIED OF THE REQUIREMENTS NECESSARY FOR COMPLETION OF THE WORK. PLANTINGS SHALL NOT BE CONSIDERED ACCEPTED UNTIL ALL DEFICIENCIES HAVE BEEN CORRECTED AND APPROVED IN WRITING.  
(9) ALL PLANT MATERIAL NOT PLANTED SHALL BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNUSED RUBBISH AND DEBRIS FROM THE SITE UPON COMPLETION OF HIS WORK.

(8.2) INSPECTION OF THE WORK TO DETERMINE COMPLETION OF THE CONTRACT EXCLUSIVE OF THE POSSIBLE REPLACEMENT OF PLANTINGS WILL BE DONE BY THE OWNER OR THE OWNER'S REPRESENTATIVE AT THE CONCLUSION OF THE INSTALLATION PERIOD UPON WRITTEN NOTICE REQUESTING SUCH INSPECTION. REQUEST SHALL BE SUBMITTED BY CONTRACTOR AT LEAST 24 HOURS PRIOR TO INSPECTION. AFTER INSPECTION, THE CONTRACTOR WILL BE NOTIFIED IN WRITING BY THE OWNER OR THE OWNER'S REPRESENTATIVE OF ACCEPTANCE OF THE WORK, EXCLUSIVE OF THE POSSIBLE REPLACEMENT OF PLANTS SUBJECT TO GUARANTEE, OR, IF THERE ARE ANY DEFICIENCIES, THE CONTRACTOR WILL BE NOTIFIED OF THE REQUIREMENTS NECESSARY FOR COMPLETION OF THE WORK. PLANTINGS SHALL NOT BE CONSIDERED ACCEPTED UNTIL ALL DEFICIENCIES HAVE BEEN CORRECTED AND APPROVED IN WRITING.  
(9) ALL PLANT MATERIAL NOT PLANTED SHALL BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNUSED RUBBISH AND DEBRIS FROM THE SITE UPON COMPLETION OF HIS WORK.

(8.3) NURSERY STOCK SHALL BE FULLY GUARANTEED FOR ONE FULL YEAR. ALL PLANTS THAT FAIL TO MAKE NEW GROWTH FROM A DORMANT CONDITION OR THAT DIE DURING THE FIRST YEAR AFTER PLANTING SHALL BE REPLACED. ALL REPLACEMENTS SHALL CONFORM WITH THE ORIGINAL SPECIFICATIONS AS TO SIZE AND TYPE. ALL COSTS OF REPLACEMENTS SHALL BE BORNE BY THE CONTRACTOR.  
(9) ALL OTHER ITEMS NECESSARY TO MAKE WORK COMPLETE.

(9) ALL PLANT MATERIAL NOT PLANTED SHALL BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNUSED RUBBISH AND DEBRIS FROM THE SITE UPON COMPLETION OF HIS WORK.



**1 LARGE TREE PLANTING SECTION NTS**

- GENERAL LANDSCAPE NOTES:**
- CONTRACTOR SHALL REVIEW ALL DRAWINGS, SPECIFICATIONS, PERMITS, AND REGULATORY REQUIREMENTS PRIOR TO COMMENCEMENT OF WORK.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPING AND IRRIGATION PERMITS.
  - CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS PROVIDED BY OTHERS.
  - THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" OF VIRGINIA @ 1-800-952-7001 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.
  - FINAL LOCATION OF ALL PLANTINGS SHALL BE DETERMINED IN THE FIELD BY THE OWNER'S CHOSEN REPRESENTATIVE.
  - SUBSTITUTIONS AND/OR MODIFICATIONS TO PLANTING LAYOUT, PLANT MATERIALS, ETC. SHALL NOT BE MADE WITHOUT THE WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.
  - CONTRACTOR SHALL INSTALL ALL PLANT MATERIALS AS SHOWN IN THE DETAILS, AND AS INDICATED IN THE LANDSCAPE SPECIFICATIONS.
  - THE PLANTING OF TREES SHALL BE DONE IN ACCORDANCE WITH THE STANDARDIZED LANDSCAPE SPECIFICATIONS JOINTLY ADOPTED BY THE AMERICAN NURSERYMEN'S ASSOCIATION, THE VIRGINIA SOCIETY OF LANDSCAPE DESIGNERS AND THE VIRGINIA CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS.
  - SIZE AND GRADING STANDARDS OF PLANT MATERIALS SHALL CONFORM TO THE LATEST ADOPED ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
  - ALL PLANT MATERIALS SHALL BE NURSERY GROWN STOCK AND SHALL BE FREE OF ANY DEFORMITIES, DISEASES, OR INSECT DAMAGE. ANY MATERIALS WITH DAMAGED OR DISFIGURED CROOKED LEADERS, BARK ABRASIONS, SUNSCALD, INSECT DAMAGE, ETC., ARE NOT ACCEPTABLE AND WILL BE REJECTED.
  - TREES NOT EXHIBITING A CENTRAL LEADER WILL BE REJECTED UNLESS CALLED OUT IN THE PLANT LIST AS MULTITRUNK.
  - ALL PLANTING BEDS AND LAWN AREAS SHALL BE SEPARATED BY SHOVEL EDGING. NO EDGE SHALL BE INSTALLED ADJACENT TO SIDEWALKS OR CURBS.
  - PLANTING BEDS SHALL RECEIVE 3" OF DARK, SHREDDED HARDWOOD MULCH THROUGHOUT. ORANGE AND/OR RED MULCH IS NOT ACCEPTABLE.
  - ALL AREAS ON PLANS NOT INDICATED TO RECEIVE SOIL PLANTING, PAVEMENT, OR HARDSCAPE WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE SEEDED WITH FESCUE, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. SEE SEEDING NOTES THIS SHEET.
  - PLANT MATERIALS SHOWN ON PLANS ARE A GRAPHIC REPRESENTATION ONLY. CONTRACTOR SHALL PERFORM ALL LANDSCAPE INSTALLATION ON THE SUBJECT PROPERTY, AND NOT ON ADJACENT PROPERTIES, UNLESS OTHERWISE DIRECTED BY THE OWNER OR THE OWNER'S REPRESENTATIVE. ROOTBALLS OF SHRUBS AND TREES SHALL BE PLANTED, IN THEIR ENTIRETY, WITHIN THE BOUNDARIES OF THE SUBJECT PROPERTY.
  - CONTRACTOR SHALL PROVIDE A MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES, UNLESS OTHERWISE DIRECTED BY THE CIVIL ENGINEER.
  - QUANTITY TAKE-OFFS INDICATED ON THE PLANTING SCHEDULE ARE FOR CONVENIENCE ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE SCHEDULE, THE GRAPHIC REPRESENTATION IN THE PLANS SHALL DICATE.

DESIGNED BY: Kimley-Horn

FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

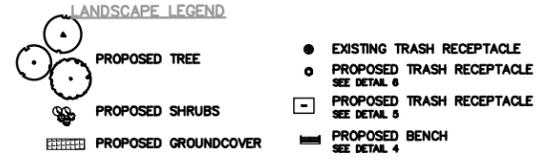
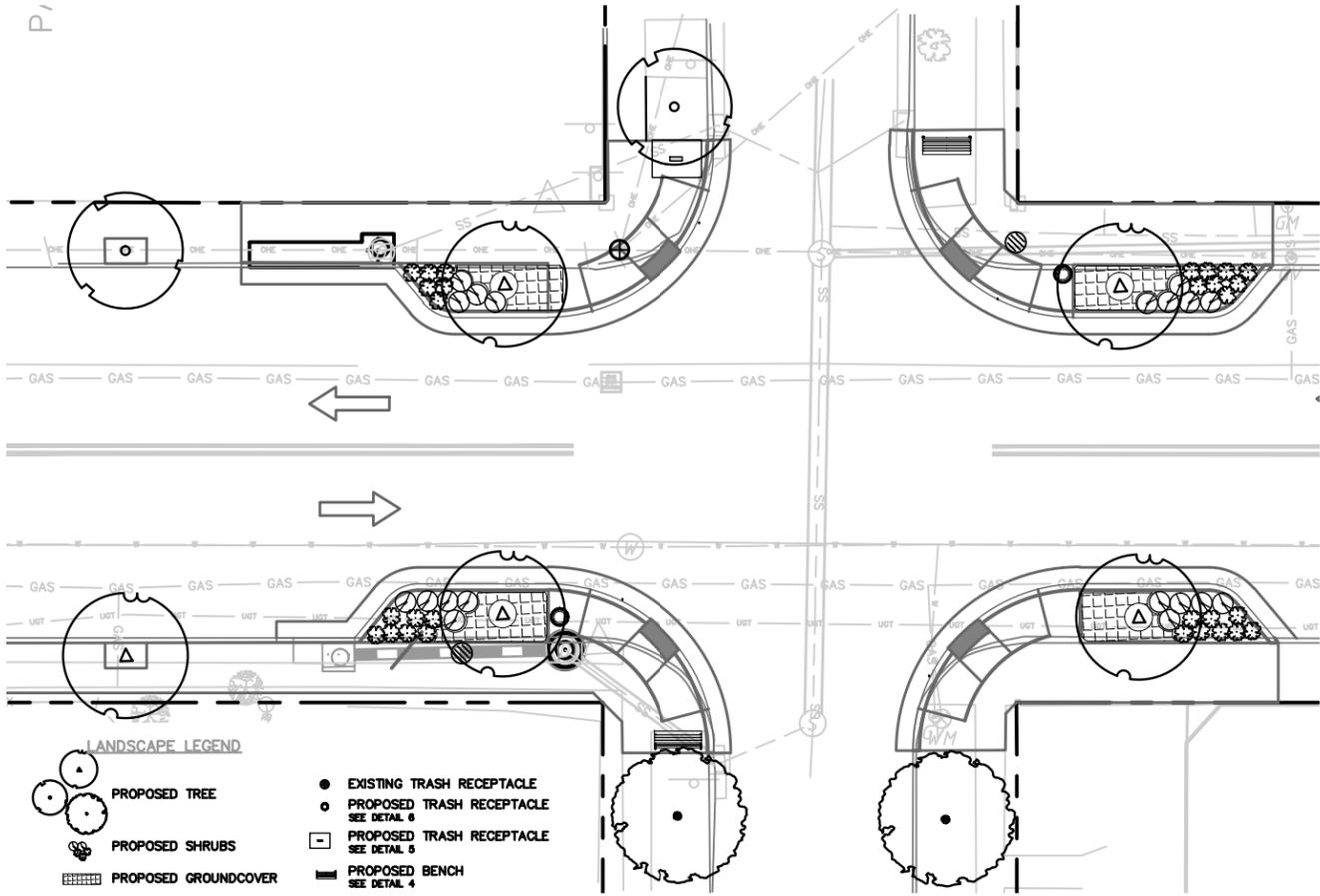
**Kimley»Horn**

2014 KIMLEY-HORN AND ASSOCIATES, INC.  
1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
PHONE: (804) 673-3882 FAX: (804) 673-3980

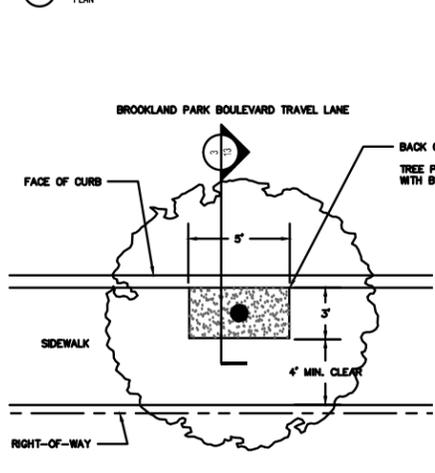
BROOKLAND PARK BOULEVARD  
STREETSCAPE  
LANDSCAPE DETAILS

<p><b>NOTES</b></p> <ol style="list-style-type: none"> <li>1. Lot dimensions in parentheses are from deed.</li> <li>2. Property owners correct as of July 11, 2013</li> <li>3. Ordinance Number _____</li> <li>4. Adopted _____</li> <li>5. Accepted _____</li> </ol> <p>REFERENCES: <i>AS NOTED</i> <i>AS SHOWN</i></p>	<p><b>REVISIONS</b></p> <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DATE	DESCRIPTION				<p><b>Building Curb</b></p> <ul style="list-style-type: none"> <li>Asphalt</li> <li>Concrete</li> <li>Grass</li> <li>Gravel</li> <li>Interlocking</li> <li>Paint</li> <li>Paving</li> <li>Planting</li> <li>Refractory</li> <li>Stucco</li> <li>Tile</li> <li>Wood</li> </ul> <p><b>Curb &amp; Gutter</b></p> <ul style="list-style-type: none"> <li>Asphalt</li> <li>Concrete</li> <li>Grass</li> <li>Gravel</li> <li>Interlocking</li> <li>Paint</li> <li>Paving</li> <li>Planting</li> <li>Refractory</li> <li>Stucco</li> <li>Tile</li> <li>Wood</li> </ul> <p><b>Existing Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>Asphalt</li> <li>Concrete</li> <li>Grass</li> <li>Gravel</li> <li>Interlocking</li> <li>Paint</li> <li>Paving</li> <li>Planting</li> <li>Refractory</li> <li>Stucco</li> <li>Tile</li> <li>Wood</li> </ul> <p><b>Proposed Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>Asphalt</li> <li>Concrete</li> <li>Grass</li> <li>Gravel</li> <li>Interlocking</li> <li>Paint</li> <li>Paving</li> <li>Planting</li> <li>Refractory</li> <li>Stucco</li> <li>Tile</li> <li>Wood</li> </ul>	<p><b>Coatings: Water Valve/Water</b></p> <ul style="list-style-type: none"> <li>Asphalt</li> <li>Concrete</li> <li>Grass</li> <li>Gravel</li> <li>Interlocking</li> <li>Paint</li> <li>Paving</li> <li>Planting</li> <li>Refractory</li> <li>Stucco</li> <li>Tile</li> <li>Wood</li> </ul> <p><b>Proposed Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>Asphalt</li> <li>Concrete</li> <li>Grass</li> <li>Gravel</li> <li>Interlocking</li> <li>Paint</li> <li>Paving</li> <li>Planting</li> <li>Refractory</li> <li>Stucco</li> <li>Tile</li> <li>Wood</li> </ul>	<p><b>Technical</b></p> <table border="1"> <tr> <td>Survey Superintendent</td> <td>Gas Drop</td> </tr> <tr> <td>Project Engineer</td> <td>Gas Valve/Manhole/Water</td> </tr> <tr> <td>Maintenance Engineer</td> <td>Electric Manhole</td> </tr> <tr> <td>City Traffic Engineer</td> <td>Clean Out</td> </tr> <tr> <td></td> <td>Gas Monitoring Well</td> </tr> <tr> <td></td> <td>Electric Hand Box</td> </tr> </table>	Survey Superintendent	Gas Drop	Project Engineer	Gas Valve/Manhole/Water	Maintenance Engineer	Electric Manhole	City Traffic Engineer	Clean Out		Gas Monitoring Well		Electric Hand Box	<p><b>Administrative</b></p> <table border="1"> <tr> <td>Capital Project Administrator</td> </tr> <tr> <td>Deputy Director for Transportation / Public Works</td> </tr> <tr> <td>Director of Public Works</td> </tr> </table>	Capital Project Administrator	Deputy Director for Transportation / Public Works	Director of Public Works
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<p>DEPARTMENT OF PUBLIC WORKS RICHMOND, VIRGINIA</p>		<p>CIP: 100-582</p>		<p>DESIGN BY: J.N.J. DRAWN BY: J.N.J. CHECKED BY: K.W.A.</p>	<p>REVIEWED BY: _____</p>	<p>FIELD NOTES: _____</p>	<p>SCALE: AS NOTED</p>	<p>DATE: 09/15/14</p>	<p>DRAWING NO. 0-28558</p>	<p>SHEET NO. 11</p>																

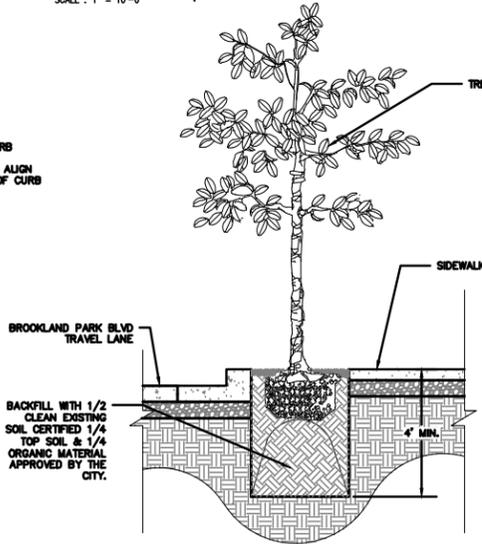
DESIGNED BY: Kimley-Horn



1 TYPICAL INTERSECTION PLANTINGS - ENLARGEMENT  
PLAN SCALE: 1" = 10'-0"

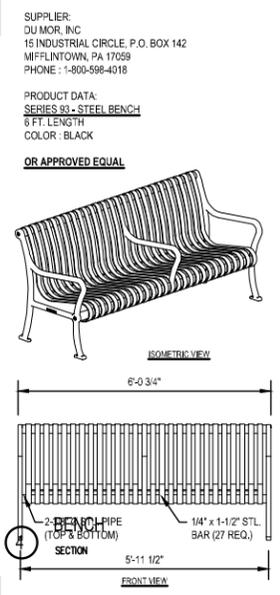


2 TYPICAL TREE PLANTING - TREE PIT  
PLAN SCALE: 1" = 5'-0"



3 TYPICAL TREE PLANTING - TREE PIT  
SECTION NTS

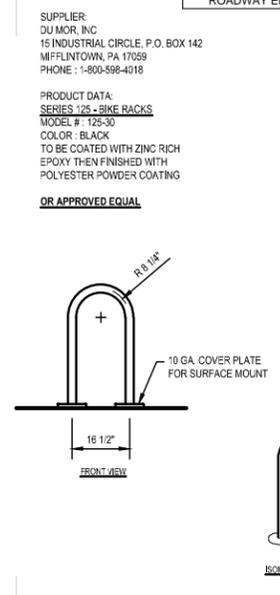
\*\* FOR TREE PITS TO BE CONSTRUCTED AROUND EXISTING TREES, AN ARBORIST IS TO BE ON-SITE WHILE CONSTRUCTION IS UNDERWAY\*\*



SUPPLIER: DU MOR, INC. 15 INDUSTRIAL CIRCLE, P.O. BOX 142 MIFLINTOWN, PA 17059 PHONE: 1-800-598-4018  
PRODUCT DATA: SERIES 93 - STEEL BENCH 8 FT. LENGTH COLOR: BLACK  
OR APPROVED EQUAL

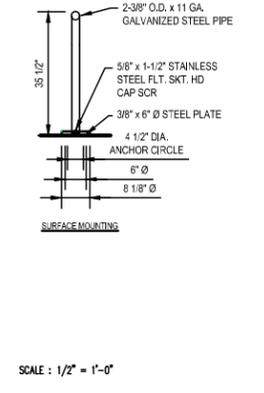
NOTES:  
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
2. ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.  
3. 1/2" X 3/4" EXPANSION ANCHOR BOLTS TO BE PROVIDED BY MANUFACTURER.  
4. ALL WELDS CONT. THEN GROUND SMOOTH.

SCALE: 1/2" = 1'-0"



SUPPLIER: DU MOR, INC. 15 INDUSTRIAL CIRCLE, P.O. BOX 142 MIFLINTOWN, PA 17059 PHONE: 1-800-598-4018  
PRODUCT DATA: SERIES 125 - BIKE RACKS MODEL # 125-30 COLOR: BLACK TO BE COATED WITH ZINC RICH EPOXY THEN FINISHED WITH POLYESTER POWDER COATING  
OR APPROVED EQUAL

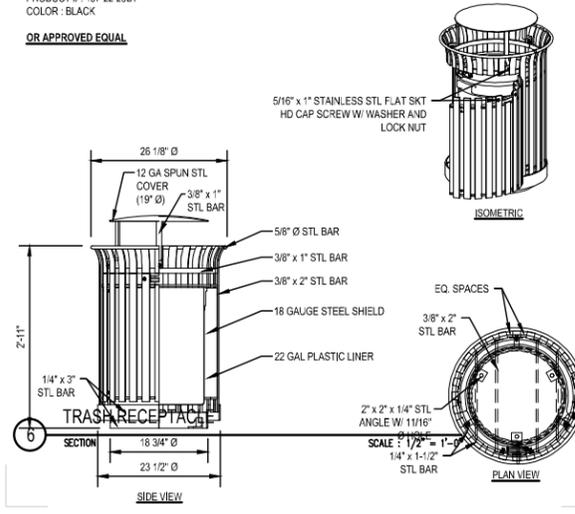
NOTES:  
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
2. ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.  
3. 1/2" X 3/4" EXPANSION ANCHOR BOLTS TO BE PROVIDED BY MANUFACTURER.  
4. ALL WELDS CONT. THEN GROUND SMOOTH. ONE (1) BIKE RACK TO BE INSTALLED AT EACH LOCATION PROPOSED ON THE PLAN.



SCALE: 1/2" = 1'-0"

SUPPLIER: DU MOR, INC. 15 INDUSTRIAL CIRCLE, P.O. BOX 142 MIFLINTOWN, PA 17059 PHONE: 1-800-598-4018  
PRODUCT DATA: STEEL TRASH RECEPTACLE PRODUCT # 15-22-25BT COLOR: BLACK  
OR APPROVED EQUAL

NOTES:  
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
2. ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.  
3. 1/2" X 3/4" EXPANSION ANCHOR BOLTS TO BE PROVIDED BY MANUFACTURER.  
4. ALL WELDS CONT. THEN GROUND SMOOTH.



SCALE: 1/2" = 1'-0"

SITE FURNISHING QUANTITIES	
BENCHES	9
BIKE RACKS	5
TRASH RECEPTACLES	2

FINAL UDC PLANS - 9/15/14  
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PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
STREETSCAPE  
LANDSCAPE DETAILS

NOTES

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Existing	Proposed
<ul style="list-style-type: none"> <li>Curb &amp; Gutter</li> <li>Manhole</li> <li>Storm Sewer</li> <li>Sanitary / Storm / Min. Manhole</li> <li>Sanitary Sewer</li> <li>Gas Line</li> <li>Overhead Electric Line</li> <li>Overhead Utilities</li> <li>Underground Telephone</li> <li>Water Line</li> <li>Fence</li> <li>Edge of Pavement</li> <li>Property Line</li> </ul>	<ul style="list-style-type: none"> <li>Alley Crossing/Driveway</li> <li>Fire Hydrant</li> <li>Sign</li> <li>Utility Pole</li> <li>Light Pole</li> <li>Traffic Control Structure / Cabinet</li> <li>Retaining Wall</li> <li>Tree / Shrub</li> <li>Proposed Asphalt Pavement</li> <li>Concrete Pavement</li> <li>Brick Pavers</li> </ul>



Technical	Administrative
<ul style="list-style-type: none"> <li>Survey Superintendent</li> <li>Project Engineer</li> <li>Maintenance Engineer</li> <li>City Traffic Engineer</li> </ul>	<ul style="list-style-type: none"> <li>Capital Project Administrator</li> <li>Deputy Director for Transportation / Public Works</li> <li>Director of Public Works</li> </ul>

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

CIP: 100-582	DESIGN BY: JNJ	CHECKED BY: KWA	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 12
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SIGN NO.	①	②	③	④	⑤	⑥	⑦	⑧
SIGN	GRTC BUS STOP SIGN	STREET NAME		STOP		SPEED LIMIT 25	DO NOT ENTER	ONE WAY
STD. NO.	R7-107a	D3-1	R8-3 R7-201P	R1-1	R7-1	R7-1	R5-1	R6-2
SIZE	12" X 30"	VARIES" X 8"	12" X 12" 12" X 6"	36" X 36"	12" X 18"	24" X 30"	30" X 30"	24" X 30"
SIGN STRUCT. STD.	STP-1	STP-1	STP-1	STP-1	STP-1	STP-1	STP-1	STP-1

**PAVEMENT MARKING LEGEND**

- (A) TYPE B, CLASS 1, WHITE 12" WIDTH MARKING
- (B) TYPE B, CLASS 1, WHITE 12" x 6" PARKING SPACE MARKING

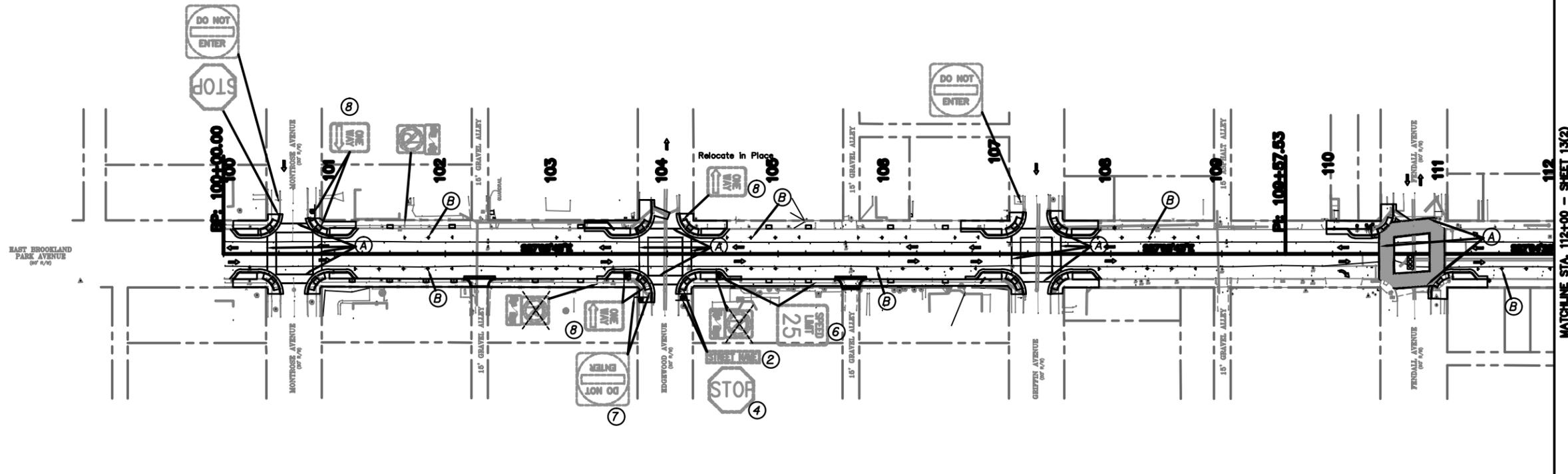
**SIGNING LEGEND**

- EXIST. GROUND MOUNTED SIGN SUPPORT
- PROP. GROUND MOUNTED SIGN SUPPORT
- EXISTING SIGN TO BE REMOVED
- EXISTING SIGN TO BE RELOCATED
- EXISTING SIGN TO REMAIN

Kimley-Horn & Associates, Inc.  
Richmond, Virginia  
ROADWAY ENGINEER



VICINITY SKETCH  
(NOT TO SCALE)



- NOTES:**
- ALL PAVEMENT MARKING (NON-PAVER) CROSSWALKS SHALL BE A MINIMUM 8' WIDE.
  - SEE SHEET 2D FOR PAVER CROSSWALK DETAIL AT FENDALL AVE AND NORTH AVE.



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BROOKLAND PARK BOULEVARD  
STREETSCAPE  
MONTROSE AVE TO FENDALL AVE SIGNAGE AND STRIPING

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- Adopted \_\_\_\_\_
- Accepted \_\_\_\_\_

<p><b>Existing Curb</b></p> <ul style="list-style-type: none"> <li>• Curb &amp; Gutter</li> <li>• Sidewalk</li> <li>• Storm Sewer</li> <li>• Sanitary / Storm / Misc. Manhole</li> <li>• Sanitary Sewer</li> <li>• Gas Line</li> <li>• Overhead Electric Line</li> <li>• Overhead Utilities</li> <li>• Underground Telephones</li> <li>• Meter Line</li> <li>• Fence</li> <li>• Edge of Pavement</li> <li>• Property Line</li> </ul>	<p><b>LEGEND</b></p> <p><b>Existing Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>• Alley Crossing/Driveway</li> <li>• Fire Hydrant</li> <li>• Sign</li> <li>• Utility Pole</li> <li>• Light Pole</li> <li>• Traffic Control Structure / Cabinet</li> <li>• Retaining Wall</li> <li>• Tree / Shrub</li> <li>• Proposed Asphalt Pavement</li> <li>• Concrete Pavement</li> <li>• Brick Pavers</li> </ul>	<p><b>Ex. Castings: Valve/Meter</b></p> <ul style="list-style-type: none"> <li>• Gas Drop</li> <li>• Gas Valve/Marker/Meter</li> <li>• Telephone Manhole</li> <li>• Electric Manhole</li> <li>• Clean Out</li> <li>• Gas Monitoring Well</li> <li>• Electric Hand Box</li> </ul> <p><b>Proposed Curb Cut Ramp</b></p> <ul style="list-style-type: none"> <li>• Curb</li> <li>• Basin</li> <li>• Sanitary / Storm Manhole</li> </ul>
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Technical	Administrative
<p>Survey Superintendent</p> <p>Project Engineer</p> <p>Maintenance Engineer</p> <p>City Traffic Engineer</p>	<p>Capital Project Administrator</p> <p>Deputy Director for Transportation / Public Works</p> <p>Director of Public Works</p>

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

CIP: 100-582	DESIGN BY: JNJ	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 13(1)
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DESIGNED BY: Kimley-Horn

**PAVEMENT MARKING LEGEND**

- (A) TYPE B, CLASS I, WHITE 12" WIDTH MARKING
- (B) TYPE B, CLASS I, WHITE 12" x 6" PARKING SPACE MARKING

**SIGNING LEGEND**

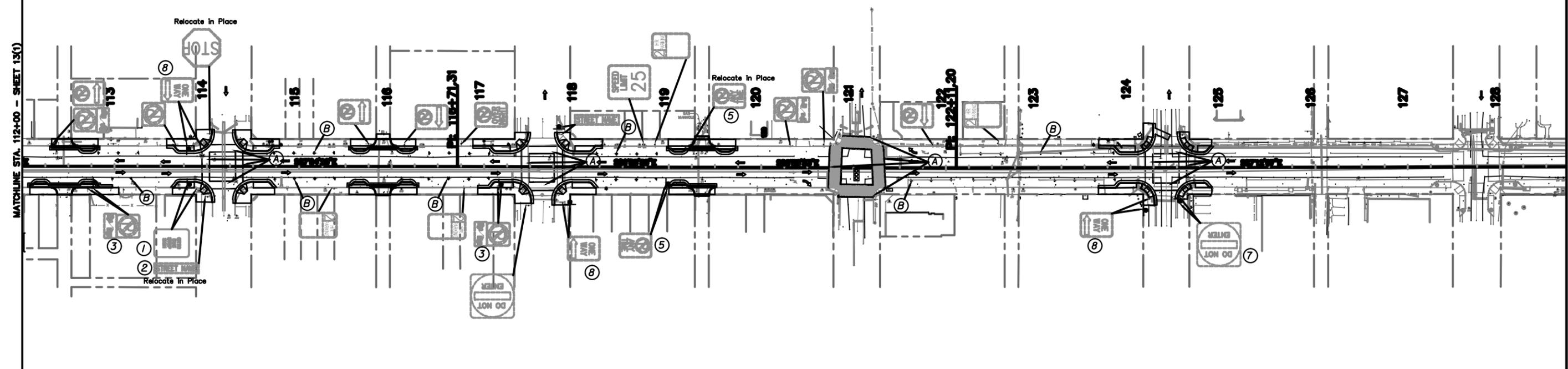
- EXIST. GROUND MOUNTED SIGN SUPPORT
- PROP. GROUND MOUNTED SIGN SUPPORT
- EXISTING SIGN TO BE REMOVED
- EXISTING SIGN TO BE RELOCATED
- EXISTING SIGN TO REMAIN

SIGN NO.	①	②	③	④	⑤	⑥	⑦	⑧
SIGN	GRTC BUS STOP SIGN	STREET NAME	NO PARKING	STOP	NO PARKING ANY TIME	SPEED LIMIT 25	DO NOT ENTER	ONE WAY
STD. NO.	R7-107a	D3-1	R8-3 R7-201P	R1-1	R7-1	R7-1	R5-1	R6-2
SIZE	12" X 30"	VARIABLE X 8"	12" X 12" 12" X 6"	36" X 36"	12" X 18"	24" X 30"	30" X 30"	24" X 30"
SIGN STRUCT. STD.	STP-1	STP-1	STP-1	STP-1	STP-1	STP-1	STP-1	STP-1

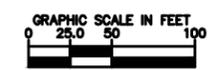
Kimley-Horn & Associates, Inc.  
Richmond, Virginia  
ROADWAY ENGINEER



VICINITY SKETCH  
(NOT TO SCALE)



- NOTES:**
- ALL PAVEMENT MARKING (NON-PAVER) CROSSWALKS SHALL BE A MINIMUM 8' WIDE.
  - SEE SHEET 2D FOR PAVEMENT CROSSWALK DETAIL AT FENDALL AVE AND NORTH AVE.



FINAL UDC PLANS - 9/15/14  
NOT FOR CONSTRUCTION

**Kimley»Horn**

2014 KIMLEY-HORN AND ASSOCIATES, INC.  
1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230  
PHONE: (804) 673-3882 FAX: (804) 673-3980

BROOKLAND PARK BOULEVARD  
STREETSCAPE  
HANES AVE TO BARTON AVE SIGNAGE AND STRIPING

DESIGNED BY: Kimley-Horn

**NOTES**

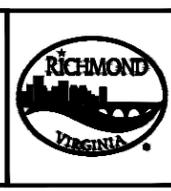
- Lot dimensions in parentheses are from deed.
- Property owners correct as of July 11, 2013
- Ordinance Number \_\_\_\_\_
- Adopted \_\_\_\_\_
- Accepted \_\_\_\_\_

**REVISIONS**

NO.	DATE	DESCRIPTION

**LEGEND**

Existing	Proposed
Curb & Gutter	Proposed Asphalt Pavement
Sidewalk	Concrete Pavement
Storm Sewer	Brick Pavers
Sanitary / Storm / Misc. Manhole	
Sanitary Sewer	
Gas Line	
Overhead Electric Line	
Overhead Utilities	
Underground Utilities	
Water Line	
Fence	
Edge of Pavement	
Property Line	



Technical	Administrative
Survey Superintendent	Capital Project Administrator
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City Traffic Engineer	

DEPARTMENT OF PUBLIC WORKS RICHMOND, VIRGINIA	CIP: 100-582	DESIGN BY: JNJ	CHECKED BY: KWA	REVIEWED BY:	FIELD NOTES:	SCALE: AS NOTED	DATE: 09/15/14	DRAWING NO.: 0-28558	SHEET NO.: 13(2)
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