



**Request for Proposals**

**Electrical and General Maintenance Services**  
**for**  
**Downtown Brooklyn Partnership**

On behalf of:  
Court-Livingston-Schermerhorn Business Improvement District;  
Fulton Mall Improvement Association; and  
MetroTech Area District Management Association

February 2021

Fiscal Year 2022 through Fiscal Year 2027  
(July 1, 2021 – June 30, 2026)

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## 1. BACKGROUND

Three organizations, Fulton Mall Improvement Association ("FMIA"), Court-Livingston-Schermerhorn Business Improvement District ("CLS"), and the Metrotech Area District Management Association ("MTBID"), collectively the "Business Improvement Districts," "BIDs" or "Service Area" each administer electrical and general maintenance within the BIDs. See Appendix D for a list of electrical and general maintenance areas.

The Downtown Brooklyn Partnership, Inc. ("DBP") is a not-for-profit corporation organized under the laws of the State of New York and is acting as agent for the three BIDs in the solicitation of this RFP.

To maximize efficiency and realize cost savings, the three organizations are jointly soliciting proposals from independent, VENDEX-approved contractors ("Proposers") to provide electrical and general maintenance and services, including fixture repair work and electrical maintenance, among other services, to the three adjacent districts.

## 2. GENERAL INFORMATION & SCOPE

### 2.1. Pertinent Dates

|           |                              |
|-----------|------------------------------|
| 2/2/2021  | RFP Issued                   |
| 2/10/2021 | Question Submission Deadline |
| 2/12/2021 | Questions Answered           |
| 2/24/2021 | Bids Due                     |

### 2.2. Scope

The selected Proposer will be responsible for the following duties:

- **Repair:** Emergency and standard repairs on the Amenities within the Service Area, as requested by DBP or the BIDs.
- **Preventative Maintenance:** Regular and scheduled maintenance on Amenities to maintain a constant state of good repair with a lower risk of failure. Preventative maintenance shall pertain to structural and electrical maintenance.
- **Specialty Electrical Equipment:** Includes repairs, maintenance, and monitoring of all types of specialty equipment and temporary equipment throughout the districts.
- **Procurement:** Wherever necessary, oversee procurement of Amenities.

### 2.3. Amenities and Designated Areas

The detailed List of Amenities with responsibilities and descriptions can be found in Appendix A. Please see Appendix C for Coverage Area and Appendix D for Electrical and General Maintenance Areas.

## **2.4. Response Time**

DBP will require the successful proposer to respond to service requests within a 24-hour time frame, unless in the case of rare and extenuating circumstances. Such circumstances will be mutually agreed upon by DBP and the successful proposal at the commencement of the contract.

## **3. PROPOSAL REQUIREMENTS**

Proposals must include all the following to be deemed complete.

### **3.1. Proposed Price**

Proposals must include a proposed rate, to be paid by DBP, for services to be provided by the Proposer. If applicable, rather than one flat rate, the Proposer should subdivide its proposed rates based on the type of service requested. As the Amenities vary greatly in maintenance and repair costs, proposals should include differentiated rates for Services and Amenities with consideration to the following:

- Labor rate
  - Skilled Labor
  - Unskilled Labor
- Vehicle rate (if applicable)
- Regularly scheduled preventative maintenance and services

Proposers must complete Appendix B to reflect rates for the above services.

### **3.2. Statement of Qualifications**

Proposals must include a statement of qualifications, including but not limited to:

- The number of years of experience in the general maintenance and electrical service field
- A list or description of major contracts involving BIDs, public space organizations, and city infrastructure (e.g. bus shelters, sidewalk repair, subway entrances, benches, etc.)
- Three references

Within the statement of qualifications, Proposers should take great care to highlight the resources and expertise that will enable them to adequately respond and oversee general responsibilities within the service area.

### **3.3. Acknowledgement of Scope and Site Visit**

Proposers must acknowledge, in writing, that they have sufficiently reviewed and understand the Scope of Proposal. Proposers must also acknowledge, in writing, that they have visited and familiarized themselves with the Service Area highlighted in Appendices C and D.

## 4. SELECTION CRITERIA

Proposals will be evaluated based on the following criteria:

- Price of services & economies of scale discount (40%)
- Experience of Proposer (40%)
- References (20%)

Proposers are encouraged to send any questions via email to:

Laura Carlson, Operations Manager - [lcarlson@downtownbrooklyn.com](mailto:lcarlson@downtownbrooklyn.com)

**Proposals are due by Wednesday, February 24th, 2021 at midnight.**

### 4.1. Selection Process

DBP will review all Proposals for completeness and compliance with terms and conditions herein. DBP reserves the right to request additional materials to evaluate any Proposer's qualifications and experience, or clarification or modification of any submitted Proposal.

Submission of a Proposal shall constitute the Proposer's permission to DBP to make inquiries concerning the Proposer as DBP in its discretion deems useful or appropriate. DBP is not obligated to make any such requests or to accept any unsolicited additional materials, clarification, modification, or background information. DBP may conduct discussions with Proposers submitting acceptable Proposals, but it may also award a contract with no further discussions. Any contact or requests by DBP before the selection date shall not constitute selection of a successful Proposal.

DBP will select one Proposal which, in the sole judgment of DBP, most successfully demonstrates the necessary qualities, meets the criteria to undertake the provision of services, offers the most favorable financial terms, and best meets the needs and goals of DBP.

DBP reserves the full right to reject all Proposals if it so chooses or to commence negotiations with more than one Proposer. Under no circumstances will DBP pay any cost incurred by a Proposer in responding to this RFP. The review or selection of a Proposal submitted by a Proposer will create no legal submission or equitable rights in favor of the Proposer, including without limitation, rights of enforcement or reimbursement.

### 4.2. Approval and Agreement

Should DBP approve a Proposal, it is anticipated that DBP will enter into an agreement with the successful Proposer for a period beginning July 1st, 2021.

## **5. ADDITIONAL CONSIDERATIONS**

Should a Proposer be awarded a contract, the following terms may be included in any such contract:

### **5.1. Firm Price**

The price agreed upon by the contractor and DBP for the stated Services shall be delivered in writing and will not be subject to change unless agreed to by DBP and the Proposer.

### **5.2. Taxes**

The price shall include all sales, franchise, or other taxes with regard to Services, which shall be paid by the contractor. The contractor assumes exclusive liability for and shall pay all contributions or taxes imposed or required by the unemployment insurance laws of New York, the Federal Social Security Act, or any other act, now or hereafter in effect, upon or in respect of wages, salaries or other compensation paid to employees engaged upon or in connection with the work to be performed. The BIDs and DBP are not-for-profit and tax-exempt entities.

### **5.3. Changes in Workforce and Scope of Services**

DBP reserves the right to make reasonable changes in the general scope of work and in the work force. Any such changes shall be made pursuant to written instruction. If DBP directs any such changes which affect the cost of the service, an equitable adjustment agreed to by both parties shall be made in the contract price.

### **5.4. Indemnification**

The contractor agrees to indemnify and hold the City of New York, the New York City Department of Small Business Services, FMIA, CLS, MTBID, DBP and the agents, directors, officers, employees and volunteers of these entities, harmless from any and all claims, damage, loss, judgments, or liabilities, including costs and expenses, legal or otherwise, to which they may be subject as a result of any act or omission of the contractor, its agents, employees, subcontractors, contractors, or permittees in connection with the contract.

The contractor shall be solely responsible for the safety and protection of all its employees and shall assume all liability for injuries, including death that may occur to said employees due to the negligence, fault, or default of the contractor. The contractor shall also require such indemnification from its contractors, subcontractors and permittees.

### **5.5. Warranties and Covenants**

The contractor warrants that services of any nature furnished hereunder shall be rendered competently by qualified personnel in accordance with the best accepted practices. The contractor further warrants that such services shall comply with all requirements of federal, state, and local laws and regulations, including, without limitation, the Occupational Safety and Health Act of 1970.

The contractor will agree to use its best effort to provide the services herein described with employees hired from the local community, including without limitation, employees residing within Brooklyn Community Board 2 (or any adjacent zip codes).

## **5.6. Permits**

The contractor shall be responsible for obtaining any necessary permits from the appropriate governmental authority for the work to be performed. Upon request, DBP shall be provided with a copy of each such permit.

## **5.7. Insurance**

Throughout the term of the contract, the contractor shall maintain, and shall cause all its subcontractors and permittees to maintain, in-effect comprehensive liability and vehicular insurance in amounts not less than \$1,000,000 for each occurrence involving death of one or more persons, and/or property damage or \$2,000,000 aggregate, plus other typical coverages ordinarily provided in such policy. CLS, FMIA, MTBID, DBP, and the City of New York and New York City Department of Business Services shall be named as additional insureds on all such policies, and the contractor shall be named as an additional insured on such policies obtained by its subcontractors and permittees.

- During the performance of the work covered by the contract, the contractor shall maintain and shall require any subcontractors to maintain Workers' Compensation and Employer's Liability Insurance covering all aspects of its performance under the contract.
- All insurance policies entered into by the contractor in relation to the contract shall provide that any change in or cancellation of any such policies shall not be valid until DBP has had thirty (30) days written notice in of such change or cancellation.
- The contractor shall procure and deliver to DBP, the City of New York and New York City Department of Business Services certificates of insurance executed by the insurance companies providing such insurance.

## **5.8. Compliance with Laws**

The contractor shall comply with all applicable federal, state, and local laws, executive orders, regulations and rules, including, but not limited to, affirmative action and equal employment opportunity. The contractor shall hold harmless and indemnify the CLS, FMIA, MTBID, DBP, and the City of New York and the Department of Small Business Services from any fines, penalties, and expenses which DBP may suffer by reason of the breach or nonobservance by the contractor of its obligations under this provision.

## **5.9. Books, Record, Audits, and Inspections**

The contractor shall keep accurate records and books in accordance with generally accepted accounting practices.

- Such books and records shall include but shall not be limited to employee time and payment; accounts receivable and payable; purchase orders and sales receipts; and liabilities and payments rendered for the purposes of the contract.
- All books and records of the contractor shall be available within three business days' notice for the purposes of auditing or inspection, for purposes of verifying compliance with the terms of the contract and applicable process of law.

## **APPENDIX A – LIST OF AMENITIES**

Specific Amenities maintained by the BIDs are detailed below. Accompanying each Amenity is a series of related responsibilities. Proposers are asked to specifically denote any tasks or items that are beyond their ability to maintain.

Quantities throughout based on original construction specifications to provide a basic understanding of the scale of BID districts and the amenities maintain therein. Actual numbers fluctuate based on field conditions.

## FMIA (Fulton Mall)

| Item                                         | Quantity | Responsibilities & Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ADA Detectable Warning Pavers                | N/A      | <u>Repairs &amp; Replacement</u> <ol style="list-style-type: none"> <li>1. Ensure that pavers are in a good state of repair and are not a trip hazard.</li> <li>2. Replace warning pavers if necessary.</li> </ol>                                                                                                                                                                                                                                                                                |
| Albee Square Up lighting @ Dime Savings Bank | 18       | <u>Repairs &amp; Scheduled Preventative Maintenance</u> <ol style="list-style-type: none"> <li>1. Ensure that lights are functioning and are in a good state of repair &amp; replace bulbs and transformers as needed.</li> <li>2. Ensure that water and sand are not leaking into light fixtures and posing a risk to the lights.</li> <li>3. Ensure lights are sealed properly.</li> </ol>                                                                                                      |
| Benches                                      | 84       | <u>Repairs &amp; Scheduled Preventative Maintenance</u> <ol style="list-style-type: none"> <li>1. Ensure benches are in good repair and are not at risk for structural failure, which could pose a risk to pedestrians.</li> <li>2. Remove &amp; Repair damaged benches after accidents and breakdowns.</li> <li>3. Oversee a powder-coat paint schedule for benches to ensure that chipping paint does not become a substantial issue.</li> <li>4. Provide touchup paint when needed.</li> </ol> |
| Bike Racks                                   | 36       | <u>Repairs &amp; Scheduled Preventative Maintenance</u> <ol style="list-style-type: none"> <li>1. Ensure bicycle racks are secure and stable.</li> <li>2. Remove and Repair broken racks after accident or breakdowns.</li> <li>3. Remove &amp; Replace broken racks if they cannot be repaired.</li> </ol>                                                                                                                                                                                       |
| Brick Pavers                                 | 5,800    | <u>Repairs &amp; Replacement</u> <ol style="list-style-type: none"> <li>1. Ensure that pavers are in a good state of repair and are not a trip hazard.</li> <li>2. Replace pavers if necessary.</li> <li>3. Maintain well-joints joints between pavers.</li> </ol>                                                                                                                                                                                                                                |

| Item                           | Quantity | Responsibilities & Description                                                                                                                                        |
|--------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCTV Camera Poles              | 8        | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident or malfunction.<br>2. Replace if repairs are not possible.                          |
| Granite Curbs                  | N/A      | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident or malfunction.<br>2. Replace if repairs are not possible.                          |
| Historical Signage             | 4        | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident or malfunction.<br>2. Remove & Replace if repairs are not possible.                 |
| Light Fixtures                 | 54       | <u>Repairs &amp; Replacement (Electrical)</u><br>1. Oversee repairs of electrical base circuitry if damaged or nonfunctional.<br>2. Replace light bulbs as needed     |
| Load Center Panel Enclosure    | 1        | <u>Electrical Service</u><br>1. Repair of Load Center so that it is always functioning and in a state of good repair.                                                 |
| Pigmented Concrete Sidewalk    | N/A      | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident or failure.<br>2. Replace if repairs are not possible.                              |
| Precast Concrete Benches       | N/A      | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident or malfunction.<br>2. Replace if repairs are not possible .                         |
| Stainless Steel Bench Arm Rest | N/A      | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident or malfunction.<br>2. Replace if repairs are not possible .<br>3. Remove on notice. |
| Tree Guard                     | 28       | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident or malfunction.<br>2. Replace if repairs are not possible.                          |
| Trash Receptacles              | 100      | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident.<br>2. Replace if repairs are not possible.                                         |

## Metrotech BID

| Item                        | Quantity | Notes                                                                                                                                                 |
|-----------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12" Granite Curb            | 3,932    | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident.<br>2. Replace if repairs are not possible.                         |
| 12" Granite Flush Curb      | 248      | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident.<br>2. Replace if repairs are not possible.                         |
| Aluminum Benches            | 57       | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident.<br>2. Remove & Replace if repairs are not possible.                |
| Aluminum Custom Benches     | 6        | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident.<br>2. Remove & Replace if repairs are not possible.                |
| Bike Racks                  | 12       | <u>Repairs &amp; Replacement</u><br>1. Oversee repairs if damaged due to accident.<br>2. Remove & Replace if repairs are not possible.                |
| Granite Blocks in Tree Pits | 9        | <u>Repairs &amp; Replacement</u><br>1. Ensure that blocks are in a good state of repair and are not a trip hazard.<br>2. Replace blocks if necessary. |
| Granite Pavers              | 3,402    | <u>Repairs &amp; Replacement</u><br>1. Ensure that pavers are in a good state of repair and are not a trip hazard.<br>2. Replace pavers if necessary. |
| LED Lamps                   | 8        | <u>Repair</u><br>1. Complete repairs if in case of accident or malfunction.                                                                           |
| Pedestrian Light Poles      | 8        | <u>Repair</u><br>1. Complete repairs if in case of accident or malfunction.                                                                           |
| Plaza Utility Box           | 1        | <u>Electrical Work &amp; Repairs</u><br>1. Repair unit if it is not functioning correctly.                                                            |
| Previous Concrete Pavers    | 4,170    | <u>Repair &amp; Replace</u><br>1. Complete repairs in case of accident or malfunction.<br>2. Replace pavers if repairs cannot be repaired.            |

| Item                          | Quantity | Notes                                                                                                                                                                                                                                                                                                                               |
|-------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Plaza Tables                  | 30       | <u>Repair, Replacement &amp; Painting</u><br>1. Oversee repair if tables are damaged.<br><br>2. Oversee replacement if repairs aren't possible or if units go missing.<br><br>3. Oversee power-coat painting so that the tables are substantially free of chipping paint.<br><br>4. Provide touchup paint services where necessary. |
| Plaza Chairs                  | 90       | <u>Repair, Replacement &amp; Painting</u><br>1. Oversee repair if damaged.<br><br>2. Oversee replacement if repairs aren't possible or if units go missing.<br><br>3. Oversee powder-coat painting so that the chairs are substantially free of chipping paint.<br><br>4. Provide touchup painting services if necessary.           |
| Plaza Paving                  | 5,800 SF | <u>Repair</u><br>1. Complete repairs in case of accident or malfunction.<br><br>2. Replace pavers if repairs are not possible.                                                                                                                                                                                                      |
| Plaza Concrete Barrier        | 1        | <u>Repair &amp; Replace</u><br>1. Complete repairs in case of accident or malfunction.<br><br>2. Procure replacements if repairs cannot be completed.                                                                                                                                                                               |
| River Benches                 | 8        | <u>Repair &amp; Replace</u><br>1. Complete repairs in case of accident or malfunction.<br><br>2. Replace benches if repairs cannot be completed.                                                                                                                                                                                    |
| Trash Receptacles             | 81       | <u>Procurement</u><br>1. Replace trash receptacles as they are damaged, destroyed or as necessary.                                                                                                                                                                                                                                  |
| Tree Pit Fence                | 2,861    | <u>Repair and Replace</u><br>1. Repair fencing in case of accident or malfunction.<br><br>2. Replace fencing if repairs cannot be completed.<br><br>3. Provide RPZ annual maintenance.                                                                                                                                              |
| Unpigmented Concrete Sidewalk | 6,274    | <u>Repair</u><br>1. Repair sidewalk in case of accident or malfunction.<br><br>2. Replace sidewalk if repairs cannot be completed.                                                                                                                                                                                                  |

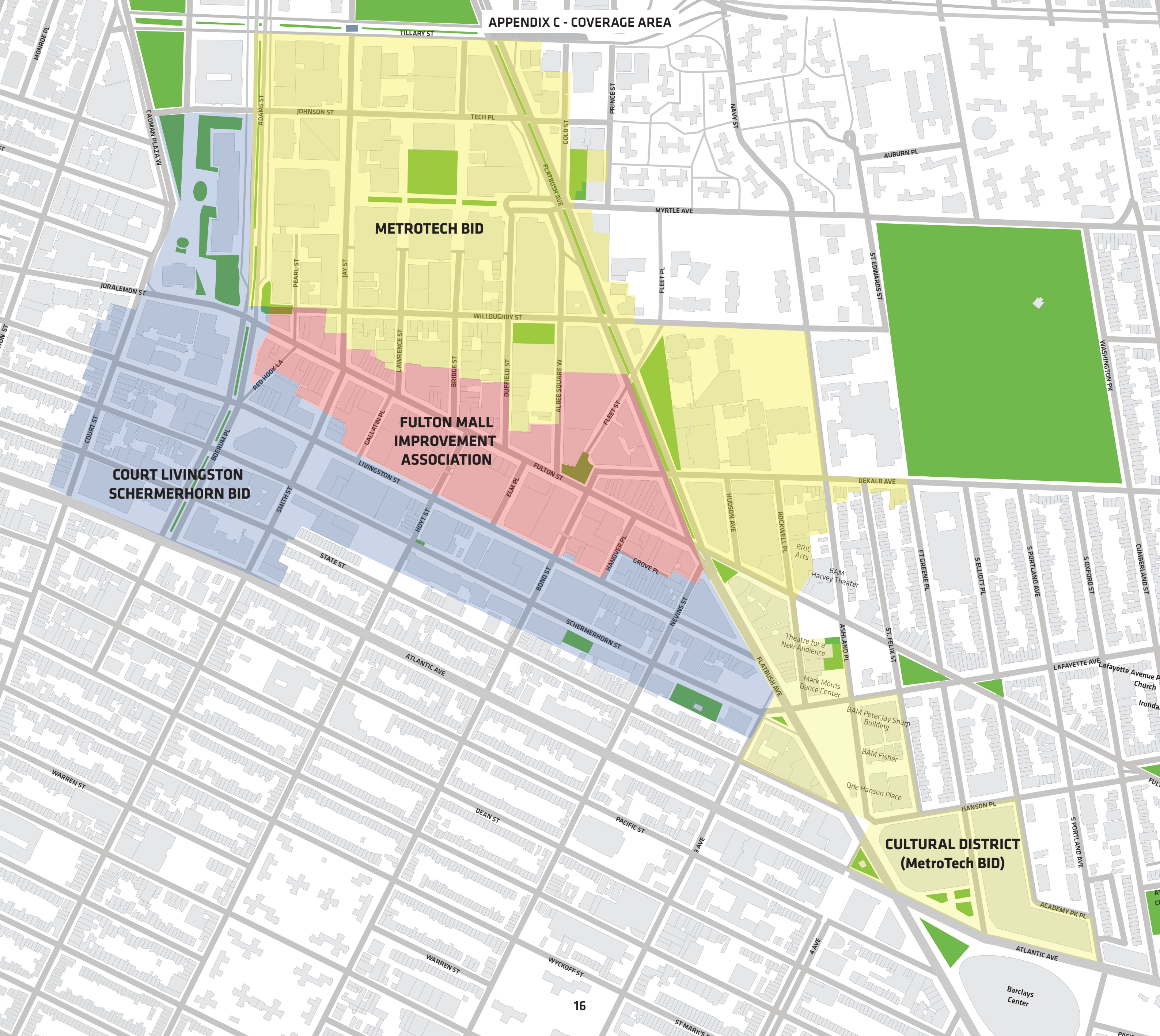
Court Livingston Schermerhorn BID (CLS BID)

| Item              | Quantity | Notes                                                                                              |
|-------------------|----------|----------------------------------------------------------------------------------------------------|
| Plaza Tables      | 110      | <u>Procurement</u><br>1. Replace tables as necessary.                                              |
| Plaza Chairs      | 49       | <u>Procurement</u><br>1. Replace chairs as necessary.                                              |
| Trash Receptacles | 105      | <u>Procurement</u><br>1. Replace trash receptacles as they are damaged, destroyed or as necessary. |

## APPENDIX B – RATES OF SERVICE

| Service                              | Rate |
|--------------------------------------|------|
| Skilled Labor                        |      |
| Unskilled Labor                      |      |
| Vehicle                              |      |
| Regular and Preventative Maintenance |      |

APPENDIX C - COVERAGE AREA



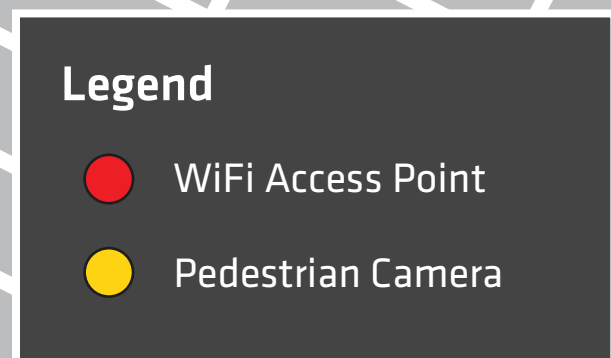
**METROTECH BID**

**FULTON MALL  
IMPROVEMENT  
ASSOCIATION**

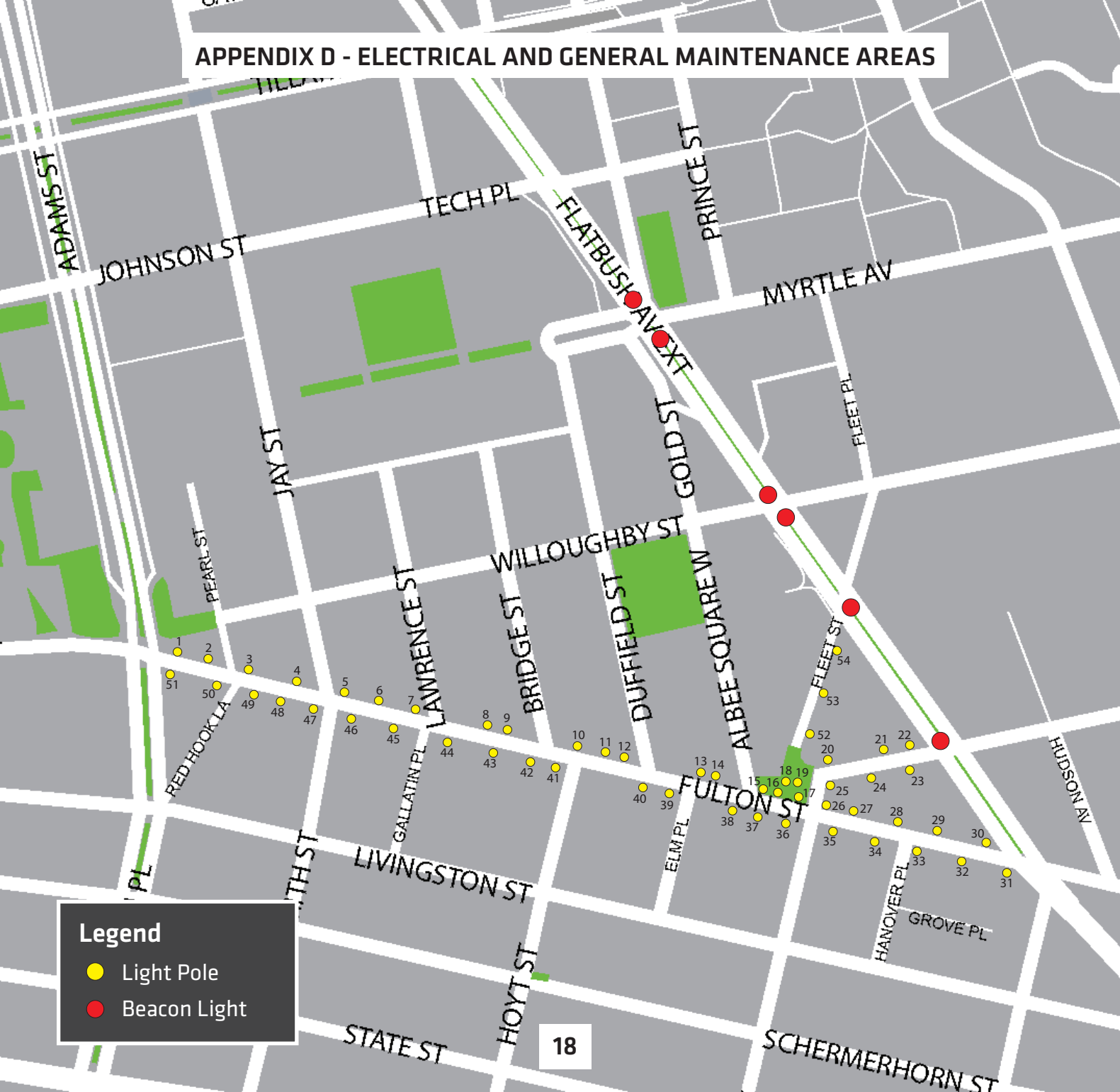
**COURT LIVINGSTON  
SCHERMERHORN BID**

**CULTURAL DISTRICT  
(MetroTech BID)**

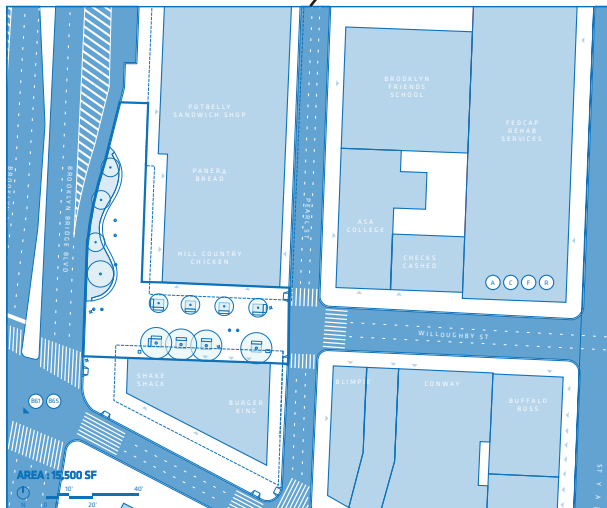
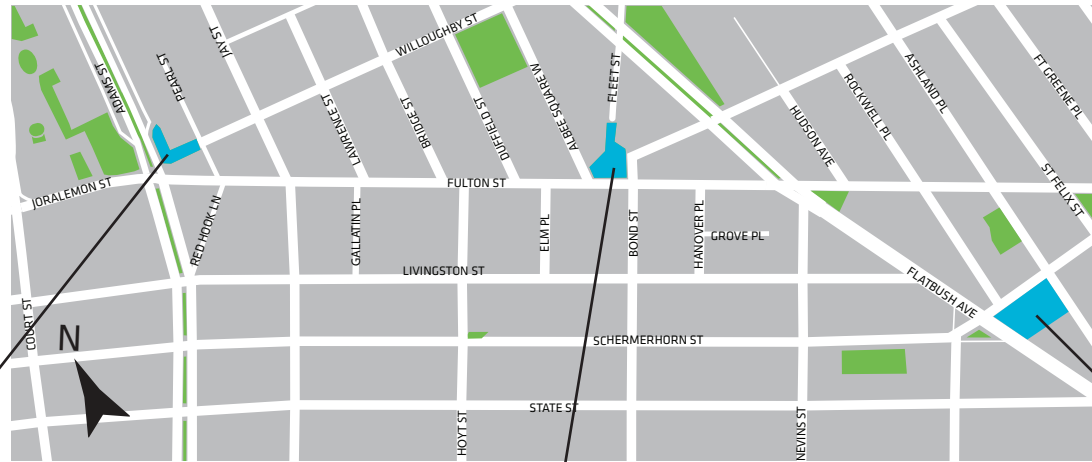
## APPENDIX D - ELECTRICAL AND GENERAL MAINTENANCE AREAS



## APPENDIX D - ELECTRICAL AND GENERAL MAINTENANCE AREAS

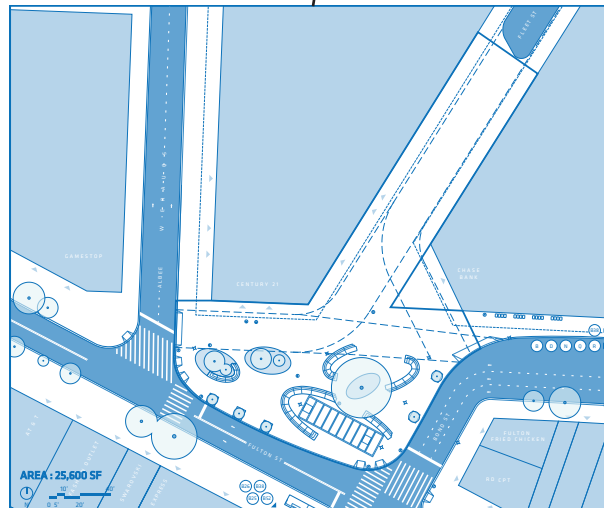


## APPENDIX D - ELECTRICAL AND GENERAL MAINTENANCE AREAS



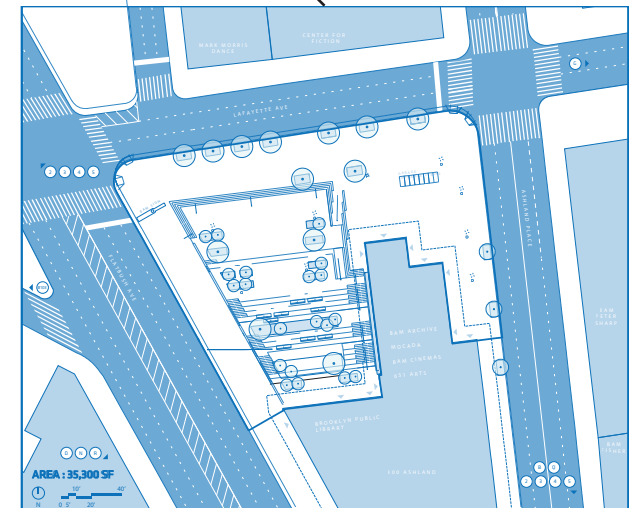
### Willoughby Plaza

Light Fixtures  
Plaza Utility Box  
Overhead String Lights



### Albee Square

In-ground uplighting  
Plaza Utility Box  
Street Lights  
Overhead String Lights  
Plaza Light Fixtures  
Load Center Panel Enclosure



### South Site Plaza

Street Lights  
LED Light Poles  
Plaza Lighting  
Plaza Utility Box  
LED Ground Lights  
Arm Mounted Street Lamps

Fulton Mall Improvement Association

# Streetscape Maintenance Manual

November 2011

NYC EDC  
Fulton Mall Streetscape Project  
Construction Contract for Streetscape Work  
NYC EDC Contract No. 21400003

**Date of Substantial Completion:**  
**October 31, 2011**

**Landscape Architects:**  
EDAW | AECOM

**Engineers:**  
STV, Inc.

**Graphic Design:**  
Emphasis Design

**Lighting Design:**  
Horton Lees Brogden Lighting Design



Fulton Mall Improvement Association  
c/o Downtown Brooklyn Partnership  
15 MetroTech Center, 19th Fl.  
Brooklyn, NY 11201  
P: 718.403.1608 F: 718.403.1650  
[www.fultonstreet.org](http://www.fultonstreet.org)

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## A. Introduction

This manual is intended to give general maintenance guidelines to site features for the Fulton Mall Streetscape including Albee Square. The site features covered include furniture, signage, lighting, paving, planting, irrigation, and event power.

All elements in the manual have been installed on Fulton Street and Albee Square by Trocom Construction Corporation under NYC EDC Contract Number 21400003 "Fulton Mall Streetscape Project Construction Contract." This manual will describe the recommendations for maintaining or replacing the site features and provides manufacturer source information.

All maintenance must be completed in compliance with current NYC Codes, Permit Requirements and with NYC Agency approvals as necessary.

Documentation of warranty items outside of furnishings or site features will be provided at the end of the Contract to FMIA by the Resident Engineer and NYC EDC.

### **General Note on Warranties:**

1. Contractor Warranties - In general, start from Date of Substantial Completion, unless another date of acceptance has been established.
2. Manufacturer Warranties - In general, start from the Date of Invoice, unless the manufacturer has set a different date such as Date of Delivery or Date of Installation.

Refer to the Warranty Summary table on page 97.

## B. Streetscape Elements : Furniture

### Benches

#### Transit Bench by Conceptual Site Furnishings

##### **Manufacturer:**

Conceptual Site Furnishings

900-B 47th St. S.W

Wyoming, MI 49509

T. 616.940.9830

F. 616.940.9438

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

##### **Specifications:**

Bench Materials:

Supports: 304 Stainless Steel

2.50" x 2.50: Steel Tube

2.38" Diameter Vertical Tube Support

Seat and Back: 304 Stainless Steel

0.125" Wire 0.50" x 0.125" Opening

Laser Cut Seat Frame

Arms: 304 Stainless Steel

Formed arms welded to seat frame

Dimensions: 4-Seats

18" Seat Height x 33-3/8" H x 21" D x 90" L

Color and Finish: Standard Silver Powder-Coat, Tiger

Dylac Metallic Powder Coatings 49/90380 with Clear

Top Coat

##### **Care & Maintenance:**

Source: *Conceptual Site Furnishings Care and Maintenance Manual*

Maintenance requirements are minimal for powder-coat finishes. Clean the painted surface with hot soapy water and then rinse and wipe dry with a soft cloth. Do not use abrasive cleaners or abrasive sponges.

High pressure washing (not to exceed 500 psi) with a mild detergent removes stubborn dirt. Steam cleaning is not recommended.



##### **Sticker Removal**

Remove sticker with hot soapy water. For stubborn stickers, a hair dryer can be used to soften the glue or adhesive. Remove any residue adhesive with a quarter-sized spot of acetone or kerosene applied to a clean, cotton rag. Wipe the leftover decal adhesive from the surface with the rag and acetone — do not pour the acetone directly onto the surface. Repeat this until you've removed all the adhesive. Clean the area thoroughly with hot soapy water after adhesive removal. Dry the area with a clean, cotton rag.

## B. Streetscape Elements : Furniture

### Bicycle Racks

#### Flo by Landscape Forms

##### Manufacturer:

Landscape Forms, Inc.  
431 Lawndale Avenue  
Kalamazoo, MI 49048  
T: 800.430.6209  
F: 269.381.3455  
[www.landscapeforms.com](http://www.landscapeforms.com)

##### Specifications and Details:

- Capacity: 3 Bicycles
- Supports bike upright by its frame in two places
- A standard D-shaped bike lock can be placed to secure both a wheel and the frame
- Meets Association of Pedestrian and Bicycle Professionals (APBP) recommendations
- Surface mounted
- Nylon glides cushion the surface contact point of 2 intermediate loops
- Constructed of 1.5" o.d. x 120" wall tubing
- 304 Stainless steel

##### **Recycled Content**

|                  |     |
|------------------|-----|
| Total %:         | 65% |
| Post Consumer %: | 50% |
| Pre Consumer %:  | 15% |

##### **Trubolt Wedge Type Anchor**

|                                    |              |
|------------------------------------|--------------|
| Trubolt type 304 - Stainless Steel |              |
| Part Number:                       | WW-3850      |
| Thread length In. (mm):            | 3-3/4 (95.3) |
| Anchor Dia. & Drill Bit Size:      | 3/8" - 16    |
| Overall Length In. (mm):           | 5 (127.0)    |

##### Care & Maintenance:

*Source: Landscape Forms Stainless Steel Care & Maintenance Manual, February 2010; Landscape Forms Stainless Steel Technical Information, July 2004*

The easy cleaning ability of stainless makes it the first choice for strict hygiene conditions, such as hospitals and kitchens. In outdoor applications, optimum performance of stainless steel is best where



it can be regularly rinsed by rain water. Rain water will rinse atmospheric pollution deposits, accumulated environmental contaminants, and de-icing salts.

All bolts should be tight and secure. It is recommended that connections are checked every six months - more often if product is in a high-use area.

Manual cleaning of stainless steel should be done with appropriate non- abrasive cloth and clean, warm water with or without a gentle detergent. If more aggressive cleaning is required, the type of contaminant needs to be determined and an appropriate cleaner chosen that is safe for stainless steel. Cleaners containing chlorine should never be used on stainless steel. Brushes or wool made of carbon steel should never be used because iron particles will contaminate the surface of the stainless steel.

Please refer to the following link for a more comprehensive listing of cleaning agents and methods:  
[www.ssina.com/download\\_a\\_file/cleaning.pdf](http://www.ssina.com/download_a_file/cleaning.pdf)

##### **Sticker Removal**

Remove sticker with hot soapy water. For stubborn stickers, a hair dryer can be used to soften the glue or adhesive. Remove any residue adhesive with a quarter-sized spot of acetone or kerosene applied to a clean, cotton rag. Wipe the leftover decal adhesive from the surface with the rag and acetone — do not pour the acetone directly onto the surface. Repeat this until you've removed all the adhesive. Clean the area thoroughly with hot soapy water after adhesive removal. Dry the area with a clean, cotton rag.

## B. Streetscape Elements : Furniture

### Trash Receptacles

#### Dynasty SD-45 by Victor Stanley

##### **Manufacturer:**

Victor Stanley, Inc.  
P.O. Drawer 330  
Dunkirk, MD 20754  
T: 800.368.2573  
F: 410.257.7579  
[www.victorstanley.com](http://www.victorstanley.com)

##### **Specifications and Details:**

###### **Dynasty SD-45**

Powder-coated, side opening trash receptacle with galvanized liner

Color: VS Silver

Capacity: 45 Gallons

##### **Care & Maintenance:**

*Source: Victor Stanley Maintenance Guide.*

The Victor Stanley, Inc.® products are designed and constructed for commercial applications. The components used within the product were chosen to withstand abuse and constant traffic. All steel products have been coated throughout with a polyester powder. This provides a highly durable and long lasting surface. This surface will not break down or chip, therefore does not require re-application. The life span of this coating is indefinite.

To avoid any break down of the powder coating, no harsh solvents should be used on the surface of the product. The receptacle may be cleaned by power washing or hosing the unit using any mild soap. To protect areas where the coating has been scratched or scuffed, use a piece of steel wool to prepare the surface by sanding off any debris or rust. Then apply a rust inhibiting primer (available at any hardware store) to the affected area. When the primer has dried, apply the touch-up paint to match the color of the receptacle.

Please contact our customer service department on our toll-free number 1-800-368-2573 with any questions.



##### **Sticker Removal**

Remove sticker with hot soapy water. For stubborn stickers, a hair dryer can be used to soften the glue or adhesive. Remove any residue adhesive with a quarter-sized spot of acetone or kerosene applied to a clean, cotton rag. Wipe the leftover decal adhesive from the surface with the rag and acetone — do not pour the acetone directly onto the surface. Repeat this until you've removed all the adhesive. Clean the area thoroughly with hot soapy water after adhesive removal. Dry the area with a clean, cotton rag.

**Manufacturer Warranty:**

**VICTOR STANLEY, INC.®**  
*-Manufacturers of Quality Site Furnishings since 1962-*

**Date of Invoice:**  
 4.11.2011

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## EXPLANATION OF LIMITED WARRANTY EFFECTIVE NOVEMBER 4, 2009

- All wood slats and components (Philippine Mahogany or Ipe) are warranted for a period of 10 years against structural failure or bacterial rot. Normal weather checking, graying, fading, or wear are not preventable or justification for replacement.
- All plastic slats are warranted for a period of 10 years against structural failure provided that they are not overtightened and cracked on installation. Normal loss of gloss or slight color fading cannot be covered.
- All weldments, steel frames and legs, components, braces, and assemblies are warranted for a period of 10 years against structural failure. Routine maintenance, coating touch up to prevent nicks and abrasions from propagating, and proper installation are the responsibility of the purchaser and are particularly important for any claims made under this portion of the warranty.
- All castings are provided in Ductile Iron and are warranted for a period of 10 years against breakage or structural failure. Again, abrasions, damage to finish, and installation errors must be corrected by the purchaser or end user for this part of the warranty to apply.
- Wear items such as plastic or galvanized receptacle or planter liners, lids or leveling feet, etc. are not covered unless damage is noted upon initial delivery.
- Items not covered above are subject to a one-year limited warranty.

Routine Maintenance by the purchaser or end user is required including but not limited to inspection for loose fasteners, vandalism, normal wear, coating damage, and excessive weathering.

All warranty coverage is expressed as a limited warranty and starts on the date of invoice for each shipment. Each warranty item specifically excludes coverage for vandalism, freight damage (which must be reported upon delivery), assembly other than as shown on Victor Stanley, Inc. detailed drawings, accident, neglect, misuse, improper installation, unattended routine maintenance, natural weathering of wood, or improper repair, or acts of God. This warranty shall be held valid only if Victor Stanley, Inc. has been provided in writing with the appropriate project name and installation address of the Victor Stanley products.

Claims must be made directly to the factory and be accompanied by the appropriate invoice number or copy of invoice. Routine wood checking, fading, or similar cosmetic issues are not covered as each climate naturally exacts its own toll on the surface of materials exposed to the elements.

Repair or replacement, if warranted, will be made by the factory after inspection by authorized personnel and will not include dismantling or re-installation or any other consequential costs or damages. The factory is responsible only for repairing or replacing any defective product or part which must be reinstalled by others, according to instructions provided.

P.O. Drawer 330, Dunkirk, Maryland 20754 USA • Tel: 1-301-855-8300 • Fax: 1-410-257-7579  
 Toll Free: 1-800-368-2573 (USA & Canada) • [www.victorstanley.com](http://www.victorstanley.com)

## B. Streetscape Elements : Signage

### BHS Historical Signage

#### **Manufacturer:**

Signs + Decal Corporation  
410 Morgan Ave  
Brooklyn, NY 11211  
T: 718.486.6400  
F: 718.388.3166  
[www.signsanddecal.com](http://www.signsanddecal.com)

#### **Specifications and Details:**

Six color baked porcelain sign panel  
Size: 24"H x 16"W x 1"D

316 Stainless Steel fabricated stand

#### **Care & Maintenance:**

##### **Color Baked Porcelain Sign Panel:**

Sweep the dust off the panel, with a dust cloth. Do not use a broom or abrasive brush, as it can damage the polish of the panel. Pour one quarter of mild cleaning solution in a bucket. Fill the bucket with hot water. Now clean the panels with a cloth and then wipe it off with a drying cloth. Repeat the procedure for all panels. Dry the panel with a clean cloth so as to preserve its luster.

##### **Stainless Steel Fabricated Stand:**

Source: *Landscape Forms Stainless Steel Care & Maintenance Manual, February 2010; Landscape Forms Stainless Steel Technical Information, July 2004*

The easy cleaning ability of stainless makes it the first choice for strict hygiene conditions, such as hospitals and kitchens. In outdoor applications, optimum performance of stainless steel is best where it can be regularly rinsed by rain water. Rain water will rinse atmospheric pollution deposits, accumulated environmental contaminants, and de-icing salts.

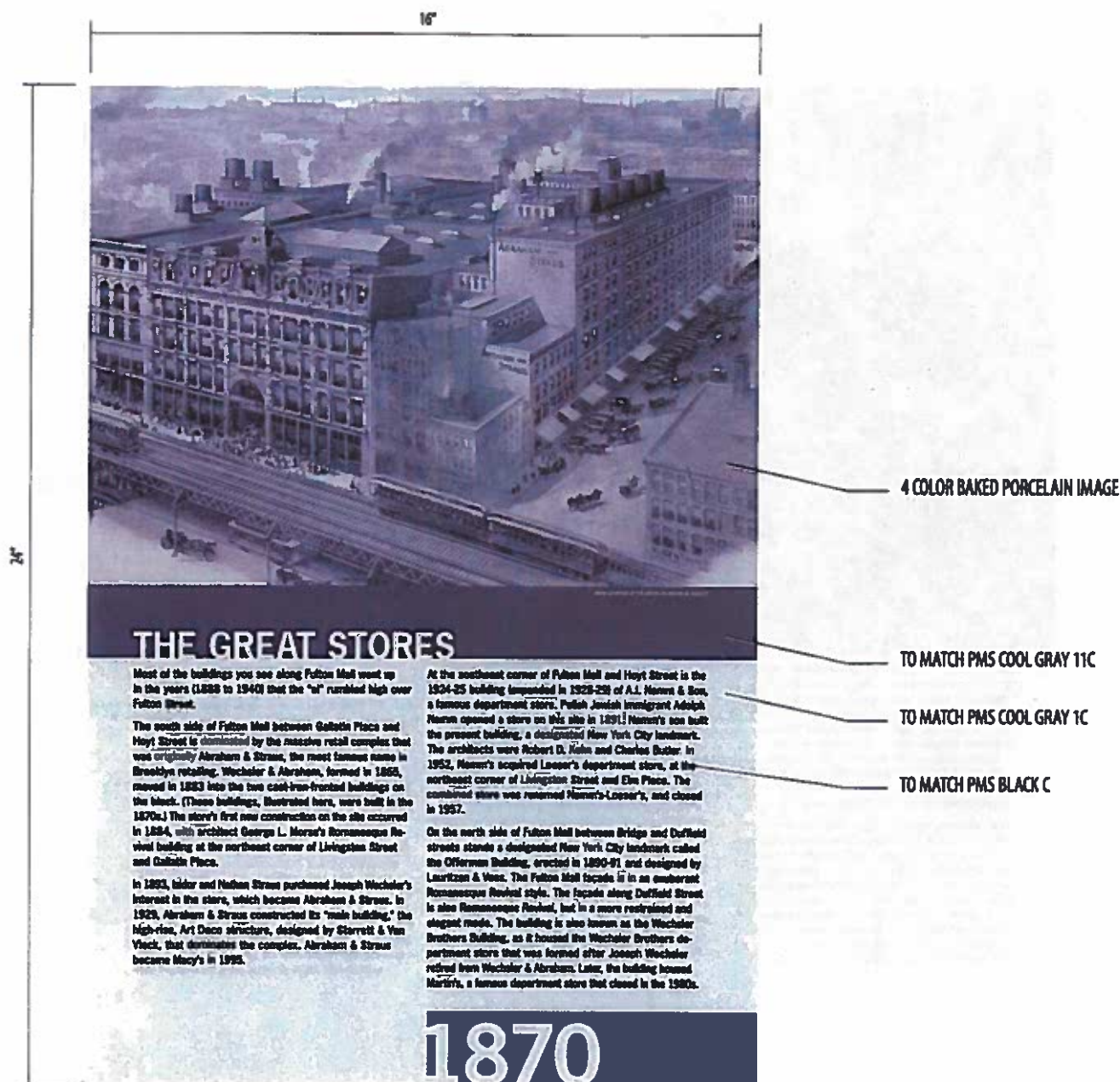
All bolts should be tight and secure. It is recommended that connections are checked every six months - more often if product is in a high-use area.



Manual cleaning of stainless steel should be done with appropriate non-abrasive cloth and clean, warm water with or without a gentle detergent. If more aggressive cleaning is required, the type of contaminant needs to be determined and an appropriate cleaner chosen that is safe for stainless steel. Cleaners containing chlorine should never be used on stainless steel. Brushes or wool made of carbon steel should never be used because iron particles will contaminate the surface of the stainless steel. Please refer to the following link for a more comprehensive listing of cleaning agents and methods:  
[www.ssina.com/download\\_a\\_file/cleaning.pdf](http://www.ssina.com/download_a_file/cleaning.pdf)

##### **Sticker Removal from stainless steel parts:**

Remove sticker with hot soapy water. For stubborn stickers, a hair dryer can be used to soften the glue or adhesive. Remove any residue adhesive with a quarter-sized spot of acetone or kerosene applied to a clean, cotton rag. Wipe the leftover decal adhesive from the surface with the rag and acetone — do not pour the acetone directly onto the surface. Repeat this until you've removed all the adhesive. Clean the area thoroughly with hot soapy water after adhesive removal. Dry the area with a clean, cotton rag.

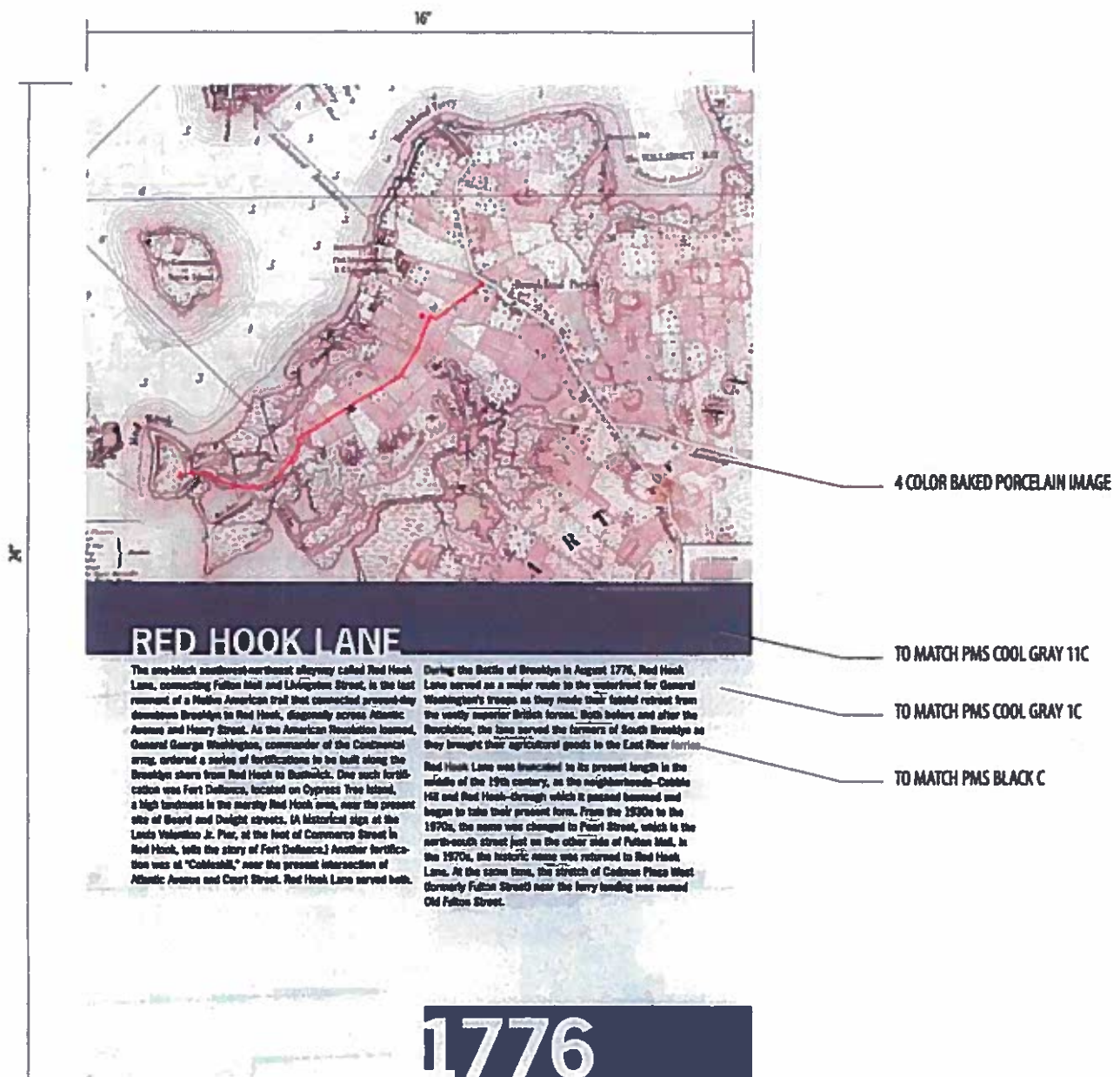


2

DIGITALLY PRINTED GRAPHIC — PANEL 1

SCALE: 1/3

NOTE: FILE NAME - PostMarkerStores\_Final\_FS\_OL.ai



4

DIGITALLY PRINTED GRAPHIC

SCALE 1/13

NOTE: FILE NAME - PostMarkerRedHook\_Final\_FS\_01.ai

## B. Streetscape Elements : Lighting

### Street Lights Canto G Type F1 by Hess America

#### **Manufacturer:**

Hess America  
PO Box 28  
Gaffney, SC 29342  
T: 864.487.3535  
F: 864.487.3175  
[www.hessamerica.com](http://www.hessamerica.com)

#### **Specifications:**

|                      |                                                                                                                                                                                                                                          |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Housing:             | Cast Aluminum                                                                                                                                                                                                                            |
| Mounting Arm:        | Formed Steel Galvanized                                                                                                                                                                                                                  |
| Photocell:           | DTL DP-1704                                                                                                                                                                                                                              |
| Lens:                | Tempered glass                                                                                                                                                                                                                           |
| Lamp:                | <b>Street Head:</b> 250 Watts ED 28,<br>pulse start metal halide<br><br><b>Pedestrian Head:</b> 70 Watts ED<br>17, pulse start metal halide<br>All color temperature shall be<br>4000K. Lamps shall be clear.<br>CMH Medium & Mogul Base |
| Ballast:             | C&C Multi-Tap Advance                                                                                                                                                                                                                    |
| LED:                 | Turquoise Triple Chip 350mA                                                                                                                                                                                                              |
| Curved Tapered Pole: | Hot Dipped Galvanized Steel                                                                                                                                                                                                              |
| Banner Arms:         | Machined Aluminum                                                                                                                                                                                                                        |
| Color:               | Standard Finely Textured Matt<br>Silver Gray Metallic                                                                                                                                                                                    |

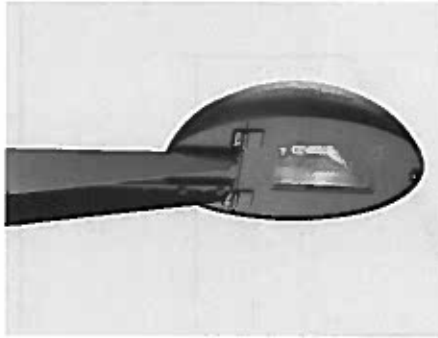
#### **Care & Maintenance:**

All workmanship must be in accordance with and meet the standards and regulations of the following:

- Underwriters Laboratories
- National Electric Code
- Local Building and Life Safety Code Agencies



## Pedestrian Head:



## Canto 450

**FAILURE TO USE FACTORY SUPPLIED COMPONENTS AND/OR MODIFYING PRODUCT IN ANY WAY WITHOUT AUTHORIZATION FROM FACTORY VOIDS WARRANTY**

### Warning:

**Risk of Fire and Shock.** This product is to be installed by a qualified electrician following all applicable national and local codes and regulations. To avoid shock hazard be certain that power is turned off before connecting fixture to supply lines. Live wires present potential for fatal shock hazard.

### Installing the Luminaire

1. Install pole. Orient pole so the luminaire arm will be in the desired orientation. The luminaire arm has a fixed orientation on the pole. Turn thumb-screw counterclockwise to open the glass and access the electrical compartment.
2. To access the electrics, loosen the screw on the reflector plate and turn the reflector plate down gently with the electrics.
3. Route electrical cord provided with luminaire through the arm cable tube and into pole.
4. Inspect all connections inside luminaire for items that may have loosened during shipping or handling.
5. Make sure cord grip is securely tightened.
6. Secure electrical and reflector plate by tightening screw loosened in step 2.
7. Insert lamp and secure in lampholder. Close lamp compartment by tightening thumb-screw.
8. Mount luminaire to arm with hardware provided. Tightening torque, min. 25 Nm (18.5 ft.lb).
9. Electrical cord length supplied with luminaire is matched to HessAmerica pole to allow splicing at the access door at the bottom of the pole.

### Servicing the Luminaire

When performing maintenance and changing the lamp, always make sure the power is off. Lightly oil screws before installing them.

### Replacement Parts

Lamp: HID 70W 100W 150W ED17 MED

Socket: Medium base pulse rated

Ballast: HID Multi-tap C&C or electronic from Advance or Hatch Transformers

### Included as Standard Supply

Luminaire complete, with lamp

Complete pole with arm attachment hardware

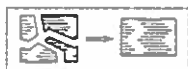
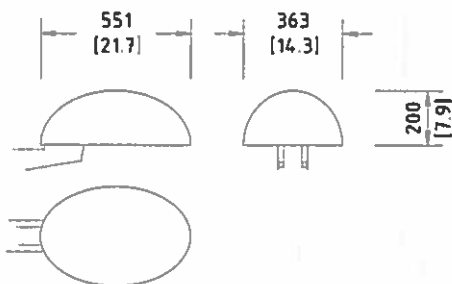
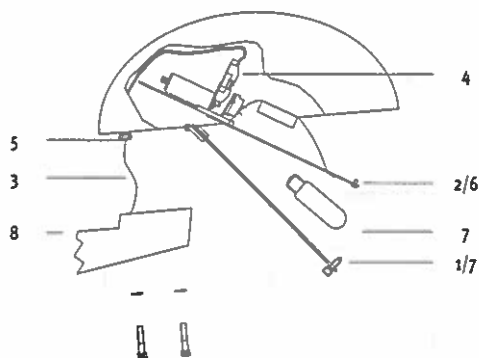
Mounting arm

1 Hex wrench SW5

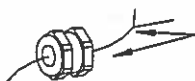
1 Hex wrench SW8

Weight 26.5 lbs (12.0 kg)

EPA approx. 0.97 ft<sup>2</sup> (0.09 m<sup>2</sup>)

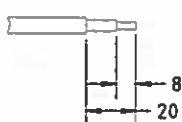


The luminaire shall be operated only with its glass in place.



Cord Size Ø5,0 - Ø8,0 ⇒ Gray Insert  
Cord Size Ø7,0 - Ø10,5 ⇒ Green Insert

Conductor preparation



Terminal cross section:  
3x2,5  
Terminal Assignment



L1 N  
blk gren wht

HessAmerica

## Specifications

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                      |         |           |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|---------|-----------|
| DESCRIPTION   | Pole mounted luminaire for outdoor applications where contemporary styling is desired.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                      |         |           |
| HOUSING       | One-piece domed housing is heavy cast aluminum. Hinged frameless tempered glass lens opens with single quarter-turn fastener for easy relamping. Lens is sealed to the housing with one-piece closed cell silicone gasketing. Hinged reflector plate, painted with high reflectance white paint, swings down allowing access to ballast components. Housing is fitted with stainless steel weather-tight strain relief bushing for the power cable exiting the rear of the housing. Luminaire installs onto bracket mounting plate with four socket head cap screws. All hardware is stainless steel.                                                                                                                                                                                                                                                                                                                                                       |                      |                      |         |           |
| OPTICS        | Horizontal lamp is positioned within the formed aluminum reflector consisting of semi-specular and hammer-tone anodized aluminum sheet, laser cut for precise reproduction. Flat tempered glass lens is screen-printed with border around reflector opening.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                      |         |           |
| ELECTRICAL    | <p>Metal halide core and coil ballast with class "H" (180°C) insulation system shall have a minimum high power factor rating of 90% and nominal ballast factor of 1.0. Ballast shall be capable of reliable starting to -20°F (-30°C) at nominal line voltage of ±10%. Ballast, capacitor, and starter are UL and CSA recognized. Mogul base porcelain socket is 1500w-600v, 4kV pulse rated. Medium base porcelain socket is 660w-600v, 4kV pulse rated.</p> <p>High pressure sodium core and coil ballast with class "H" (180°C) insulation system shall have a minimum high power factor rating of 90% and nominal ballast factor of 1.0. Ballast and starter combination shall be capable of reliable starting to -40°F (-40°C) at nominal line voltage of ±10%. Ballast, capacitor, and starter are UL and CSA recognized. Mogul base porcelain socket is 1500w-600v, 4kV pulse rated. Medium base porcelain socket is 660w-600v, 4kV pulse rated.</p> |                      |                      |         |           |
| LAMPING       | Wattage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 250                  | 150                  | 250     | 150       |
|               | Source                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Ceramic Metal Halide | Ceramic Metal Halide | HPS     | HPS       |
|               | Lamp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CMH250/U/830/R       | MHC150/U/M           | C250S50 | C150S55/M |
|               | Bulb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | T15                  | ED-17                | ED-18   | ED-17     |
|               | Base                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mogul                | Medium               | Mogul   | Medium    |
|               | Lamp is included.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |                      |         |           |
| POLE          | Fabricated steel bracket arm is constructed from single formed steel plate and welded to the pole 3.5' from the top. Square tubing welded to the underside of the bracket arm acts as a wire way for the luminaire power cable. Round and curved steel pole is manufactured from cold drawn over mandrel, electric-weld, mechanical round steel tubing with nominal wall thickness of 0.157". Flush mounted handhole cover is plasma cut with kerf not to exceed 1/8" and includes triangular tamper-resistant locking device. Pole and luminaire mounting bracket are hot-dip galvanized with coating inside and out, then lightly sanded prior to painting. Two-piece base cover with tamper-proof fasteners is fabricated from 0.080" spun aluminum and finished to match the pole. Nominal pole height of 23'.                                                                                                                                          |                      |                      |         |           |
| FINISH        | Housing is ultrasonically cleaned prior to painting. Standard finish is finely textured matte silver grey metallic or graphite grey. Special colors available on request.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                      |         |           |
| WARRANTY      | Limited product warranty period is three years. Lamp and ballast shall carry the respective manufacturer's limited warranty.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                      |         |           |
| CERTIFICATION | •  Listed for Wet Locations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                      |         |           |

Specifications are subject to change without notification

HessAmerica, P.O. Box 28, Gaffney, SC 29342. Phone: 864-487-3535. Fax: 864-487-3175. www.hessamerica.com

.hess

SUBMITTAL NO 3ITEM NO SL 21. F1 (m)

Welsbach Electric Corp.  
 Contract #21400003 Fulton Mall  
 Item SL-21.F1 (M)  
 F1 Light Fixture Inc. Mockup

## B. Streetscape Elements : Security

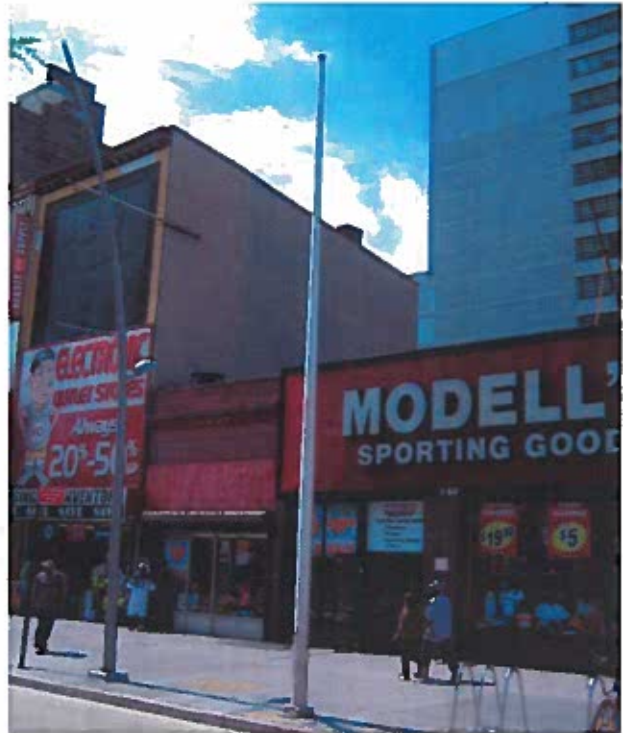
### CCTV Camera Pole (not inclusive of CCTV camera systems by ADT)

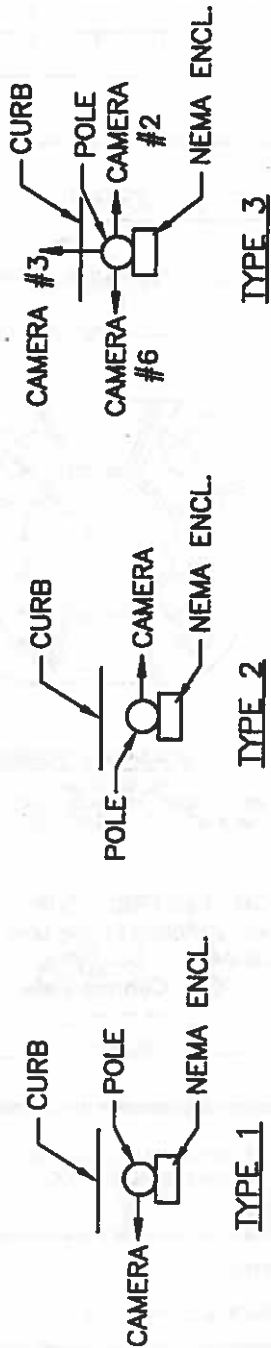
#### **Manufacturer:**

Flagpoles, Inc.  
P&K Tubular Products, Inc.  
95 Gnarled Hollow Rd.  
East Setauket, NY 11733  
T: 631.751.7788  
F: 631.751.7955  
[www.pktubularproducts.com](http://www.pktubularproducts.com)

#### **Specifications and Details:**

Spun Aluminum Tapered Lighting Standard  
Finish: Plain Aluminum  
Height: 30'-0"  
Base Diameter: 8"  
Top Diameter: 4"  
Wall Thickness: .188"  
Cap: Cast Aluminum with Stainless Steel hardware





| CAMERA NO. | MOUNTING TYPE |
|------------|---------------|
| C1         | 2             |
| C2, C3, C6 | 3             |
| C4         | 2             |
| C5         | 1             |
| C7         | 2             |
| C8         | 2             |
| C9         | 2             |
| C10        | 1             |

Fulton Mall Streetscape  
Brooklyn, NY  
NYC EDC  
Contract No. 21400003

STV

PLEASE REFER TO ELEC. DWG.  
SCALE: N.T.S.  
DATE: 10/02/2009 SH# 2

## Manufacturer Warranty:



**P&K**

**P&K POLE PRODUCTS, INC.**

### **20 YEAR WARRANTY**

P&K Pole Products, Inc. warrants to repair or replace, at P&K's option, aluminum products that fail due to material deterioration such as rust or corrosion. Specifically excluded are failures due to improper installation, misapplication, failure to notify common carrier of apparent or concealed damages, and unusual conditions. Labor to remove or install is not covered by this warranty.

Products coated with our polyester powder coating system shall be warranted from material failure for twenty (20) years, and the coating itself is warranted for a period of five years from chalking, chipping or peeling.

These warranties apply to all poles, brackets, castings and extrusions used in the manufacture of lighting supports as originally installed.

Lighting fixtures must be installed at the time the light poles and brackets are erected, or this warranty is void.

The above expressed warranty is in addition to and is incorporated with P&K Pole Products, Inc. current "Standard Terms and Conditions of Sale."

## B. Streetscape Elements : Paving

### Granite Curbs

#### **Supplier:**

Architectural Craft Stone Inc.  
150-28 Union Turnpike, Suite 105  
Flushing, NY 11367  
T: 718.820.8885  
F: 718.820.8887  
[www.acs-us.net](http://www.acs-us.net)

#### **Color & Finish:**

Street Curbs: Stony Pink  
Finish: Thermal

#### **Care & Maintenance:**

Source: *Marble Institute of America Design Manual, Chapter 20: Cleaning and Maintenance, Sept. 2007.*

##### **Normal Maintenance:**

Normal maintenance involves periodic washing with clean, potable water and neutral (pH 7) cleaners. Soapless cleaner are preferred because they minimize streaks and film. Mild, phosphate-free, biodegradable liquid dishwashing soaps or powders or stone soaps are acceptable if rinsing is thorough.

Wet the stone surfaces with clean water. Using the cleaner solution (following manufacturer's directions), wash in small, overlapping sweeps. Work from the bottom up if it is a vertical surface. Rinse thoroughly with clean, potable water to remove all traces of soap or cleaner solution. Change the water in the rinse pail frequently. Dry with soft cloth and allow to thoroughly air dry.

The large expanses of stone generally found on exterior applications may make it impractical to perform normal maintenance on a frequent basis. Large installations, however, should be given periodic overall cleaning as necessary to remove accumulated pollutants. Easily accessible stone surfaces such as steps, walkways, fountains, etc. should be kept free of debris and soiling by periodically sweeping and washing with water. Normal maintenance should include periodic inspection of stone surfaces for structural defects, movement, deterioration or staining.



##### **Safety Precautions:**

Any flooring surface, regardless of how it is finished, can be slippery when wet. Promptly remove liquids or foreign materials that might result in safety hazards before permitting pedestrian traffic.

##### **Stain Removal:**

Surface stains can often be removed by cleaning with an appropriate commercial cleaning product or household chemical. Identifying the type of stain is the key to removing it. Look for color, shape, and environmental factors that could be causing staining.

##### **Type of Stains and Removal Procedures:**

**Oil-Based Stains:** (grease, tar, cooking oil, cosmetics) An oil-based stain will darken the stone and normally must be chemically dissolved so the source of the stain can be flushed or rinsed away. Clean gently with a soft liquid cleanser, household detergent, ammonia, mineral spirits, or acetone.

**Organic Stains:** (coffee, tea, fruit, tobacco, paper, food, urine, leaves, bark, bird droppings) May cause a pinkish-brown stain and may disappear after the source of the stain has been removed. Outdoors, with the sources removed, normal sun and rain action will generally bleach out the stains.

**Inorganic Metal Stains:** (iron, rust, copper, bronze) Iron or rust stains are orange to brown in color and leave the shape of the staining object, such as nails, bolts, screws,

water and buff dry with a soft cloth.

Repeat the poultice application if the stain is not removed. It may take five or more applications for difficult stains.

If the surface is etched by the chemical apply polishing powder and buff with a polishing pad recommended by the Polishing Powder Manufacturer.

## B. Streetscape Elements : Paving

### Pigmented Concrete Sidewalk

#### Specifications:

*As specified in the memo sent to EDC from EDAW | AECOM Dated January 22, 2010*

NYC DOT Item 4.13 Concrete Sidewalk (Pigmented) 7" Concrete (Vehicular Rated) on 6" foundation of granular material; concrete – Class B-32, Type IIA; cement – Type II Portland. As required by NYC DOT Standard Specification and Requirements.

1. Pigmenting: Scofield "Landmarks Gray K-157-4 as manufactured by L.M. Scofield Company, 1-800-800-9900.
2. Silicarbide – 10 lbs./100 SF, float into surface per manufacturer's recommendations as manufactured by Anti-Hydro 1-800-777-1773.
3. Broom Finish, applied in straight lines, at right angles to the direction of traffic on sidewalks. At Albee Square, direction of broom finish shall be Northeast to Southwest, parallel to the northeast to southeast scoring lines shown on LS-106. Note: All scoring in Albee Square is set up directly on orientation and axis with historic Dime Savings bank façade.
4. Curing: Lithochrome colorwax as manufactured by L.M. Scofield Company, 1-800-800-9900.
5. Control Joints: After a minimum of 24hrs of curing time, saw cut sidewalk joints with 1/8" blade, 1/8" W x 1" D. All sawcuts are to be straight, clean, consistent width. Joints are to be either perpendicular to the curb or parallel to the curb at 5'-0" on center unless otherwise shown on the Pavement Scoring Plans. Joints are to be complete within 36 hours of concrete pour.
6. Expansion Joints: 20' on center maximum and as shown on Pavement Scoring Plans with preformed joint filler. Expansion joint sealant: Sonolastic NP II as manufactured by Sonneborn Corp. Color: Quicksilver 263-T. To be installed adjacent to all structures or walls, at changes in pavement material and at interface of new and existing concrete pavements. All expansion joints to have straight edges. Expansion Joints to be 1/4" W.

It is the Property Owner's responsibility to obtain and comply with the latest NYC DOT specification at the time of construction. Specifications can be purchased at NYC DOT, 55 Water Street, New York, NY.



#### Care & Maintenance:

Refer to current NYC DOT requirements for all care and maintenance requirements of concrete sidewalks.

Source: [www.nyc.gov/html/dot/html/sidewalks/sidewalkintro.shtml](http://www.nyc.gov/html/dot/html/sidewalks/sidewalkintro.shtml)

Under Section 19-152 of New York's Administrative Code, property owners are responsible for installing, repairing and maintaining sidewalks adjoining their properties. DOT staff inspect sidewalks and notify the property owner of needed repairs. In the event timely repairs are not made by the property owner, the City may hire private construction firms to make the repairs. When this happens, the City bills the property owner for the costs of the repairs. Property owners must also keep their sidewalks clean and are responsible for snow removal.

Source: <http://www.nyc.gov/html/dot/html/faqs/sidewalkfaqs.shtml> - FAQs "Questions & Answers to Common Sidewalk Violations."

New York City law requires property owners to, at their own cost, install, construct, reconstruct, repave and repair the sidewalk adjacent to their properties, including the intersection quadrant and pedestrian ramps for corner properties, in accordance with DOT specifications.

Section 7-210 of the NYC Administrative Code makes property owners potentially liable for personal injuries caused by their failure to maintain reasonably safe sidewalks. Property owners must keep their sidewalks clean and are also responsible for snow removal.

## B. Streetscape Elements : Paving

### Precast Concrete Pavers at Tree Pits

#### **Manufacturer:**

Nicolock of Long Island  
640 Muncy Avenue  
Lindenhurst, NY 11757  
T: 631.669.0700  
F: 631.669.0711  
[info@nicolock.com](mailto:info@nicolock.com)  
[www.nicolock.com](http://www.nicolock.com)

#### **Specifications and Details:**

Belgian Stone Paver

##### **Dimensions**

148mm x 298mm x 100mm  
5 7/8" x 11 3/4" x 4"

Color: Gray, Natural Finish

#### **Care & Maintenance:**

Source: [www.nicolock.com](http://www.nicolock.com)

##### **Basic Cleaning**

The best way to clean pavers is to use hot, soapy water and a stiff bristle scrub brush. We recommend that you use a liquid, acid-free soap. Simple Green, sold in many grocery, hardware, and home center stores, is also very effective and non-harmful to plant life and other vegetation. After scrubbing, wash the dirt and debris off with clean water. If you use a hose, be careful to not loosen or spray away your joint sand.

Pressure washers are not recommended as they can remove the cement paste from the surface causing scarring and can also remove joint and bedding sand. Mechanical cleaners with rotating brushes have been found to be effective.

##### **Removing Efflorescence**

Efflorescence is a whitish, powder-like deposit that may sometimes appear on the surface of the paving stones. It may appear immediately or within a short time after installation. Left alone, normal wear and exposure to the elements will dissipate the efflorescence. Efflorescence



does not affect the structural performance or durability of concrete pavers.

If there is a need to remove the efflorescence before it naturally wears away, best results are obtained by using an efflorescence remover which is available from most mason supply dealers. Do not use muriatic acid.

##### **Stain Removal**

The stain removal methods suggested here are merely a guide and may not work to your satisfaction in all instances. Nicolock is not responsible for any damage caused while using these methods. Nicolock recommends that you keep several pavers from your initial installation available to replace any pavers that become damaged or excessively stained or soiled.

- Asphalt and emulsified asphalt: Chill with ice (if warm outside), scrape away & scrub the surface with scouring or abrasive powder. Rinse with water.

- Candy, ketchup, mustard, grease drippings from food: For stubborn stains, apply liquid detergent full strength and allow it to penetrate for 20-30 minutes. Scrub and rinse with hot water. Removal is easier if these stains are treated immediately.

- Caulking: Scrape off excess and scrub with denatured alcohol. Rinse with hot water and detergent. For acrylic latex caulk - follow guidelines for removal of latex paint.

- Chewing gum: Same as caulking, or scrub with naphtha.

- Clay soil: Scrape off dry material, scrub and rinse with hot water and strong detergent.

For walks, patios and light traffic areas, the standard or reversed installation is acceptable. For driveways or applications with heavy traffic, use only the standard method.

#### **Staking**

For walks, patios and light traffic areas, use 1 spike every 20-24 inches and at each end. For heavy duty applications, use at least 1 spike every 10-12 inches and at each end.

#### **Back Filling**

Once the paver installation is complete, back fill up to grade with mulch, rock, topsoil, or specified cover. Installed edging should remain completely hidden from view.

#### **Architect Specifications**

All Aluminum Paver restraints shall be 3" thick x 4" deep, having an Aluminum Mill Finish, as distributed by Sure-loc Aluminum Edging Corporation and under its trade name Sure-loc.

Thickness of material: .210 inch

## **Precast Concrete Pavers - Joint Material**

#### **Crushed Bluestone**

Readily available as landscape product from a variety of sources.

## **Precast Concrete Pavers - Aeration System**

### **Catch Basin & Fittings**

#### **Manufacturer:**

NDS  
21820 Burbank Blvd, Suite 200  
Woodland Hills, CA 91367.  
T: 800.726.1994.  
[www.ndspro.com](http://www.ndspro.com)

#### **Specifications & Technical Data:**

|           |                                                                                                             |
|-----------|-------------------------------------------------------------------------------------------------------------|
| Basin:    | 12" Next Generation Catch Basin                                                                             |
| Outlet:   | 3" & 4" Offset Universal Outlet; 6" Universal Adaptor Plug                                                  |
| Fittings: | 4" Corrugated Tee Fitting<br>4" Corrugated Elbow Fitting<br>4" Corrugated Coupling<br>4" Corrugated End Cap |
| Grate:    | 12"x12" Square Cast Iron Grate                                                                              |
| Riser:    | 6" (as required)                                                                                            |

#### **Care and Maintenance:**

Inspect basins quarterly, remove all trash and debris. Flush with water in spring to remove salts from snow melt used during winter.

#### **Manufacturer Warranty:**

Source: [www.ndspro.com/about-us/legal/nds-terms-and-conditions-of-sale](http://www.ndspro.com/about-us/legal/nds-terms-and-conditions-of-sale)

**Limited One Year Warranty:** The liabilities of NDS are limited solely and exclusively to replacement as set forth in our standard "Statement of Warranty", alone and do not include any liability for incidental, consequential or other damage of any kind whatsoever, whether any claim is based upon theories of contract, warranty, negligence or tort and without any limitations and do not include shipping charges, labor, installation or any other losses or expenses incurred in operation of any replacement specialty item or fitting. NDS drainage products are designed to be used for exterior surface drainage only.

**Limited Lifetime Warranty:** NDS warrants to the original owner of its NDS catch basins, grates, channel and Pro Series valve boxes, subject to the conditions set forth in this warranty, that NDS catch basins, grates, channel and Pro Series valve boxes will remain free from manufacturing defects. All NDS products are guaranteed against

## B. Streetscape Elements : Paving

### ADA Detectable Warning Pavers

#### **Manufacturer:**

Hanover Architectural Products  
240 Bender Rd.  
Hanover, PA 17331  
T: 717.637.0500  
F: 717.637.7145  
[info@hanoverpavers.com](mailto:info@hanoverpavers.com)  
[www.hanoverpavers.com](http://www.hanoverpavers.com)

#### **Specifications & Details:**

##### **Stocked Size and Color:**

11 3/4" x 11 3/4" x 2"  
(297mm x 297mm x 51mm)

Color: Glacier white, Tudor finish

#### **Maintenance:**

*Source: Hanover Maintenance Guidelines for Concrete Products*

Hanover® Prest® Pavers, Prest® Bricks and Masonry units are fabricated to meet and/or exceed the industries highest standards. When Hanover® products are installed properly, they require very little maintenance and provide an attractive and durable surface for many years. Under normal use, pavers will be exposed to dirt, stains and wear that is common to all types of pavement surfaces. This guide will assist you in maintaining your pavers' original appearance and will prolong the life of the installation. This is only a guide. If you have a condition that is not mentioned in the following instructions, please contact a Hanover® Sales Representatives for more information.

##### **General Cleaning of Pavers**

This type of cleaning is typically performed weekly or monthly to remove general dirt and debris from the paver surface.

1. Use a standard garden hose and a stiff bristle brush (nylon is preferred) to hose down and scrub the pavers. This method will allow you to free and loosen any



general dirt from the surface and rinse away.

2. For areas where you have ground in dirt, follow the instruction above. In addition, use a mild detergent to help release some of these dirt particles. The areas that typically get excessive dirt build up are at entry areas and those of foot traffic.

Please Note: When hosing down the paved area, be sure not to concentrate spray directly into the joints. This will wash out the joint sand, which is necessary to maintain a tight installation.

##### **Efflorescence**

What is efflorescence? It is a whitish powder-like deposit which sometimes appears on concrete or clay products. The deposit is the residue of a soluble salt carried to the face of the product by moisture and left on the surface as a dry powder following evaporation of the moisture. The phenomenon was reported on as early as the 1870's. Efflorescence of itself in no way affects structural integrity. Where do the salts come from? The salts are found in either the native soil, the gravel base or in the sand, stone or cement used to manufacture the paving stones. How does it happen? These salts dissolve in either the ground water, rain water or water added to mix the concrete. The salt moves upward with the moisture to the drying surface by capillary action. In the basement walls, this capillary action has been measured to be as much as 600 mm. Because the sun evaporates the moisture at the surface, this capillary wicking action continues to draw moisture from below. The efflorescence continues until either the salt or moisture supply has been exhausted. How is it removed? Efflorescence will wash and wear off

**Manufacturer Warranty:****PAVER WARRANTY**

Contractor: \_\_\_\_\_

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

Date of First Delivery: \_\_\_\_\_

Owner: \_\_\_\_\_

Ackn # \_\_\_\_\_

Hanover Architectural Products ("HANOVER") hereby warrants to the Owner as set forth above, that If any pavers supplied by HANOVER should prove to be defective during a period of one years from the date of the first delivery thereof, the same will be replaced by HANOVER. For purposes of this warranty, "defects" or "defective" shall refer only to any paver, which as a result of freeze-thaw shows evidence of delamination, where such delamination renders the paver unsuitable for its intended use.

**Remedies:** In the event that within one years of the date of its delivery, any paver exhibit defects, HANOVER shall, at its own cost and expense, supply replacement paver(s). As stated herein, the terms "replaced" or "replacement" shall mean providing replacement paver(s), F.O.B. HANOVER only and shall not include any labor or installation in respect of such replacement. This replacement shall be the sole and exclusive remedy of Owner in the event of breach of this Warranty by HANOVER. Without limiting the generality of the foregoing, HANOVER shall have no liability for consequential, incidental, special or punitive damages such as, but not limited to, loss of profits or revenue, injury to person or property, loss of use or damage to associated material or equipment, or the cost of capital or substitute product which arises from or is claimed to arise from defects or defective conditions in the paver(s). In no event shall the total liability of all claims submitted hereunder ever exceed the total purchase price paid to HANOVER for the pavers. Pavers shall be delivered F.O.B. HANOVER's Plant. For purposes of determining the applicability of damage limitation, the cost to HANOVER of replacement shall be the cost actually incurred by it at the time HANOVER performs its obligation to replace.

THE ABOVE STATED WARRANTY IS THE EXCLUSIVE WARRANTY PROVIDED. HANOVER EXPRESSLY EXCLUDES AND DISCLAIMS ANY WARRANTY THAT THE PAVERS COVERED BY THIS WARRANTY ARE MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE, AND THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE PARTIES ACKNOWLEDGE THAT THE PAVERS SOLD HEREUNDER ARE NOT FOR PERSONAL, FAMILY OR HOUSEHOLD USE. Any description or illustration contained in HANOVER'S catalogues, price lists or any other advertising materials are intended merely to present a general description of goods and shall not be deemed to create and express warranty that the goods shall conform to the description or illustration and shall be merged into this document and do not constitute independent warranties.

**Exclusions:** This Warranty shall neither apply to nor provide any remedy for any damage, loss, defects, or defective conditions which result from structural movement, building design defects, acts of God, vandalism, acts of any person, firm or corporation other than HANOVER, failure of any component not manufactured by HANOVER, negligence of Owner, installer or any user, use of unapproved chemicals, failure to provide routine maintenance, or product misuse, including, but not limited to, abnormal use and maintenance or any failure to follow installation instructions and procedures provided by HANOVER. This Warranty is void if any salt or any product containing calcium chloride or sodium chloride is used. HANOVER cannot guarantee the color match of the replacement units.

(Page 1 of 2)

240 Bender Road, Hanover, Pennsylvania 17331 (717) 637-0500

REV.2/19/09

## B. Streetscape Elements : Planting

### Street Trees (Existing)



Existing Street Tree - London Planetree



Existing Street Tree - Linden



Existing Street Tree - Pear Tree



Existing Street Tree - Zelkova

## Street Trees (New)



New Street Tree - Kentucky Coffee Tree



New Street Tree - Zelkova



New Street Tree - Pagodatree



New Street Tree - Honeylocust

# Street Tree Table (continued)

|                                                                                      | Planting Date | Quantity | Tree Type                           | Tree size       | Property Address                               |
|--------------------------------------------------------------------------------------|---------------|----------|-------------------------------------|-----------------|------------------------------------------------|
| <b>Block 7 - Fulton Between Elm and Bond - South side of Street</b>                  |               |          |                                     |                 |                                                |
| Existing Tree                                                                        |               | 1        | Pear (Pyrus)                        |                 | 474 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 1        | Honeylocust (Gleditsia)             | 2.5-3.5 Caliper | 474 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 2        | Honeylocust (Gleditsia)             | 2.5-3.5 Caliper | 476 Fulton                                     |
| Existing Tree                                                                        |               | 1        | Zelkova (Zelkova)                   |                 | 490 Fulton                                     |
| Existing Tree                                                                        |               | 1        | Planetree (Platanus x acerifolia)   |                 | 474 Fulton (Façade Face to Elm)                |
| <b>Albee Square</b>                                                                  |               |          |                                     |                 |                                                |
| New Tree                                                                             | Spring 2011   | 8        | Coffee Tree, Kentucky (Gymnocladus) | 2.5-3.5 Caliper | 9 Dekalb Avenue                                |
| Existing Tree                                                                        |               | 1        | Planetree (Platanus x acerifolia)   |                 | 9 Dekalb Avenue                                |
| <b>Fleet Street</b>                                                                  |               |          |                                     |                 |                                                |
| New Tree                                                                             | Fall 2010     | 1        | Zelkova (Zelkova)                   | 2.5-3.5 Caliper | 9 Dekalb Avenue                                |
| Existing Tree                                                                        |               | 5        | Maple (Acer)                        |                 | 9 Dekalb Avenue                                |
| <b>Block 8 - Fulton Between Bond and Hanover - South side of Street</b>              |               |          |                                     |                 |                                                |
| New Tree                                                                             | Fall 2010     | 4        | Honeylocust (Gleditsia)             | 2.5-3.5 Caliper | 510 Fulton                                     |
| Existing Tree                                                                        |               | 2        | Zelkova (Zelkova)                   |                 | 512 Fulton                                     |
| Existing Tree                                                                        |               | 2        | Planetree (Platanus x acerifolia)   |                 | 512 Fulton (Façade Face to Hanover)            |
| <b>Block 9 - Fulton Between Hanover and Flatbush - South side of Street</b>          |               |          |                                     |                 |                                                |
| New Tree                                                                             | Fall 2010     | 1        | Coffee Tree, Kentucky (Gymnocladus) | 2.5-3.5 Caliper | 520 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 2        | Coffee Tree, Kentucky (Gymnocladus) | 2.5-3.5 Caliper | 522 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 1        | Coffee Tree, Kentucky (Gymnocladus) | 2.5-3.5 Caliper | 524 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 1        | Coffee Tree, Kentucky (Gymnocladus) | 2.5-3.5 Caliper | 538 Fulton                                     |
| <b>Block 10 - Fulton Between Bond and Flatbush - North side of Street</b>            |               |          |                                     |                 |                                                |
| New Tree                                                                             | Fall 2010     | 1        | Honeylocust (Gleditsia)             | 2.5-3.5 Caliper | 557 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 3        | Honeylocust (Gleditsia)             | 2.5-3.5 Caliper | 559 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 1        | Honeylocust (Gleditsia)             | 2.5-3.5 Caliper | 571 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 1        | Honeylocust (Gleditsia)             | 2.5-3.5 Caliper | 573 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 1        | Coffee Tree, Kentucky (Gymnocladus) | 2.5-3.5 Caliper | 581 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 1        | Coffee Tree, Kentucky (Gymnocladus) | 2.5-3.5 Caliper | 583 Fulton                                     |
| New Tree                                                                             | Fall 2010     | 1        | Coffee Tree, Kentucky (Gymnocladus) | 2.5-3.5 Caliper | 585A Fulton                                    |
| New Tree                                                                             | Fall 2010     | 1        | Coffee Tree, Kentucky (Gymnocladus) | 2.5-3.5 Caliper | 585 Fulton                                     |
| <b>Block 11 - Dekalb Between Bond and Flatbush - North and South sides of Street</b> |               |          |                                     |                 |                                                |
| New Tree                                                                             | Fall 2010     | 4        | Pagodatree (Styphnolobium)          | 2.5-3.5 Caliper | 9 Dekalb Avenue                                |
| Existing Tree                                                                        |               | 3        | Planetree (Platanus x acerifolia)   |                 | 33 Dekalb Avenue (Junior's)                    |
| New Tree                                                                             | Fall 2010     | 1        | Pagodatree (Styphnolobium)          | 2.5-3.5 Caliper | Dekalb Side of 547 Fulton (Tony's Pizza)       |
| New Tree                                                                             | Fall 2010     | 1        | Pagodatree (Styphnolobium)          | 2.5-3.5 Caliper | Dekalb Side of 551 Fulton (Readers & Advisors) |
| New Tree                                                                             | Fall 2010     | 2        | Pagodatree (Styphnolobium)          | 2.5-3.5 Caliper | Dekalb Side of 555 Fulton (Universal)          |
| New Tree                                                                             | Fall 2010     | 2        | Pagodatree (Styphnolobium)          | 2.5-3.5 Caliper | Dekalb Side of 559 Fulton (Rite Aid)           |
| Existing Tree                                                                        |               | 1        | Planetree (Platanus x acerifolia)   |                 | 20 Dekalb Avenue                               |

Landscape Architect and Engineer every two weeks from the date of tree transplant through the end of the growing season as defined above.

## **Recommended Maintenance Beyond Contractor Maintenance Period & Warranty:**

Source: *International Society of Arboriculture*,  
[www.treesaregood.org](http://www.treesaregood.org)

Tree care standards are being developed by American National Standards Institute (ANSI), the primary US organization fostering the development of technology standards. ANSI is working along with representatives of the nursery, landscape, and tree care industries, as well as university researchers.

The standards currently available:

ANSI A300 Part 1:--Tree, Shrub, and Other Woody Plant Maintenance--Standard Practices (Pruning)

ANSI A300 Part 2:--Tree, Shrub, and Other Woody Plant Maintenance--Standard Practices (Fertilization)

ANSI A300 Part 3:--Tree, Shrub, and Other Woody Plant Maintenance--Standard Practices (Support Systems: Cabling, Bracing, and Guying)

ANSI A300 Part 4:--Tree, Shrub, and Other Woody Plant Maintenance--Standard Practices (Lightning Protection)

They provide a uniform vocabulary for tree care, clarify the job to be done, protecting both parties. Using them will promote good arboricultural practices. Tree care terms and techniques are defined carefully, and their appropriate use is explained.

These standards should be used in all relevant tree care contracts. Anyone contracting for tree service, whether for private, corporate, institutional, or public trees, should add the following sentence to any agreement: "Work to be done in compliance with the A300 Tree Care Standards"

Anyone supplying tree service should write the bid using the standard terms in a standard manner (such as "cleaning" or "salt index"). Also, tree care professionals should follow the standards to demonstrate that they follow a specific and carefully considered program of tree management that is considered the norm for the industry.

### **Tree Inspection**

Trees should be inspected monthly during the growing season by a Certified Arborist. Any abnormalities found during these inspections, including insect activity and spotted, deformed, discolored, or dead leaves and twigs, should be noted and watched closely with appropriate actions taken in coordination with NYC DPR.

### **Watering**

Trees should be watered through the growing season with at least 40 gallons of water per tree every two weeks. The growing season is defined as the time after the ultimate spring thaw (May 15) and subsequent to the first hard frost (December 1). Following periods of excessive precipitation or drought the Borough Forester may require exceptions to this regime, either reducing or increasing the frequency.

### **Mulching**

Keep the tree pit area / planting area covered with 2 inches to 3 inches of bark mulch to retain moisture and reduce weeds. When placing mulch, keep back 4 inches away from tree trunk and collar to avoid moist bark conditions and prevent trunk decay. Do not apply mulch thicker than 3 inches as it may inhibit gas exchange.

### **Pruning**

All pruning shall be performed under NYC DPR requirements, permits and City codes. Pruning should be performed by a Certified Arborist, under direction of NYC DPR. NYC DPR will partner with the arborist to identify pruning necessary for improving health, appearance and safety. Dead, split and broken branches should be addressed immediately. Call an arborist as soon as possible to inspect.

### **Fertilization**

Test soil at a soil testing laboratory. A Certified Arborist can review to determine if fertilization is needed, application rate, timing and best blend of fertilizer in coordination with NYC DPR.

### **Insects and Pests:**

Trees should be inspected monthly during the growing season for insects and pests. The treatment method used for a particular insect or disease problem will depend on the species involved, the extent of the problem, and a variety of other factors specific to the situation and local regulations. Always consult a professional if you have any doubt about the nature of the problem or proper treatment.

### **Winter Snow Melt on Adjacent Sidewalks:**

Use magnesium chloride for snow and ice melting on sidewalks to protect the health of trees and planting. Do not use sodium chloride as it will adversely impact tree, plant and soil health.

Refer to [www.nycgovparks.org](http://www.nycgovparks.org) for the latest NYC DPR Forestry requirements for street trees. The Forestry Permit provided on the following 4 pages is for reference only. Any future work should be documented on a Forestry Permit downloaded at the time of permit application from [www.nycgovpark.org](http://www.nycgovpark.org).



## City of New York Parks & Recreation

*For a Permit to plant or perform work on or near all street or park trees and for Plan Review prior to construction*

For all activities EXCEPT tree planting permits, completed applications and required documents should be faxed, e-mailed or sent to the appropriate borough forestry office:

**THE BRONX**  
NYC Parks & Recreation  
Attn: FORESTRY  
1 Bronx River Parkway  
Bronx, NY 10462  
[Bronx.Forestry@parks.nyc.gov](mailto:Bronx.Forestry@parks.nyc.gov)  
Fx: (718) 430-4663  
Ph: (718) 430-1877

**BROOKLYN**  
NYC Parks & Recreation  
Attn: FORESTRY  
95 Prospect Park West  
Brooklyn, NY 11215  
[Brooklyn.Forestry@parks.nyc.gov](mailto:Brooklyn.Forestry@parks.nyc.gov)  
Fx: (718) 965-7753  
Ph: (718) 965-7750

**MANHATTAN**  
NYC Parks & Recreation  
Attn: FORESTRY  
24 West 61<sup>st</sup> St., 5<sup>th</sup> Flr  
New York, NY 10023  
[Manhattan.Forestry@parks.nyc.gov](mailto:Manhattan.Forestry@parks.nyc.gov)  
Fx: (212) 860-1359  
Ph: (212) 860-1845

**QUEENS**  
NYC Parks & Recreation  
Attn: FORESTRY  
80-30 Park Lane  
Kew Gardens, NY 11415  
[Queens.Forestry@parks.nyc.gov](mailto:Queens.Forestry@parks.nyc.gov)  
Fx: (718) 699-7491  
Ph: (718) 393-7373

**STATEN ISLAND**  
NYC Parks & Recreation  
Attn: FORESTRY  
1150 Clove Rd  
Staten Is., NY 10301  
[StatenIsland.Forestry@parks.nyc.gov](mailto:StatenIsland.Forestry@parks.nyc.gov)  
Fx: (718) 816-9194  
Ph: (718) 390-2080

For TREE PLANTING permit applications all required documents should be faxed, e-mailed or mailed to:

NYC Parks & Recreation, Attn: PERMITS, Central Forestry & Horticulture,  
Olmsted Center, Flushing Meadows Corona Park, Flushing, NY, 11368  
[Treeplanting.Permits@parks.nyc.gov](mailto:Treeplanting.Permits@parks.nyc.gov)

Fx: (718) 760-6640  
Ph: (718) 760-6794

### Section 4- A PERMIT IS REQUIRED FOR THE FOLLOWING ACTIVITIES WITHIN THE PUBLIC RIGHT OF WAY

- A. **Removing trees.** Parks removes all dead street trees within thirty (30) days of notification to 311. No trees within the City's mapped right-of-way or in a park can be removed without the written permission of Parks. Plan approvals from other City agencies do not constitute the required permission from Parks for tree removal or tree work of any kind. Please note that some front yard trees are still within the right-of-way. See Section 6.
- B. **Excavation.** All work done within 50 feet of a city tree must have a Parks permit to avoid unsafe and hazardous conditions. No cutting of roots is permitted. Unpermitted work can lead to serious tree damage. Violations are misdemeanors punishable by a fine not to exceed \$15,000 and/or imprisonment for up to one year. Any applications related to construction activities must be accompanied by the appropriate documentation listed in Section 6 below. Work conducted within two intact curb lines is exempt from this requirement. Tree roots are rarely found in the road bed.
- C. **Pruning.** Parks prunes curbside trees in order to maintain public safety, address immediate conflicts with city infrastructure, and enhance tree health and longevity. Parks also prunes tree limbs that have been damaged or broken in storms. Routine pruning of all but the youngest trees occurs on a block-by-block basis in a portion of each community each year. The maintenance cycle is based on available funding. Should you wish to have the tree pruned at your own expense by a licensed arborist, we will consider your request for a no-fee pruning permit. In this case, you may file a P-A Forestry Application. No work may be performed on or within 50 feet of a street tree without a Permit from Parks. Construction work can lead to serious tree damage unless preformed appropriately. Violations for tree damage are misdemeanors punishable by a fine not to exceed \$15,000 and/or imprisonment for up to one year. See Section 6.
- D. **Managing Pests.** Pest Management on city trees must be permitted. Spraying for the control of insects and disease must be completed by a licensed professional. Any applications related to construction activities must be accompanied by the appropriate documentation listed in Section 6 below.
- E. **Relocating/Repairing Utilities.** Utilities include but are not limited to: plumbing, gas, electric, water, sewage, cable, phone and internet lines. Most utility connections can be installed or replaced without cutting any roots by tunneling under the tree. Cutting roots by trenching is dangerous and illegal. A Certified Arborist must be onsite during all utility work. Parks has a Utility Protocol for work done around trees that is available upon request. Any applications related to construction activities must be accompanied by the appropriate documentation listed in Section 6 below. Work conducted within two intact curb lines is exempt from this requirement. Tree roots are rarely found in the road bed.
- F. **Removing Stumps.** All tree stumps that remain from tree removals conducted by Parks are recorded and registered. Stump removals by Parks are dependent on the availability of funding. If you would like to hire someone to remove a stump you must apply for a permit. Any applications related to construction activities must be accompanied by the appropriate documentation listed in Section 6 below.
- G. **Installing Tree Guards.** Any tree guard installed around a city tree must have a permit. Approved tree guards should be approximately 18" tall, with no sharp points. Solid walls are not permissible. Water must be able to flow into the tree bed. Consult our full specifications available online. Any applications related to construction activities must be accompanied by the appropriate documentation listed in Section 6 below.
- H. **Installing Decorations.** Any decorations, including lighting, installed on a tree must have a permit. Lights will be permitted in the winter, but must be removed before the end of February. Any lights found on trees between February and October may result in a fine to the business/homeowner where the tree is located.
- I. **Constructing new or altering existing buildings.** Construction activities around and adjacent to existing trees require a permit from Parks. This includes activities such as excavation, grade changes, equipment / vehicle storage, and any other work performed within 50 feet of City trees. Other work includes but is not limited to any work done within the drip line of a tree above or below ground and any work done over a tree. See Section 6. This work includes, but is not limited to:
  1. **Installing utilities.** Utilities include but are not limited to: plumbing, gas, electric, water, sewage, cable, phone and internet lines. Most utility connections can be installed or replaced without cutting any roots by tunneling under the tree. Cutting roots by trenching is dangerous and illegal. A Certified Arborist must be onsite during all utility work. Please refer to our Utilities Protocols. Work conducted within two intact curb lines is exempt from this requirement. Tree roots are rarely found in the road bed. See Section 6.
  2. **Repairing or Installing sidewalks.** Parks repairs sidewalks damaged by tree roots if a property owner requests it through 311. If you have a sidewalk / root conflict and would like to repair the sidewalk yourself, you must apply for a permit from Parks. Sidewalks fall under the jurisdiction of the Department of Transportation (DOT), but if you are repairing a sidewalk around a tree you must also get a permit from Parks. The removal or cutting of tree roots is strictly forbidden, as this activity not only impacts tree health but also compromises its structural stability. No work may be performed on or within 50 feet of a street tree without a Forestry Permit from Parks. Construction work can lead to serious tree damage unless preformed appropriately. Violations for tree damage are misdemeanors punishable by a fine not to exceed \$15,000 and/or imprisonment for up to one year. See Section 6.

Refer to [www.nycgovparks.org](http://www.nycgovparks.org) for the latest NYC DPR Forestry requirements for street trees. The Forestry Permit provided on the following 4 pages is for reference only. Any future work should be documented on a Forestry Permit downloaded at the time of permit application from [www.nycgovpark.org](http://www.nycgovpark.org).



City of New York  
Parks & Recreation

## P-A Supplemental Information

*For a Permit to plant or perform work on or near all street or park trees and for Plan Review prior to construction*

- **Documentation.** If a Permit is granted, the original copy of the Tree Permit Work Order and Permit must be present at the worksite at all times. Photocopies or fax copies are not acceptable. Parks & Recreation will release a Permit only to a representative of the Tree Work Entity named on the Permit.
- **Planting Guarantee.** Applicants for tree planting permits are responsible for the trees for a 2 year guarantee period if no tree work entity information is given. Parks inspects after 2 years and all trees must be in excellent condition at this time. If trees are not in excellent condition you will be required to complete a punch list.
- **Multiple activities.** If further work is required on or adjacent to City trees during the course of the project, a new work order must be requested from Parks. If the company conducting tree work changes, a new permit must be requested from Parks.
- **Certified Arborist report.** This is required for all utility work. If you wish to expedite other permit applications you may submit a Certified Arborist Report. The report format can be found on our website in the permits section.
- **Plan Review.** The preferred method of submittal is via e-mail. If submitting by mail plans can be no larger than 11x17 and must be architectural drawings.

### SECTION 6 – GENERAL DOCUMENTATION

These items may not be needed if you have already had your plans approved by parks through the Plan Review Process.

- |                                                                                                                      |                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Letter stating the intent of the project, why tree work needs to be completed               | <input type="checkbox"/> Site Photos.                                                                   |
| <input type="checkbox"/> The project's Department of Buildings Job number (if applicable).                           | <input type="checkbox"/> Utility drawings or vault installation drawings, if applicable.                |
| <input type="checkbox"/> Pre Construction survey and / or layout of existing conditions illustrating tree locations. | <input type="checkbox"/> MTA subway road maps, if determined necessary by Parks.                        |
| <input type="checkbox"/> Project design plan.                                                                        | <input type="checkbox"/> Any other plans that demonstrate conflicts between city trees and the project. |
| <input type="checkbox"/> Builders Pavement Plan.                                                                     | <input type="checkbox"/> Tree guard design.                                                             |

# C. Albee Square Elements: Furniture

## Precast Concrete Benches

### **Manufacturer:**

Concreteworks East  
349 Dunhams Corner Road  
East Brunswick, NJ 08816  
T: 732.390.9944  
F: 732.390.4343  
[www.concreteworkseast.com](http://www.concreteworkseast.com)  
[Info@concreteworkseast.com](mailto:Info@concreteworkseast.com)

### **Care and Maintenance:**

Source: [www.concreteworkseast.com](http://www.concreteworkseast.com)

#### Natural Concrete

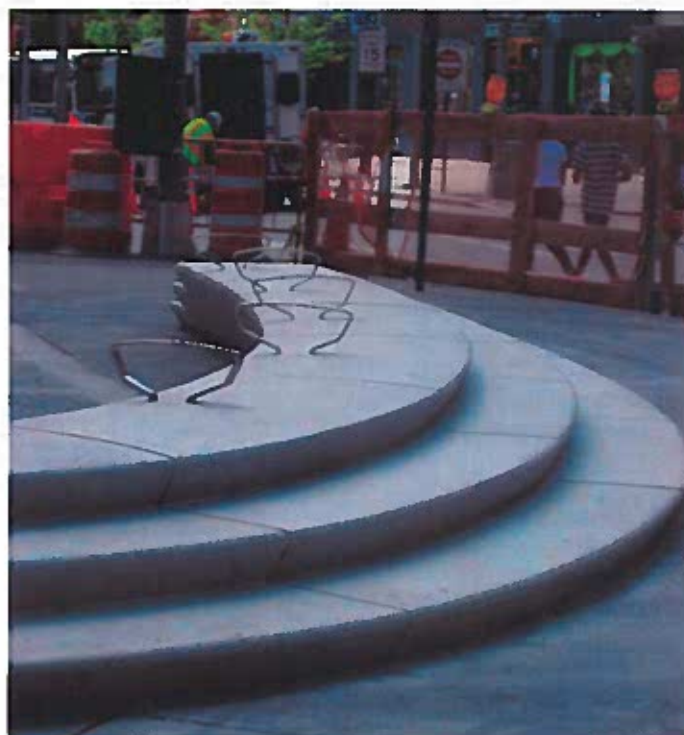
Concrete is a natural material comprised of sand, stone, cement, and water. Much like any natural material such as wood or stone, concrete is a porous material. We have sealed your concrete with a two-part penetrating sealer that will provide active protection against staining. To ensure the lasting beauty of your concrete surfaces we recommend reviewing and practicing the following care and maintenance instructions.

#### After Installation

Your CWE product has been sealed for protection against moisture and staining. Once the pieces have been installed we recommend allowing them to remain free of objects on the surface for at least 36 to 48 hours. This enables the full curing process to reach completion before the beginning of regular use. The sealer is a two-part sealing process that hardens the material and protects the surface from staining. You may notice that some moisture from water may soak into the surface of the concrete and darken slightly during the first couple weeks. This is completely normal and is part of the extended curing process.

#### Cleaning Your Concreteworks East Product

Clean your CWE product using mild soap (such as dish soap) and water. Do not use heavy abrasive, bleach-based, or ammoniated cleansers. Use of such cleansers will wear down the sealer and result in less stain resistance. We do not recommend use of most natural cleansers (which are often citrus based), as the cleaning agent is typically highly acidic and can damage natural materials.



#### Regular Maintenance

Re-wax periodically. Waxing your product regularly is a quick and easy process that will provide additional protection against staining. Wax once within 2 months of installation of your product and every 2 to 5 months thereafter, depending on use. Recommended wax is Trewax brand, a clear paste wax that can be purchased online and at most hardware stores including Ace Hardware.

Although not considered a defect, non-structural hairline cracks are possible and may result from shrinkage and the natural curing process. If hairline cracks do appear, immediately apply a thick coat of wax and rub in well to prevent moisture from seeping into the cracks and causing discoloration. Re-wax the area and surrounding surfaces periodically as detailed above.

#### Refinishing

CWE provides refinishing services for its customers. Your CWE product should provide you with years of enjoyment under normal use. If after several years of wear you wish to have your product refinished, please contact our office to make arrangements. We recommend refinishing every 2 to 5 years depending on use. Pricing is based on size and location of project.

#### Avoiding Solvents

Solvents can damage and abrade Concreteworks surfaces if allowed to remain on the material for any period of time. Be sure to wipe up solvents immediately and follow with a damp towel. Do not attempt to scrub solvent

## Stainless Steel Bench Arm Rest

### **Manufacturer:**

Conceptual Site Furnishings  
900-B 47th St. S.W  
Wyoming, MI 49509  
T. 616.940.9830  
F. 616.940.9438  
[www.conceptualsite.com](http://www.conceptualsite.com)

### **Specifications:**

Source: Memo to Trocom Construction Corp. from  
EDAW | AECOM dated October 1, 2009

- Armrest - 316 Stainless Steel
- Finish is to be "DA Finish"
- Armrest provided by Conceptual Site Furnishings, Installation by ConcreteWorks East
- Grout for arm rest installation is to match precast bench color and finish

### **Care and Maintenance:**

Source: Conceptual Site Furnishings Care and Maintenance

Surface contamination and the formation of deposits are critical factors which may lead to drastically reduced life. These contaminants may be particles of iron or rust from other non-stainless steels used in nearby construction and not subsequently removed. Industrial, commercial and even domestic and naturally occurring atmospheric conditions can result in deposits which can be quite corrosive. An example is salt deposits from marine conditions.

Working environments can also create more aggressive conditions, such as the warm, high humidity atmosphere above indoor swimming pools. These environments can increase the speed of corrosion and therefore require more frequent maintenance. Modern processes use many cleaners, sterilizers and bleaches for hygienic purposes. All these proprietary solutions, when used in accordance with their makers' instructions are safe, but if used incorrectly (e.g. warm or concentrated) can cause discoloration and corrosion on the surface of stainless steels. Strong acid solutions (e.g. hydrochloric acid or "spirits of salts") are sometimes used to clean masonry and tiling of buildings but they should never be permitted to come into contact with metals, including stainless steel. If this should happen the acid solution must be removed immediately by rinsing with water.



Advice is often sought concerning the frequency of cleaning of products made of stainless steel, and the answer is quite simply "clean the metal when it is dirty in order to restore its original appearance". This may vary from once to four times a year for external applications or it may be once a day for an item in hygienic or aggressive situations. In many applications the cleaning frequency is after each use.

#### **Cleaning Methods**

Stainless steel is easy to clean. Washing with soap or a mild detergent and warm water followed by a clean water rinse is usually quite adequate for domestic and architectural equipment. An enhanced appearance will be achieved if the cleaned surface is finally wiped dry. Specific methods of cleaning are as in Table 1.

#### **Precautions: Acids and Solvents**

Acids should only be handled using gloves and safety glasses. Care must be taken that acids are not spilt over adjacent areas. All residues must be flushed to a treated waste stream. Always dilute by adding acid to water, not water to acid. Use acid-resistant containers, such as glass or plastics. If no dulling of the surface can be tolerated a trial treatment should be carried out; especially for pickling operations. All treatments must be followed by thorough rinsing.

Solvents should not be used in confined spaces. Smoking must be avoided when using solvents.



## C. Albee Square Elements: Lighting

### Pedestrian Lighting Canto G Type F2 & F2A by Hess America

#### **Manufacturer:**

Hess America  
PO Box 28  
Gaffney, SC 29342  
T: 864.487.3535  
F: 864.487.3175  
[www.hessamerica.com](http://www.hessamerica.com)

#### **Specifications:**

##### **Canto G Type F2 - Single Pole**

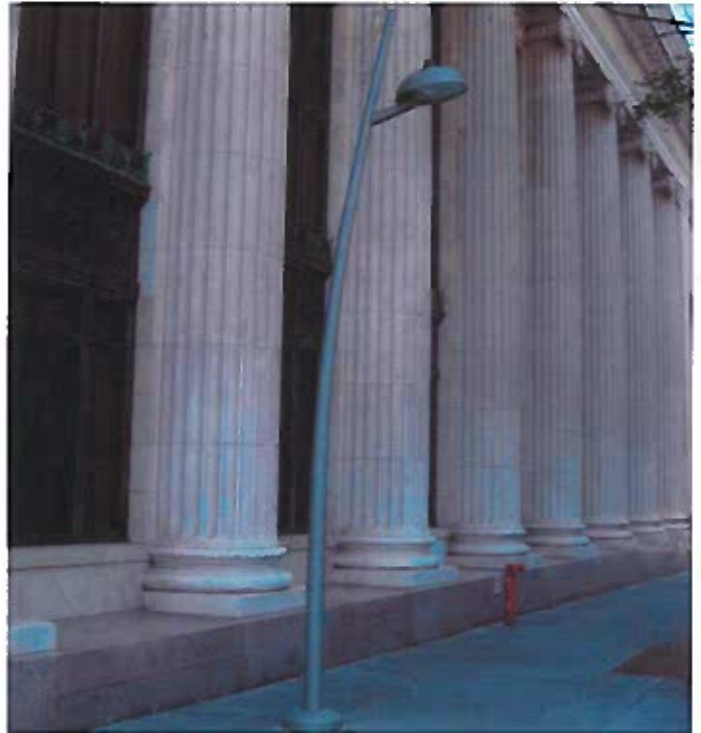
##### **Canto G Type F2A - Double Pole**

|                      |                                                             |
|----------------------|-------------------------------------------------------------|
| Housing:             | Cast Aluminum                                               |
| Mounting Arm:        | Formed Steel Galvanized                                     |
| Photocell:           | DTL DP-1704                                                 |
| Lens:                | Tempered glass                                              |
| Lamp:                | 100 Watts ED 17, pulse start metal halide                   |
|                      | All color temperature shall be 4000K. Lamps shall be clear. |
|                      | CMH Medium & Mogul Base                                     |
| Ballast:             | C&C Multi-Tap Advance                                       |
| Curved Tapered Pole: | Hot Dipped Galvanized Steel                                 |
| Color:               | Standard Finely Textured Matte Silver Gray Metallic         |

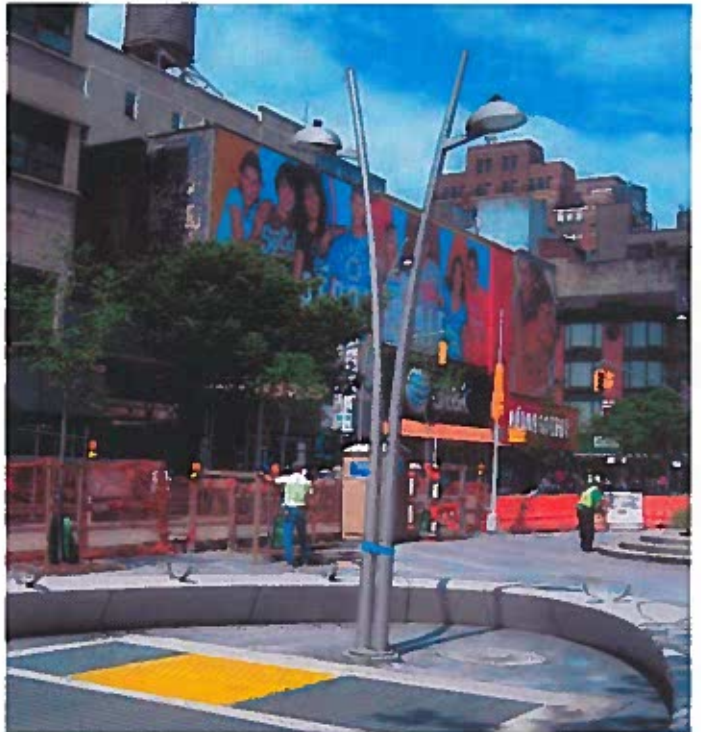
#### **Care & Maintenance:**

All workmanship must be in accordance with and meet the standards and regulations of the following:

- Underwriters Laboratories
- National Electric Code
- Local Building and Life Safety Code Agencies

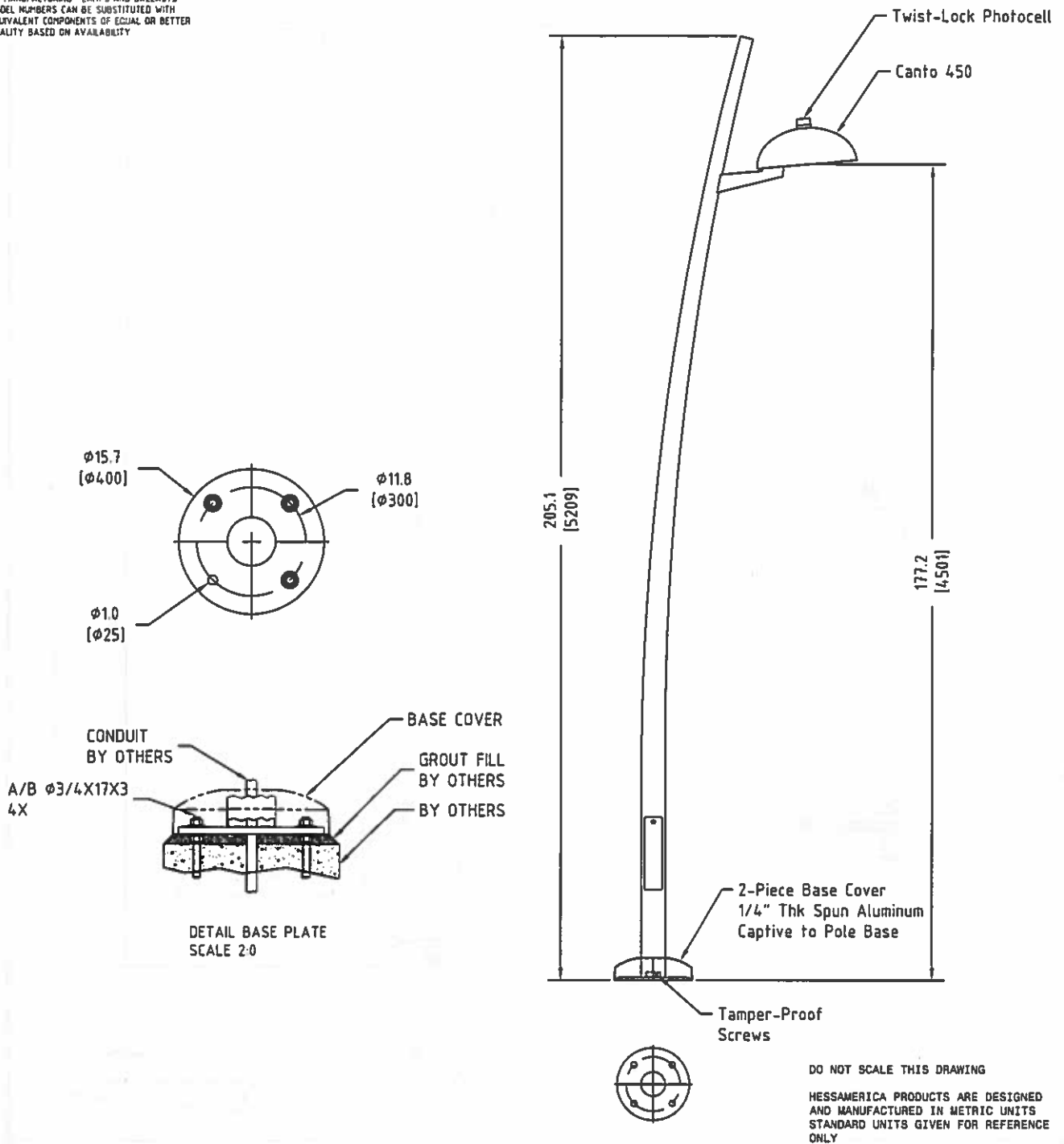


Canto G Type F2



Canto G Type F2A

HESSAMERICA RESERVES THE RIGHT TO MODIFY THIS DESIGN FOR IMPROVEMENTS IN PERFORMANCE OR MANUFACTURING LAMPS AND BALLASTS. MODEL NUMBERS CAN BE SUBSTITUTED WITH EQUIVALENT COMPONENTS OF EQUAL OR BETTER QUALITY BASED ON AVAILABILITY.



## NOTES:

1. HOUSING: CAST ALUMINUM
2. MOUNTING ARM: FORMED STEEL GALVANIZED
3. PHOTOCELL: DTL DP-1704
4. LENS: TEMPERED GLASS
5. LAMP: ED17, 100W CMH  
MEDIUM & MOGUL BASE
6. BALLAST: C&C MULTI-TAP ADVANCE
7. CURVED TAPERED POLE: HOT DIPPED  
GALVANIZED STEEL
8. COLOR: STANDARD MATTE SILVER GRAY

## TOLERANCES (UNLESS OTHERWISE SHOWN)

FRACTIONS:  $\pm \frac{1}{16}$   
 2 PLACE DECIMAL:  $\pm .02$   
 3 PLACE DECIMAL:  $\pm .005$   
 ANGULAR:  $\pm \frac{1}{2}$  DEG

TOLERANCES ARE NOT ACCUMULATIVE

DRAWING TITLE  
**CANTO G TYPE F2**  
 FULTON STREET MALL

DRAWN BY

cr3

DATE

10.30.2009

APPROVED

SCALE

1:1

**HessAmerica**

PO BOX 28  
 GAFFNEY, SC 29342  
 864.487-3535

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SHEET 1 of 1

DRAWING NUMBER

- .01.90218

REV

-

HessAmerica Specsheet

**SUBMITTAL NO**

TYPE F2 - F2A

ITEM NO **SL-21.F2**  
**SL-21.F2A****Specifications**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                              |                                            |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------|
| <b>DESCRIPTION</b>   | Pole mounted luminaire for outdoor applications where contemporary styling is desired.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                              |                                            |
| <b>HOUSING</b>       | One-piece domed housing is heavy cast aluminum. Hinged frameless tempered glass lens opens with single quarter-turn fastener for easy relamping. Lens is sealed to the housing with one-piece closed cell silicone gasketing. Hinged reflector plate, painted with high reflectance white paint, swings down allowing access to ballast components. Housing is fitted with stainless steel weather-tight strain relief bushing for the power cable exiting the rear of the housing. Luminaire installs onto bracket mounting plate with four socket head cap screws. All hardware is stainless steel.                                                                                                                                                                                                                                                                                                                           |                                                              |                                            |
| <b>OPTICS</b>        | Horizontal lamp is positioned within the formed aluminum reflector consisting of semi-specular and hammerstone anodized aluminum sheet, laser cut for precise reproduction. Flat tempered glass lens is screen-printed with border around reflector opening.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                              |                                            |
| <b>ELECTRICAL</b>    | <p>Metal halide core and coil ballast with class "H" (180°C) insulation system shall have a minimum high power factor rating of 90% and nominal ballast factor of 1.0. Ballast shall be capable of reliable starting to -20°F (-30°C) at nominal line voltage of ±10%. Ballast, capacitor, and starter (where applicable) are UL and CSA recognized. Medium base porcelain socket is 660w-800v, 4kV pulse rated.</p> <p>High pressure sodium core and coil ballast with class "H" (180°C) insulation system shall have a minimum high power factor rating of 90% and nominal ballast factor of 1.0. Ballast and starter combination shall be capable of reliable starting to -40°F (-40°C) at nominal line voltage of ±10%. Ballast, capacitor, and starter are UL and CSA recognized. Mogul base porcelain socket is 1500w-600v, 4kV pulse rated. Medium base porcelain socket is 660w-600v, 4kV pulse rated.</p>              |                                                              |                                            |
| <b>LAMPING</b>       | Wattage<br>Source<br>Lamp<br>Bulb<br>Base                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 150<br>Ceramic Metal Halide<br>MHC150/U/M<br>ED-17<br>Medium | 150<br>HPS<br>C150S55/M<br>ED-17<br>Medium |
|                      | Lamp is included.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                              |                                            |
| <b>POLE</b>          | Fabricated steel bracket arm is constructed from single formed steel plate and welded to the pole 2.5' from the top. Square tubing welded to the underside of the bracket arm acts as a wire way for the luminaire power cable. Round and curved steel pole is manufactured from cold drawn over mandrel, electric-weld, mechanical round steel tubing with nominal wall thickness of 0.157". Pole curvature projects centerline of pole top 1.7' from the base. Flush mounted handhole cover is plasma cut with kerf not to exceed 1/8" and includes triangular tamper-resistant locking device. Pole and luminaire mounting bracket are hot-dip galvanized with coating inside and out, then lightly sanded prior to painting. Two-piece base cover with tamper-proof fasteners is fabricated from 0.080" spun aluminum and finished to match the pole. Nominal pole height is 17'. See pole data sheet for mounting details. |                                                              |                                            |
| <b>FINISH</b>        | Housing is ultrasonically cleaned prior to painting. Standard finish is finely textured matte silver grey metallic or graphite grey. Special colors available on request.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                              |                                            |
| <b>WARRANTY</b>      | Limited product warranty period is three years. Lamp and ballast shall carry the respective manufacturer's limited warranty.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                              |                                            |
| <b>CERTIFICATION</b> | ☑ Listed for Wet Locations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                              |                                            |

Specifications are subject to change without notification

HessAmerica P.O. Box 28, Gaffney, SC 29342 Phone: 864-487-3535 Fax: 864-487-3175 www.hessamerica.com

.hess

Welsbach Electric Corp.  
Contract #21400003 Fulton Mall  
Item SL-21.F2  
F2 Light Fixture

Welsbach Electric Corp.  
Contract #21400003 Fulton Mall  
Item SL-21.F2A  
F2A Twin Light Fixture

<http://www.hessamerica-specsheets.com/luminaire/canto450g.html>

5/5/2009

## C. Albee Square Elements: Lighting

### Up Lighting at Dime Savings Bank

#### **Manufacturer:**

Lumascape USA Inc  
1300 Industrial Rd. Unit #19  
San Carlos, CA 94070  
T: 866.695.5862  
F: 650.595.5820  
[www.lumascape.com](http://www.lumascape.com)

#### **Specifications and Details:**

Lumascape Model LS343 with Electronic Control Gear  
Lamp: 70W MH / HIT TG6 with Narrow Distribution Optics  
Lens: GripGlass - opticlear with slip reduction glazing process  
Cover: Round flush cover, stainless steel, brushed finish  
Control Gear: Integral  
Voltage: 120 V

#### **Care & Maintenance:**

All workmanship must be in accordance with and meet the standards and regulations of the following:

- a. Underwriters Laboratories
- b. National Electric Code
- c. Local Building and Life Safety Code Agencies



## IMPORTANT INSTRUCTIONS

## LS343 STAINLESS STEEL

**B**

### For opening & re-sealing fixture with pre-install kit

8. Wipe seal clean, if necessary disassemble the seal and wash in clean water then dry thoroughly



9. Ensure glass bevel faces top of lid so that the glass and trim are flush



10. Ensure socket head screws are free of dirt and debris and are in good condition



11. Insert 5 screws all the way into cover, leaving one hole without screw



12. Place allen-key in 6th cover hole



13. Place cover on fixture lining up allen-key with any hole



14. Push lid down evenly ensuring allen-key remains vertical (at 90degrees to the cover)

15. Progressively tighten, no torque pattern is required, just keep going around until all screws are tight and the glass, trim and edge of fixture are flush.



Do not attempt to tighten any one screw fully. This will take longer and will not seat the seal properly.



**LUMASCAPE**

USA

**LUMASCAPE USA INC.**

US Head Office  
1300 Industrial Rd., Unit #19  
San Carlos, CA 94070  
USA

Telephone  
1-(855)-585-LUMA(5862)

Fax  
1-(855)-585-5820

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

**Free Call**  
**1-866-695-LUMA(5862)**  
(US & Canada)

C1182US - 2006\_07\_REV001

## **Manufacturer Warranty:**

### **PRODUCT WARRANTY**

[www.lumascape.com/html/Warranty.htm](http://www.lumascape.com/html/Warranty.htm)

#### **Summary of Warranty by Product Category**

Lumascape will guarantee the following product groups from the date of purchase against faulty workmanship or materials as stated below and subject to the Terms and Conditions following:

| Architectural Lighting Product Group | Structural Warranty | Electrical Warranty |
|--------------------------------------|---------------------|---------------------|
| In Ground - Stainless Steel Fixtures | 10 years            | 12 months           |

| Transformers            | Structural Warranty | Electrical Warranty |
|-------------------------|---------------------|---------------------|
| Electronic Transformers | 12 months           | 12 months           |

#### **Lumascape Product Warranty Terms and Conditions**

1. All warranty claims are subject to manufacturer's review and acceptance.
2. Lumascape warrants that it uses reasonable care and skill to ensure that its lighting products are of reasonable quality. Lumascape will at its cost and in its sole discretion:
  - (i) remedy any defect or fault in any product purchased; or
  - (ii) replace any product in respect of which there is a defect or fault, during the warranty period, provided that written notice is given by the Purchaser to Lumascape of any such defect or fault in the product as soon as the Purchaser becomes aware of that fault or defect. All warranty claims must be returned to Lumascape for assessment with a receipt or other proof of payment. No warranty is given in respect of any glass contained in any product.
3. Lumascape has no liability to remedy any defect in a product or replace a product where the defect or fault is caused or contributed to by
  - (i) the failure of the Purchaser to install the product according to specific installation instructions either supplied within each product box or carton or available on the Lumascape website or through the wholesaler or Lumascape's representative; or
  - (ii) use of the product in a manner or for a purpose for which it was not designed.
4. All site application or installation must reflect these procedures otherwise the product warranty will be considered void or will not take effect.
5. Except as provided for in this warranty, and to the extent allowed by law, Lumascape's liability in respect of the product under the law of any State or Territory is excluded. Where liability may be limited but not excluded by any applicable State or Territory law, liability is limited to the full extent possible under that law.
6. This Clause 5 will only apply in Australia to the extent to which the provisions of the Commonwealth Trade Practices Act 1974 (the "Act") apply to contracts entered into by Lumascape for the provision of goods and services. In all other countries the local equivalent Trade Practices legislation shall apply and Lumascape exercises all of its rights to limit its liability to the full extent allowed.

# C. Albee Square Elements: Planting Areas

## Granite Curbs

### Supplier:

Architectural Craft Stone Inc.  
150-28 Union Turnpike, Suite 105  
Flushing, NY 11367  
T: 718.820.8885  
F: 718.820.8887  
[www.acs-us.net](http://www.acs-us.net)

### Color & Finish:

Street Curbs: Seaweed  
Finish: Thermal

### Care & Maintenance:

Source: *Marble Institute of America Design Manual, Chapter 20: Cleaning and Maintenance, Sept. 2007.*

#### **Normal Maintenance:**

Normal maintenance involves periodic washing with clean, potable water and neutral (pH 7) cleaners. Soapless cleaner are preferred because they minimize streaks and film. Mild, phosphate-free, biodegradable liquid dishwashing soaps or powders or stone soaps are acceptable if rinsing is thorough.

Wet the stone surfaces with clean water. Using the cleaner solution (following manufacturer's directions), wash in small, overlapping sweeps. Work from the bottom up if it is a vertical surface. Rinse thoroughly with clean, potable water to remove all traces of soap or cleaner solution. Change the water in the rinse pail frequently. Dry with soft cloth and allow to thoroughly air dry.

The large expanses of stone generally found on exterior applications may make it impractical to perform normal maintenance on a frequent basis. Large installations, however, should be given periodic overall cleaning as necessary to remove accumulated pollutants. Easily accessible stone surfaces such as steps, walkways, fountains, etc, should be kept free of debris and soiling by periodically sweeping and washing with water. Normal maintenance should include periodic inspection



of stone surfaces for structural defects, movement, deterioration or staining.

#### **Safety Precautions:**

Any flooring surface, regardless of how it is finished, can be slippery when wet. Promptly remove liquids or foreign materials that might result in safety hazards before permitting pedestrian traffic.

#### **Stain Removal:**

Surface stains can often be removed by cleaning with an appropriate commercial cleaning product or household chemical. Identifying the type of stain is the key to removing it. Look for color, shape, and environmental factors that could be causing staining.

#### **Type of Stains and Removal Procedures:**

**Oil-Based Stains:** (grease, tar, cooking oil, cosmetics) An oil-based stain will darken the stone and normally must be chemically dissolved so the source of the stain can be flushed or rinsed away. Clean gently with a soft liquid cleanser, household detergent, ammonia, mineral spirits, or acetone.

**Organic Stains:** (coffee, tea, fruit, tobacco, paper, food, urine, leaves, bark, bird droppings) May cause a pinkish-brown stain and may disappear after the source of the stain has been removed. Outdoors, with the sources removed, normal sun and rain action will generally bleach out the stains.

remove the plastic and allow the poultice to dry.

Remove the poultice from the stain. Rinse with distilled water and buff dry with a soft cloth.

Repeat the poultice application if the stain is not removed. It may take five or more applications for difficult stains.

If the surface is etched by the chemical apply polishing powder and buff with a polishing pad recommended by the Polishing Powder Manufacturer.

## C. Albee Square Elements: Planting Areas

### Trees

For all trees in Albee Square, refer to previous Streetscape Street Tree Section starting on page 45.

### Grasses and Perennials

Maiden Grass: *Miscanthus sisensis* 'Gracillimus'

Jerusalem Sage: *Phlomis russeliana*

*Refer to [www.nycgovparks.org](http://www.nycgovparks.org) for the latest NYC DPR Forestry requirements for street trees and the previous Street Tree section of this manual including work permits and requirements for any work around trees. These permits are applicable to all planting areas within Albee Square. All planting areas are under ownership of NYC DPR.*

### Contractor Maintenance

#### Period & Warranty:

*Source: NYC EDC Fulton Mall Streetscape Project Construction Contract for Streetscape Work NYC EDC Contract No 21400003, Specification Section 4.16 Furnishing and Installing New Trees*

**Special Warranty:** The Contractor shall guarantee the health of the shrubs for one year. A final inspection with the Contractor and the Parks Borough Forester shall be held exactly one year after the date of transplant. Should a transplant die or seriously decline in one year from the date of planting, the shrubs must be replaced with a number of shrubs equivalent to the original shrubs.

A limit of one replacement of each shrub will be required, except for losses or replacements due to failure to comply with listed requirements. Shrubs shall be "maintained by pruning, cultivating, watering, weeding, fertilizing, restoring plating saucers, as required to establish healthy, viable plantings. Spray as required to keep shrubs free of insects and disease. Maintain shrubs for the following period:

**Contractor Maintenance Period:** 12 months following Substantial Completion, which shall be determined by the Engineer in consultation with NYC Parks.



## C. Albee Square Elements: Irrigation

### **Contractor Maintenance**

#### **Period & Warranty:**

*Source: NYC EDC Fulton Mall Streetscape Project  
Construction Contract for Streetscape Work NYC EDC  
Contract No 21400003, Specification Section 4.16  
Furnishing and Installing New Trees*

#### **Guarantee:**

For a period of one year from the date of final completion and commencement of the formal maintenance period, guarantee / warranty irrigation materials, equipment, and workmanship against defects. Fill and repair depressions. Restore landscape or structural features damages by the settlement of irrigation trenches or excavations. Repair damage to the premises caused by a defective item. Guarantee shall also cover repair or damage to any part of the premises resulting from leaks or other defects in the material, equipment and workmanship to the satisfaction of the Owner. Repairs, if required, shall be done promptly at no cost to the Owner.

Guarantee / warranty applies to originally installed materials and equipment and replacements made during the guarantee / warranty period.

**Winterization:** Contractor to provide complete system shutdown and winterization.

All Rainbird, or approved equal, material installed as part of this work will be warranted for two years from date of installation. All Netafim, or approved equal, material installed as part of this work will be warranted for a minimum of one year from the date of installation.

### **Recommended Maintenance Beyond Contractor Maintenance**

#### **Period & Warranty:**

All workmanship must be in accordance with and meet the standards and regulations of the following:

- a. Underwriters Laboratories
- b. National Electric Code
- c. National Plumbing Code
- c. Local Building and Life Safety Code Agencies



**Springtime System Startup:** A qualified landscape irrigation contractor should fully inspect and test irrigation system including controller and back flow preventer after last spring freeze, prior to starting up system for the growing season. The growing season is defined as the time after the ultimate spring thaw (May 15) and subsequent to the first hard frost (December 1).

During the growing season, irrigation could be inspected weekly to monitor the system in coordination with the landscape water requirements.

**Winterization of System:** A qualified landscape irrigation contractor should fully inspect the system and winterize prior to the first hard frost. Irrigation system should remain winterized and unused until springtime start up.

## **Dripperline:**

### **Manufacturer:**

Netafim USA  
5470 E. Home Ave  
Fresno, CA 93727  
T: 888.638.2346  
F: 800.695.4753  
[www.netafimusa.com](http://www.netafimusa.com)

### **Specifications:**

Landscape and Turf Techline CV  
0.6 and 0.9 GPH  
Dripper Spacings: 12 inches  
Insert Coupling: TLCoup  
Insert Elbow: TLELL  
Insert Tee: TLTEE  
3/4 inch Male Adapter: TL075MA

## **Rain Sensor:**

### **Manufacturer:**

Hunter Industries Incorporated  
1940 Diamond St.  
San Marcos, CA 92078  
T: 760.744.5240  
F: 760.744.7461  
[www.hunterindustries.com](http://www.hunterindustries.com)

### **Specifications:**

Mini-Click Rain Sensor  
Model #: MINI-CLIK-SG-MC

## **Controller:**

### **Manufacturer:**

Rain Master  
5825 Jasmine Street  
Riverside, CA 92504  
T: 800.777.1477  
F: 951.785.3678  
[www.rainmaster.com](http://www.rainmaster.com)

### **Specifications:**

fdfsfdsfda

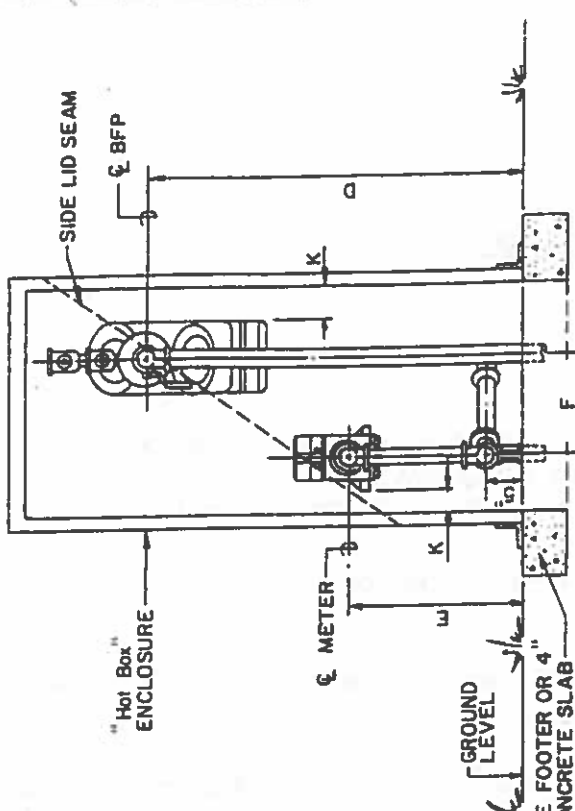
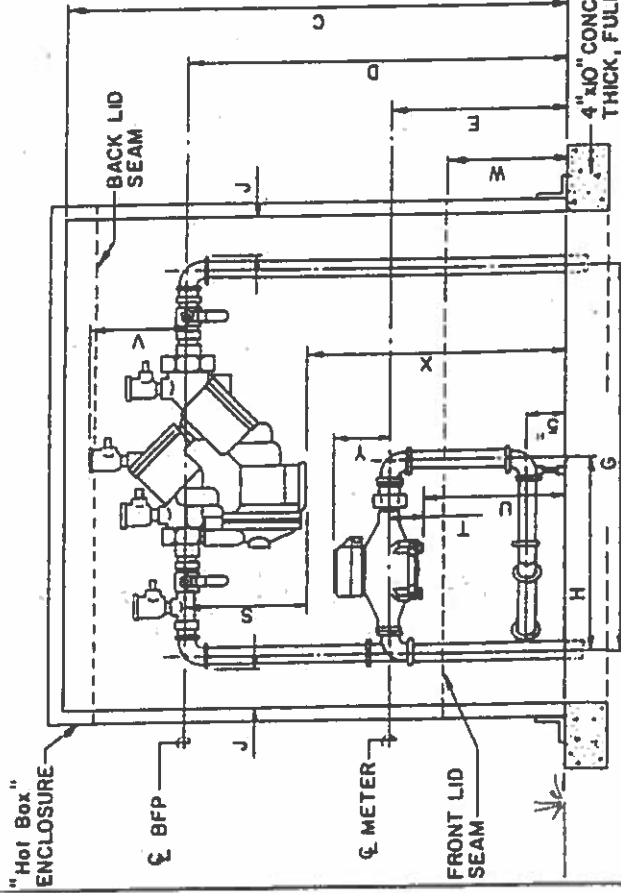
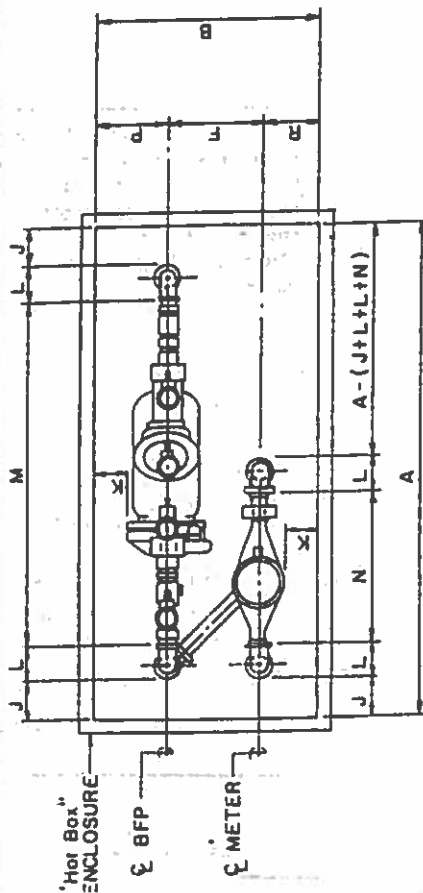
RPZ Diagram:

|      | A      | B  | C     | D     | E     | F     | G      | H      | J     | K      | L       |
|------|--------|----|-------|-------|-------|-------|--------|--------|-------|--------|---------|
| 3/4" | 27     | 13 | 35    | 30    | 15    | 6     | 20 7/8 | 12 5/8 | 2 3/8 | 13/16  | 2 11/16 |
|      | M      | N  | P     | R     | S     | T     | U      | V      | W     | X      | Y       |
|      | 17 1/4 | 9  | 2 3/4 | 4 1/4 | 4 3/4 | 2 1/2 | 12 1/2 | 4      | 12    | 25 1/4 | 3 15/16 |

|    | A       | B      | C     | D     | E     | F      | G        | H      | J      | K      | L     |
|----|---------|--------|-------|-------|-------|--------|----------|--------|--------|--------|-------|
| 1" | 27      | 13     | 35    | 30    | 15    | 6      | 21 3/16  | 14 3/4 | 1 7/32 | 9/16   | 3 1/8 |
|    | M       | N      | P     | R     | S     | T      | U        | V      | W      | X      | Y     |
|    | 17 3/16 | 10 3/4 | 2 3/4 | 4 1/4 | 4 3/4 | 2 3/16 | 12 13/16 | 4      | 12     | 25 1/4 | 5 1/4 |

NOTES:

1. DRAWING IS NOT TO SCALE.
2. WALL AND INSULATION THICKNESS IS 1"
3. ALL DIMENSIONS IN THE ABOVE SCHEDULE ARE IN INCHES.
4. PAD SIZE IS 22" x 36"



|                                                                                                                                |                                                        |                                                  |
|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------|
| Hot Box © - N F E, INC.<br>250 N. LANE AVE.<br>JACKSONVILLE, FLORIDA 32254<br>(504) 786-0331 (800) 736-0238 FAX (904) 783-6965 | JOB: 3/4" & 1" WATTS 909-QT WITH METER IN FLIP-TOP BOX | DRAWN/DATE/DRAWING NO.:<br>SET/ 3-31-93/007D-R-1 |
|                                                                                                                                | ENGINEER/CONTRACTOR: LOCATION:                         | APPROVED/DATE:                                   |

## **Manufacturer Warranty:**

**HB Series Convection Heater Operations & Maintenance  
Manual**

### **Warranty and Limitation of Remedy and Liability**

Industrial OEM Solutions warrants only that the products and parts manufactured by Industrial OEM Solutions, when shipped, and the work performed by Industrial OEM Solutions when performed will meet all applicable specification and other specific product and work requirements (including these of performance), if any, and will be free from defects in material and workmanship under normal conditions of use. All claims for defective or non-conforming (both hereinafter called defective) products, parts or work under this warranty must be made in writing immediately upon discovery, and in any event within one (1) year from delivery, provided, however all claims for defective products and parts must be made in writing no later than eighteen (18) months after shipment by Industrial OEM Solutions. Defective and non-conforming items must be held for ACl inspections and returned to the original F.O.B. point upon request. THE FOREGOING IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES WHATSOEVER, EXPRESS, IMPLIED AND STATUTORY, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Notwithstanding the provisions of this WARRANTY AND LIMITATION Clause, it is specifically understood that Products and parts not manufactured and work not performed by Industrial OEM Solutions are warranted only to the extent and in the manner that the same are warranted to Industrial OEM Solutions by Industrial OEM Solutions's vendors, and then only to the extent that Industrial OEM Solutions is reasonably able to enforce such warranty, it being understood Industrial OEM Solutions shall have no obligation to initiate litigation unless Buyer undertakes to pay all cost and expenses therefore, including but not limited to attorney's fees, and indemnifies Industrial OEM Solutions against any liability to Industrial OEM Solutions's vendors arising out of such litigation.

Upon Buyer's submission of a claim as provided above and its substantiation, Industrial OEM Solutions shall at its option either (1) repair or replace its products, parts or work at the original F O B point of delivery; or (2) refund an equitable portion of the purchase price.

THE FOREGOING IS INDUSTRIAL OEM SOLUTIONS'S ONLY OBLIGATION AND BUYER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY, AND IS BUYER'S EXCLUSIVE REMEDY AGAINST INDUSTRIAL OEM SOLUTIONS FOR ALL CLAIMS ARISING HEREUNDER OR RELATING HERETO WHETHER SUCH CLAIMS ARE BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORIES. BUYER'S FAILURE TO SUBMIT A CLAIM AS PROVIDED ABOVE SHALL SPECIFICALLY WAIVE ALL CLAIMS FOR DAMAGES OR OTHER RELIEF, INCLUDING BUT NOT LIMITED TO CLAIMS BASED ON LATENT DEFECTS. IN NO EVENT SHALL BUYER BE ENTITLED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES AND BUYER SHALL HOLD INDUSTRIAL OEM SOLUTIONS HARMLESS THEREFROM ANY ACTION BY BUYER ARISING HEREUNDER OR RELATING HERETO, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY).

Industrial OEM Solutions, Inc.

## C. Albee Square Elements: Event Power

### Load Center Panel Enclosure:

#### Manufacturer:

Benfield Control Systems  
55 Lafayette Avenue  
White Plains, NY  
T. 914.948.3231  
F. 914.948.5145

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

#### Specifications and Details:

Custom NEMA 4X Enclosure

Dimensions: 90"Hx48"Wx18"D

Special Instructions: Sloped top towards rear



### Pre-cast Concrete Enclosure:

#### Manufacturer:

Roman Stone Construction Company  
85 South Fourth Street  
Bayshore, NY 11706  
T. 631.667.0566  
F. 631.667.0617

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

#### Specifications and Details:

Custom Pre-cast Concrete Enclosure

Dimensions: 24"x18"x30"

Concrete PSI: 4,000

Special Instructions: Hinge to be cast into concrete, an 8" wall is provided on one side to fit the hinge accordingly. Wire mesh to be encased throughout box including surrounding area of hinge.



the pricing specified in Square D's standard return policy. Special Order and Custom equipment is not returnable. Square D shall bear the cost of returns resulting from Square D error, and method and route of return will be at the discretion of Square D. Costs incurred by failure to follow Square D direction will be borne by the Purchaser.

### **Care & Maintenance:**

All workmanship must be in accordance with and meet the standards and regulations of the following:

- a. Underwriters Laboratories
- b. National Electric Code
- c. Local Building and Life Safety Code Agencies



# ROMAN STONE CONSTRUCTION CO

Tel. No. (631) 667-0566 Fax No. (631) 667-0617

|                                                      |                                                                                                                                                                                                            |                   |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Date<br>2-Mar-10                                     | Contractor Welsbach Electric - College Point                                                                                                                                                               |                   |
| Date Required                                        | Customer PO#<br>CP00686                                                                                                                                                                                    | Contract#         |
| WO#                                                  | Ship to:<br>Fulton Street Mall                                                                                                                                                                             | Inspection Agency |
| Size of Box<br>24"X18"X30"                           | Special Instructions*<br>*Hinge to be cast into the concrete, an 8" wall is provided on one side to fit the hinge accordingly. Wire Mesh to be encased throughout box including surrounding area of hinge. |                   |
| Item#                                                |                                                                                                                                                                                                            |                   |
| Quantity<br>.1.                                      |                                                                                                                                                                                                            |                   |
| Re-Bar/Mesh<br>Wire Mesh                             |                                                                                                                                                                                                            |                   |
| Wall Thickness<br>4" on (3) walls<br>8" on (1) walls |                                                                                                                                                                                                            |                   |
| Floor Thickness<br>4"                                |                                                                                                                                                                                                            |                   |
| Roof Thickness<br>No Roof                            |                                                                                                                                                                                                            |                   |
| Box Weight                                           |                                                                                                                                                                                                            |                   |
| Roof Weight                                          |                                                                                                                                                                                                            |                   |
| PSI/Cylinders<br>4000 PSI                            |                                                                                                                                                                                                            |                   |
| Extra Equipment                                      |                                                                                                                                                                                                            |                   |

Notes:

SL 38.04.05

STV Incorporated

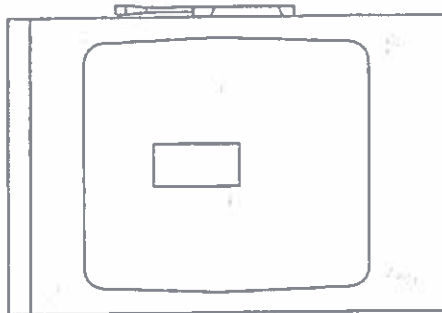
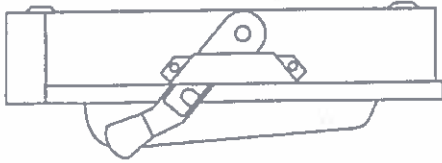
FILE No.: 60188

- ☒ CONFORMS  
☐ CONFORMS AS NOTED  
☐ REVISE AS NOTED AND RESUBMIT  
☐ REJECTED, RESUBMIT  
☐ REVIEW NOT REQUIRED

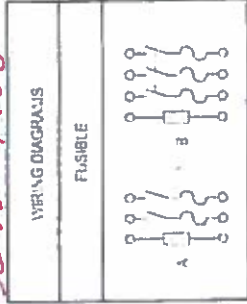
BY: MH  
 DATE: 9-10

THIS DOCUMENT HAS BEEN REVIEWED FOR  
 GENERAL CONFORMANCE WITH THE  
 DESIGN CONCEPT ONLY.

This review does not relieve the contractor  
 or any subcontractor of responsibility for  
 full compliance with contract requirements,  
 for compliance of dimensions, clearances,  
 and material quantities, for proper design  
 of details for proper fabrication and  
 construction, for proper coordination  
 with other trades, and for providing all  
 devices required for safe and satisfactory  
 construction and operation.



NEW TYPE JR



| TERMINALS |           |           |            |
|-----------|-----------|-----------|------------|
| TERMINAL  | WIRE TYPE | WIRE SIZE | WIRE COLOR |
| 1         | 14        | 14        | 14         |

| DIMENSIONS |      |       |         |
|------------|------|-------|---------|
| ITEM       | UNIT | VALUE | REMARKS |
| 1          | IN   | 1.50  |         |
| 2          | IN   | 1.50  |         |
| 3          | IN   | 1.50  |         |
| 4          | IN   | 1.50  |         |

DIMENSIONS IN INCHES  
 DIMENSIONS IN MILLIMETERS

| ITEM | DESCRIPTION           | MATERIAL              | QUANTITY | REMARKS |
|------|-----------------------|-----------------------|----------|---------|
|      |                       |                       |          |         |
| 1    | 1/2" DIA. X 1/2" LONG | 1/2" DIA. X 1/2" LONG | 1        |         |
| 2    | 1/2" DIA. X 1/2" LONG | 1/2" DIA. X 1/2" LONG | 1        |         |
| 3    | 1/2" DIA. X 1/2" LONG | 1/2" DIA. X 1/2" LONG | 1        |         |
| 4    | 1/2" DIA. X 1/2" LONG | 1/2" DIA. X 1/2" LONG | 1        |         |

NOTES: 1. CHECK DRAWING FOR ALL DIMENSIONS AND TOLERANCES.  
 2. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 3. MATERIALS SHALL BE AS SPECIFIED OR APPROVED.  
 4. FINISH SHALL BE AS SPECIFIED OR APPROVED.  
 5. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 6. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 7. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 8. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 9. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 10. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.

**SQUARE D COMPANY**

GENERAL DUTY SAFETY SWITCHES  
 VISIBLY BLADE TYPE  
 400 AMPERE  
 ENCLOSURE - NEW TYPE JR RAMP-PROOF

DWG NO 1877

REF DWG #1877

# D. Warranty Summary

## Fulton Mall Maintenance Manual Warranty Summary

Items:

| Streetscape:                                             | Date of Installation/Acceptance for Start of Warranty          | Trocom Warranty                    | Manufacturer Warranty                                                        |
|----------------------------------------------------------|----------------------------------------------------------------|------------------------------------|------------------------------------------------------------------------------|
| 1 Streetscape Metal Benches                              | 12/13/10 Date of FMIA Acceptance                               | 1 year from 12/13/10               | Conceptual Site Furnishings: 10 years from invoice date                      |
| 2 Streetscape Metal Bench Pavement Sleeves               | 12/13/10 Date of FMIA Acceptance                               | 1 year from 12/13/10               | Conceptual Site Furnishings: 10 years from invoice date                      |
| 3 Bicycle Racks                                          | 5/27/11 Date of FMIA Acceptance                                | 1 year from 5/27/11                | Landscape Forms: 3 years from invoice date                                   |
| 4 Trash Receptacles                                      | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | Victor Stanley: Welds 10 years, other items 1 year from invoice date         |
| 5 Historical Signage                                     | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion |                                                                              |
| 6 Street Lights                                          | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | Hess America: warranty from ship date: Ballast 2 years, Paint finish 3 years |
| 7 CCTV Camera Poles                                      | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | P&K Pole: 20 year warranty                                                   |
| 8 Granite Curbs                                          | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion |                                                                              |
| 9 Pigmented Concrete Sidewalk                            | 6/17/11 Date of FMIA Acceptance                                | 1 year from Substantial Completion |                                                                              |
| 10 Precast Concrete Pavers at Tree Pits                  | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | Nicofock: limited lifetime warranty                                          |
| 11 Precast ADA Concrete Pavers at ADA Ramps              | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | Hanover: 1 year from date of delivery                                        |
| 12 Street Trees                                          | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion |                                                                              |
| 13 Aeration System                                       | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | NDS: 1 year warranty                                                         |
| Albee Square:                                            | Date of Installation/Acceptance for Start of Warranty          | Trocom Warranty                    | Manufacturer Warranty                                                        |
| 14 Precast Concrete Benches                              | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | Concrete Works: 1 year from date of installation                             |
| 15 Stainless Steel Arm Rest for Precast Concrete Benches | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | Conceptual Site Furnishings: 10 years from invoice date                      |
| 16 Pedestrian Lighting in Albee Square                   | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | Hess America: warranty from ship date: Ballast 2 years, Paint finish 3 years |
| 17 F8 Uplighting at Bank                                 | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | Lumascap: 10 years for stainless body, transformers 12 months                |
| 18 Granite Curbs at Planting Areas                       | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion |                                                                              |
| 19 Perennial Grass Plantings                             | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion |                                                                              |
| 20 Trees                                                 | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion |                                                                              |
| 21 Irrigation System                                     | 11/30/2011 Date of Irrigation Review / FMIA Acceptance         | 1 year from 11/30/11               | Dura Plastic Pipe: 1 year from delivery                                      |
| 22 Irrigation HotBox                                     | 10/31/11 Date of Substantial Completion                        | 1 year from Substantial Completion | OEM Solutions: 1 year from delivery                                          |
| 23 Event Panel Box                                       | 7/11/11 Date of Inspection Review HDR/Square D/FMIA/Trocom     | 1 year from 7/11/11                | Square D: 18 months from date of invoice                                     |
| 24 Event Power                                           | Date to be determined after new box is installed and inspected | 1 year from completion             |                                                                              |

\*\*\*PLEASE ADVISE\*\*\*  
WATTAGE, BEAM, FINISH

LUMASCAPE USA

LT25  
QTY: 11

LS362LED



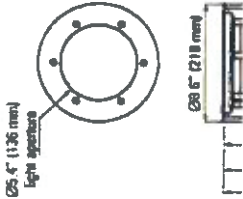
The LS362LED is the ideal luminaire for locations where an uplighting effect is desired yet a flush ingrade luminaire may not be appropriate. Being stanchion-mounted, the LS362LED stays up to 2' above grade whilst the stanchion securely holds the luminaire in place. A special tool is required to remove the luminaire from the stanchion, ensuring security and integrity of the installation, even in public spaces.

Specifications

|                               |                                                                                                                                                                                                                      |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lamp Source                   | 16 W or 20 W LED<br><input type="checkbox"/> White (4 300 K typical)<br><input checked="" type="checkbox"/> Warm white (3 000 K typical)<br><input type="checkbox"/> Blue (470 nm)<br><i>Other colors by request</i> |
| Approved Use                  | Suitable for wet locations<br>Suitable for use in poured concrete                                                                                                                                                    |
| Lumen Maintenance (L70)       | >60,000 hrs<br><i>Limited by TM-21 x6 rule</i>                                                                                                                                                                       |
| Control Options               | 0-10 V                                                                                                                                                                                                               |
| IP Rating                     | IP68                                                                                                                                                                                                                 |
| Construction                  | 316 marine grade stainless steel                                                                                                                                                                                     |
| Impact Rating                 | IK10 with OptiClear™ lens                                                                                                                                                                                            |
| Standard Inclusions           | Teflon coated cover screws<br>MicroAntileach™ wire entry                                                                                                                                                             |
| Accessories                   | LSP002 luminaire removal tool<br>LS646 cross hatch louver<br><i>(No LED adjustment / tilt available when using this accessory. Cannot be used with 14" (NH) Optical System.)</i>                                     |
| Ambient Operating Temperature | -22 °F to 122 °F (-30 °C to +50 °C)                                                                                                                                                                                  |



LS362LED



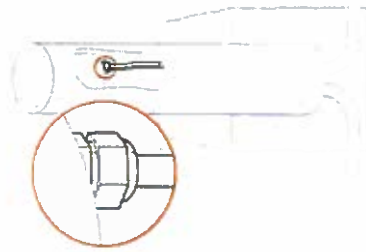
## LS362LED Options

## At Grade

### Why Use This Installation Type?

This style of above grade luminaire positioning is very useful in situations where foliage may overgrow regular, flush ingrade luminaires over time, where a high water table is of concern or other scenario where such a mounting method is appropriate. The luminaire is secured into the tube using a method that readily allows the luminaire to be installed, yet prevents the luminaire from being removed without the use of a fixture removal tool. This method of securement ensures that even public space applications are suited to this luminaire. This luminaire ships as a factory sealed unit.

### Connection type '84' for 'Direct Burial' housing



### 6.5' S00W Cord

For connection to the branch circuit via junction box (by others) or other approved method.

c/w 6.5' S00W Cord (16/3)

For longer lengths, consult factory.

### Lens Options



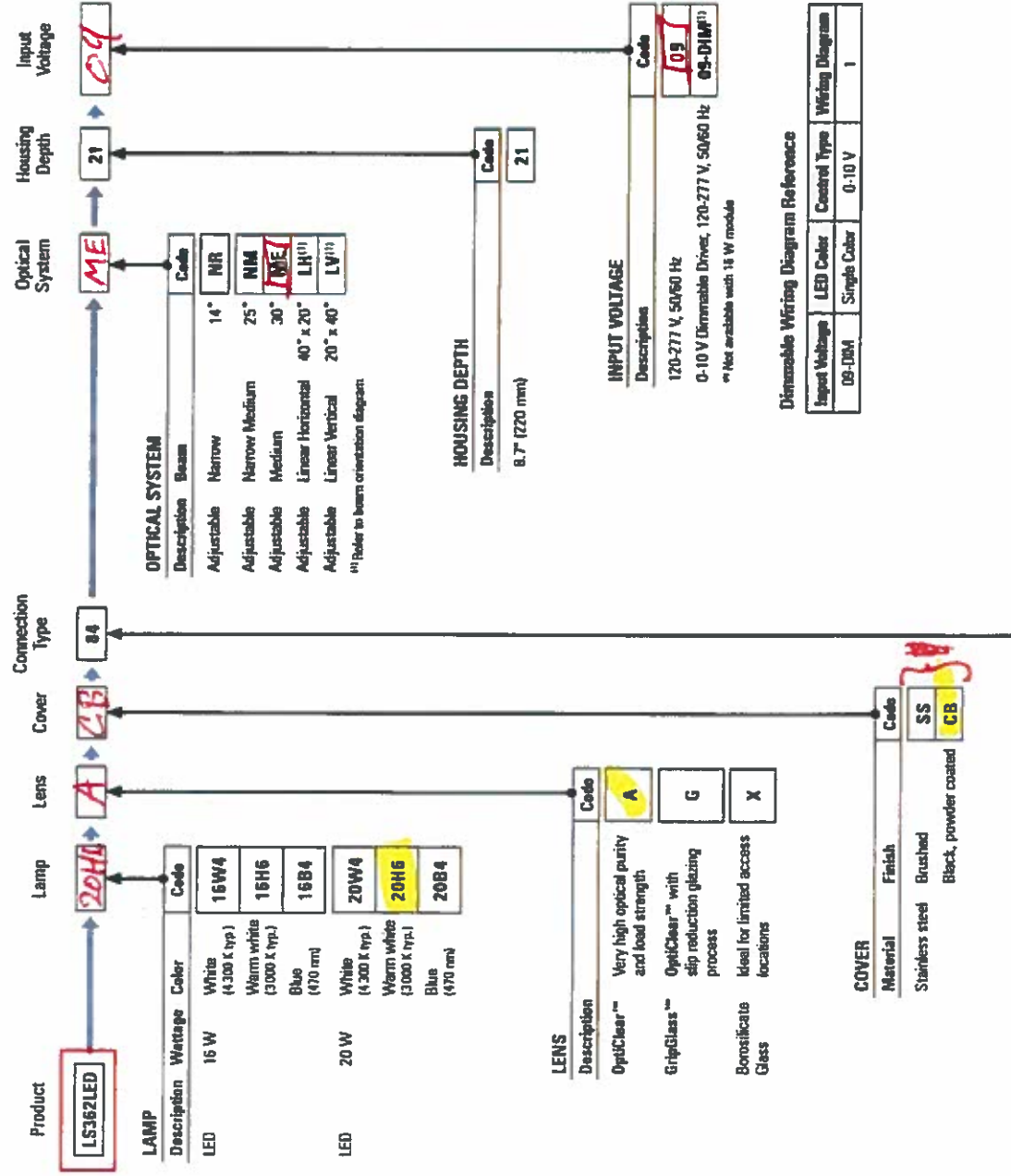
**OptiClear™ Glass**  
Glass of very high optical purity and load strength.



**Borosilicate Glass**  
Ideal for limited access locations. Not recommended for high traffic pedestrian areas.

# LS362LED

## At Grade

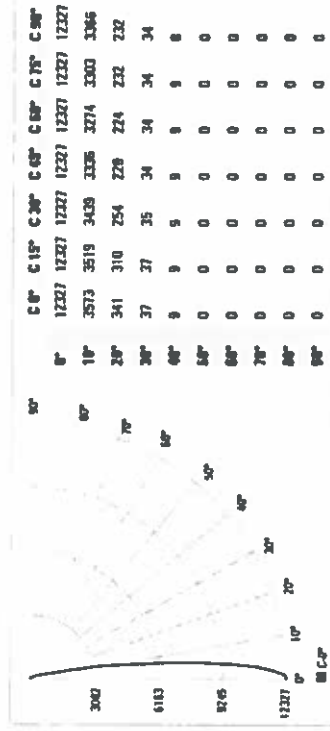


## At Grade

## Photometrics

Photometric data is based on test results from a NIST traceable testing lab. IES data is available at [www.lumascap.com](http://www.lumascap.com).  
Note: No deconvolution factor is applied to the data shown.

## Polar Candela Distribution

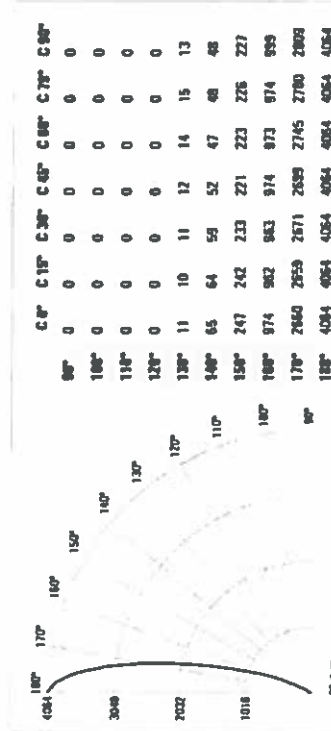


| IN | Center Room In: | Room # |
|----|-----------------|--------|
| 5  | 492.1           | 1 ft   |
| 10 | 125.3           | 3 ft   |
| 15 | 54.8            | 4 ft   |
| 25 | 18.7            | 7 ft   |
| 26 | 13.7            | 8 ft   |
| 40 | 7.7             | 11 ft  |
| 50 | 4.9             | 13 ft  |

|             |         |
|-------------|---------|
| Power Input | 17.8 W  |
| Lumens      | 1037    |
| Efficacy    | 58 lm/W |

!!! To approximate warm white data, multiply by 0.84. Plot web site for IES files for all color temperatures.

### Polar Candela Distribution

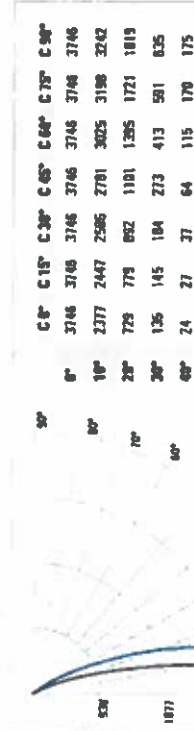


| ft | Center Beam ft. | Bottom ft |
|----|-----------------|-----------|
| 6  | 182.6           | 3 ft      |
| 10 | 40.8            | 5 ft      |
| 15 | 18.1            | 8 ft      |
| 25 | 6.5             | 13 ft     |
| 38 | 4.5             | 16 ft     |
| 48 | 2.5             | 21 ft     |
| 58 | 1.5             | 27 ft     |

|             |         |
|-------------|---------|
| Power Input | 21.6    |
| Lumens      | 1195    |
| Efficacy    | 55 lm/W |

(1) To approximate warm white data, multiply by 0.84. Refer web site for IES files for all color temperatures

## Polar Candela Distribution



| ft | Center<br>Beam ft | Beam W | Beam L |
|----|-------------------|--------|--------|
| 5  | 142.8             | 2 ft   | 4 ft   |
| 10 | 37.5              | 4 ft   | 7 ft   |
| 15 | 16.6              | 7 ft   | 11 ft  |

LS362LED  
4 300 K<sup>M</sup>  
20° x 40°  
Beam Angle

Power Input

21.5

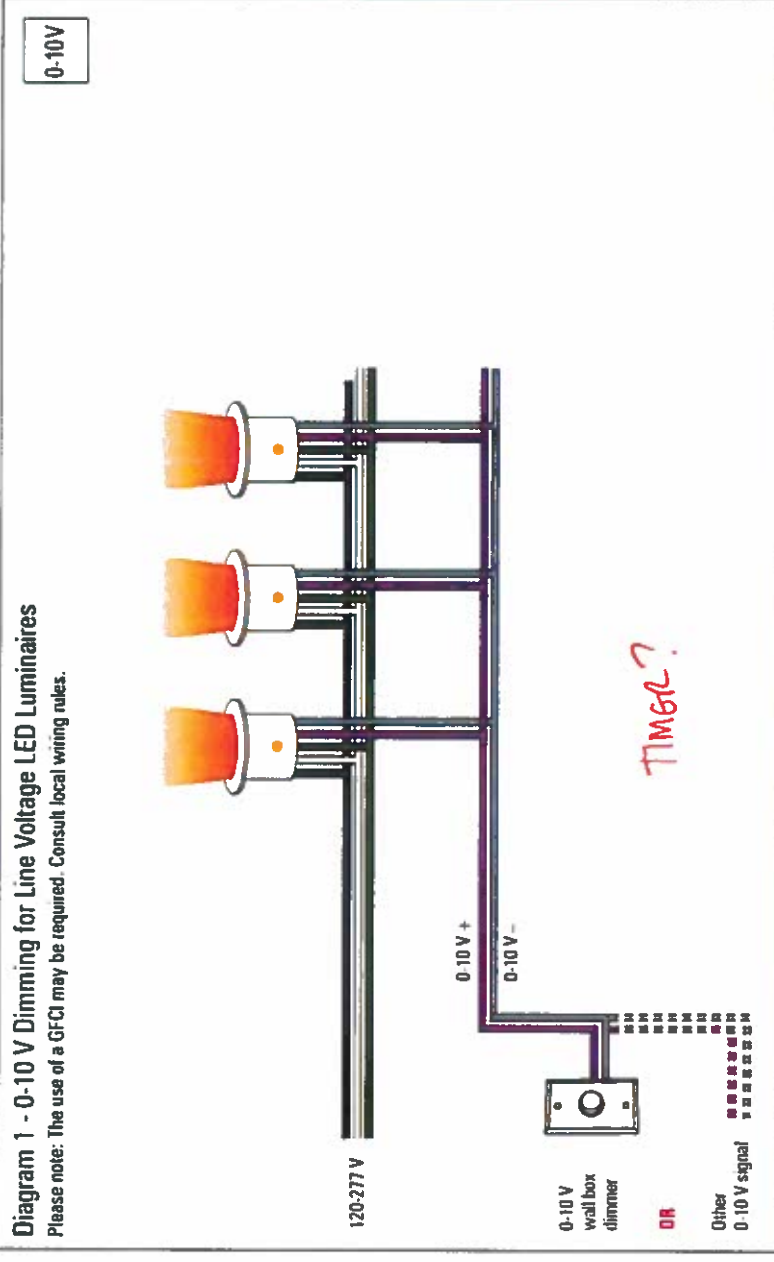
Power Input

## Wiring Diagrams

## Technical Data

**Diagram 1 - 0-10 V Dimming for Line Voltage LED Luminaires**

Please note: The use of a GFCI may be required. Consult local wiring rules.



selux



LT26  
QTY:5

Date: \_\_\_\_\_ Customer: \_\_\_\_\_  
Project: \_\_\_\_\_  
Type: \_\_\_\_\_ Qty: \_\_\_\_\_

MTR Column LED

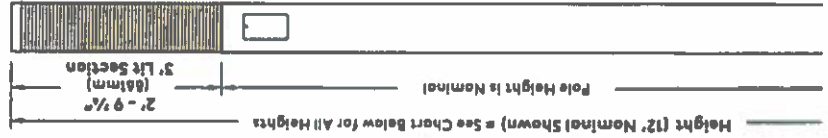
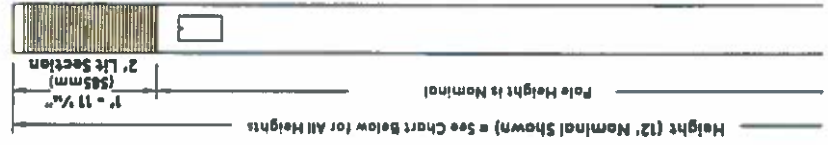


Order Code:

| Series                     | MTRTL<br>Tapered Pole | MTRCL<br>Round Pole<br>Straight Pole | Which HEIGHT? |          |                                      |  |
|----------------------------|-----------------------|--------------------------------------|---------------|----------|--------------------------------------|--|
| Nominal Overall Ht.        | MTRTL 12 12'          | 14 14'                               | 16 16'        |          |                                      |  |
|                            | MTRCL 10 10'          | 12 12'                               | 14 14'        | 16 16'   |                                      |  |
| Nominal Ht. of Lit Section | 2 2'                  | 3 3'                                 | 4 4'          |          |                                      |  |
| Light Engine               | 1L35                  | 2L35                                 | 3L35          | 4L35     | See p. 9 for details                 |  |
| CCT                        | 27 2700K              | 30 3000K                             | 35 3500K      | 40 4000K | For other CCT please consult factory |  |
| Finish                     | WH                    | BK                                   | BZ            | SV       | SP                                   |  |

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**selux**

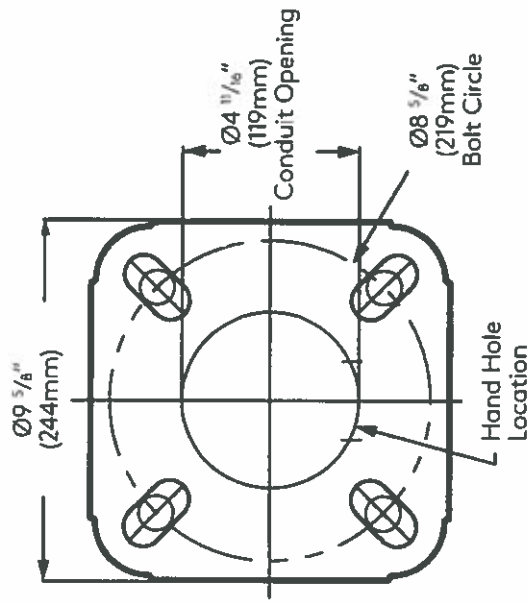

$$-4'' \neq 7'' \quad 1002mm \neq 172mm$$

# MTR Column LED

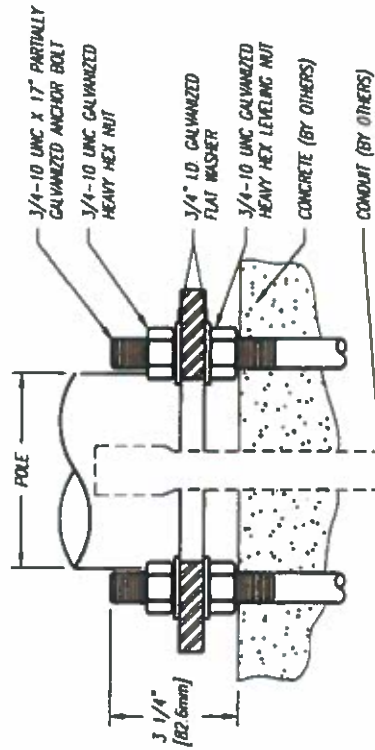
selux

## Mounting Details

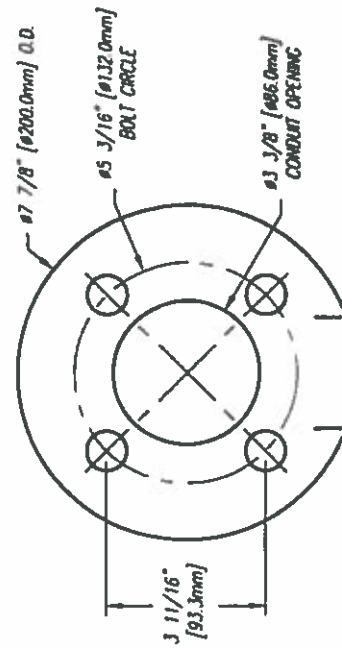
### MTRTL Bolt Circle



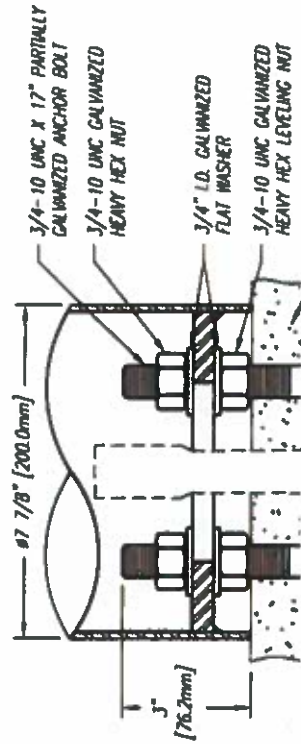
### MTRTL Anchor Bolt Detail



### MTRCL Bolt Circle



### MTRCL Anchor Bolt Detail

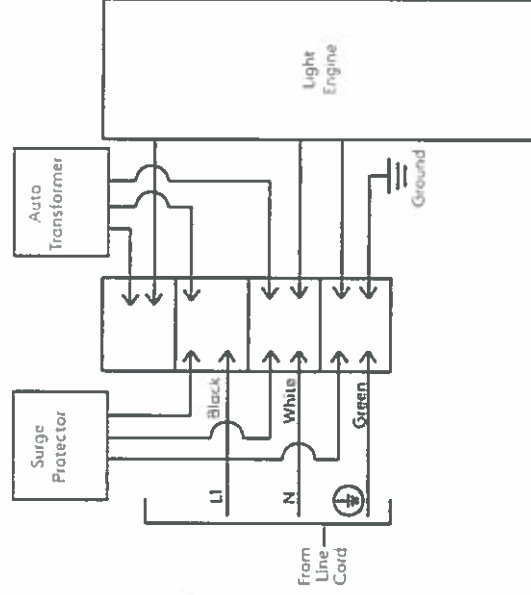


MTR Column LED

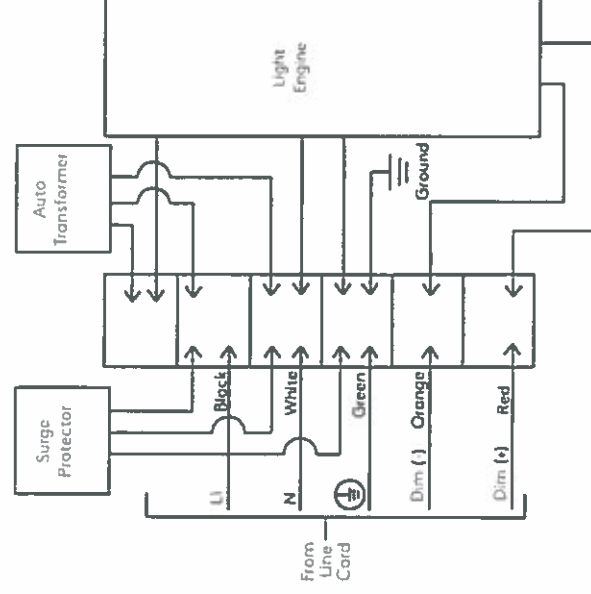
**selux**

**Wiring**

**347/ 480V (Standard)**



**347/480V with 0-10V Dimming Option**



## MTR Column LED

selux

### Energy Consumption\*

| LED Information       | 4000K CCT |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------|-----------|------|------|------|------|------|------|------|------|------|------|------|
|                       | 1L35      |      |      | 2L35 |      |      | 3L35 |      |      | 4L35 |      |      |
|                       | 2'        | 3'   | 4'   | 2'   | 3'   | 4'   | 2'   | 3'   | 4'   | 2'   | 3'   | 4'   |
| Lit Section Height    |           |      |      |      |      |      |      |      |      |      |      |      |
| Delivered Lumens (lm) | 1187      | 1781 | 2374 | 2275 | 3413 | 4551 | 3364 | 5064 | 6728 | 4452 | 6678 | 8904 |
| Wattage (W)           | 17        | 25   | 34   | 32   | 48   | 64   | 46   | 69   | 93   | 60   | 90   | 120  |
| Efficacy (lm/W)       | 71        | 71   | 71   | 71   | 71   | 71   | 73   | 73   | 73   | 74   | 74   | 74   |

\*data based on 350mA LED driver current.

| Conversion Chart<br>(Values based on 4000K) |          |  |
|---------------------------------------------|----------|--|
| CCT                                         | Multiply |  |
| 2700K                                       | 0.94     |  |
| 3000K                                       | 0.95     |  |
| 3500K                                       | 0.98     |  |
| 4000K                                       | 1.00     |  |

### Photometry

#### MTRTL / 1L35 / 4000K CCT

Catalog #: MTRTL 12-4-1L35-40-120

Delivered Lumens: 2374

Input Watts: 34W

Efficacy: 71 lm/W

CRI: 84

Maximum Candela of 608 at 62.5° from vertical

IES classification: Type IV

Mounting Height = 12' (3.66 m)

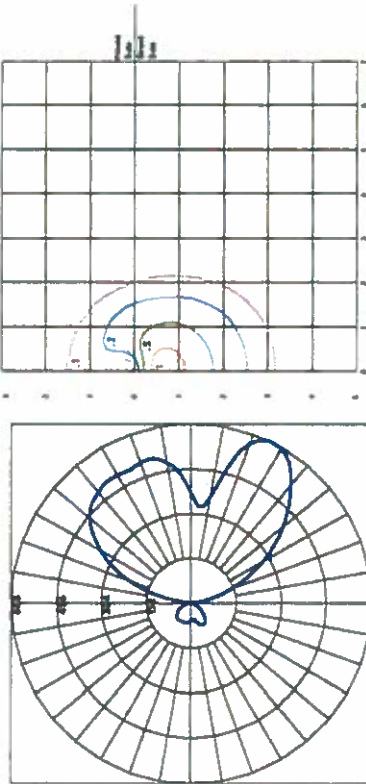
B0 U4 G2

Power Factor: 1.0

Total Harmonic Distortion: 8.69%

[Link to photometry \(PDF\)](#)

[Link to photometry \(IES\)](#)



#### MTRTL / 4L35 / 4000K CCT

Catalog #: MTRTL 12-4-4L35-40-120

Delivered Lumens: 8904

Input Watts: 120W

Efficacy: 74 lm/W

CRI: 84

Maximum Candela of 982 at 57° from vertical

IES classification: Type V

Mounting Height = 12' (3.66 m)

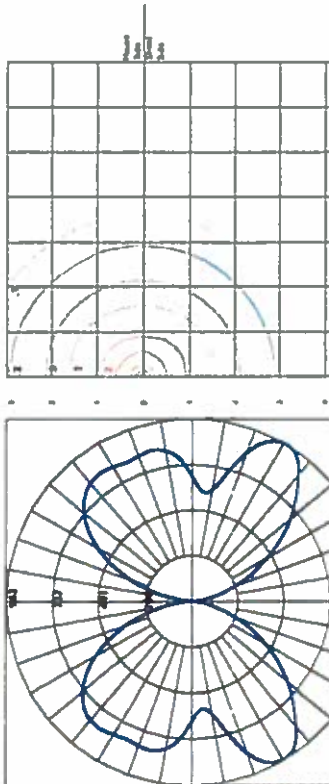
B2 U5-G3

Power Factor: 1.0

Total Harmonic Distortion: 8.69%

[Link to photometry \(PDF\)](#)

[Link to photometry \(IES\)](#)



Approved 5/20/16

T+MC  
RE

## Specification

Page 1 of 1  
20140618

QTY:270

# SH-220 Solar LED Ground Light

Water Proof / No Wiring

Type :

Project :

Quantity :

Note :

### General

Weight: 2.09 lbs

Rim Finish: Brushed/Polished stainless steel

Lens: Anti-skid reinforced glass

Housing: SUS304 stainless steel cast aluminum

Power Storage: Ultracapacitor

### Operational

Operation Time: Minimum 12 hours(fully charged) 4-8 hours(overcast)

Full Charge Time: 6 hours(direct sunlight)

Switch: Light sensitive auto on/off

### Environmental

Compressive Strength: 2818 lbs/1281 kgs(minimum)

Operating Temperature: -4° F 140° F

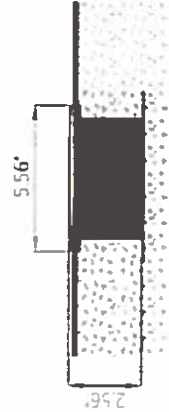
Storage Temperature: 13° F 176° F

### Warranty

3 year limited warranty See [www.meteor-lighting.com](http://www.meteor-lighting.com) for details.



METEOR Solar LED Paver lights incorporate state-of-the-art technology, combining the best solar panels, power storage and optical design to create products that will function for years to come.



Approved 5/20

Technical Specification  
(12/2015, subject to change)

TYPE LT20  
QTY:118  
TYPE LT20A  
QTY:24



JoBe Lighting

STYLE (1/3)

**Beckstone<sup>®</sup> „STYLE“** for concrete paver installations (flat, pearly surface texture)  
(paver light with 12V d.c. – LED technology made of frosted synthetic resin and polymer concrete)

| Model/Size  | Nominal Dimensions |     |   |           | Actual Dimensions (white polymer concrete body) |          |     |     |     |    |    |         |        |         |        |        |        |        |        |
|-------------|--------------------|-----|---|-----------|-------------------------------------------------|----------|-----|-----|-----|----|----|---------|--------|---------|--------|--------|--------|--------|--------|
|             | cm                 |     |   |           | mm                                              |          |     |     |     |    |    |         |        |         |        |        |        |        |        |
| STYLE       | L                  | W   | H | L         | W                                               | H        | L   | W   | H   | L  | W  | H       | L      | W       | H      | L      | W      | H      | L      |
| Small       | 10 x 10            | x 6 |   | 4 x 4     | x 2 3/16                                        | 97       | 2   | 97  | 2   | 60 | 3  | 3 13/16 | 1 1/16 | 3 13/16 | 1 1/16 | 2 9/16 | 2 9/16 | 2 9/16 | 2 9/16 |
| Rectangle S | 15 x 7             | x 6 |   | 6 x 3     | x 2 3/16                                        | 146      | 3   | 70  | 2   | 60 | 3  | 5 12/16 | 2 1/16 | 2 12/16 | 1 1/16 | 2 9/16 | 2 9/16 | 2 9/16 | 2 9/16 |
| Rectangle L | 15 x 11            | x 6 |   | 6 x 4 1/2 | x 2 3/16                                        | 146      | 2   | 110 | 2   | 60 | 3  | 5 12/16 | 1 1/16 | 4 5/16  | 1 1/16 | 2 9/16 | 2 9/16 | 2 9/16 | 2 9/16 |
| Wide S      | 14 x 14            | x 6 |   | 5 1/2     | x 5 1/2                                         | x 2 3/16 | 136 | 3   | 136 | 3  | 60 | 3       | 5 9/16 | 2 1/16  | 5 9/16 | 2 1/16 | 2 9/16 | 2 9/16 | 2 9/16 |
| Wide M      | 16 x 16            | x 8 |   | 6 x 6     | x 3 1/16                                        | 156      | 3   | 156 | 3   | 80 | 3  | 6 2/16  | 2 1/16 | 6 2/16  | 2 1/16 | 3 2/16 | 3 2/16 | 2 9/16 | 2 9/16 |
| Wide L      | 18 x 18            | x 8 |   | 7 x 7     | x 3 1/16                                        | 176      | 3   | 176 | 3   | 80 | 3  | 6 15/16 | 2 1/16 | 6 15/16 | 2 1/16 | 3 2/16 | 3 2/16 | 2 9/16 | 2 9/16 |
| Round S     | Ø 8                | x 8 |   | Ø 3       | x 3 1/16                                        |          |     | 76  | 2   | 80 | 3  |         |        | 3       | 1 1/16 | 3 2/16 | 2 9/16 | 2 9/16 | 2 9/16 |
| Round M     | Ø 10               | x 8 |   | Ø 4       | x 3 1/16                                        |          |     | 96  | 2   | 80 | 3  |         |        | 3 12/16 | 1 1/16 | 3 2/16 | 2 9/16 | 2 9/16 | 2 9/16 |

Materials (lighting body, load body)

Polyester (uv stabilized), Technopolymers /Polymer concrete (80% natural minerals) ; Building material according to German building standard III – VI RStO 2001, Table 2, Z. 3 and 4

Protective Edge (load body)

2mm wider load body protects the top-body against impacts from surrounding pavers

Loading capacity/drive-over speed

drive over capability with cars and trucks without a mortar joint up to 15 mph

Non Slip Class

R13 hightest non-slip class (DIN 55130)

Operating voltage

12V d.c

Protection class

IP68

LED Module

Citizen 5 LED-module, 0.5W hand-casted into resin without air encapsulations

LED color

white, 6.500° K

Operating temperature

-4 to 140°F/-40° to +60° C, non-healing surface texture when turned on.

Approbations

UL + cUL 1838 (E330336) pending, PCT (RU), CE

Lead cable

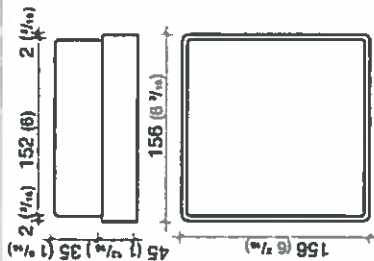
1 x 2/C 1 mm² (16 AWG) direct burial, sun resistance, 25 cm/1 ft. (rectangle pcs. 2 leads)



JoBe Lighting



## mm (in)



STYLE 16 x 16 x 8 cm

Product No.

|                        |               |
|------------------------|---------------|
| No. LEDs/ Lead cables: | 5/ 1          |
| Add. bar spacers:      | none          |
| Product weight:        | 2,3 kg/5.1 lb |

|           |         |
|-----------|---------|
| 541606 08 | Crystal |
| 541606 07 | Blue    |
| 541606 03 | Amber   |
| 541606 02 | Red     |

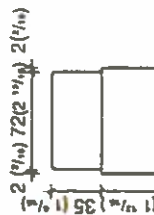
Diagram showing the layout of a rectangular area with dimensions and labels. The area is divided into a large square and two smaller rectangles. The large square has a side length of 176 (6' 10"). The two smaller rectangles have widths of 45 (1' 10") and 35 (1' 2"), and a height of 172 (6' 0"). The total width is 176 (6' 10") and the total height is 176 (6' 10").

**STYLE 18 x 18 x 8 cm**  
**7 x 7 x 3 1/8 in**

Product No.

|                        |               |
|------------------------|---------------|
| No. LEDs/ Lead cables: | 5/1           |
| Add. bar spacers:      | none          |
| Product weight:        | 3,1 kg/6.8 lb |

|           |         |
|-----------|---------|
| 541806 08 | Crystal |
| 541806 07 | Blue    |
| 541806 03 | Amber   |
| 541806 02 | Red     |



STYLE ROUND Ø 8 x 8 cm  
Ø 3 x 3 1/8 in

Product No.

|                        |                |
|------------------------|----------------|
| No. LEDs/ Lead cables: | 5/ 1           |
| Add. bar spacers:      | none           |
| Product weight:        | 0.46 kg/1.0 lb |

RESET

Approved AS Noted  
5/20/16 B2

NEED FINISH\*\*

LT22  
QTY: 4 POLES  
W/ 4 HEADS EA



# Olivio Grande - Sistema 2 Arm Mount **selux**

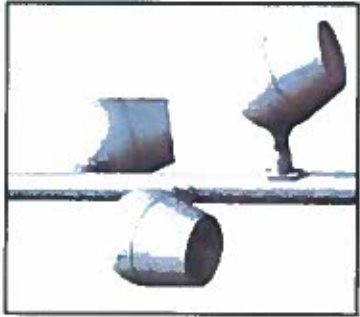
Project:

| FX1 # | QTY | SERIES | OPTICS | MOUNTING | LAMPING | LAMP COLOR | FINISH | VOLTAGE | ACCESS.1 | ACCESS.2 |
|-------|-----|--------|--------|----------|---------|------------|--------|---------|----------|----------|
| 1     | 0   | OLG    | -      | -        | -       | -          | -      | -       | -        | -        |
| 2     | 0   | OLG    | -      | -        | -       | -          | -      | -       | -        | -        |
| 3     | 0   | OLG    | -      | -        | -       | -          | -      | -       | -        | -        |
| 4     | 0   | OLG    | -      | -        | -       | -          | -      | -       | -        | -        |

Lines 2, 3 and 4 line quantities applicable to SSx mounting only

SSx only - First specify pole arm locations on page 4, then assign fixture numbers to pole locations below.

| POLE SERIES | HEIGHT | FINISH | RANGE | PTS | OPT. 1 | OPT. 2 | LOC. 1 | LOC. 2 | LOC. 3 | LOC. 4 | LOC. 5 | LOC. 6 | LOC. 7 | LOC. 8 |
|-------------|--------|--------|-------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| O- Choose   | -      | -      | -     | -   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |



use pulldowns to assign fixture # to arm locations:

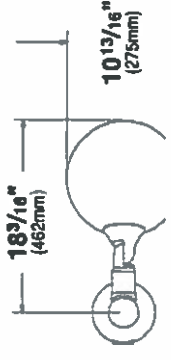
need finish

need voltage

| Series        | Optics                   | Mounting                                       | Lamping              | Lamp Color                 | Finish                   | Voltage | Accessories                                                                           |
|---------------|--------------------------|------------------------------------------------|----------------------|----------------------------|--------------------------|---------|---------------------------------------------------------------------------------------|
| OLG           | SN Spot Narrow (2x 3.5') | SBx Specify Arm Locations (x = number of arms) | Ceramic Metal Halide | Ceramic Metal Halide       | WH White                 | 120     | DS <sup>5</sup> Dark Sky 0° Tilt Option                                               |
| Olivio Grande | FM Flood Medium (2x 20') | H039T6 39W T6                                  | H039T6 39W T6        | 830 3000°K                 | BK Black                 | 277     | LP <sup>4,4</sup> Colored Red                                                         |
|               | FW Flood Wide (2x 45')   | H070T6 70W T6                                  | H070T6 70W T6        | 842 4200°K (SNW only)      | BZ Bronze                | 347     | LG <sup>4,4</sup> Colored Green                                                       |
|               | R2 Type II Distribution  | H150T6 150W T6                                 | H150T6 150W T6       | 942 4200°K (70W/150W only) | SV Silver                |         | LB <sup>4,4</sup> Colored Blue                                                        |
|               | R5 Type V Distribution   |                                                |                      | NOL Lamp not included      | SP Specify Premium Color |         | LY <sup>4,4</sup> Colored Yellow                                                      |
|               |                          |                                                |                      |                            |                          |         | RL <sup>3</sup> Ring Louver                                                           |
|               |                          |                                                |                      |                            |                          |         | RLC <sup>3</sup> Ring Louver w/Closed Center                                          |
|               |                          |                                                |                      |                            |                          |         | SLR <sup>4</sup> Field Rotatable Spread Lens (Factory Set to Horizontal Distribution) |
|               |                          |                                                |                      |                            |                          |         | SLV <sup>3</sup> Field Rotatable Spread Lens (Factory Set to Vertical Distribution)   |
|               |                          |                                                |                      |                            |                          |         | HL <sup>2</sup> Honeycomb Louver                                                      |
|               |                          |                                                |                      |                            |                          |         | DF <sup>4,4</sup> Dichroic Filter (consult factory)                                   |

<sup>1</sup> Only available with H150T6 <sup>2</sup> Full-Cut-off optics <sup>3</sup> Available w/OLG, FM & FW <sup>4</sup> Up to 2 accessories may be chosen. <sup>5</sup> Up to 70W T6

OLG-xx-SB1

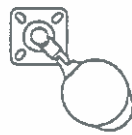


- Housing - Pressure die-cast aluminum two-piece, single cap-tive set screw for easy access.
- Gasketing - Continuous silicone gasket between fixture housing and lens base provide IP67 level ingress protection.
- Lens - Tempered clear glass
- Arm - Cast aluminum mounting arms for flexible pole mounting. Fixture head joint provides tilt-swivel range from 0° to 175°, and 360° rotation. Locks down with set screws.
- Rivnuts - (2) Two Rivnuts required per Fixture Arm and installed by manufacturer.

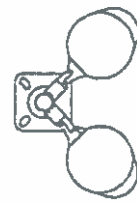
# Olvio Grande - Sistema 2 Arm Mount **selux**

## Mounting Configurations

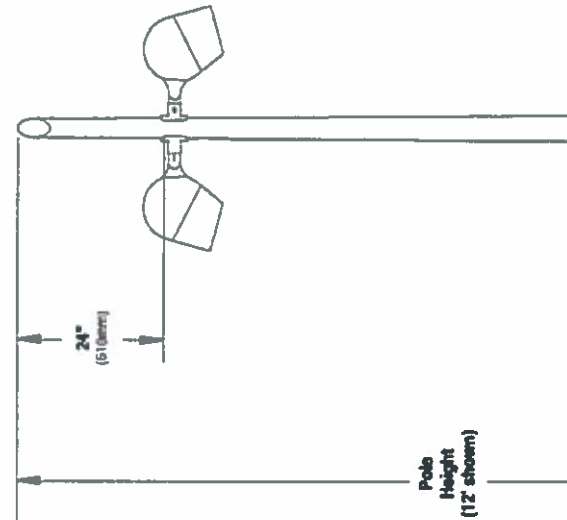
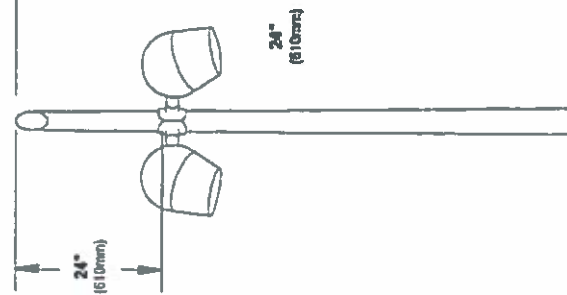
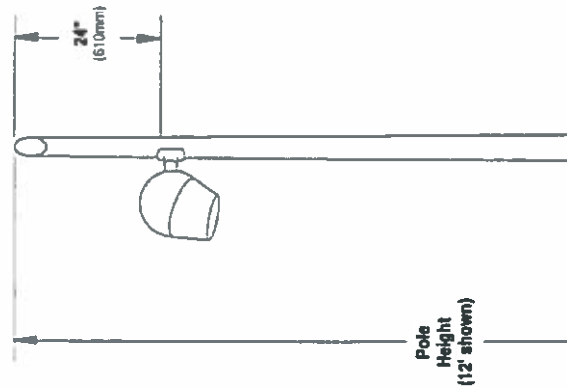
**Single**  
(Arm Location: OD)  
EPA = 1.0 ft<sup>2</sup> (0.093 m<sup>2</sup>)  
Weight = 35 lbs. (15 kg)  
Rivnuts = 1 pair (RN1)



**Double @ 90°**  
(Arm Locations: OD-OV)  
EPA = 2.0 ft<sup>2</sup> (0.186 m<sup>2</sup>)  
Weight = 70 lbs. (30 kg)  
Rivnuts = 2 pair (RN2)



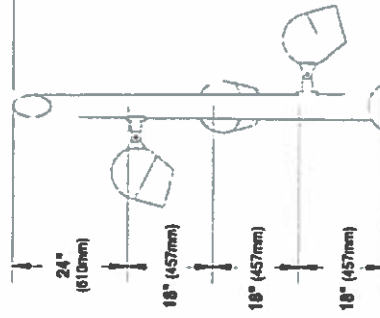
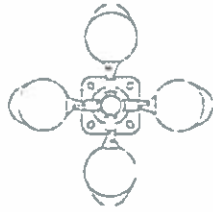
**Double @ 180°**  
(Arm Locations: OG-OS)  
EPA = 2.0 ft<sup>2</sup> (0.186 m<sup>2</sup>)  
Weight = 70 lbs. (30 kg)  
Rivnuts = 2 pair (RN2)



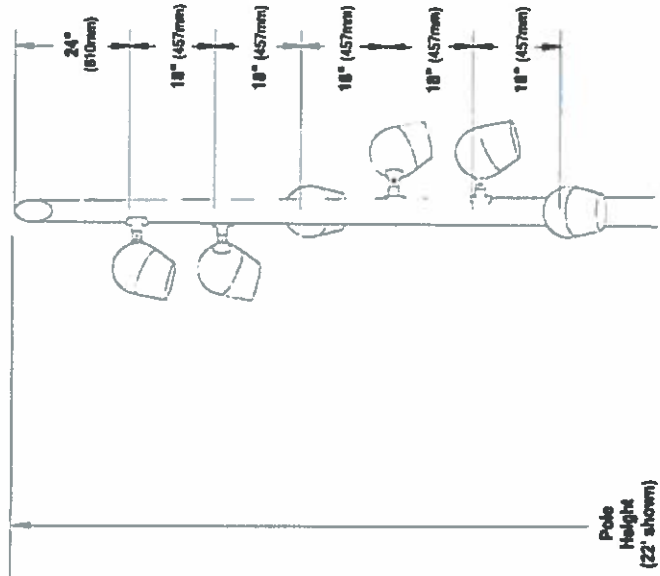
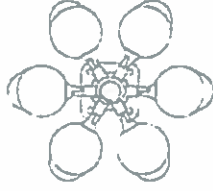
# Olvio Grande - Sistema 2 Arm Mount **selux**

## Mounting Configurations

Quad Pole Arms stepped @ 80°  
(Arm Locations: OG-1M-2S-3A)  
EPA = 4.0 ft<sup>2</sup> (0.372 m<sup>2</sup>)  
Weight = 140 lbs. (63 kg)  
Rivnuts = 4 pair (RN4)

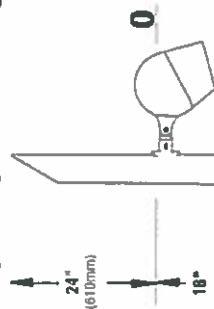


6 Fixture Pole Arms stepped @ 80°  
(Arm Locations: OE-1I-2M-3Q-4U-5A)  
EPA = 6 ft<sup>2</sup> (0.557 m<sup>2</sup>)  
Weight = 210 lbs. (95 kg)  
Rivnuts = 6 pair (RN6)



# Olivio Grande - Sistema 2 Arm Mount

## Specify Mounting Configurations



Use checkboxes provided in chart below. Columns #0 through #9 indicate heights starting with 2 feet (609mm) below top of pole and proceeding downwards in increments of 18 inches (457mm). Flows A through X indicate angular placement around pole starting with 0° at handhole and proceeding clockwise.

**NOTE: Arms mounted at same height level must be spaced apart at 90° minimum. Arms mounted at adjacent height levels (18" apart) must be spaced apart at 45° minimum.**

**HEIGHT CODE**  
**DISTANCE FROM TOP OF POLE**  
**CLOCKWISE FROM HANDHOLE**  
**ANGULAR LOCATION CODE**

**NOTE:** Arms mounted at same height level must be spaced apart at 90° minimum. Arms mounted at adjacent height levels (18" apart) must be spaced apart at 45° minimum.

|               | 0  | 1    | 2  | 3    | 4  | 5    | 6   | 7     | 8   | 9     |
|---------------|----|------|----|------|----|------|-----|-------|-----|-------|
| <b>A 0°</b>   | 2' | 3.5' | 5' | 6.5' | 8' | 9.5' | 11' | 12.5' | 14' | 15.5' |
| <b>B 15°</b>  |    |      |    |      |    |      |     |       |     |       |
| <b>C 30°</b>  |    |      |    |      |    |      |     |       |     |       |
| <b>D 45°</b>  |    |      |    |      |    |      |     |       |     |       |
| <b>E 60°</b>  |    |      |    |      |    |      |     |       |     |       |
| <b>F 75°</b>  |    |      |    |      |    |      |     |       |     |       |
| <b>G 90°</b>  |    |      |    |      |    |      |     |       |     |       |
| <b>H 105°</b> |    |      |    |      |    |      |     |       |     |       |
| <b>I 120°</b> |    |      |    |      |    |      |     |       |     |       |
| <b>J 135°</b> |    |      |    |      |    |      |     |       |     |       |
| <b>K 150°</b> |    |      |    |      |    |      |     |       |     |       |
| <b>L 165°</b> |    |      |    |      |    |      |     |       |     |       |
| <b>M 180°</b> |    |      |    |      |    |      |     |       |     |       |

Use checkboxes provided in chart below. Columns #0 through #9 indicate heights starting with 2 feet (609mm) below top of pole and proceeding downwards in increments of 18 inches (457mm). Rows A through M indicate angular placement around pole starting with 0° at handhole and proceeding clockwise.

Use non-standard mounting arms as specified on matrix on page 1 in mounting field.

Mounting arms

Mounting Arm

Use chart on "Angular Code" + "Angular" i.e. "3G" = 8 feet e, 90° clockwise

Arm Location

3 in the blanks below the Pole

IP-4A-5S

Units required per

When specifying non-standard configurations, enter "SS+(total number of arms specified)" on configuration matrix on page 1 in the fixture Mounting field.  
Example: SS4  
(specifying 4 mounting arms)

**Build up the Mounting Arm**  
Location Codes from chart on right ("Height Code" + "Angular Location Code") i.e. "3G" = 8 feet from top of pole, 90° clockwise from handhole.

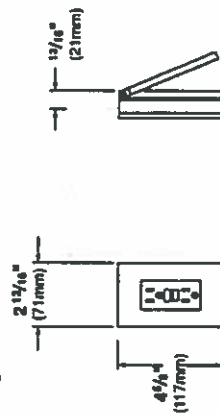
Enter Mounting Arm Location  
Codes on page 1 in the blanks  
provided that follow the Pole  
Option blanks.  
Example: 3G-3P-4A-5S

(1) Pair of Rivnuts required per arm.

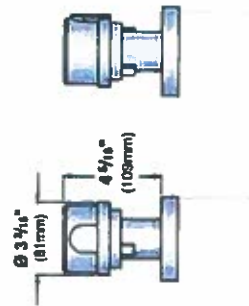
# Olivio Grande - Sistema 2 Arm Mount **selux**

## Optional Accessories

**GFCI Receptacle (REC)-** GFCI duplex receptacle with cast base bolted to pole and gasketed, provided with weather-proof, self-closing cover, located 36" (915mm) from base of pole, inline with hand-hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel. Please specify voltage if different from luminaire voltage.



**Photo Cell (PC)** - Twist lock photocell mounted to aluminum cap which attaches to pole top or can be remotely located. Can be oriented for optimum performance. Only for flat top poles. Refer to fixture spec sheet to determine if this option is applicable.



## O-AT53, O-AT845, O-ST5928, O-ST733, and O-ST838 Pole Information

Refer to individual pole specification sheets for construction details, anchorage information and additional options.

### Tapered Aluminum Pole

### Optional Base Covers

Die cast aluminum, two piece field installable base covers

BC3  
(available with O-AT53)



# Olivio Grande - Sistema 2 Arm Mount **selux**

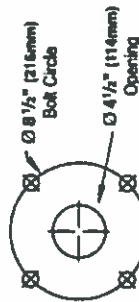
## O-AT535/635 Pole Information

5'-3 1/2" / 6'-3 1/2" Round Tapered Aluminum Poles. Refer to individual pole specification sheets for construction details, anchorage information and additional options.



### Bolt Circle (AT 535)

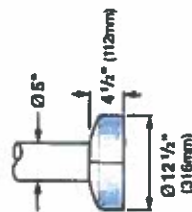
Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.



Note: Adequate drainage must be provided in concrete foundation or grout.

### BC3 Optional Base Cover (AT 535)

Die cast aluminum, two-piece field installable base cover.

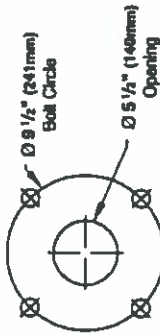


### Anchor Bolt Detail (without base cover)



### Bolt Circle (AT 635)

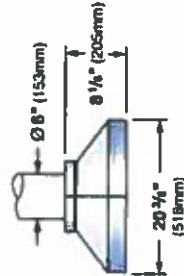
Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.



Note: Adequate drainage must be provided in concrete foundation or grout.

### BC3 Optional Base Cover (AT 635)

Die cast aluminum, two-piece field installable base cover.



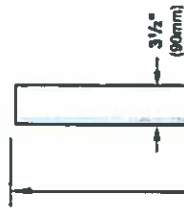
### Anchor Bolt Detail (with base cover)



# Olvio Grande - Sistema 2 Arm Mount **selux**

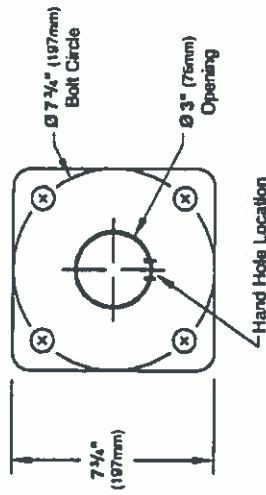
## O-A35 Pole Information

3 1/2" Round Straight Aluminum Pole. Refer to individual pole specification sheets for construction details, anchorage information and additional options.



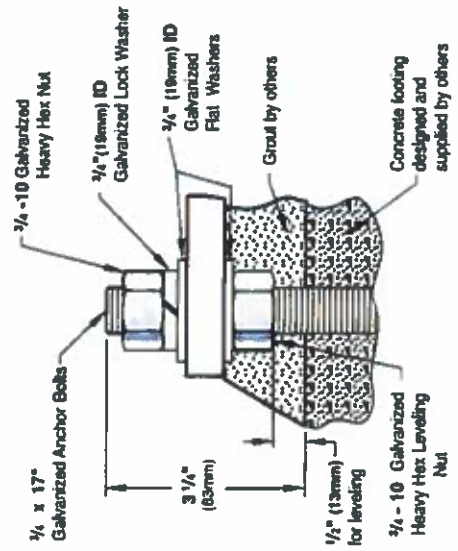
### Bolt Circle

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.



Note: Adequate drainage must be provided in concrete foundation or groud.

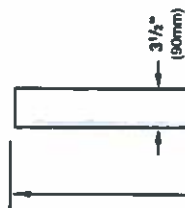
### Anchor Bolt Detail



# Olvio Grande - Sistema 2 Arm Mount **selux**

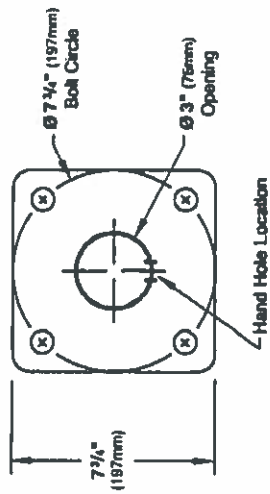
## O-S35 Pole Information

3 1/2" Round Straight Steel Pole. Refer to individual pole specification sheets for construction details, anchorage information and additional options.



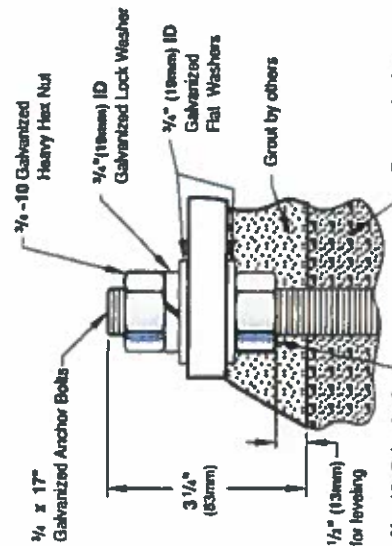
### Bolt Circle

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.



Note: Adequate drainage must be provided in concrete foundation or grout.

### Anchor Bolt Detail



# Olivio Grande - Sistema 2 Arm Mount **selux**

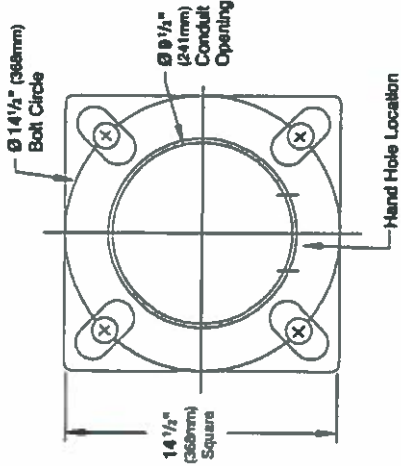
## O-AT106 Pole Information

10" to 6" Round Tapered Aluminum Pole. Refer to individual pole specification sheets for construction details, anchorage information and additional options.



### Bolt Circle

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.



**Note:** Adequate drainage must be provided in concrete foundation or grout.

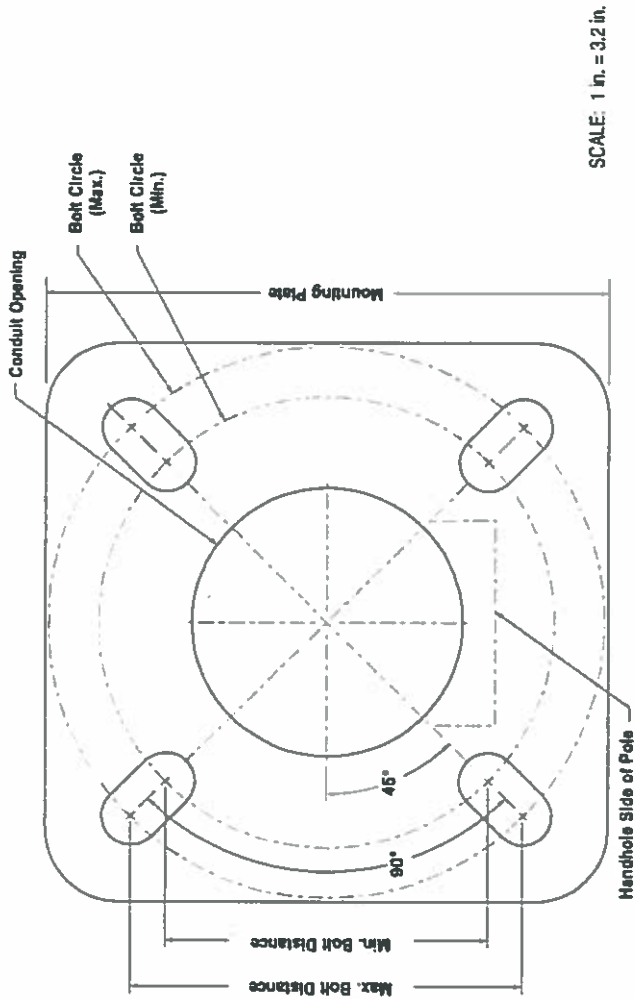
### Anchor Bolt Detail



# Olivio Grande - Sistema 2 Arm Mount selux

## Aluminum Pole Bolt Circle Details

Mounting Plate Detail



| Pole Series                       | Mounting Plate | Max. Bolt Distance | Min. Bolt Distance | Bolt Circle (Max.) | Bolt Circle (Min.) | Conduit Opening |
|-----------------------------------|----------------|--------------------|--------------------|--------------------|--------------------|-----------------|
| O-AT53 5'-3" Tapered Alum Pole    | 9.6" (245mm)   | 6.7" (170mm)       | 5.5" (140mm)       | 9.5" (241mm)       | 7.9" (198mm)       | 4.7" (118mm)    |
| O-AT74 7'-4" Tapered Alum Pole    | 11.3" (286mm)  | 7.8" (198mm)       | 7.2" (182mm)       | 11" (279mm)        | 10.1" (257mm)      | 6" (152mm)      |
| O-AT845 8'-4.5" Tapered Alum Pole | 12.1" (306mm)  | 8.5" (215mm)       | 8" (202mm)         | 12" (305mm)        | 11.3" (286mm)      | 7.5" (191mm)    |

Anchor Bolt Detail



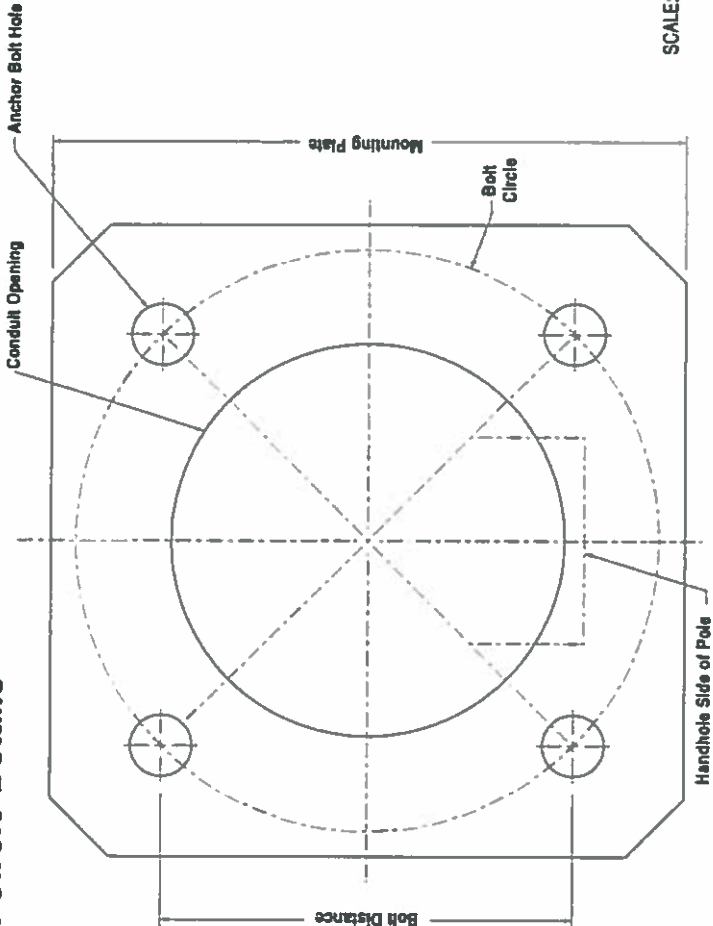
Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimension shown.

# Olvio Grande - Sistema 2 Arm Mount

selux

## Steel Pole Bolt Circle Details

Mounting Plate Detail



SCALE: 1 in. = 3.2 in.

| Pole Series                           | Mounting Plate | Max. Bolt Distance | Anchor Bolt Hole | Bolt Circle | Conduit Opening |
|---------------------------------------|----------------|--------------------|------------------|-------------|-----------------|
| O-ST5936-11 or O-ST5928-11            | 10" (254mm)    | 6.4" (162mm)       | 1.1" (27mm)      | 9" (229mm)  | 6" (152mm)      |
| O-ST733-11 7"-3.9" Tapered Steel Pole | 10.9" (276mm)  | 7.1" (180mm)       | 1.1" (27mm)      | 10" (254mm) | 6.8" (172mm)    |
| O-ST838-11 8"-3.8" Tapered Steel Pole | 11.5" (292mm)  | 7.8" (198mm)       | 1.1" (27mm)      | 11" (279mm) | 7.8" (197mm)    |
| O-ST838-7 8"-3.8" Tapered Steel Pole  | 11.5" (292mm)  | 7.8" (198mm)       | 1.3" (33mm)      | 11" (279mm) | 7.8" (197mm)    |

Anchor Bolt Detail



Use caution when setting anchor bolts.  
Bolts must be vertically straight and

# Olivio Grande - Sistema 2 Arm Mount selux

## Pole Information

Refer to individual pole specification sheets for construction details, anchorage information and additional options.

| Pole Series                              | Bolt Circle | Wall  | EPA Information (ft <sup>2</sup> ) |        |         |         | Height    | Finish                   | Rivnut Pairs              | Options                                                                                                                                                               |
|------------------------------------------|-------------|-------|------------------------------------|--------|---------|---------|-----------|--------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                          |             |       | 80 mph                             | 90 mph | 100 mph | 110 mph |           |                          |                           |                                                                                                                                                                       |
| O-AT53-156 5'-3" Tapered Alum Pole       | 8.5"        | 0.156 | 16.1                               | 12.4   | 9.7     | 7.8     | 12 12 ft. | WH White<br>BK Black     | RN1 1 Pair<br>RN2 2 Pairs | BC1 Decorative Cast Aluminum Base Cover                                                                                                                               |
| O-AT53-188 5'-3" Tapered Alum Pole       | 8.5"        | 0.188 | 19.5                               | 15.1   | 11.9    | 9.6     |           | BZ Bronze                | RN3 3 Pairs               |                                                                                                                                                                       |
| O-A35-197 3.5" Straight Alum Pole        | 7.75"       | 0.197 | 5.8                                | 4.2    | 3       | 2.2     |           | SV Silver                | RN4 4 Pairs               | BC3 Die Cast Two-Piece Base Cover                                                                                                                                     |
| O-S35-125 3.5" Straight Steel Pole       | 7.75"       | 0.125 | 5.3                                | 3.8    | 2.7     | 1.9     | 14 14 ft. | SP Specify Premium Color | RN5 5 Pairs               |                                                                                                                                                                       |
| O-AT535-156 5'-3.5" Tapered Alum Pole    | 8.625"      | 0.156 | 9.4                                | 7.1    | 5.5     | 4.4     |           |                          | RN6 6 Pairs               | BC5 Two-piece Cast Aluminum Base Cover                                                                                                                                |
| O-A35-197 3.5" Straight Alum Pole        | 7.75"       | 0.197 | 3.2                                | 2.2    | 1.4     | 0.8     |           |                          | RN7 7 Pairs               |                                                                                                                                                                       |
| O-S35-125 3.5" Straight Steel Pole       | 7.75"       | 0.125 | 2.8                                | 1.9    | 1.2     | 0.6     |           |                          | RN8 8 Pairs               |                                                                                                                                                                       |
| O-AT535-156 5'-3.5" Tapered Alum Pole    | 8.625"      | 0.156 | 7.7                                | 5.6    | 4.2     | 3.3     | 16 16 ft. |                          |                           |                                                                                                                                                                       |
| O-ST5936-11 5.9'-3.6" Tapered Steel Pole | 9"          | 11 ga | 19.3                               | 15.1   | 12.2    | 10.0    |           |                          |                           | BC9 Die Cast Base Cover                                                                                                                                               |
| O-S35-125 3.5" Straight Steel Pole       | 7.75"       | 0.125 | 2.1                                | 1.2    | 0.6     | NA      |           |                          |                           | BC10 Die Cast Base Cover                                                                                                                                              |
| O-AT535-188 5'-3.5" Tapered Alum Pole    | 8.625"      | 0.188 | 7.8                                | 5.6    | 4.2     | 3.2     | 18 18 ft. |                          |                           | Please see chart below for which Base Cover options are available for listed Poles.                                                                                   |
| O-S35-125 3.5" Straight Steel Pole       | 7.75"       | 0.125 | 1.4                                | 0.6    | NA      | NA      |           |                          |                           |                                                                                                                                                                       |
| O-AT535-188 5'-3.5" Tapered Alum Pole    | 8.625"      | 0.188 | 6.4                                | 4.5    | 3.2     | 2.4     | 20 20 ft. |                          |                           | PC Photocell where applicable                                                                                                                                         |
| O-AT845-188 8'-4.5" Tapered Alum Pole    | 11.5"       | 0.188 | 22.4                               | 17.3   | 13.8    | 11.2    |           |                          |                           | REC GFCI Receptacle with weather-proof cover*                                                                                                                         |
| O-ST5928-11 5.9'-2.8" Tapered Steel Pole | 9"          | 11 ga | 12.5                               | 9.9    | 8.0     | 6.0     | 22 22 ft. |                          |                           | * Photocell cover intended for portable loads or other portable equipment connected to the circuit only when attached. For other requirements please consult factory. |
| O-AT635-188 6'-3.5" Tapered Alum Pole    | 9.5"        | 0.188 | 7                                  | 4.8    | 3.4     | 2.6     | 25 25 ft. |                          |                           |                                                                                                                                                                       |
| O-ST733-11 7'-3.3" Tapered Steel Pole    | 10"         | 11 ga | 20.3                               | 16.2   | 13.1    | 11.0    | 26 26 ft. |                          |                           |                                                                                                                                                                       |
| O-AT845-250 8'-4.5" Tapered Alum Pole    | 11.5"       | 0.250 | 22.4                               | 17.3   | 13.8    | 11.2    | 28 28 ft. |                          |                           |                                                                                                                                                                       |
| O-ST838-11 8'-3.8" Tapered Steel Pole    | 11"         | 11 ga | 18.9                               | 14.9   | 12.0    | 8.0     |           |                          |                           |                                                                                                                                                                       |
| O-ST838-7 8'-3.8" Tapered Steel Pole     | 11"         | 7 ga  | 33.5                               | 27.0   | 22.0    | 18.0    | 30 30 ft. |                          |                           |                                                                                                                                                                       |
| O-AT106-188 10'-6" Tapered Alum Pole     | 14.5"       | 0.188 | 20                                 | 15.3   | 11.7    | 9.2     |           |                          |                           |                                                                                                                                                                       |
| O-AT106-188 10'-6" Tapered Alum Pole     | 14.5"       | 0.188 | 15.9                               | 12     | 9.1     | 6.8     | 35 35 ft. |                          |                           |                                                                                                                                                                       |
| O-AT106-188 10'-6" Tapered Alum Pole     | 14.5"       | 0.188 | 14.2                               | 10.5   | 7.8     | 5.8     | 39 39 ft. |                          |                           |                                                                                                                                                                       |

Other pole configurations available, consult factory

EPA Calculations allow for 1.3 Gust Factor

See Mounting Page for future w/turn EPA values

(1) Pair of Rivnuts is required for every mounting arm in pole mount applications. Rivnut codes are denoted in pairs (1 pair Rivnuts = RN1, 2 pair

# APPENDIX G - FLATBUSH AVENUE STREETSCAPE ASSETS

Draft  
last updated: 01/21/10

## DEKALB TO FULTON MEDIAN

|                                                                                                                          | Total Site |      |
|--------------------------------------------------------------------------------------------------------------------------|------------|------|
| Item                                                                                                                     | Quantity   | Unit |
| <b>Street Furnishing</b>                                                                                                 |            |      |
| A. Powdercoat Aluminum Bench<br>        | 57         | EA   |
| B. Powdercoat Aluminum Custom Bench<br> | 6          | EA   |
| C. Bike Rack<br>                        | 12         | EA   |
| D. Trash receptacles<br>                | 45         | EA   |
| E. Tree pit fence                                                                                                        | 2,861      | LF   |
| <b>Lighting</b>                                                                                                          |            |      |
| A. Pedestrian Light-Pole/ Lamp<br>    | 8          | EA   |
| D. Pedestrian Lamp<br>(2) 150w Icetron                                                                                   | 16         |      |
| B. Pedestrian Light-Luminaire                                                                                            | 8          | EA   |
| C. Pedestrian Light-Electricity                                                                                          | 8          | EA   |
| <b>Paving</b>                                                                                                            |            |      |
| A. 12" Granite Curb                                                                                                      | 3,932      | LF   |
| B. 12" Granite Flush Curb                                                                                                | 248        | LF   |
| C. Granite Pavers                                                                                                        | 3,402      | SF   |
| D. Pervious Concrete Pavers                                                                                              | 4,170      | SF   |
| E. Granite Blocks in Tree Pits<br>    | 9          | EA   |
| F. Unpigmented Concrete Sidewalk                                                                                         | 6,274      | SF   |
| G. Pigmented Concrete Sidewalk<br>(Landmark Gray, Sawcut Joints)                                                         | 52,470     | SF   |
| <b>Walls</b>                                                                                                             |            |      |
| A. Concrete Median Walls                                                                                                 | 4,904      | LF   |
| B. Median Granite Wall Ends                                                                                              | 315        | LF   |
| <b>Brian Toile Art Piece</b>                                                                                             |            |      |
| A. Dynapac rotating motors                                                                                               | 3          | EA   |
| B. Rotating motors - Electricity                                                                                         | 3          | EA   |
| C. LED lamps                                                                                                             | 8          | EA   |
| C. Quarterly inspection, cleaning, and lubrication                                                                       |            |      |
| C. Pole - Paint touch-up                                                                                                 | 1          | EA   |

## DEKALB TO FULTON SIDEWALK

|                                                                                                                           | Total Site |      |
|---------------------------------------------------------------------------------------------------------------------------|------------|------|
| Item                                                                                                                      | Quantity   | Unit |
| <b>Street Furnishing</b>                                                                                                  |            |      |
| A. Powdercoat Aluminum Bench<br>        | 8          | EA   |
| B. Powdercoat Aluminum Custom Bench<br> | 1          | EA   |
| C. Bike Rack<br>                        | 3          | EA   |
| D. Trash receptacles<br>                | 6          | EA   |
| E. Tree pit fence                                                                                                         | 364        | LF   |
| <b>Lighting</b>                                                                                                           |            |      |
| A. Pedestrian Light-Pole/ Lamp<br>   | 0          | EA   |
| D. Pedestrian Lamp<br>(2) 150w Icetron                                                                                    | 0          |      |
| B. Pedestrian Light-Luminaire                                                                                             | 0          | EA   |
| C. Pedestrian Light-Electricity                                                                                           | 0          | EA   |
| <b>Paving</b>                                                                                                             |            |      |
| A. 12" Granite Curb                                                                                                       | 940        | LF   |
| B. 12" Granite Flush Curb                                                                                                 | 0          | LF   |
| C. Granite Pavers                                                                                                         | 0          | SF   |
| D. Pervious Concrete Pavers                                                                                               | 2,060      | SF   |
| E. Granite Blocks in Tree Pits<br>   | 0          | EA   |
| F. Unpigmented Concrete Sidewalk                                                                                          | 0          | SF   |
| G. Pigmented Concrete Sidewalk<br>(Landmark Gray, Sawcut Joints)                                                          | 12,743     | SF   |
| <b>Walls</b>                                                                                                              |            |      |
| A. Concrete Median Walls                                                                                                  | 0          | LF   |
| B. Median Granite Wall Ends                                                                                               | 0          | LF   |