



1732 NE 2<sup>nd</sup> Avenue **Design Review : Narrative Packet**

works progress architecture 01.24.2017

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Phase II Environmental Report

## SITE AND VICINITY

The project site is comprised of 2 lots along the south side of NE Schuyler Street between NE 2nd Avenue and NE 3rd Avenue. The site has frontages on three sides along NE Schuyler, NE 2nd, and NE 3rd Avenues. The site and adjacent lots to the east, west, and south are zoned CX, across NE Schuyler the lots to the north are zoned EX. Existing on the site are two warehouse structures with surface parking on the southern end of the lots. The building abutting the rear lot line is commercial with ground floor windows and surface parking to the west. Across NE Schuyler St is also a 1-story commercial building with minimal ground floor windows and surface parking against the street. The adjacent lots to the east and west contain car dealerships with surface parking, and a church also shares the western lot. One block west on NE Schuyler St are active commercial and retail uses.

At the urban scale of the street grid and City block, the site and immediate vicinity derives its character from the larger Convention and Moda Centers, both to the south. This area is separated from the proposed development's site by the major transit streets of Broadway/Weidler. This coupled with the on/off ramps for the I-5, Interstate, and the Broadway Bridge make this a highly dynamic area at the vehicular scale and somewhat inaccessible at the pedestrian scale from the south. To the north of the site sits the residential neighborhood of Elliot.

## DEVELOPMENT PROPOSAL

This proposal is for the new construction of a 6 story multi-family building. The structure consists of below grade parking and a concrete ground floor podium level with five floors of modular construction above. The ground floor is composed of retail and a residential lobby with an outdoor plaza on the south side of the property.

The residential portion is comprised of studios, one bedrooms, and two bedrooms totaling 77 units in all. The facade shifts to create balconies and subsequent semi-enclosed/covered areas along the north and south facades. This provides both pedestrian coverage for the retail spill-out areas and outdoor spaces, as well as, creating a dynamic façade that covers pedestrians at the north facade, south plaza and engages those moving along Broadway.

The outdoor plaza not only provides for pedestrian circulation through the site, but creates spill-out spaces for the ground floor retail, allowing outdoor seating for a restaurant or café. The remainder of the plaza is landscaped in such a way to create large open hardscaped spaces for outdoor events; such as farmer's markets and food truck catering, and more intimate areas with heavier foliage and benches. The planters are sized and oriented for the greater landscape concept and do not assist in stormwater mitigation because the stormwater will be managed through two on-site drywells.

A 9 story option has been submitted as an appendix to the Drawing Packet. The 9 story options contains 130 units, with a ground floor steel podium that houses retail, and residential services. There are 8 stories of modular construction on top of the ground floor podium. Refer to Appendix for further information.

ZONING CODE DEVELOPMENT STANDARDS SUMMARY

6 Story

Base Zone: CX  
 Overlay: d (Design Zone)  
 Comprehensive Plan: CX (Central Commercial)  
 Plan District: Central City Plan District (CC)  
 Subdistrict: Lloyd District  
 Urban Renewal Area: Yes, Oregon Convention Center  
 Business District: North/Northeast

Base Zone FAR: 4:1  
 CC FAR: 6:1 with Residential Bonuses  
 Base Zone Height: 75 ft  
 Setbacks Required: 0 ft

Ground Floor Windows: 0 ft Adjacent to EX Zone

VEHICLE PARKING

Parking Sector: Lloyd District Subdistrict (LD3)  
 Type:  
 Transit Stop Distance: 202 ft  
 Minimum Spaces: NA  
 Spaces Provided: 34  
*Spaces Provided in 9 Story: 29*

Loading Required: Yes, One Standard B Stall, 18 ft x 9 ft with clearance of 10 ft  
 Loading Provided: One Standard B Stall  
*Loading Provided in 9 Story: Two Standard B Stalls*

BIKE PARKING

	Residential	Retail	Total Req'd	Total Provided
Long Term Spaces:	117	002	119	121
Short Term Spaces:	004	002	006	006

9 Story

*Long term bike requirement: 195, 121 will be accomodated in room, 76 are in the garage*  
*Short term bike parking requirement 10 bikes are provided*

LAND USE REVIEWS REQUESTED

The site is in the CXd Zone of the Central City Plan District and Lloyd Subdistrict and must comply with the applicable Title 33 Portland Zoning Code Requirements for new development. The following are the land use reviews required/requested for the proposed development:

\_Type III Design Review

Applicable Approval Criteria in which are considered and addressed in this application are:

\_Design Review title 33.825.055 & 33.825.065

\_Central City Plan District title 33.510

PREVIOUS CONDITIONS OF APPROVAL

PREVIOUS CONDITIONS OF APPROVAL

There are no Previous Conditions of Approval for this site.

LEED NARRATIVE

This project is not pursuing LEED or other green certifications. Several green building measures are implemented in the design and construction including energy efficient wall assemblies and HVAC systems, high efficiency light fixtures, low VOC interior paints, and drought tolerant landscaping.

This project falls under the Design Review Guidelines for the Central City and the Lloyd District Design Guidelines. The approval criteria and the ways that this proposed structure meets these guidelines are listed below:

## PORTLAND PERSONALITY GUIDELINES

### A1 Integrate the River

Orient architectural and landscape elements including, but not limited to, lobbies, entries, balconies, terraces, and outdoor areas to the Willamette River and greenway.

Response: The project site is nine blocks from the Willamette River, northeast of the Moda Center and Portland Farmers Market. Ground floor retail, a connecting lobby, and back alley plaza all draw pedestrians through the site connecting the neighborhood to the commercial and civic waterfront and greenway. Furthermore, the height of the building provides excellent views back to the river on the south side. The dwelling units shift to reach out and create outdoor space on this side to serve as a connecting gesture towards the Willamette River and downtown.

### A1-1 Connect Public Facilities to the River

Provide public access to, from, and along the river in a manner that connects major public use facilities in the District to the river which stimulate year-around enjoyment.

Response: The project is a private development, but does draw pedestrians through the site and Lloyd District at large using inviting sidewalks and the south plaza. Ground floor retail activates the block and overhangs protect pedestrians from weather. The project acts as a stopping place between the neighborhood, river, and greenway.

### A2 Emphasize Portland Themes

When provided, integrate Portland themes with the development's overall design concept.

Response: Thematic features are not provided as part of this development. The development responds to the district fabric and local landscape by providing a long-lasting structure emblematic of the warehouses in the district and landscaped areas with native plantings. A south plaza hosts food trucks, vendors, and outdoor seating to connect to Portland's vibrant food culture.

### A3 Respect the Portland Block Structure

Maintain and extend the traditional 200-foot block pattern to preserve the Central City's ratio of open space to built space.

Response: The site is located on a traditional 200-foot block, Holladay's Add Block 244, and the building façade along NE Schuyler St runs the full width, reemphasizing the historic 200-foot proportion. A through-floor lobby and back alley plaza allow pedestrians to cross the block in either direction.

### A3-1 Support a Convenient Pedestrian Linkage Through the Superblocks Between the Convention Center and Lloyd Center

Response: The project is located on a traditional 200-foot block, not a superblock, north of the Oregon Convention Center and northwest of the Lloyd Center. However, the proposal does still promote pedestrian linkages through the through-floor lobby, back alley plaza, and ground floor retail.

### A3-2 Make Superblock Plazas Inviting and Easily Accessible from Holladay Street

Make superblock plazas and public spaces in superblocks fronting on Holladay Street inviting and easily accessible from Holladay Street. Public spaces should be visually connected to Holladay Street. Public/private spaces are also encouraged to be visually connected with adjacent public improvements.



Response: The project site is north of Holladay Street and is located on a traditional 200-foot block, not a superblock.

### A4 Use Unifying Elements

Integrate unifying elements and/or develop new features that help unify and connect individual buildings and different areas.

Response: The project's form ties to the common warehouse building type that has become emblematic of Portland's eastside. The south plaza is host to food trucks, carts, and vendors, connecting to Portland's larger network of casual, outdoor eateries. The project also ties into the Lloyd District commercial network and Lloyd Center Shopping Mall through ground floor retail.

### A5 Enhance, Embellish, and Identify Areas

Enhance an area by reflecting the local character.

Response: The project is in a transition zone between NE Broadway and a residential zone to the north. The upper floors of the project push and pull to create a smaller, residential sense of scale for the dwelling units and to provide views of the city and generous outdoor space. At the ground level, retail ties to the District's commercial network.

### A5-1 Develop Identifying Features

Encourage the inclusion of features in the design of projects that give projects identity and a sense of place or significance within the District.

Response: The design's use of modular units in the design will give a unique identity to the project. Additionally, the connection between the public and the building through the south plaza will create a distinct link at the pedestrian scale, separating this project to others in the neighborhood that do not have such a connection to the public.

### A5-2 Accommodate or Incorporate Underground Utility Service

Accommodate or incorporate underground utility service to development projects.

Response: The location of the transformer vault and the generator are located underground with access through the public ROW. This will reduce any noise pollution and visual intrusion at the ground level and create easy access.

### A5-3 Incorporate Works of Art

Incorporate works of art into development projects.

Response: The south plaza's landscaping is in a way public art, as well as a public gathering space. Additionally, the plaza offers areas for local artists to do outdoor exhibitions in the future and leaves additional opportunities for more permanent installations.

### A5-4 Incorporate Water Features

Enhance the quality of major public spaces by incorporating water features.

Response: There are no water features provided with the proposed development.

### A5-5 Use Public Right-of-Way Design Criteria Established for the Lloyd District

Use the public right-of-way design criteria as established and administered by the City Engineer especially for the Lloyd District from the adopted Lloyd District Transportation Capital Improvements - District-Wide Design Criteria.

Response: The creation of the south plaza extends the ideas discussed in the Public Right-of-Way Design Criteria onto the property itself. The incorporation of landscaping, public seating, pedestrian circulation have all been addressed in the plaza itself.

### A5-6 Incorporate Landscaping as an Integral Element of Design

Incorporate landscaping as an integral element of design which is supportive of both the built and natural environment.

Response: Street trees will be planted along the pedestrian walkway as well as in the south plaza. The plaza will also feature planters to incorporate landscaping into the design of the project.

### A5-7 Integrate the Civic Campus into the Lloyd District

Integrate the Civic Campus into the Lloyd District in a manner that provides a cohesive link westerly to the river and easterly to the core of the Lloyd District. Extend the Holladay Street pedestrian project to an active terminus overlooking the Willamette River. Link river overlooks, open spaces, and trails into a unified system to and along the riverfront wherever possible; create clear pedestrian connections to the riverfront; and encourage and enhance visual and physical corridors to river viewpoints and amenities. Provide safe and attractive vehicular/pedestrian access through the area that connects with development patterns in surrounding sub-districts. Integrate bridge and freeway access ramps into the arterial streets circulation pattern.

Response: Through the retail along the ground floor and the south plaza, the project provides a much needed urban development and pedestrian connection to a section of the neighborhood dominated by large streets with dense vehicular traffic and vast parking lots from nearby car dealerships. The project is along the streetcar and bus route connecting it to Holladay Street, the core of the Lloyd Center and downtown Portland.

### A5-8 Integrate the Lloyd Shopping Center into the Lloyd District

Through inviting pedestrian access and clear visual connections for both vehicles and people, integrate by linking the Lloyd Center with residential areas to the east and west, office areas along Multnomah Street, Holladay Park and Holladay Street transit stops. Improve and extend the Center's pedestrian access to the north. Establish pedestrian access through the shopping center that connects with development in surrounding subdistricts.

Response: The site is not located in the vicinity of the Lloyd Shopping Center and therefore this guideline is not applicable.

### A6 Reuse / Rehabilitate / Restore Buildings

Where practical, reuse, rehabilitate, and restore buildings and/or building elements.

Response: It is not practical to reuse, rehabilitate, or restore the current buildings. This project is a new development.

### A7 Establish & Maintain a Sense of Urban Enclosure

Define public rights-of-way by creating and maintaining a sense of urban enclosure.

Response: The south plaza provides a unique opportunity inspired by a commonly unused urban space. Bordered by the proposed building to the north and an existing building and parking lot to the south, the alley is formed in the vacant area. Safety is provided through the proposed design's windows and balconies that line the plaza, constantly providing eyes on the open public space.

### A8 Contribute to a Vibrant Streetscape

Integrate building setbacks with adjacent sidewalks to increase the space for potential public use. Develop visual and physical connections into buildings' active interior spaces from adjacent sidewalks. Use architectural elements such as atriums, grand entries and large ground-level windows to reveal important interior spaces and activities.

Response: The proposed design provides for expansive ground floor windows exceeding the minimum heights for active uses to promote quality, long term retailer and restaurants along the three frontages. The large lobby entry serves as an organizational element for balancing the breaks along the facade. The entrance is emphasized in this composition. The almost continuous active ground floor pulls the pedestrian around all sides of the building and through the south plaza. Additionally, all the “back-of-house” program has been condensed to the southeast corner of the property, off the street frontage, to allow for an almost uninterrupted glass frontage along all three street facades.

#### A8-1 Incorporate Active Ground Level Uses in Parking Structures

Incorporate active ground-level uses in new and modified parking structures that are near active retail and pedestrian areas.

Response: The parking structure for the building is located underground with a single garage entrance and exit along NE Schuyler, therefore this guideline is not applicable. The remaining façade along NE Schuyler includes retail, providing an interesting and active pedestrian area.

#### A9 Strengthen Gateways

Develop and/or strengthen gateway locations.

Response: The site is not located at a gateway location and therefore this guideline is not applicable. The site is located at a junction point between a high traffic commercial district and a quiet residential neighborhood along a commercial corridor with retail and industrial uses. The project use and scale of ground floor retail and residential apartments reinforces the themes of the retail/industrial district which helps to bridge the gap between these high traffic commercial and residential neighborhoods.

#### A9-1 Provide a Distinct Sense of Entry and Exit

Design and develop gateways into and within the Lloyd District that are appropriate and relate to the district's and subdistricts' emerging characteristics.

Response: The site is located on a secondary street off Broadway. The project serves as a transition between the quiet residential neighborhood to the north and nearby the Broadway/Weidler Corridor which is a gateway into the center of the Lloyd District. The allowed heights along Broadway are 100', this project serves to reinforce the height transition from the residential zone to the commercial corridor.

### Pedestrian Emphasis

#### B1 Reinforce and Enhance the Pedestrian System

Maintain a convenient access route for pedestrian travel where a public right-of-way exists or has existed. Develop and define the different zones of a sidewalk: building frontage zone, street furniture zone, movement zone, and the curb. Develop pedestrian access routes to supplement the public right-of-way system through superblocks or other large blocks.

Response: Retail space at the ground level engages the pedestrian with the building while new street trees define the furnishing zone and clearly mark the pedestrian thruway.

#### B1-1 Protect Pedestrian Areas from Mechanical Exhaust

Incorporate mechanical exhausting systems in a manner that does not detract from the quality of the pedestrian environment.

Response: All exhausting assemblies are located on the roof, well away from the ground level frontages and any area of pedestrian access.

#### B1-2 Incorporate Additional Lighting

Incorporate project lighting in a manner that reinforces the pedestrian environment and which provides design

continuity to an area by enhancing the drama and presence of architectural features.

Response: The retail entrances on the ground floor are recessed from the main pedestrian walkway and will include additional lighting to highlight and enhance the entry way. Additionally, the south plaza will be lighted to encourage pedestrian use at night.

### B1-3 Design Projects to Attract Pedestrians to the Broadway/Weidler Corridor

Incorporate design features in new projects or building renovation which attract pedestrians and encourage their safe and enjoyable movement throughout the Broadway/Weidler Corridor and which support the corridor as a neighborhood retail area.

Response: The neighborhood currently hosts many car dealerships and the new design will promote more pedestrian use with added retail and commercial amenities along with the south plaza. The site is only a block away from the streetcar and bicycle lanes on NE Broadway and NE Weidler, linking the project to the greater Broadway/Weidler Corridor. The 9 story option would further attract pedestrians to the site.

### B2 Protect the Pedestrian

Protect the pedestrian environment from vehicular movement. Develop integrated identification, sign, and sidewalk-oriented night-lighting systems that offer safety, interest, and diversity to the pedestrian. Incorporate building equipment, mechanical exhaust routing systems, and/or service areas in a manner that does not detract from the pedestrian environment.

Response: There will be street trees planted along NE 1st Ave, NE Schuyler, and NE 2nd Ave to provide a barrier between the pedestrian movement zone and the curb. Additional street parking will also serve as a barrier between the pedestrian and vehicular traffic.

### B3 Bridge Pedestrian Obstacles

Bridge across barriers and obstacles to pedestrian movement by connecting the pedestrian system with innovative, well-marked crossings and consistent side-walk designs.

Response: The project site is located on a secondary street off busier streets such as NE Broadway and NE MLK. Additionally, the south plaza offers a protected space for the pedestrian to travel between NE 1st and 2nd Ave, as well as a lobby that connects the plaza to NE Schuyler.

### B3-1 Provide Pedestrian Crossings Spaced at Traditional One-Block Intervals

Provide and design for pedestrian crossings spaced at traditional one-block intervals where deemed safe and appropriate by the City Engineer.

Response: The site is a traditional 200' Portland block which provides the pedestrian with flexibility. The south plaza offers a public amenity to traverse the block at the mid-point.

### B3-2 Improve Pedestrian Crossings on N.E. Broadway

Provide pedestrian crossing amenities along N.E. Broadway that improve pedestrian safety and convenience.

Response: While the project is not on NE Broadway, the design does provide additional retail space and connects the residential neighborhood to NE Broadway.

### B4 Provide Stopping and Viewing Places

Provide safe, comfortable places where people can stop, view, socialize, and rest. Ensure that these places do not conflict with other sidewalk uses.

Response: Integrated planters and benches are designed into the south plaza to encourage people to stop and stay.

### B5 Make Plazas, Parks & Open Space Successful

Orient building elements such as main entries, lobbies, windows, and balconies to face public parks, plazas, and open spaces. Where provided, integrate water features and/or public art to enhance the public open space. Develop locally-oriented pocket parks that incorporate amenities for nearby patrons.

Response: The building offers a pass-through lobby that connects the south plaza to NE Schuyler. Also, the retail spaces connect directly to the south plaza, which encourages outdoor activity.

### B6 Consider Sunlight, Shadow, Glare, Reflection, Wind & Rain

Develop integrated weather protection systems at the sidewalk-level of buildings to mitigate the effects of rain, wind, glare, shadow, reflection, and sunlight on the pedestrian environment.

Response: Along the south plaza, there are large overhangs provided by the buildings push-and-pull design that cover the entrances to the retail spaces.

### B7 Integrate Barrier-Free Design

Integrate access systems for all people with the building's overall design concept.

Response: The proposed design is fully ADA accessible.

## Project Design

### C1 Enhance View Opportunities (C2)

Orient windows, entrances, balconies, and other building elements to surrounding points of interest and activity. Size and place new buildings to protect existing views and view corridors. Develop building facades that create visual connections to adjacent public spaces.

Response: The ground floor retail, which opens to NE Schuyler and the south plaza, invites pedestrians in and allows them to see easily into the space. The upper floors provide view opportunities to the neighborhood and the busier commercial district along NE Broadway and the south plaza.

### C1-1 Maximize View Opportunities (C2-1)

Maximize view opportunities.

Response: There are numerous balconies along the north and south facades providing views into the greater Lloyd District. There is also a setback roof deck that will provide views to the central city and the mountains beyond. The 9 story option provides an increased visual connection to and from the building enhancing the view opportunities.

### C2 Promote Quality & Permanence in Development (C10)

Use design principles and building materials that promote quality and permanence.

Response: The first floor is an open framework that allows the spaces to be more flexible in nature and conform to the owner's changing demands over time. The ground floor material is predominately glazing. Where the upper building cladding material touches the ground, will be clad in a durable, yet easily repairable material to meet the demand exerted upon it while being low maintenance. The upper five floors are clad in a durable yet low cost material that will allow the building to be low maintenance and long lasting, yet in the event of incidence, easily repairable by the owner so as to help the owner better keep the building in its intended state.

### C2-1 Use Masonry Materials (C10-1)

Except for window glazing, use masonry types of materials as the predominant exterior material for building walls. Use modular stone or masonry materials on the building base or first floor of buildings whenever possible.

Response: The first floor and select upper portions of the building will be clad in storefront and metal panel. The dominant cladding material at upper floors will be a cementitious stucco in keeping with clean lines of much of the adjacent cladding materials found in the subdistrict.

C2-2 Design Exterior Building Walls that are Transparent in Glazed Areas and Sculptural in Surface (C10-2)

Design exterior building walls that are transparent or translucent in the glazed areas and which are textural, sculptural, and articulated in surface character.

Response: The glazing on the ground floor is transparent to allow the pedestrian to easily see into the retail spaces. On the upper floors, the glazed openings are oversized. They recess and extend to generate balconies and provide variation along the building's façade.

C2-3 Use Light Colors (C10-3)

The use of light color values is preferred for the predominant exterior building materials. Darker value materials should be used to accent or articulate the design.

Response: The building design is predominately a white material that is accented by a darker color on the major design moves.

C3 Respect Architectural Integrity (C1)

Respect the original character of an existing building when modifying its exterior.

Develop vertical and horizontal additions, that are compatible with the existing building, to enhance the overall proposal's architectural integrity.

Response: This guideline is not applicable because it is not practical to reuse, rehabilitate, or restore the current buildings.

C3-1 Integrate Parking (C1-1)

Integrate parking in a manner that is attractive and complementary to the site and its surroundings. Design parking garage exteriors to visually respect and integrate with adjacent buildings and environment.

Response: The parking is located below the ground floor so as not to impede upon urban design strategies such as the south plaza.

C4 Complement the Context of Existing Buildings

Complement the context of existing buildings by using and adding to the local design vocabulary.

Response: The surrounding context is dominated by car lots and several warehouses and commercial structures to the south and residential single family to the north. The building speaks more toward the convergence of the residential neighborhood to the north and the commercial area to the south. Allowing the development to cater to both uses and providing an avenue for some of the pedestrian traffic in the neighborhood to the north to make its way into an area. There are several retail establishments in the area and the addition of this proposed development's ground floor retail will help capture some of that pedestrian traffic. The 9 story is at a scale that is appropriate and in keeping with the expected further growth in that neighborhood.

C5 Design for Coherency (C3)

Integrate the different building and design elements including, but not limited to, construction materials, roofs, entrances, as well as window, door, sign, and lighting systems, to achieve a coherent composition.

Response: The building uses a limited palette of exterior materials which are carefully placed on the facades to reinforce the design concept. The disparate elements of a building's function, such as doors, lighting, and signage are designed to incorporate with the base pallet.

**C5-1 Design to Enhance Existing Themes in the Broadway/Weidler Corridor (C3-1)**  
Use special design features which reinforce architectural themes and elements within the Broadway/Weidler Corridor. Look to buildings from throughout the corridor for architectural precedent.

Response: Like many of the buildings in the Broadway/Weidler Corridor, the design promotes retail along the ground floor with large picture windows to encourage pedestrian use of the neighborhood. The building is also of a similar height and color palate to others in the corridor.

**C5-2 Orient Developments Along the Lloyd District's Eastern Edge Toward Adjacent Neighborhoods (C3-2)**  
Design new projects along the eastern edge of the District so that they relate to the neighborhood through building orientation, building design and opportunities for public access.

Response: Though the site is along the northwest edge of the District, the project orients itself towards the neighborhood and serves as a nice transition between the single-family homes to the north and the busier commercial Broadway/Weidler Corridor to the south.

**C6 Develop Transitions Between Buildings & Public Spaces (C4)**  
Develop transitions between private development and public open space.  
Use site design features such as movement zones, landscape elements, gathering places, and seating opportunities to develop transition areas where private development directly abuts a dedicated public open space.

Response: The entrances to the retail spaces and main lobby along NE Schuyler are recessed back to create a transition between the public thoroughfare and the privately-owned shops. The south plaza also serves as a semi-public transition space between the public sidewalk and the semi-private first floor entry.

**C7 Design Corners that Build Active Intersections (C5)**  
Use design elements including, but not limited to, varying building heights, changes in facade plane, large windows, awnings, canopies, marquees, signs, and pedestrian entrances to highlight building corners. Locate flexible sidewalk-level retail opportunities at building corners. Locate stairs, elevators, and other upper floor building access points toward the middle of the block.

Response: All four corners provide an active, ground floor retail area. Additionally, each of the proposed development' corners vary in the form, creating not only visual interest, but also guiding the eye around the building. This forces the occupant to engage with all sides of the building and helps direct the occupant to all retail spaces, as well as the south plaza area.

**C8 Differentiate the Sidewalk-Level of Buildings (C6)**  
Differentiate the sidewalk-level of the building from the middle and top by using elements including, but not limited to, different exterior materials, awnings, signs, and large windows.

Response: The sidewalk level of the building is differentiated from the rest of the building by both the materials and subsequently the degree of transparency between the interior and exterior, as well as the framed enclosure created by the projections over the south plaza.

**C8-1 Step-back Upper Building Floors Along Holladay Street (C6-1)**  
Along Holladay Street from 1st to 13th Avenues, locate building bases along the build-to lines while setting upper floors of tall buildings back from the street.

Response: Though the project is not located along Holladay Street, the building has an inviting ground floor that provides a human scale for the pedestrian.

C9 Develop Flexible Sidewalk-Level Spaces (C7)

Develop flexible spaces at the sidewalk-level of buildings to accommodate a variety of active uses.

Response: The retail spaces on the ground floor are designed to be a variety of sizes to accommodate large or small shops as well as restaurants, coffee shops, or bars. The adjacent south plaza also serves to accommodate these future retail spaces.

C10 Integrate Encroachments (C8)

Size and place encroachments in the public right-of-way to visually and physically enhance the pedestrian environment. Locate permitted skybridges toward the middle of the block, and where they will be physically unobtrusive. Design skybridges to be visually level and transparent.

Response: The transformer vault will encroach beyond the east property line, below the sidewalk. The sidewalk paving will integrate the vault into the paving pattern to make it as visually unobtrusive as possible.

C11 Integrate Roofs & Use Rooftops (C9)

Integrate roof function, shape, surface materials, and colors with the building's overall design concept. Size and place rooftop mechanical equipment, pent-houses, other components, and related screening elements to enhance views of the Central City's skyline, as well as views from other buildings or vantage points. Develop rooftop terraces, gardens, and associated landscaped areas to be effective storm water management tools.

Response: There are several balconies throughout the project that provide views for the tenants to downtown and the Lloyd District. The ground floor incorporates multiple planters to aid in storm water management.

C12 Integrate Exterior Lighting

Integrate exterior lighting and its staging or structural components with the building's overall design concept. Use exterior lighting to highlight the building's architecture, being sensitive to its impacts on the skyline at night.

Response: Exterior lighting will be at a minimum because much of the lighting will come from the spill out of interior light from the open retail. This will be coupled and complemented by exterior landscape lighting on the property, within the south plaza.

C13 Integrate Signs (C1-2)

Integrate signs and their associated structural components with the building's overall design concept. Size, place, design, and light signs to not dominate the skyline. Signs should have only a minimal presence in the Portland skyline.

Response: There are no additional exterior building signs to be installed.

*\*The Section C Project Design Guideline numbers between the Central City Fundamental Design Guidelines and the Lloyd District Design Guidelines do not match. Guidelines are organized by the Central City standard and the Lloyd District numbers are in () after each name.*



MODIFICATIONS NARRATIVE

This development is requesting a modification for an oriel window.

MATERIAL & EQUIPMENT CUT SHEETS



System Bulletin

# StoTherm<sup>®</sup> ci XPS Classic

Decorative cladding with continuous air/moisture barrier and continuous insulation for heat, air and moisture control



Substrate: Glass Mat Gypsum sheathing in compliance with ASTM C 1177, Exterior or Exposure I wood-based sheathing (plywood or OSB), code compliant concrete, concrete masonry, or portland cement plaster, existing structurally sound, uncoated brick or other masonry wall construction.

1)	StoGuard <sup>®</sup> Air and Moisture Barrier
2)	Sto TurboStick <sup>™</sup> Spray Foam Adhesive
3)	Foamular <sup>®</sup> CI-C or Dow STYROFOAM <sup>™</sup> Panel Core 20 Insulation Board
4)	Sto Mesh (embedded in Sto Base Coat)
5)	Sto BTS <sup>®</sup> Xtra Base Coat
6)	Sto Primer Sand (optional)
7)	Sto Textured Finish: Stolit <sup>®</sup> or Stolit <sup>®</sup> X

### System Description

StoTherm ci XPS Classic is a decorative and protective exterior wall cladding that provides superior air and weather tightness with excellent thermal performance and durability. It incorporates continuous insulation and a continuous air/moisture barrier with Sto's high performance finishes in a fully tested wall cladding assembly.

### Uses

StoTherm ci XPS Classic can be used in residential or commercial wall construction where energy efficiency, superior aesthetics, air and moisture control are essential. The superior compressive strength and low water absorption of XPS insulation make it appropriate for institutional, military or other construction where increased durability is desired.

### Features

### Benefits

<b>Design versatility</b>	Aesthetic and curb appeal easy to achieve
<b>Continuous XPS insulation, R-5 per inch</b>	Increased durability, reduced heating and cooling costs, thinner wall sections
<b>Quick set adhesive, no mechanical fasteners</b>	Fast installation, no thermal bridging
<b>Continuous air and moisture barrier</b>	Protects against mold and moisture problems
<b>Fully tested compatible Components</b>	No experimenting with untested designs

### Properties

<b>Weight (not including sheathing and frame)</b>	< 2 psf (10 kg/m <sup>2</sup> )
<b>Thickness (insulation)</b>	1 - 6 inches (25-152 mm)
<b>R-value (not including sheathing and frame)</b>	5.0 – 30 ft <sup>2</sup> •h•°F / Btu (0.88 – 5.28 m <sup>2</sup> •K / W)
<b>Wind Load Resistance</b>	Tested up to ± 175 psf (8.37 kPa)
<b>Construction Types</b>	I-V, NFPA 285 tested for Types I-IV

### Warranty

**12 year Limited Warranty**

### Maintenance

Requires periodic cleaning to maintain appearance, repair to cracks and impact damage if they occur, recoating to enhance appearance of weathered finish. Sealants and other façade components must be maintained to prevent water infiltration.


# StoTherm<sup>®</sup> ci XPS Classic

Decorative cladding with continuous air/moisture barrier and continuous insulation for heat, air and moisture control

Limitations
Minimum insulation board thickness 1 inch (25 mm). Maximum insulation board thickness 6 inches (152 mm). Hourly rated walls: maximum thickness limited to 2.75 inches (70 mm) over CMU, concrete, and non-load bearing frame walls. Thickness in excess of 4 inches (102 mm) requires two layers of insulation.
Wind load resistance: ± 175 psf (8.37 kPa) ultimate loads achieved. Ultimate wind load resistance also depends on sheathing, sheathing attachment, and stiffness of supporting construction. Design for maximum allowable deflection of L/240.
Impact resistance: supplemental reinforcing mesh layers, cement board overlay or other design adjustments may be prudent for areas adjacent to heavy pedestrian traffic or other areas of high impact or abuse. Refer to Sto Guide Details.
For use on vertical above grade walls only. Do not use below grade or on roofs or roof-like surfaces.
Insulation material is flammable. Keep away from flame, ignition sources, high heat and temperatures in excess of 165°F (74° C)].
Dark finish colors with LRV (Light Reflectance Value) < 20 are not recommended.
Air Barrier, insulation board, and base coat materials are not intended for prolonged weather exposure. Allow thirty days maximum between application of air barrier and insulation board.
Refer to specific component product bulletins and packaging for other limitations that may apply involving use, handling and storage of component materials.

Sustainable Design	
Air Quality and VOC Compliance	
All finish coatings, adhesives, air barrier joint treatments and coatings meet US EPA (40 CFR 59) and SCAQMD (Rule 1113) emission standards for architectural coatings.	
LEED Credit Eligibility	
<ul style="list-style-type: none"> <li>• Energy and Atmosphere (EA)</li> <li>• Materials and Resources (MR)</li> <li>• Innovation in Design (IA)</li> </ul>	
Regulatory Compliance and Standards Testing	
<b>ICC ESR 1748 covering StoTherm ci Systems</b>	Complies with 2009, 2012, 2015 IBC, IRC and IECC (ICC ESR revisions pending)
<b>ICC ESR No. 1233 covering StoGuard Air &amp; Moisture Barrier</b>	Complies with 2009, 2012, 2015 IBC, IRC and IECC
<b>ICC AC 212</b>	Complies with abbreviated format <i>Acceptance Criteria For Water-Resistive Barrier Coatings used as Water-Resistive Barriers over Exterior Sheathing</i>
<b>ASHRAE 90.1-2010<sup>1</sup></b>	Complies with Section 5, Building Envelope, air barrier and continuous insulation requirements
<b>ASTM E 2357<sup>2</sup></b>	Air/Moisture barrier meets air leakage resistance criteria of ≤ 0.04 cfm/ft <sup>2</sup> at 1.57 psf (0.2 L/s·m <sup>2</sup> at 75 Pa)
<b>NFPA 285<sup>3</sup></b>	Meets flame propagation criteria for use on Types I, II, III, IV construction with up to 6 inches (152 mm) of Foamular <sup>®</sup> CI-C or Dow STYROFOAM <sup>™</sup> Panel Core 20 insulation board
<b>ASTM E 119<sup>4</sup></b>	Meets requirements for 1-hour rated wall assembly

1. Energy Standard for Buildings Except Low-Rise Residential Buildings
2. Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
3. Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components
4. Standard Test Methods for Fire Test of Building Construction and Materials

<p><b>Sto Corp.</b> 3800 Camp Creek Parkway Building 1400, Suite 120 Atlanta, GA 30331</p> <p>Tel: 404-346-3666 Toll Free: 1-800-221-2397 Fax: 404 346-3119</p> <p><a href="http://www.stocorp.com">www.stocorp.com</a></p>	<p><b>SB-A100X</b> Revision: 003 Date: 03/2017</p> 	<p style="text-align: center;"><b>Attention</b></p> <p>Sto products are intended for use by qualified professional contractors, not consumers, as a component of a larger construction assembly as specified by a qualified design professional, general contractor or builder. They should be installed in accordance with those specifications and Sto's instructions. Sto Corp. disclaims all, and assumes no, liability for on-site inspections, for its products applied improperly, or by unqualified persons or entities, or as part of an improperly designed or constructed building, for the nonperformance of adjacent building components or assemblies, or for other construction activities beyond Sto's control. Improper use of Sto products or use as part of an improperly designed or constructed larger assembly or building may result in serious damage to this product, and to the structure of the building or its components. <b>STO CORP. DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED EXCEPT FOR EXPLICIT LIMITED WRITTEN WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS IN ACCORDANCE WITH ST O ' S WARR ANT Y. PROG RAMS WHICH ARE SUBJECT TO CHANGE FROM TIME TO TIME.</b> For the fullest, most current information on proper application, clean-up, mixing and other specifications and warranties, cautions and disclaimers, please refer to the Sto Corp. website, <a href="http://www.stocorp.com">www.stocorp.com</a>.</p>
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**ZERO  
RIVETS**

**RIVETLESS™ PANEL SOLUTION**



ARCHITECTURAL PANEL SYSTEM

## Colorweld® 500

30-year warranty  
AAMA 2605

### SERIES ONE Standard Solid Finishes

All Colorweld 500 Series One finishes, with the exception of Eastman Blue, are stocked in 62"-wide coil and are available in 0.040" x 48" Reynolux flat sheet.



Bone White   
25-35\*  
68.7<sup>1</sup>, 82<sup>2</sup>, 74<sup>3</sup>



Brite Red   
25-35\*  
39.4<sup>1</sup>, 42<sup>2</sup>, 10<sup>3</sup>



Cadet Gray   
25-35\*  
35<sup>1</sup>, 36<sup>2</sup>, 34<sup>3</sup>



Castle Gray   
25-35\*  
49.4<sup>1</sup>, 56<sup>2</sup>, 41<sup>3</sup>



Pueblo Tan   
25-35\*  
51.7<sup>1</sup>, 60<sup>2</sup>, 48<sup>3</sup>



Deep Black  
20-30\*  
4.5<sup>1</sup>, 0<sup>2</sup>, 5<sup>3</sup>



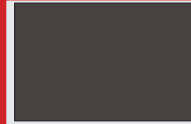
Frisco White   
25-35\*  
69.1<sup>1</sup>, 83<sup>2</sup>, 75<sup>3</sup>



Eastman Blue  
45-55\*  
37<sup>1</sup>, 36.2<sup>2</sup>, 17<sup>3</sup>



Oyster White   
25-35\*  
67.4<sup>1</sup>, 81<sup>2</sup>, 67<sup>3</sup>



Classic Bronze  
20-30\*  
9.8<sup>1</sup>, 2<sup>2</sup>, 7<sup>3</sup>



Pure White   
25-35\*  
69.4<sup>1</sup>, 83<sup>2</sup>, 75<sup>3</sup>



Charcoal  
25-35\*  
28.6<sup>1</sup>, 28<sup>2</sup>, 8<sup>3</sup>



Limestone  
25-35\*  
66<sup>1</sup>, 56.5<sup>2</sup>, 73.99<sup>3</sup>



Sandstone  
25-35\*  
82<sup>1</sup>, 68.6<sup>2</sup>, 73.7<sup>3</sup>

## Colorweld® 500

30-year warranty  
AAMA 2605

### SERIES TWO Premium Mica Finishes

All Colorweld 500 Series Two finishes are stocked in 62"-wide coil and are available in 0.040" x 48" Reynolux flat sheet.



Pewter   
15-25\*  
14.6<sup>1</sup>, 10<sup>2</sup>, 19<sup>3</sup>



Platinum   
20-30\*  
59.3<sup>1</sup>, 70<sup>2</sup>, 57<sup>3</sup>



Silversmith   
15-30\*  
58.1<sup>1</sup>, 68<sup>2</sup>, 52<sup>3</sup>



Vancouver Copper   
15-25\*  
47.4<sup>1</sup>, 53<sup>2</sup>, 28<sup>3</sup>



Daybreak Mica  
15-25\*  
35.9<sup>1</sup>, 38<sup>2</sup>, 38<sup>3</sup>



Medium Bronze  
15-25\*  
63<sup>1</sup>, 75<sup>2</sup>, 57<sup>3</sup>



Champagne Mica  
15-25\*  
29.5<sup>1</sup>, 30<sup>2</sup>, 21<sup>3</sup>



Driftwood Mica  
15-25\*  
9.2<sup>1</sup>, 3<sup>2</sup>, 7<sup>3</sup>



Anodic Satin   
20-30\*  
53.6<sup>1</sup>, 61<sup>2</sup>, 39<sup>3</sup>



Anodic Clear   
20-30\*  
56.2<sup>1</sup>, 65<sup>2</sup>, 54<sup>3</sup>



Anodic Bronze   
15-25\*  
42.9<sup>1</sup>, 47<sup>2</sup>, 23<sup>3</sup>

Anodic finishes are formulated to closely resemble popular anodized colors used on curtain wall profiles.

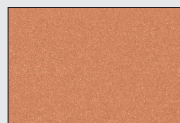
## Colorweld® 500XL

30-year warranty  
AAMA 2605

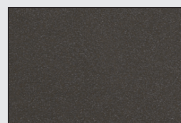
### SERIES THREE Premium 3-coat Metallic Finishes

Compatible with PPG's DURAPREP® Prep™ 400 graffiti-resistant coating.

All Colorweld 500XL Series Three finishes are stocked in 62"-wide coil and are available in 0.040" x 48" Reynolux flat sheet.



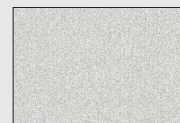
Copper Penny   
25-35\*  
44.4<sup>1</sup>, 48<sup>2</sup>, 24<sup>3</sup>



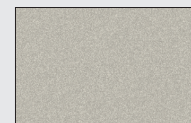
Nightfall Metallic   
20-30\*  
11.1<sup>1</sup>, 2<sup>2</sup>, 8<sup>3</sup>



Bright Silver Metallic   
15-30\*  
61<sup>1</sup>, 70<sup>2</sup>, 61<sup>3</sup>



Champagne Metallic   
25-35\*  
54.3<sup>1</sup>, 61<sup>2</sup>, 52<sup>3</sup>



Titanium   
25-35\*  
44.2<sup>1</sup>, 47<sup>2</sup>, 44<sup>3</sup>

Available with the EcoClean™ self-cleaning coating.

Environment-friendly cool-pigment finish.

\* Specular Gloss Reading

<sup>1</sup> Solar Reflectivity Value (SRV); ASTM C1549

<sup>2</sup> Solar Reflective Index (SRI); ASTM E1980

<sup>3</sup> Light Reflectance Value (LRV); ASTM E1477

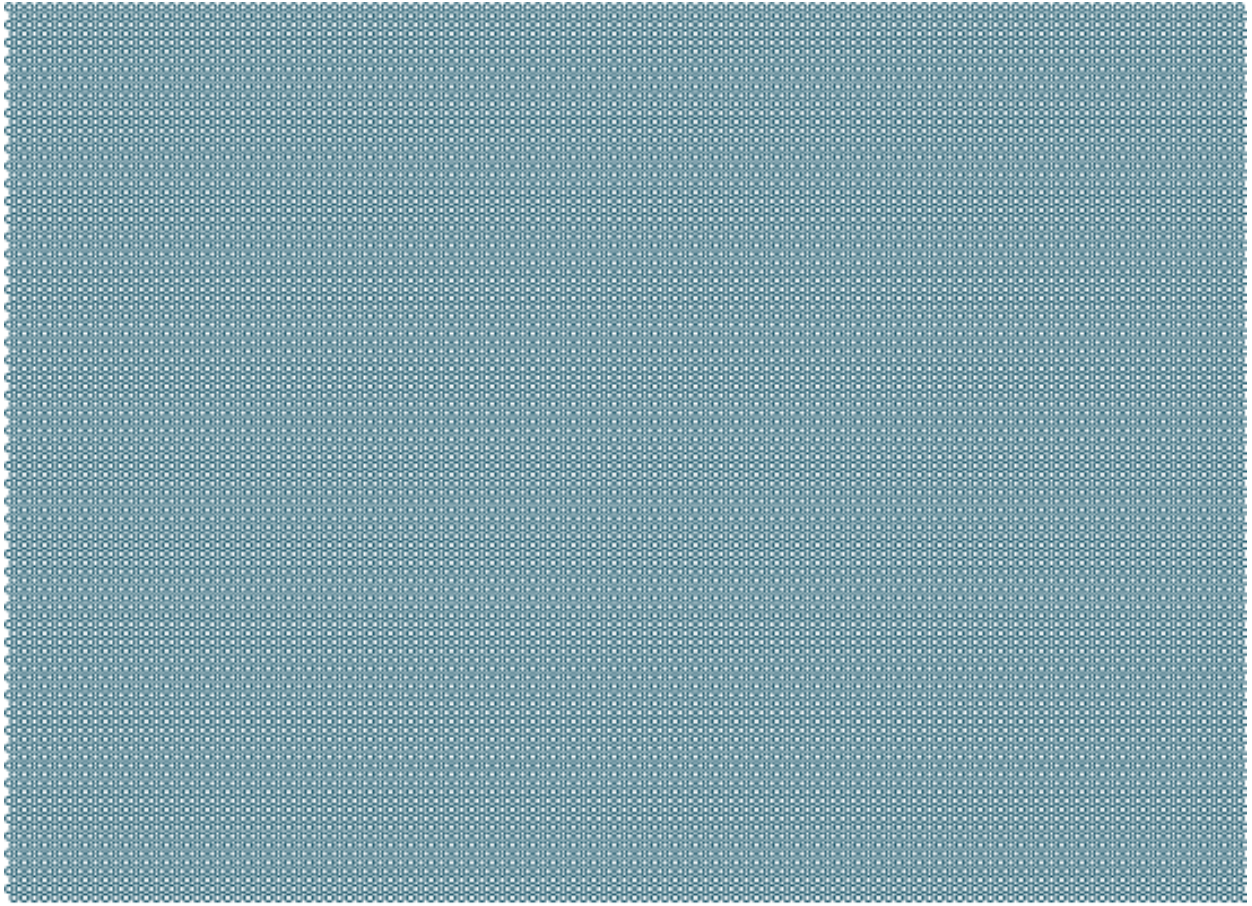
reynobond.com  
reynobond.com/stockinglist

## Metal Panel and Reveal Material

Custom Metal:

Aluminum-zinc alloy-coated steel sheet Guages 18-22 depending on installation location.

## Perforated Screen at Balconies, Clear Annodized Aluminum



### 3/64" Diameter 1/16" Staggered Centers

Hole Type: Round  
Finish Type: Finished Random  
Hole Size: 3/64"  
Centers: 1/16"  
Pattern Type: 60 Deg  
Holes PSI: 295.60  
Open Area: 51.01%



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Phone: (800) 624.4334  
Fax (800) 241-6608

7300 W. Sunnyview Ave.  
Visalia, CA 93291

perfsalesvis@gibraltar1.com  
www.diamondperf.com



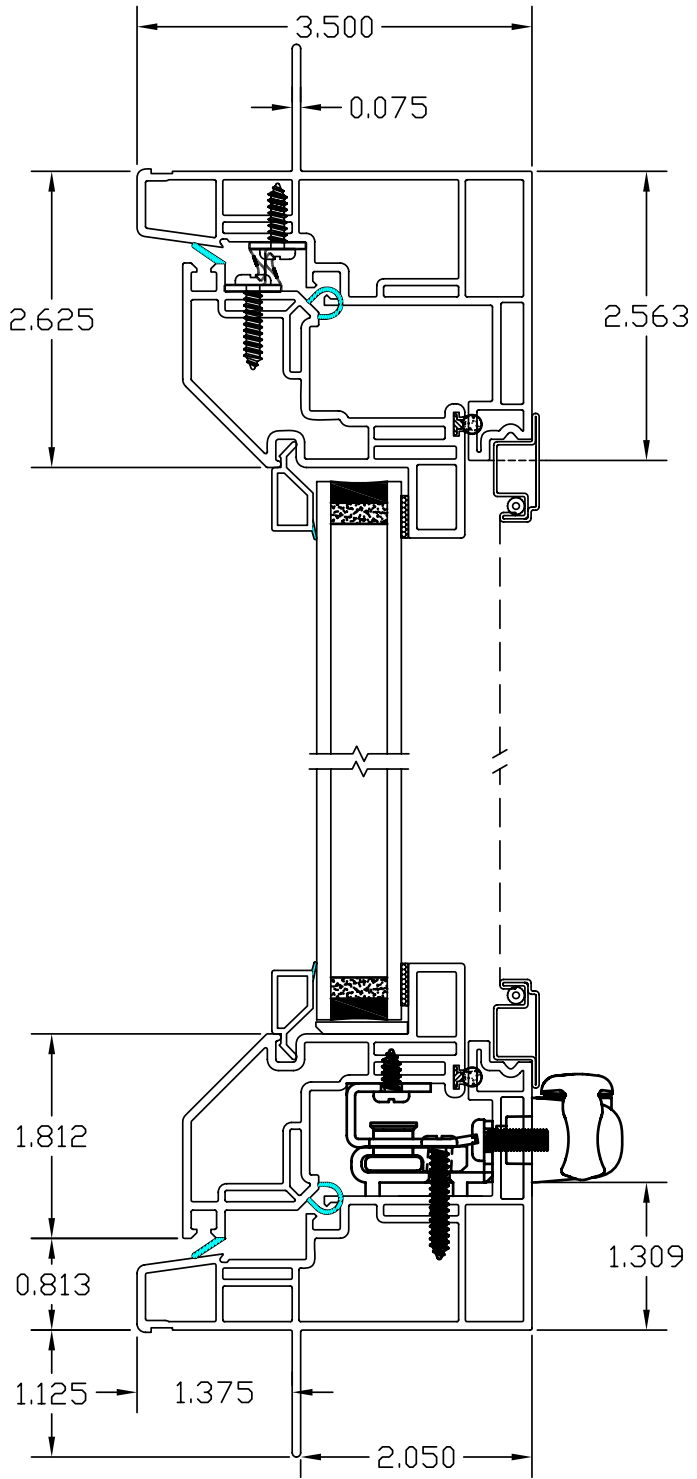
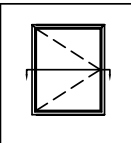
Typical Windows At Unit Floors

E N D U R A N C E   S E R I E S   W I N D O W S



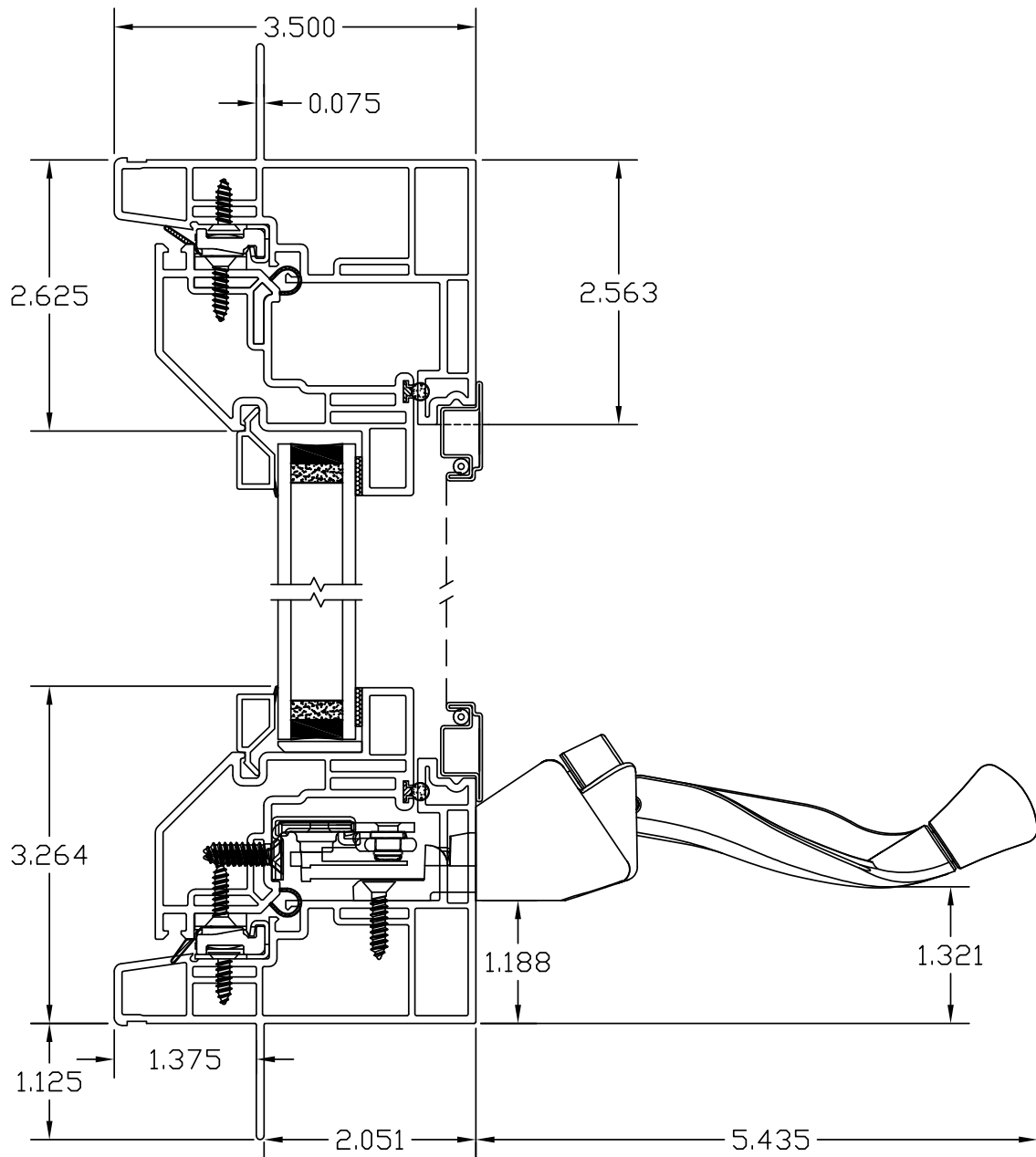
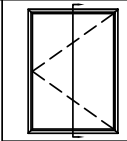
**vpi** Quality Windows

Design, Technology and Value



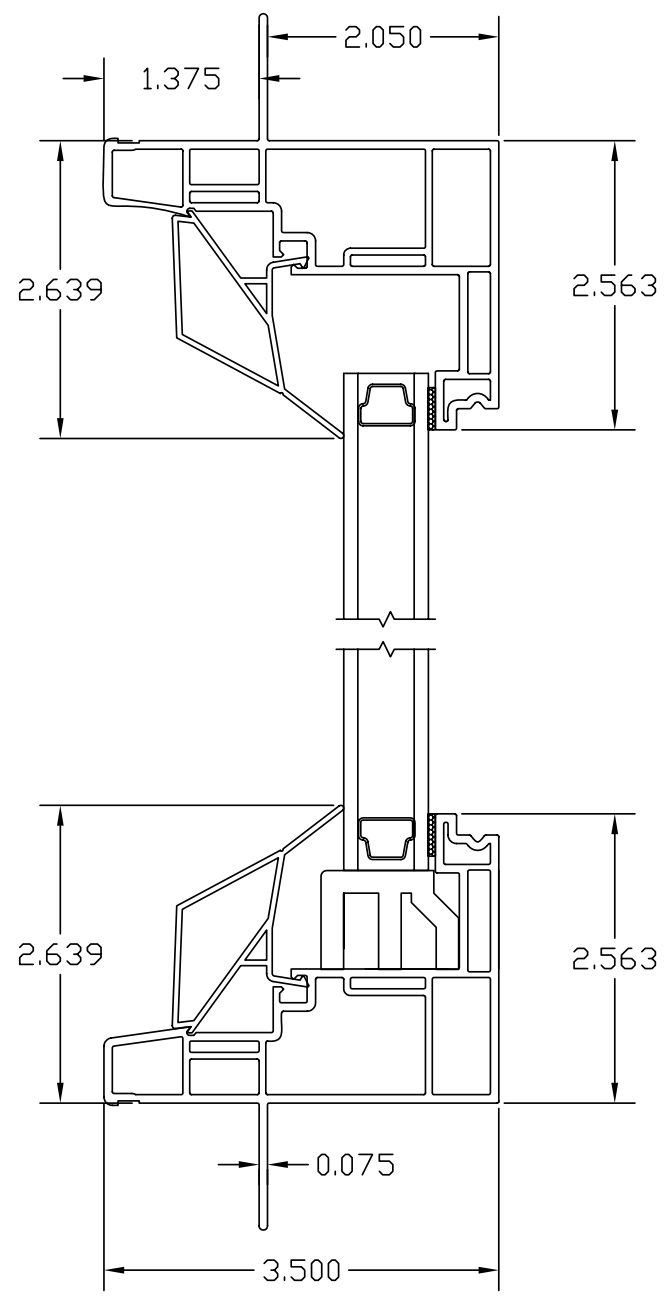
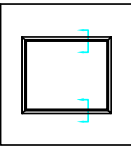
NOT TO BE REPRODUCED WITHOUT EXPRESS PERMISSION OF VPI QUALITY WINDOWS

Series	Type	Position	FAV	IGU Thickness	Drawn By	Checked By: RWK	Finish Date: 07/08/10
Endurance	Casement	Horizontal Section	No	3/4"	MS		3420 E. Ferry Spokane, WA 99202 <a href="http://www.vpiwindows.com">www.vpiwindows.com</a>
					Scale: 1:1.5		



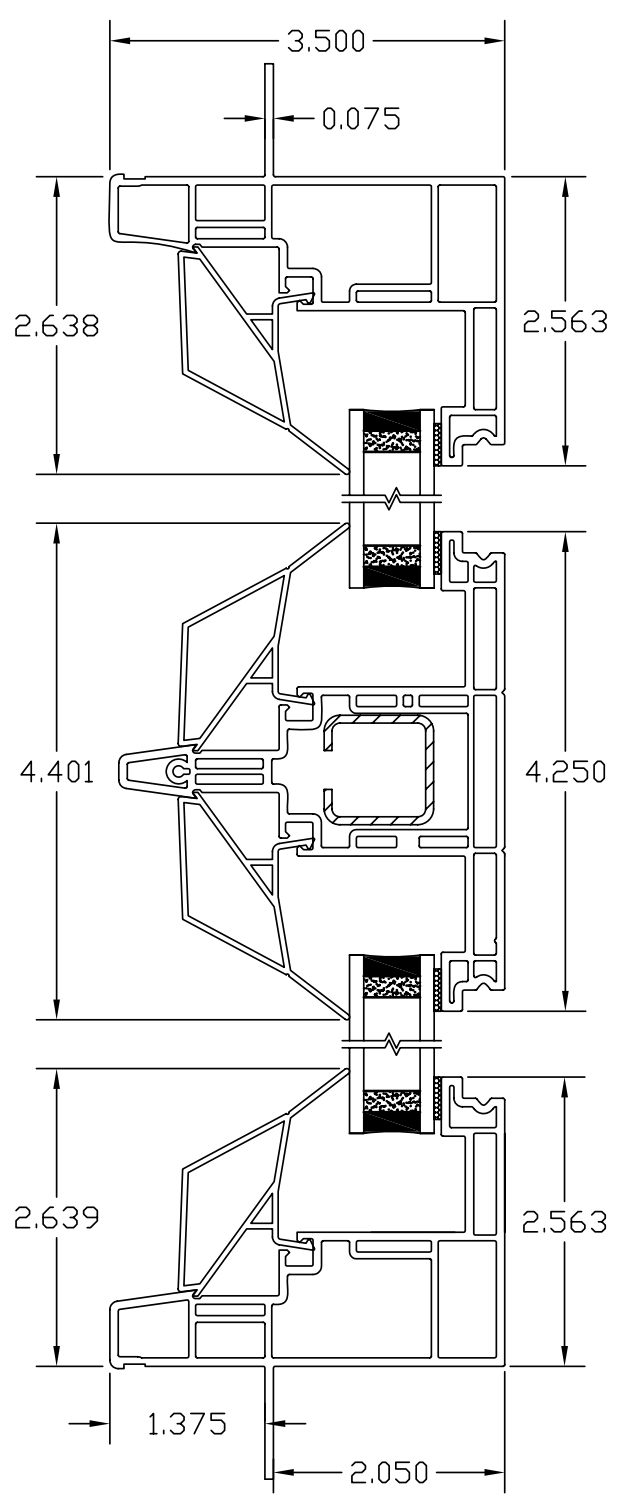
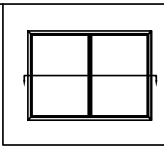
NOT TO BE REPRODUCED WITHOUT EXPRESS PERMISSION OF VPI QUALITY WINDOWS

Series	Type	Position	FAV	IGU Thickness	Drawn By	Checked By: RWK	Finish Date: 07/08/10
Endurance	Casement	Vertical Section	No	3/4"	MS		3420 E. Ferry Spokane, WA 99202 <a href="http://www.vpiwindows.com">www.vpiwindows.com</a>
					Scale: 1:1.5		



NOT TO BE REPRODUCED WITHOUT EXPRESS PERMISSION OF VPI QUALITY WINDOWS

Series	Type	Position	FAV	IGU Thickness	Drawn By	Checked By: RWK	Finish Date: 07/09/10
Endurance	Picture Window	Vertical Section	No	3/4"	MS Scale: 1:1.5		<b>3420 E. Ferry</b> <b>Spokane, WA 99202</b> <a href="http://www.vpiwindows.com">www.vpiwindows.com</a>



NOT TO BE REPRODUCED WITHOUT EXPRESS PERMISSION OF VPI QUALITY WINDOWS

Series	Type	Position	FAV	IGU Thickness	Drawn By	Checked By: RWK	Finish Date: 07/08/10
Endurance	PW/PW	Horizontal Section	No	3/4"	MS		3420 E. Ferry Spokane, WA 99202 <a href="http://www.vpiwindows.com">www.vpiwindows.com</a>
					Scale: 1:1.5		

Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.  
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## **Features**

- Trifab® VG 451/451T is 4-1/2" deep with a 2" sightline
- Front, Center, Back or Multi-Plane glass applications
- Flush glazed from either the inside or outside
- Screw Spline, Shear Block, Stick or Type-B fabrication
- SSG / Weatherseal option
- Isolock® lanced and debridged thermal break option with Trifab® VG 451T
- Infill options up to 1-1/8" thickness
- Permanodic® anodized finishes in 7 choices
- Painted finishes in standard and custom choices

## **Optional Features**

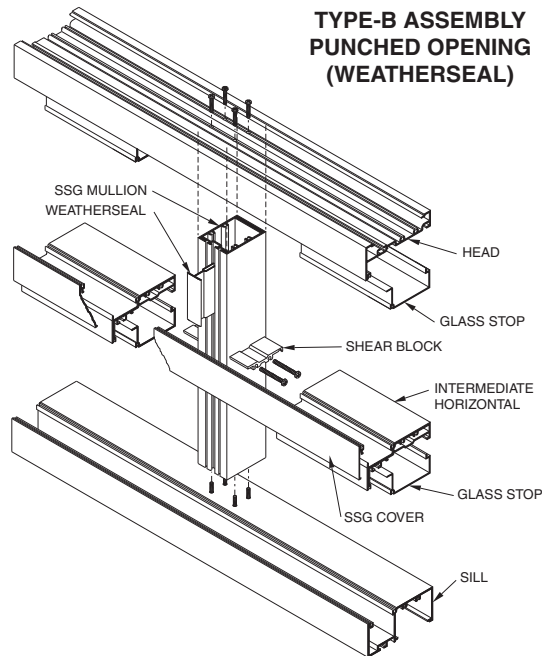
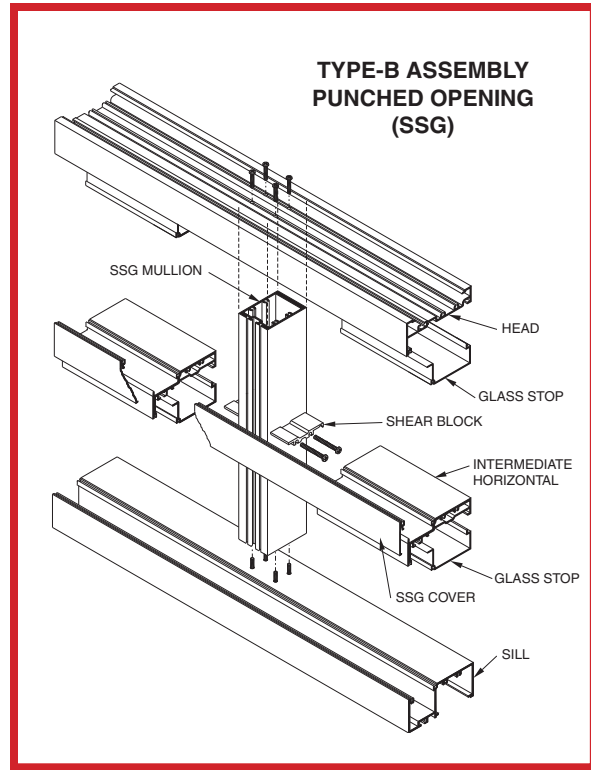
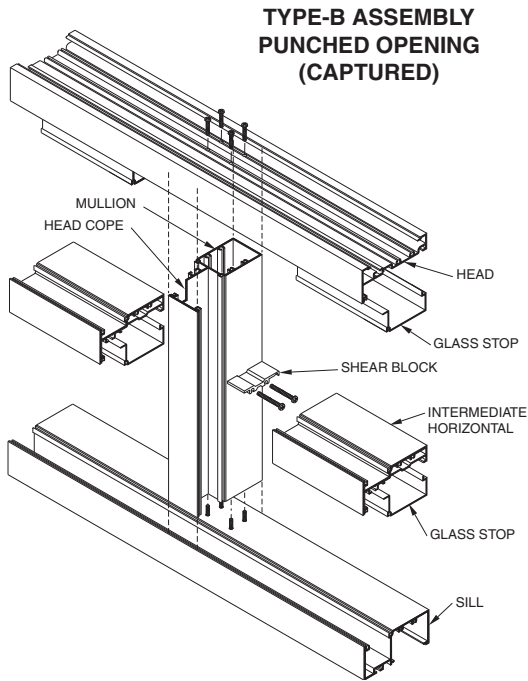
- High performance interlocking flashing
- Acoustical rating per AAMA 1801 and ASTM E 1425
- Project specific U-factors (See Thermal Charts)

## **Product Applications**

- Storefront, Ribbon Window or Punched Openings
- Single-span
- Integrated entrance framing allowing Kawneer standard entrances or other specialty entrances to be incorporated
- Kawneer Sealair® windows or GLASSvent® are easily incorporated

For specific product applications,  
Consult your Kawneer representative.

The **TYPE-B** punched opening fabrication allows a frame to be pre-assembled and installed as a single unit. Screws are driven through the back of the head and sill members into splines extruded in the vertical framing members. Intermediate horizontals are attached to the verticals with shear blocks.

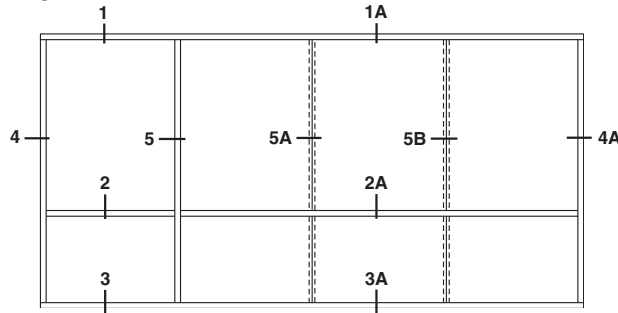


Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

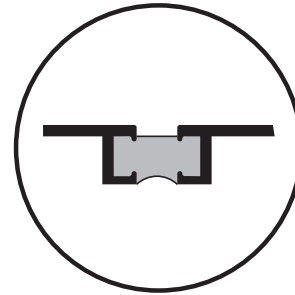
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SCALE 3" = 1'-0"



ELEVATION IS NUMBER KEYED TO DETAILS

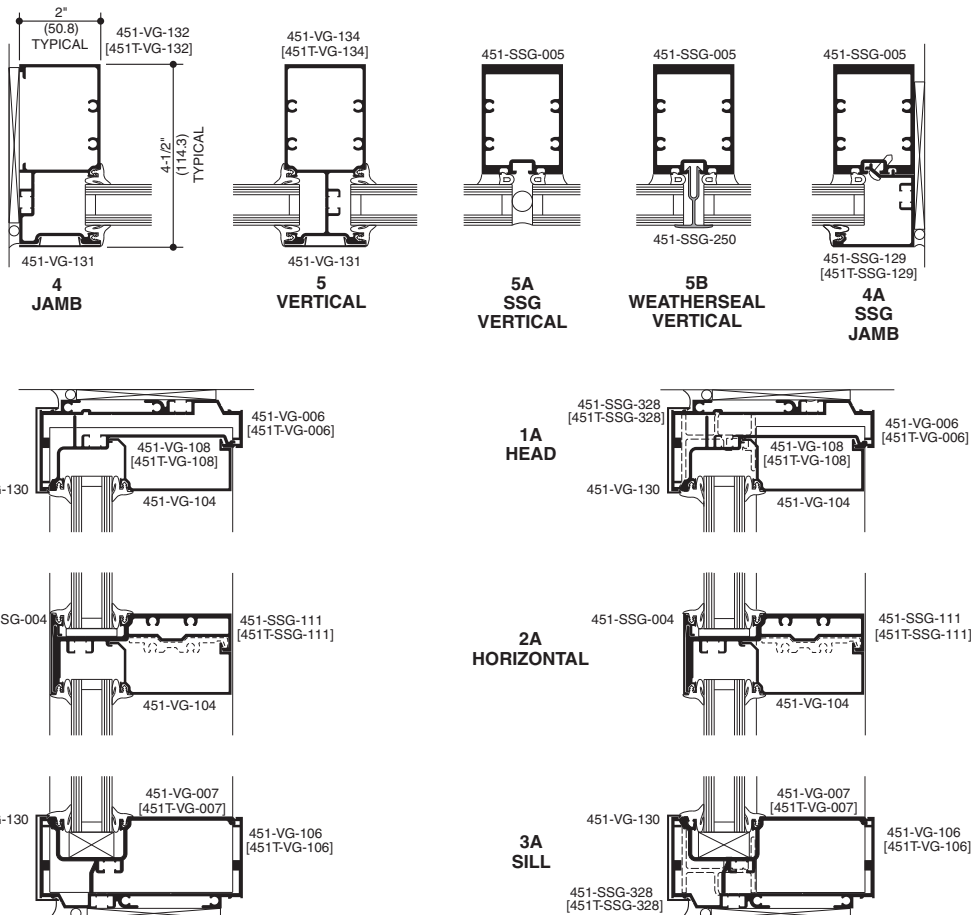


NUMBERS IN BRACKETS ARE THERMALLY BROKEN MEMBERS

**STICK (INSIDE GLAZED)  
TWO COLOR OPTION**

**STANDARD RECEPTOR with SSG ADAPTOR**

CAD Details - **STICK** (TF451) = TF\_VG\_451-Stick-Front-CAD.zip  
(TF451T) = TF\_VG\_451T-Stick-Front-CAD.zip



Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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1732 NE 2nd Avenue Design Review : Narrative Packet works progress architecture llp © REVISED 09.22.2017





# Perforated Garage Door



## MODEL 800

ROLLING STEEL DOORS



WAYNE DALTON COMMERCIAL DOORS

### Architect Resource Center

www.wayne-dalton.com/commercial  
Go to www.wayne-dalton.com/commercial and click on the Architect Resource Center. Here you will quickly find all of the specifications, drawings and documents you need to complete your project.



works progress architecture llp © 12/01/2017 1185 NW 23rd Avenue

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### Rolling service doors to meet your most demanding and rigorous applications

The Wayne Dalton Model 800 rolling service door is designed to meet the tough requirements of virtually any commercial or industrial application. The Model 800 offers flexibility in substrate materials with choices of galvanized or prime steel, stainless steel, or aluminum. Color options range from our standard five factory finish colors to a full range of 137 RAL powder coat choices.

works progress architecture llp © 12/01/2017 1185 NW 23rd Avenue LU 16-279495 DDM

Model 800 (Face Mounted)

HEIGHT B (OPENING HEIGHT)												
9'0"		TO 14'0"		TO 18'0"		TO 18'0"						
BRACKET SIZE		SIDE ROOM		BRACKET SIZE		SIDE ROOM						
Width A	X & Y	R	L	X & Y	R	L	X & Y	R	L	X & Y	R	L
CHAIN HOIST OPERATED												
TO 20'0"	18-1/2"	8'	6'	22'	8'	6'	24"	8'	6'	26'	8'	6'
20'0" TO 25'0"	18-1/2"	8'	6'	22'	8'	6'	24"	8'	6'	26'	8'	6'
25'0" TO 28'0"	18-1/2"	8'	6'	22'	8'	6'	24"	8'	6'	26'	8'	6'
MOTOR OPERATED												
TO 20'0"	20"	8'	6'	22'	8'	6'	24"	8'	6'	26'	8'	6'
20'0" TO 25'0"	20"	8'	6'	22'	8'	6'	24"	8'	6'	26'	8'	6'
25'0" TO 28'0"	20"	8'	6'	22'	8'	6'	24"	8'	6'	26'	8'	6'
CRANK OPERATED—CONSULT FACTORY												

Model 800 (Between Jambes, Under Lintel)

HEIGHT B (OPENING HEIGHT)												
9'0"		TO 14'0"		TO 18'0"		TO 18'0"						
BRACKET SIZE		SIDE ROOM		BRACKET SIZE		SIDE ROOM						
Width A	X & Y	R	L	X & Y	R	L	X & Y	R	L	X & Y	R	L
CHAIN HOIST OPERATED												
TO 20'0"	18-1/2"	8-1/8"	7-1/8"	22'	8-1/8"	7-1/8"	24"	8-1/8"	7-1/8"	26"	8-1/8"	7-1/8"
20'0" TO 25'0"	18-1/2"	8-1/8"	7-1/8"	22'	8-1/8"	7-1/8"	24"	8-1/8"	7-1/8"	26"	8-1/8"	7-1/8"
25'0" TO 28'0"	18-1/2"	8-1/8"	7-1/8"	22'	8-1/8"	7-1/8"	24"	8-1/8"	7-1/8"	26"	8-1/8"	7-1/8"
MOTOR OPERATED												
TO 20'0"	20"	8-1/8"	7-1/8"	22'	8-1/8"	7-1/8"	24"	8-1/8"	7-1/8"	26"	8-1/8"	7-1/8"
20'0" TO 25'0"	20"	8-1/8"	7-1/8"	22'	8-1/8"	7-1/8"	24"	8-1/8"	7-1/8"	26"	8-1/8"	7-1/8"
25'0" TO 28'0"	20"	8-1/8"	7-1/8"	22'	8-1/8"	7-1/8"	24"	8-1/8"	7-1/8"	26"	8-1/8"	7-1/8"
CRANK OPERATED—CONSULT FACTORY												

NOTE: Dimensions are for general reference only and not for construction purposes.

FOR TECHNICAL INFORMATION, VISIT WWW.WAYNE-DALTON.COM/COMMERCIAL

### Standard Features Overview

<b>CONSTRUCTION</b>	42 (12802 mm) 40' (12192 mm) Face mount; between jambs. Manual push-up, unless size requires chain hoist. 3" galvanized steel curved slats (#4 profile), primed gray, white, beige or brown; 22-gauge steel with alternating endlocks. Chain holder, suitable for padlocking, on chain operated doors. Galvanized steel double angle with weatherstrip. Galvanized roll-formed steel channel; factory painted black. 1/4" steel plates with permanently sealed ball bearing, factory painted black. Steel pipe, factory painted black, of adequate size to restrict a maximum deflection of .033" per linear foot. Oil tempered, 20,000 cycle helical springs. 24-gauge galvanized steel round hood; primed gray, white, beige or brown.
<b>Max Width</b>	
<b>Max Height</b>	
<b>Mounting</b>	
<b>Operation:</b>	
<b>Curtain</b>	
<b>Locking</b>	
<b>Bottom Bar Guides</b>	
<b>Brackets</b>	
<b>Counterbalance</b>	
<b>Hood</b>	
<b>Wind Load</b>	+/- 20 psf standard
<b>WARRANTY</b>	Twenty-four (24) month

### Options

- **Operation:** Crank (awning, wall), chain hoist, motor, through wall
- **Slat options:** 3" flat slat, perforated flat slat, 6" curved slat
- **Curtain options:** Steel, stainless steel, aluminum
- **Curtain finish:** G-90 galvanized bare or painted beige, gray, white or brown, stainless steel #4, aluminum anodized finishes, powdercoat (RAL and custom)
- **Locking:** Slide bolts, cylinder, Best lock, thumb turns
- **Bottom bar:** Stainless steel double angle, structural steel angle construction (galvanized steel only), extruded aluminum, sloped
- **Bottom edge:** Astragal, pneumatic or electric sensing edge
- **Hood:** 22-gauge hood option, square hood option
- **Spring:** Up to 200,000 cycle, options available dependent on door size and weight
- **Guides:** Structural three angle; galvanized steel, stainless; hot dipped galvanized (structural steel angle only)
- **Brackets finish:** Galvanized (hot dipped), stainless steel #4, powdercoat (RAL and custom)
- **Perimeter seals:** Angled guide brush seal, clip-on vinyl guide seal, exterior lintel weather seal, interior weather baffle
- **Wind load:** Minimum of +/- 20 PSF up to +/- 55 PSF; options available to meet up to Dade County - Florida Building Commission High Velocity Hurricane Zone (FBC HVHZ)
- **Other options:** Wind locks alternating or continuous with windbar, end covers, fascia, drop stop device, open fenestrations, vision lines, pass door

**Popular in both interior and exterior applications, the Wayne Dalton Model 800 rolling service door features a galvanized, pre-painted curtain of minimum 22-gauge steel.**

The Model 800 door has a standard wind load rating of 20 PSF. Optional wind load ratings of up to 55 PSF are available to cover FBC and Dade County wind load requirements.

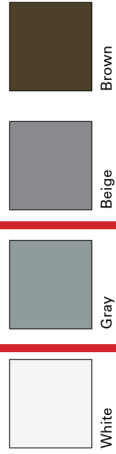
### Materials and Construction

Wayne Dalton's Model 800 rolling doors are composed of curved or flat-faced slats that provide a natural water-shed, helping to reduce corrosion.

The slats are designed with free-acting interlocking joints that permit easy articulation when the door coils.

Model 800 features a strong double-angle bottom bar that reinforces the lower edge of the curtain against wind pressure and permits varied lock, astragal, and safety edge options. This bottom bar is designed for easy installation and does not require fasteners protruding into the guide openings, so the bottom bar does not interfere with door operation. Bottom bar finishes are available in primed black finish, stainless steel #4, powdercoat (RAL and custom); hot dipped galvanized (double angle only), mill, clear or bronze anodized aluminum.

### Color Options



Actual colors may vary from brochure due to fluctuations in the printing process. Always request a color sample from your Wayne Dalton dealer for accurate color matching.



### Slat Profiles



No. 4 - Curved-faced single crown slat available in up to 16-gauge steel, up to 18-gauge stainless steel, or up to 14-gauge B&S aluminum. Depth of crown: 7/8", 25/8" on centers.



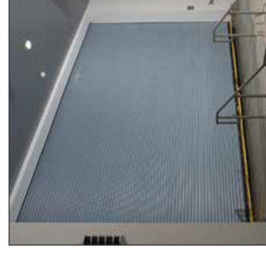
No. 14 - Flat-faced slat available in up to 16-gauge steel, up to 18-gauge stainless steel, or up to 14-gauge B&S aluminum. Depth of crown: 3/4", 27/16" on centers.



Secur-Vent® - Perforated slat provides optimal security and ventilation. Slat consists of 1/16" diameter holes offering 20-25% open area over length of each slat. Available in No. 14 flat slat up to 22" wide x 20" high (available in 20-gauge steel only).

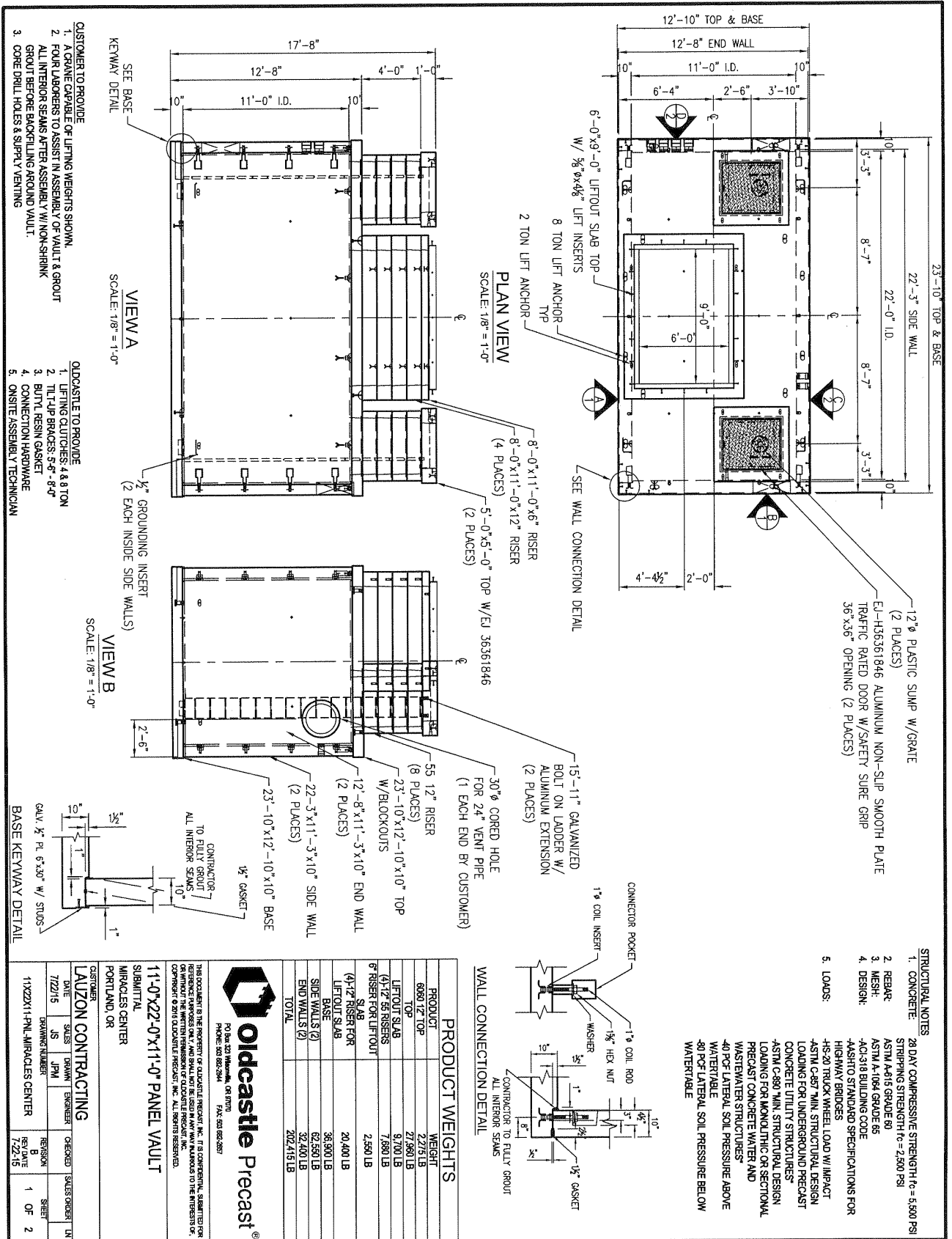


No. 14 slat, shown with a Pass Door  
1185 NW 23rd Avenue LU 16-279595 D2M



No. 4 slat  
works progress architecture llp © 12/01/2017

# Transformer Vault



NO. 330 Westmoreland, OR 97170  
PHONE: 503.682.2944 FAX: 503.682.2952

**Oldcastle Precast®**

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**11'-0"x22'-0"x11'-0" PANEL VAULT**

SUBMITTAL MIRROR CENTER PORTLAND, OR

CUSTOMER: LAUZON CONTRACTING

DATE	SUBMITTAL NO.	DESIGNED BY	CHECKED BY
7/22/15	J5	DWYER	JEFFREY

DRAWING NUMBER: 11X22X11-PNL-MIRACLES CENTER

REGION: 7-22-15

SHEET: 1 OF 2

## Exterior Linear Light Fixture

DATE: _____	TYPE: _____
PROJECT: _____	
FIRM : _____	

### Features

- Dimmable
- Flicker-Free
- In-line Connection
- Long Life
- Instant On
- RoHS Compliant
- Lead Free
- Mercury Free
- No UV

## EcoSpec® Linear HP EXT






EcoSense® EcoSpec® Linear HP EXT is an ultra-bright exterior linear white light fixture. Brighter than fluorescent tubes, these flicker-free dimmable fixtures offer an earth-friendly, mercury free cove solution.

Leveraging years of lighting experience, this robust aluminum frame fixture features powerful, energy efficient LEDs and precision constant current circuits for long-life applications.

With smart power technology, EcoSpec® Linear HP EXT connects directly to AC power; simplifying installation and minimizing costs. These long-life fixtures quickly pay for themselves in energy savings and maintenance costs, providing substantial savings over the 36,300 hour life of the lamp.



### Specifications

<b>Color Temperature</b>	<b>Lumen Output</b> (120° x 120°)
2700K	660 lm/LF : 660 (1') / 1,320 (2') / 1,980 (3') / 2,640 (4')
3000K	656 lm/LF : 656 (1') / 1,312 (2') / 1,968 (3') / 2,624 (4')
4000K	753 lm/LF : 753 (1') / 1,506 (2') / 2,259 (3') / 3,012 (4')
<b>Color Rendering Index</b>	min 80
<b>Rated Life</b>	36,300 hours
<b>Beam Angle</b>	120° x 120°
<b>Power Consumption (Max)</b>	120VAC – 12.5W (1ft) / 25W (2ft) / 37.5W (3ft) / 50W (4ft) 220VAC – 14W (1ft) / 28W (2ft) / 42W (3ft) / 56W (4ft)
<b>Efficacy (lm/W)</b>	120VAC – 52.8 @ 2700K / 52.4 @ 3000K / 60.2 @ 4000K 220VAC – 47.1 @ 2700K / 46.8 @ 3000K / 53.7 @ 4000K
<b>Maximum Fixture Run Length</b>	65' (20m) @120VAC / 130' (40m) @220VAC
<b>Operating Temperature</b>	-4°F to 122°F (-20°C to 50°C)
<b>Operating Voltage</b>	100-120VAC, 220-240VAC, 50-60Hz
<b>Dimming</b>	ELV type, trailing edge dimmers
<b>Housing</b>	Aluminum; Clear Polycarbonate Lens
<b>Fixture Connectors</b>	Integral male / female 3-pin connectors
<b>Fixture Rating</b>	CE Certified – IP66 UL Certified for Wet Location
<b>Warranty</b>	5 Years
<b>Weight</b>	0.9kg (1ft) / 1.7kg (2ft) / 2.5kg (3ft) / 3.3kg (4ft)
<b>Dimensions</b>	W 1.8" x H 2.1" x L 12"/24"/36"/48" (45.3mm x 52.7mm x 305mm/609mm/914mm/1,219mm)
<b>Certifications</b>	    

Restriction of Hazardous Substances Directive (RoHS) implements EU Directive 2002/95 which bans placing electrical and hazardous equipment that contains more than agreed levels of hazardous substances on the EU market. For a list of these substances visit [www.rohs.gov.uk](http://www.rohs.gov.uk).

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

EcoSENSE®

EcoSense Lighting Inc.  
80 Broad Street  
5th Floor  
New York, NY 10004

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

Phone 212-228-8118  
Fax 212-228-9113  
Toll Free 855.632.6736  
855.6.ECOSEN

(V. 9.24-2012)

# EcoSpec® Linear HP EXT

DATE: _____	TYPE: _____
PROJECT: _____	
FIRM : _____	

**Ordering Information** Choose the option that best suits your needs and write its corresponding code on the appropriate line to form the product code.

MODEL	LENGTH	COLOR	VOLTAGE	OPTIC
<b>09LC</b>	<b>12</b> - 1'-0" <b>24</b> - 2'-0" <b>36</b> - 3'-0" <b>48</b> - 4'-0"	<b>27</b> - 2700K <b>30</b> - 3000K <b>35</b> - 3500K <b>40</b> - 4000K	<b>120</b> - 100-120VAC <b>220</b> - 220-240VAC	<b>120</b> - 120° x 120°

Order accessories as separate catalogue numbers from the **Accessories** section below.

**EXAMPLE: 09LC-12-27-120-120**

## Accessories

### Wiring

Leader Cable 10'-0" (UL)*	<b>EXT-A-CBL-120-10</b>	Leader Cable 10'-0" (CE)*	<b>EXT-A-CBL-220-10</b>
Jumper Cable 1'-0" (UL)	<b>EXT-A-JMP-120-1</b>	Jumper Cable 1'-0" (CE)	<b>EXT-A-JMP-220-1</b>
Jumper Cable 5'-0" (UL)	<b>EXT-A-JMP-120-5</b>	Jumper Cable 5'-0" (CE)	<b>EXT-A-JMP-220-5</b>

\* One (1) terminator is included standard with each Leader Cable

### Mounting

Adjustable Hinged Bracket	<b>10-A-MNT-ADJ</b>
Flat Mounting Plate	<b>10-A-MNT-FLAT</b>
Safety Bracket	<b>09-A-MNT-SAFT</b>

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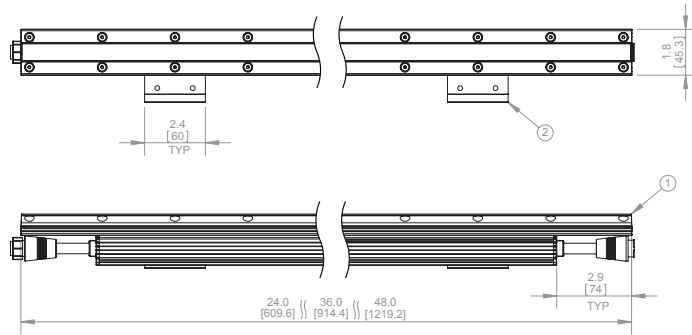
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**ECOSENSE®**

# EcoSpec® Linear HP EXT

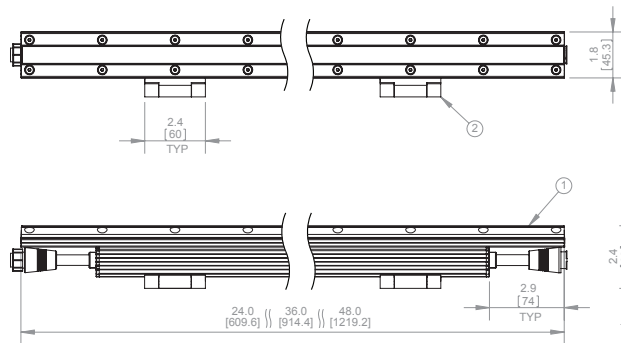
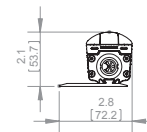
**Dimension and Mounting** For complete dimensional submittal drawings and full scale CAD drawings, please visit [ecosenselighting.com](http://ecosenselighting.com).

DATE: _____	TYPE: _____
PROJECT: _____	
FIRM : _____	



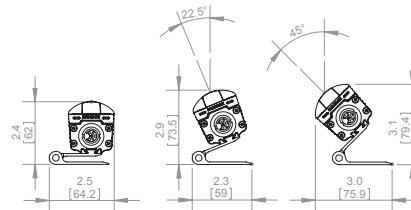
## Flat Mounting Plate - Direct Mount

**10-A-MNT-FLAT**



## Adjustable Bracket - Direct Mount

**10-A-MNT-ADJ**



DIMENSION IN  
INCHES / [MM]

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(V. 9.24-2012)

ECOSENSE®

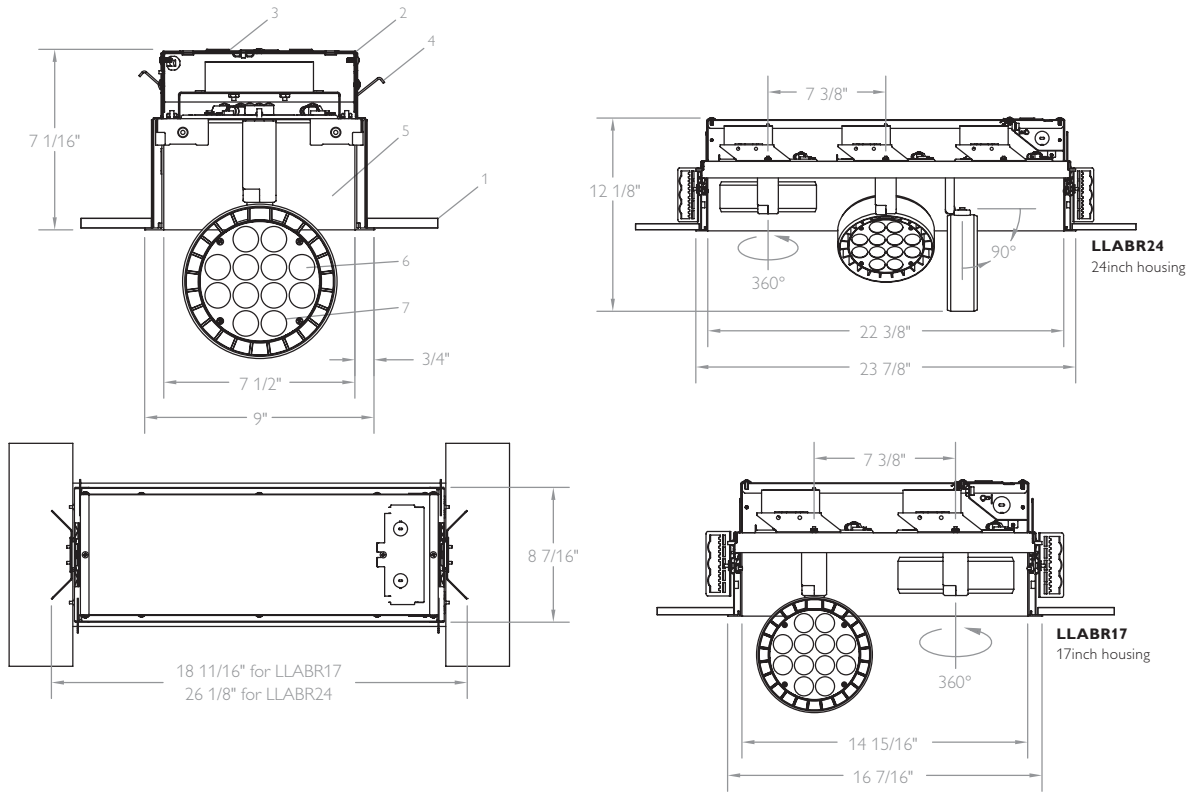
# LLABR

## Spot LED Recessed

Catalog number:

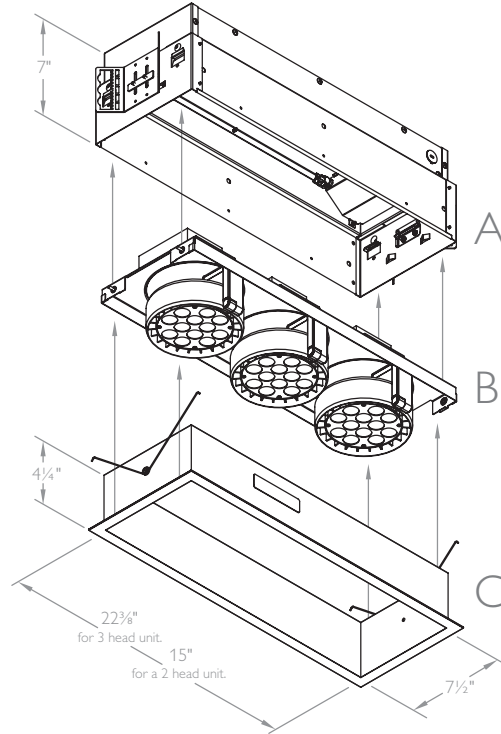
Notes:

Type:



**Three-part ordering system** A + B + C + D\* = complete unit.

Optional Mud-in kit (part D) not shown in diagram.



**Three-part ordering system** A + B + C + D\* = complete unit.

**A** Housings example: LLABR24120

Model	Length	Voltage
<b>LLABR</b>	<b>17</b> 17"	<b>120</b> 120v
	<b>24</b> 24"	<b>277</b> 277v

**B** Light engines example: LLABR24WH030H3RSRSRS

Model	Length	Head color	Engine	CCT	Number of heads	Beam	Optic type
<b>LLABR</b>	<b>17</b> 17"	<b>WH</b> White	<b>0</b> 17W	<b>27</b> 2700K	<b>H2</b> 2 heads	<b>RSRS</b>	(2) Spot
		<b>BK</b> Black	<b>1</b> 27.5W	<b>30</b> 3000K		<b>RNFRNF</b>	(2) Narrow flood
	<b>24</b> 24"				<b>H3</b> 3 heads	<b>RFRF</b>	(2) Flood
						<b>RSRSRS</b>	(3) Spot
						<b>RNFRNFRNF</b>	(3) Narrow flood
						<b>RFRFRF</b>	(3) Flood

**C** Finishing sections example: LLABR24WHFT

Model	Length	Housing color	Flange
<b>LLABR</b>	<b>17</b> 17"	<b>WH</b> White	<b>W</b> (with flange)
	<b>24</b> 24"	<b>BK</b> Black	<b>FT</b> (flangeless trim)

**D\*** Mud-in kit example: LLABR24

Model	Length
<b>LLABR</b>	<b>17</b> 17"
	<b>24</b> 24"

\* Required for flangeless sheet rock application





### Features

- 1. Trim:** Extruded aluminum, welded together on all corners, with powder coat finish.
- 2. Housing:** Dedicated housing voltage. Low profile (7"). Die-formed 22 ga. steel, black finish.
- 3. Junction box:** Integrated junction box with separate wire compartment. Dual access from inside and outside.
- 4. Mounting:** Mounting brackets are adjustable vertically from inside of housing. Maximum ceiling thickness is 1.625". Accepts various types of mounting bars (C channel...and such, ordered separately). For use in T-grid or sheet rock ceilings.
- 5. Thermal management:** Proprietary heat sink design was developed using the latest Computational Fluid Dynamics Software. Die cast aluminum effectively cools LEDs providing a minimum 50,000 hr lifetime at 70% lumen maintenance.
- 6. Optic assembly:** Efficient TIR (total internal reflection) optically clear thermoplastic lenses held securely by frosted translucent thermoplastic holder. Positive securement into luminaire with screws and accurately positioned on LEDs with locating pins. Prevents dust and contaminants from entering LED compartment.
- 7. Light source:** High brightness white LED. 80-85 CRI, LEDs selected for tight color consistency between luminaires single 3 step MacAdam ellipse max.

### Application Compatibility

Series	T-Grid	Sheet Rock
2 Head	Flange	Flange/Flangeless
3 Head	Flange/Flangeless*	Flange/Flangeless

\* Additional T-Grid runners are required (supplied by others)

### Electrical

**Electronic power supply:** RoHS compliant Class 2 power unit for use in a damp or dry location (Outdoor Type1 IP66). Class A sound rated unit tolerates sustained open circuit and short circuit output conditions without damage. Complies with FCC rules per Title 47 CFR PART 15 Non-Consumer (Class A) for EMI/RFI (conducted and radiated) at full load.

#### 9 LED electrical

**Input voltage:** 120V, 277V at 50/60Hz

**Lumen maintenance:** >70% of initial lumens at 50,000 hrs

**Photometric performance:** Tested in accordance to LM79

**Nominal input power:** 17W

**Power factor:** >.9

Beam spread	Delivered lumens (3000K)	Efficacy	CBCP
10°	1030	61	24,000
22°	975	57	4,000
36°	900	53	2,000

#### Accessories\*

**Accessory holder:** Requires 8595 (accepts two accessories).

**Snoot:** 23SNT6WH/BK/AL

**Louver:** AL4HC Series

**Diffusion/special filters:** AF4 Series

**Color filters:** ADF4 Series (will project colored light on ceiling).

\* Accessories are not Energy Star qualified. Only applies to 9 LED electrical (above).

#### 12 LED electrical

**Input voltage:** 120V, 277V

**Lumen maintenance:** >70% of initial lumens at 50,000 hrs

**Photometric performance:** Tested in accordance to LM79

**Nominal input power:** 27.5W

**Power factor:** >.9

Beam spread	Delivered lumens (3000K)	Efficacy	CBCP
Spot 11°	1668	61.3	34,335
Narrow flood 20°	1607	59.1	7,318
Flood 39°	1553	57.1	3,069

### Labels

Energy Star (pending)

5 year warranty

cULus listed. Suitable for damp location.

Title 24 compliant





## Residential Mechanical Unit

### Submittal Data Sheet

0.75-Ton Wall Mounted Unit

FTX09NMVJURX09NMVJU

#### FEATURES

- Up to 19 SEER / 12.5 EER / 9.0 HSPF
- High-efficiency inverter driven swing compressor
- Low ambient heating to 5°F / -4°F with optional drain pan heater
- Low ambient cooling capable
- Specialized drain pan design for improved cold climate drainage
- Mold-resistant washable air filter
- Titanium apatite photo catalytic air purification filter
- Vertical auto-swing air flow
- Standby electricity savings mode
- Hot-start function to eliminate start-up drafts
- Powerful (turbo) and Econo mode settings
- Wireless remote with backlit LCD display

#### BENEFITS

- 10 Year limited parts warranty with online registration
- 5 Year limited parts warranty for commercial applications
- High efficiency cooling and heating operation provides utility bill savings
- Low profile indoor unit with matte white finish
- May qualify for regional utility rebates and incentives
- Compatible with optional Daikin ENVi Wi-Fi capable Smart Control

#### INDOOR UNIT



#### OUTDOOR UNIT





## Submittal Data Sheet

0.75-Ton Wall Mounted Unit

FTX09NMVJURX09NMVJU

### SYSTEM PERFORMANCE

Indoor Unit Model No.	FTX09NMVJU	Indoor Unit Name:	19 SEER HP DUCTLESS ID 3/4 TON
Outdoor Unit Model No.	RX09NMVJU	Outdoor Unit Name:	19 SEER HP DUCTLESS OD 3/4 TON
Rated Cooling Capacity (Btu/hr):	9,000	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Sensible Capacity (Btu/hr):	9,000	Rated Piping Length(ft):	25
Max/Min Cooling Capacity (Btu/hr):	10,200 / 4,400	Rated Height Difference (ft):	49.00
Cooling Input Power (kW):	0.720	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 70 Ambient (°F DB/WB): 47 / 43
SEER (Non-Ducted/Ducted):	19.00 /	HSPF (Non-Ducted/Ducted):	9.0 /
EER (Non-Ducted/Ducted):	12.50 /	Heating COP (Non-Ducted/Ducted):	3.7 /
Rated Heating Capacity (Btu/hr):	10,000		
Max/Min Heating Capacity (Btu/hr):	13,000 / 4,400		
Heating Input Power (kW):	0.72		

### SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	50 - 115
Holding Refrigerant Charge (lbs):	1.5	Heating Operation Range (°F WB):	5 - 75
Additional Charge (lb/ft):	0.01	Max. Pipe Length (Vertical) (ft):	
Pre-charge Piping (Length) (ft):	32	Cooling Range w/Baffle (°F DB):	0 - 115
Max. Pipe Length (Total) (ft):	66	Heating Range w/Baffle (°F WB):	-
Max Height Separation (Ind to Ind ft):	49		



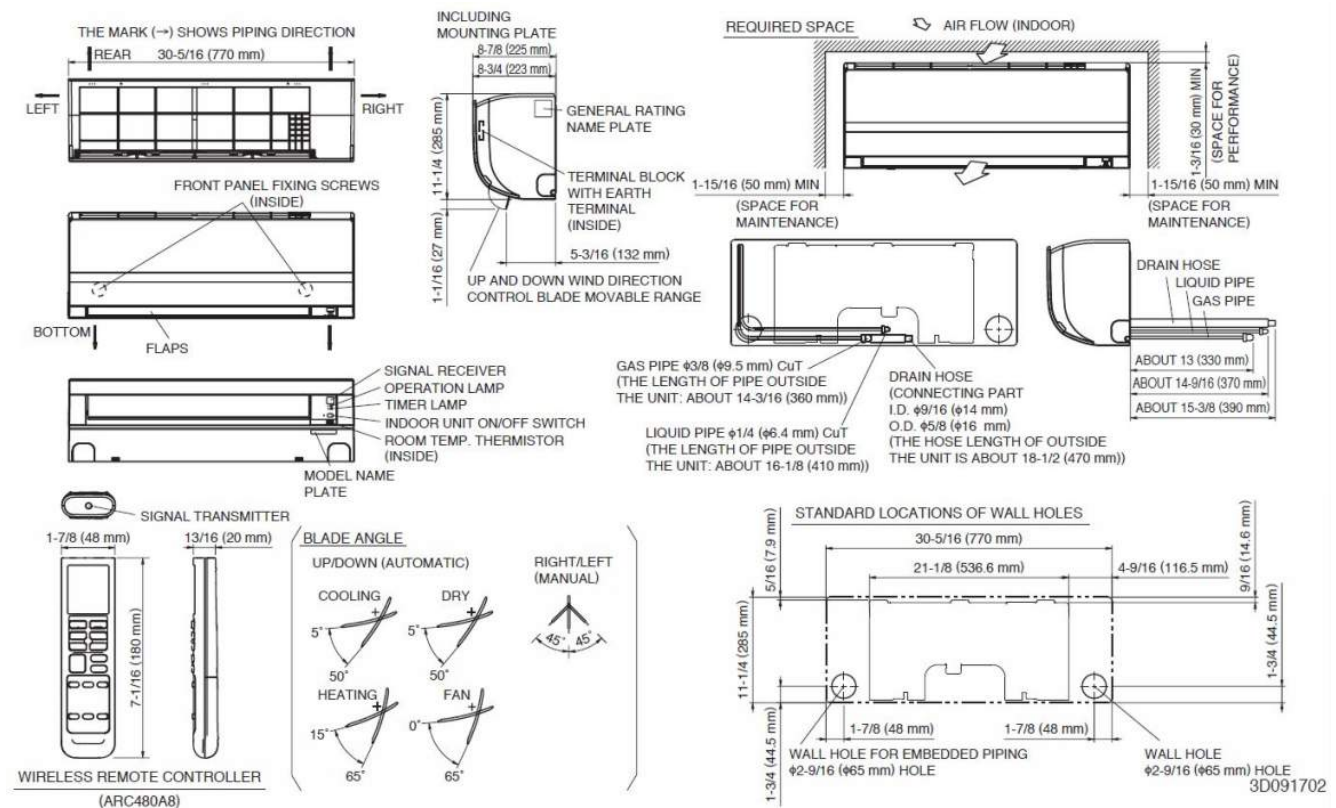
## Submittal Data Sheet

0.75-Ton Wall Mounted Unit

FTX09NMV/JURX09NMVJU

INDOOR UNIT DETAILS			
Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (H/M/L/SL) (CFM):	417/297/244/141
Power Supply Connections:	Connects to outdoor unit	Moisture Removal (Gal/hr):	0.3
Min. Circuit Amps MCA (A):	12.10	Gas Pipe Connection (inch):	3/8
Max Overcurrent Protection (MOP) (A):	15.00	Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	11-1/4 x 30-3/8 x 8-3/4	Condensate Connection (inch):	5/8
Panel (HxWxD) (in):		Sound Pressure (H/M/L/SL) (dBA):	43/36/30/19
Net Weight (lb):	18	Sound Power Level (dBA):	
Panel Weight (lb):		Ext. Static Pressure (Rated/Max) (inWg):	/

## DIMENSIONAL DRAWING - INDOOR UNIT





## Submittal Data Sheet

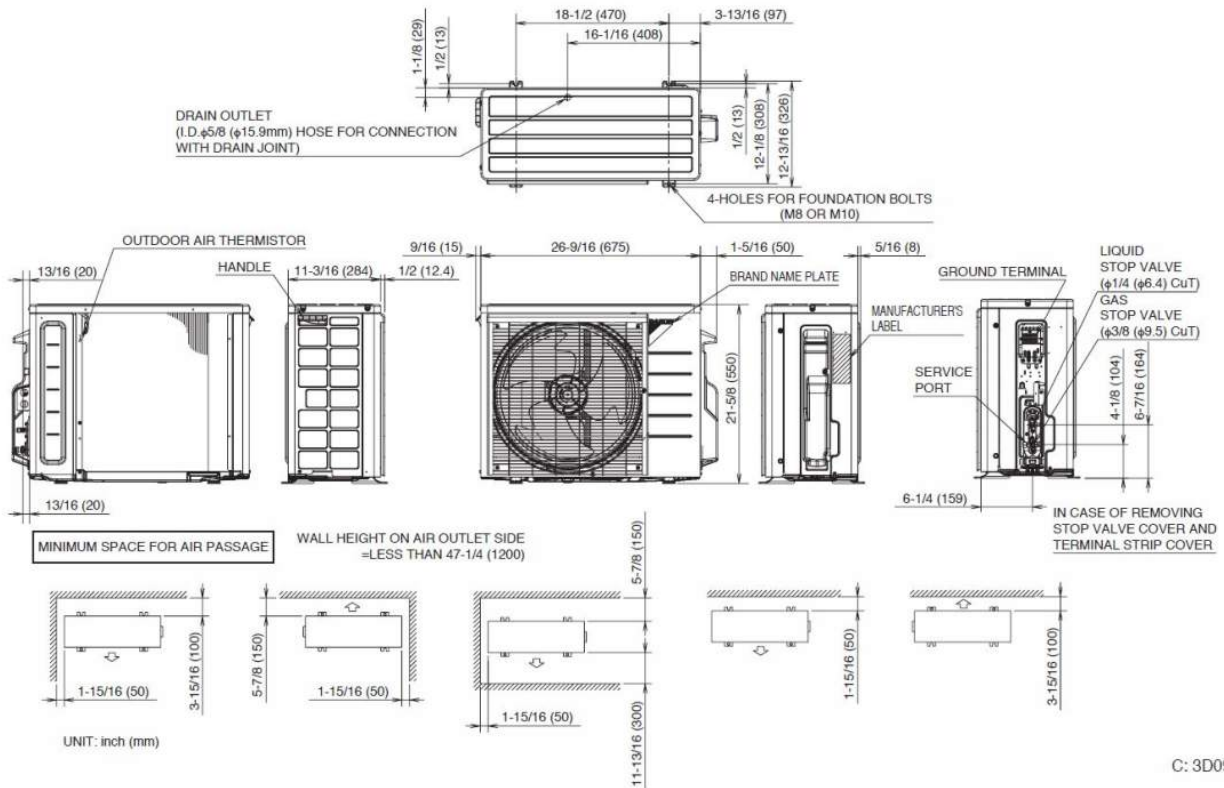
0.75-Ton Wall Mounted Unit

FTX09NMVJURX09NMVJU

### OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Compressor Type:	Inverter
Power Supply Connections:	L1, L2, Ground	Capacity Control Range (%):	-
Min. Circuit Amps MCA (A):	12.10	Airflow Rate (H) (CFM):	1,102
Max Overcurrent Protection (MOP) (A):	15.00	Gas Pipe Connection (inch):	3/8
Max Starting Current MSC(A):		Liquid Pipe Connection (inch):	1/4
Rated Load Amps RLA(A):	8.5	Sound Pressure (H) (dBA):	46
Dimensions (HxWxD) (in):	21-5/8 x 26-9/16 x 11-3/16	Sound Power Level (dBA):	
Net Weight (lb):	55		

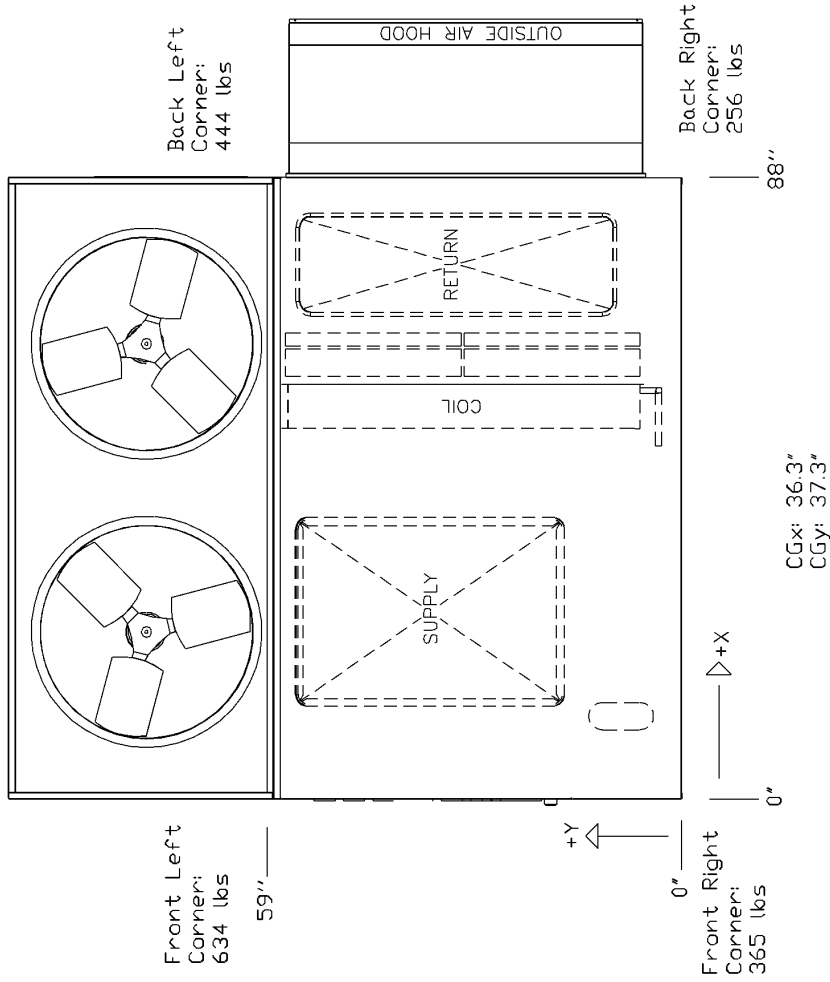
### DIMENSIONAL DRAWING - OUTDOOR UNIT





RNB CABINET  
AIR COOLED CONDENSING UNIT

RN-009-3-0-EA0A-3G9:M000-U00-DSE-AG0-0000004-00-00000000B



Total Weight:  
1699 lbs (±5%)

Disclaimer:  
This weight estimate does not account for any SPAs.

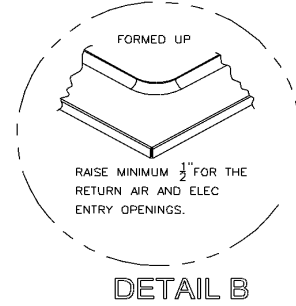
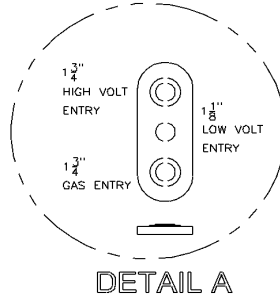
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1732 NE 2nd Avenue Design Review : Narrative Packet works progress architecture llp © REVISED 09.22.2017

Date Printed: 7/2/2014 8:16:32 AM

# RN SERIES B - CABINET STANDARD ~ 9-15 TON

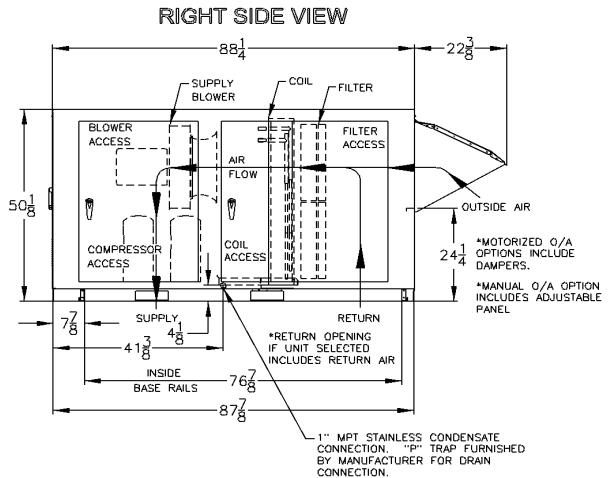
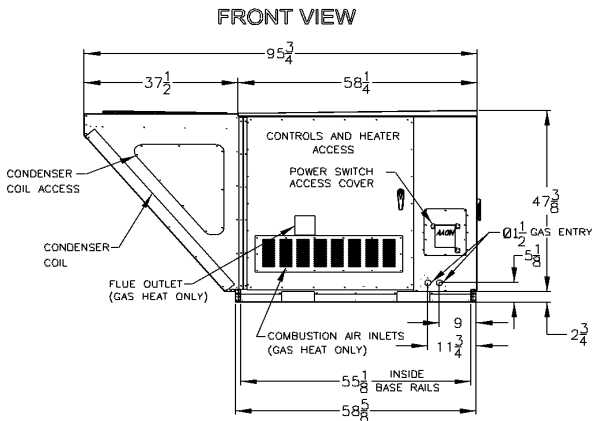
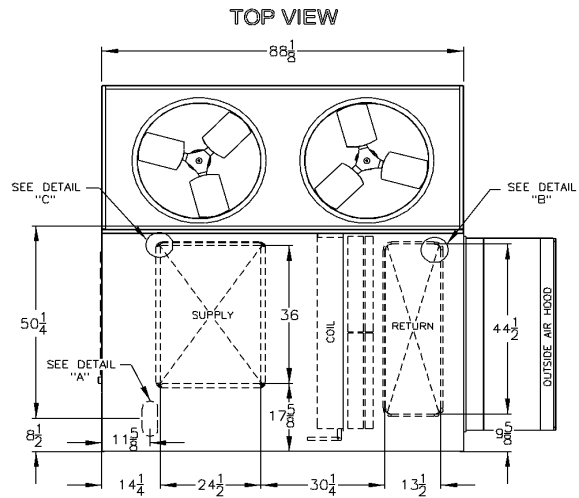
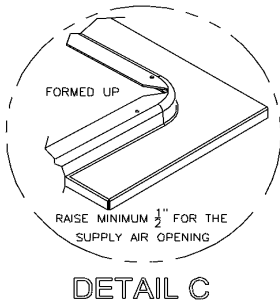
CLEARANCES	
LOCATION	• UNIT SIZE • 9 - 15 TON
OUTSIDE AIR (BACK)	48
CONTROLS SIDE (FRONT)	48
LEFT SIDE	6
RIGHT SIDE	48
TOP	UNOBSTRUCTED



**NUMBER OF CONDENSER FANS**

9 & 11 TON - 1 FAN

13 & 15 TON - 2 FANS



RNB-00001 REV:B 08/30/11 JRL  
NOTE: ALL DIMENSIONS ARE IN INCHES

# Garage Exhaust Fan



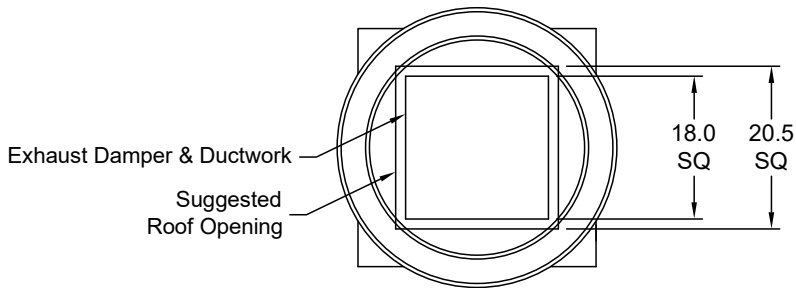
Job:

Printed Date: 7/2/2014

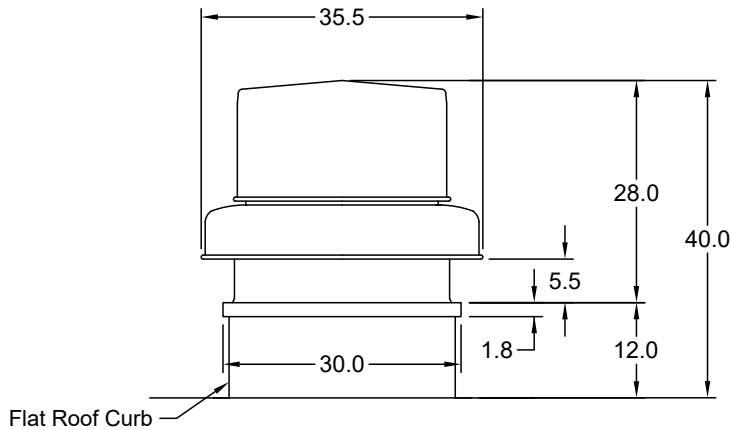
Mark: EF-9

## Assembly Drawing

Type: Belt Drive Centrifugal Roof Exhaust Fan



TOP VIEW



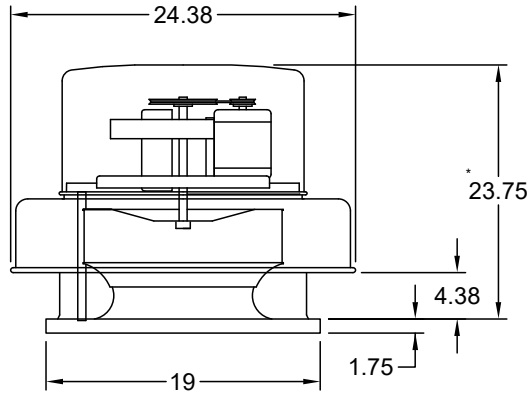
FRONT VIEW

Notes: All dimensions shown are in units of in..



**Model: GB-121-4**

**Belt Drive Centrifugal Roof Exhaust Fan**



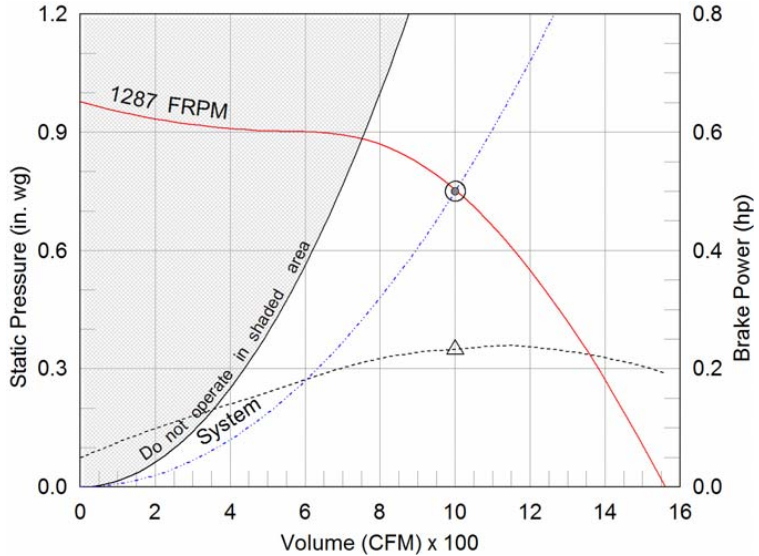
Reference assembly view drawings for actual dimensions with mounted accessories

\*Overall height may be greater depending on motor

Dimensional	
Quantity	4
Weight w/o Acc's (lb)	56
Weight w/ Acc's (lb)	97
Max T Motor Frame Size	56
Optional Damper (in.)	12 x 12
Roof Opening (in.)	14.5 x 14.5

Performance	
Requested Volume (CFM)	1,000
Actual Volume (CFM)	1,000
External SP (in. wg)	0.75
Total SP (in. wg)	0.75
Fan RPM	1287
Operating Power (hp)	0.23
Elevation (ft)	108
Airstream Temp.(F)	70
Air Density (ft3)	0.075
Drive Loss (%)	12.9
Tip Speed (ft/min)	4,402
Static Eff. (%)	58

Motor	
Motor Mounted	Yes
Size (hp)	1/4
V/C/P	460/60/3
Enclosure	ODP
Motor RPM	1725
Windings	1
NEC FLA* (Amps)	1.1



- △ Operating Bhp point
- Operating point at Total SP
- Operating point at External SP
- Fan curve
- System curve
- Brake horsepower curve

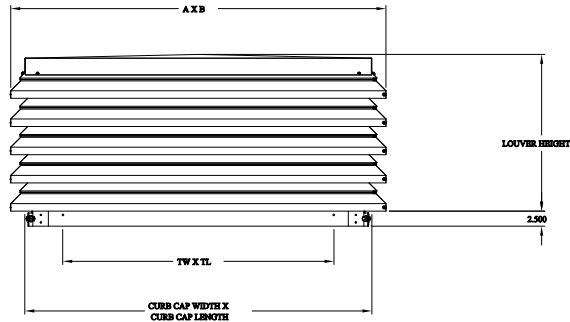
**Sound Power by Octave Band**

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	69	75	75	68	62	60	55	53	71	59	9.8

**Notes:**

All dimensions shown are in units of in..  
 \*FLA - based on tables 150 or 148 of National Electrical Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.  
 LwA - A weighted sound power level, based on ANSI S1.4  
 dBA - A weighted sound pressure level, based on 11.5 dB attenuation per Octave band at 5 ft - dBA levels are not licensed by AMCA International  
 Sones - calculated using AMCA 301 at 5 ft





**WRH**  
**Gravity Ventilator**  
**Application & Design**

The flexible design of the WIH (Intake) and WRH (Exhaust) allows the four louvered sides and hood section(s) to be shipped preassembled. Each section is made of storm resistant aluminum louver blades with mitered corners and a reinforced, removeable cover. The sides are joined at the four corners with stainless steel screws in each louver. These screws are countersunk to maintain the appearance of the mitered corner. The cover is securely fastened to the unit with stainless steel fasteners. Optional factory assembled units are available based on shipping limitations. Greenheck's louvered penthouse design results in low pressure drops, low hood heights and maintains maximum weather resistance.

**Construction Features**

Penthouse Material: Aluminum      Sizing: Actual      Product Warranty: 1 Yr (Standard)

**Damper Construction**

Damper: VCD-23      Frame Type: Channel      Blade Action: Parallel  
Actuator Type: 24 VAC      Actuator Mounting: Internal

**Roof Curb Construction**

Roof Curb Model: GPI      Roof Curb Material: Galvanized      Roof Curb Height (in.): 12  
Curb Damper Tray: Yes

**Options and Accessories**

Penthouse Finish Type: Mill      Bird Screen Location: Internal      Bird Screen Type: Flat Expanded  
Bird Screen Material: Aluminum      Hood: Yes      Hood Insul. Thick (in.): 0.5

**Summary**

ID#	Tag	Qty.	Throat Width (in.)	Throat Length (in.)	Louver Height (in.)	Louvers High	A (in.)	B (in.)	Curb Cap Width (in.)	Curb Cap Length (in.)	Free Area (ft2)	Weight (lb)		
2-1		3	24	24	23.5	6	38	38	32	32	7.61	91		
	<b>Damper Width (in.):</b>				24.000				<b>Damper Height (in.):</b>				24.000	
	<b>Actuator Model:</b>				FSNF24				<b>Actuator Quantity:</b>				1	

Larger openings may require field assembly of multiple louver panels to make up the overall opening size. Individual louver panels are designed to withstand windloads up to a maximum of 25 PSF (size and configuration dependent). Design, materials and installation of structural reinforcement required to adequately support large sections or multiple section assemblies within a large opening are not provided by Greenheck. Unless specifically indicated, the following are NOT included in the quote provided: structural steel, installation hardware (anchors, angle clips, continuous angles, shims, fasteners, inserts, backer rod and sealant), field measuring and/or installation, miscellaneous flashing, trim or enclosures, blank off panels, mullion covers or mullion hardware, hinged frames or removable subframes, custom bird/insect screen, 3-coat, metallic and/or exotic paint finishes, bituminous paints for unlike metals, any applicable taxes, stamped and sealed structural calculations seismic calculations or job specific engineered submittal drawings.



**DERO** **DOWNTOWN RACK**

- High security
- Superior bike support
- Freestanding rail mount available

The Dero Downtown Rack uses thick, square-tube construction that can't be cut with a pipe cutter. The extended width of the Dero Downtown Rack makes for easy bike parking by giving the bike full support and multiple locking points for a u-style bike lock. Break-a-way nuts or concrete spike anti-theft hardware options are included with the Dero Downtown Rack.



**Your Logo Here!**

We can include your organization's logo in the center of a specially designed Dero Downtown Rack. Contact us for more details on this unique option.



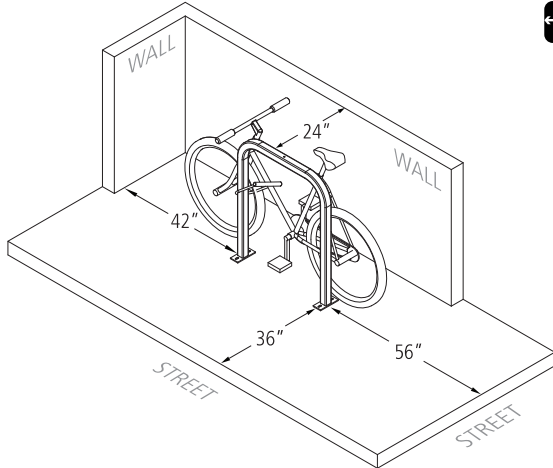
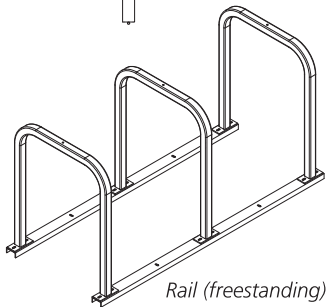
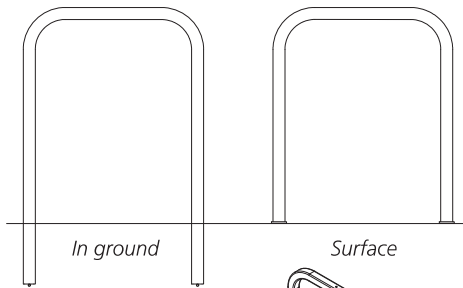
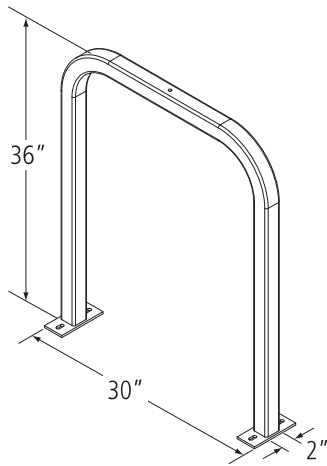
[www.dero.com](http://www.dero.com) 1.800.337.6729



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# DOWNTOWN RACK

## Specifications and Space Use



**Product** Dero Downtown Rack  
As manufactured by Dero Bike Racks

**Capacity** 2 Bikes

**Materials** 2" x 2" x 3/16" square tube - mild steel  
2" x 2" x 11g square tube - stainless steel

**Finishes** 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

Stainless Steel: 304 grade stainless steel material finished in either a high polished shine or a satin finish.

**Installation Methods** **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** Downtown Racks 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.

**Space Use and Setbacks** **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"



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## Interior Bike Rack



### DERO **U**LTRA SPACE SAVER SINGLE

- *Secure, out-of-the-way storage*
- *Fender and shock fork compatible*
- *One unit parks one bike*

U-lock compatibility makes this rack great for property managers, commercial parking garages, and for home storage use. The Dero Ultra Space Saver Single Rack's compact design let's you convert otherwise unusable space to bike parking. Quick installation only requires four anchors drilled into the wall. Save room today with the Ultra Space Saver Single, or check out the whole modular Ultra Space Saver system if you need to park many bikes.



**DERO**  
A PLAYCORE Company



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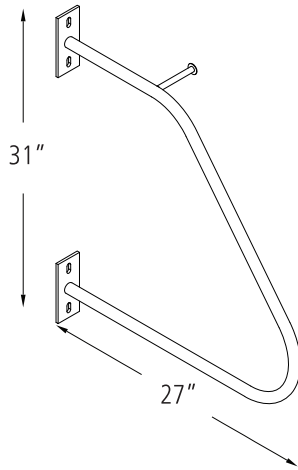


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# ULTRA SPACE SAVER SINGLE

## Specifications and Space Use



**Product** Dero Ultra Space Saver Single  
As manufactured by Dero Bike Racks

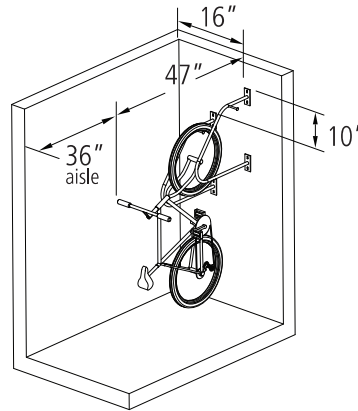
**Capacity** 1 Bike

**Materials** Body is 1" OD 11 gauge tube with 1/2" steel round bar hanger. Mounting flanges are 1/4" plate.

**Finishes** Black powder coat  
Hanger arm is rubber coated

**Installation Methods** **Wall mount** has two 2.5" x 6" foot plates set 25" apart (centerline to centerline) with 4 fasteners. Can be set into concrete block, solid concrete, bricks, wood studs and other base materials .

**Space Use and Setbacks** Racks should be placed minimum 16" apart. When installing racks next to each other, their heights should be staggered by 10". See diagram for approximate space use when loaded and recommended setbacks.



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**Product Data**

**PRODUCT NAME**

OPACI-COAT-300® water-based silicone glass coating.

**MANUFACTURER**

Industrial Control Development, Inc.  
7350 S Union Ridge Parkway  
Ridgefield, WA USA 98642  
Phone: (360) 546-2286  
Fax: (360) 546-2287

**DESCRIPTION**

"OPACI-COAT-300®" is the trade name for a patented one component, water-base silicone coating that is supplied as a flowable, thixotropic emulsion. Upon evaporation of water, the applied coating will cure to a tack-free silicone elastomeric film providing opacification in any color to glass and related construction materials.

**USE**

Architects and designers select any color for opacifying glass for exterior spandrels or interior wall cladding. It may be used on annealed, heat strengthened or tempered glass with equal efficacy. It is a problem free method for opacifying reflective, high performance or tint glass.

**Adhesion:** OPACI-COAT-300® has outstanding adhesion to architectural glass substrates. The water-base silicone technology is supplied by Dow Corning Corporation® to ICD where final proprietary blending is performed and quality control standards are met. ICD has performed rigorous testing involving various substrates. The results have been excellent.

**Glass Retention:** The elastomeric nature of OPACI-COAT-300® creates a rubber like film which meets all ASTM criteria for fallout protection without the need of additional taping or film application.

**Approved Factory Fabricators:** Quality application is assured by the preferential training and on-going inspection of "Approved Factory Fabricators".

**Field Repairable:** Any damage to the coating can easily be repaired at the job site.

**Quality Control:** Sample and batch quality control are achieved through the use of computer technology.

**Color Availability:** There is a wide range of formulated special colors. Virtually any color can be achieved and exact color matching is possible with the use of a computerized spectrophotometer.

**Color Fast:** All of the pigments used in OPACI-COAT-300® are rated excellent in color fastness.

**OPACI-COAT-300®**

**TYPICAL PROPERTIES**

Maximum physical properties (full cure) of OPACI-COAT-300® are achieved at seven days, 70°F (21°C) and 50% relative humidity. The product will attain enough improved properties for shipment with adequate evaporation of water.

**Uncured**

**Color:** ..... Various  
**Percent Solids:** ..... 45-47%  
**Specific Gravity:** ..... .97 - 1.05  
**pH (CTM 0007):** ..... 11.2

**Maximum Physical**

**Properties:** 7 days; 70°F (21°C)  
**Color:** ..... Various  
**Durometer, Shore A (CTM0099):** ..... 40  
**Tensile, Psi (CTM01374):** . 400  
**Elongation % (CTM0137A):** ..... 400%

**Standard Colors:**

- #0-0020 Snow White
- #0-0186 Light White
- #1-0016 Charcoal
- #1-818 Black
- #2-0225 Evergreen
- #2-743 Harmony Solex
- #3-0586 Medium Gray
- #3-0770 Warm Gray
- #3-747 Harmony Graylite #14
- #3-820 Harmony Gray
- #3-967 Black-Gray
- #4-0925 Neutral
- #4-822 Harmony Bronze
- #4-975 Lava Bronze
- #6-0025 Harmony Blue

**Application Methods:** OPACI-COAT-300® can be sprayed, curtain coated or roll coated.

**Evaporation Methods:** OPACI-COAT-300® dries upon evaporation of water. Drying will take place at room temperature (70°F/21°C) and 50% relative humidity in approximately 2-4 hours. Acceleration of this drying rate can easily be accomplished by passing the coated glass through a drying oven. Drying rates vary depending upon heat and humidity.

**Ease of Clean-up:** Flushing with soap and water or a mild cleaning agent is usually all that is necessary to clean equipment of



High Performance Coatings

uncured emulsion.

**Shipping:** In no case should the coated product be shipped before the drying has taken place.

**Coating Thickness** should be a minimum of 8 mills (.2mm) applied. Less thickness affects the products durability.

**Storage:** OPACI-COAT-300® is a water-based material. The product, unapplied, must not freeze! Storage temperature should be between 32°F (0°C) and 72°F (22°C).

**Shelf Life:** The liquid shelf life is 6 months from date of shipment.

**Edge deletion** is required for fabrication of insulated glass units.

## LIMITATIONS

OPACI-COAT-300® is approved for **weather-seal only**. Edges must be deleted for structural applications unless project is pre-approved. Contact ICD.

Neoprene gaskets and/or setting blocks must **not** be used directly against the silicone coated surface.

Compatibility of other products, should be confirmed with ICD. Under no circumstance should bonding materials with acidic hydrocarbon based thinners be used.

Some applications may require different thickness for maximum protection. The coating should be applied at 60°F (16°C) or above. The substrate must be clean and dry. The coating must not freeze before curing.

This product is not recommended for use in vision areas. For proper viewing methods refer to ASTM C1048,

## PRECAUTIONS

The uncured emulsion can cause eye irritation. Skin and eye contact should be avoided. In case of eye contact, flush eyes with water for a least 15 minutes and obtain medical attention. For skin contact, flush affected areas with water as soon as practical.

## TECHNICAL DATA

### Applicable Standards:

GTA #89-1-6, Section 4.1 1991

OPACI-COAT-300® offers the ability to meet or exceed fallout and safety glazing requirements.

**Flexibility:** Sub-zero temperatures to over 300°F (149°C).

**Maintains Adhesion:** From -50°F (-46°C) to 300°F (149°C).

**Excellent Ozone & Ultra Violet** radiation resistance.

**Waterproof:** Liquid will not pass through the coating.

**Weather Testing:** QUV Weatherometer testing confirms weatherability.

**Environmental Impact:** OPACI-COAT-300® is non-hazardous. It is organic solvent free. Costly, hazardous and environmentally undesirable hydrocarbon solvents are eliminated.

## AVAILABILITY AND COST

**Availability:** OPACI-COAT-300® is available for shipment anywhere in the world from our plant in Vancouver, Washington USA to ICD Approved Factory Fabricators. Limited colors are stocked in Europe.

**Cost:** Contact ICD for a list of Approved Factory Fabricators in your area.

## WARRANTY

Approved Factory Fabricators of OPACI-COAT-300® are offered a ten year limited warranty. Please contact a fabricator or the manufacturer for a copy.

Even with the latest design and materials, success depends upon quality products, installation, fabrication and workmanship. Silicone opacifier fabricator and sealant contractors significantly effect the ultimate performance and appearance of the project. It is important to ICD that products and materials be used to their best advantage. ICD feels it is important to periodically review, technical and application techniques for its fabricator's continued success with the use of ICD's product. Investing time and care before and during application has far reaching effects on the quality of the finished project. It is the goal of ICD to aid in quality control measures on a continuous basis and remain available to answer any question that may arise, whether it be from the architect, the interior designer, the fabricator, the building owner, the contractor or the glazier.

The information and data contained herein are believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since ICD cannot know all of the uses to which these products may be put or the conditions of use, it makes no warranties concerning the fitness or suitability of its products for a particular use of purpose.

Users should thoroughly test any proposed use of these products and independently conclude satisfactory performance in the application. Likewise, if the manner in which these products is used requires governmental approval or clearance, the user must obtain it.

ICD warrants that these products will meet its specifications. There is no warranty of merchantability or fitness for use. ICD will not be liable for consequential damages of any kind.

## MAINTENANCE

None required.

## TECHNICAL SERVICES

ICD has experienced staff available for technical consultation and fabricators in most major cities.



# Product Data Sheet



## Aesthetic Description

*Solarban*® 60 solar control, low-e glass by Vitro Architectural Glass (formerly PPG Glass) was engineered to control solar heat gain, which is essential to minimizing cooling costs. In a standard one-inch insulating glass unit (IGU), *Solarban*® 60 glass offers an exterior appearance similar to clear, uncoated glass.

With a very good Solar Heat Gain Coefficient (SHGC) of 0.39, *Solarban*® 60 glass blocks 66 percent of the total solar energy while allowing 70 percent of the visible light to pass through. This combination produces an excellent Light to Solar Gain (LSG) ratio of 1.79, along with exceptional insulating performance, as evidenced by its 0.29 winter nighttime U-value.

## Aesthetic Options

*Solarban*® 60 glass can be coated on *Starphire*® glass and paired with *Starphire*® glass to produce an IGU with exceptional clarity and solar control characteristics. For even more color and performance options, it can be coated on the second (#2) surface of nearly all Vitro's wide range of tinted glasses. It can also be combined in an IGU with any Vitro tinted glass, *Solarcool*® reflective glass or *Vistacool*® subtly reflective, color-enhanced glass (see performance data on back page).

## *Solarban*® 60 Glass and Sustainable Design

An energy modeling study conducted by an independent energy design and consulting firm showed that architects and building owners can potentially save millions of dollars during a building's lifetime by specifying *Solarban*® 60 glass instead of less advanced architectural glazings.

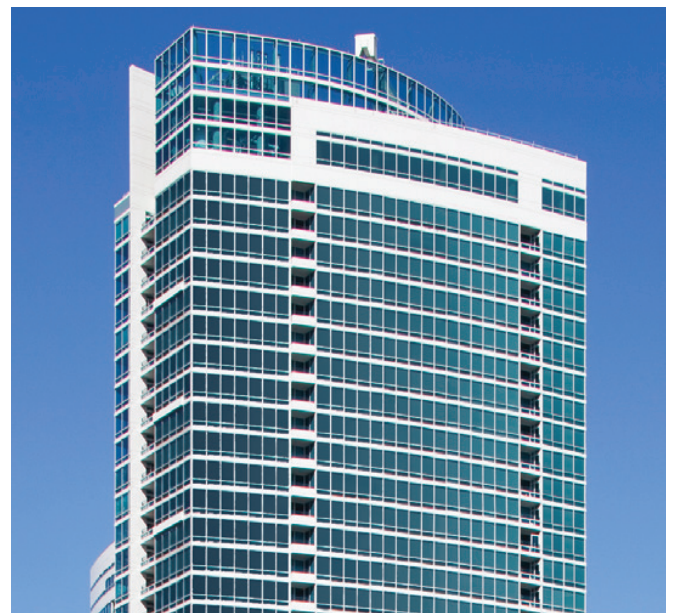
For instance, the study showed that, by substituting *Solarban*® 60 glass in place of dual-pane tinted glass, the owners of a typical glass-walled, eight-story office building in Boston could lower their initial HVAC equipment costs by nearly \$350,000 while realizing annual energy savings of more than \$80,000. Corresponding carbon emissions from the same building were also reduced by more than 300 tons per year, eclipsing the total carbon emissions generated by 31,000 gallons of gasoline.

In addition to making products that support sustainable design, Vitro has pioneered innovative technologies that reduce energy consumption during the glass-making process. Vitro promotes environmentally responsible manufacturing by recovering and reusing virtually all of its glass manufacturing by-products and by shipping its materials on reusable steel racks. Vitro also facilitates regional sourcing through its nationwide network of certified glass fabricators and laminators



Prudential Center

Location: Newark, NJ | Product: *Solarban*® 60 Glass | Architect: Morris Adjmi Architects | Glass Contractor: Josloff Glass | Glass Fabricator: J.E. Berkowitz, LP



Streeter Place

Location: Chicago, IL | Product: *Solarban*® 60 Glass | Architect: Solomon Cordwell Buenz and Associates | Owner/Developer: Golub and Company | Glass Fabricator: Northwestern Industries, Inc. | Glazing Contractor: Custom Windows and J&D Erectors



Solarban® 60 Glass

**Fabrication and Availability**

Solarban® 60 glass is available exclusively through the Vitro Certified™ Network. Vitro Certified™ Fabricators can meet tight construction deadlines and accelerate the delivery of replacement glass before, during and after construction. Solarban® 60 glass is manufactured using the sputter-coating process and is available for annealed, heat-strengthened and tempered applications.

**Additional Resources**

Solarban® 60 glass is Cradle to Cradle Certified™. For more information or to obtain samples of any Vitro Glass product, call 1-855-VTRO-GLS (887-6457) or visit [vitroglazings.com](http://vitroglazings.com).

Vitro Architectural Glass is the first U.S. float glass manufacturer to have its products recognized by the Cradle to Cradle Certified™ program, and offers more C2C-certified architectural glasses than any other float glass manufacturer.

Insulating Glass Unit Performance Comparisons | 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites

Glass Type Outdoor Lite: Coating if Any (Surface) Glass + Indoor Lite: Coating if Any (Surface) Glass	Visible Light Transmittance (VLT)	Visible Light Reflectance		(BTU/hr <sup>2</sup> ft <sup>20°</sup> F) NFRC U-Value		Solar Heat Gain Coefficient (SHGC)	Light to Solar Gain (LSG)	
		Exterior %	Interior %	Winter Nighttime	Winter Argon			
<b>Solarban® 60 Solar Control Low-E Glass</b>								
Solarban® 60 (2) Clear + Clear	70	11	12	0.29	0.24	0.39	1.79	
Solarban® 60 (2) Starphire® + Starphire®	74	11	12	0.29	0.24	0.41	1.80	
Solarban® 60 (2) Solexia® + Clear	61	9	12	0.29	0.24	0.32	1.91	
Solarban® 60 (2) Atlantica® + Clear	53	8	11	0.29	0.24	0.27	1.96	
Solarban® 60 (2) Azuria® + Clear	54	8	11	0.29	0.24	0.28	1.93	
Solarban® 60 (2) Solarblue® + Clear	45	7	11	0.29	0.24	0.28	1.61	
Solarban® 60 (2) Pacifica® + Clear	34	6	10	0.29	0.24	0.22	1.55	
Solarban® 60 (2) Solarbronze® + Clear	42	7	11	0.29	0.24	0.28	1.50	
Solarban® 60 (2) Optigray® + Clear	50	8	11	0.29	0.24	0.30	1.67	
Solarban® 60 (2) Solargray® + Clear	35	6	10	0.29	0.24	0.25	1.40	
Solexia® + Solarban® 60 (3) Clear	61	10	10	0.29	0.24	0.37	1.65	
Atlantica® + Solarban® 60 (3) Clear	53	9	10	0.29	0.24	0.31	1.71	
Azuria® + Solarban® 60 (3) Clear	54	9	10	0.29	0.24	0.31	1.74	
Solarblue® + Solarban® 60 (3) Clear	45	7	9	0.29	0.24	0.33	1.36	
Pacifica® + Solarban® 60 (3) Clear	34	6	9	0.29	0.24	0.25	1.36	
Solarbronze® + Solarban® 60 (3) Clear	42	7	9	0.29	0.24	0.32	1.31	
Optigray® + Solarban® 60 (3) Clear	50	8	9	0.29	0.24	0.35	1.43	
Solargray® + Solarban® 60 (3) Clear	35	7	9	0.29	0.24	0.29	1.21	
GraylitE II + Solarban® 60 (3) Clear	7	4	8	0.29	0.24	0.13	0.54	

**Vistacool® and Solarcool® with Solarban® 60 Solar Control Low-E (3)\***

Vistacool® (2) Azuria® + Solarban® 60 (3) Clear	42	20	24	0.29	0.24	0.26	1.62
Vistacool® (2) Pacifica® + Solarban® 60 (3) Clear	26	11	23	0.29	0.24	0.21	1.24
Solarcool® (2) Solexia® + Solarban® 60 (3) Clear	24	24	29	0.29	0.24	0.19	1.26
Solarcool® (2) Azuria® + Solarban® 60 (3) Clear	21	19	29	0.29	0.24	0.17	1.24
Solarcool® (2) Solarblue® + Solarban® 60 (3) Clear	17	14	29	0.29	0.24	0.18	0.94
Solarcool® (2) Pacifica® + Solarban® 60 (3) Clear	13	10	29	0.29	0.24	0.15	0.87
Solarcool® (2) Solarbronze® + Solarban® 60 (3) Clear	17	14	29	0.29	0.24	0.18	0.94
Solarcool® (2) Solargray® + Solarban® 60 (3) Clear	14	11	29	0.29	0.24	0.17	0.82

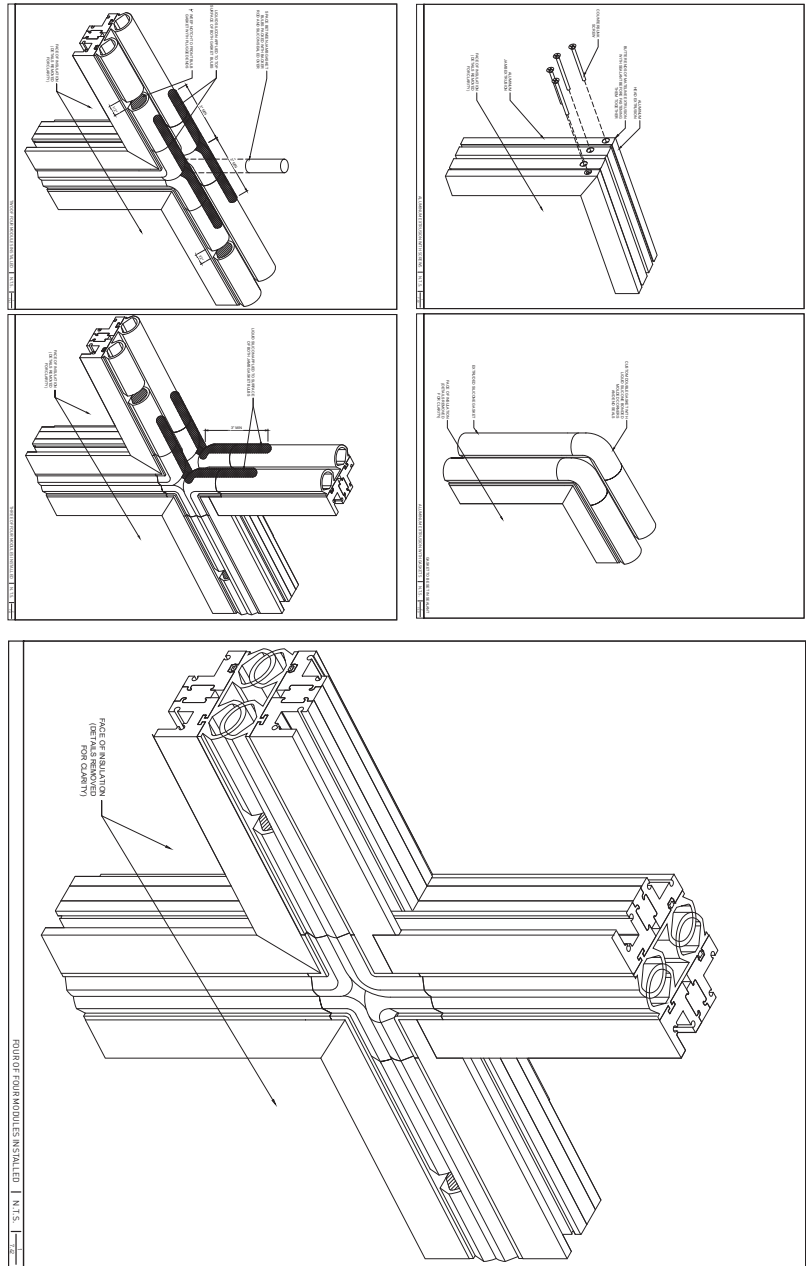
\* Data based on using Starphire® glass for both interior and exterior lites.

All performance data calculated using LBNL Window 6.3 software, except European U-value, which is calculated using WinDat version 3.0.1 software. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit [www.ppgideascape.com](http://www.ppgideascape.com) or request our Architectural Glass Catalog.

For more information about Solarban® low-e glass and other Cradle to Cradle Certified™ architectural glasses by Vitro Glass, visit [vitroglazings.com](http://vitroglazings.com), or call 1-855-VTRO-GLS (887-6457).



### GASKET CONNECTION



### Gaslet Detail



- The permanent weather seal between facade panels is created via double bulb gasketing.
- An aluminum extrusion around the perimeter of the facade panel holds the gasket.
- Corner pieces are applied to create a continuous gasket.
- As adjacent mods are installed on-site, backer-rods and silicone sealant complete the seal at each 4-way intersection.

Louvers/Grille above retail en-  
tries and at Trash Room

