



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

Georgia Division

January 2, 2013

61 Forsyth Street SW  
Suite 17T100  
Atlanta, Georgia 30303  
404-562-3630  
404-562-3703  
Georgia.fhwa@fhwa.dot.gov

In Reply Refer To:  
HPE-GA

Keith Golden, P.E., Commissioner  
Georgia Department of Transportation  
One Georgia Center  
600 West Peachtree St. NW  
Atlanta, GA 30308

Dear Commissioner Golden:

We have reviewed the request to use proprietary items on the Streetscape project, PI 0010332, City of Dallas; Johnson Street, Griffin Street, Spring Street, and Park Street Pedestrian Facilities in Paulding County.

FHWA concurs with the use of the described items below as proprietary items with the understanding that no equally suitable alternative exists. This is only applicable for use on Federal Project PI 0010332:

- Trash Receptacle – BRP, Ashebrooke Decorative Round Litter Receptacle 40 Gallon.
- Bench – BRP, Papio Signature Straight Backed Bench with Decorative Cast Ends.
- Light Poles and Luminaires – Holophane, AR15AHPMTBG3, GV1A73B, C30-CA/BK, AR100HPMTBG3, GV1A73B, FW17/180-CIS/PP, FW12/18-CIS/BK.
- Graphic Signage Poles and Bases – Brandon Industries and Sternberg Lighting.

Insufficient information was provided to determine that a proprietary item is needed for Brick Pavers – Pine Hall Brick. Typically, these bricks can be provided by multiple manufacturers in an array of colors, shapes, and sizes that would appear to be able to meet the aesthetic unity desired in this project. As a result, FHWA does not concur with the request to use Pine Hall Brick Pavers as the sole source provider for the sidewalk and crosswalk bricks.

If you have any questions, please contact Vuong (Victor) Dang at (404) 562-3654.

Sincerely,

*for* Rodney N. Barry, P.E.  
Division Administrator

Cc: Genetha Rice-Singleton, State Program Delivery Engineer

Keith Golden, P.E., Commissioner



GEORGIA DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW  
Atlanta, Georgia 30308  
Telephone: (404) 631-1000

December 10, 2012

Mr. Rodney Barry, P.E., Division Administrator  
Federal Highway Administration  
61 Forsyth Street, Suite 17T100  
Atlanta, Georgia 30277  
**ATTN: Victor Dang**

Subject: PI#0010332  
Paulding County  
City of Dallas  
Proprietary Items Usage

Dear Mr. Barry:

Please find attached a letter from the City of Dallas requesting approval to utilize proprietary goods on the above referenced Liveable Centers Initiative (LCI) project. The Department considers proprietary goods, as requested by the City of Dallas, to comply with 23 CFR 635.411.

The items requested present approximately 22% (\$569,448) of the total estimated construction cost of \$2,588,398.

Please review the request and, if approved, please provide the Department a determination with your concurrence allowing the City of Dallas to utilize these goods.

If you have any questions or need additional information, please do not hesitate to contact Jeremy Busby at (404) 631-1154.

Sincerely,

A handwritten signature in black ink, appearing to read "Genetha Rice-Singleton".

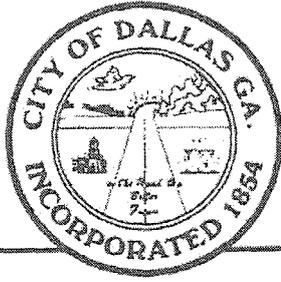
Genetha Rice-Singleton  
State Program Delivery Engineer

CONCURRENCE: \_\_\_\_\_ DATE: \_\_\_\_\_  
Rodney Barry, P.E., FHWA Division Administrator

<sup>AVS</sup>  
GRS:AVS:JTB

cc: Lisa Meyers, Engineering Services  
Jeremy Busby, Project Manager

DEC 14 2012



City of

# Dallas, Georgia

129 East Memorial Dr. • Dallas, Georgia 30132 • 770 / 443-8110  
FAX 770 / 443-8107

December 3, 2012

Jeremy T. Busby, PE  
Project Manager  
Office of Program Delivery  
600 West Peachtree Street, 25<sup>th</sup> Floor  
Atlanta, GA 30308

RE: Use of Proprietary Materials for P.I. # 0010332;  
City of Dallas Johnston St., Griffin St. Spring St. & Park  
St. Pedestrian Facilities

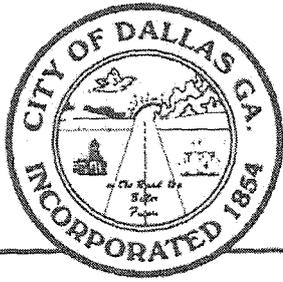
Dear Mr. Busby,

As per Federal Highway Administration regulation in 23 CFR.635.411, proprietary materials, specifications, and processes can only be utilized on LCI projects if their need is justified by the sponsoring agency. For the Dallas LCI Pedestrian Facility Project, PI. #0010332, the following are proprietary materials:

Brick Pavers - Pine Hall Brick.  
Trash Receptacle - BRP  
Bench - BRP  
Light Poles and Luminaires - Holophane  
Graphic Signage Poles and Bases - Brandon Industries and  
Sternberg Lighting

The above materials were chosen by the community during a public meeting for previous streetscape projects and a trailhead project, CM-0004-00(207), TEE-0006-00(589) and TEE-0008-00(188), therefore these products are existing items in the City of Dallas. These products will also be used in all future streetscape enhancement projects in the City of Dallas. The products are necessary to provide synchronization with products already in place and with the overall improvement plan for the downtown area.

*"on the Road to a Better Future."*



City of

# Dallas, Georgia

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129 East Memorial Dr. • Dallas, Georgia 30132 • 770 / 443-8110  
FAX 770 / 443-8107

On the drawings, we have exhibited the product information, and potential contact information for each product's manufacturer.

The City of Dallas respectfully requests that the use of these proprietary products be approved.

Sincerely,

A handwritten signature in black ink, appearing to be "K A" followed by a flourish.

Kendall Smith, City Manager  
City of Dallas

*"on the Road to a Better Future."*



U.S. Department  
of Transportation  
Federal Highway  
Administration

# Memorandum

Subject: **INFORMATION:** Guidance on Patented and Proprietary  
Product Approvals

Date: November 30, 2011

From: King W. Gee  
Associate Administrator for Infrastructure

To: Division Administrators  
Federal Lands Highway Division Engineers

The Federal Highway Administration's (FHWA) regulations concerning the use of patented and proprietary products are contained in 23 CFR 635.411. In recent years, we have received concerns from the State Departments of Transportation (DOTs), industry, and Congress regarding FHWA's implementation of this regulation. Specifically, some have viewed the regulation as prohibiting the specification of better-performing innovative products on Federal-aid projects simply because the products were patented or proprietary.

In response, we have examined this issue and have revised our guidance to ensure that the implementation of 23 CFR 635.411 does not conflict with FHWA's goal of promoting innovation. The updated guidance is now posted on the FHWA website at <http://www.fhwa.dot.gov/programadmin/contracts/011106qa.cfm>.

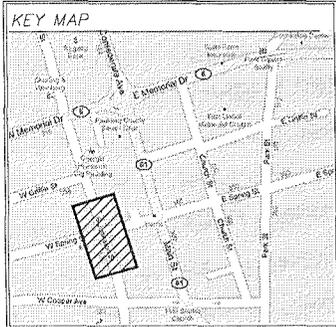
In summary, the guidance:

- Clarifies that a State DOT may specify proprietary products when the State DOT certifies that there is no suitable alternative product (such as an innovative product offering better performance) or that the product is needed for synchronization.
- Clarifies that FHWA must approve, through a public interest finding, the specification of a proprietary product when other equally suitable alternatives exist.
- Provides for the Internet posting of FHWA's approval of public interest findings on FHWA's website and encourages the posting of State DOT certifications on the AASHTO Product Evaluation List website.
- Clarifies that additional approvals are not required when proprietary products are being evaluated in FHWA-sponsored programs such as Highways for Life, the Innovative Bridge Research and Deployment Program, and the Innovative Pavement Research and Deployment Program.
- Continues to support the principle of competition in the selection of materials whenever more than one equally suitable product exists to fulfill project requirements.

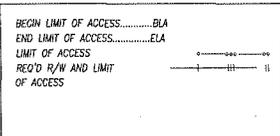
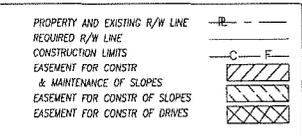
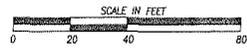
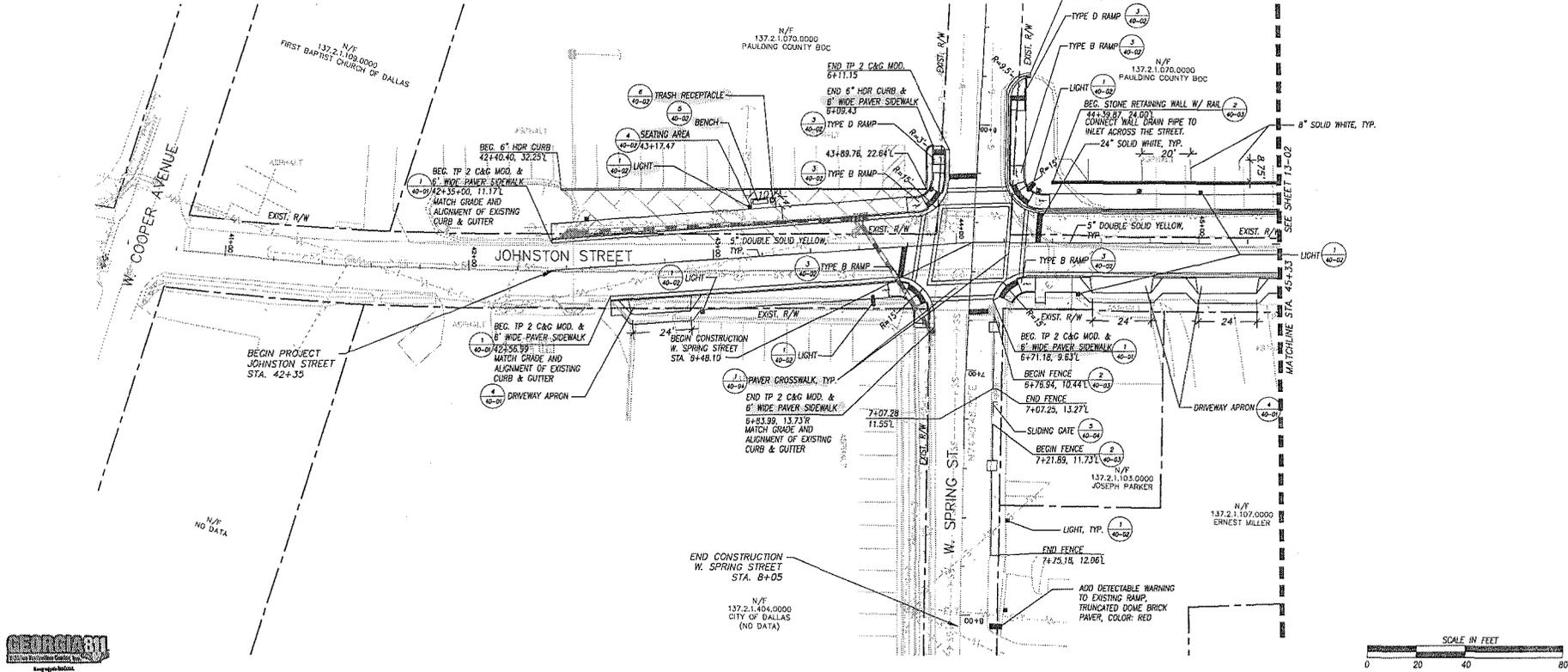
Please share the updated guidance with your staff and State DOT, and ensure that all parties are familiar with their respective authorities and responsibilities.

# CONSTRUCTION PLANS

**BRICK PAVERS, TRASH RECEPTACLES, AND**  
**BENCH CONSTRUCTION PLANS**



- GENERAL LAYOUT AND UTILITY NOTES:**
1. ALL TOPOGRAPHIC & BOUNDARY INFORMATION HAS BEEN TAKEN FROM DRAWINGS BY OTHERS. SEE EXISTING CONDITIONS SHEETS.
  2. JB+A, INC. DOES NOT ASSUME RESPONSIBILITY FOR ANY INACCURACIES IN BOUNDARY, UTILITY OR EXISTING CONDITIONS INFORMATION SHOWN, IMPLIED, OR OMITTED BY OTHERS FROM DRAWINGS.
  3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING TOPOGRAPHICAL INFORMATION SHOWN ON THE DRAWINGS, AGAINST THE PROJECT LANDSCAPE ARCHITECT OF DISCREPANCIES BETWEEN FIELD AND DRAWING DIMENSIONS.
  4. THIS DRAWING INDICATES THE APPROX. LOCATION OF SOME EXISTING UTILITIES. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES AND TAKE PRECAUTION TO PROTECT THEM.
  5. DIMENSIONS SHOWN ARE BACK OF CURB TO CENTERLINE, EDGE OF SIDEWALK TO BACK OF CURB, EDGE OF BAND TO CENTERLINE, OR WALL TO BACK OF CURB. THE DESIGNATION "B.O.C." INDICATES "BACK OF CURB."
  6. ALL ANGLES ARE 90 DEGREES UNLESS NOTED OTHERWISE.
  7. NO STRAIGHT SEGMENTS SHALL BE CONSTRUCTED IN CURVED PORTIONS OF CURBS OR WALKS. ALL CURVS SHALL HAVE A SMOOTH TRANSITION TO STRAIGHT PORTIONS OF THE WORK.
  8. AS A GENERAL RULE, DO NOT SCALE OFF THE DRAWING. HOWEVER, IF SOME DIMENSIONAL DISCREPANCIES ARE NOTED SOME SCALING OF THE DRAWINGS WOULD BE NECESSARY. QUESTIONS NOT READILY RESOLVED BY INFERENCE OR SCALING OFF THE DRAWING SHALL BE DIRECTED TO THE PROJECT LANDSCAPE ARCHITECT.
  9. THE CONTRACTOR SHALL PROVIDE OWNER WITH A CONSTRUCTION SCHEDULE INCLUDING ALL SITE WORK. ALL LAYOUT IS SUBJECT TO APPROVAL BY OWNER AND/OR PROJECT LANDSCAPE ARCHITECT; MINOR CHANGES IN LAYOUT MAY BE MADE TO ACCOMMODATE DESIGN INTENT OR FIELD CONDITIONS. NO ADDITIONAL PAYMENTS SHALL BE MADE TO THE CONTRACTOR FOR SUCH ADJUSTMENTS TO THE LAYOUT.
  10. PROTECT EXISTING TREES AND SHRUBS TO REMAIN AS INDICATED ON DEMONSTRATION PLANS. DO NOT PILE, ENCUMBER, STORE MATERIALS, OR DUMP MATERIALS UNDER THE DROP LINE OF ANY EXISTING TREES, UNLESS NECESSARY TO THE REMOVAL AND/OR INSTALLATION OF THE WORK.
  11. ALL DEBRIS RESULTING FROM CONSTRUCTION IS TO BE HAULLED OFF SITE AND DUMPED IN AN APPROPRIATE LANDFILL.
  12. ALL WORK IS SUBJECT TO APPROVAL BY OWNER AND PROJECT LANDSCAPE ARCHITECT.
  13. SURFACE OF THE NEW SIDEWALKS SHOULD BE CROSS-SLOPED TO DRAIN TOWARDS THE STREET UNLESS OTHERWISE NOTED. MAXIMUM CROSS SLOPE FOR THE PROPOSED SIDEWALK IS 2% (ADA).
  14. ADJUST TO GRADE ALL IN-GROUND UTILITY METERS AS NECESSARY.
  15. ALL DISTURBED AND EXPOSED GRADING AND PLANTER AREAS TO BE SEEDED AND STRAWED - SEE SPECIFICATIONS.
  16. ACCESS TO ALL BUSINESSES AND RESIDENCES MUST BE MAINTAINED DURING THE ENTIRE CONSTRUCTION PROCESS.
  17. REFER TO LANDSCAPE PLANS FOR PROPOSED SOIL TYPES AND LOCATIONS.
  18. CONTRACTOR TO COORDINATE WITH CITY FOR STREET LIGHT AND UNDERGROUND UTILITY CONSTRUCTION (TO BE PERFORMED BY OTHERS).
  19. THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION. IF UNCHARTED UTILITIES ARE ENCOUNTERED DURING EXCAVATION OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT IMMEDIATELY FOR INSTRUCTIONS. ANY DAMAGE OR INTERRUPTION OF EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED PROMPTLY AT THE CONTRACTOR'S EXPENSE.
  20. TP 2 MODIFIED CURB & GUTTER IS TO HAVE A 1.5" WIDE GUTTER, TYPICAL.



sky design  
JB+A Inc.  
3025 cantonment gateway  
suite 100  
dallas, texas 75239  
p 772.863.9900  
f 772.863.9909

REVISION DATES

OFFICE: CONGRESSIONAL DISTRICT 11

**MAINLINE PLAN**

CITY OF DALLAS  
JOHNSTON ST., GRIFFIN ST., SPRING ST.,  
& PARK STREET PEDESTRIAN FACILITIES

DATE: 11/20/12  
JOB: 1004700  
DRAWN: RAY  
CHECKED: SH/14P  
DRAWING NO.: 13-01





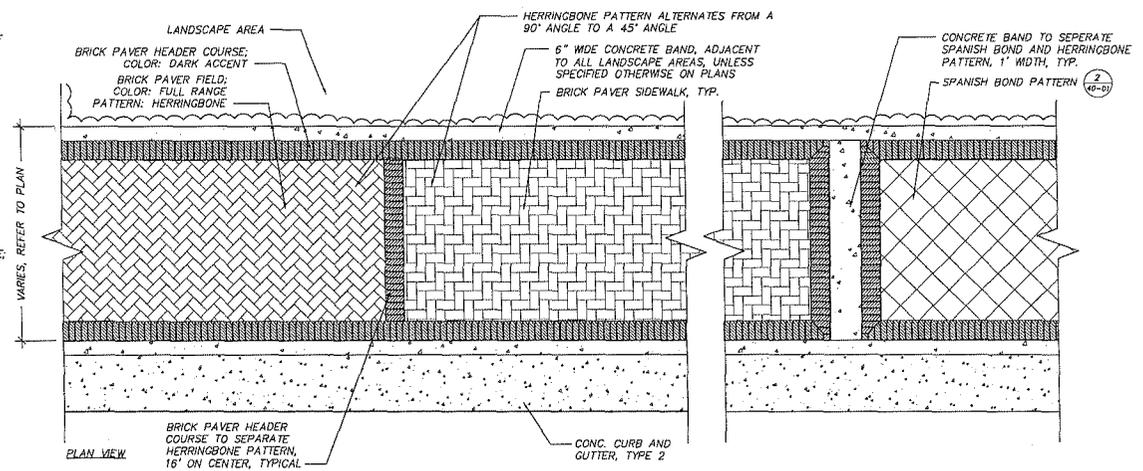
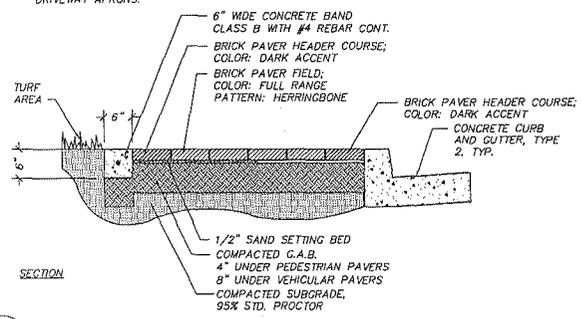


**BRICK PAVER SPECIFICATIONS:**  
 MANUFACTURER: PINE HALL BRICK  
 PAVER: ENGLISH EDGE  
 COLORS: DARK ACCENT AND FULL RANGE

NOTE: A PEDESTRIAN GRADE PAVER IS TO BE USED FOR ALL SIDEWALK APPLICATIONS. A VEHICULAR GRADE PAVER IS TO BE USED FOR ALL CROSSWALK APPLICATIONS AND DRIVEWAY APRONS.

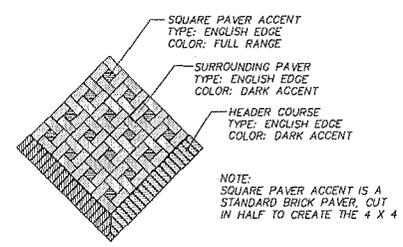
SEE PAVER PATTERN PLANS, DRAWINGS 40-06 TO 40-08, FOR LOCATIONS OF CONCRETE AND PAVER BANDS AND TYPE OF PATTERN IN PAVER FIELD.

NOTE: THE PAVER COLOR AND MANUFACTURER IS A PROPRIETARY ITEM FOR THIS PROJECT AND HAS BEEN APPROVED BY CDOT.



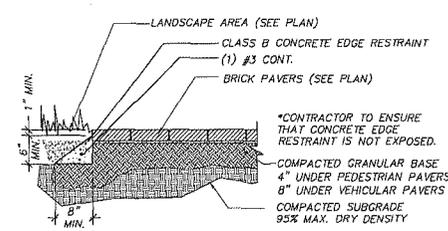
**BRICK PAVER SIDEWALK**  
 Scale: 1" = 1'-0"

1  
40-01



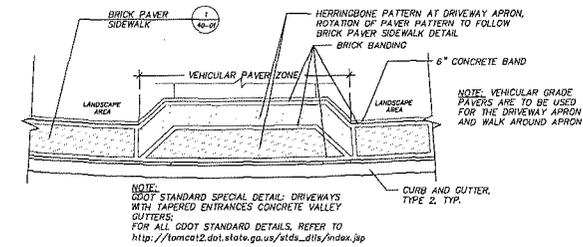
**SPANISH BOND PAVER PATTERN**  
 Scale: 1/2" = 1'-0"

2  
40-01



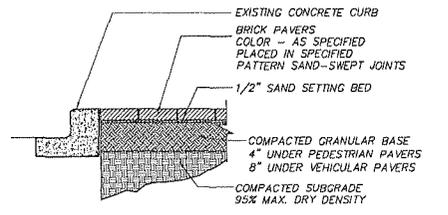
**POURED CONCRETE EDGE RESTRAINT**  
 Scale: 1" = 1'-0"

3  
40-01



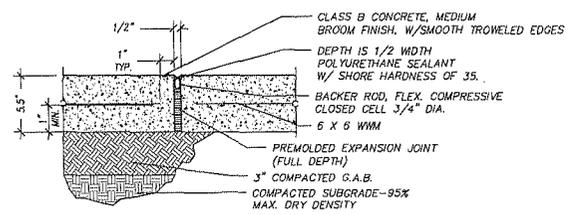
**PAVER DETAIL AT DRIVEWAY APRON**  
 Scale: N.T.S.

4  
40-01



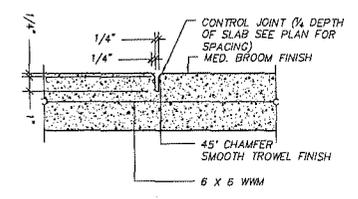
**SECTION - BRICK PAVERS AT EXISTING CURB**  
 Scale: 1" = 1'-0"

5  
40-01



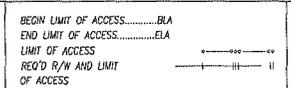
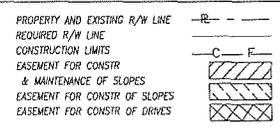
**SECTION - CONCRETE EXPANSION JOINT**  
 Scale: 3" = 1'-0"

6  
40-01



**SECTION - CONCRETE CONTROL JOINT**  
 Scale: 3" = 1'-0"

7  
40-01



**B** urban design studio  
 304a, Inc.  
 2626 cantonment highway  
 suite 100  
 north windsor, georgia 30339  
 p 770.883.0600  
 f 770.885.8023  
 planning & landscape architecture

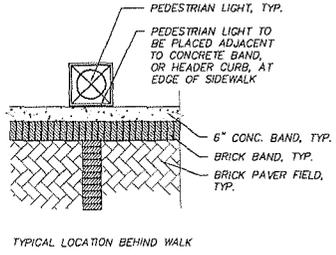
REVISION DATES

OFFICE: CONGRESSIONAL DISTRICT 11

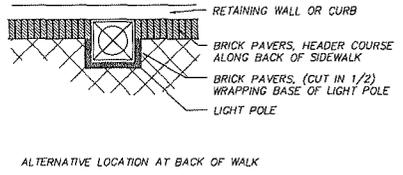
**HARDSCAPE DETAILS**

CITY OF DALLAS  
 JOHNSTON ST., GRIFFIN ST., SPRING ST., & PARK STREET PEDESTRIAN FACILITIES

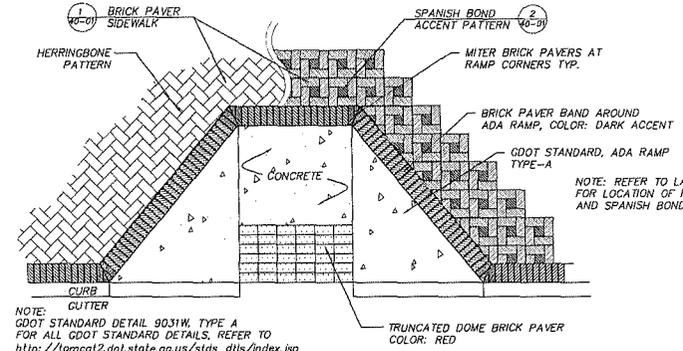
DATE: 11/20/12
SCALE: 1/32"
DRAWN: BDT
CHECKED: JES/ML
DRAWING No. 40-01



TYPICAL LOCATION BEHIND WALK



ALTERNATIVE LOCATION AT BACK OF WALK

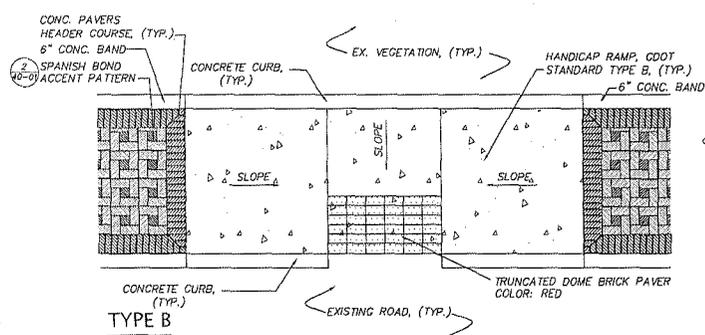


NOTE: CDOT STANDARD DETAIL 9031W, TYPE A FOR ALL CDOT STANDARD DETAILS, REFER TO [http://tcmcat2.dot.state.ga.us/stds\\_dtlis/index.jsp](http://tcmcat2.dot.state.ga.us/stds_dtlis/index.jsp)

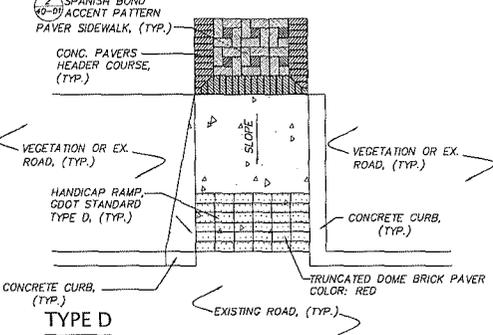
NOTE: REFER TO LAYOUT PLANS FOR LOCATION OF HERRINGBONE AND SPANISH BOND PAVING PATTERNS

1 BRICK PAVING AT BASE OF LIGHT Scale: 1/2"=1'-0"

2 BRICK PAVING AT TYPE A CURB RAMP Scale: 1/2"=1'-0"

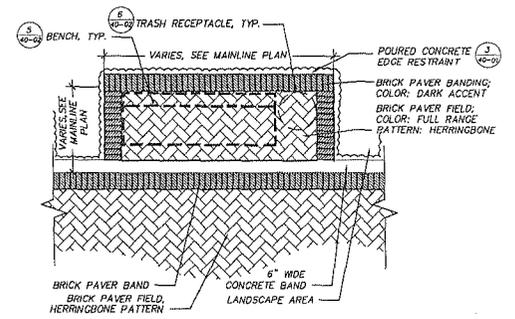


TYPE B

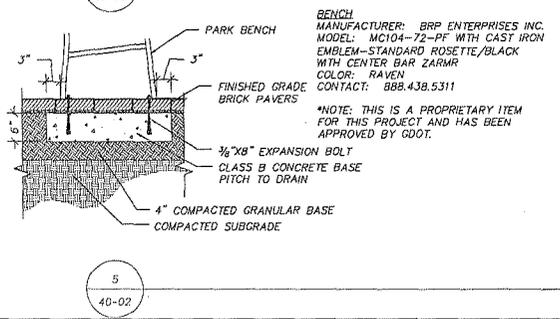


TYPE D

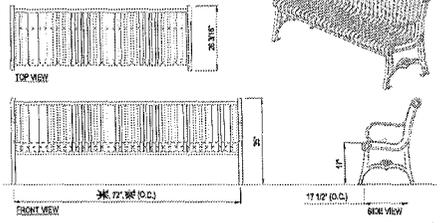
BRICK PAVING AT TYPE B AND D CURB RAMPS Scale: 1/2"=1'-0"



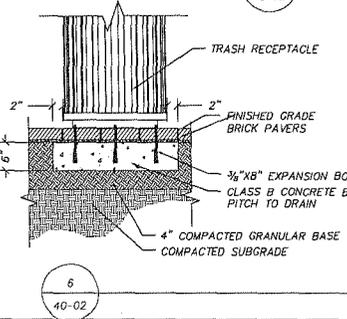
SEATING AREA Scale: 1/2"=1'-0"



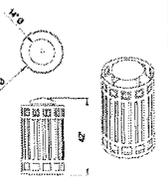
BENCH MANUFACTURER: BRP ENTERPRISES INC. MODEL: MC104-72-PF WITH CAST IRON EMBLEM-STANDARD ROSETTE/BLACK WITH CENTER BAR ZARNIR COLOR: RAVEN CONTACT: 888.438.5311  
 \*NOTE: THIS IS A PROPRIETARY ITEM FOR THIS PROJECT AND HAS BEEN APPROVED BY CDDT.



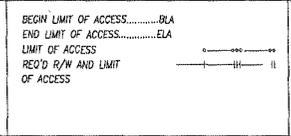
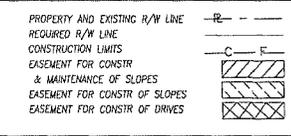
BENCH Scale: 1"=1'-0"



TRASH RECEPTACLE MANUFACTURER: BRP ENTERPRISES INC. MODEL: AH401-DT-PF WITH CAST IRON EMBLEM-STANDARD ROSETTE/BLACK COLOR: RAVEN CONTACT: 888.438.5311  
 \*NOTE: THIS IS A PROPRIETARY ITEM FOR THIS PROJECT AND HAS BEEN APPROVED BY CDDT.



TRASH RECEPTACLE Scale: 1"=1'-0"



SKY DESIGN  
 URBAN DESIGN STUDIO  
 1044, Inc.  
 2025 Cumberland Parkway  
 Suite 100  
 Atlanta, Georgia 30339  
 p 770.403.0000  
 f 770.403.0003  
 info@skydesign.com

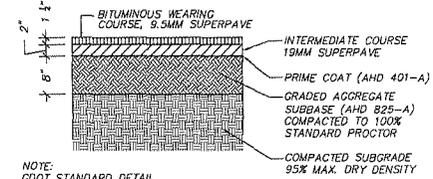
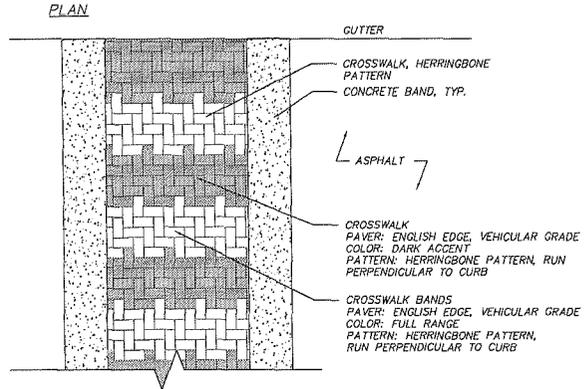
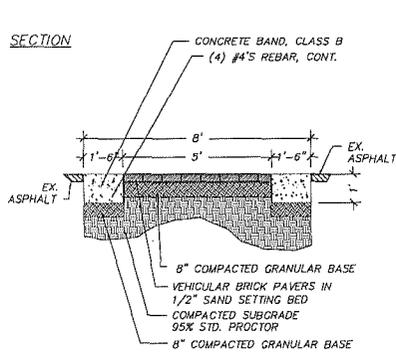
REVISION DATES

OFFICE: CONGRESSIONAL DISTRICT 11

**HARDSCAPE DETAILS**

CITY OF DALLAS  
 JOHNSTON ST., GRIFFIN ST., SPRING ST.,  
 & PARK STREET PEDESTRIAN FACILITIES

DATE: 11/20/12
DRAWN: BCF
CHECKED: JEB/MLP
DRAWING No. 40-02



NOTE: GDOT SPREAD RATE TO BE USED: 1" OF DEPTH EQUALS 110 POUNDS PER SQUARE YARD.

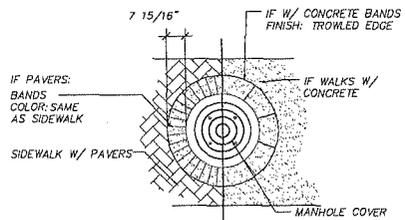
NOTE: GDOT STANDARD DETAIL FOR ALL GDOT STANDARD DETAILS, REFER TO [http://standarddetails.gdot.gov/stds\\_dtl/](http://standarddetails.gdot.gov/stds_dtl/)

1  
40-04

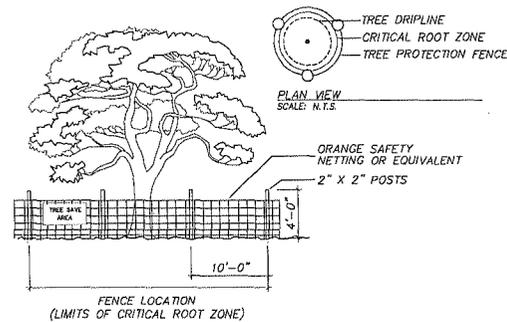
PAVER CROSSWALK  
Scale: 1/2" = 1'-0"

2  
40-04

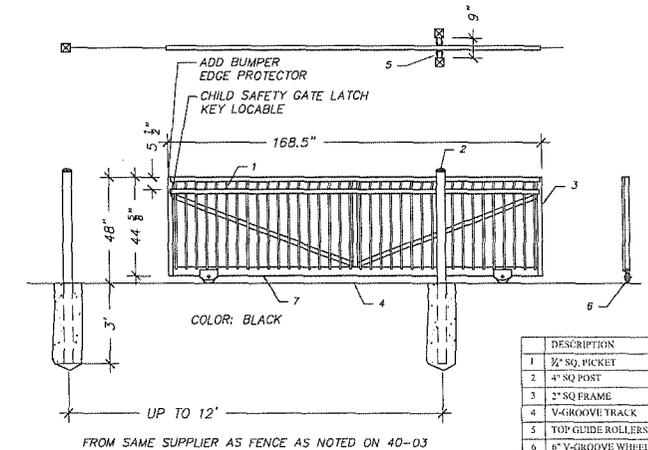
ASPHALT PAVING SECTION  
Scale: 1" = 1'-0"



3  
40-04  
PAVER DETAIL AT UTILITY MANHOLE  
Scale: 1/2" = 1'-0"



4  
40-04  
TREE PROTECTION FENCE  
Scale: 1/2" = 1'-0"



5  
40-04  
SLIDING GATE  
Scale: NTS

DESCRIPTION
1 3/4" SQ. PICKET
2 4" SQ. POST
3 2" SQ. FRAME
4 V-GROOVE TRACK
5 TOP GLIDE ROLLERS
6 6" V-GROOVE WHEEL
7 2" x 4" SQ. LOWER TUBE

PROPERTY AND EXISTING R/W LINE  
REQUIRED R/W LINE  
CONSTRUCTION LIMITS  
EASEMENT FOR CONSTR.  
& MAINTENANCE OF SLOPES  
EASEMENT FOR CONSTR. OF SLOPES  
EASEMENT FOR CONSTR. OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA  
END LIMIT OF ACCESS.....ELA  
LIMIT OF ACCESS  
REQ'D R/W AND LIMIT  
OF ACCESS



**B** design studio  
Biro, Inc.  
2625 Cumberland Parkway  
Suite 100  
Atlanta, Georgia 30329  
p: 770.803.0500  
f: 770.806.9603  
planning + landscape architecture

REVISION DATES

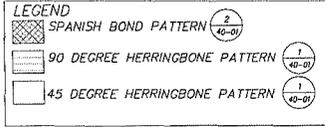
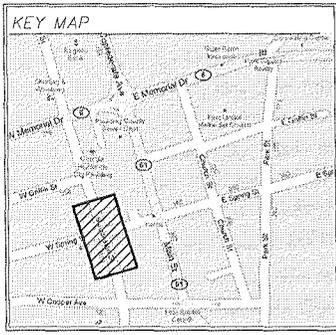
OFFICE: CONGRESSIONAL DISTRICT 11

**HARDSCAPE DETAILS**

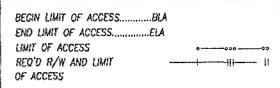
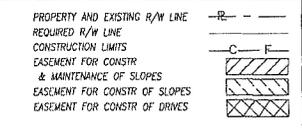
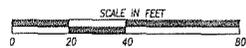
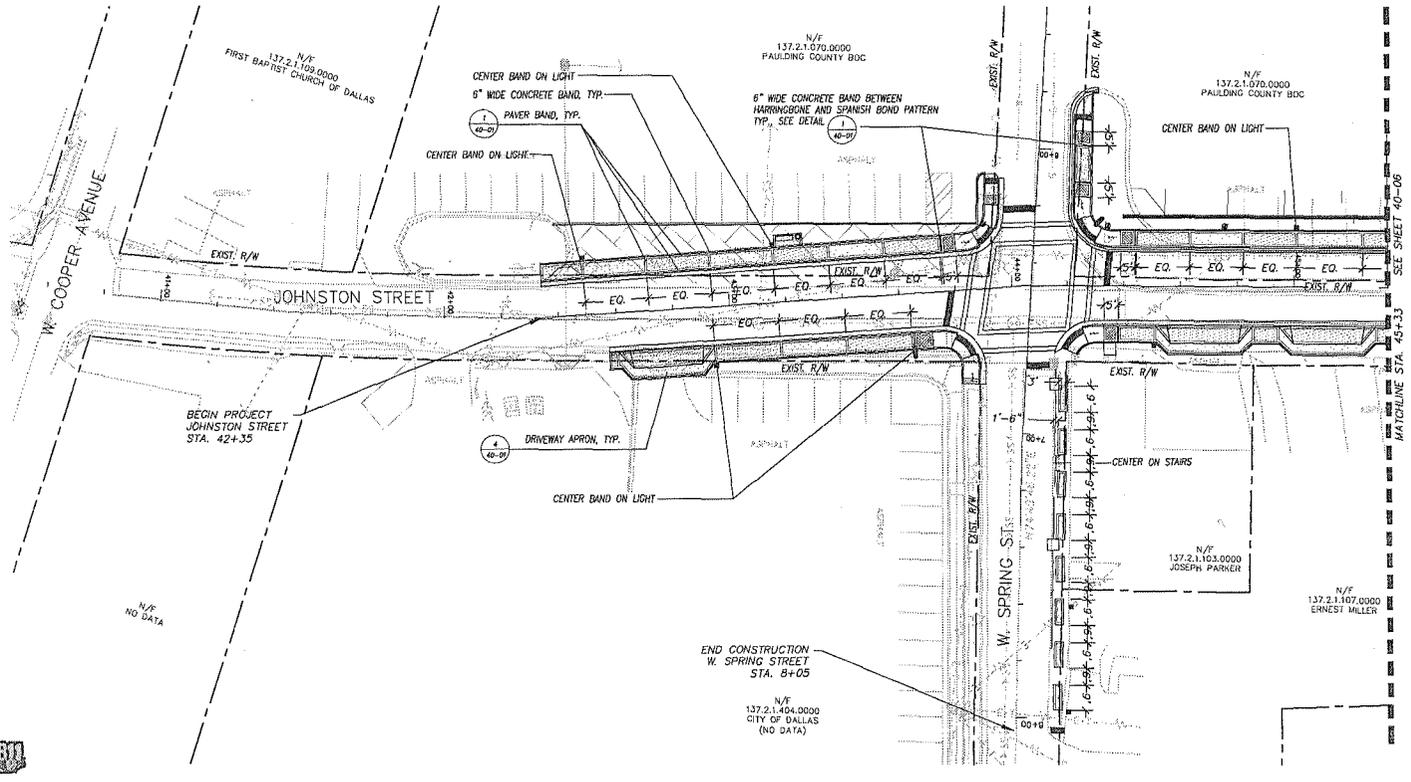
CITY OF DALLAS  
JOHNSTON ST., GRIFFIN ST., SPRING ST.,  
& PARK STREET PEDESTRIAN FACILITIES

DATE: 11/30/12  
TIME: 10:47:00  
DRAWN BY:  
CHECKED: RB/MLP  
DRAWING No.

40-04



DIMENSIONS ARE TO CENTER OF BAND  
EQUAL SPACING IS BETWEEN DECORATIVE LIGHT POLES.



sky design  
B1 urban design studio

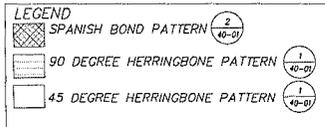
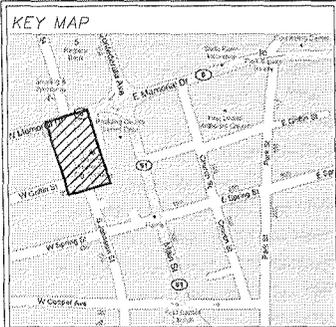
REVISION DATES


OFFICE: CONGRESSIONAL DISTRICT 11

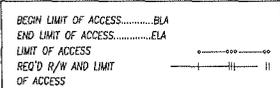
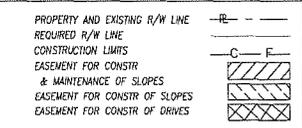
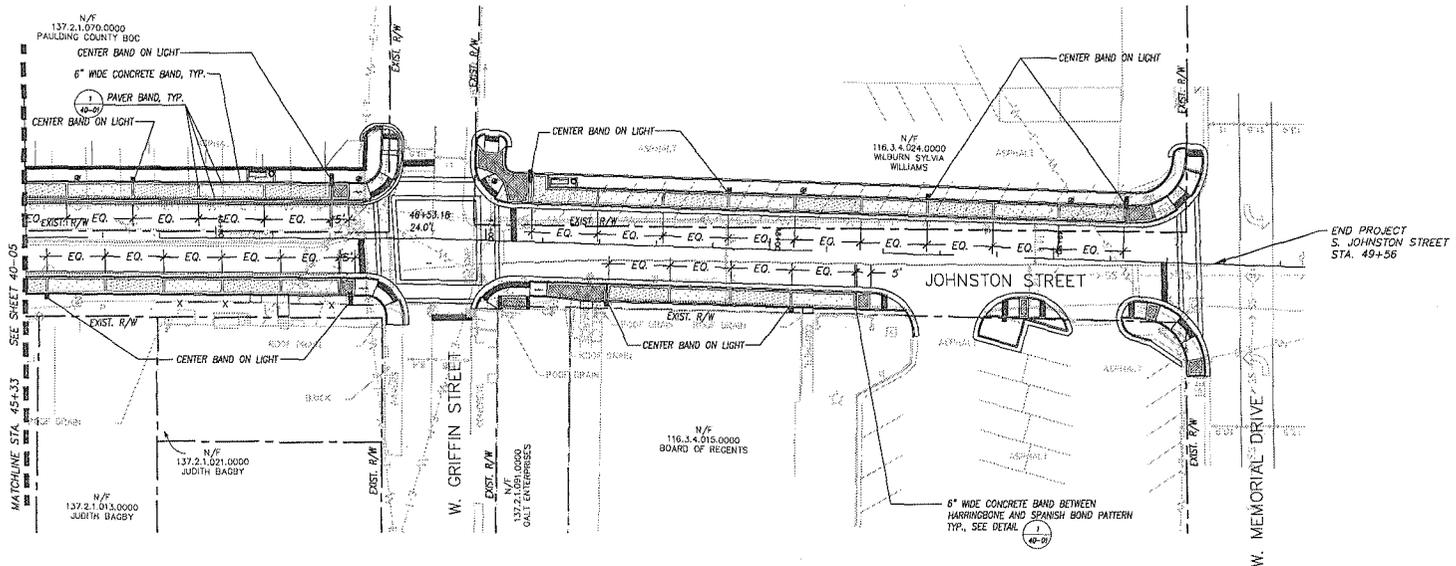
**PAVER PATTERN PLAN**

CITY OF DALLAS  
JOHNSTON ST., GRIFFIN ST., SPRING ST.,  
& PARK STREET PEDESTRIAN FACILITIES

DATE: 11/30/12  
SHEET: 1044100  
DRAWN: BMT  
CHECKED: JEN/PJR  
DRAWING No. 40-05



DIMENSIONS ARE TO CENTER OF BAND  
EQUAL SPACING IS BETWEEN DECORATIVE LIGHT POLES.



REVISION DATES

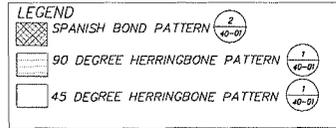
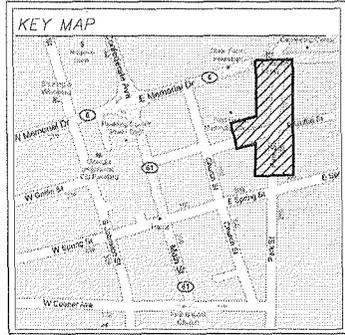
OFFICE: CONGRESSIONAL DISTRICT 11

**PAVER PATTERN PLAN**

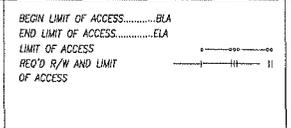
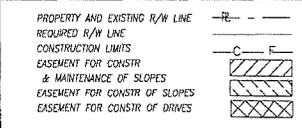
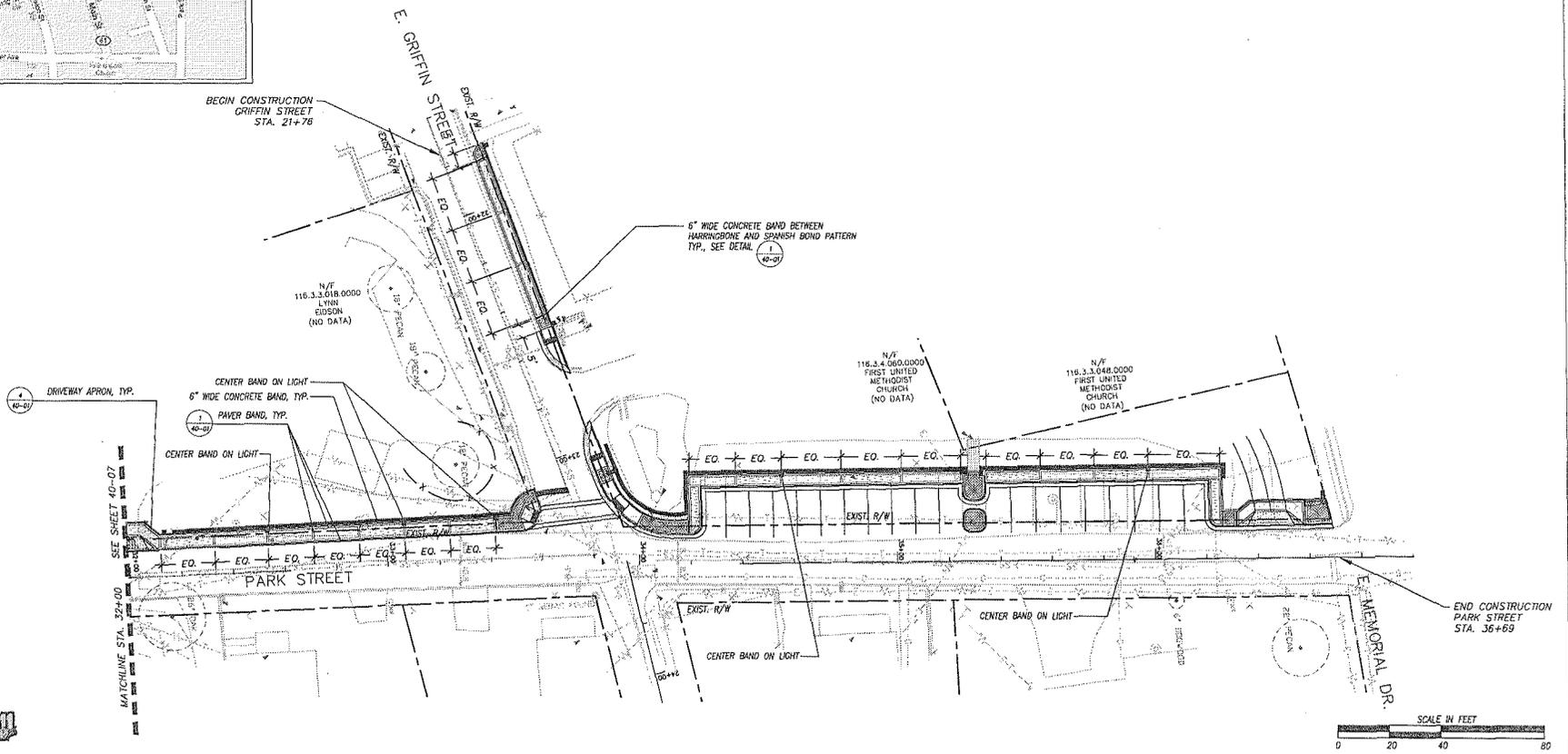
CITY OF DALLAS  
JOHNSTON ST., GRIFFIN ST., SPRING ST.,  
& PARK STREET PEDESTRIAN FACILITIES

DATE: 11/09/12
DESIGN: 10047500
DRAWN: SKY
CHECKED: SKY/AL
DRAWING No. 40-06





DIMENSIONS ARE TO CENTER OF BAND  
EQUAL SPACING IS BETWEEN DECORATIVE LIGHT POLES.



REVISION DATES

OFFICE: CONGRESSIONAL DISTRICT 11

**PAVER PATTERN PLAN**

CITY OF DALLAS  
JOHNSTON ST., GRIFFIN ST., SPRING ST.,  
& PARK STREET PEDESTRIAN FACILITIES

DATE: 11/20/12
SCALE: 1/8"=1'-0"
DRAWN: HW
CHECKED: JSP/AR
DRAWING No. 40-08

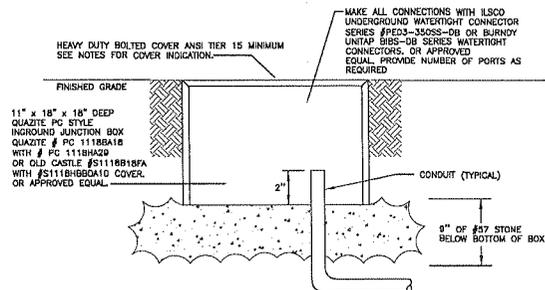
# LIGHTING CONSTRUCTION PLANS

### LEGEND

- CONCEALED CONDUIT. SEE NOTE BELOW
  - EXPOSED CONDUIT. SEE NOTE BELOW
  - UNDERGROUND OR UNDERFLOOR CONDUIT. SEE NOTE BELOW.
  - DIRECT BORE.
  - LIGHT FIXTURE, CAPITAL LETTER INDICATES TYPE
  - J-BOX WITH BLANK COVER, UNLESS OTHERWISE NOTED.
  - TFROC TYPICAL FOR REMAINDER OF CIRCUIT.
  - AVAILABLE SYMMETRICAL SHORT CIRCUIT CURRENT AT THE EQUIPMENT AS CALCULATED BY THE ENGINEER, THE ELECTRICAL DISTRIBUTION SYSTEM SHALL BE A FULLY RATED SYSTEM.
- NOTE: HASH MARKS INDICATE NUMBER OF #12 CU. HOT CONDUCTORS, #12 CU. NEUTRAL CONDUCTOR, RESPECTIVELY. GROUND CONDUCTOR NOT SHOWN. NO HASH MARKS INDICATE 1/2" CU. CONDUCTORS (A HOT, NEUTRAL AND GROUND), UNLESS OTHERWISE NOTED. 1/2" CONDUIT MINIMUM.

### LIGHTING FIXTURE SCHEDULE

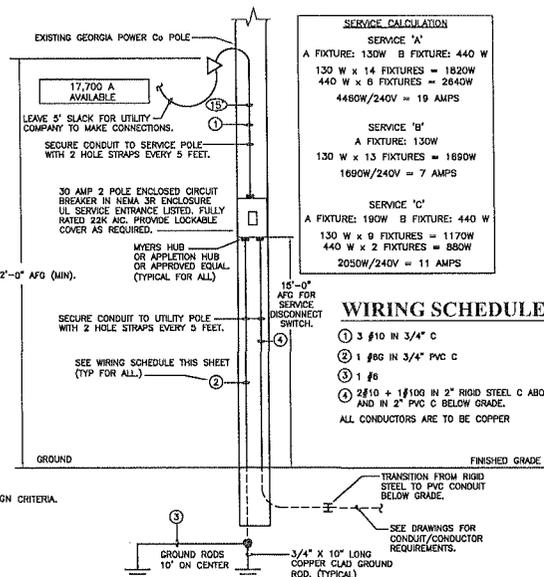
TYPE	DESCRIPTION	MOUNTING	No./LAMPS	WATTAGE
A	HOLOPHANE - 1 EA - #AR100HP24B03/ GY1A73X WITH #FW12/18 - C15/BK, 2 EA - #BBA2B1/1/80 OR APPROVED EQUAL.	12' POLE	1-100W HPS	130W
B	HOLOPHANE - 2 EA - #AR15AH24B03/ GY1A73X WITH #FW17/18 - C15/BK, #C30-CA/BK, 2 EA - #BBA2B1/1/80. OR APPROVED EQUAL.	17' POLE	2-150W HPS	440W



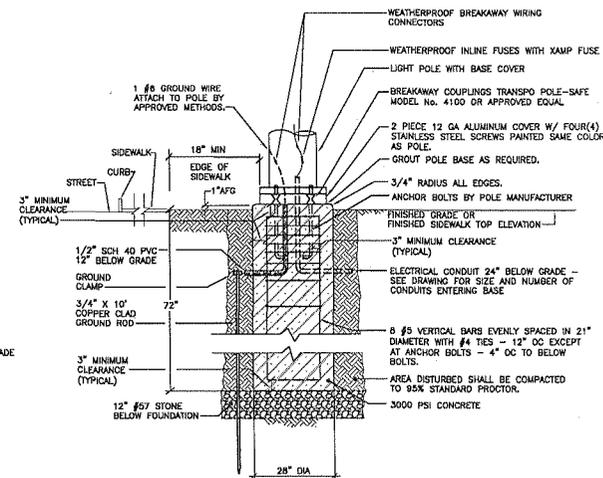
**TYPICAL IN GROUND JUNCTION BOX INSTALLATION DETAIL**  
2 (25-00) SCALE: NONE

### GENERAL NOTES:

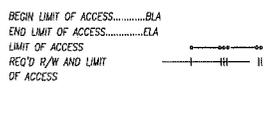
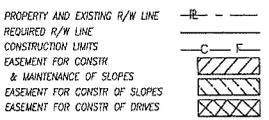
- A. NO CONDUIT MAY BE RUN OUTSIDE THE RIGHT OF WAY BOUNDARY OR ON PRIVATE PROPERTY. ROUTE ALL CONDUITS BETWEEN EACH FIXTURE AND BETWEEN LAST FIXTURE AND SERVICE A OR B OR C IN THE MOST DIRECT ROUTE AS POSSIBLE.
- B. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY DIGGING. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- C. THE CONTRACTOR SHALL DIRECT BORE WHERE APPLICABLE OR SHOWN ON DRAWINGS.
- D. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40, CONDUIT INSTALLED UNDERNEATH ROADWAYS AND DRIVES SHALL BE TYPE TP3 CONDUIT OR GALVANIZED RIGID STEEL CONDUIT. ALL CONDUIT WHICH IS RUN UNDER A ROADWAY SHALL BE INSTALLED PRIOR TO ANY NEW PAVING. NO NEW PAVING SHALL BE CUT TO INSTALL ELECTRICAL LINES.
- E. RIGID CONDUIT INSTALLED ON STRUCTURES SHALL BE SUPPORTED AT LEAST EVERY TEN FEET AND WITHIN THREE FEET OF JOISTS, LUMINAIRES, ETC.
- F. EXPOSED CONDUIT SHALL BE GALVANIZED RIGID STEEL UNLESS OTHERWISE NOTED.
- G. THE LIGHTING CONTRACTOR SHALL FURNISH A ONE YEAR WARRANTY FOR PARTS AND DEFECTIVE WORKMANSHIP ON THE LUMINAIRES, POLES, LIGHTING CONTROL PANEL AND ALL OTHER ELECTRICAL EQUIPMENT.
- H. THE CONTRACTOR SHALL INSTALL A NYLON PULL CORD OR GALVANIZED PULL WIRE IN EACH EMPTY CONDUIT. THE COST OF THIS ITEM WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF THE CONDUIT.
- I. CONDUIT ACCESSORIES SUCH AS EXPANSION JOINTS, PULLBOXES, CONDULETS, ELBOWS, FLEXIBLE CONDUIT, ETC., SHALL BE INCLUDED IN THE PRICE BID FOR CONDUIT.
- J. ALL BALLASTS SHALL BE REGULATOR TYPE.
- K. ALL FUSES AND FUSE HOLDERS SHALL BE IN-LINE TYPE AND WATERPROOF.
- L. ALL ELECTRICAL MATERIALS, SUCH AS CONDUIT, CABLES, WIRES AND J-BOXES, SHALL BE UL LISTED AND MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND THE AMERICAN NATIONAL STANDARDS INSTITUTE. ELECTRICAL CONDUITS, WIRES, CIRCUIT BREAKERS, FUSES, GROUND RODS AND GROUND CONDUCTORS SHALL MEET GOOT'S STANDARD SPECIFICATIONS AND SHALL BE IN ACCORDANCE WITH GOOT'S QUALIFIED PRODUCTS LIST (GPL).
- M. FOR ALL LIGHT POLES, A MINIMUM OF 1'-0" MUST BE MAINTAINED AT ALL TIMES FROM THE FACE OF THE CURB OR EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF THE LIGHT POLE.
- N. OPERATING VOLTAGE OF THE FIXTURES SHALL BE 240V.
- O. THE CONTRACTOR SHALL SUBMIT PHOTOMETRIC DATA AND DESIGN CALCULATIONS FOR THE LUMINAIRES TO VERIFY THE LIGHTING DESIGN CRITERIA. LIGHTING DESIGN CRITERIA:
  1. THE AVERAGE MAINTAINED ILLUMINATION = 1.0 FC (MINIMUM)
  2. THE AVERAGE UNIFORMITY = 4.0:1 (MAXIMUM)
  3. THE LIGHT LOSS FACTOR = 0.70.
  4. REFERENCE ANSI/IESNA RP-8-00.
- P. ALL LAMPS SHALL BE HIGH PRESSURE SODIUM TYPE.
- Q. REFRACTORS SHALL BE PRISMATIC GLASS.
- R. LOCAL UTILITY COMPANY IS GEORGIA POWER. CONTACT: SCOTT MCCARLEY (770-745-2417)



**ONE LINE DIAGRAM SERVICE 'A'/'B' & 'C'**  
1 (25-00) SCALE: NTS



**FIXTURE TYPE 'A' & 'B' FOUNDATION DETAIL**  
3 (25-00) SCALE: NTS



**B** design studio  
1000 W. Hwy. 100  
2025 Cumberland Parkway  
Suite 100  
Atlanta, Georgia 30339  
4770.860.0660  
1770.860.0000  
planning + landscape architecture

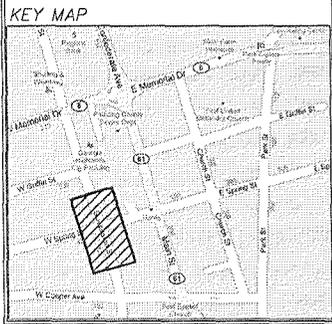
REVISION	DATE

OFFICE: CONGRESSIONAL DISTRICT 11

### LIGHTING LEGEND & DETAILS

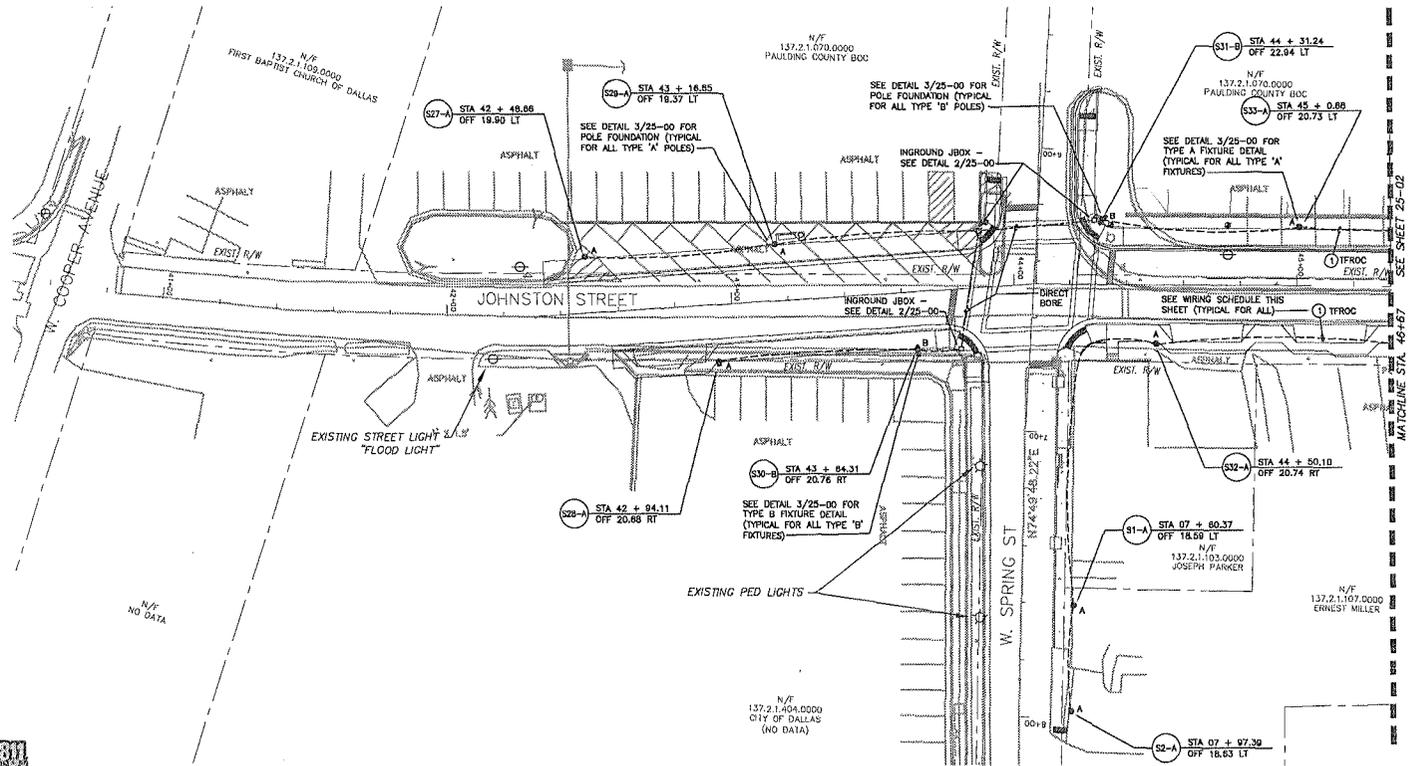
CITY OF DALLAS  
JOHNSTON ST., GRIFFIN ST., SPRING ST., & PARK STREET PEDESTRIAN RAILWAYS

DATE: 11/20/12  
JOB#: 10042.00  
DRAWN: SS  
CHECKED: WMM  
DRAWING NO.: 25-00



### WIRING SCHEDULE

① 2810 + 18100 IN 2" C  
ALL CONDUCTORS ARE TO BE COPPER



PROPERTY AND EXISTING R/W LINE	---
REQUIRED R/W LINE	---
CONSTRUCTION LIMITS	---
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	---
EASEMENT FOR CONSTR OF SLOPES	---
EASEMENT FOR CONSTR OF DRIVES	---

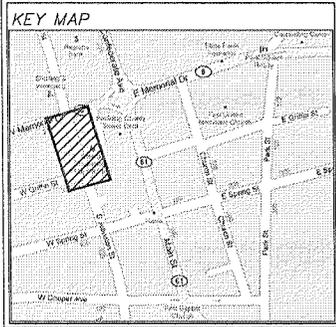
BEGIN LIMIT OF ACCESS.....BLA	---
END LIMIT OF ACCESS.....EIA	---
LIMIT OF ACCESS	---
REQ'D R/W AND LIMIT OF ACCESS	---



REVISION DATES

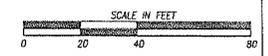
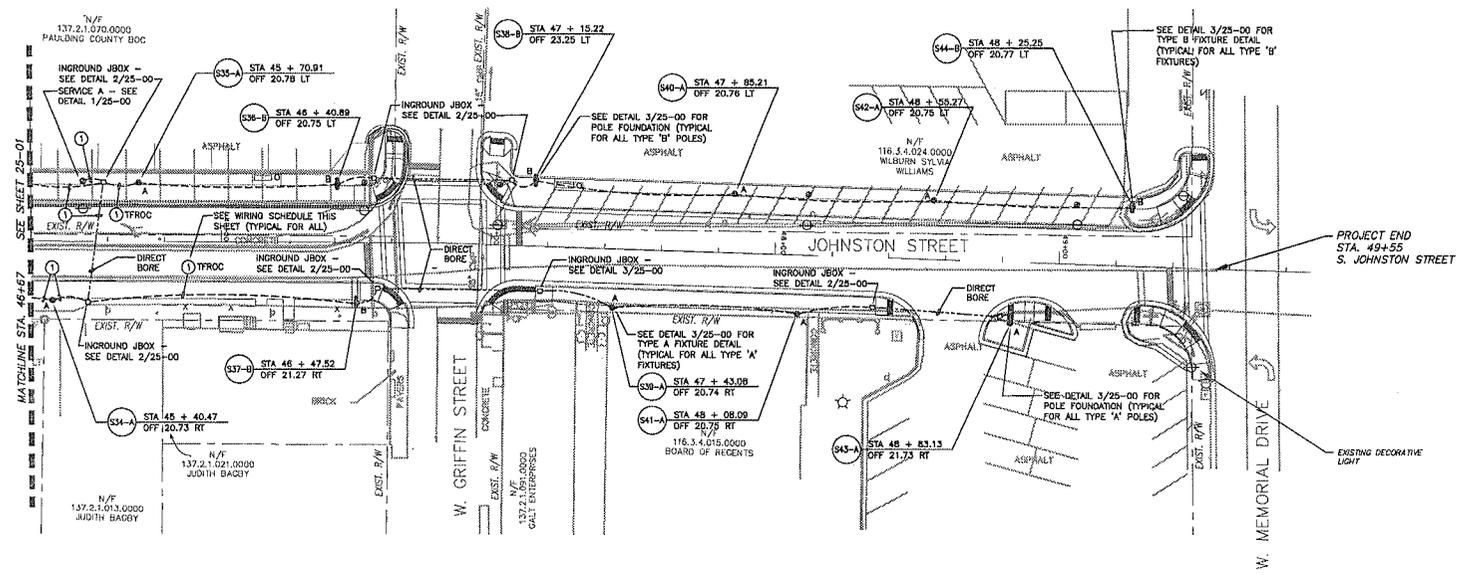
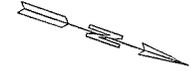
OFFICE: CONGRESSIONAL DISTRICT 11	DATE: 11/20/12
CITY OF DALLAS JOHNSTON ST., GRIFFIN ST., SPRING ST., & PARK STREET PEDESTRIAN FACILITIES	DATE: 10/07/09
	DRAWN: SS
	CHECKED: BSW
DRAWING No. 25-01	

STATE	COUNTY	P.I. #	SHEET NO.	TOTAL SHEETS
GA	PAULDING	0010332		



### WIRING SCHEDULE

① 2#10 + 1#100 IN 2" C  
ALL CONDUCTORS ARE TO BE COPPER



PROPERTY AND EXISTING R/W LINE	
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS.....BLA	
END LIMIT OF ACCESS.....ELA	
LIMIT OF ACCESS	
REQ'D R/W AND LIMIT OF ACCESS	



**B** from design studio  
 2025 commercial parkway  
 suite 150  
 atlanta, georgia 30339  
 p 770.852.6900  
 f 770.858.0803  
 planning • landscape architecture

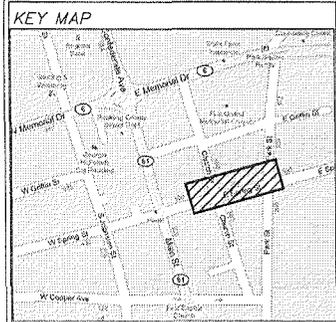
REVISION DATES

OFFICE: CONGRESSIONAL DISTRICT 11

**LIGHTING PLAN**

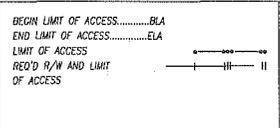
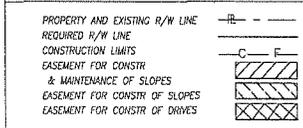
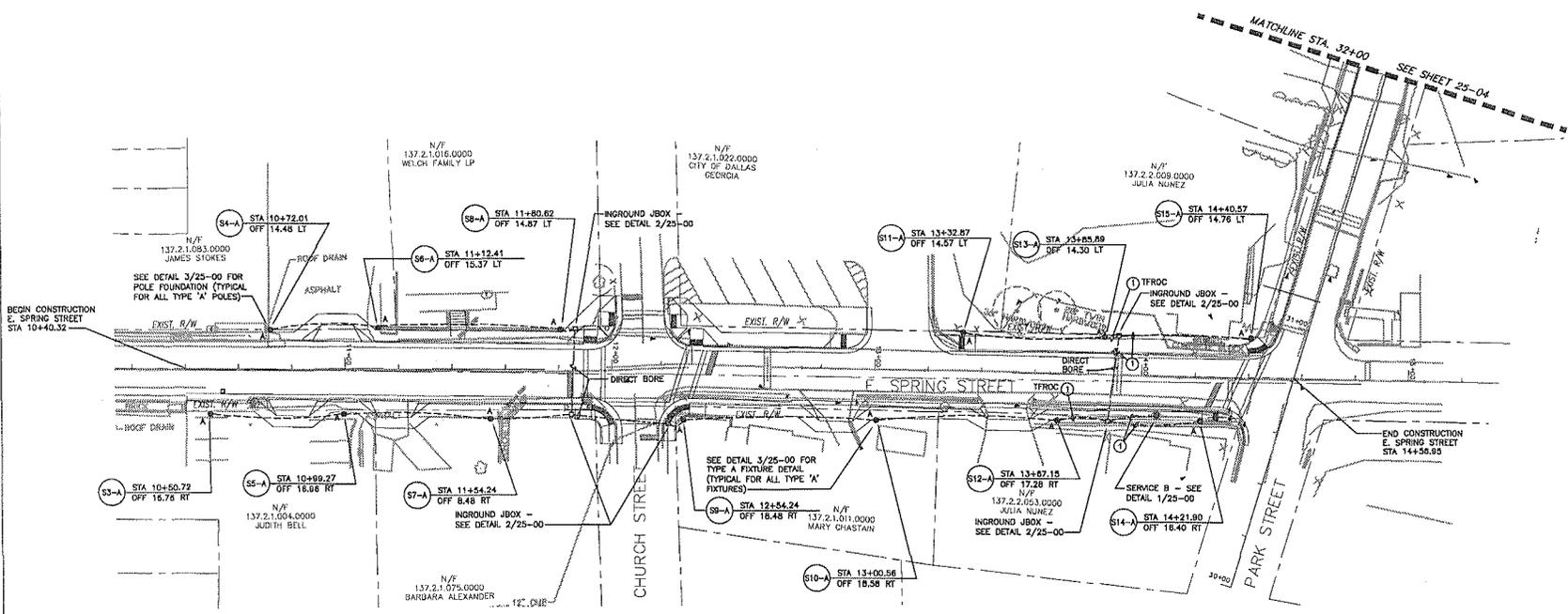
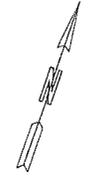
CITY OF DALLAS  
 JOHNSTON ST., GRIFFIN ST., SPRING ST., & PARK STREET PEDESTRIAN FACILITIES

DATE	11/30/12
SCALE	1/8"=1'-0"
DRAWN	SS
CHECKED	SSM
DRAWING No.	25-02



### WIRING SCHEDULE

① 2#10 + 1#100 IN 2" C  
 ALL CONDUCTORS ARE TO BE COPPER



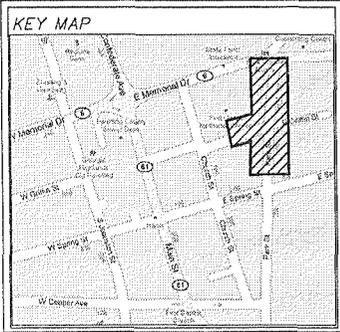
REVISION DATES

OFFICE: CONGRESSIONAL DISTRICT 11

**LIGHTING PLAN**

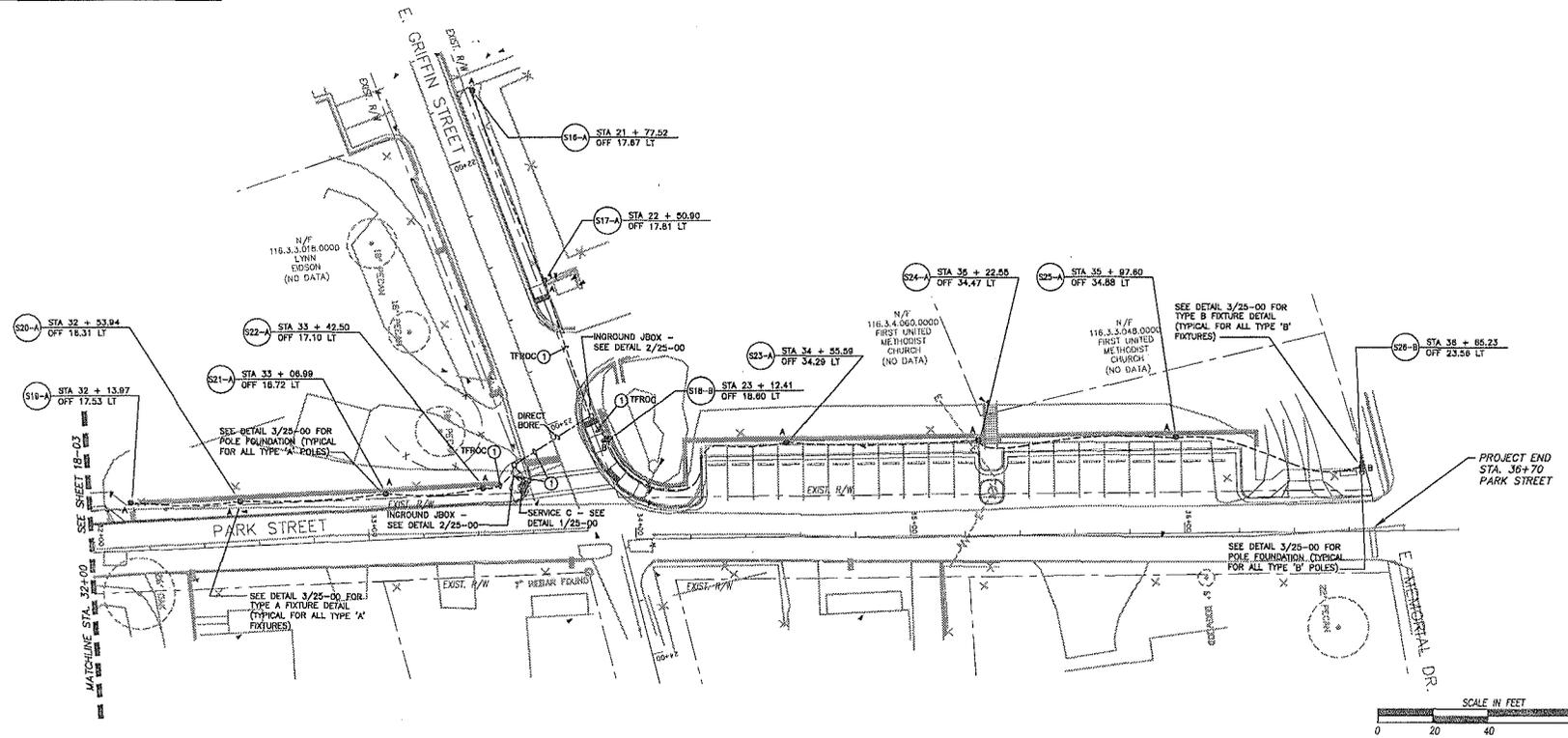
CITY OF DALLAS  
 JOHNSTON ST., GRIFFIN ST., SPRING ST.,  
 & PARK STREET PEDESTRIAN FACILITIES

DATE: 11/20/12  
 DRAWN: 11047/20  
 CHECKED: SS  
 DRAWING No. 25-03



### WIRING SCHEDULE

① 2810 + 18100 IN 2" C  
 ALL CONDUCTORS ARE TO BE COPPER



PROPERTY AND EXISTING R/W LINE	— — — — —
REQUIRED R/W LINE	— — — — —
CONSTRUCTION LIMITS	— — — — —
EASEMENT FOR CONSTR. & MAINTENANCE OF SLOPES	▨ ▨ ▨ ▨ ▨
EASEMENT FOR CONSTR. OF DRIVES	▩ ▩ ▩ ▩ ▩

BEGIN LIMIT OF ACCESS.....BLA	— — — — —
END LIMIT OF ACCESS.....ELA	— — — — —
LIMIT OF ACCESS	— — — — —
REQ'D R/W AND LIMIT OF ACCESS	— — — — —

Iran design studio  
 B+ Inc.  
 7025 cornerpark gateway  
 suite 150  
 Atlanta, Georgia 30339  
 P 770.503.8590  
 F 770.505.1903

Planning + landscape architecture

REVISION DATES

OFFICE: CONGRESSIONAL DISTRICT 11

**LIGHTING PLAN**

CITY OF DALLAS  
 JOHNSTON ST., GRIFFIN ST., SPRING ST.,  
 & PARK STREET PEDESTRIAN FACILITIES

DATE: 11/29/12
SCALE: 1/8"=1'-0"
DRAWN: SS
CHECKED: MS&P
DRAWING No. 25-04



**GRAPHIC SIGNAGE POLES AND BASES**  
**CONSTRUCTION PLANS**

STATE	COUNTY	P.A. #	SHEET NO.	TOTAL SHEETS
CA	PAULDING	0010332		

The following design documents are for the sole purpose of conveying design intent and are not intended for construction purposes. The fabricator may make recommendations and/or changes to the details as shown in the drawings with written approval of the Owner's representative. The fabricator assumes all responsibility for signage integrity, engineering, field verification and measurements, etc.

Sky Design and the Owner shall review all shop drawings for conformance with the design intent of these drawings only and will not be held responsible or liable for any results of construction from working drawings, materials selection, chop drawings, or any other agreements.

**Review**

- Site - The fabricator is responsible for verifying all site conditions with regards to fabrication and installation before manufacture of signage. Any conditions that would impede the proper and timely completion of the work should be presented to the Owner's representative in writing.
- Sign Location Plans - Locations shown on the Sign Location Plans are for general placement. The fabricator shall confirm each sign location with the Owner's representative and locate via stake and flag for verification.
- Fabricator shall notify the Owner's representative of any discrepancies in the design documents or graphics schedule as well as discrepancies in field dimensions or field conditions that would require changes in sign construction details. All discrepancies shall be brought to the attention of the Owner's representative.

**Artwork**

All enlarging and reducing of supplied artwork images is the responsibility of the signage fabricator. Any discrepancies after enlarging or reducing vs. original artwork are to be addressed with Owner's representative prior to reproduction. Refer to the design documents for reference as to what artwork will be provided. Sky Design will not submit electronic artwork for contractor use in shop drawings except for custom created logos, icons, typography, etc. Artwork for general fabrication items will not be submitted so please account for this in your timeframes and general costs.

**Submittals**

Color samples, material samples, submittals, copy layouts, and working drawings are to be provided for approval by the Owner's representative and Owner prior to manufacture. Full size copy layouts will also be required as needed.

- Shop Drawings - are the responsibility of the fabricator for each of the disciplines contained within and are to include all necessary dimensions drawn to scale, details, internal mechanicals, joint connections, hidden connections, anchorage to footings, section views as needed, etc. These must be submitted and approved prior to beginning any construction. Scans or copies of the enclosed design documents with contractor title block will not be accepted for approval as working drawings. The sign fabricator is responsible for all aspects of fabrication including engineering, installation techniques and performance, as well as coordination with site contractors and related trades.
- Paint - 3 samples of each color to be submitted on minimum 4" x 4" plate. One will be returned; the others will be retained for file references. All paints used must retain a minimum 5-year warranty for interior and exterior signage. This includes no cracking, flaking, or fading. Exterior paints should be 2-part catalyzed hardened urethane, base coat, top coat, matte finish unless otherwise specified.
- Mock-ups - samples required for review and approval will be listed on Bid Summary Form.
- Vinyl - All vinyl is to be 3M Scotchcal graphic vinyl, or Genber equivalent. First surface application unless otherwise specified on drawings.
- Inkjet - 1 proof of each type of inkjet graphic to be submitted at full-size. For large format graphics, a minimum 12" x 12", full size portion should be submitted. Proofs are to be of equal or greater reproduction quality than the original artwork provided. All inkjet graphics are to be printed on 3M material or equivalent using pigment-based ink to prevent fading and discoloration. If necessary, laminates are to be 3M material or equivalent, gloss or matte finish as specified. Warranty information for all inkjet applications to be provided at no less than five years.

**Materials**

- All wood, stone, brick or brick veneer components to be sealed to protect against decay, mildew, and discoloration
- All aluminum components and panels to have a minimum wall thickness of .125" or greater

**Installation**

- All breakaway details to conform to GA DOT standard requirements.
- Pin mounted letters should be set in HiHi epoxy or equivalent to deter theft and vandalism. Exterior pin mounted letters should be set in HiHi epoxy or equivalent and sealed with silicone or equivalent waterproofing sealer.
- Signage design and installation for this project must conform to all federal, state, and city regulations and ordinances. It is the responsibility of signage fabricator to submit drawings to the proper agencies for review and approval prior to construction. It is also the responsibility of the signage fabricator to obtain the necessary permits and approvals prior to construction.

**Signage Protection**

Fabricator to coordinate protection of all signs until punch list is completed by Owner.

**Warranty**

Fabricator warrants work against failure due to faulty materials, workmanship, and design for a period of five years from date of substantial completion. Fading, cracking, oil canning, peeling, delaminating, rusting, corroding, and structural failure, including distortion, will be construed to mean failure due to faulty materials and workmanship.

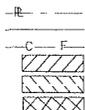
All products, materials, adhesives, paints, etc. shall be covered by standard warranty. Failures during the warranty period shall be repaired or replaced to the satisfaction of the Owner.

**Proprietary Information**

Sky Design shall have the right to include a credit line on completed designs or any visual representation of drawings, models, sketches, photographs, etc. created by Sky Design in the development of this signage program. The credit shall be included in any publication of the designs by the Owner or by others.



PROPERTY AND EXISTING R/W LINE  
REQUIRED R/W LINE  
CONSTRUCTION LIMITS  
EASEMENT FOR CONSTR  
& MAINTENANCE OF SLOPES  
EASEMENT FOR CONSTR OF SLOPES  
EASEMENT FOR CONSTR OF DRIVES



BEYOND LIMIT OF ACCESS .....BLA  
END LIMIT OF ACCESS .....ELA  
LIMIT OF ACCESS  
REQ'D R/W AND LIMIT  
OF ACCESS



**JD** jordan design studio  
304 s. hwy.  
2625 camberland parkway  
suite 150  
atlanta, georgia 30329  
404.688.4702  
1770.688.4702  
planning + landscape architecture

REVISION DATES

OFFICE: CONGRESSIONAL DISTRICT 11

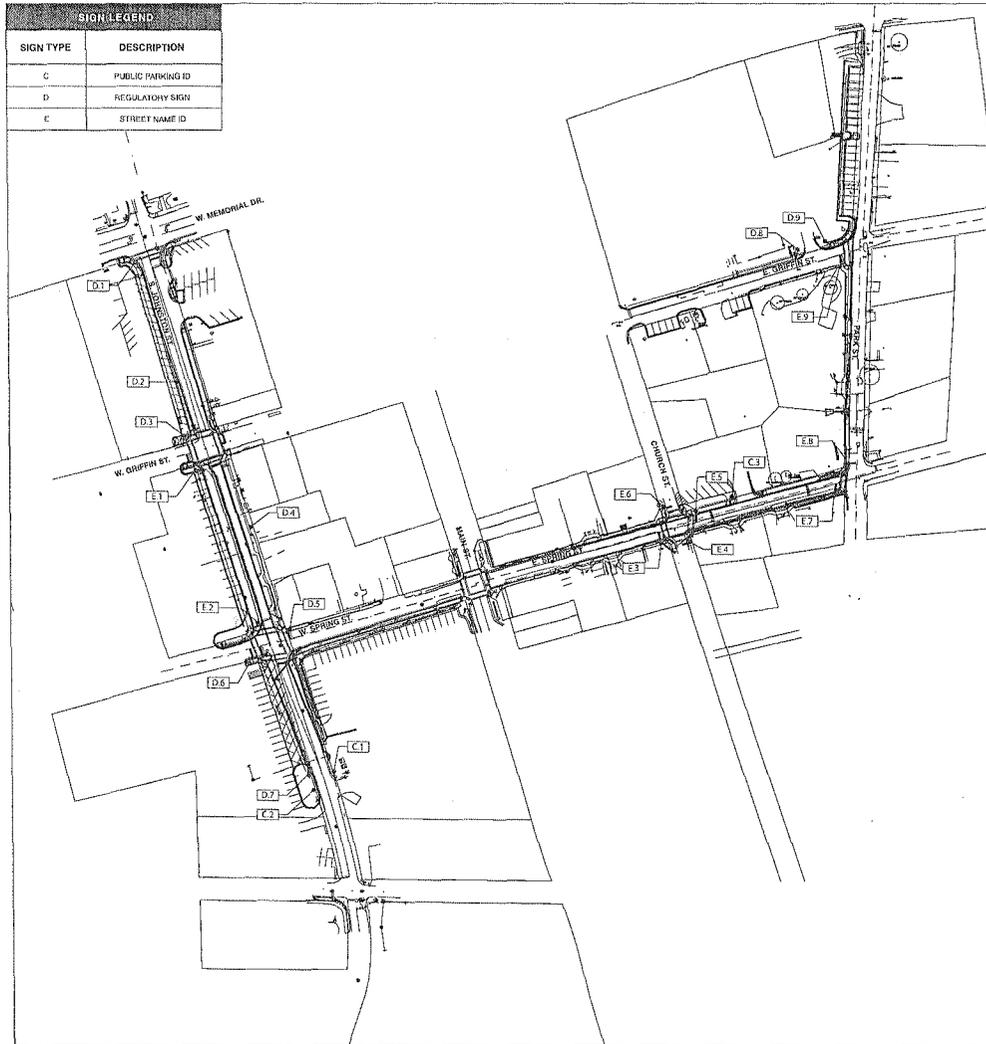
**PROJECT SPECIFICATIONS**

CITY OF DALLAS  
JOHNSTON ST., CRIFFIN ST., SPRING ST.,  
& PARK STREET PEDESTRIAN FACILITIES

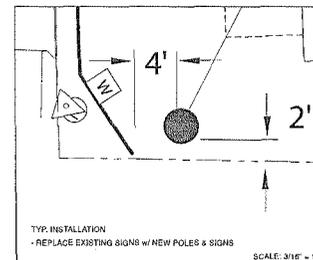
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SHEET: 10047-00  
DRAWN: SKY  
CHECKED: SKY  
DRAWING No.:  
**26-03**

sky design  
55 Ivan Allen Jr. Blvd., Suite 100  
Atlanta, GA 30308  
404.688.4702

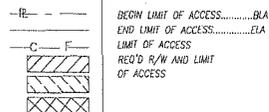
SIGN LEGEND	
SIGN TYPE	DESCRIPTION
C	PUBLIC PARKING ID
D	REGULATORY SIGN
E	STREET NAME ID



SIGNAGE MESSAGE SCHEDULE				
SKIN #	DESCRIPTION	DWG. SET	MESSAGE	NOTES
C.1	PARKING ID	26-09	(PARKING SYMBOL)	
C.2	PARKING ID	26-09	(PARKING SYMBOL)	
C.3	PARKING ID	26-09	(PARKING SYMBOL)	
D.1	REGULATORY SIGN	20-09	NO THRU TRUCKS	
D.2	REGULATORY SIGN	26-09	(PEDESTRIAN CROSSING)	
D.3	REGULATORY SIGN	26-09	STOP	
D.4	REGULATORY SIGN	26-09	(PEDESTRIAN CROSSING)	
D.5	REGULATORY SIGN	26-09	STOP	
D.6	REGULATORY SIGN	26-09	STOP	
D.7	REGULATORY SIGN	26-09	SPEED LIMIT 15	
D.8	REGULATORY SIGN	26-09	NO THROUGH TRAFFIC DURING SCHOOL HOURS 8:00 AM - 9:30 AM AND 12:30 PM - 1:00 PM CHILD PICK-UP AND DROP-OFF ONLY DURING THESE HOURS	SIGN TO MATCH EXISTING
D.9	REGULATORY SIGN	26-09	(DO NOT ENTER)	
E.1	STREETNAME SIGN	26-09	W GRIFFIN ST. S JOHNSTON ST. STOP	
E.2	STREETNAME SIGN	26-09	W SPRING ST. S JOHNSTON ST. STOP	
E.3	STREETNAME SIGN	26-09	E SPRING ST. STOP	
E.4	STREETNAME SIGN	26-09	CHURCH STREET STOP	
E.5	STREETNAME SIGN	26-09	E SPRING ST. STOP	
E.6	STREETNAME SIGN	26-09	CHURCH STREET STOP	
E.7	STREETNAME SIGN	26-09	E SPRING ST. STOP	
E.8	STREETNAME SIGN	26-09	PARK ST. STOP	
E.9	STREETNAME SIGN	26-09	PARK ST. E GRIFFIN ST. STOP	



PROPERTY AND EXISTING R/W LINE  
REQUIRED R/W LINE  
CONSTRUCTION LIMITS  
EASEMENT FOR CONSTR  
& MAINTENANCE OF SLOPES  
EASEMENT FOR CONSTR OF SLOPES  
EASEMENT FOR CONSTR OF DRIVES



BEGIN LIMIT OF ACCESS.....BLA  
END LIMIT OF ACCESS.....ELA  
LIMIT OF ACCESS  
REQ'D R/W AND LIMIT  
OF ACCESS



**Urban Systems**  
sky design studio  
Urban, Inc.  
2025 Cumberland Parkway  
Suite 150  
Atlanta, Georgia 30339  
p 770.965.0000  
f 770.965.0003  
planning + landscape architecture

REVISION DATES	

OFFICE: CONGRESSIONAL DISTRICT 11  
**SIGN LOCATION PLAN - STREETScape**  
 CITY OF DALLAS  
 JOHNSTON ST., GRIFFIN ST., SPRING ST., & PARK STREET PEDESTRIAN FACILITIES

DATE: 11/29/12
SCALE: 1/8"=1'-0"
DRAWN: SKY
CHECKED: SKY
DRAWING NO. 26-06

sky design  
 55 Ivan Allen Jr. Blvd., Suite 100  
 Atlanta, GA 30308  
 404.688.4702

- MATERIALS & SPECIFICATIONS**
- A - PART # 6002 PORT COLLARS SERIES 14 FT MAX HEIGHT WITH TAPERED
  - B - CUSTOM ALUMINUM SIGN PANELS 3/4" SHEET 26x48
  - C - PART # 6003 PORT COLLARS SERIES 10 FT MAX HEIGHT WITH TAPERED
  - D - STANDARD DOT STOP SIGN FASTENED TO POLE WITH PART # 50
  - E - CUSTOM SIGN SERIES MOUNTED TO POLE WITH SPACER INDUSTRIES
  - F - PART # 5012 SPACER INDUSTRIES ON EQUIPMENT
  - G - STANDARD DOT SIGNS FASTENED TO POLE WITH PART # 50 STERNBERG
  - H - POST CAP BRACKET AND STERNBERG LUTHERING OR EQUIVALENT
  - I - 1/2" THICK TYPICAL ALUMINUM TP WITH 1/4" CHAMFER ALL AROUND, P4
  - J - FABRICATED 1/8" ALUMINUM DIMENSIONAL MEDALLION CABINET P1 WITH
  - K - FACE PANEL PRINTED P5
  - L - 1/2" ALUMINUM BRIG PI WITH FINISH OF S2 1/2" DIA BALL FINISH, P4
  - M - TO MATCH DECORATIVE IRON #6-36 OR EQUIVALENT, P1
  - N - 4" CAP TO SECURE SIGN TO POST, P1
  - O - TYPICAL ALUMINUM SIGN PANEL, PRINTED P4
  - P - 1/2" ALUMINUM SIGN PANEL, PRINTED P4
  - Q - 1/2" ALUMINUM SIGN PANEL, PRINTED P4
  - R - 1/2" ALUMINUM SIGN PANEL, PRINTED P4
  - S - 1/2" ALUMINUM SIGN PANEL, PRINTED P4
  - T - 1/2" ALUMINUM SIGN PANEL, PRINTED P4
  - U - 1/2" ALUMINUM SIGN PANEL, PRINTED P4
  - V - 1/2" ALUMINUM SIGN PANEL, PRINTED P4
  - W - 1/2" ALUMINUM SIGN PANEL, PRINTED P4
  - X - 1/2" ALUMINUM SIGN PANEL, PRINTED P4
  - Y - 1/2" ALUMINUM SIGN PANEL, PRINTED P4
  - Z - 1/2" ALUMINUM SIGN PANEL, PRINTED P4

**INSTALL:**

- POST TO BE SECURED TO ONE-WAY DRIVE AND SET IN CONCRETE

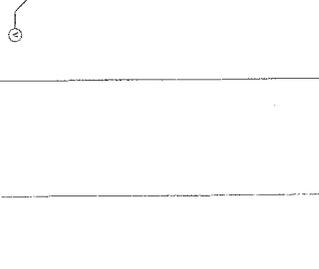
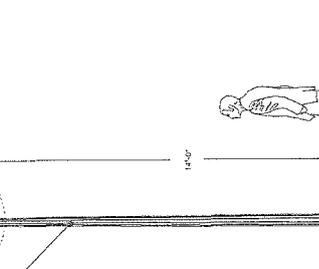
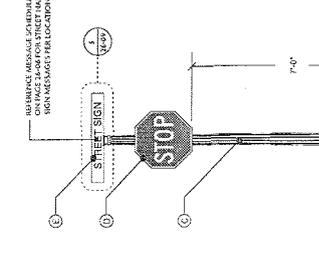
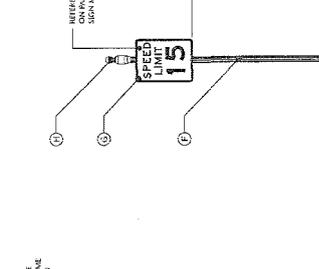
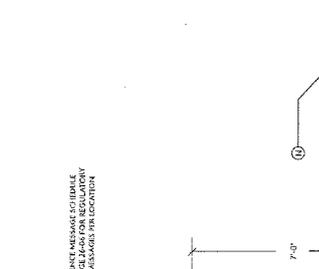
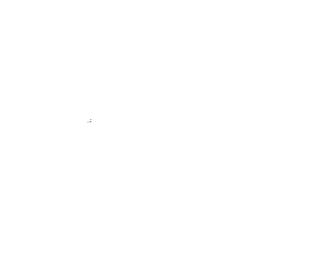
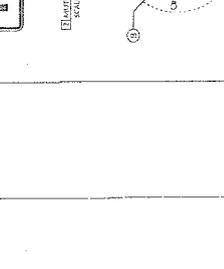
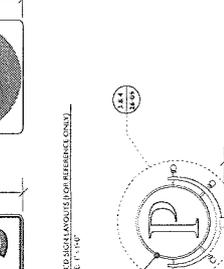
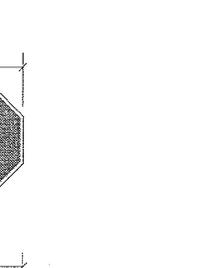
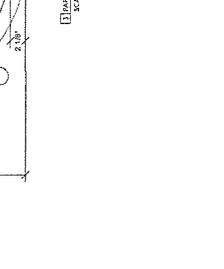
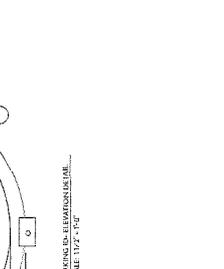
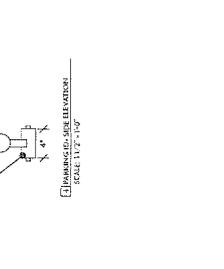
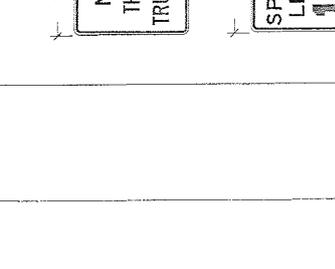
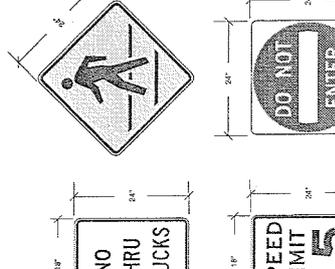
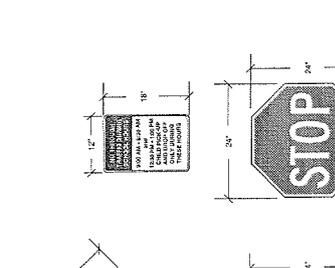
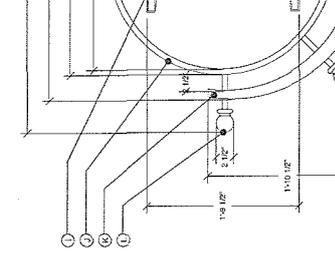
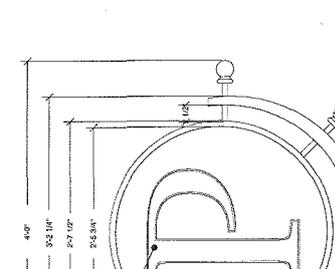
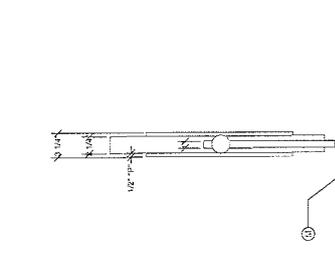
**NOTES:**

1. SITE MUST BE SECURED TO EXAMINE EXISTING SIGNAGE IN ORDER TO MATCH DESIGN INTENT
2. ALL LOCATIONS WILL REQUIRE ADDITIONAL REVIEW DURING CONSTRUCTION
3. ALL NEW STREET NAME AND REGULATORY SIGNS ARE TO REPLACE EXISTING SIGN LOCATIONS
4. ALL PORT COLLARS SERIES POLES, BRACKETS, AND POST CAPS CAN BE ORDERED FROM SPACER INDUSTRIES AT WWW.SPACERINDUSTRIES.COM
5. DOT BRACKETS CAN BE ORDERED AT WWW.DOTBRACKETS.COM
6. ALL POLES, BRACKETS, AND POST CAPS PAINTED P1, BLACK
7. ALL DOT SIGNS TO MATCH MUTCD STANDARDS BY REVERSE SIDE PAINTED P1, BLACK
8. ANYWORK FOR ALL SIGN TYPES WILL BE PROVIDED BY SKY DESIGN

**CONTACT:**  
 SKY DESIGN  
 GENERAL INQUIRY: skydesign.com  
 10000 Peachtree Dunwoody Rd, Suite 100  
 Atlanta, GA 30328  
 404-884-4702 (toll free)  
 678-858-4051 (local)  
 404-884-2255 (fax)

**DOT SIGN SCHEDULE**

DESCRIPTION	QUANTITY
NO THRU TRUCKS	1
PEDESTRIAN CROSSING	2
NO THROUGH TRAFFIC	1
SPEED LIMIT 15	1
DO NOT ENTER	1
STOP	13

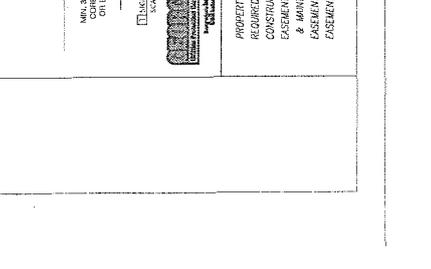
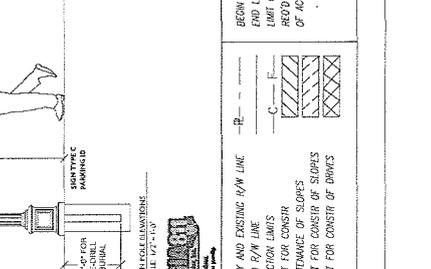
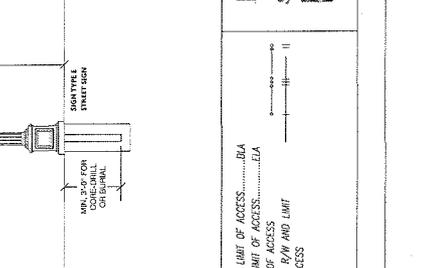
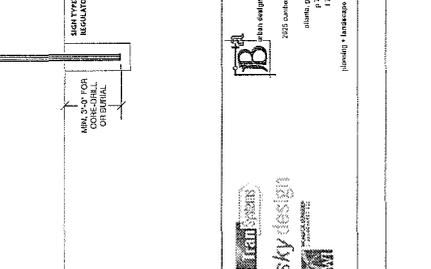
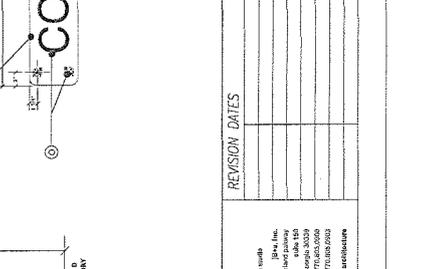
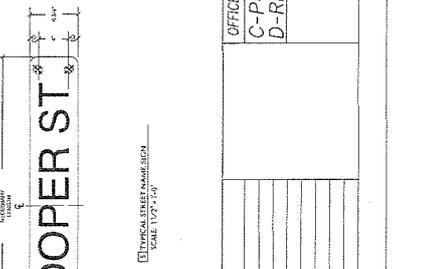


sky design  
 55 Ivan Allen Jr. Blvd., Suite 100  
 Atlanta, GA 30308  
 404.888.4702

OFFICE: CONGRESSIONAL DISTRICT 11  
 C-PUBLIC PARKING ID/  
 D-REGULATORY SIGN/E-STREET ID

CITY OF DALLAS  
 JOHNSON ST, OFFICE ST, SPRING ST,  
 & PARK STREET PEDESTRIAN FACILITIES

DATE: 11/29/22  
 DRAWN: SKY  
 CHECKED: SKY  
 DRAWING NO.: 26-09



REVISION DATES

PROPERTY AND EXISTING 1/4" LINE REQUIRED 6" LINE CONSTRUCTION LINES & MAINTENANCE OF SLOPES FASMENT FOR CONSR OF DRIVE

BEYOND LIMIT OF ACCESS  
 PROPERTY LINE  
 LIMIT OF ACCESS  
 REDD ROW AND LIMIT OF ACCESS

sky design  
 55 Ivan Allen Jr. Blvd., Suite 100  
 Atlanta, GA 30308  
 404.888.4702

PI#0010332, PAULDING COUNTY

DALLAS LCI

JOHNSTON ST., GRIFFIN ST., SPRING ST., &  
PARK ST. PEDESTRIAN FACILITIES

PROPRIETARY ITEMS

**BRICK PAVERS -**  
**PINE HALL BRICK**

# English Edge®

English Edge® is the original clay paver with spacer nibs and bevels on both bed surfaces. Available in 2 1/4" x 4" x 8" (2 3/4" thickness for heavy vehicular applications.)

English Edge® FR

English Edge® Red

English Edge® Dark Accent

English Edge® Rose FR

English Edge® Accent Gray

English Edge® Buff

English Edge® Ironspot

English Edge® Cocoa

English Edge® Autumn

## PHB TechBullet #9

# SPECIFICATION & PERFORMANCE

Updated 3/09

**Permanent color fastness- *vitrified shale***

**Far exceed ASTM C902-Pedestrian/Light Traffic & C1272-Heavy Vehicular Traffic**

**All pavers exceed application PX for tolerance: +/- 1/8" (except for Rumbled®)**

**Average compressive strength: 12,178 psi**

**Average Absorption: 4.43%**

**Freeze Thaw Cycles: 150+**

**Passes CSA-A231.2 freeze thaw test in saline solution**

**British Pendulum Test (skid resistance): 74.5**

**Average Coefficient of Friction (ASTM C1028): 1.10 dry, 0.98 wet**

## Specification Enhancements

We suggest the following enhancements to our standard specifications to insure the highest quality of product for your project:

*.....in addition to conforming to the PX application, the dimensional tolerances around the mean values for length, width, and depth shall be 1/16 of an inch.* (Studies show that dimensional tolerances are directly linked to joint width size and proper interlock)

*.....the average cold water absorption shall not be greater than 6% with no individual unit greater than 7%. Absorption test results may not be achieved through the use of sealers or other products applied to the clay paver.* (Sealer protection degrades over time requiring re-application after several years)

*.....the clay paver must pass CSA-A231.2 freeze thaw test in saline solution without the use of sealers or other products applied to the paver.* (Salt is the most common substance used for de-icing during the winter months. See PHB report Tech Bullet #1.)

*.....The contractor shall ensure that the manufacturer conduct a test sampling of 24 pavers for every 50,000 pavers manufactured to determine the paver's compliance with dimensional and water absorption characteristics. The 24 paver sample shall be representative of the color mix in the typical finished package and chosen on a consistent basis from one kiln car.* (Proper control procedures and testing are standard operating principles for high quality manufacturers.)

## Product Specifications

### **English Edge® and Georgian Edge - Features & Specifications:**

Pine Hall Brick's English Edge®/Georgian Edge pavers are manufactured to conform to the American Society for Testing and Materials (ASTM) specification standards C902, (Class SX, Type 1, Application PX) and C67 for freeze and thaw.

**Features:** Chamfers on both bed surfaces for reversibility; spacer nibs to control joint size and chippage; full range, through the body color eliminates color fading; exceeds ASTM standard with over 10,000 p.s.i. compressive strength. Meets PX application on dimensional tolerance. Colors: Red, Full Range (red flash), Autumn (full flash), Dark Accent, Rose Full Range (pink flash), Buff, Ironspot, Cocoa (chocolate flash), Accent Gray, Mahogany (dark red range) and Siesta (tan range).

**Specification:** Unit clay paver shall conform to the requirements of ASTM C902, Class SX, Type 1, Application PX. The units shall be standard 4" x 8" size having dimensions of 2 1/4" x 4" x 8" (including spacer nibs on the side), chamfered edges on both bed surfaces, 10,000 psi minimum compressive strength and below 6% cold water absorption. Paver shall conform to English Edge® [*color*] brick pavers as manufactured by Pine Hall Brick Co., Inc., Winston-Salem, North Carolina and distributed by [*party responsible for specification*].

### **Old Towne, Old Tavern, Old South, Old Mill and Old Mocha - Features and Specifications:**

Pine Hall Brick's Old Towne, Old Tavern, Old South, Old Mill and Old Mocha pavers are manufactured to conform to the American Society for Testing and Materials (ASTM) specification standards C902, (Class SX, Type 1, Application PX) and C67 for freeze and thaw.

**Features:** Old Series: Textured edges and "torn" face texture for aged appearance; ceramic penetrating color for additional antique look; full relieved edge controls chippage; exceeds ASTM standard with over 8,000 p.s.i. compressive strength. Colors: Old Towne (red flash with random black & white "paint smears"), Old Tavern (burgundy blue flash), Old South (salmon orange flash), Old Mill (gray/brown blend) and Old Mocha (brown/tan blend).

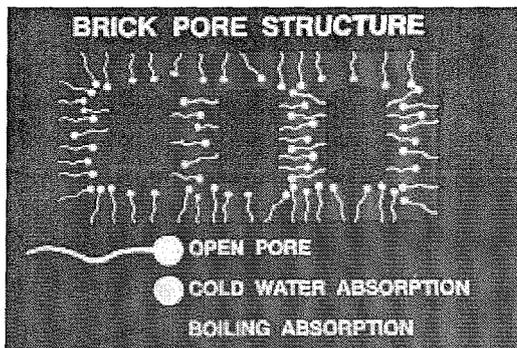
**Specification:** Unit clay paver shall conform to the requirements of ASTM C902 (Class SX, Type 1, Application PX). The units shall be standard 4" x 8" size having dimensions of 2 1/4" x 4" x 8", having textured edges and below 6% cold water absorption. Paver color shall conform to [*color*] brick pavers as manufactured by Pine Hall Brick Co., Inc., Winston-Salem, North Carolina and distributed by [*party responsible for specification*].

### **Rumbled® Pavers - Features and Specifications:**

Pine Hall Brick's Rumbled® pavers are manufactured to conform to the American Society for Testing and Materials (ASTM) specification standards C902 (Class SX, Type 1, Application PA) and C67 for freeze and thaw.

## Pine Hall Brick Tech Bullet #1

# Clay Paver Durability Harsh Freeze Conditions



### Water Expansion

- Cold water expands during freezing conditions.
- Pore requires extra room for expanding water.
- ASTM determined that 22% minimum of open pore area is needed to prevent spalling.  
(C/B ratio = .78 maximum)

**Pine Hall Brick Pavers Average 32% Pore Area!**

## Water Absorption

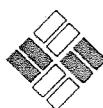
- Low water absorption is essential to long term durability.
- ASTM determined that absorption of 8% or less is needed for a clay paver to survive in severe weather climates.

**Pine Hall Brick Pavers average less than 6% water absorption!**

## Strength

- Compressive strength is important to withstand various types of traffic loading.
- ASTM determined that a minimum of 8,000 psi is needed to endure in severe climates.

**Pine Hall Brick Pavers average more than 12,500 psi!**



**PINE HALL BRICK  
2 1/4" PAVER  
PHYSICAL PROPERTY DETAILS**

	COMPRESSIVE STRENGTH* PSI	% 24 HR COLD WATER ABSORPTION	SATURATION COEFFICIENT C/B RATIO	ABRASION INDEX	DIMENSIONAL TOLERANCE (+,- W&L)
ASTM C-902 SX, TYPE 1, PS:	8,000	8% MAX	0.78	0.11 MAX	1/8" & 1/4"
ASTM C-902 SX, TYPE 1, PX:	8,000	8% MAX	0.78	0.11 MAX	3/32" & 1/8"
ASTM C-1272 TYPE R, PX:	8,000	6% MAX	NA	0.11 MAX	3/32" & 1/8"
PINE HALL BRICK:	13,344	5.20%	0.67	0.039	PX

- INDEPENDENT LABORATORY TEST RESULTS- PSI, Nov, 2005 English Edge paver

**QUALITY BRICK STANDARDS**

Clay brick have standard specifications established by ASTM (American Society for Testing and Materials) These specifications provide guidance in choosing the right clay paver for a given application environment. ASTM standards cover compressive strength, absorption, saturation coefficients and other technical requirements. In doing so, these standards are used as a measure to predict long term durability and performance. Quality control at Pine Hall Brick begins at the grass roots level with our raw material, Triassic shale. Samples of the material are collected daily and put through a combination of tests. Automatic controls insure the proper proportion of water to shale mix to achieve good extrusion properties. This data is fed to computers that warn of deviations from control set points. Unfired pavers are examined for quality and size throughout the day. Fired pavers are collected daily from strategic points on the kiln car as they exit the kiln to be tested for size and absorption qualities. In addition, fired pavers are pulled randomly from finished packages to verify earlier testing. Samples are routinely submitted to independent laboratories to confirm our high quality standards. Samples are also taken to evaluate color, color range and texture against master samples. The results of these rigid processing standards produces the highest quality pavers available and as a result, they exceed the severest ASTM standards.

## **Pine Hall Brick Passes Tough Canadian Freeze Thaw Test: CSA-A231.2 Canadian Freeze Thaw Test for Exposure to De-icing Salts**

It is a well-known fact that brick pavers used in exterior applications can, in most locations of the country, be subject to extreme weather conditions. Clay units laid in a horizontal plane may be subject to saturation with water and exposed to freeze thaw cycles. This situation sets the stage for potential durability problems if the clay pavers are not fired to the proper degree of maturity. The severity of a potential problem is magnified by the presence of de-icing salts commonly used in winter conditions.

While most clay pavers are tested regularly for resistance to freeze thaw cycles (ASTM C67), only the Canadian freeze thaw test CSA-A231.2 calls for the test to be conducted using a 3% saline (sodium chloride) solution. The test calls for three units to be completely immersed in the salt solution for 50 complete cycles. The criteria to pass the test state that the average loss of mass should not be greater than 200grams/m<sup>2</sup> after 25 cycles and 500grams/m<sup>2</sup> after 50 cycles.

Recently, three Pine Hall Brick 2 1/4" clay pavers were submitted to the National Concrete Masonry Association's Research and Development Laboratory for this test. The results show that the pavers lost an average of only 6.2g/m<sup>2</sup> in 25 cycles (standard allows 200g) and only 7.2g/m<sup>2</sup> in 50 cycles (standard allows 500g). This phenomenal performance is testimony to the strength of Pine Hall Brick clay pavers to withstand the most rigorous environments. On your next paving project, ask for the best....ask for Genuine Clay Pavers by Pine Hall Brick.

**All Pine Hall Brick Interlocking Clay Pavers are fired to meet the Test of *Time* in the worst weather possible!**



AMERICA'S PREMIER PAVER®



[www.pinehallbrick.com](http://www.pinehallbrick.com)

[www.americaspremierpaver.com](http://www.americaspremierpaver.com)

**800-334-8689**

## PHB TechBullet #6

# Bedding and Joint Sand

The role of sand in a sand-set paving system is often minimized on segmental paving projects. Unfortunately, poorly graded or incorrect sands compromise the strength of a sand set system: interlock. Without interlock, paver movement and contact occurs resulting in system failures with severe economic consequences in some cases.

The role of sand is key:

- The sand bed, along with full joints of sand, creates friction between individual pavers producing vertical and rotational interlock. The sand joint also plays a “cushioning” role in preventing paver-to-paver contact and resulting damage. Angular or coarse sand works the best in creating interlock. Round particle sand, like mason’s sand, complicates this process because the particles don’t want to stay together, reducing friction, leading to sand loss.
- The sand bed needs to function as a drainage layer for water penetrating through the joints. A saturated sand bed can create what Knapton and Cook refer to as a “lubricating slurry” destabilizing the bed and reducing the amount of load transfer capability. Therefore, washed sand, void of fine material (< 3% passing 200 sieve), is necessary to allow for free flow of water and the prevention of sand segregation.

### **ASTM C33**

The vast majority of bedding specifications call for a washed, well-graded coarse sand that conforms to ASTM C33-Specification for Concrete Aggregates, commonly referred to as concrete sand. (See table 1)

In the recognition that fine particles create moisture retention problems, the gradations for bedding sand specifications generally include the modification that less than 3% of materials pass through the #200 sieve. For pavements under heavy traffic load, this requirement is often decreased to less than 1% for #200 size material.

Table 1  
Grading requirements for Bedding and Joint Sand

<b>Sieve Size</b>	<b>Percent Passing</b>
<b>3/8 in.</b>	<b>100</b>
<b>No. 4</b>	<b>95 to 100</b>
<b>No. 8</b>	<b>80 to 100</b>
<b>No. 16</b>	<b>50 to 85</b>
<b>No. 30</b>	<b>25 to 60</b>
<b>No. 50</b>	<b>10 to 30</b>
<b>No. 100</b>	<b>2 to 10</b>

Sand hardness can play a role as well. Softer materials can break down under load, particularly under vehicular traffic, and alter the original gradation. Given appropriate conditions, care should be taken to determine the hardness of the specified sand. Sands made up of silica minerals are generally harder and more wear resistant.

Sand angularity can also be a concern particularly with manufactured, crushed rock sands or stone screenings. Even if the rock is relatively hard, Knapton and Cook found that sharp edges on sand grains would chip away as fine particles and cause the clogging of the bedding layer as cited above. They recommended only naturally occurring silica sands for heavy channelized traffic, as these particles tend to have rounded edges due to weathering.

### **Bedding Sands to Avoid**

Mason's sand (ASTM C144) is fine sand that derives its name from the sand-cement mix used in masonry construction: mortar. Given the small nature of the particle sizes plus their rounded shape, mason's sand is not suitable for bedding sand as the sand will settle differently across the pavement causing an uneven surface and potential drainage problems.

Much debate occurs over the use of stone screenings in segmental pavements. Many practitioners use screenings regularly for pedestrian applications and some vehicular applications. As a result, these manufactured sands get used on jobs whether specified or not. Screenings typically contain a high % of fine material and are subject to breakdown over time. Given these problems as reviewed above, stone screenings are

not recommended and strongly discouraged for vehicular applications. Testing at Clemson University documents that some types of screenings (and aggregates) will cause efflorescence. Limestone based aggregates should be avoided, if possible, for this reason.

Due to the critical role sand plays in a segmental paving system, the designer may want to include specification requirements calling for sieve analysis and certification of all aggregates to be used on segmental paving projects.

## **Recent Sand Studies**

Recent studies by ICPI on effective, well performing sands show some common characteristics although it is too early to draw definitive conclusions. Preliminary results show good performing sands have:

- Higher permeability
- Higher coarseness
- Lower shale, carbonate and chert content
- Predominance of silica content

## **Joint Sand**

Most often, ASTM C33 is specified for joint sand because it compacts better and it is more convenient/economical to have one sand type at the job. However, there are particle sizes of C33 that will not fit into a 1/8" joint and can wedge at the joint top, preventing other smaller particles from filling the joint. In general practice, the installer works around the larger particles through extra sweeping and sand applications till the joints are full. The larger particles are then swept off at the end along with any excess sand. Some installers avoid extra sweeping by sieving the sand on-site or having the sand sieved by the aggregate supplier.

Some specifications allow a finer sand (ASTM C144) to be used to fill the joints. The main reason is that finer sand is easier to get into the joint and it helps to insure that the joints will be completely full. However due to the rounded and finer nature of the particles, joint sand retention problems can create loss of interlock, sand tracking and sand re-application. As a result, do not specify finer joint sands, particularly on vehicular pavements.

## Joint Sand Retention

Joint sand naturally seals over a period of time as fine silt and debris settles in the top of the joint. There are special circumstances where encouraging sand retention is a prudent action.

Joint sand loss is the most common cause for vehicular pavement failures and the reasons are many: excessive run off, tire suction, poor drainage, inadequate bedding or joint sand, poor base design, street cleaning. Sand loss can be a problem in pedestrian applications as blowers and pressure washers can remove joint sand and prevent the natural sealing process.

Several methods have been used to prevent sand loss over the years and have proved effective given sound system design. They include liquid sealant type products, sand additives and pre-mixed sand/additive combinations. While there is scant research available on the effectiveness of different methods, the following observations seem generally accepted:

- Proper sand and application methods are critical to performance. Paving systems need to be void of any moisture prior to applying a stabilizing method and directions must be followed.
- Cement & sand mixtures are not recommended because the mixture tends to break down over time due to traffic loading and the pavers will need chemical cleaning after installation.
- Application techniques for liquid stabilizers are likely to be different than those for a general sealer. Liquid products *may* alter the pavement color, leave a sheen, and affect skid/slip resistance.

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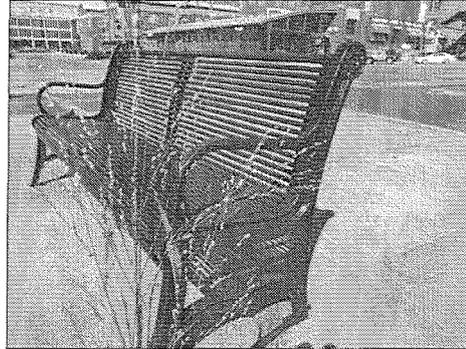
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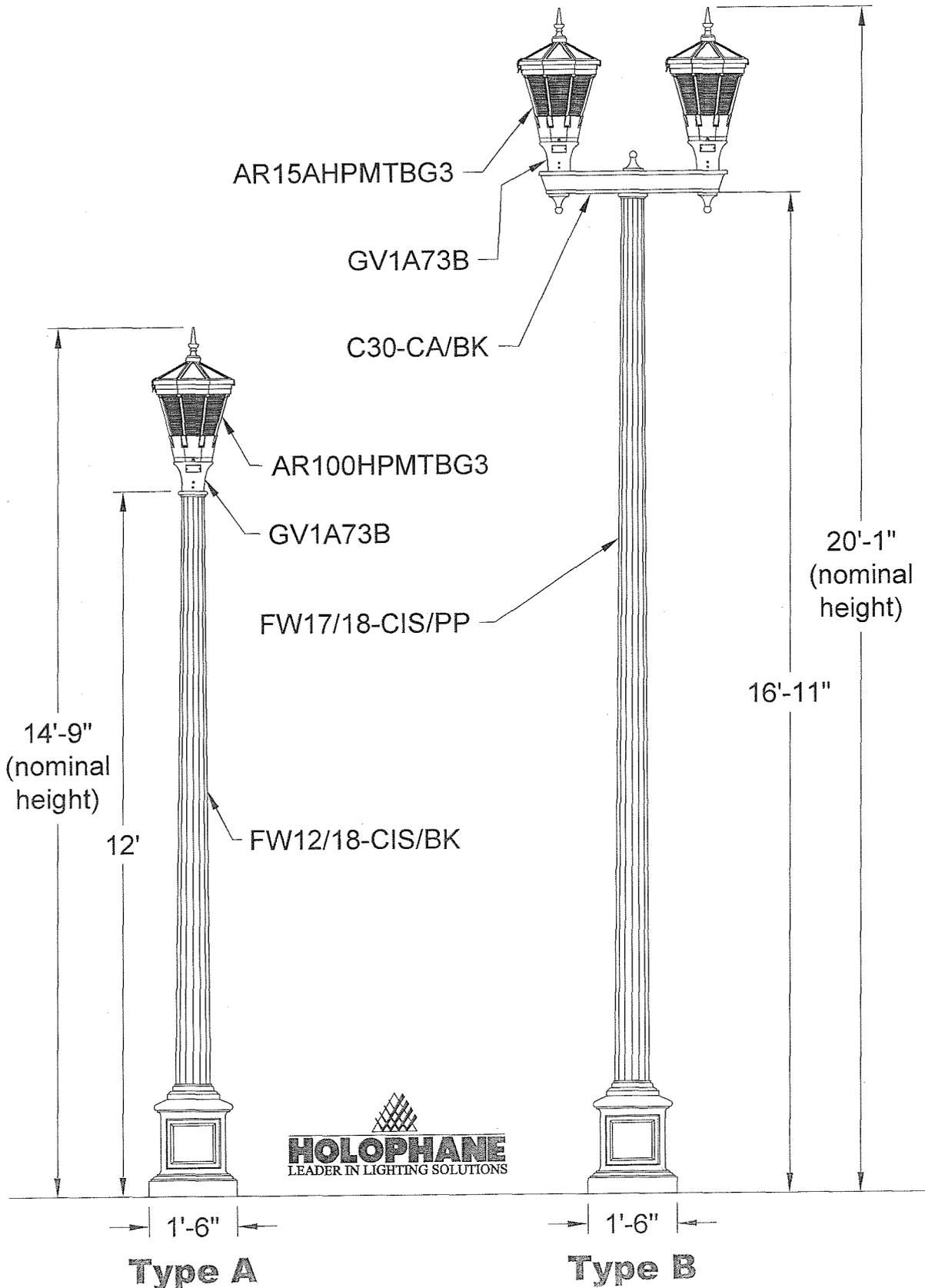
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