Foreword

Takoma Park’s streetscape is a vital and significant part of our city. Our streetscape reflects not only up-to-date amenities that guide our bicycles, pedestrians, and automobiles safely over our streets and walkways. It also reflects continuity with our history and with the values that bind us together as a residential community. The streetscape is one element -- together with our houses, gardens, trees, shops, parks, schools, and playgrounds -- that helps form our identity and signifies that we are Takoma Park.

Our streetscape, whether in commercial or residential neighborhoods, is part of the built environment and, as such, should be planned and designed with intention. Safety, technical innovation, and cost-efficiency should be thoughtfully melded with the City’s heritage as a unique community in the Washington metropolitan area. This heritage prizes our resistance to the placement of a freeway in our midst and our continued resistance to unnecessary impacts caused by motor vehicles. It celebrates gardens and trees and the beauty of both the natural environment and the things we build in it. The City’s residential neighborhoods hold the cluttered and frenetic pace of urban life at just enough distance to permit the safe and quiet enjoyment by families and all residents of the thing they value most: the community itself.

The built environment of Takoma Park should reflect and promote this heritage, even as we embrace the vibrant and diverse growth of the urban landscape around us.

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Purpose and Background

The City maintains hundreds of pieces of furniture, lighting, wayfinding signs, bike racks, etc. on public rights-of-way in residential neighborhoods and commercial districts. Functional, accessible, and well-maintained public spaces improve quality of life in Takoma Park by fostering community, enhancing business vitality, and supporting environmental and economic sustainability. The Takoma Park Streetscape Manual provides a mapped inventory of all streetscape elements in public rights-of-way installed by the City that includes manufacturers’ specifications and vendor information to ensure consistency of installation and replacement in locations throughout the City.

Within the pages of the Streetscape Manual are an overview of streetscape elements, including product name and manufacturer, dimensions, colors, installation instructions and locations, and applicable customization details. Most pages have a map indicating element locations by color or size (as of 2020). Product specifications provide additional detail, including vendor-specific color options, assembly, and installation. While proprietary products are listed in the Streetscape Manual, the City may be required to solicit bids for multiple alternatives in order to meet procurement requirements.

In 2012, the City Council adopted the New Ave Streetscape Standards for the New Hampshire Avenue commercial corridor, and in 2015, the City Council accepted the Residential Streetscape Task Force final report, “Takoma Park’s Residential Streetscapes: Safeguarding our Distinctive Visual Character.” The Streetscape Manual was initiated by the City in 2015, incorporating the guidelines and recommendations from these earlier documents, and with thoughtful input from business associations and members of the City Council-appointed Residential Streetscapes Taskforce and Safe Roadways Committee. The Streetscape Manual was adopted by the Takoma Park City Council on July 20, 2016.

The following sections outline guiding principles that inform decisions as they relate to streetscapes in Takoma Park, an organization outline of the manual itself, directions on using and maintaining the Streetscape Manual for City staff, residents, and contractors, as well as a list of applicable policies, guidelines, and standards that direct the practice of planning and implementing streetscape improvements in Takoma Park.
Guiding Principles

Streetscape improvements along City and state rights-of-way in Takoma Park are implemented to support walking, cycling, and accessing transit while augmenting the aesthetics and environmental performance of City streets. These improvements support alternative modes of transportation, environmental sustainability, economic development, and social interaction, which contribute to a more livable Takoma Park. The Streetscape Manual reflects this human-scaled orientation with a focus on streetscape elements as they relate to pedestrians, bicyclists, and transit users. Takoma Park's streetscapes are maintained and improved with the following guiding principles in mind:

**Planning and Design**– Improving the City’s streetscapes is an intentional act that necessitates a comprehensive and interdepartmental planning and design approach. Safety, ecology, culture, the local economy, and aesthetics are all key drivers of the planning and design process.

**Durability and Sustainability**– Elements installed in streetscapes are expected to last for decades and are subject to the City’s procurement policies that prioritize sustainable materials and local sources.

**Balancing Consistency with Local Identity**– Streetscapes reflect both the character of Takoma Park, as well as the distinct identities of neighborhoods and commercial districts. Throughout the City, streetscape elements conform to one another or purposefully differentiate to support an area’s established identity.

**Community-Led Design**– Changes to streetscapes in Takoma Park are either neighborhood-led initiatives (for new sidewalks and traffic calming) or the outcome of City projects and plans that involve community meetings and input.

**Accessibility and Inclusivity**– Takoma Park is a welcoming and diverse community for all ages and abilities.

**Healthy Trees and Plantings**– Trees and plantings on City streetscapes provide numerous social, ecological, and economic benefits, yet require space and maintenance to survive and flourish. Care is taken to ensure streetscapes are designed and improved to support species that thrive in the built environment.

**Clear Expectations for All Stakeholders**– Repairs and improvements to streetscapes are initiated by private contractors and public utilities in addition to City crews. Expectations for repair, replacement, and rehabilitation need to be clearly and consistently applied.

**Adapting to Change**– Capital projects in the City are subject to changing federal and state regulations pertaining to the environment, equal access, etc., as well as innovations in technology that advance Takoma Park’s established goals and policies.
Organization

The Streetscape Manual is organized into nine sections - Signage, Sidewalks, Traffic Calming and Pavement Markings, Transit Facilities, Bicycle Facilities, Planters, Receptacles, Lighting, and Seating. City-wide elements can be found throughout Takoma Park, followed in four distinct geographical sub-areas; Flower Avenue, Historic District, the New Ave, and Residential Neighborhoods. As stated above, streetscape elements are organized by type (e.g. seating) and each element within that type is described with a map, followed by design specifications. Descriptions of the nine sections reflect the style and color of streetscape elements unique to each:

City-wide – These are standard elements installed citywide, regardless of planning district. For example the City’s gateway and wayfinding signage developed in 2006 express the City’s municipal identity and were approved by the Montgomery County Historic Preservation Commission.

Flower Avenue – Corresponds to the Flower Avenue Green Street project (2012-2016) and reflects design decisions made with public input for the project. The streetscape elements are primarily residential in character, supportive of the street’s role as an important multi-modal corridor leading to Piney Branch Road and the Long Branch commercial district.

Historic District – Designated by Montgomery County, the Takoma Park Historic District covers the oldest developed portions of the City adjacent to the Takoma Metro Station, Montgomery College, and the Old Town and Takoma Junction commercial areas. Modifications to the residential and commercial streetscape in the Takoma Park Historic District should be minimal and seek approval from the Montgomery Historic Preservation Commission when necessary. Improvements on Carroll and Laurel Avenues in the early 2000s reinforced the aesthetic of streetscape elements in the Historic District, characterized by black metal finishes and classic designs.

The New Ave – The New Hampshire Avenue corridor from Eastern Avenue to University Boulevard, a.k.a. “the New Ave,” comprises the City’s largest commercial districts along high-traffic arterial roadways. The New Ave was the focus of a 2006 branding effort characterized by vibrant colors that reflect the cultural traditions of the communities that live and work along the corridor. The vibrant colors and playful design of seating and waste receptacles on New Hampshire Avenue are consistent with the New Ave brand. Improvements initiated in 2008 and recommendations in the 2012 New Ave Streetscape Standards provide the basis for the New Ave aesthetic.

Residential Neighborhoods – Residential streetscapes in Takoma Park that are outside of the areas defined as Flower Avenue, the New Ave, and the Historic District are predominantly composed of single and multifamily housing with some institutional and retail land uses. As the City’s residential neighborhoods tend to be greener and more architecturally varied, streetscape improvements should strive for neutrality and simplicity in color and design.
Using and Maintaining the Streetscape Manual

The specific streetscape elements distinct to each of the four geographical sub-areas described earlier are expected to be installed as replacements or new fixtures. Takoma Park is a small city composed of neighborhoods and commercial districts with distinct identities. Consistency of application is a key component both for maintaining a sense of unity across the City, while respecting and enhancing local character. New and alternative products may be included in updates to the Streetscape Manual, but are expected to be incorporated through a specific capital project or planning process that involves public input.

The manual is to be used by all City staff, City contractors, and Council-appointed boards and committees engaged in installing, replacing, and maintaining streetscape elements. For example, when:

► City staff is reviewing a Site Plan application and requests that a developer install street lights along a public right-of-way.

► City staff is directing a utility contractor to repair/resurface a road or sidewalk that had a special sidewalk finishing detail, pavement markings for bicycle facilities, etc.

► City staff is reviewing a community grant application that involves streetscape elements like seating or signage in the public right-of-way.

► Council-appointed board/committee is recommending a project that involves streetscape elements (seating, lighting, signage, bicycle facilities, etc.) in the public right-of-way.

While streetscape elements are addressed discretely in the Streetscape Manual, they are often installed along with new or existing complimentary elements. For example a bench is often next to trash and recycling receptacles. It is therefore important to review specifications all of elements in proximity to each other so that necessary offsets, ADA standards, and other requirements do not conflict.

The Streetscape Manual will be updated annually in a coordinated effort by the Housing and Community Development and Public Works departments, incorporating additional streetscape elements already in use or new elements as projects are completed. Input is always welcome from the public, including residents’ groups, business associations, and Council-appointed boards, committees, and commissions. Some products in the public right-of-way are not cataloged in the Streetscape Manual. These products are to be phased out, as they are either no longer available from vendors or have been deemed inadequate for functional or aesthetic reasons. They are listed separately in an appendix. Additionally, there are some variations or colors of elements that have been discontinued, like the “Federal Yellow” ADA detectable warning mats. All discontinued elements will be replaced on an as-needed basis.
Streetscape Areas in Takoma Park
Applicable Policies, Guidelines, and Standards

Maintaining and improving streetscapes in Takoma Park results from planning processes, projects, and programs, and is expected to comply with applicable City, County, State, and Federal laws pertaining to safety, accessibility, equity, environmental protection, and design. The following ordinances, resolutions, statues, and guidelines may not be applicable to all projects that impact City streetscapes, and care should be used to determine which guidelines and standards advance the goals of the Takoma Park City Council and community.

City Code, Policies and Standards:

Takoma Park Municipal Code
codepublishing.com/MD/TakomaPark

Takoma Park Code, Chapter 2.16, § 2.16.110 outlines the purpose of the City Council-appointed Safe Roadways Committee, whose advisory role includes encouraging Takoma Park residents to use alternatives to driving, including walking, bicycling, and transit.

Takoma Park Code Chapter 7.08 Source Selection and Contract Formation outlines the City’s procurement processes that are both subject to and exempt from competitive bidding, as well as a preference for recycled products and environmentally preferable and locally-sourced purchasing.

Takoma Park Administrative Regulations:

- 96-1: Traffic Calming Devices – Petition Process and Installations

Takoma Park Resolutions:
takomaparkmd.gov/government/city-council/resolutions

- 2015-58: Resolution Authorizing Execution of a Contract for Services/Bus Shelter Agreement with Signal Outdoor Advertising, LLC
- 2015-32: A Resolution Setting a Policy for New Sidewalk Design and Installation
- 2012-56: Adopting the New Ave Streetscape Standards
- 2012-7: Endorsing the Takoma/Langley Sector Plan Urban Design Guidelines

New Ave Streetscape Standards (rev. 2014)
theNewAve.com/development/planning-vision

Adopted by the Takoma Park City Council, this document outlines street furniture styles, street tree species, stormwater infiltration strategies, crosswalk treatments, and pavement types to be used in the New Hampshire Avenue corridor between Eastern Avenue and University Boulevard. The standards are used to help guide private development and public infrastructure projects on New Hampshire Avenue to ensure a consistent look and feel on the corridor that meets the City’s sustainability goals while reflecting the diversity of the community through design.
County, State, and Federal Guidelines & Standards:

montgomeryplanning.org/community/takoma_langley_crossroads

Developed by the Montgomery County Planning Department, this document guides urban design in the New Hampshire Avenue corridor north of Sligo Creek Parkway.

montgomeryplanning.org/community/longbranch

Developed by the Montgomery County Planning Department, this document guides design strategies for particular streetscape treatments in the Long Branch area such as lighting, crosswalks, and medians.

Montgomery County Department of Transportation Design Standards
montgomerycountymd.gov/dot-dte/common/standards.html

This document provides standards for road, crosswalk, and sidewalk design and maintenance.

WMATA Guidelines for Design and Placement of Transit Stops (2009)
w mata.com/pdfs/planning/Bus_Stop_Guidelines_Brochure.pdf

This document provides both WMATA and its participating municipalities with specific physical design criteria to be integrated with local comprehensive plan policies, land use ordinances, pedestrian plans, and street design guidelines. It presents guidelines for the construction of and improvements to bus stop placement and types, bus stop elements and passenger amenities, and bus stop spacing.

Maryland Manual on Uniform Traffic Control Devices (rev. 2011)
roads.maryland.gov/index.aspx?Pageld=835

The MdMUTCD is the combined document of the national set of traffic control device standards and guidance promulgated by Federal Highway Administration (FHWA) rulemaking on December 16, 2009 and Maryland Supplement to the MUTCD.

Maryland State Highway Administration Bicycle Policy & Design Guidelines (rev. 2015)
roads.maryland.gov/ohd2/bike_policy_and_design_guide.pdf

This policy provides guidance for designing and constructing bicycle facilities on Maryland state highways. A waiver is required by designers if the guidelines are not met.

Americans with Disabilities Act Standards for Accessible Design
http://www.ada.gov/2010ADAstandards_index.htm

The Americans with Disabilities Act of 1990 (ADA) prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, State and local government services, public accommodations, commercial facilities, and transportation. In particular, 49 CFR, Part 37 outlines specific construction and adaptation requirements for transportation facilities, including bus stops, sidewalks, and curb cuts.

NACTO Urban Bikeway Design Guide (rev. 2014)
nacto.org/publication/urban-bikeway-design-guide

The National Association of City Transportation Officials (NACTO)’s Urban Bikeway Design Guide outlines standards for bike lanes, cycle tracks, intersections, signals, signing and marking, and bicycle boulevards to be used by planners across the US.
These are standard elements installed citywide, regardless of planning district. For example, the City’s gateway and wayfinding signage developed in 2006 express the City’s municipal identity and were approved by the Montgomery County Historic Preservation Commission.
SIGNS

PRODUCT: CITY-WIDE WAYFINDING SIGNS

VENDOR: SIGNART

INVENTORY: 78 TOTAL SIGNS:
- 7 LARGE PRIMARY GATEWAY SIGNS
- 29 CITY LOGO PENDANT SIGNS
- 13 HISTORIC DISTRICT ID SIGNS
- 8 AREA ID SIGNS
- 2 PARKING ID SIGNS
- 6 PEDESTRIAN KIOSK SIGNS
- 1 HISTORIC MARKER SIGNS
- 7 GARDEN MARKER SIGNS
- 1 COMMUNITY CENTER DIRECTIONAL SIGNS

DIMENSIONS: REFER TO ATTACHED SIGN TYPE SPECIFICATIONS.

MATERIALS: PANELS ARE .050 GAUGE ALUMINUM. SIGN TUBING IS .050 GAUGE ALUMINUM WITH WELDED FRAME.

FINISHES & COLORS: SIGNS ARE 3/16” BLACK PAINTED ALUMINUM PANELS. DIGITALLY-PRINTED SIGNS ARE 3M SCOTCHLITE REFLECTIVE SHEETING. KIOSK DIGITALLY-PRINTED MAPS ARE 3M SCOTCHLITE SHEETING WITH GRAFFITI-RESISTANT LAMINATE. KIOSK FRAMES ARE PAINTED IN AKZO-NOBEL #508-114. REFER TO ATTACHED SIGN TYPE SPECIFICATIONS.

PURCHASE & INSTALLATION: PHASED IMPLEMENTATION STARTING IN 2009. SIGNS TO BE REPLACED OR EXPANDED ON AN AS-NEEDED BASIS.
SIGNS: CITY-WIDE WAYFINDING SIGNS

Section 1: Signage
Section 1: Signage

Streetscape Guidelines 2021

ABCDEF

GHIJKLMNOPQRSTUVWXYZ

cdefghijklmnopqrstuvwxyz

0123456789

ABCDEF

GHIJKLMNOPQRSTUVWXYZ

cdefghijklmnopqrstuvwxyz

0123456789

ABCDEF

GHIJKLMNOPQRSTUVWXYZ

cdefghijklmnopqrstuvwxyz

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0123456789
Section 1: Signage

Streetscape Guidelines 2021
Section 1: Signage
### Section 1: Signage

#### Streetscape Guidelines 2021

---

**Sections:**
- A
- B
- C
- D

**Details:**
- C & D

---

**Table:**

<table>
<thead>
<tr>
<th>Details</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C &amp; D</td>
<td>Overview from Front</td>
</tr>
</tbody>
</table>

**Diagram:**

- Scale: 1/4" = 1'-0" |
- North Up |

---

**Notes:**

- Comment: 1/4" = 1'-0" |
- Scale: 1/4" = 1'-0" |
- North Up |

---

**References:**

- SignArt | Streetscape Guidelines 2021 | 44
Section 1: Signage

Streetscape Guidelines 2021
City of Takoma Park Wayfinding Sign System
Addendum: Neighborhood Identification Signs

The City’s Coordinated Wayfinding sign system was not developed to include a sign type for specific neighborhoods due to the dynamic and personal understanding of a neighborhood as representing individual or group identity. Within the sign system, the Primary Gateway, and Building Identification signs have customized ‘art panels’ affixed below that celebrate the identity and heritage of neighborhoods, commercial districts, and cultural practices in Takoma Park.

In 2014, City staff was directed to follow up with a resident request for signage that specifically identified their neighborhood area. Housing and Community Development staff, with input from Public Works staff, developed a Neighborhood Identification Sign at defined locations, and process for installation, as an addendum to the Takoma Park Wayfinding Sign System.

DESIGNS: The two size and colors can be used depending on the color preference of the neighborhood and length of its name. It is advised that neighborhoods use a consistent color for all their signs.

LOCATIONS: To control for the number of potential new signs erected throughout the City, Neighborhood Identification Signs would be only placed under existing A.3 Tertiary Gateway logo pendants, typically found along the City’s boundaries (see enclosed map). The sign designs are of specified size and color, consistent with the City of Takoma Park’s approved coordinated Wayfinding Sign system.

INSTALLATION PROCESS: Neighborhoods as defined on the list of official residents/community associations maintained by the City Clerk’s office may request Neighborhood Identification Signs through the mini-Grant process (www.takomaparkmd.gov/cityclerk/fy14-mini-grants). The grant would pay the cost of purchasing and installing the signs (design specifications can be made publicly available) and the Grant review committee would require the proposal met the sign design and location criteria, outlined above.
SIGNS

PRODUCT: TAKOMA PARK BICYCLE WAYFINDING SIGNS

VENDOR: NEWMAN SIGNS

INVENTORY: 58 LOCATIONS AROUND THE CITY

DIMENSIONS: BIKE ROUTE SIGN (WITH CITY LOGO): 24” X 12”
DIRECTIONAL WAYFINDING SIGNS WITH TEXT: 24” X 5” / 10” / 15”

MATERIALS: STEEL TRAFFIC SIGNS

FINISHES & COLORS: 1.875” WHITE CLEARVIEW TEXT ON GREEN BACKGROUND, REFLECTIVE FINISH

PURCHASE & INSTALLATION: NEW AND REPLACEMENT WAYFINDING SIGNS SHOULD ALWAYS INCLUDE TAKOMA PARK BIKE ROUTE SIGN WITH CITY LOGO IN FRONT WHEEL ALONG WITH DIRECTIONAL SIGNS.

BICYCLE WAYFINDING SIGNS TO BE USED IN TAKOMA PARK ON STREETS, TRAILS, AND OTHER BIKEWAY CONNECTIONS. THE SEGMENT OF THE METROPOLITAN BRANCH TRAIL ON THE WEST SIDE OF THE CITY MAY REQUIRE BRANDED SIGNAGE IN ADDITION TO THESE SPECIFICATIONS.

FOR INSTALLATION OF NEW SIGNS ALONG A ROUTE, CREATE A DETAILED SIGN PLAN WITH DIRECTIONAL ARROWS, DISTANCES IN MILES, AND USING EXISTING PEPCO POLES AND U-CHANNELS TO GREATEST EXTENT POSSIBLE.

INCLUDE ONE BIKE ROUTE SIGN WITH ALL DIRECTIONAL SIGNS. TEXT ON DIRECTIONAL SIGNS SHOULD BE 1 LINE (5” TALL), 2 LINES (10” TALL), OR 3 LINES (15” TALL).

CUSTOM PRODUCTS: TAKOMA PARK BIKE ROUTE SIGN WITH CITY LOGO IN FRONT WHEEL (TECHNICALLY NOT MUTCD APPROVED)
SIGNS: BICYCLE WAYFINDING SIGNS

Bicycle Singage

WARD 1
WARD 2
WARD 3
WARD 6
WARD 5
WARD 4

0 0.5 10.25
Miles
Bicycle Wayfinding Signs
Streets
Wards
City Boundary

52 : Section 1: Signage
ARTWORK APPROVAL NEEDED

Please check over this proof very carefully for errors including spelling. By signing below, the customer agrees to be responsible for errors made. Artwork is the exclusive property of Newman Sigma. Artwork created by Newman Sigma is the sole property of Newman Sigma. Any reproduction of elements contained within this artwork is strictly prohibited.

IMPORTANT: Your signature will remain on PROOF until the proof is signed and returned.

Customer Approval
☐ Approved As-is
☐ Approved with Noted Changes
☐ Need New Proof

DATE: 6-6-14
DESIGNER: CR
SAVED AS: MD-TAK014-2410
COLOR: WHITE ON GREEN
SALES REP: TARICA/KIRSTIE
SPECS FOR CITY Standard STREET NAME SIGNS, INCLUDING LETTERING DIMENSIONS AND SPACING.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Plate Height</th>
<th>Letter Height</th>
<th>Letter Width</th>
<th>Minimum length of sign (per Montgomery County standards)</th>
<th>Maximum Length</th>
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</thead>
<tbody>
<tr>
<td>Residential streets</td>
<td>6”</td>
<td>See below</td>
<td>Min. 55% of character height (2.2”)</td>
<td>18”</td>
<td>48”</td>
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<tr>
<td>Primary Text (Street names)</td>
<td>N/A</td>
<td>4”</td>
<td>Min. 55% of height</td>
<td></td>
<td></td>
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<tr>
<td>Street type</td>
<td>N/A</td>
<td>2”</td>
<td>Min. 55% of height</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blocks</td>
<td>N/A</td>
<td>1.5”</td>
<td>Min. 55% of height</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-residential streets</td>
<td>9”</td>
<td>Min. 55% of height</td>
<td>18”</td>
<td>48”</td>
<td></td>
</tr>
<tr>
<td>Business districts and state roads</td>
<td>N/A</td>
<td>5”</td>
<td>Min. 55% of height</td>
<td>18”</td>
<td>48”</td>
</tr>
</tbody>
</table>

SIGNPOSTS SHOULD BE 2” AWAY FROM STREET TYPE AND BLOCK NUMBER. MINIMUM 1” SPACING AROUND TEXT FROM TOP AND BOTTOM OF SIGN.

NOTE: PLATE HEIGHT SHOULD ALWAYS BE IN 6” INCREMENTS.
Section 2: SIDEWALKS
SIDEWALKS

PRODUCT: CONCRETE

VENDOR: N/A - INSTALLED BY PUBLIC WORKS OR CITY CONTRACTOR

DIMENSIONS: THE CITY AIMS TO BUILD NEW SIDEWALKS IN RESIDENTIAL AREAS THAT ACHIEVE A WIDTH OF 5 FEET (WIDER IN COMMERCIAL AREAS). MANY EXISTING RESIDENTIAL SIDEWALKS ARE 4 FEET WIDE. WHERE THERE ARE SPACE CONSTRAINTS, A MINIMUM WIDTH OF 36 INCHES MUST BE ACHIEVED TO ACCOMMODATE WHEELCHAIRS. THIS MINIMUM WIDTH IS ONLY ALLOWED FOR SHORT DISTANCES AROUND OBSTRUCTIONS.

MATERIALS: MSHA CONCRETE MIX #3, #6, AND #9 ARE USED FOR SIDEWALKS DEPENDING ON ANTICIPATED WEIGHT AND LOAD. A HYDROPHOBIC TOP COAT TREATMENT IS OFTEN APPLIED (WEARS OFF IN ABOUT A YEAR).

REFER TO SPECIFICATIONS FROM THE MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS OFFICE OF MATERIALS TESTING FOR COMPOSITION OF CONCRETE MIX.

FINISHES & COLORS: PAINTING OF SIDEWALKS AND CURBS IS TO BE CONSISTENT WITH CITY POLICY.

PURCHASE & INSTALLATION: CONTRACTORS ARE DIRECTED TO FOLLOW MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS IN REGARDS TO DEPTH, SLOPE, AND CURB CONSTRUCTION.
**Mix Code No.:** S3W-N35-8-12  
**Date:** 29-Mar-12

**Design Strength:** 3500 P.S.I.  
**Slump:** 2 - 3 in

**Max. Allow. H2O:** 34.8 Gallons / C.Y.  
**Max. W/C Ratio:** .50

<table>
<thead>
<tr>
<th>Material</th>
<th>Proportion Percentage</th>
<th>Design Weights lbs. Per C.Y.</th>
<th>Specific Gravity</th>
<th>Absolute Vol. (cubic ft.)</th>
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</thead>
<tbody>
<tr>
<td>Cement</td>
<td>65.0</td>
<td>377</td>
<td>3.15</td>
<td>1.92</td>
</tr>
<tr>
<td>G.I.B.F.S</td>
<td>35.0</td>
<td>203</td>
<td>2.95</td>
<td>1.10</td>
</tr>
<tr>
<td>Sand (SSD)</td>
<td>40.4</td>
<td>1220</td>
<td>2.62</td>
<td>7.46</td>
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<tr>
<td>No. 57 Agg.</td>
<td>59.6</td>
<td>1800</td>
<td>2.72</td>
<td>10.61</td>
</tr>
<tr>
<td>Water</td>
<td>32.0 Gal</td>
<td>267</td>
<td>1.00</td>
<td>4.28</td>
</tr>
<tr>
<td>Estimated Air %</td>
<td>6.5</td>
<td></td>
<td></td>
<td>Air Volume = 27 x Est. Air % 1.76</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total Volume = 27.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Theoretical Weight of Mix lbs./cu.ft. 142.54</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Producer</th>
<th>Rockville Fuel &amp; Feed Co., Inc.</th>
<th>Plant</th>
<th>Rockville Cement</th>
<th>Essroc - Martinsburg</th>
<th>GIBFS</th>
<th>Lafarge-NewCcm</th>
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</thead>
<tbody>
<tr>
<td>No. 57 Agg.</td>
<td>Lafarge-Frederick</td>
<td>Sand</td>
<td>Chaney-Waldorf</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Air Ent. Admixture</td>
<td>Duravair AT 60</td>
<td>Dosage Rate</td>
<td>¾ - 4 oz/cwt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reducing Admixture</td>
<td>WRDA 35</td>
<td>Dosage Rate</td>
<td>2 - 4 oz/cwt</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: This mix design was evaluated by trial batch on Mar-03. It meets all specification requirements.

**REMARKS:**

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**APPROVAL RECOMMENDED**

Vicki R. Stewart  
Assistant Division Chief  
Concrete/Chemical/Cement Laboratory
## MARYLAND STATE HIGHWAY ADMINISTRATION
## OFFICE OF MATERIALS TECHNOLOGY
## CONCRETE TECHNOLOGY DIVISION
## CONCRETE MIX DESIGN

<table>
<thead>
<tr>
<th>Mix Code No.:</th>
<th>S9WH-L1</th>
<th>Date:</th>
<th>29-Mar-12</th>
</tr>
</thead>
</table>

**Design Strength**
- @12 HRS 2500 P.S.I.
- @24 HRS 3000 P.S.I.

**Max. Allow. H2O:** 43.2 Gallons / C.Y.
**Max. W/C Ratio:** 0.45

<table>
<thead>
<tr>
<th>Material</th>
<th>Proportion Percentage</th>
<th>Design Weights lbs. Per C.Y.</th>
<th>Specific Gravity</th>
<th>Absolute Vol. (cubic ft.)</th>
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<tbody>
<tr>
<td>Cement</td>
<td>100.0</td>
<td>800</td>
<td>3.15</td>
<td>4.07</td>
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<td>G.I.B.F.S</td>
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<tr>
<td>Sand (SSD)</td>
<td>39.9</td>
<td>1128</td>
<td>2.60</td>
<td>6.95</td>
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<tr>
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<td>1700</td>
<td>2.72</td>
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<tr>
<td>Water</td>
<td>32.0 Gal</td>
<td>267</td>
<td>1.00</td>
<td>4.28</td>
</tr>
</tbody>
</table>

**Estimated Air %**
- 6.5

**Air Volume = 27 x Est. Air %**
- 1.76

**Total Volume =**
- 27.08

**Theoretical Weight of Mix lbs./cu.ft.**
- 143.83

<table>
<thead>
<tr>
<th>Producer</th>
<th>Rockville Fuel &amp; Feed Co., Inc.</th>
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<th>Rockville</th>
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<tbody>
<tr>
<td>Cement</td>
<td>Essroc - Martinsburg</td>
<td>GIBFS</td>
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<td>Air Ent. Admix</td>
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<td>WRDA 35</td>
<td>Dosage Rate</td>
<td>3 oz/cwt</td>
</tr>
<tr>
<td>HRWR Admix.</td>
<td>EXP 950</td>
<td>Dosage Rate</td>
<td>4 oz/cwt</td>
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</tbody>
</table>

**NOTE:** This mix design was evaluated by trial batch on Feb-00. It meets all specification requirements.

**REMARKS:**

**APPROVAL RECOMMENDED**

Vicki R. Stewart
Assistant Division Chief
Concrete/Chemical/Cement Laboratory
SIDEWALKS

PRODUCT: ADA DETECTABLE WARNING MATS

VENDOR: ADA SOLUTIONS

DIMENSIONS: MINIMUM 24” WIDE. MAT SHOULD BE SAME LENGTH AS CONNECTING SIDEWALK.

MATERIALS: GLASS AND CARBON REINFORCED COMPOSITE

FINISHES & COLORS: STANDARD COLOR IS “BRICK RED”. SOME EXISTING MATS ARE IN “FEDERAL YELLOW”, WHOSE USE HAS BEEN DISCONTINUED BY THE CITY

PURCHASE & INSTALLATION: REQUIRED BY 49 CFR, PART 37 AND BY THE AMERICANS WITH DISABILITIES ACT WHERE CURB RAMPS ARE CONSTRUCTED AT THE JUNCTION OF SIDEWALKS AND THE ROADWAY, FOR MARKED AND UNMARKED CROSSWALKS.

CAN BE PRE-FILLED WITH CONCRETE AND SET IN PLACE OR Pressed INTO PLACE IN THE FRESHLY POURED CONCRETE.
SIDEWALKS

PRODUCT: FLEXI-PAVE

VENDOR: CAPITOL FLEXI-PAVE

INVENTORY: FLEXI-PAVE IS INSTALLED THROUGHOUT THE CITY AS SIDEWALK IN AREAS ADJACENT TO TREES TO PROVIDE OXYGEN AND WATER TO TREE ROOTS WHILE PROVIDING A FLEXIBLE YET ADA-COMPLIANT SURFACE FOR WALKING, SUCH AS:

- SIDEWALKS, DRIVEWAY APRONS, AND UNPROTECTED TREE ROOT ZONES THROUGHOUT THE CITY
- SMALL TREE BOXES IMPACTED BY PEDESTRIANS NEAR ON-STREET PARKING IN COMMERCIAL AREAS

MATERIALS: MADE OF NOMINAL 3/8” WIRE-FREE SBR RECYCLED TIRE GRANULES, NOMINAL 3/8” - 1/2” INCH SIZE AGGREGATE ROCK, AND PROPRIETARY SOLE-SOURCE BINDING AGENT.

FINISHES & COLORS: MOSSY SLATE

PURCHASE & INSTALLATION: CAPITOL FLEXI-PAVE IS A SOLE-SOURCE PROVIDER AND INSTALLER.
SIDEWALKS - FLEXI-PAVE

NOTE:
ALL INFORMATION SHOWN IS SUGGESTED. DUE TO APPLICATION VARIANCES, IT IS THE RESPONSIBILITY OF THE ENGINEER OF RECORD TO PROVIDE ALL INFORMATION REQUIRED TO SUIT LOCAL BUILDING CODES AND REGULATIONS. THIS DETAIL IS FOR REPRESENTATIVE PURPOSES ONLY AND SHOULD NOT BE SOLELY USED FOR CONSTRUCTION PURPOSES UNLESS IT HAS BEEN CERTIFIED AND SEALED BY A QUALIFIED ENGINEER.
SIDEWALKS

PRODUCT: LARGE TREE BOXES

VENDOR: 13 BOXES:

- 7 ON LAUREL AVENUE BETWEEN EASTERN AND CARROLL AVENUES
- 4 ON CARROLL AVENUE NEAR INTERSECTION OF LAUREL AVENUE
- 2 ON HOLTON LANE NEAR EL ALAZAN / ALDI

DIMENSIONS: MINIMUM OF 50 SQ. FT. IN AREA AND PROTECTED FROM ON-STREET PARKING. FOR TREE BOXES SMALLER THAN 50 SQ FT IN AREA AND/OR IMPACTED BY ON-STREET PARKING, SEE SECTION ON FLEX-PAVE PRODUCT.

MATERIALS: PLANTINGS SHOULD CONSIST OF LOW-MAINTENANCE, DROUGHT-RESISTANT PERENNIALS AND SHRUBS. ALL PLANTINGS SUBJECT TO APPROVAL BY CITY GARDENER AND PUBLIC WORKS. ROCKS MAY BE PLACED THROUGHOUT OR AS TREE BOX BORDER TO PROTECT PLANTINGS. FLEXI-PAVE BORDER MAY BE USED AS TREE BOX BORDER.

INSTALLATION: FUTURE INSTALLATIONS OF LARGE TREE BOXES SHOULD BE PROTECTED FROM ON-STREET PARKING WITH AN 18” BUFFER

MAINTENANCE: TREE BOXES ARE SCHEDULED TO RECEIVE BI-ANNUAL MAINTENANCE PROVIDED BY PUBLIC WORKS DEPARTMENT AND BI-MONTHLY MULCHING AND WEEDING PROVIDED BY CONTRACTOR (DOWN TO EARTH).
SIDEWALKS: LARGE TREE BOXES

Large Tree Boxes

WARD 1
WARD 2
WARD 3
WARD 6
WARD 5
WARD 4

0 0.5 10.25
Miles
Large Tree Boxes
Streets
Wards
City Boundary

Section 2: Sidewalks
Section 3

TRAFFIC CALMING & PAVEMENT MARKINGS

Citywide Streetscape Elements
TRAFFIC CALMING

PRODUCT: DESIGNED TREATMENTS

VENDOR: N/A - INSTALLED BY PUBLIC WORKS OR CITY CONTRACTOR

INVENTORY: DESIGNED TRAFFIC CALMING OPTIONS IN TAKOMA PARK INCLUDE:
- 8 TRAFFIC CIRCLES AT INTERSECTIONS
- 2 RAISED INTERSECTIONS
- ROADWAY NARROWING WITH CURB EXTENSIONS
- SIGNAGE AND ROADWAY MARKINGS
- ROAD / LANE CLOSURES OR DIVERTERS

INSTALLATION: THE TYPES AND COMBINATIONS OF TRAFFIC CALMING FACILITIES INSTALLED ALONG A ROADWAY SEGMENT OR INTERSECTION ARE DETERMINED BY THE CITY’S CITIZEN-DRIVEN PETITION PROCESS OUTLINED IN ADMINISTRATIVE REGULATION 96-1.
TRAFFIC CALMING

PRODUCT: SPEED HUMP / RAISED CROSSWALK

VENDOR: N/A - INSTALLED BY PUBLIC WORKS OR CITY CONTRACTOR

INVENTORY: 182 TOTAL:
- 150 TAKOMA PARK STANDARD SPEED HUMPS
- 19 MONTGOMERY COUNTY STANDARD SPEED HUMPS
- 13 RAISED CROSSWALKS

DIMENSIONS: TWO TYPES OF SPEED HUMP DESIGNS ARE CURRENTLY IN USE, BETWEEN 3” TO 4” IN HEIGHT AND 12’ IN LENGTH. SEE CUSTOM PRODUCTS AND SPECS FOR MORE DETAILS. RAISED CROSSWALKS ARE 3” IN HEIGHT AND RANGE BETWEEN 16’ TO 22’.

MATERIALS: SPEED HUMPS MADE OF ASPHALT WITH WHITE THERMOPLASTIC STRIPING.

INSTALLATION: THE TYPES AND COMBINATIONS OF TRAFFIC CALMING FACILITIES INSTALLED ALONG A ROADWAY SEGMENT OR INTERSECTION ARE DETERMINED BY THE CITY’S CITIZEN-DRIVEN PETITION PROCESS OUTLINED IN ADMINISTRATIVE REGULATION 96-1.

SOME ROADWAY SEGMENTS HAVE CONSISTENT SPEED HUMP DESIGNS, WHILE OTHERS ALTERNATE BETWEEN THE TWO DESIGNS. SPEED HUMPS THAT ARE REPLACED DUE TO UTILITY OR OTHER WORK ARE TO BE REINSTALLED AS IS.

CUSTOM PRODUCTS: THE TAKOMA PARK STANDARD SPEED HUMP IS 12 FEET IN LENGTH. IT RANGES IN HEIGHT BETWEEN 3” AND 4”. ITS UNIQUE PROFILE HAS A GRADUAL APPROACH (1:24 SLOPE) FOR THE FIRST 2” OF RISE, AND A MORE PRONOUNCED BUMP (MAX 1:12 SLOPE) FOR THE REMAINING 1-2” RISE. THE CENTER OF THE DRIVE LANES OF THE HUMP ARE STRIPED WITH 1’ WIDE WHITE THERMOPLASTIC STRIPES; THREE IF THE STREET IS 18’ OR LESS IN WIDTH, OR FOUR IF THE STREET IS OVER 18’ WIDE.

THE MONTGOMERY COUNTY STANDARD (A.K.A. “WATTS PROFILE”) SPEED HUMP IS 12’ IN LENGTH. IT HAS A CONTINUOUS APPROACH ARC 6’ IN LENGTH ON EITHER END AND IS 3” IN HEIGHT. IT IS MARKED WITH A TRIANGULAR CHEVRON IN EACH DIRECTION OF TRAVEL.

RAISED CROSSWALKS (A.K.A. SPEED TABLES) ARE A VARIATION OF THE MONTGOMERY COUNTY STANDARD SPEED HUMP WITH AN ADDITIONAL FLAT CENTER SECTION RANGING IN LENGTH FROM 4’ TO 10’ AND THERMOPLASTIC CROSSWALK STRIPING.
Important notes:

Maximum height allowed by CITY’S Code = 4”

Minimum height allowed by City’s code = 3”

Bump through width 36-44” corresponding to max bump height. Minimum three strips 12-18” width and minimum three equal spacing. Width 44” for 1:12 slope.

**NOTE:**
Thermoplastic stripes to be 1’ wide and placed centered on the drive lanes
18’ street width or LESS; THREE 1’ wide longitudinal stripes
18’ street width or MORE; FOUR 1’ wide longitudinal stripes
Section 3: Traffic Calming & Pavement Markings
BOLLARDS

PRODUCT: R-7542 DECORATIVE BOLLARD

VENDOR: RELIANCE FOUNDRY

INVENTORY: 72 BOLLARDS ON LAUREL AVENUE MEDIAN

DIMENSIONS: 30"H X 10"D (AT BASE).

MATERIALS: DUCTILE IRON.

FINISHES & COLORS: BOLLARDS ARE ALL FINISHED IN BLACK POWDER COAT PAINT

PURCHASE & INSTALLATION: INSTALLED IN ANCHOR CASTINGS IN NEW CONCRETE
PAVEMENT MARKINGS

PRODUCT: MARKED CROSSWALKS

VENDOR: N/A - INSTALLED BY PUBLIC WORKS OR CITY CONTRACTOR

INVENTORY: 90 TOTAL ON CITY RIGHTS OF WAY:
- 28 PARALLEL
- 13 LONGITUDINAL
- 27 LONGITUDINAL WITHOUT PARALLEL LINES
- 18 DIAGONAL
- 4 BRICK PATTERN

MARKED CROSSWALKS TRAVERSING INTERSECTIONS ON STATE HIGHWAYS (SIGNALIZED AND UNSIGNALIZED) ARE MAINTAINED BY THE STATE HIGHWAY ADMINISTRATION AND NOT INCLUDED IN THIS INVENTORY. 32 OF THE 90 MARKED CROSSWALKS ON CITY RIGHTS OF WAY INTERSECT WITH STATE HIGHWAYS AND MAY BE REPLACED BY THE CITY OR STATE ON A PROJECT BASIS.

MATERIALS: ALL CROSSWALKS ARE MARKED IN WHITE THERMOPLASTIC OR PAINT.

FINISHES & COLORS: PARALLEL AND LONGITUDINAL CROSSWALKS ARE IN WHITE. BRICK-PATTERNED CROSSWALKS ARE YELLOW WITH WHITE BORDERS.

PURCHASE & INSTALLATION: TEMPERATURES MUST BE ABOVE FREEZING IN ORDER TO INSTALL. PRIOR TO INSTALLATION, ALL PREVIOUS THERMOPLASTIC MUST BE COMPLETELY REMOVED SO THAT NEW THERMOPLASTIC CAN ADHERE TO ROAD SURFACE.

CROSSWALKS TO BE REPLACED IN-KIND. DISCONTINUED DIAGONAL CROSSWALKS SHOULD BE REPLACED WITH A PARALLEL OR LONGITUDINAL PATTERN.

CUSTOM PRODUCTS: CROSSWALKS ON MAPLE AT GRANT, LEE, AND LINCOLN AVENUES ARE A SPECIAL BRICK PATTERN IN THERMOPLASTIC.

REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION BICYCLE AND PEDESTRIAN DESIGN GUIDELINES FOR FURTHER GUIDANCE ON APPROPRIATE CROSSWALK STYLES AND LOCATIONS.
### Section 3: Traffic Calming & Pavement Markings

<table>
<thead>
<tr>
<th>Diagram</th>
<th>Parallel</th>
<th>Longitudinal</th>
<th>Longitudinal without Parallel Lines</th>
<th>Diagonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>6' Min.</td>
<td>6' Min.</td>
<td>6' Min.</td>
<td>6' Min.</td>
<td>6' Min.</td>
</tr>
<tr>
<td>(8'-10' Recommended)</td>
<td>(8'-10' Recommended)</td>
<td>(8'-10' Recommended)</td>
<td>(8'-10' Recommended)</td>
<td>(8'-10' Recommended)</td>
</tr>
</tbody>
</table>

#### Locations
- **Parallel**: Used in residential neighborhoods with low volume pedestrian crossings. Example: Hill & Maple around the Community Center.
- **Longitudinal**: Used in school zones.
- **Longitudinal without Parallel Lines**: Used for roadways at non-intersection locations, locations that are unexpected, locations within school zones, and across ramps.
- **Diagonal**: Used for roadways that are not at intersections.

#### Minimum crosswalk width
- **Parallel**: 6' (8'-10' recommended)
- **Longitudinal**: 6' (8'-10' recommended)
- **Longitudinal without Parallel Lines**: 6' (8'-10' recommended)
- **Diagonal**: 6' (8'-10' recommended)

#### Divider line guidance
- **Parallel**: Divider longitudinal lines should be 12" to 24" wide and separated by gaps of 12" to 60". The design of the lines and gaps should avoid wheel paths, if possible, and the gap between the lines should not exceed 2-3 times the width of the striping.
- **Longitudinal**: Divider longitudinal lines should be 12" to 24" wide and separated by gaps of 12" to 60". The design of the lines and gaps should avoid wheel paths, if possible, and the gap between the lines should not exceed 2-3 times the width of the striping.
- **Longitudinal without Parallel Lines**: Divider longitudinal lines should be 12" in width and spaced 24" apart.

#### Notes
- When parallel lines are used, they shall be solid white lines not less than 6" and not greater than 24" in width. (Recommended width: 12")

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Streetscape Guidelines 2021
PAVEMENT MARKINGS

PRODUCT: SHARED LANE SYMBOLS WITH DOUBLE CHEVRONS (A.K.A. "SHARROWS")

VENDOR: ENNIS FLINT

INVENTORY: SHARROWS IDENTIFY SHARED ROADWAYS IN THE FOLLOWING AREAS: TAKOMA AVENUE, CARROLL AVENUE AND MAPLE AVENUE

ADDITIONALLY, MODIFIED SHARROWS ARE USED IN 5 LOCATIONS FOR WAYFINDING.

DIMENSIONS: 40”(W) X 112”(H), FACING LEFT

MATERIALS: PREFORMED THERMOPLASTIC “PREMARK” PRODUCT

FINISHES & COLORS: ITEM PM600833LVG (ENNIS FLINT), WHITE

PURCHASE & INSTALLATION: SHARROWS TO BE USED ON BIKEWAYS WHERE A BIKE LANE DOES NOT FIT IN THE WIDTH OF THE CARRIAGE WAY (BETWEEN THE CURBS), ON STREETS WITH POSTED SPEED OF 30MPH OR LESS, AND IN TRAVEL LANES BETWEEN 13’ AND 15’.

FOLLOW NACTO URBAN BIKEWAY DESIGN GUIDELINES FOR INSTALLATIONS ON CITY RIGHTS-OF-WAY AND MARYLAND STATE HIGHWAY ADMINISTRATION BICYCLE POLICY AND DESIGN GUIDELINES FOR INSTALLATIONS ON STATE RIGHTS-OF-WAY.

NACTO RECOMMENDS INSTALLATION IN CENTER OF TRAVEL LANE; CHEVRON APEX SHOULD BE 4’ MINIMUM FROM CURB, OR 11’ MINIMUM FROM CURB WITH ON-STREET PARKING.

RECOMMENDED THAT THERMOPLASTIC MARKINGS BE PURCHASED AND INSTALLED BY A CONTRACTOR. WHEN REPLACING EXISTING MARKINGS, REQUEST THAT EXISTING MARKING REMNANTS BE REMOVED BY CONTRACTOR. CITY STAFF SHOULD ACCOMPANY CONTRACTOR DURING INSTALLATION TO ENSURE CORRECT APPLICATION.

CUSTOM PRODUCTS: MODIFIED SHARROW WITH CHEVRONS ANGED AT 45-DEGREE ANGLE FOR ON STREET WAYFINDING, TO AVOID EXCESSIVE USE OF WAYFINDING SIGNS (E.G. AT TRAFFIC CIRCLES).

CHEVRON APEX SHOULD BE 4’ MINIMUM FROM CURB. NEIGHBORHOOD STREETS ARE GENERALLY NARROW (TRAVEL LANES < 10’ WIDE), THESE SHOULD NOT BE PLACED WHERE THEY CAN BE OBSCURED BY PARKED CARS. IDEAL LOCATIONS ARE ADJACENT A HYDRANT OR STORMWATER DRAIN WHERE PARKING IS PROHIBITED.
Pavement Markings - Sharrows

WARD 1
WARD 2
WARD 3
WARD 6
WARD 5
WARD 4

0 0.5 10.25
Miles
Road Segment with Sharrows
Green Box Sharrow
Modified Sharrow
Streets
Wards
City Boundary

Section 3: Traffic Calming & Pavement Markings
Section 4

TRANSIT FACILITIES

Citywide Streetscape Elements
TRAFFIC IS DIVERTED AT CERTAIN TIMES OF DAY/WEEK BY CLOSING HILLTOP ROAD.

TRAFFIC CIRCLE AT INTERSECTION OF KINGWOOD DRIVE AND WILDWOOD DRIVE.

TRANSIT FACILITIES

PRODUCT: ROTATING BUS INFORMATION TUBES

VENDOR: TRANSIT PRODUCTS, WEBB INC. (BOTH TUBES AND MAP INSERTS)

INVENTORY: 41 TUBES

DIMENSIONS: DISPLAY AREA IS 24"W X 11"H. MAP INSERT IS 24-1/4" X 11"

MATERIALS: DISPLAY WINDOWS ARE CLEAR PLASTIC. TOP AND BOTTOM CAPS ARE METAL. U-CHANNEL ADAPTERS ARE 12 GAGE STEEL.

INSERT IS HIGH RESOLUTION 600 X 600 DPI FULL COLOR OUTPUT USING UV-GRADE LIGHTFAST INK ON COATED BOND AND IS LAMINATED TO FINISH.

FINISHES & COLORS: TOP AND BOTTOM CAPS ARE FINISHED IN RAL 5010 POLYURETHANE POWDERCOAT FINISH.

PURCHASE & INSTALLATION: BE SURE TO CHECK FOR CURRENT AVAILABLE INVENTORY FROM 2014 REDESIGN BEFORE REORDERING MORE PARTS. THESE EXTRA PARTS ARE KEPT AT PUBLIC WORKS. TUBE INSERTS ARE DESIGNED IN-HOUSE, THEN PRINTED BY VENDOR; WILL NEED TO PROVIDE ARTWORK TO VENDOR UPON REORDERING INSERTS.

POLE IS NOT INCLUDED; WILL NEED TO ACQUIRE POLE FOR ADDITIONAL TUBE INSTALLATIONS. U-CHANNEL ADAPTER REQUIRED FOR INSTALLING TWO TUBES ON ONE POLE.

DOUBLE-TUBE POLES AT THE INTERSECTIONS OF CARROLL AND LAUREL, CARROLL AND TULIP, AND CARROLL AND PHILADELPHIA.
INSTALLATION

NOTICE: The 1/4-TURN Transit Tube must be installed correctly for proper operation and strength. Please follow all instructions carefully.

REQUIRED FOR INSTALLATION

- 1 CLEAR TUBE
- 2 MOUNTING U-BOLTS
- 4 BOLTS FOR U-BOLTS
- 4 NUTS FOR U-BOLTS

TOOLS NEEDED

- DEEP DRIVE TIP SOCKET FOR U-BOLTS
- 1 HAND CLAMP

HAND DRAWER WITH SECURITY BOLT AND TOOLS REQUIRED TO REMOVE EXISTING SIGNS & HARDWARE FROM POLE

1. MEASURE AND MARK POLE FOR CORRECT MOUNTING HEIGHT. TUBE SHOULD BE LOW ENOUGH FOR WHEELCHAIR ACCESS.

2. PLACE LADDER NEXT TO POLE ON A SECURE LEVEL SURFACE.

3. REMOVE ANY SIGNS OR HARDWARE FROM TOP OF POLE.

4. IDENTIFY BOTTOM CAP BY LOCATING 2 DRAIN HOLES AS SHOWN ABOVE.

5. IF REQUIRED, ATTACH BRAILLE ROUTE NUMBERS TO BOTTOM CAPS USING SUPPLIED 8/32 WING NUTS.

6. SLIDE BOTTOM CAP OVER TOP OF POLE.

7. REST BOTTOM CAP ON GROUND.

8. PLACE HAND CLAMP ON POLE TO ACT AS TEMPORARY REST FOR INNER BODY.

9. SLIDE INNER BODY OVER TOP OF POLE.

10. REST INNER BODY ON HAND CLAMP. MAKE SURE BOTH 1/4-TURN ENDS ARE FACING UP.

SEE OPPOSITE SIDE FOR REMAINING STEPS
**CHANGING TRANSIT TUBE GRAPHICS**

**IMPORTANT**

Each top cap has 3 cap screws and three 1/4-turn fasteners (shown at right). Locate the three 1/4-turn fasteners; they each have a silver ring, as shown.

Use only the 1/4-turn fasteners to open and close the top cap.

**DO NOT TURN THE CAP SCREWS TO OPEN THE TOP CAP**

1. Press each 1/4-turn fastener in (3 total) and turn clockwise until they open.

2. Use the hand clamp to hold the top cap up.

3. Exchange information.

4. Remove hand clamp and lower top cap.

5. Line up the 1/4-turn fasteners in the cap with 1/4-turn plates on the inner body.

6. Lower cap and press each 1/4-turn fastener in (3 total) and turn clockwise until they snap into a closed position.
INSTALLING TWO TRANSIT TUBES ON ONE U-CHANNEL POLE

TOP VIEW

WALLMOUNT

TRANSIT TUBE

5/16-18 x 2" CAP HEAD BOLT

U-CHANNEL POLE

ADAPTER FOR DOUBLE SIDED WALLMOUNT INSTALLATION ON U-CHANNEL

WALLMOUNT
TRANSPORT FACILITIES

PRODUCT: BUS SHELTERS (ADVERTISING)

VENDOR: SIGNAL OUTDOOR (CONTRACT FOR INSTALLATION, MAINTENANCE, AND ADVERTISING); TOLAR MANUFACTURING (SHELTER MANUFACTURER)

INVENTORY: 22 SHELTERS

DIMENSIONS: 13’ SHELTER: 12’ 7-7/8”L X 4’8”W X 8’ 2-3/4”H 9’ SHELTER: 8’ 7-3/8”L X 4’8”W X 8’ 2-3/4”H

MATERIALS: SHELTER FRAMES, ROOF BOWS, GUTTERS, BENCHES, AND MESH SIDES/BACKS (NEW SHELTERS) MADE OF STEEL. ADVERTISEMENT ENCASEMENT, ROOFS, AND BACKS (OLD SHELTERS) MADE OF GLASS.

FINISHES & COLORS: SHELTERS ARE ALL FINISHED IN BLACK POWDERCOAT PAINT.

PURCHASE & INSTALLATION: ADEQUATE SIDEWALK OR CONCRETE PAD REQUIRED PRIOR TO SHELTER INSTALLATION.

BENCH OR OTHER SEATING IN SHELTER SHOULD BE INSTALLED TO ALLOW FOR 48”L X 30”W WHEELCHAIR AREA PER ADA REQUIREMENTS.

ADVERTISING SHELTERS ARE INSTALLED AND MAINTAINED PER THE CITY’S 2015 CONTRACT WITH SIGNAL OUTDOOR ADVERTISING. OTHER SHELTER DESIGNS WITHOUT ADVERTISING MAY BE APPROPRIATE, DEPENDING UPON LOCATION (E.G. HISTORIC DISTRICT, LIMITED SPACE, ETC.)
TRANSIT FACILITIES - BUS SHELTERS WITH ADVERTISING

Bus Shelter
Streets
Wards
City Boundary

0 0.25 0.5 1 Miles
Section 5

BICYCLE FACILITIES

Citywide Streetscape Elements
BICYCLE FACILITIES

PRODUCT: HOOP RACK

VENDOR: DERO

INVENTORY: 36 HOOP RACKS

CAPACITY: CAPACITY FOR 2 BIKES EACH

MATERIALS: 1.5” SCHEDULE 40 PIPE (1.9” OD). 99% RECYCLED CONTENT, HARVESTED DOMESTICALLY.

FINISHES & COLORS: HOOP RACKS IN THE STREETScape ARE ALL STANDARD BLACK POWDER COAT FINISH. ALTERNATIVE AND CUSTOM DESIGNS ARE ENCOURAGED TO SUIT THE CONTEXT (E.G. “POLYGLOT” BOOK RACKS AT THE TAKOMA PARK MARYLAND LIBRARY IN POWDER COAT FINISHES THAT LOOSELY MATCH CITY LOGO COLORS, CITY LOGO HOOP RACK AT THE COMMUNITY CENTER).

PURCHASE & INSTALLATION: IMPORTANT TO KNOW WHICH INSTALLATION METHOD WILL BE USED PRIOR TO ORDERING. TWO OPTIONS INCLUDE IN-GROUND MOUNT WHICH IS EMBEDDED INTO A CONCRETE BASE, OR SURFACE MOUNT WHICH USES TWO ANCHORS PER FOOT INTO EXISTING CONCRETE SLAB. INSTALLATION IN FLEXI-PAVE PERMEABLE ASPHALT (E.G. COMMUNITY CENTER) REQUIRES IN GROUND MOUNT INSTALLED FIRST, THEN BRICK OR ASPHALT SURFACE APPLIED SECOND. INSTALLATION ON RAILS (REC CENTER ON NEW HAMPSHIRE AVE) REQUIRES SURFACE MOUNT. INSTALLATION INTO BRICK STREETScape (CARROLL AVENUE) MAY BE EITHER MOUNT. SEE SPECS FOR SETBACKS FROM CURBS, TREES, WALLS, AND OTHER FURNISHINGS.

PROJECTS/LOCATIONS: CITYWIDE

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: YES
BICYCLE PARKING - DERO HOOP RACK
**HOOP RACK**

**Specifications and Space Use**

| Product          | Dero Hoop Rack  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>2 Bikes</td>
</tr>
<tr>
<td>Materials</td>
<td>1.5” schedule 40 pipe (1.9” OD)</td>
</tr>
<tr>
<td>Finishes</td>
<td>An after fabrication hot dipped galvanized finish is our standard option. 250 TGIC powder coat colors, thermoplastic coating, PVC dip, and stainless steel finishes are also available as alternate options. Our powder coat finish assures a high level of adhesion and durability by following these steps: 1. Sandblast 2. Epoxy primer electrostatically applied 3. Final thick TGIC polyester powder coat</td>
</tr>
<tr>
<td>Stainless Steel</td>
<td>304 grade stainless steel material finished in either a high polished shine or a satin finish.</td>
</tr>
<tr>
<td>Installation</td>
<td>In ground mount is embedded into concrete base. Specify in ground mount for this option. Foot Mount has two 2.5”x6”x.25” feet with two anchors per foot. Specify foot mount for this option. Rail Mounted Hoops are bolted to two parallel rails which can be left freestanding or anchored to the ground. Rails are heavy duty 3”x1.4”x3/16” thick galvanized mounting rails. Specify rail mount for this option.</td>
</tr>
</tbody>
</table>
| Space Use and Setbacks | For racks set parallel to a wall: Minimum: 24” Recommended: 36”  
|                   | For racks set perpendicular to a wall: Minimum: 28” Recommended: 42”  
|                   | Distance Between Racks: Minimum: 24” Recommended: 36”  
|                   | Street Setbacks: Minimum: 24” Recommended: 36”  

**Product Capacity**

| WALL | Wall Setbacks:  
|      | For racks set parallel to a wall: Minimum: 24” Recommended: 36”  
|      | For racks set perpendicular to a wall: Minimum: 28” Recommended: 42”  
|      | Distance Between Racks: Minimum: 24” Recommended: 36”  
|      | Street Setbacks: Minimum: 24” Recommended: 36”  

**Product Materials**

| WALL |  
| STREETFREET |  

**www.dero.com  1.888.337.6729**
HOOP RACK

Installation Instructions - Surface Mount

Tools Needed for Installation

- Tape Measure
- Marker or Pencil
- Masonry Drill Bit
- Drill (Hammer drill recommended)
- Hammer
- Wrench 9/16”
- Level

Recommended Base Materials:

Solid concrete is the best base material for installation. To ensure the proper anchors are shipped with your rack, ask your Dero Rack representative which anchor is appropriate for your application. Be sure nothing is underneath the base material that could be damaged by drilling.

Installation:

3/8” anchors are shipped with the rack. Place the rack in the desired location. Use a marker or pencil to outline the holes of the flange onto the base material. Drill the holes in accordance with the specifications shipped with the anchors. Make sure the holes are at least 3” away from any cracks in the base material. Use washers to level rack if necessary. Tap in anchors and follow your specific anchor instructions provided with the rack.

Tamper Resistant Fasteners

The concrete spike is a permanent anchor. The top of the wedge anchor can also be pounded sideways after installation so that it cannot be removed. Other tamper resistant fasteners are also available for purchase.

When using the special tamper resistant nuts, always set and first tighten the anchors. Once the rack is installed, replace two nuts from the bracket (opposite sides from each other) with the tamper resistant fastener. DO NOT OVERTIGHTEN the tamper resistant nut.

If you have any questions about installation or other features of the Hoop Rack, please call us toll free at 1-800-298-4915
Installing into Existing Sidewalk

Core holes no less than 3” diameter (4” recommended) and 10” deep into sidewalk. Fill holes with Por-Rok or epoxy grout. Place Hoop Rack into holes, making sure the rack is level. 33”-36” of the Hoop Rack should remain above the surface. If the Hoop Rack is less than 33” high, it will not support the bike adequately. Make sure the rack is level and held in place until the grout has set.

Installing Into a New Sidewalk:

Sleeve Method:

1. Place corrosion resistant sleeve (min. 4” inside diameter) in sand pour bed in exact location where rack will be installed. Make sure top of sleeve is at same level as desired finished concrete surface. Fill sleeve with sand to keep it in place and prevent it from filling with concrete.

2. Pour concrete and allow to cure.

3. After appropriate cure time, dig out sand from sleeves and insert racks, making sure they are level and at the appropriate height. Pour in Por-Rok or epoxy grout and allow to set.

INSTALL TIP

An easy way to brace the Hoop Rack while the grout sets is to bolt two 1x4” boards together at one end and clamp them onto the legs of the Hoop Rack like a clothes pin.
BICYCLE FACILITIES

PRODUCT: FIXIT, AIR KIT 4 BIKE REPAIR STATION

VENDOR: DERO

INVENTORY: 3 STATIONS

CAPACITY: HOLDS ONE BIKE AT A TIME.

DIMENSIONS: 59" (H) X 12.75" X (W) X 20" (D)

MATERIALS: 6" x .154" TUBE; BIKE HANGER: 1.5" SCH. 40 PIPE, ¼" PLATE; FOOT: 10" DIA. X .25" PLATE; TOOL TETHERS: 5/32" STAINLESS STEEL CABLE.

FINISHES & COLORS: REPAIR STATIONS IN THE STREETSCAPE ARE ALL STANDARD BLACK POWDER COAT FINISH.

PURCHASE & INSTALLATION: SURFACE MOUNT INSTALLATION USING ANCHORS INTO EXISTING CONCRETE PAD BASE.

PROJECTS/LOCATIONS: CITYWIDE

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: YES
BIKE REPAIR STATIONS

0 0.25 0.5 0.75 1
Miles
/
Bike Repair Stations
Streets
City Boundary
Wards

Bike Repair Stations
Streets
City Boundary
Wards

Section 5: Bicycle Facilities
CAPACITY
1 Bike

MATERIALS
- **Main body:** 6" x .154" tube
- **Bike Hanger:** 1.5" sch. 40 pipe, 1/4" plate
- **Foot:** 10" dia. x .25" plate
- **Tool tethers:** 5/32" stainless steel cable
- **Manual air pump**
- **Hand tools:**
  - Philips and flat head screwdrivers
  - 2.5, 3, 4, 5, 6, 8mm Allen wrenches
  - Headset wrench
  - Pedal wrench
  - 8, 9, 10, 11mm box wrenches
  - Tire levers (2)

FINISHES
- **Galvanized**
  - An after fabrication hot dipped galvanized finish is our standard option.
- **Powder Coat**
  - Our powder coat finish assures a high level of adhesion and durability by following these steps:
    1. Sandblast
    2. Epoxy primer electrostatically applied
    3. Final thick TGIC polyester powder coat
- **Stainless**
  - Stainless Steel: 304 grade stainless steel material finished in either a high polished shine or a satin finish.

MOUNT OPTIONS
- **Surface only**
  - Fixit has 10" diameter x 25" foot with four anchors per foot. Tamper-resistant fasteners are included.

Minimum Footprint

An optional wheel catch is available to hold bikes with no kickstands.
Section 5: Bicycle Facilities
RECOMMENDED BASE MATERIAL

Solid concrete is the best base material for installation. To ensure the proper anchors are shipped with your rack, ask your Dero Rack representative which anchor is appropriate for your application. Be sure nothing is underneath the base material that could be damaged by drilling.

Be sure to save your tamper-resistant tools for any future maintenance. They are costly to replace.

TOOLS NEEDED

Hammer drill
3/8" masonry bit
Hammer
Socket Wrench
9/16" socket
1/2" socket
Tamper-proof socket (included)*
Socket extension, 6" min.

1. Reference the Fixit setback recommendations and place the upright in the desired location. Use the base as a template and drill (4) 3/8" x 3" holes in the concrete with a hammer drill and masonry bit. Clean up all concrete dust from drilling.

2. Hammer in the (4) wedge anchors. Leave at least 3/4" of an inch of exposed threads above the Fixit base.

3. Decide which position the pump will be installed in and place the bottom pump flange over the corresponding wedge anchor. Attach the top pump flange to the Fixit upright with a carriage bolt, washer, and tamper-proof nut. Tighten all wedge anchors with washers and nuts.

   Reserve one of the tamper-proof nuts to secure the tools.

4. Insert the tool cables into the cable slot on the Fixit upright.
Place the bike hanger in the desired position on top of the Fixit upright and attach with carriage bolts, washers and nuts. Apply the tamper-proof nut to center bolt to secure tools.

If you would like us to add your station to our online map, email the station’s geocoordinates to web@dero.com. These coordinates can be obtained by simply clicking a point on a Google Map.

http://www.dero.com/fixitmap/fixitmap.html

Concrete pad recommendations
NOTE

All threads for all parts of the pump are right-hand threads. They tighten clockwise, and loosen counter-clockwise (“righty tighty, lefty loosey”). However, when you are looking top-down at a bolt that threads from underneath, if you move it counter-clockwise from your point of view, you are actually tightening, not loosening, the nut! This has led to some unnecessary breakage of pump parts. Be sure you are looking at the nut with the proper orientation before tightening or loosening.

REMOVING THE AIR KIT FROM THE FIXIT

1. Remove the tamperproof nut and washer on the side of the Fixit. Use the Penta tool supplied with the Fixit.
2. Remove the nut and washer at the bottom of the Fixit on the anchor.

CHANGING METAL HEAD™

Remove Metal Head™ by turning counter-clockwise. You will need a 3/4” wrench. Replace with new Metal Head and tighten.

If you are replacing a plastic pump head with a Metal Head, you will need to also purchase a replacement hose.

REPLACING TOOLS

There are three bolts at the top of the Fixit. Underneath are two 3/8” nuts, and one penta tamper-proof nut (center bolt). These are all best removed with a socket wrench, using the extension tool to enable you to reach the nuts. Once the nuts are removed, take off the cap to replace tools.
Section 6 PLANTERS
PLANTERS ARE A PLEASANT ADDITION TO COMMERCIAL STREETSCAPES, MAINTAINED BY BUSINESSES AND BUSINESS ASSOCIATIONS

PLANTERS

PRODUCT: ASSORTED PLANTERS

VENDOR: MULTIPLE

INVENTORY: A VARIABLE NUMBER OF PLANTERS EXIST IN THE PUBLIC ROW ON CARROLL AND LAUREL AVENUES, MAINTAINED BY ADJACENT BUSINESS AND PROPERTY OWNERS, AS WELL AS ON NEW HAMPSHIRE AVENUE AND UNIVERSITY BOULEVARD, AND HOLTON LANE, MAINTAINED BY THE TAKOMA/LANGLEY CROSSROADS CDA.

DIMENSIONS: VARIOUS DIMENSIONS

MATERIALS: VARIES - OFTEN CONCRETE, CERAMIC, OR STEEL. PLANTERS ENCOURAGED TO BE HEAVY TO AVOID THEFT OR UNWANTED RELOCATION.

PURCHASE & INSTALLATION: THE CITY DOES NOT PURCHASE OR MAINTAIN PLANTERS IN THE PUBLIC RIGHT OF WAY.

PLACEMENT OF PLANTERS SHOULD MAINTAIN A MINIMUM 5’ PEDESTRIAN CLEARANCE ALONG THE SIDEWALK.
PLANTERS - ASSORTED TUBES

![Map showing the distribution of planters across wards and streets.]

Legend:
- Assorted Planters
- Streets
- Wards
- City Boundary

0 0.5 10.25 Miles
PLANTERS

PRODUCT: SORELLA PLANTERS

VENDOR: LANDSCAPE FORMS

INVENTORY: 6 ARE IN PUBLIC RIGHT OF WAY, MAINTAINED BY TAKOMA/LANGLEY CROSSROADS CDA

DIMENSIONS: VARIOUS DIMENSIONS

MATERIALS: PLANTER IS MADE FROM POWDERCOATED STEEL. PLANTER BASES AND GLIDES ARE MADE FROM 100% POST-CONSUMER AND POST-INDUSTRIAL WASTE COMPRESSION-MOLDED RECYCLED PLASTIC. BASES ARE 100% RECYCLABLE.

FINISHES & COLORS: PLANTERS ARE ALL PAINTED WITH PANGARD II POLYESTER POWDER COAT.

PURCHASE & INSTALLATION: PLACEMENT OF PLANTERS SHOULD MAINTAIN A MINIMUM 5’ PEDESTRIAN CLEARANCE ALONG THE SIDEWALK.

THREE SIZES MUST BE SURFACE MOUNTED:

- 15”W X 15”D X 30”H
- 30”W X 15”D X 30”H
- 45”W X 15”D X 30”H

PROJECTS/LOCATIONS: THE NEW AVE/CROSSROADS

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: YES
PLANTERS - LANDSCAPE FORMS
SORELLA PLANTER

Sorella Planter
Streets
Wards
City Boundary

Streetscape Guidelines 2021

Section 6: Planters
Section 6: Planters

Sorella Specifications

Sorella planters may be specified in powdertcoated metal, or electropolished stainless steel for a more natural finish. Planters available in rectangle or square to square, 1 x 18” x h 30” x 36” etc.

Fabricated, welded and around steel panels attach to a polyethylene base, with glides and optional drain holes.

Hot melt bases and glides are comprised of recycled plastic resulting from an innovative, patented melting process that utilizes 100% post-consumer and post-industrial waste. This unique process blends several material types, channeling more discarded plastics away from the landfill and into new life. Bases are 100% recyclable.

Planters are freestanding, with the exception of those noted below.

18” x 18” x 18”
30” x 30” x 18”
45” x 45” x 18”

w x d x h

18” x 18” x 18”
30” x 18” x 18”
45” x 45” x 18”

w x d x h

10” x 10” x 10”
12” x 12” x 12”
18” x 18” x 18”
24” x 24” x 24”

w x d x h

30” x 18” x 30”
45” x 18” x 30”
45” x 30” x 30”

w x d x h

* Planters must be surface mounted.

Our Purpose Is To Enrich Outdoor Spaces

We believe in the power of design and its ability to influence and elevate the quality of public space. High quality products and outstanding customer experience makes us one of the world’s premier designers and manufacturers of outdoor commercial furnishings.

Finishes

All metal is finished with Landscape Forms’ proprietary Pangard II polyester powdercoat, a hard yet flexible finish that resists rusting, chipping, peeling and fading. A wide range of standard, optional and custom colors are available.

To specify

Select Sorella planter, product description and size. Select powdercoat metal, or stainless steel. If metal is specified, select powdercoat color. Specify with or without glides.

landscapeforms.com

Visit our website for product details, color charts, technical sheets, sales office locations. Download JPG images, brochure PDF, CAD details, CSI specifications.

Sorella is designed by Robert Chipman, ASLA
Specifications are subject to change without notice. Colors are manufactured in house. Landscape Forms supports the Landscape Architecture Foundation at the Second Century Level. ©2001 Landscape Forms, Inc. Printed in U.S.A.

landscapeforms.com

800.521.2548 260.381.3455 fax
4111 swanchaka Avenue Kallevinner, MI 48048

Metal is the world’s most recycled material and is fully recyclable. Consult our website for recycled content for this product. Powdercoat finish on metal parts contain no heavy metals. is HAPS-free and has extremely low VOCs.
1. Do not drill holes in any of the four squares surrounding the raised bosses.

2. Drill % of diameter holes in locations noted on product drawings.

3. These steps must be surface mounted.

4. Set anchor hardware included for surface mount units. Setting tool or drop-in anchor is needed to anchor to finish, including existing materials. Use masonry, concrete, or block anchor for surfaces.

5. Drain holes are pre-drilled at factory. They can be added on site, where necessary.

6. Holes used for mount and standoff holes should be specified with drain holes.

Included Components:
- Anchoring hardware included for surface mount units. Setting tool or drop-in anchor is needed to anchor to finish, including existing materials.
- Drain holes are pre-drilled at factory. They can be added on site, where necessary.
- Holes used for mount and standoff should be specified with drain holes.

**Installation Guide**

**C.4 in Screws**

**A. Procedures for Freestanding Installation:**

**B. Adding Optional Drain Holes**

**C. Surface Mount Installation Procedure:**

**D. Screws**

**E. 1/4-20 x 1/2˝**

**F. 5/8˝ x 2” length, Phillips head**

**G. 2 x 1/4-20 x 1/2˝**

**H. 2 x Drip-in 1/2-13**

**I. Drain holes, 3 x 0.5” diameter**

**J. 1-11/16” diameter**

**K. 2 x Surface Mount**

**L. Prime Size Caplet**

**M. **

**N. **

**O. **

**P. **

**Q. **

**R. **

**S. **

**T. **

**U. **

**V. **

**W. **

**X. **

**Y. **

**Z. **

**Fig. C3**

**Fig. C2**

**Fig. C1**

**Fig. E**

**Fig. D**

**Fig. C**

**Fig. B**

**Fig. A**

**Fig. 1**

**Planter**

**Sorella**

**Streetscape Guidelines 2021**

Date: October 2020
Section 7

RECEPTACLES

Citywide Streetscape Elements
RECEPTACLES

PRODUCT: WELlington (KT420)

VENDOR: KING LUMINAIRE

INVENTORY: 36 RECEPTACLES FOR TRASH AND RECYCLING:
- 9 GREEN (TRASH) CITY-WIDE
- 8 GREEN (RECYCLING) CITY-WIDE
- 1 BROWN (TRASH) ON GLENSIDE DRIVE
- 12 BLACK (TRASH) CITY-WIDE
- 6 BLACK (RECYCLING) CITY-WIDE

DIMENSIONS: 35-7/8”H X 30”D (32 GAL) AND 39-1/2”H X 34”D (44 GAL)

MATERIALS: RECEPTACLES ARE 1/4” MILL STEEL. LIDS ARE CAST ALUMINUM.

FINISHES & COLORS: RECEPTACLES ARE FINISHED IN GREEN, BROWN, AND BLACK POWDER COAT PAINT.

PURCHASE & INSTALLATION: PRODUCT COMES PRE-ASSEMBLED. RECEPTACLES ARE EQUIPPED WITH ANCHOR BOLT MOUNTING TABS

PROJECTS/LOCATIONS: CITYWIDE

BUY AMERICA OPTION: NO

GREEN CERTIFIED/SUSTAINABLY SOURCED: NO
At King Luminaire, we know that the quality of workmanship is just as important as the design itself. Inspired by the goal to complement our lighting products, King Luminaire is proud to introduce the KTR20 Trash Receptacle.

The KTR20 is constructed of rugged 1/4” mill steel in the ever popular vertical strap design. After being Electro-coated with rust inhibiting epoxy technology, it is finished with King’s durable “KingCoat” powder coat paint finish. It is available in a 20, 32 and 44 gallon capacity and comes with its own rigid plastic liner which is held securely in the container by a hinged, cast aluminum lid. An optional protective steel canopy is also available.

Equipped with anchor bolt mounting tabs to deter theft or vandalism, this container has been designed to stand the test of time. Finished in any of the dazzling array of KingCoat colors, the KTR20 will add style to any project.
**THE WELLINGTON TRASH RECEPTACLE - KTR20**

- **KTR20 - (20 gal.)**
  - 20 GALLON LINER
  - STEEL FLATBAR CONSTRUCTION
  - MOUNTING TABS C/W 1/2"Ø THRU HOLES ON A 18 7/8"Ø B.C. S/F 3/8" ANCHOR BOLTS (BY OTHERS)

- **KTR20 - (32 gal.)**
  - 32 GALLON LINER
  - STEEL FLATBAR CONSTRUCTION
  - MOUNTING TABS C/W 1/2"Ø THRU HOLES ON A 21 3/8"Ø B.C. S/F 3/8" ANCHOR BOLTS (BY OTHERS)

- **KTR20 - (44 gal.)**
  - 44 GALLON LINER
  - STEEL FLATBAR CONSTRUCTION
  - MOUNTING TABS C/W 1/2"Ø THRU HOLES ON A 23 15/16"Ø B.C. S/F 3/8" ANCHOR BOLTS (BY OTHERS)

---

**How to Catalog**

- **KING DECORATIVE TRASH RECEPTACLE**
  - **KTR**
  - **20**
  - **32**
  - **LC**
  - **BK**

- **CONTAINER SIZE**
  - 20 Gallon
  - 32 Gallon
  - 44 Gallon

- **SERIES**
  - 20 – Wellington Trash Receptacle

- **LID STYLE**
  - L – Lid
  - LC – Lid & Canopy

- **PAINT COLOR**
  - GN – Federal Green
  - BE – Blue
  - GY – Gray
  - BN – Brown
  - BK – Black
  - BZ – Bronze
  - (other colors available see color selector in catalog)

---

*please visit our website or see our catalog for other trash receptacle designs*
RECEPTACLES

PRODUCT: RB-24
VENDEOR: VICTOR STANLEY
INVENTORY: 53 RECEPTACLES, TYPICALLY USED FOR RECYCLING
- 23 GRANNY SMITH GREEN (PMS 382 U) ON NEW HAMPSHIRE AVENUE
- 6 FOREST GREEN IN OLD TOWN AND TAKOMA JUNCTION
- 2 BROWN
- 14 BLACK IN OLD TOWN, TAKOMA JUNCTION, AND AT THE COMMUNITY CENTER
- 8 BLUE ON FLOWER AVENUE

DIMENSIONS: 30-1/2"H X 25"D

MATERIALS: 3/8" X 1" VERTICAL SOLID STEEL BARS; 1/4" X 2-1/2" HORIZONTAL SOLID STEEL BANDS; 3/8" X 3" STEEL SUPPORT BARS, 5/8" SOLID STEEL TOP RING; LEVELING FEED WITH A 3/8" DIAMETER THREADED STEEL SHAFT; 24 GALLON CAPACITY HIGH DENSITY PLASTIC LINER. STEEL IS PURCHASED FROM AMERICAN ELECTRIC FURNACE MILLS, WITH AT LEAST 98% OF THE STEEL OBTAINED FROM RECYCLED SCRAP METAL. PLASTIC LINER IS PRIMARILY MADE OF RECYCLED PLASTIC RESIN.

FINISHES & COLORS: RECEPTACLES ARE FINISHED IN BLACK, GRANNY SMITH GREEN (PMS 382 U), FOREST GREEN, BLUE, AND BROWN. AVAILABLE WITH STEEL PLAQUES IN VARIOUS SIZES AND PRESSURE SENSITIVE VINYL OUTDOOR DECALS. SPECIAL LID GRAPHIC DESIGNED TO INDICATE THAT RECEPTACLE IS FOR RECYCLING IN VARIOUS LANGUAGES.

PURCHASE & INSTALLATION: PRODUCT COMES PRE-ASSEMBLED. COLORS SHOULD BE REPLACED IN KIND AT INSTALLATION LOCATIONS IDENTIFIED ABOVE IN THE INVENTORY. BROWN SHOULD BE DISCONTINUED AND REPLACED ACCORDINGLY

PROJECTS/LOCATIONS: CITYWIDE

BUY AMERICA OPTION: YES
GREEN CERTIFIED/SUSTAINABLY SOURCED: YES
WARD 1
WARD 2
WARD 3
WARD 4
WARD 5
WARD 6

RB-24 Receptacle
Streets
Wards
City Boundary

RECEPTACLES - VICTOR STANLEY
RB-24

0 0.5 10.25
Miles

RB-24 Receptacle
Streets
Wards
City Boundary

RECEPTACLES - VICTOR STANLEY
RB-24

Section 7: Receptacles
Client Layout for VSI S-35 & RB-24 Lid Decal

Client: City of Takoma Park

Specifications are subject to change at manufacturer’s discretion to ensure proper fit and/or optimum output.

Drawn By: ST  Rev: 08/04/2009  Layout ID: 2610-02b

Customer Approval

Date: __/__/____

www.victorstanley.com
RECEPTACLES

PRODUCT: RB-36

VENDOR: VICTOR STANLEY

INVENTORY: 54 RECEPTACLES, TYPICALLY USED FOR TRASH:

- 22 SUNSHINE YELLOW (PMS 128 U) ON NEW HAMPSHIRE AVENUE
- 2 BROWN
- 24 BLACK CITY-WIDE
- 6 FOREST GREEN ON CARROLL AVENUE IN OLD TOWN

DIMENSIONS: 33-3/4”H X 28-1/8”D

MATERIALS: 3/8” X 1” VERTICAL SOLID STEEL BARS; 1/4” X 2-1/2” HORIZONTAL SOLID STEEL BANDS; 3/8” X 3” STEEL SUPPORT BARS, 5/8” SOLID STEEL TOP RING; LEVELING FEED WITH A 3/8” DIAMETER THREADED STEEL SHAFT; 36 GALLON CAPACITY HIGH DENSITY PLASTIC LINER. STEEL IS PURCHASED FROM AMERICAN ELECTRIC FURNACE MILLS, WITH AT LEAST 98% OF THE STEEL OBTAINED FROM RECYCLED SCRAP METAL. PLASTIC LINER IS PRIMARILY MADE OF RECYCLED PLASTIC RESIN.

FINISHES & COLORS: RECEPTACLES ARE FINISHED IN SUNSHINE YELLOW (PMS 128 U), FOREST GREEN, BROWN, AND BLACK POWDER COAT PAINT.

PURCHASE & INSTALLATION: AVAILABLE WITH STEEL PLAQUES IN VARIOUS SIZES AND PRESSURE SENSITIVE VINYL OUTDOOR DECALS. PRODUCT COMES PRE-ASSEMBLED. COLORS SHOULD BE REPLACED IN KIND AT INSTALLATION LOCATIONS IDENTIFIED ABOVE IN THE INVENTORY. BROWN SHOULD BE DISCONTINUED AND REPLACED ACCORDINGLY.

PROJECTS/LOCATIONS: CITYWIDE

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: YES
RECEPTACLES - VICTOR STANLEY
RB-36

0 0.5 10.25
Miles

RB-36 Receptacle
Streets
Wards
City Boundary
Section 7: Receptacles
Section 8

LIGHTING

Citywide Streetscape Elements
LIGHTING

PRODUCT: K118 WASHINGTON

VENDOR: STRESSCRETE

INVENTORY: 1 LUMINAIRE AND POLE

DIMENSIONS: 17’ 6-7/8”H X 17”D (POLE IS 13’H. GLOBE IS 44-1/4”H X 17”D.)

MATERIALS: POLE IS 11 GAUGE FLUTED FORMED STEEL. BASE IS CAST IRON. LUMINAIRE IS GLASS. EXTERIOR HARDWARE AND FASTENERS ARE STAINLESS STEEL ALLOY.

FINISHES & COLORS: BLACK POWDER COATING AND GLASS.

PURCHASE & INSTALLATION: LUMINAIRE MUST BE LOCKED IN PLACE WITH HEAVY DUTY STAINLESS STEEL SCREWS. POLE IS INSTALLED ON A CONCRETE BLOCK.

NEW INSTALLATIONS AND REPLACEMENT LUMINAIRES ARE TO BE DARK-SKY FRIENDLY.

THE LUMINAIRE AT THIS SITE IS THE ONLY MODEL IN THE CITY AND IS UNLIKELY TO BE REPLACED IN-KIND.
LIGHTING - K118 WASHINGTON LUMINAIRE
Product Specification

LED ENGINE
Light engine shall be an array of 36, 42, 54 or 63 solid state Cree XPG2 light emitting diodes mounted to a multi-sided, vertical heat sink of highly conductive aluminum. The LED emitters are mounted to removable circuit boards such that they are in full thermal contact with the vertical heat sink. The vertical heat sink is open at the bottom and vented at the top to provide appropriate “dynamic airflow” cooling for the LED array. The emitters are arranged in various patterns on each face of the vertical heat sink to provide the required light distribution.

OPTICS
The LED arrays include optical baffles constructed of polished aluminum extrusion optical grade ABS plastic with a vacuum metallized reflective surface or clear acrylic with precision refractors over each diode. Both optical options are designed to efficiently control light distribution.

LUMINAIRE CONSTRUCTION
All K118 cast components shall consist of a heavy grade A319 cast aluminum. The main body, or capital, acts as an enclosure for the ballast assembly and is of adequate thickness to give sufficient structural rigidity. The capital shall have an opening at the base tenon to allow the luminaire to be mounted to a tenon of 3-1/2” maximum diameter. The Luminaire shall be locked in place by means of heavy duty, stainless-steel set-screws.

GLOBE ASSEMBLY
The protective globe shall be molded of either: rippled polycarbonate Miles Makrolon GP/OP Thermoplastic Polymer, or equiv., or rippled acrylic Acrylite Plus Acrylic Polymer, or equiv., having a minimum thickness of 0.125” with an overall diameter of 17 1/2” and an over-all height of 31”.

The globe assembly is a self-contained unit consisting of the globe, rugged cast locking ring, and the LED light engine and optical baffles. The LED light engine is of a modular design, and is able to be quickly removed from the globe assembly. The globe assembly is secured to the main housing by means of a spring-tensioned, twist-locking “roto-lock” unit to allow tool-less removal of the globe, while maintaining a secure seal between the globe assembly and the main body of the luminaire, making the K118 Washington Luminaire suitable for an outdoor environment.

High performance protection against water or dust particle ingress is available by means of a non-porous, closed-cell silicon rubber o-ring gasket which is highly efficient in sealing against particle ingress over a wide temperature range (<40°F to 310°F).

DRIVER
The LED universal dimmable driver will be class 2 and capable 120 - 277V or 277 - 480V input voltage, greater than .9 power factor, less than 20% total harmonic distortion and feature ambient temperature range of -35 °C up to 65°C. Each LED system comes with a standard surge protection designed to withstand up to 20kV of transient line surge. The driver assembly will be mounted on a heavy duty fabricated galvanized steel mounting bracket to allow complete tool-less maintenance.

PHOTOMETRICS
Fixtures are tested to IESNA LM79 specifications. These reports are made available.

COLOR RENDERING
High output LED’s come standard at 4500K (+/-250K) with a minimum nominal 70 CRI. Additional CCT emitters are available upon request.

LUMEN MAINTENANCE
Reported (TM21) and Calculated (L70) reports are available upon request with a minimum calculated value of 50,000hrs.

WIRING
All internal wiring and connections shall be completed so that it will be necessary only to attach the incoming supply connectors to Mate-N-Loc connectors or to a terminal block. Mate-N-Loc shall be certified for 600V operation. Internal wire connectors shall be crimp connector only and rated at 1000V and 150 °C. All wiring to be CSA certified and/or UL listed, type SFF-2, SEWF-2, or SEW-2 No. 14 gauge, 150°C, 600V, and color coded for the required voltage.

THERMALS
Fixtures tested by a DOE sanctioned test facility to determine the maximum In-Situ solder-point or junction-point temperatures of the LED emitters. This report will be made available.

FINISH
Housing is finished with a 13 step Kingcoat™ SuperDurable polyester TGIC powder coat. Standard colors include strobe white, brown metal, marina blue, gate gray, Chicago bronze, standard gold, federal green and rain forest. RAL and custom color matches are available. Please see the King Color selector for complete list of colors.

MISCELLANEOUS
All exterior hardware and fasteners, wholly or partly exposed, shall be stainless-steel alloy. All internal fasteners are stainless-steel or zinc coated steel. All remaining internal hardware is stainless steel, aluminum alloy, or zinc coated steel.

WARRANTY
K118 Washington fixtures come with a 7 year limited warranty.

CERTIFICATION:
CSA US Listed
Suitable for wet locations
ISO 9001
DLC
ARRA Compliant
LM79 / LM80 Compliant

DRIVER INFO:
>0.9 Power Factor
<20% Total Harmonic Distribution
120 - 277V & 480V
-35°C Minimum Temperature
65°C Maximum Ambient Operating Temperature
20kV Surge Protection

EPA:
1.60 sq. ft.

FIXTURE WEIGHT:
46 lbs.
## Power & Lumens

<table>
<thead>
<tr>
<th>Catalog Code</th>
<th>Input Watts</th>
<th>Voltage/mA</th>
<th>Series</th>
<th>IES</th>
<th>CCT</th>
<th>BUG</th>
<th>Lumens</th>
<th>Efficacy</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>K18-B3XX-IV-60(SSL)-1036-120</td>
<td>60.56</td>
<td>120/500mA</td>
<td>1036 (36 emitters)</td>
<td>Type IV</td>
<td>4500</td>
<td>B1U3G2</td>
<td>4228</td>
<td>69.8</td>
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<tr>
<td>K18-B3XX-IV-75(SSL)-1036-120</td>
<td>82.56</td>
<td>120/667mA</td>
<td>1036 (36 emitters)</td>
<td>Type IV</td>
<td>4500</td>
<td>B1U3G3</td>
<td>5429</td>
<td>65.8</td>
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<tr>
<td>K18-B3XX-IV-100(SSL)-1054-120</td>
<td>93.14</td>
<td>120/533mA</td>
<td>1054 (54 emitters)</td>
<td>Type IV</td>
<td>4500</td>
<td>B1U3G3</td>
<td>6846</td>
<td>73.5</td>
<td></td>
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</table>

### B3 = 3rd Generation Baffled Array

<table>
<thead>
<tr>
<th>Catalog Code</th>
<th>Input Watts</th>
<th>Voltage/mA</th>
<th>Series</th>
<th>IES</th>
<th>CCT</th>
<th>BUG</th>
<th>Lumens</th>
<th>Efficacy</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>K18-B2XX-III-40(SSL)-1042-120</td>
<td>43.66</td>
<td>120/292mA</td>
<td>1042 (42 emitters)</td>
<td>Type III</td>
<td>4500</td>
<td>B1U3G1</td>
<td>3454</td>
<td>79.1</td>
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</tr>
<tr>
<td>K18-B2XX-III-60(SSL)-1042-120</td>
<td>54.92</td>
<td>120/383mA</td>
<td>1042 (42 emitters)</td>
<td>Type III</td>
<td>4500</td>
<td>B1U3G1</td>
<td>2945</td>
<td>53.6</td>
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</tr>
<tr>
<td>K18-B2XX-III-75(SSL)-1042-120</td>
<td>69.08</td>
<td>120/525mA</td>
<td>1042 (42 emitters)</td>
<td>Type III</td>
<td>4500</td>
<td>B1U3G2</td>
<td>4619</td>
<td>66.9</td>
<td></td>
</tr>
<tr>
<td>K18-B2XX-III-100(SSL)-1063-120</td>
<td>93.54</td>
<td>120/467mA</td>
<td>1063 (63 emitters)</td>
<td>Type III</td>
<td>4500</td>
<td>B2U3G2</td>
<td>7317</td>
<td>78.2</td>
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<tr>
<td>K18-B2XX-III-120(SSL)-1063-120</td>
<td>108.39</td>
<td>120/544mA</td>
<td>1063 (63 emitters)</td>
<td>Type III</td>
<td>4500</td>
<td>B2U3G2</td>
<td>7730</td>
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<tr>
<td>K18-B2XX-V-75(SSL)-1042-120</td>
<td>71.2</td>
<td>120/525mA</td>
<td>1042 (42 emitters)</td>
<td>Type V</td>
<td>4500</td>
<td>B2U3G1</td>
<td>4697</td>
<td>66</td>
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<td>K18-B2XX-V-100(SSL)-1063-120</td>
<td>90.86</td>
<td>120/467mA</td>
<td>1063 (63 emitters)</td>
<td>Type V</td>
<td>4500</td>
<td>B2U2G1</td>
<td>4661</td>
<td>51.3</td>
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### B2 = 2nd Generation Baffled Array

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<thead>
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<th>Catalog Code</th>
<th>Input Watts</th>
<th>Voltage/mA</th>
<th>Series</th>
<th>IES</th>
<th>CCT</th>
<th>BUG</th>
<th>Lumens</th>
<th>Efficacy</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>K18-R1XX-III-75(SSL)-1042-120</td>
<td>68.84</td>
<td>120/525mA</td>
<td>1042 (42 emitters)</td>
<td>Type III</td>
<td>4500</td>
<td>B1U4G3</td>
<td>5281</td>
<td>76.7</td>
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<tr>
<td>K18-R1XX-III-100(SSL)-1063-120</td>
<td>93.79</td>
<td>120/467mA</td>
<td>1063 (63 emitters)</td>
<td>Type III</td>
<td>4500</td>
<td>B2U5G3</td>
<td>7144</td>
<td>76.2</td>
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</tr>
<tr>
<td>K18-R1XX-III-120(SSL)-1063-120</td>
<td>116.9</td>
<td>120/578mA</td>
<td>1063 (63 emitters)</td>
<td>Type III</td>
<td>4500</td>
<td>B2U4G2</td>
<td>8384</td>
<td>71.7</td>
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</tr>
</tbody>
</table>

### R1 = 1st Generation Baffled Array

### Fixture Options

#### Capitals Options

- K16
- K18
- K14 C/W PR
- K13
- K10
- K23 C/W PR
- K24 C/W PR
- K30

#### Decorative Options

- Contempra Ring
- GE Ring
- Solid Spun Aluminium Top

#### Finial Options

#1, #2, #3
How to Order

K118R

LUMINAIRE STYLE
K118R - Washington

IES LIGHTING CLASSIFICATION
III - Type 3
IV - Type 4
V - Type 5

SOURCE
SSL - Solid State

SERIES
1036 (40 - 75W B3)
1042 (40 - 75W B2, R1)
1054 (100 - 120 B3)
1063 (100 - 120 B2, R1)

OPTICAL OPTIONS
B2AR - B2 Rippled Acrylic
B2PR - B2 Rippled Polycarbonate
B3AR - B3 Rippled Acrylic
B3PR - B3 Rippled Polycarbonate
R1AR - R1 Rippled Acrylic
R1PR - R1 Rippled Polycarbonate

SOURCE
SSL - Solid State

WATTAGE
40, 60, 75, 100, 120

LINE VOLTAGE
120v (100-277)
480v

CAPITAL
K10, K13, K14, K16, K18
K24, K23, K30

OPTIONAL GLOBE HOLDER
GN - Globe Holder

DECORATIVE OPTIONS
GE - Globe Ring Only
CR - Contempora Ring Only
SST - Solid Spun Top

PAINT COLOR
GN - Federal Green
BE - Blue
GY - Gray
BN - Brown
BK - Black
BZ - Bronze
Other colors available (see color selector in our catalog)

PHOTO CONTROL OPTION**
PR - Photo Receptacle c/w cover
PR available with K14, K16, K24 & K23
PE - Photo Receptacle c/w cover
PR and Photo Eye available with K14, K16, K24 & K23
PEBC - Photo Electric Button cell
**Leave blank if no photo control required

FINIAL OPTIONS
#1, #2, #3
*Additional options available on website

*Additional options available on website

**Leave blank if no photo control required
C1888A LUMINAIRE AND CP1888 POLE INSTALLED ALONG CARROLL AVENUE.

LIGHTING

PRODUCT: C1888A (LUMINAIRE), CP1888 (POLE)

VENDOR: HADCO

INVENTORY: 57 LUMINAIRE POLES ON CARROLL AND LAUREL AVENUE

DIMENSIONS: 13'-15/16”H X 18.88”D

(POLE IS 9’H. LUMINAIRE IS 46.79”H X 18.16”D.)

MATERIALS: POLE IS 4” STRAIGHT FLUTED WITH 3” TENON 1/8” THICK WALLED ALUMINUM WITH GFI DUPLEX OUTLET. BASE IS CAST ALUMINUM. LUMINAIRE IS ALUMINUM AND GLASS.

FINISHES & COLORS: BLACK POWDER COATING AND GLASS.

PURCHASE & INSTALLATION: LUMINAIRE MUST BE MOUNTED TO POLE UPON RECEIPT. UNIT TO BE INSTALLED ON CONCRETE BLOCK.

PROJECTS/LOCATIONS: HISTORIC DISTRICT

BUY AMERICA OPTION: UNKNOWN

GREEN CERTIFIED/SUSTAINABLY SOURCED: UNKNOWN
LIGHTING - HADCO C1888A LUMINAIRE

C1888A Luminaire
Streets
Wards
City Boundary

![Map showing C1888A Luminaire locations in different wards.]

Section 8: Lighting
Color: Black

POLE:
4" STRAIGHT FLUTED W/ 3" TENON
0.125" WALL THICKNESS
6005-T5 ALUMINUM W/ GFI DUPLEX OUTLET

BASE:
CAST ALUMINUM
#356HM ALLOY
W/ ACCESS DOOR

Luminaire Matrix
COLOR:
X BLACK
- WHITE
- VERDE
- BRONZE
- GREEN

OPTICS:
X TYPE IV REFR, PANEL
- TYPE V REFR, PANEL
- TYPE III CUTOFF
- TYPE V CUTOFF

PHOTO CONTROL:
X BUTTON EYE
- TWIST-LOCK RECEPT.
- NONE

SOCKET: MODIFIED
- MEDIUM
- MOGUL
- X INDUCTION

WATTAGE: MODIFIED
- 70W HPS
- 100W HPS
- 150W HPS
- 250W HPS
- 70W MH
- 100W MH
- 150W MH
- 175W MH
- 250W MH
- X 85W INDUCTION

VOLTAGE:
X 120V
- 208V
- 240V
- 277V
- 347V

PRODUCT APPROVALS
HADCO
SMK
CUST.

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NOTICE:
THIS DRAWING IS FOR REFERENCE ONLY. CHECK FOR LATEST REVISION PRIOR TO ORDERING

Full Specification (Complete Assembly) Drawing

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Lilliesville, Pennsylvania 17340-0128
Phone 717-359-7131
Fax 717-359-9515
www.hadco.com

JOB NAME:
Takoma Junction
REP. TERRITORY:
DRAWN BY:
14
JRS
SCALE:
DATE:
1/20
05.09.08
DRAWING NUMBER:
C1888-DWG01
REP:
Lightoller-Baltimore
REV: A
PON: 08-035
BY:
DATE:
LIGHTING

PRODUCT: C4325 (ICETRONE LAMP LUMINAIRE), C4325A (LED MODULE LUMINAIRE), CP4325 (POLE)

VENDOR: HADCO

INVENTORY: 11 LUMINAIRE AND POLES

DIMENSIONS: 15’ 4-5/16”H X 17”D

(POLE IS 12’H. GLOBE IS 38.28”H X 16.67”D.)

MATERIALS: POLE IS 4” STRAIGHT FLUTED WITH 3” TENON 1/8” THICK WALLED ALUMINUM WITH GFI DUPLEX OUTLET. BASE IS CAST ALUMINUM. LUMINAIRE IS ALUMINUM AND GLASS.

FINISHES & COLORS: BLACK POWDER COATING AND GLASS.

PURCHASE & INSTALLATION: LUMINAIRE MUST BE MOUNTED TO POLE UPON RECEIPT. UNIT TO BE INSTALLED ON CONCRETE BLOCK.

NEW INSTALLATIONS AND REPLACEMENT LUMINAIRE ARE TO BE DARK-SKY FRIENDLY.

PROJECTS/LOCATIONS: NEW AVE (HOLTON LANE)

BUY AMERICA OPTION: UNKNOWN

GREEN CERTIFIED/SUSTAINABLY SOURCED: UNKNOWN
LIGHTING - HADCO C4325 LUMINAIRE
Section 9

SEATING

Citywide Streetscape Elements
SEATING

PRODUCT: RB-28 SERIES BENCH

VENDOR: VICTOR STANLEY

INVENTORY: 3 BENCHES ON FLOWER AVENUE

DIMENSIONS: 72-1/2"L X 24-3/8"W X 31-1/4"H (SEAT HEIGHT IS 17")

MATERIALS: BENCH IS MADE FROM 1/4" X 1-1/2" STEEL BARS WITH 1/2" X 2" END UNITS, AND 3/8" X 1" STEEL AND 1-5/16" TUBULAR STEEL SUPPORTS. STEEL IS PURCHASED FROM AMERICAN ELECTRIC FURNACE MILLS, WITH AT LEAST 98% OF THE STEEL OBTAINED FROM RECYCLED SCRAP METAL. 63% OF TUBULAR STEEL IS EITHER POST-CONSUMER OR POST-INDUSTRIAL RECYCLED SCRAP STEEL.

FINISHES & COLORS: BENCHED ARE ALL IN BLACK POWDER FINISH

PURCHASE & INSTALLATION: BENCHES MOUNT AND ANCHOR USING ANCHOR BOLTS (NOT INCLUDED)

PROJECTS/LOCATIONS: FLOWER AVENUE

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: YES
SEATING - VICTOR STANLEY RB-28
ALL DIMENSIONS ARE IN INCHES

FRONT WELDS ARE POLISHED UNTIL THEY DISAPPEAR, FORMING A CONTINUOUS SURFACE

STEEL SLATS ARE FORMED FROM 1/4 X 1-1/2 SOLID STEEL BARS

CLEARANCE FOR 1/2 ANCHOR BOLTS

FINISHED END UNIT IS MADE FROM 1/2 X 2 SOLID STEEL BAR

3/8 X 1 SOLID STEEL BARS ARE WELDED UNDERNEATH FOR ADDITIONAL SUPPORT

1-5/16 TUBULAR STEEL USED FOR ADDITIONAL SUPPORT

FINISHED END UNITS JOIN TO SEATING SECTION WITH FASTENERS (PLEASE SEE ASSEMBLY DETAIL)

AVAILABLE OPTIONS
PONDER COATING
10 STANDARD COLORS, 2 OPTIONAL METALLIC COLORS,
CUSTOM COLORS (INCLUDING THE BAR RANGE)
INTERMEDIATE & CENTER ARMS
4", 6", 8" AVAILABLE WITH OPTIONAL SOLID STEEL ARMS

LENGTHS
STANDARD 4'
STANDARD 6' LENGTH SHOWN
STANDARD 8'

NOTES:
1. DRAWINGS NOT TO SCALE. DO NOT SCALE DRAWINGS.
2. ALL FABRICATED METAL COMPONENTS ARE STEEL BURNT BLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY PONDER-COATED WITH T.G.I.C. POLYESTER PONDER COATINGS. PRODUCTS ARE FULLY CLEANED AND PRETREATED, PREHEATED AND COATED WHILE NOT TO FILL CREVICES AND BUILD COATING FILM. COATED PARTS ARE THEN FULLY CURD TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH AVERAGES 8-14 MILS (200-350 MICROMETERS).
3. IT IS NOT RECOMMENDED TO INSTALL ANCHOR BOLTS UNTIL BENCH IS IN PLACE. THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY ATTACHED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
4. ANCHOR BOLTS NOT PROVIDED BY VICTOR STANLEY, INC.
5. FOR HIGH SALT ARBITIOUS CLIMATES, HOT DIP GALVANIZING BEFORE PONDER COATING IS AVAILABLE. SEE WRITTEN SPECIFICATION FOR DETAILS.
6. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.
7. THIS PRODUCT IS SHIPPED PARTIALLY ASSEMBLED.

RB-28
STEEL SITES™ RB SERIES

ALL STEEL CONTOURED BENCH
SHOWN: STANDARD 8-FOOT LENGTH

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REV. 11/30/12 DRAWN I.D.I. 2012-128
SEATING

PRODUCT: BOSTON BENCH MODEL B-76

VENDOR: BOSTON BENCH

INVENTORY: 32 BENCHES

DIMENSIONS: 75-1/2"W X 23"L X 28-1/4"H; (SEAT HEIGHT IS 16" AND SEAT DEPTH IS 17-1/2")

MATERIALS: CASTINGS ARE CAST IRON. WOOD SLATS ARE IPE.

FINISHES & COLORS: BENCHES ARE ALL IN BENCH GREEN POLYESTER POWDER COAT FINISH WITH IPE WOOD SLATS

PURCHASE & INSTALLATION: BENCHES COME IN 2’, 4’, 5’, 6’, AND 8’ LENGTHS. STANCHION COLORS CAN BE CUSTOMIZED. SLATS AVAILABLE IN IPE WOOD, PLASTIC, OR NUTEAK. BRASS PLAQUES CAN BE ADDED.

PROJECTS/LOCATIONS: OLD TOWN, TAKOMA JUNCTION, COMMUNITY CENTER

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: YES
Boston Bench

ADDENDUM 2 - ATTACHMENT B

P.O. Box 1555
Concord, MA 01742

Tel – (978)287-9580
Fax – (978)287-9581

www.BostonBench.com

PERSONALIZATION
We have numerous ways of incorporating your special message or logo onto our products. Please refer to our brochure for available options.

MISCELLANEOUS
All benches are shipped unassembled (KD).

BENCH
ADVERTISING SPONSORSHIP

Overall Length

<table>
<thead>
<tr>
<th>Overall</th>
<th>2'</th>
<th>3'</th>
<th>4'</th>
<th>5'</th>
<th>6'</th>
<th>8'</th>
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<tbody>
<tr>
<td>Depth</td>
<td>27.50&quot;</td>
<td>51.50&quot;</td>
<td>63.50&quot;</td>
<td>75.50&quot;</td>
<td>99.50&quot;</td>
<td></td>
</tr>
</tbody>
</table>

These are nominal dimensions and should not be used to set anchor bolts.

DIMENSIONS
Overall Height: 28.25" - Overall Depth: 28.00"
Arm Height: 25.25" - Seat Height: 16.00"
Tie-down: .50" hole for a .38" dia. anchor bolt

MATERIAL & FINISHES
CASTINGS: Gray Cast Iron
FINISHES: Polyester powder coat. Standard colors are:
- Deep Black
- Bench Green
- Other

WOOD GRAIN: Ipe
WOOD FINISH: Optional one coat clear wood preservative, factory applied.

HARDWARE:
- Lag Screws
- Carriage Bolts

FURLONG PARK REHABILITATION
SEATING

PRODUCT: C-10 BENCH

VENDOR: VICTOR STANLEY

INVENTORY: 12 BENCHES IN HISTORIC DISTRICT

DIMENSIONS: 6’ WIDTH AND 4’ WIDTH

21-7/8”L X 28-7/8”H (SEAT HEIGHT IS 16 3/4”)

MATERIALS: 2” X 3” BACK AND SEAT SLATS ARE IPE WOOD. DUCTILE IRON END FRAMES. 1-5/16” TUBULAR STEEL RUNG USED FOR ADDITIONAL SUPPORT. STEEL IS PURCHASED FROM AMERICAN ELECTRIC FURNACE MILLS, WITH AT LEAST 98% OF THE STEEL OBTAINED FROM RECYCLED SCRAP METAL.

FINISHES & COLORS: SLATS ARE IN NATURAL FINISH AND END FRAMES ARE IN BLACK POWDER COAT FINISH.

PURCHASE & INSTALLATION: SURFACE MOUNTED. MUST BE ANCHORED IN PLACE WITH 3/8” ANCHOR BOLTS (NOT PROVIDED).

PROJECTS/LOCATIONS: HISTORIC DISTRICT

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: YES
SEATING - VICTOR STANLEY C-10 BENCH
Available Options:

- Powder Coating
  - 10 standard colors, 2 optional metallic colors, and custom colors (including the IVY pattern)
  - Slats types

- Options: Phosphating and Enamel
  - 2x4iReinforced Recycled Plastic Slats
  - Colors: Gray, Maple, Cherry, and Walnut

Notes:

1. All finished castings come with a ten-year warranty against breakdown.
2. Drawings not to scale; do not scale drawings.
3. All fabricated metal components are steel, galvanized, etched, phosphatized, preheated, and electrostatically powder-coated with T.I.C.C. polyester powder coatings. Products are fully cleaned and pretreated, preheated, and coated while hot to fill crevices and build coating film. Coated parts are then fully cured to coating manufacturing specifications. The thickness of the resulting finish averages 3-10 mils (300-1000 microns).
4. It is not recommended to locate anchor bolts until bench is in place. This Victor Stanley, Inc. product must be permanently affixed to the ground. Consult your local codes for regulations.
5. Anchor bolts not provided by Victor Stanley, Inc.
6. For high salt or abrasive climates, hot DIP galvanizing before powder coating is available. See written specifications for details.
7. All specifications are subject to change. Contact manufacturer for details.
8. This product is described partially unassembled.

C-10 Classic Series

Bench with Cast Iron End Frames

Shown: Standard 6-foot length

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REV. 8/26/12 DRAW L.O.C., 2012-807)
SEATING

PRODUCT: TOWN SQUARE BENCH

VENDOR: LANDSCAPE FORMS

INVENTORY: 5 BENCHES ON THE NEW AVE
  2 CRANBERRY, 3 OCEAN BLUE

DIMENSIONS: 70"W X 27"L X 32"H
(SEAT HEIGHT IS 16-1/4" AND SEAT WIDTH IS 19-3/8")

MATERIALS: SUPPORTS AND SEAT AND BACK PANELS ARE MADE OF STEEL. ALL PARTS ARE 100% RECYCLABLE AND MADE OF A MINIMUM OF 88% RECYCLED MATERIAL CONTENT.

FINISHES & COLORS: BENCHES ARE IN FOUR POWDER COAT COLORS; CRANBERRY, OCEAN BLUE, GRASS, AND BLACK. SEE THE NEW AVE STREETSCAPE STANDARDS FOR RECOMMENDED LOCATION AND COORDINATION OF COLORS.

PURCHASE & INSTALLATION: TOWNE SQUARE BENCHES ON THE NEW AVE ARE SLATTED (NOT PERFORATED), WHICH MUST BE SPECIFIED AT TIME OF PURCHASE.

PROJECTS/LOCATIONS: THE NEW AVE

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: YES
SEATING - LANDSCAPE FORMS
TOWNE SQUARE BENCH
Instructions

7/2007

Towne Square™ Bench

HANDLE WITH CARE! Pangard II® polyester powder coat is a strong, long-lasting finish. Protect this finish from damage during installation. Use touch-up paint to repair any finish abrasions.

Towne Square benches are shipped with freestanding glides that may be left in place for surface mounting.

Recommended procedure for surface mounting:
Each bench has four mounting plates that can accept anchors up to 3/8” thread size. Although the anchoring procedure and hardware are the responsibility of the installer, we suggest the following:

1. Select corrosion resistant anchors appropriate for the surface. Your hardware store or builders supply may be able to recommend the proper hardware, tools, and safety equipment.
2. Place the bench in the desired position.
3. Mark hole locations.
4. Move the bench to allow access for drilling holes.
5. Install the anchors and bench according to the anchor manufacturer’s instructions.
COLORFUL AND ENGAGING PORCH ROCKERS REPLACE BENCH SEATING AT A FEW BUS STOPS ON NEW HAMPSHIRE AVENUE.

PORCH ROCKERS IN ALL FOUR COLORS AT THE BUS STOP ON NEW HAMPSHIRE AVENUE AND DEVONSHIRE ROAD.

SEATING

PRODUCT: PORCH ROCKER
VENDOR: SEASIDE CASUAL
INVENTORY: 6 ROCKING CHAIRS AT TWO BUS STOPS ON NEW HAMPSHIRE AVENUE:

- 2 CITRUS
- 2 HOT PINK
- 1 POOL (BLUE)
- 1 LIME

DIMENSIONS: 31 5/8”L X 26 1/8”W X 44 3/4”H
(SEAT HEIGHT IS 16 1/4” AND SEAT WIDTH IS 19 3/8”)

MATERIALS: CHAIRS FABRICATED FROM ENVIROWOOD, AN ALL-WEATHER MARINE GRADE HIGH DENSITY POLYETHYLENE POLYMER.

FINISHES & COLORS: CHAIRS ARE ALL IN BLUE, GREEN, ORANGE, OR PINK. COLORS WERE SELECTED TO COORDINATE WITH THE NEW AVE BRANDING.

PURCHASE & INSTALLATION: ROCKERS SHOULD BE CHAINED TO A PERMANENTLY AFFIXED OBJECT IN ORDER TO PREVENT THEFT.

PROJECTS/LOCATIONS: THE NEW AVE

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: NO, BUT MADE FROM HTPE RECYCLED PLASTIC
SEATING - SEASIDE CASUAL PORCH ROCKER
SEATING

PRODUCT: DEWART SERIES BENCH (DE111C)

VENDOR: URBANSCAPE

INVENTORY: 7 BENCHES

DIMENSIONS: 72"W X 22-3/4"L X 37-1/4"H

(SEAT HEIGHT IS 17-1/2" AND SEAT DEPTH IS 16-1/2"

MATERIALS: BENCH LEGS ARE CONSTRUCTED OF 319 ALUMINUM CASTING. SLAT SEAT AND BACK, MOUNTING BRACKETS, AND REINFORCING BRACES ARE CONSTRUCTED OF 10 GA X 2 FLAT STEEL.

FINISHES & COLORS: BENCHES ARE ALL IN OCEAN BLUE POWDER COAT FINISH.

PURCHASE & INSTALLATION: DEWART SERIES BENCHES ON THE NEW AVE ARE SLATTED (NOT PERFORATED), WHICH MUST BE SPECIFIED AT TIME OF PURCHASE.

PROJECTS/LOCATIONS: THE NEW AVE

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: UNKNOWN
SEATING - URBANSCAPE DEWART SERIES BENCH
Dewart Series
model no:

DE1111C, DE1113C
DE1411C, DE1413C

PORTABLE & SURFACE MOUNT W/BACK AND W/O BACK BENCH
SQUARE AND ROUND PERFORATED, AND SLAT

customer service:

ASSEMBLERS: If you find any parts missing or damaged, or if you’re having difficulty assembling your furniture/equipment, call us at:

* Before calling, have your product model number available.
  1–800–253–8619 (Inside U.S.A.)
  260–352–2102 (Outside U.S.A.)
  Monday thru Friday,
  8:00 AM – 4:30 PM Eastern Time
  (EXCEPT HOLIDAYS)

Any correspondence concerning our product should be sent directly to our Customer Service Manager at:

URBANSCAPE
a division of Wabash Valley Mfg., Inc.
505 E. Main Street
P.O.Box 5
Silver Lake, IN 46982 U.S.A.
FAX: 260–352–2160
or email: cs@wabashvalley.com

maintenance:

Regular inspection and maintenance of all parts, and fasteners is necessary. Tighten all bolts and nuts. Inspect Tops, Seats, Legs, Braces and Fasteners periodically for wear or vandalism. Replace broken or worn parts immediately or take equipment out of service until repairs are made. Use genuine Urbanscape replacement parts.

KEEP THIS ASSEMBLY/SPECIFICATION SHEET FOR FUTURE REFERENCE.

specifications:

NOTE: We reserve the right to change specifications without notice.

Framework assemblies are finished with powder coating; electrostatically applied and oven cured according to powder manufacturer’s specifications. Fasteners are stainless steel to resist corrosion.

BENCH LEGS:
Legs are constructed of 319 aluminum casting.

BENCH SEAT:
The perforated panels are constructed of 12 GA sheet steel. The slat seat is constructed of 10 GA x 2 flat steel. Mounting brackets consists of 10 GA sheet steel. The reinforcing braces consists of 10 GA sheet steel. Leg to bench braces are 15 gage x 1 inch structural steel tubing.

BENCH BACK:
The perforated panels are constructed of 12 GA sheet steel. The slat back is constructed of 10 GA x 2 flat steel. Mounting brackets consists of 10 GA sheet steel. The reinforcing braces consists of 10 GA sheet steel.

GENERAL:
6’ Bench w/ back ground space requirements are 22 3/4” x 72”. The bench seat is 65 3/8” long x 16 1/2” wide and 17 1/2” to the top the bench’s seat.

6’ Low Profile bench ground space requirements are 18 1/4” x 72”. The bench seat is 65 3/8” long x 18 1/4” wide and 17 3/4” to the top the bench’s seat.
Finished to Look Like Wood, but Act Like Metal
Our faux-wood finishes so closely resemble the real thing that it’s hard to believe it’s metal and not wood. The timeless beauty and tradition of wood without any of the headaches, such as cracking, warping or rotting. For superior strength and rigidity, we add reinforcements to the aluminum extrusions for all of our faux-wood-finished products.

AAMA 2604-05 Certification
Our seven-step powder-coat system exceeds AAMA 2604-05 (American Architectural Manufacturers Association) test specifications—one of the highest in the industry. Our coating stood up to some of the toughest test specifications, including adhesion, abrasion resistance, chemical resistance, corrosion resistance and fade resistance, to ensure that our products will last longer than anyone else’s.

<table>
<thead>
<tr>
<th>Test Requirements</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt-Spray Resistance: 3,000 hours per ASTM B 117</td>
<td>Yes</td>
</tr>
<tr>
<td>Weathering: Color Retention, 5-year south Florida sun, per ASTM D 2244 with a maximum 5(\delta E) change</td>
<td>Yes</td>
</tr>
<tr>
<td>Weathering: Chalk resistance, 5-year south Florida sun, per ASTM D 4214 with a max rating of 8</td>
<td>Yes</td>
</tr>
<tr>
<td>Weathering: Gloss Retention, 5-year south Florida sun, per ASTM D 523 with a min of 30%</td>
<td>Yes</td>
</tr>
<tr>
<td>Weathering: Resistance to Erosion, 5-year south Florida sun, with less than 10% film loss</td>
<td>Yes</td>
</tr>
<tr>
<td>Chemical Resistance: Muriatic Acid, Mortar, Nitric Acid, Detergent and Window Cleaner</td>
<td>Yes</td>
</tr>
<tr>
<td>Dry Film Hardness per ASTM D 3363 with no rupture</td>
<td>Yes</td>
</tr>
<tr>
<td>Adhesion: Dry Adhesion, Wet Adhesion and Boiling Water Adhesion using the cross hatch method with 0% failure</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Seven Steps to Long-Lasting Furniture: Our Superior Powder-Coating Process
What's responsible for the good looks and durability of all our products? Our seven-step powder-coating process, which is unlike any other in the industry. While other companies also offer powder-coated products, our seven-step process ensures the highest quality and longevity for our products.

STEP 1—Shot-Blasting to White Metal
First, all of our metal is cleaned to white metal. We strip it to its purest form using our state-of-the-art shot-blast system. This process removes all the impurities from the metal, especially at the weld joints. It's more effective than traditional acid cleaning and also creates a more textured surface, allowing for better adhesion of the powder coat.

STEP 2—Five-Stage Chemical Pre-Treatment
Next, the metal goes through a five-stage chemical pre-treatment cleaning process. It is etched, rinsed and cleaned to eliminate any residue, then it’s sealed—further promoting adhesion and encouraging corrosion prevention.

STEP 3—Pre-Heating
Prior to coating, the part is pre-heated so that it can be dried, warmed and then sent directly to the spray booth. With the part heated, it draws powder into the joints, corners and hard-to-reach places to ensure complete coating of the entire surface.

STEP 4—Zinc-Rich Epoxy Coating
After the pre-heating, a Zinc-Rich epoxy powder-coating is applied to provide the highest quality of corrosion control. It works as a prime coat to protect the metal from corrosion before it receives its topcoat.

STEP 5—Zinc-Rich Epoxy Coating Gel-Cure
Next, the Zinc-Rich epoxy coating is cured to a gel, allowing the polyester topcoat to combine with the Zinc-Rich epoxy, promoting better adhesion.

STEP 6—AAMA 2604-Compliant Polyester Topcoat
A polyester topcoat is then applied that's specially formulated to meet AAMA 2604 standards for fading, cracking, chalking, gloss retention, erosion resistance and chemical resistance. No one else in the industry uses this high standard of topcoat. It ensures that our products will maintain their beauty and durability for years to come.

STEP 7—Final Cure
Finally, the metal goes through a cure oven, which hardens the topcoat and completes the integrated bonding between the Zinc-Rich epoxy and AAMA 2604-Compliant Polyester Topcoat.
assembly procedures:

IMPORTANT: Assemblers should be reasonably skilled in the assembly of commercial grade/heavy duty fabricated steel equipment.

To ensure proper assembly, it is suggested that you take adequate time to locate and identify each part. To prevent scratching of the finished pieces, we recommend this unit be assembled on a clean, flat, solid surface with a drop cloth, allowing plenty of working room. Also please read the instructions and study the sketches very carefully. A little extra time spent before assembly will be well worth it in performing a complete, proper assembly. Please note that all parts have been precut and pre-drilled.

During the assembly process leave all bolts and nuts "finger tight", until the entire unit is completely assembled. This allows room for movement to level or adjust all seats, tops, benches, framework and braces if necessary. After final adjustment and leveling, permanently tighten all nuts, bolts and fasteners.

NOTE: THESE INSTRUCTIONS ARE FOR ALL BENCHES.

STEP 1
Attach seat (4054, 56, 57, 58) to leg (4014,4015) using one 5/16" X 2 1/2" Machine Screw with one 5/16" Split Washer and one 1/4" Flat Washer per each bolt hole.

STEP 2
Attach back (4055,4059) to leg (4014) using one 5/16" X 3" Machine Screw at bottom hole and one 5/16" x 2 1/2" Machine Screw at top hole. Use one 5/16" Hex Nut with one 5/16" Split Washer and one 1/4" Flat Washer per each bolt hole.

STEP 3
Repeat STEPS 1 and 2 to complete installation for opposite side.

STEP 4
Level the seat and back, tighten with proper tools.

STEP 5 (W/O BACK ONLY)
Attach brace (7140) to leg (4015) using one 5/16" X 3" Machine Screw. Attach opposite end of brace (7140) to bench using one 5/16" x 1 1/2" Machine Screw. Use one 5/16" Hex Nut, one 5/16" Split Washer and two 1/4" Flat Washers per each bolt hole.

installation:

WARNING: The proper installation for Urbanscope products may depend upon many factors unique to the site, location, or use of a particular product. Consult with your contractor or other professional to determine your specific installation requirements.

AI338C
product dimensions:

- Left bench:
  - Length: 72" (287.4 cm)
  - Width: 68 5/8" (174.3 cm)

- Right bench:
  - Length: 72" (287.4 cm)
  - Width: 18 1/4" (46.4 cm)

- Left seat:
  - Width: 17" (43.2 cm)
  - Height: 17 3/4" (45.1 cm)

- Right seat:
  - Width: 17 1/4" (43.9 cm)
  - Height: 17 1/4" (43.9 cm)

- Leg:
  - Length: 37 1/4" (94.7 cm)
  - Width: 17" (43.2 cm)
  - Height: 17 1/2" (44.5 cm)
SEATING

PRODUCT: DUMOR 168 SERIES BENCH

VENDOR: DUMOR

INVENTORY: 9 BENCHES

DIMENSIONS: 75"L X 27-5/16"W X 32"H

(SEAT HEIGHT IS 16-5/8" AND SEAT DEPTH IS 18-15/16")

MATERIALS: BENCH IS 100% STEEL

FINISHES & COLORS: BENCHES ARE ALL IN OCEAN BLUE POWDER COAT FINISH.

PURCHASE & INSTALLATION: MOUNT AND ANCHOR USING 1/2" X 3-3/4" EXPANSION ANCHOR BOLTS (PROVIDED).

PROJECTS/LOCATIONS: RESIDENTIAL

BUY AMERICA OPTION: YES

GREEN CERTIFIED/SUSTAINABLY SOURCED: YES
NOTES

1.) ALL STL. MEMBERS COATED W/ ZINC RICH COATING THEN POLYESTER POWDER COATED.
2.) BENCH IS SHIPPED UNASSEMBLED.
3.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
NOTE:
1.) DURING ASSEMBLY PROCEDURE;
    DO NOT COMPLETELY TIGHTEN HARDWARE.
2.) THE ACTUAL PARTS WILL NOT BE NUMBERED:
    NUMBERS ONLY APPLY TO DRAWING.

STEP 1:
USE 2 - PCS. CAST IRON BENCH SUPPORT W/ BACK (1)
1 - PC. 6' ALL STL WELDED SEAT SECTION (2)
4 - PCS. 1/2" X 2 1/2" FLT. SKT. HD. CAP SCR. (3)
ATTACH CAST IRON BENCH SUPPORT W/ BACK (1) TO 6' ALL
STL WELDED SEAT ASSEMBLY (2) USING HARDWARE (3).
TIGHTEN TO SNUG FIT.

STEP 2:
UPON COMPLETION OF BENCH ASSEMBLY SQUARE ALL
COMPONENTS THEN TIGHTEN ALL HARDWARE.

STEP 3:
MOUNT AND ANCHOR AS SPECIFIED.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>PART NO</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0-160-00-01</td>
<td>CAST IRON BENCH SUPPORT FOR BACKREST</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>0-168-60-01</td>
<td>6' STL SEAT</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>1-12-065</td>
<td>1/2&quot; X 2 1/2&quot; FLT SKT HD CAP SCR</td>
</tr>
</tbody>
</table>

DuMor, inc.
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