

CITY OF LONG BEACH

R-17

DEPARTMENT OF PUBLIC WORKS

333 West Ocean Boulevard 9th Floor • Long Beach, CA 90802 • (562) 570-6383 • Fax (562) 570-6012

February 21, 2012

HONORABLE MAYOR AND CITY COUNCIL
City of Long Beach
California

RECOMMENDATION:

Authorize the City Manager to execute a Public Walkways Occupancy Permit for sidewalk dining at Berlin by Portfolio Coffee House located at 420 E. Fourth Street. (District 1)

DISCUSSION

Portfolio Coffeehouse, LLC, the owner of Berlin by Portfolio Coffee House restaurant located at 420 E. Fourth Street, requests a permit to temporarily occupy a part of the adjoining sidewalk for the purpose of sidewalk dining. The proposed permit area and a list of furnishings and accessories to be placed in the permit area are shown on Exhibit A. Approval of this permit is based on the conditions and standards of Chapter 14.14 of the Long Beach Municipal Code, which describes temporary uses of public rights-of-way, as well as construction plans reviewed and approved by the Department of Public Works. A minimum clear path of at least seven feet wide is to be maintained for pedestrians along this frontage.

In addition, the applicant has requested a Public Works permit to construct a "parklet" for the purpose of providing additional outdoor dining space. A "parklet" is the temporary use of a curbside parking space for outdoor landscape and seating. This is accomplished by constructing a raised platform in the parking space at the same elevation as the adjoining sidewalk, thereby essentially extending the sidewalk area into the street.

Public Works staff, including the City's Traffic Engineer, have reviewed and tentatively approved the applicant's drawings of their proposed parklet construction, attached as Exhibit B. The proposed temporary platform, constructed under the oversight of the Department of Public Works after the issuance of a street improvement permit, will include a sturdy barrier to provide high visibility to motor vehicles. The permit for this temporary use of the street right-of-way for the parklet is revocable should the loss of the parking space become an issue, or if staff finds that there are other problems associated with the parklet.

This permit request was reviewed and approved by the Long Beach Fire Department on January 6, 2012. This matter was reviewed by Deputy City Attorney Linda Trang on

January 20, 2012, and by Budget Management Officer Victoria Bell on January 24, 2012.

TIMING CONSIDERATIONS

City Council action on this matter is requested on February 21, 2012, to accommodate the applicant's construction schedule.

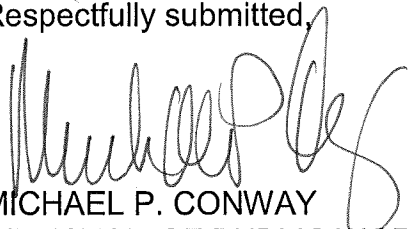
FISCAL IMPACT

A permit processing fee of \$819 was deposited into the General Fund (GP) in the Department of Public Works (PW). There is no local job impact associated with the recommendation.

SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,



MICHAEL P. CONWAY
DIRECTOR OF PUBLIC WORKS

APPROVED:



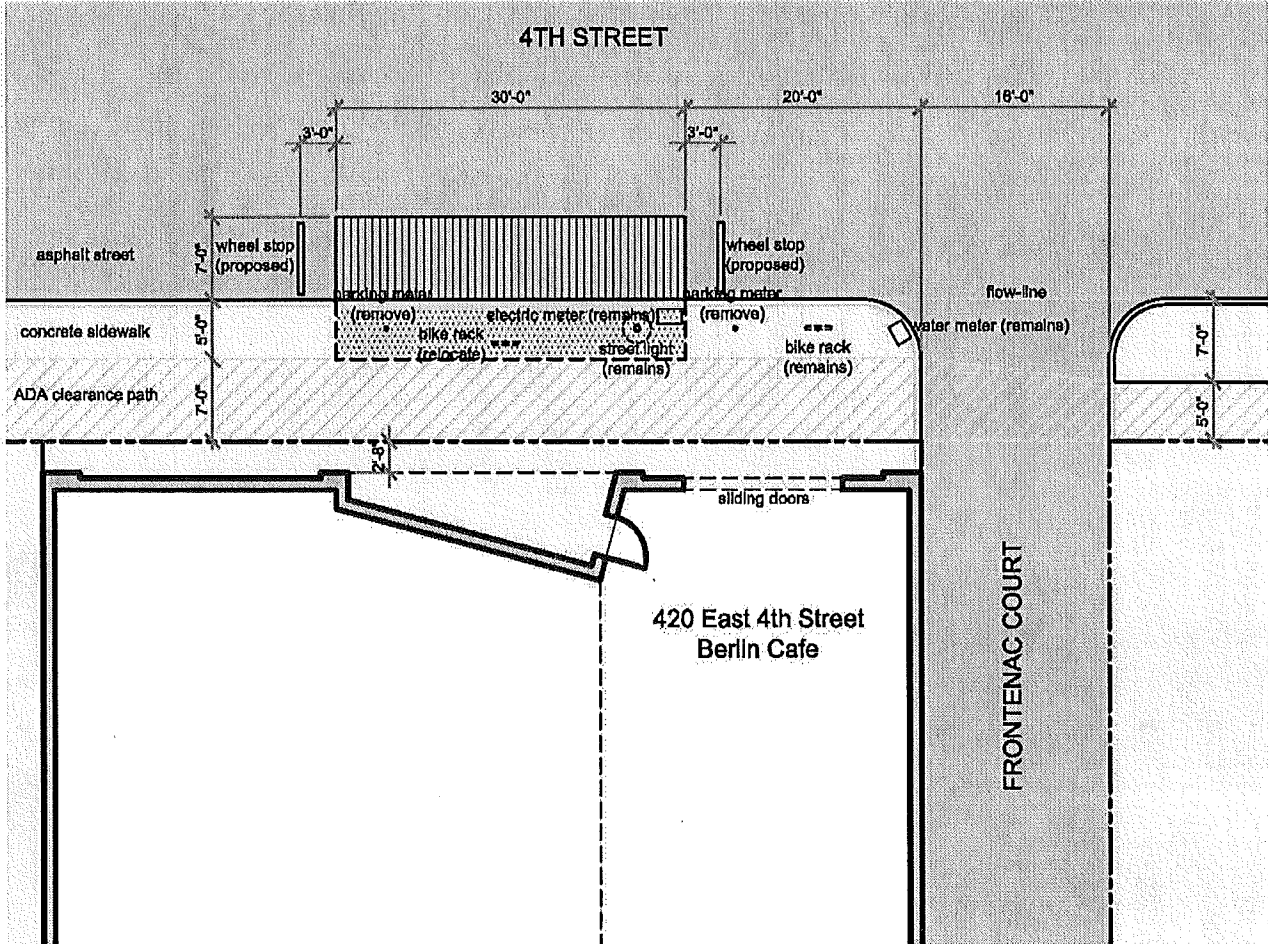
PATRICK H. WEST
CITY MANAGER

MPC:MAC:GMM:BP:db
P\CL\ROW PWOP Berlin Coffee House CL.doc

Attachments:

- Exhibit A -Permit area & list of furnishings
- Exhibit B -Drawings of proposed parklet

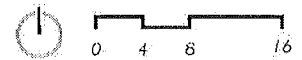
EXHIBIT A



Restaurant Parklet Area 210 SF



Additional Sidewalk Permit Area 150 SF



BERLIN CAFE PARKLET PORTFOLIO LLC

Plot Plan (420 E 4th St.)

List of Approved Furnishings and Accessories
(Attachment to Public Walkways Occupancy Permit for Sidewalk Dining Purposes)

Restaurant: Berlin Cafe Permittee: Portfolio Coffeehouse

Address: 420 E. Fourth St. Telephone: (562) 434-2486

- X Tables
number: 12
- X Chairs
number: 24
- 0 Umbrella(s)
height & number: _____

- 0 Heater(s)
height & number: _____

- 0 Menu board
note: maximum height of 5 ft 6 in, maximum width of 2 ft
& none permitted in the coastal zone
- 0 Waiter station
size: _____
- X Planters for trees or other landscape describe:
9 pots filled with Anigozanthos rufus (Kangaroo Paw) and Sedum rubrotinctum (Pork and Beans) and 2 custom-built wood benches and planters, filled with Buxus sempervirens (Boxwood).
- X Other: A metal rail will be installed to define the extents of the dining area. The railing will consist of a top bar and vertical supports with no infill panels.
- 0 We intend to make occasional use of the permit area for live or recorded entertainment
(Note: A separate entertainment permit is required).

The following are prohibited:

- canopies (ground supported)
- television monitors

Permittee signature: _____

Date: 12/5/11

Print name here: Kerstin Konsteiner

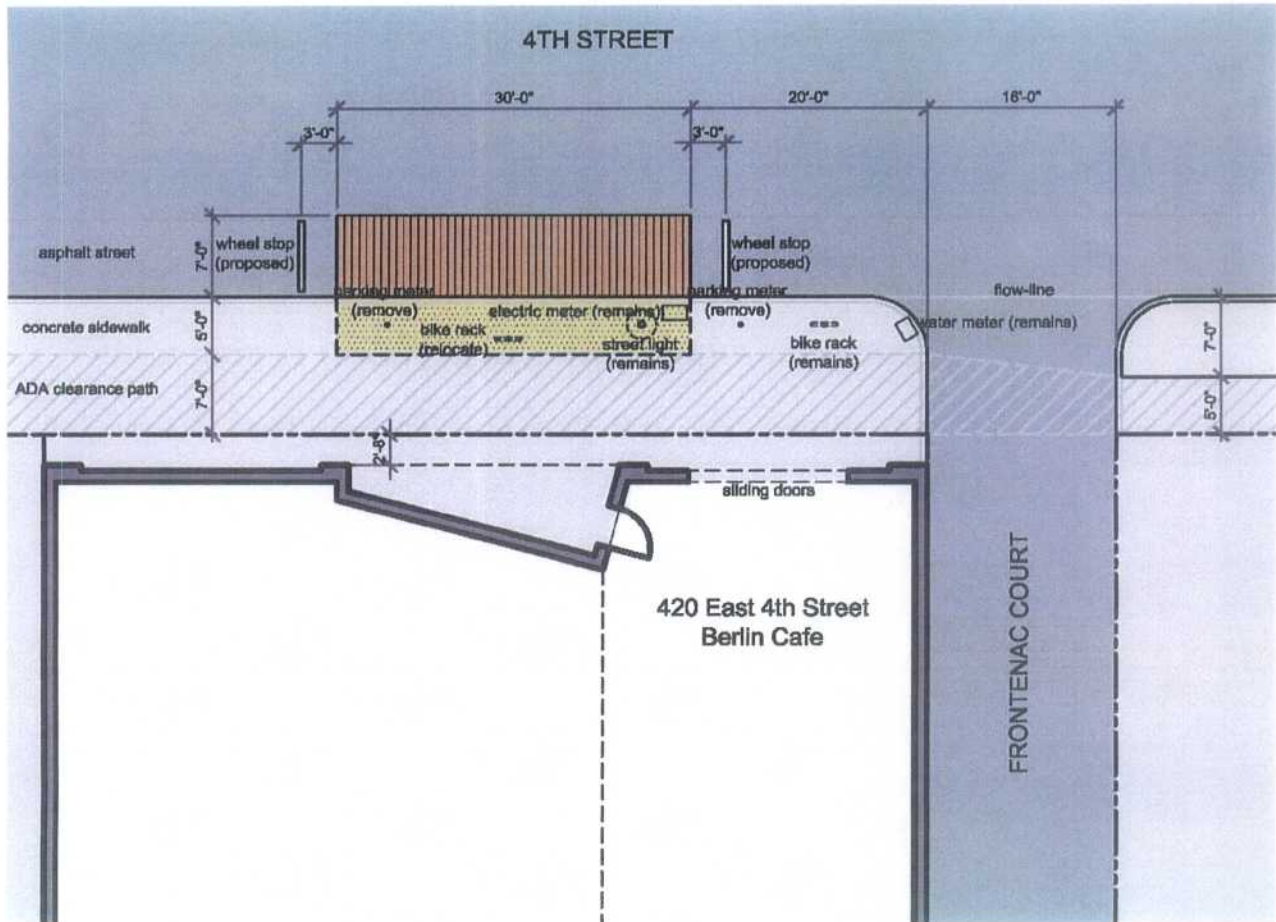
This list of furnishings and accessories is effective only when attached to a completed Public Walkways Occupancy Permit.



EXHIBIT B



EXHIBIT B

EXHIBIT B



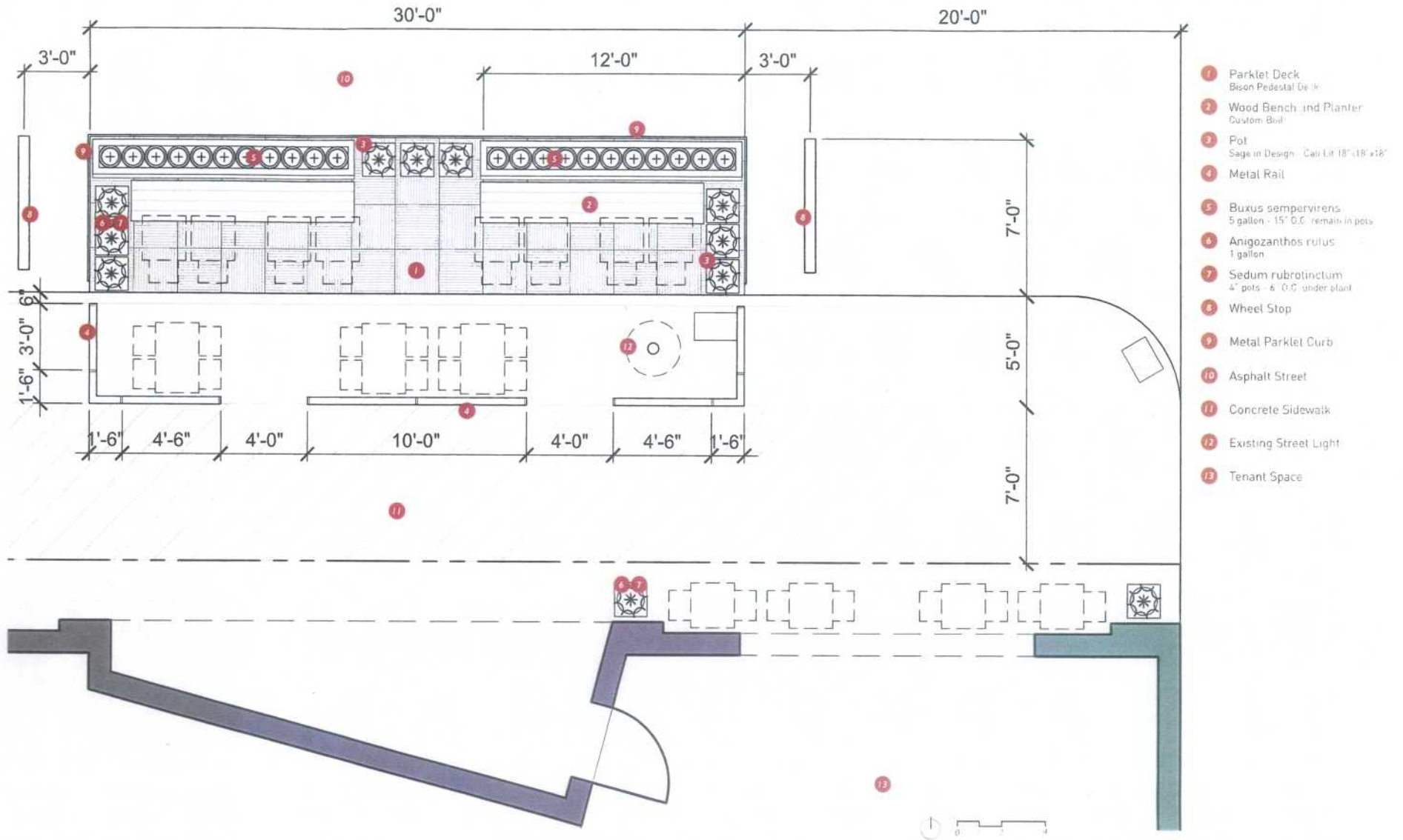
-  Restaurant Parklet Area 210 SF
-  Additional Sidewalk Permit Area 150 SF



BERLIN CAFE PARKLET *PORTFOLIO LLC*

Plot Plan (420 E 4th St.)

EXHIBIT B



- 1 Parklet Deck
Beon Pedestal Deck
- 2 Wood Bench and Planter
Custom Built
- 3 Pot
Sage in Design - Cali Lit 18" (18" x 18")
- 4 Metal Rail
- 5 Buxus sempervirens
5 gallon - 15" O.C. remain in pots
- 6 Anigozanthos rulus
1 gallon
- 7 Sedum rubrotinctum
4" pots - 6" O.C. under plant
- 8 Wheel Stop
- 9 Metal Parklet Curb
- 10 Asphalt Street
- 11 Concrete Sidewalk
- 12 Existing Street Light
- 13 Tenant Space

EXHIBIT B



MATERIAL

1.	Parklet Deck	Bison Innovative Products	Screwjack Adjustable Deck Supports
			2'x2' Ipe Wood Tiles
			Scuff Resistant Finish
2.	Custom Bench and Planter	Clear Sealed Cedar Wood	
3.	Pot	Sage in Design	PP-009
			18" x 18" x 18"
4.	Metal Rail	Custom	3/8" x 3" Steel Plate
5.	Buxus sempervirens	Boxwood	5 gallon, 15" on center, keep in pot
6.	Anigozanthos rufus	Red Kangaroo Paw	1 gallon
7.	Sedum rubrotinctum	Port and Beans	4" pot, 6" on center under plant



EXHIBIT B

PLACE THE FS1 WASHER IN THE KERF CUTS BETWEEN THE BOTTOM RAIL AND THE UPPER SLAT IN THE CORNERS OF THE THREE TILES. LEAVE THE NOTCH IN THE WASHER FACING OUTWARDS IN ORDER TO LEAVE ROOM TO PLACE THE 4th TILE. AFTER ALL TILES ARE TIGHTLY IN PLACE, ROTATE THE WASHER USING A SCREWDRIVER SO THAT THE SOLID PART OF THE WASHER IS IN CONTACT WITH THE CORNERS OF ALL FOUR TILES. INSERT THE FS1 SCREW THROUGH THE HOLE IN THE CENTER OF THE WASHER AND THE PILOT HOLE IN THE CENTER OF THE TAB SET INTO THE TOP OF THE PEDESTAL. HAND TIGHTEN UNTIL THE CORNERS OF ALL FOUR TILES ARE SECURELY FASTENED TO THE PEDESTAL.

LEVEL-IT PRODUCT CHARACTERISTICS:
 -MAXIMUM DESIGN CAPACITY OF 750 LBS PER PEDESTAL
 -SCREW ADJUSTABILITY WHILE PEDESTALS ARE LOADED FOR FINAL ADJUSTMENT.
 -IMPERVIOUS TO FREEZE-THAW, WATER, MOLD AND MOST CHEMICALS.
 -SCORED BASE ALLOWS SUPPORTS TO BE TRIMMED FOR TIGHT AREAS.
 -LARGE FOOTPRINT SPREADS WEIGHT OVER ROOFING MEMBRANE AND SUBSTRATE.
 -MAXIMUM CAVITY HEIGHT 12".

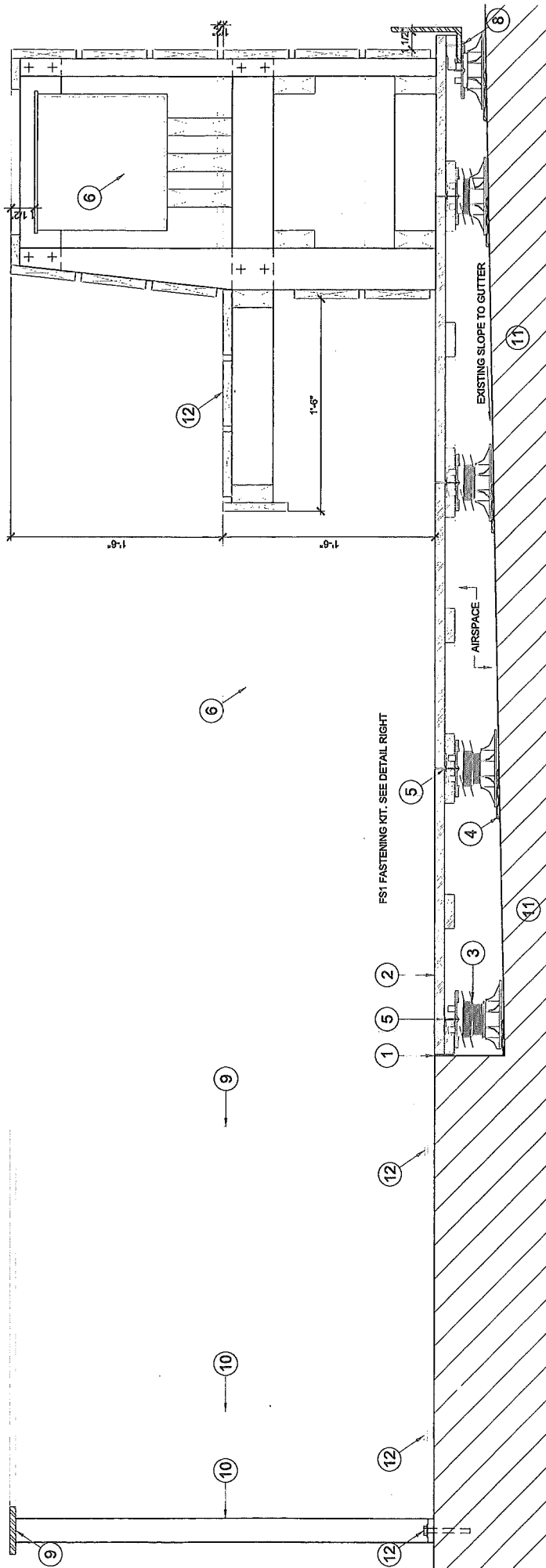
NOTE:
 BISON INNOVATIVE PRODUCTS
 800-333-4234
www.BisonDeckSupports.com
 INSTALL PRODUCTS IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS

- 1 SET TOP OF DECK TILE FLUSH WITH ADJACENT CURB. MAX GAP AT PERIMETER 1 TAB WIDTH. FS1s MAY BE PLACED ON TOP OF PEDESTALS FOR MINOR LEVELING OF PAVERS WITH THICKNESS VARIATIONS. USE NO MORE THAN 2 SHIMS. IF PEDESTAL WITH CONSTRUCTION ADHESIVE.
- 2 BISON IPE TILES: SCUFF RESISTANT MODEL WT-PE-24 (23" X 23" X 1.69") TILES SHALL BE LAID WITH WOOD FACING IN ONE DIRECTION. EVERY OTHER ROW SHALL BE OFFSET BY 1/2 TILE CUT PERIMETER TILE AS NECESSARY IN EVERY OTHER ROW.
- 3 LEVEL-IT ADJUSTABLE DECK SUPPORT. MODEL LC (2" - 4" VERTICAL RANGE)
- 4 PLACE FS1 PLASTIC SHIMS, WHOLE OR IN SECTIONS, UNDER EACH PEDESTAL FOR STAIR STEPS. FLASH TO SUBSTRATE FOR SLOPING SUBSTRATES. USE NO MORE THAN 2 SHIMS AND ADHERE THEM TO EACH OTHER WITH CONSTRUCTION ADHESIVE.

- 5 FS1 FASTENING KIT. SEE DETAIL RIGHT
- 6 TYPICAL PLANTER (SEE PLANS)
- 7 3/8" X 4" STAINLESS STEEL BOLT WITH NUT, WASHER AND RUBBER GASKET @ 15" O.C.
- 8 1/8" X 2" LAG SCREW WITH WASHER THROUGH 3" X 6" X 3/8" PLATE L @ 24" O.C. AND VERTICAL MEMBERS.
- 9 3/8" X 3" STEEL BAR RAILING, HORIZONTAL AND VERTICAL MEMBERS.
- 10 3/8" X 2" STEEL BAR INTERMEDIATE VERTICAL SUPPORT - SEE SIDEWALK PLAN FOR LOCATIONS
- 11 EXISTING ASPHALT STREET - SLOPE TO CURB.

- 12 CUSTOM-BUILT WOOD BENCH AND PLANTER. FINISH CONSISTING OF 2x4x4 KESSURE TREATED WOOD. CLADDING OF THE PLANTER AND SEATING CLAD THE EXTERIOR OF THE PLANTER AND BENCH. 3" WOOD SCREWS SECURE FRAMING AND 2" WOOD SCREWS SECURE CLADDING TO FRAME FROM BEHIND. PROVIDE BLOCKING AS REQUIRED.

FS1 FASTENING KIT DETAIL
 NOT TO SCALE





BISON INNOVATIVE PRODUCTS

1975 W. 13th Ave.
 Phone 303-892-0400
 P.O. Box 40246 Toll Free 800-333-4234
 Denver, CO 80204 Fax 303-825-5988
 www.BisonIP.com info@BisonIP.com

MARCH 2010 SPECIFICATION

SECTION 07760 DECK PEDESTALS

The Bison Screwjack pedestal has a broad footprint that provides stability, is impervious to freeze thaw cycles, and offers a range of heights suited to almost any application. Precise spacer tabs allow for deck drainage, simple accessories adjust for slope, and the screw-to-adjust height setting assures a perfectly straight and level deck.

The Bison Screwjack pedestal series reaches from 0" - 16" in height. Add bracing and couplers to reach up to 24" in height and the Weight Bearing Design Capacity is 1000 lbs/pedestal FS:2. Made in the USA.

NOTE: Bison Screwjack Pedestals are sold exclusively in the US and Canada through Westlie Pavers.

PART 1 GENERAL

1.1 SECTION INCLUDES

Adjustable Deck Pedestals.

1.2 RELATED SECTIONS

- Section 04220 - Concrete Unit Masonry.
- Section 04400 - Stone Assemblies.
- Section 04410 - Dry-Placed Stone.
- Section 06150 - Wood Decking.
- Section 06500 - Structural Plastic Decking.
- Section 06730 - Composite Decking.
- Section 07500 - Membrane Roofing.
- Section 07720 - Roof Walkways.
- Section 07760 - Roof Pavers.
- Section 09690 - Access Flooring.
- Section 02780 - Unit Pavers.

1.3 REFERENCES

- ASTM D 1238-04 - Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer.
- ASTM D 792-00 - Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
- ASTM D 638-03 - Standard Test Method for Tensile Properties of Plastics
- ASTM D 256-06 - Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.
- ASTM D 648-06 - Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position.

1.4 SUBMITTALS

Submit under provisions of Section 01300.

Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

Shop Drawings: Submit shop drawings detailing the installation methods. Coordinate placement with locations noted on the Contract Drawings.

1.5 QUALITY ASSURANCE

Manufacturer Qualifications:

4. All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten (10) years experience.

Installer Qualifications:

5. The deck support system installer must have a minimum of two (2) years proven construction experience, be capable of estimating and building from blueprint plans and details, determine elevations, and properly handle materials. All Work must comply with the Bison installation application procedures for deck support work specified herein.

Special Considerations:

6. The contractor assumes the responsibility for and must take into consideration the structural capability and adequacy of the structure to carry the dead and live load weight(s) involved, and that the density of any insulation is satisfactory to resist crushing and damaging the waterproofing membrane.

Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

7. Finish areas designated by Architect.
8. Do not proceed with remaining work until workmanship is approved by Architect.
9. Refinish mock-up area as required to produce acceptable work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store Bison Deck Supports and system components with labels intact and legible.
- B. Inspect all delivered materials to insure they are undamaged and in good condition.
- C. Store and dispose of solvent-based materials such as construction adhesive, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.6 PROJECT CONDITIONS

- A. There are no pedestal installation temperature restriction guidelines other than the practical considerations of working in any unsafe condition or inclement weather.
- B. Deck supports specified are to be used with pedestrian traffic only.
- C. Pedestrian decks must be restrained by perimeter blocking or walls on all sides. Lateral movement greater than one tab width is unacceptable and will be rejected.
- D. Installation or anticipated installation of additional items on top of the deck, (such as planters, concrete benches, sculptures, hot tubs, grills, or industrial equipment) must be supported directly by additional pedestals that are in addition to the main deck paver/tile pedestal system. Special consideration must be also given when installing equipment that vibrates. Total weights must be calculated and dispersed evenly over the number of pedestals needed to carry the expected weight. To avoid point loading, the use of planters or architectural features with "feet" is not allowed. Failure to adequately support the additional weight of any such features or items may cause significant damage to the deck, underlying structure, or waterproofing system.
- E. All decks shall be designed to not exceed the design capacity of the pedestal.
- F. The substrate immediately below the pedestals shall provide positive drainage.
- G. In the case of decks over roofing substrates, roof systems must meet local building code and be in accordance with the NRCA recommended good construction practices. Only roofing manufacturer approved systems shall be used.
- H. ~~Decks over roofing and waterproofing:~~
 1. ~~If integral roof insulation is installed immediately below the membrane, the type and density of the insulation is of utmost importance. Roofing systems having "commit" insulations with a medium-density of 20 psi must also use Bison Heating Insulation Bases (HIB). HIB's are installed immediately below the Bison Deck Support Pedestals to disperse the deck load.~~
 2. ~~If high density closed cell extruded 60-psi polystyrene insulation is installed on top of the membrane in a precast membrane system, Bison Deck Support Pedestals may be installed directly on top of this type of insulation.~~
 3. ~~Do not use Bison Deck Supports over any insulation less than 20-psi or with low density polystyrene (bead-bead) insulation.~~
 Decks on Grade:
 1. Any substrate soil that is to receive pedestals shall be adequately compacted and have positive drainage slope. A "walkway gravel" base (ie: 1/4" Minus (breeze) should be installed and compacted at pedestal locations.

2. Bison Floating Foundation Bases (FFB) must be used beneath all on grade Bison Deck Support decks. Level the surface and set directly on grade as a base.
3. A wall or perimeter containment on all open sides is required. Install structural perimeter containment that restrains the entire decking system.

1.7 WARRANTY

At project closeout and upon request, Bison Deck Supports can provide to the Owner or Owners Representative, an executed copy of the manufacturer's standard document outlining the terms, conditions and limitations of their limited warranty against manufacturing defect for a period of three (3) years.

The Contractor warrants that his work will remain free from defects of labor and materials used in conjunction with his work in accordance with the General Conditions for this project or a minimum of three (3) years.

It is the responsibility of the Contractor installing the product listed in this section to coordinate warranty requirements with any related sections or adjacent work. Notify the Architect immediately of any potential lapses or limitations in warranty coverage.

For use with pedestrian traffic only – Never use Bison Deck Supports to support decks that have wheeled, motorized or equipment traffic.

Decks should be restrained on all sides and not have lateral movement in excess of one tab width.

PART 2 PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturer: Bison Innovative Products, 1975 W. 13th Ave, P.O. Box 40246, Denver, CO 80204. Toll Free 888-412-4766. Phone 303-628-7950. Fax 303-825-5988. Email: Sales@BisonIP.com. Web: www.BisonIP.com.

Substitutions: Not permitted.

Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 APPLICATIONS/SCOPE

Furnish and install a complete adjustable deck support system with a maximum cavity height of up to:

1. Screwjack Pedestals maximum cavity height 16 inches (305 mm) without additional bracing.
- Deck supports are not designed for supporting decks that carry vehicular traffic or equipment including but not limited to snow removal equipment, ATVs, forklifts, or any motorized vehicles.

Consult the Manufacturer and the Project Engineer regarding the following:

2. When spacer tab condition or design requires spacing between decking tiles or concrete pavers other than the standard spacing required by the manufacturer.
3. When considering use for other than a raised decks (e.g. interior floors, stairs, etc.).
4. When the required pedestal height exceeds the safe limits as determined by the Manufacturer.
5. When pedestal load capacity exceeds the maximum listed.
6. When anticipating installation of any items with excess weight on top of the deck.
7. When using Bison Deck Supports pedestals on grade (soil).
8. When greater pedestal load capacity is required.

2.3

SCREW/JACK DECK PEDESTALS

- A. Typical Height Range 0-16 inches
- B. Weight Bearing Design Capacity 1000 lbs/pedestal FS:2
- C. Integral 4.5 mm (3/16 inch) spacer tabs.
- D. Made in the USA

Pedestals:

1. Model B1: 1 1/4 inches to 2 inches (32mm - 51mm).
2. Model B2: 2 inches to 3 inches (51mm - 76mm).
3. Model B3: 3 inches to 4 3/4 inches (76mm - 121mm).
4. Model B4: 4 3/4 inches to 7 3/4 inches (121mm - 197mm).
5. Model B3 + C4: 7 3/4 inches to 9 inches (197mm - 229mm).
6. Model B4 + C4: 9 inches to 12 inches (229mm - 305mm).
7. Model B4 + C4 + C4: 12 inches to 16 inches (305mm - 406mm).
8. Rotating Base: Size: 7 7/8 inch (200mm) diameter x 3/16 inch (4.75mm) top wall thickness.
9. Bearing Surface Area: 48 square inches (310 sq. cm.).
10. Four (4) - 1/4 inch (6mm) diameter holes for drainage and / or mechanical attachment.
11. Material: Mineral Filled High Density Copolymer Polypropylene. Contains 20% Post industrial recycled material
12. Top Unit: 5/32 inch (4mm) thick plate
13. Bearing Surface Area: 29 square inches (187 sq. cm.) nominal
14. Material: Mineral Filled High Density Copolymer Polypropylene. Contains 20% Post industrial recycled material
15. C4 Coupler: Adds up to 4 inches (102 mm) of height.
16. Material: Mineral Filled High Density Copolymer Polypropylene. Contains 20% Post industrial recycled material

Low Height Pedestal Supports:

17. Model: VT316 1/8 inch (3.175mm) tall
18. Integral Spacer Tabs: Specify 3/16 inch
19. Material: Mineral Filled High Density Copolymer Polypropylene. Contains 20% Post industrial recycled material.
20. Bearing Surface Area: 17.75" sq inches nominal
21. Model: HD25 Stackable (4 Max) 1/4 inch (6.4mm) tall, with integral Spacer Tabs
22. Model: HD50 Stackable (4 Max) 1/2 inch (13mm) tall, with integral Spacer Tabs
23. Model: HD75 Stackable (4 Max) 3/4 inch (19mm) tall, with integral Spacer Tabs
24. Integral Spacer Tabs: 3/16 inch.
25. Material: Mineral Filled High Density Copolymer Polypropylene. Contains 20% Post industrial recycled material.
26. Bearing Surface Area: 29" sq inches (187 sq. cm.) nominal

Base Leveler Disks:

27. Model: LD4 - Placed beneath pedestals to compensate for slopes up to 1 inch per foot.
28. Slope: 1/4 inch per foot. Stack up to four LD4's under one pedestal for up to 1 inch of slope compensation.
29. Dimensions: Center point thickness 3/8 inch (9.5mm).
30. Material: Mineral Filled High Density Copolymer Polypropylene. Contains 20% Post industrial recycled material.

Shims:

31. Model: B11 Flexible Shim 1/16 inch
32. Material: (1.5mm) Sanaprene.
33. Model: P51 Rigid Poly Shims 1/8 inch (3.175mm)
34. Material: Mineral Filled High Density Copolymer Polypropylene. Contains 20% Post industrial recycled material.

Base Pads:

- 35. Model FFB: Pedestal base pad for on grade use, provides a large 12 inch by 12 inch x 1/4 inch (305mm x 305mm x 6 mm) base bearing surface for on grade installations.
- 36. Model FIB: Pedestal base pad for use on roofing and waterproofing installations over low density insulation, provides a large 12 inch by 12 inch x 11/16 inches (305mm x 305mm x 17.5mm) base bearing surface.
- 37. Material: Mineral Filled High Density Copolymer Polypropylene. FIB also contains galvanized metal pad. Contains 20% Post industrial recycled material.

PART 3 EXECUTION

3.1 EXAMINATION

Do not begin installation until substrates have been properly prepared.

If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

Verify all elevations, required pedestal heights and deck dimensions before commencing work.

3.2 PREPARATION

Establish accurate lines, levels and visual pattern.

The substrate surface that will receive the deck supports must be well compacted (on grade) and structurally capable of carrying the dead and live loads anticipated.

The substrate must be clean and free of projections and debris that could impair the performance of the pedestals or the total deck system.

Decks over roofing and waterproofing: verify that installation conforms to section 1.7(H) of this specification.

Decks on Grade: verify that installation conforms to section 1.7(I) of this specification.

Installation requirements vary for each individual project site. Deck materials used, pattern, grid layout, starting point, and finished elevation should be shown on plan view shop drawings which have been prepared and approved by the designer, installing contractor and/or owner.

Once a starting point and the finished elevation of the deck surface have been determined, the support system elevation (finished elevation minus deck material thickness) is established and marked around the perimeter using a transit, "torpedo" water level or laser leveling device.

Precise measurements should be taken and deck area should be accurately defined. Mark off and square all outside edges with control lines (chalk lines or spray paint). Install two (2) lines that are perpendicular to each other across the deck area. Continue to mark a grid of lines in both directions marking the location of each pedestal. To assure a square layout, use the control lines as references to periodically check the layout during installation.

INSTALLATION

Install in accordance with Bison and other contributing manufacturer's instructions.

If required, place a Floating Insulation Base (FIB) board or Floating Foundation Base (FFB) in the location on the grid of each pedestal.

Next, a deck support must be placed where each measured grid line meets the perimeter. Remove two (2) spacer tabs in line with one another on top of each deck support placed around the perimeter. Remove all four (4) spacer tabs at corners.

Adjust each deck support to a "top of pedestal" elevation marked around the perimeter. Normally the deck support is positioned as close to the perimeter as possible, with the two remaining spacer tabs aligned with the

grid line. Using the "top of pedestal" elevation marked on the perimeter, stretch a mason's line along and slightly ahead of the second row of deck supports. A laser leveling device may also be used for this purpose.

On larger decks, it is recommended that pedestals be pre-sorted and pre-set to the proper elevation and placed in position prior to the installation of pavers or tiles.

As the deck supports located along the grid lines are loaded with pavers or tiles, fine vertical adjustment can be made by rotating the base or bottom of the deck support. Clockwise rotation of the pedestal base will raise the bearing surface and the deck. Counter-clockwise rotation will lower the top bearing surface.

Always maintain adequate thread engagement... Bison Screwjack parts contain engagement "bumps" that indicate when the pedestal has reached it's maximum extension. Never use a Screwjack pedestal that is extended beyond those "engagement bumps". To add a coupler, simply turn the pedestal past the indicator "bumps" and disengage the parts, add the needed couplers and re-engage the engagement "bumps".

Slight irregularities in decking panel thickness can be compensated for by using one to two shim segments. Place on top of the pedestal, under the corner(s) of the decking tile or paver. Use no more than two (2) shims on top of the pedestal and always adhere quartered (1/4) wedges with construction adhesive.

Stackable Fixed Height Pedestals: Complete deck and grid layout as instructed above. Stack no more than four (4) fixed height pedestals together and place in lieu of adjustable pedestals where needed. Spacer tabs can be removed to accommodate perimeter and corner support locations.

Slope Compensation:

1. Preferred Method: A base leveler disk should be used to level the pedestal base. Place one to four disks under the pedestal base to compensate for up to 1 inch per foot of slope. Compensate for slope by placing the disks' thickest edge (located on the edge by a small finger tab) at the down slope side of the deck support, one disk compensates for 1/4 inch per foot of slope. Using two to four disks, rotate one in relation to the other to create a level deck support.
2. Shims may be used in multiples, whole or segmented, and placed under the base to level the deck support.
3. Under a pedestal: All shims under a pedestal must be adhered with construction adhesive to each other - never to the membrane. Shim no more than 1/8 inch (3mm) beneath each pedestal.
4. On top of a pedestal: Use no more than 2 shims.

If a specifier requires and desires to install a cavity deck system over the height of 16 inches (406.4mm) maximum of 24 inches (609.6mm) in height, special approval is required prior to commencing the installation. The installing contractor must furnish Bison Deck Supports the proposed design for the extreme height bracing, stamped by a professional, licensed engineer. Special written approval will then be furnished by Bison Deck Supports to the installing contractor with a copy to the specifier, prior to commencing any pedestal and decking work.

3.3

DECK SUPPORT PLACEMENT AND FINAL ADJUSTMENT

Deck supports and the deck surface panels must be placed as the manufacturer directs in these written instructions. Use of labor saving devices, such as paver lifters, is encouraged, especially on large jobs.

Pedestals are designed to be rotated for final slight adjustment when pedestals are fully loaded. Deck supports should be leveled in each succeeding row as the installation proceeds. Final height adjustment or maintenance is easily made by simply rotating the Screwjack support in a clockwise or counter-clockwise direction to raise or lower the deck surface material.

Additional sections of shims may be used and should be available for regular maintenance. Shims may be used in multiples, whole or segmented, and placed under the base or on top of the pedestal to level the deck support. On top of pedestal: Use construction adhesive to adhere sections of shims. Construction adhesive is not required when using whole shims on top of a pedestal.

Beneath a pedestal: Use a small amount of construction adhesive to adhere sections of shims and/or whole shims to each other or to the pedestal. Unless specified to do so, DO NOT use construction adhesive to adhere pedestal or shims to insulation, roofing or waterproofing membrane.

EXHIBIT B

3.4 PERIMETER CONTAINMENT

Any area of a deck that is not restrained by a parapet or foundation wall must be 'boxed-in' and contained. The deck panels will move if all sides are not adequately restrained. Perimeter framing and edging boards located at the outside of the deck perimeter must be installed to provide restraint. No movement should be allowed at the perimeter of the deck system greater than one tab width.

3.5 FIELD QUALITY CONTROL

Inspect often during installation to assure that grid spacer lines are being maintained in a straight and consistent pattern and that deck panels or pavers are level and not rocking.

Confirm that deck pedestal height does not exceed the specified height of 16 inches (406.4mm).

Unless otherwise specified in writing to allow for expansion, inspect to assure that all paver spacing between tiles and at perimeter containment does not exceed a tab width. Particular attention should be made to assure that all pedestrian entry or access points to the deck are level and that the deck surface tiles are not randomly raised or uneven creating a tripping or safety hazard.

3.6 PROTECTION

Protect installed products until completion of project.
Touch-up, repair or replace damaged products before Substantial Completion.

3.7 IMMEDIATELY FOLLOWING INSTALLATION

The Owner, or the Owner's Agent, shall carefully inspect the deck system to be positive that:

1. The new deck system is adequately blocked on all sides to contain the surface decking and related components.
2. There is no more than one tab width spacing between any deck panels and at all sides of the deck perimeter.
3. There is no ballasting rock used to fill in any perimeter voids.
4. There is no 'rocking' of deck panels as foot traffic is applied to the surface decking.
5. All required spacer tabs are in place and visible.

3.8 ROUTINE MAINTENANCE AND CARE

Installer and/or Architect has a duty to instruct the deck owner about performing routine maintenance of the deck. Check for rocking pavers and adjust or shim immediately. Pedestals can settle and may have to be realigned. Failure to do so can cause a tripping hazard. Periodically check spacer tabs and immediately replace broken tabs to limit deck movement. Make sure the edge restraint stays intact and structurally sound.
END OF SECTION













Screwjack Pedestals	Model No.	Description	Range of Adjustment	Accessories	Model No.	Description	Dimensions
	B1	Adjustable Pedestal	1 1/4" - 2"		B11	Flexible Shim	1/16" h
	B2	Adjustable Pedestal	2" - 3"		PS1	Rigid Shim	1/8" h
	B3	Adjustable Pedestal	3" - 4 3/4"		LD4	Base leveler	1 1/4" per foot slope Adds 3/16" in height
	B4	Adjustable Pedestal	4 3/4" - 7 3/4"		FIB	Foundation Base for use over 20 psi Insulation	17" x 17" X 1/16" h
	C4	Coupler	Coupler adds 0-4"		FFB	Foundation Base for use on soil	17" x 17" X 1/4" h
					VT316	Ultra Low Height w/ 3/16" tab	1/8" inch h (3-175 mm)
					HD25 HD50 HD75	Saddle Fixed Height Horizontal w/ 3/16" tab	1/4" 1/2" 3/4"

EXHIBIT B