CATALOG
AquaTray® – Leak Barrier Ceiling

CONTENTS

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Thank you for your interest in our product.

AquaTray LLC is the market developer and industry leader in a new class of commercial ceiling system – the **Leak Barrier Ceiling.** Now there is a way to provide a pre-engineered solution to the common problem of overhead leak threats. When the AquaTray® system is installed and inspected, through the permitting process, by local building code officials, the AquaTray® system will meet typical interior building codes and standards (Class 1A Fire Rating for an interior finish material). The system provides protection from a sizable leak that is ready 24/7/365. The AquaTray® system provides true **protection and not just detection** in the event of an overhead leak.

If you have technical questions on how to apply the product please do not hesitate to contact us.

Sincerely,
Stephen M. Mueller
AquaTray® - Leak Barrier Ceilings
www.aquatray.com

SYSTEM APPLICATION

AquaTray® System

Original leak source:

- If the system is being installed to guard against the re-occurrence of a previous leak the original leak source should be identified and corrected.

Layout of trays with protected zone or equipment:

- Layout the trays in coordination with the zone or equipment that is to be protected. "Drainage" trays are to be used for full 2x4 panels. "Raised Flat Panels" are to be used if there are ceiling elements (sprinklers, etc.) or if smaller cut tiles are needed. If the zone of protection does not line up with the equipment needing protection then modifications to the grid layout and/or the layout of protected equipment will need to be considered. Also any ceiling elements (Sprinkler heads, air grilles, etc) within the footprint of coverage should be relocated out of the protected zone.

Weight bearing capacity:

- Each 2'x4' "Drainage" tray weighs 7 pounds and contains 12 quarts of water when at full flow conditions (32 lbs total). This is less than the weight of a heavy lighting fixture and at the low end of weight capacity for a typical ASTM - C635 Intermediate commercial grid. The supports for the t-grid should be checked. The support configuration should be according to grid manufacturer's recommendations to support the total resulting weight in accordance with ASTM – C636 for Intermediate or Heavy duty commercial grid. Because a catastrophic leak could result in over-flow conditions with resulting added weight additional hanger wire is recommended to support each leak tray independently through support brackets at the (4) corners of each panels. This is recommended to fix the tray to the grid and provide a solid support. The "Raised Flat Panels", where installed, limit the amount of water and therefore do not require separate wire hanger supports. For heavy duty grid with a weight capacity in excess of 12.5 lbs/square foot added supports are not needed however hold down/ retaining brackets are recommended.

AquaTray® – 2x4 Ceiling Drainage System

Bulkhead fittings

- Determine the location for the bulkhead fittings which drain each tray. Use a drill/arbor and 1-1/16" diameter hole saw to cut the openings then fasten the bulkhead fittings through the drainage holes. Tighten with the gasket on the outside surface of the tray.

Tray –to-Tray tubing and drainage pipe.

- Install the clear plastic tray-to-tray tubing over the outside of the bulkhead fittings and secure leak tight with tube clamps. At the end of a series of trays install standard 3/4" threaded PVC pipe or pipe fittings to the inside threads of the bulkhead fitting. Extend the piping to a suitable drainage location. The pipe size of this extension should be determined based on the area of protection and the length of run to the drain location.

Drainage pipe flow capacity:

- A collection of (6) trays installed in a flat ceiling were flow tested to result in a maximum

flow capacity of 15 gallons per minute before overflowing. Flow occurs even in a level ceiling because the drainage channels that project down from the ceiling by 3-1/2" generate an elevation head when containing a leak. In order to achieve the maximum flow the final drain pipe layout and size should be designed and installed to accommodate this flow. Typically a 2" pipe pitched at 1/4" per foot or a 2-1/2" pipe pitched at 1/8" per foot is suitable for the main drain.

Tray –to-tray leak tightness:

- Each location where the leak trays adjoin each other must be provided with flashing tape - up and over the t-grid. Install the provided "t-grid boot" and additional flashing tape at grid intersection locations. Hanger wires are installed by poking them through the flashed tray support brackets and adjacent t-grid. Provide addition pieces of flashing tape to seal the poke-throughs at hanger wire locations.

Leak detection system:

- It is strongly recommended that a leak detection system be installed, tested, maintained and monitored. The AquaTray® system is intended as a back-up and safeguard only. If a leak occurs a suitable detection system will make the leak immediately known to facility management. Immediate action should then be taken to address the problem. The AquaTray® system will accommodate the installation of standard leak detection wire within the trays or point detectors at the final drainage points. In addition the clear tubing from tray-to-tray will provide a visual indication of any leak occurrence.

Future leak action:

- If an overhead leak occurs the source should be identified and corrected. The AquaTray® system should be thoroughly dried-out, cleaned and inspected then returned to original condition. This may require that part of the ceiling, including a portion of the AquaTray® trays or panels will need to be temporally removed then re-installed.

Maintenance:

- The system requires minimal maintenance for proper stand-by operation. However, all components above and below the ceiling should be inspected periodically. This includes; trays, panels, wire hangers, flashing tape, fittings, hoses and clamps (listed by way of example not by way of exception). In addition wire hangers, hose clamps and bulkhead fitting nuts should be physically checked for tightness at the time of inspection. Also, the top surface of the trays or panels should be regularly inspected for ceiling debris and cleaned as needed.

Contact:

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U.S. Patent No's 6,640,502 and 7,017,313
Canadian Patent No. 2,476,898

PRODUCT DATA SHEET

AquaTray® System

Description:

- Waterproof ceiling drainage trays with interconnecting tubing that captures and safely drains away overhead fluid leaks.
- Engineered, designed and tested for proven, reliable product performance.
- Ideal as a permanent installation for critical facilities that cannot tolerate the damage or down time associated with a sudden ceiling leak.
- At the ready for 24/7/365 unattended leak protection. **"PROTECTION not just DETECTION"**

Features:

- Made from fire resistant class 1A materials suitable for permanent ceiling installations.
- Arrange in any configuration of trays in a ceiling grid for large area coverage or small selective coverage.
- 3" Deep channels around the perimeter of each interconnected ceiling tray provides a maximum of flowing capacity at a minimum of developed weight.
- Pre-engineered system easily installs in a new or existing standard 15/16" intermediate duty T-grid ceiling. Additional wire hanger support ties recommended as per grid manufacturer guidelines.
- System is supplied complete with all accessories up to but not including the final drain riser piping (exclusive of miscellaneous materials, hanger wire, sealant, etc.).
- Bulkhead fittings and interconnecting tubing at tray channels are field installable to any panel configuration.
- Compatible with standard leak detection sensor wire or point detectors.

AquaTray® - 2x4 Leak Barrier Ceiling

Components:

Trays (flat white - matte finish):

- 2'x4' ceiling drainage trays
- 2'x4' raised flat panels
- 2'x4' standard flat panels

Accessories:

- Bulkhead fittings (with nut and gasket)
- Interconnecting clear drain tubing
- Tubing clamps
- Flashing tape

Additional Materials needed:

- Steel hanger wire
- Pop rivets
- Wall angle (for support brackets)
- Spray Glue

Installation Tools needed:

- Hole saw and power drill (for bulkhead holes)
- Adjustable pliers
- Pop rivet gun

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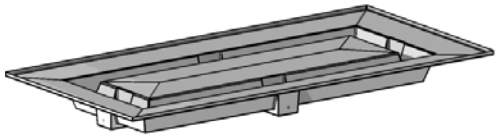
U. S. Patent No's. 6,640,502 and 7,017,313 Canadian Patent No. 2,476,898

AquaTray® - Product Listing and MSRP:

Item/Part No.	Description	List Price (MSRP)
AT-201-242	AquaTray® 2 x 4 Drainage Tray - White (Boltaron 4343/4353)	$ 179.95
AT-002-000	Bulkhead Fitting - Normal Drain	$ 4.00
AT-003-000	Clear PVC Connection Tube - Original	$ 3.50
AT-103-001	Clear PVC Connection Tube – Long (Heavy Duty Ceiling)	$ 3.75
AT-004-000	Tube Clamps, White	$ 3.00
AT-005-475	Flashing Tape (4in Wide x 75ft Roll) - 3M #8067	$ 35.95
AT-005-675	Flashing Tape (6in Wide x 75ft Roll) - 3M #8067	$ 53.95
AT-106-001	AquaTray® T-Grid Boot – White (Boltaron 4343/4353)	$ 20.00
AT-207-240	AquaTray® 2 x 4 Flat Panel – White (Boltaron 4343/4353)	$ 75.00
AT-107-241	AquaTray® 2 x 4, 1in Raised Flat Panel Kit - White (2 Full Panels)	$ 260.95
AT-108-001	AquaTray® Instruction Pack – Standard & Heavy Duty Grid (w/ Hole Saw)	$ -
AT-009-000	Raised Panel Spray Glue - 3M #78 DISCONTINUED	

AT-201-242



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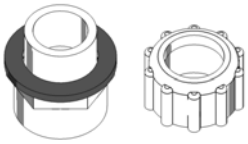

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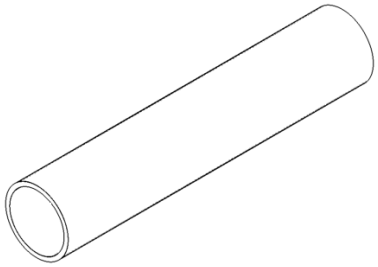
AT-103-001

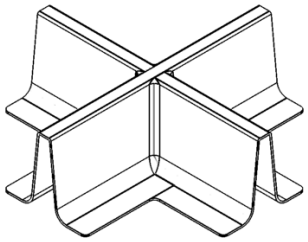


AT-004-000

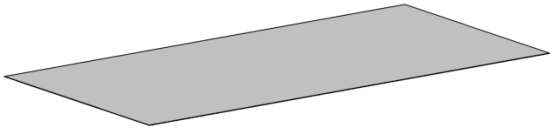
AT-005-475

AT-005-675

AT-106-001
(FOR STANDARD GRID ONLY)



AT-207-240



AT-107-241

AT-108-001

AT-009-000 DISCONTINUED

AquaTray LLC
Williamstown, NJ
www.aquatray.com

BOLTARON
A SIMONA Group Company

RIGIWALL® 4353

Durable Class 1-A sheet for interior wallcovering

Rated Class 1-A to 0.125 in. (3.2 mm). Resists chemicals, cleaners.
Widest range of colors, textures.

RIGIWALL® 4353 combines exceptional durability, the widest range of color and texture options and long service life in a wallcovering material for schools, hospitals, office buildings, hotels and other high traffic environments.

Available in thicknesses from 0.060 to 0.125 in. (1.5 to 3.2 mm), this proprietary thermoplastic alloy meets Class 1-A flammability requirements, and carries a UL 723 listing. Its high impact strength also resists damage from shopping and luggage carts, wheeled equipment, gurneys and wheelchairs.

RIGIWALL 4353 also helps maintain clean, attractive aesthetics even in damage prone areas. Its integral colors mask marring and scratches that visibly damage painted, laminated and printed materials. It also withstands sanitizing chemicals and strong cleaners needed for removing graffiti and scuff marks.

The material can be adhered directly to interior walls or pre-laminated to substrates like MDF to create rigid composite panels. It can also be thermoformed, post-formed and machined to make guards and other wall system components in matching and complementary colors.

Advantages

- Meets Class 1-A to 0.125 in. (3.2 mm)
- Durable, high impact resistance
- Abrasion, stain and chemical resistant
- Easy to clean, maintain
- Uniform surface appearance
- Widest range of colors

Applications

- Protective wallcovering
- Pre-laminated panels, partitions
- Crash rails, corner guards
- Profile moldings and trim
- Kick plates, base moldings
  - Health care facilities
  - Long term care facilities
  - Government, commercial buildings
  - Hotels, elevators
  - Schools, gyms, spas
  - Retail stores, supermarkets
  - Detention facilities
  - Airports

Configurations

- Sheet sizes
  - Lengths to 120 in. (3,048 mm)
  - Widths to 60 in. (1,524 mm)
  - Gauges from 0.060 to 0.125 in. (1.5 to 3.2 mm)
  - Custom sizes and rolls on request
- Colors, textures
  - Full range of colors
  - Industry's widest range of textures
  - 500 lb standard minimum

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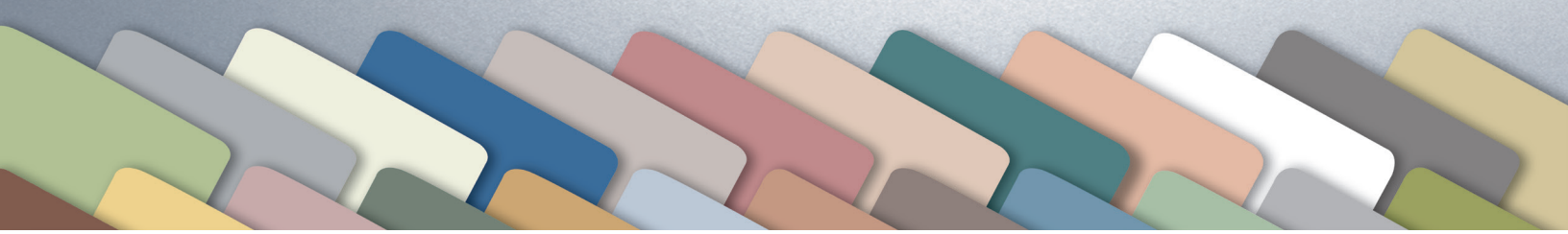


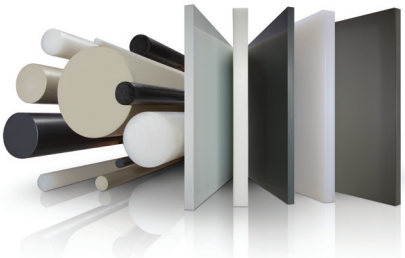
PROPERTIES, RATINGS

PROPERTY	TEST METHOD	RIGIWALL® 4353	
Specific Gravity	ASTM D792	1.44	
Tensile Strength	ASTM D638	5,600 psi	38.6 MPa
Flexural Strength	ASTM D790	8,400 psi	58 MPa
Flexural Modulus	ASTM D790	390,000 psi	2,691 MPa
Izod Impact (notched) @ 73°F (23°C)	ASTM D256	8.7 ft-lb/in.	464.6 J/m
Gardner Impact @ 73°F (23°C) Sheet thickness 0.040" (1.106 mm)	ASTM D5420-04	130 in-lb	14.7 J
Hardness Rockwell R	ASTM D785	103	
Thermal			
Heat Deflection - annealed @ 264 psi (1.82 MPa)	ASTM D648	166°F	74.5°C
Flammability @ max. thickness **(UL File # R10633)**	**ASTM E84**	***Flame Spread***	***Smoke Developed***
@ 0.125 in. max.	ASTM E84	15	450
Class 1-A requirements	ASTM E84	<25	<450

RELATED PRODUCTS

RIGIWALL® Class 1-A Wallcovering Sheet Products

RIGIWALL® Grade	Description	Class 1-A max. thickness
4323	Interior, impact resistant	0.060 in. (1.5 mm)
4333	Interior, impact resistant	0.040 in. (1.02 mm)
4333W	UV and impact resistant	0.040 in. (1.02 mm)
4353	Interior, impact resistant	0.125 in. (3.0 mm)
4363	Interior, PVC-free	0.060 in. (1.5 mm)
3D Membrane Pressing and Laminating Grade		
Boltaron 4065MP	Interior, impact resistant	Flammability: UL 94 V-0



SIMONA offers the widest product range of PVC sheet and rod – FM 4910 rated sheet – chemical resistant materials from PVC, PP and PE to fluoropolymers – orthotics and prosthetics sheet – Boltaron® aircraft and specialty sheet – plus proven products for boat building, outdoor furniture and many other industries.

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3M
Window and Door Flashing Tape 8067

Technical Data March 2017

Product Description

3M™ Window and Door Flashing Tape 8067 is a self-adhered, waterproof flashing membrane designed for sealing around openings and penetrations in exterior walls. This product has a unique acrylic pressure sensitive adhesive that aggressively sticks and stays stuck both at lower and higher application temperatures than traditional flashing tapes. It even adheres to damp surfaces. The proprietary backing seals around hand driven nails and staples to prevent moisture intrusion. This backing is also tough, resists punctures and tears, yet it is thin to fit conveniently into corners and under siding. The split paper release liner provides fast application with easy and accurate positioning of the tape.

Product Construction

Backing	Adhesive	Liner	Color	Standard Roll Length
Proprietary film	Acrylic	Heavy paper, split	Tan	75 feet (22.8m)

Typical Physical Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

		Test Method
Adhesion to Polyethylene:	60 oz./in. width (66 N/100 mm)	ASTM D-3330 per AAMA 711-05
Adhesion to OSB:	60 oz./in. width (66 N/100 mm)	ASTM D-3330 per AAMA 711-05
Adhesion to Housewrap*:	50 oz./in. width (55 N/100 mm)	ASTM D-3330 per AAMA 711-05
Adhesion to Anodized Aluminum:		ASTM D-3330
After 7 days at 176°F:	70 oz./in. width (77 N/100 mm)	Conditioning per AAMA 711-05
After 7 days in water:	65 oz./in. width (71 N/100 mm)	Conditioning per AAMA 711-05
After Thermal Cycling:	75 oz./in. width (82 N/100 mm)	Conditioning per AAMA 711-05
After UV Exposure:	60 oz./in. width (66 N/100 mm)	Conditioning per AAMA 711-05
Nail Sealability:		ASTM E331/547 as modified per AAMA 711-05 Annex 1
Initial:	Pass	
After Thermal Cycling:	Pass	
Water Vapor Transmission:	0.19 perms	ASTM E96/E96M (water method)
Surface Burning Characteristics:		ASTM E84-08A
Flame Spread Index:	5	
Smoked Developed Value:	25	
Tape Thickness:	9.9 mils (0.25 mm)	ASTM D-3652
Service Temp. Range:	-40° to 240°F (-40C to 116°C)	Tested per AAMA 711-05
Application Temp. Range:	0° to 150°F (-18°C to 66°C)	

*Spun bonded polyethylene.

3M™ Window and Door Flashing Tape
8067

Features

- Very low vapor transmission rate.
- Approved by the International Code Council (ICC) for Division: 07 - Thermal and Moisture Protection, Section: 07650 - Flexible Flashing. See ICC-ES Evaluation Report ESR-2797.
- Meets AAMA 711-05 Voluntary Specification for Self Adhering Flashing Use for Installation of Exterior Wall Fenestration Products:

Adhesion Type Rating	Type A (no need for primer at tested conditions)
Thermal Exposure	Class 3 - Highest level (176°F/80°C at 7 days)

- Nail Sealability: Passes ASTM E331/547 (per AAMA 711-05, Annex 1) both before and after thermal cycling.
- Meets the criteria to contribute to the Environmental Quality ("EQ") Credit 4.1: Low-Emitting Materials: Adhesives & Sealants under the United States Green Building Council's Rating System for New Construction & Major Renovations (LEED-NC), Version 2.2, Core and Shell (LEED-CS), Version 2.0, and Commercial Interiors (LEED-CI), Version 2.0.
- High tack adhesive sticks and stays stuck to most common building materials.
- Unique adhesive even adheres to damp surfaces.
- Adhesive provides an unusual combination of both cold temperature and hot temperature adhesion to most substrates, which can extend the construction season in many climates.
- No adhesive melting or staining in summer heat.
- Proprietary backing seals around nails and staples to prevent moisture intrusion.
- Unique backing is thin to conveniently fit into corners and under siding.
- Tough backing resists punctures and tears during application.
- Resists UV exposure for up to 12 months.
- Can be installed at temperatures as low as 0°F (-18°C) and as warm as 150°F (66°C).
- Compatible with many building sealants: No adverse reaction with synthetic rubber, butyl, polyurethane, silicone and silane terminated hybrid sealants.
- Split release liner provides fast application with easy and accurate positioning of the tape.
- 12 inch measurement markings for ease in cutting to the desired length.
- Available in three widths: 4" (101.6 mm), 6" (152.4 mm), 9" (228.6 mm) by 75 feet (22.8 m).

Application Ideas

- Sealing joints around sills, jambs and heads of rectangular windows in wood frame construction.
- Sealing around other wall interruptions in non-roof areas, such as thresholds, dryer vents and hose bibs.
- When installed properly as a concealed flashing in vertical walls in frame construction, it prevents moisture intrusion and avoids the problems caused by water infiltration.

3M™ Window and Door Flashing Tape
8067

Available Sizes

Available in rolls of three widths:

4 inches x 75 feet	(101 mm x 22,8 m)	12 rolls/case
6 inches x 75 feet	(152 mm x 22,8 m)	8 rolls/case
9 inches x 75 feet	(228 mm x 22,8 m)	4 rolls/case

Usage and Limitations

3M™ Window and Door Flashing Tape 8067 is intended to provide a weatherproof seal around openings and penetrations in exterior walls when installed in accordance with these guidelines. The following conditions apply to the use of 3M™ All Weather Flashing Tape 8067:

- **Installation Temperature Range:** To obtain the best adhesion, 3M™ Window and Door Flashing Tape 8067 should be installed when outdoor temperatures range from 0°F(-18°C) up to 150°F (66°C) over clean surfaces that are free from dirt and debris and have not absorbed water. Surfaces should be free of any damaged, unsupported areas, sharp protrusions or voids.
- Adheres to most common building materials. For difficult to stick to surfaces, test flashing tape adhesion before application. Use 3M™ Hi-Strength 90 Spray Adhesive to prime the substrate as needed prior to applying the flashing tape.
- **To apply,** peel back a few inches of one side of the split paper release liner to position the tape. Remove the liner while applying firm pressure to the flashing tape surface as it comes into contact with the building surface. Repeat this procedure with the remaining side of the paper release liner and tape. Using a roller (rubber, wood or steel "J" roller) apply sufficient pressure along the entire tape surface to ensure a continuous seal and to eliminate trapping air beneath the tape.
- **Environmental Conditions:** may remain exposed to direct sunlight for up to 12 months.
- **Warning:** The paper release liner is slippery and should not be walked on at any time. Discard the paper release liner in a designated container.

Storage

Store under normal conditions of 60-80°F (16-27°C) and 40-60% R.H. in the original carton.

Shelf Life

To obtain best performance, use this product within 24 months from date of manufacture.

3M™ Window and Door Flashing Tape
8067

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

Warranty, Limited Remedy, and Disclaimer

Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE.
If the 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability

Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

ISO 9001:2008

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2008 standards.

3M

Industrial Adhesives and Tapes Division

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www.3M.com/industrial

Recycled Paper 40% pre-consumer 10% post-consumer

AquaTray®
Leak Barrier Ceiling System

STANDARD CEILING INSTALLATION INSTRUCTIONS

Note: One (1) 1-1/6" arbor hole saw and bit is provided to aid in the installation of bulkhead fittings within AquaTray® Drainage Panels or AquaTray® Raised Flat Panel – See Step 1-A

STANDARD CEILING
INSTALLATION INSTRUCTIONS

STEP 1 – PREPARE TRAYS

A – BULKHEAD HOLES AND FITTINGS

1. AquaTray® Drainage Panels - Drill bulkhead drainage holes in the proper locations in (1) to (4) sides of the AquaTray® Drainage Panel. Use 1-1/16" arbor and hole saw.

NOTE: Develop a project plan or shop drawing to arrange the trays in the proper pattern to adequately cover the protected equipment or area also to show how the trays interconnect and where the final drains are located.

NOTE: Center-punch locations are formed into the AquaTray® panels to insure the proper drilling locations.

2. AquaTray® Raised Flat Panels – Cut to size, assemble and drill bulkhead drainage holes (if provided) in the proper locations in the top and bottom panels of the AquaTray® Raised Flat Panel. Use 1-1/16" arbor and hole saw for the top and a 2" arbor and hole saw for the bottom.

NOTE: AquaTray® Raised Flat Panels are provided in kits of (2) 2x4 panels each (top generic plastic panel, middle foam core, and bottom AquaTray® Flat panel) and when cut and assembled allow the ceiling contractor to provide cut tiles or full tiles allowing ceiling elements (sprinklers speakers etc.) within the area of leak protection. These Raised Flat Panels can be provided with drainage fittings or left to overflow into adjacent panels.

NOTE: See Raised Flat Panel Kit instructions for assembly information.

3. Install bulkhead fittings into bulkhead holes with the threads to the inside of the panel and the gasket on the outside of the panel. Tighten the jam nut firmly.

B – SUPPORT BRACKETS

1. Cut 6" long angle brackets from 7/8" x 7/8" standard wall track.

NOTE: Nip the corners of each flange to reduce sharp edges.

2. Position the cut brackets in (4) locations, 6" from the corners of the AquaTray® panel to the center of the bracket.
3. Drill or punch (2) 1/8" holes through the AquaTray® panel flange and each bracket.
4. Install standard ceiling pop-rivets to secure the brackets to the AquaTray® panel.
5. Drill or punch (1) 1/8" hole through the top center of each bracket. This will provide the location for the wire grid supports.

STEP 2 – PREPARE GRID

A – CEILING ELEMENTS

1. For new ceilings leave out the ceiling tiles in the area of protection. For existing ceilings remove the ceiling tiles within the footprint of protection
2. For new ceilings install any ceiling elements outside the footprint of protection. For existing ceilings remove any ceiling elements within the footprint of protection (Lighting fixtures, diffusers, grilles, sprinkler heads, smoke detectors, speakers etc.)

NOTE: Employ the services of appropriate trade contractors for the removal and re-installation (outside of the protected footprint) of the various ceiling elements.

NOTE: New light fixtures may need to be provided using surface mounted fixtures powered from below the ceiling if required to light the area within the protected footprint.

B – CEILING SUPPORTS

1. Temporarily remove or leave un-installed the ceiling grid hanger wires within the protection footprint until after Step-3-B (Install T-Grid Flashing). Work in sections for large ceiling areas.
2. Check with the grid manufacturer for proper support design (wire size, spacing, twists per inch etc.) and be sure to install in strict accord with manufacturer and industry recommendations.

NOTE: Provide temporary ceiling support from below if a long span of ceiling is being installed prior to flashing and supporting.

STEP-3 – INSTALL TRAYS

A – INSTALL AQUATRAY® PANELS

1. Use the project plan to progressively install trays in the proper pattern with the appropriate bulkhead fitting layout.
2. Connect tray to tray with AquaTray® clear tubing and clamp tight with AquaTray® tube clamps.
3. For drainage Trays drill through each AquaTray® support bracket (Installed in Step-1B – Support Brackets) and then through the T-grid then through the adjoining support bracket (if applicable). This will provide holes for support wire after the T-grid flashing is installed.
4. For raised flat panel trays support brackets are not needed when installed according to instruction since they produce a minimum of developed weight during a leak event.

B – INSTALL T-GRID FLASHING

1. After installation of a section of AquaTray® drainage panel, place AquaTray® T-Grid Flashing Boots (4-sided, 3-sided or 2-sided) at the corners of each panel.
2. AquaTray® raised flat panels do not require T-Grid Boots since installation of flashing tape at raised panels is much easier than for the drainage trays.

NOTE: AquaTray® T-Grid Boots are supplied 4-sided (one boot per AquaTray® panel). The installer cuts the boot as needed for 3-sided and 2-sided locations

3. Install All Weather Flashing Tape up and over the T-grid and firmly adhere the tape to the top of the AquaTray® panels. DO NOT STRETCH THE TAPE IN ANY WAY DURING INSTALLATION AS THIS REDUCES THE LONG TERM LEAK PROTECTION.

NOTE: Use 6" wide tape where AquaTray® panels are adjacent to each other. Use 4" wide tape where AquaTray® panels are adjacent to the remainder of the ceiling.

4. Install additional strips of flashing tape at flashing boots to seal the tape at the inside corners of the boot and to seal the notched flat corner of the boot to the top of the AquaTray® panels.

NOTE: It is <u>VERY</u> important to insure that there are no gaps in the flashing tape and that the edges of the tape are smooth and firmly adhered <u>WITHOUT</u> stretching, to provide leak integrity.

C – INSTALL TRAY AND GRID SUPPORTS

1. Poke 12 gauge wire hangers through the flashing and through the holes in tray support brackets/t-grid/adjoining support brackets (if applicable). Twist tight then install to the building supports.
2. Poke wire hangers through the flashing and through the holes in the T-grid for the normal grid supports.
3. Install additional strips of flashing tape at the wire "Poke-Thru" locations to seal tight.

D – DRAINAGE PIPING

1. Install plumbing drainage piping between any trays separated by a distance greater than the clear tubing.
2. At the end of a section of trays run final drainage piping to a suitable floor drain or sink.

NOTE: Employ the services of a plumbing contractor for proper pipe materials, sizing and installation to comply with local codes.

NOTE: It is strongly recommended to provide a leak detection system into the trays or the tray drainage system to alert personnel in the event of an overhead.

<u>NOTE: THE IMPROPER INSTALLATION OF ANY COMPONENT OF THE SYSTEM WILL VOID THE MANUFACTURER'S WARRANTY</u>.

AquaTray® – 2x4 Leak Barrier Ceiling System (48 square feet) with PVC drain pipe to Janitor's Sink (in next room)

U.S. Patent No's 6,640,502 and 7,017,313, Canadian Patent No. 2,476,898

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AquaTray®
Leak Barrier Ceiling System

HEAVY DUTY CEILING INSTALLATION INSTRUCTIONS

Note: One (1) 1-1/6" arbor hole saw and bit is provided to aid in the installation of bulkhead fittings within AquaTray® Drainage Panels or AquaTray® Raised Flat Panel – See Step 1-A

HEAVY DUTY CEILING
INSTALLATION INSTRUCTIONS

STEP 1 – PREPARE TRAYS

A – BULKHEAD HOLES AND FITTINGS

1. AquaTray® Drainage Panels - Drill bulkhead drainage holes in the proper locations in (1) to (4) sides of the AquaTray® Drainage Panel. Use 1-1/16" arbor and hole saw.

NOTE: Develop a project plan or shop drawing to arrange the trays in the proper pattern to adequately cover the protected equipment or area also to show how the trays interconnect and where the final drains are located.

NOTE: Center-punch locations are formed into the AquaTray® panels to insure the proper drilling locations.

2. AquaTray® Raised Flat Panels – Cut to size, assemble and drill bulkhead drainage holes (if provided) in the proper locations in the top and bottom panels of the AquaTray® Raised Flat Panel. Use 1-1/16" arbor and hole saw for the top and a 2" arbor and hole saw for the bottom.

NOTE: AquaTray® Raised Flat Panels are provided in kits of (2) 2x4 panels each (top generic plastic panel, middle foam core, and bottom AquaTray® Flat panel) and when cut and assembled allow the ceiling contractor to provide cut tiles or full tiles allowing ceiling elements (sprinklers speakers etc.) within the area of leak protection. These Raised Flat Panels can be provided with drainage fittings or left to overflow into adjacent panels.

NOTE: See Raised Flat Panel Kit instructions for assembly information.

3. Install bulkhead fittings into bulkhead holes with the threads to the inside of the panel and the gasket on the outside of the panel. Tighten the jam nut firmly.

B – HOLD DOWN CLIPS

1. Procure hold down clips [(4) for each AquaTray® Drainage Panel located at the center of each face].

NOTE: If needed nip or bend the corners of each clip to reduce sharp edges.

NOTE: Hold down clips are not need for the AquaTray® Raised Flat Panels as they develop minimal weight upon filling with drainage water.

STEP 2 – PREPARE GRID

A – CEILING ELEMENTS

1. For new ceilings leave out the ceiling tiles in the area of protection. For existing ceilings remove the ceiling tiles within the footprint of protection

2. For new ceilings install any ceiling elements outside the footprint of protection. For existing ceilings remove any ceiling elements within the footprint of protection (Lighting fixtures, diffusers, grilles, sprinkler heads, smoke detectors, speakers etc.). If removal of certain ceiling elements is not possible (i.e. for proper sprinkler coverage) then use an AquaTray® Raised Flat Panel, cut a hole or slot in the raised flat panel then properly seal above the ceiling with flashing tape or prefabricated pipe boots.

NOTE: Employ the services of appropriate trade contractors for the removal and re-installation (outside of the protected footprint) of the various ceiling elements.

NOTE: New light fixtures may need to be provided using surface mounted fixtures powered from below the ceiling if required to light the area within the protected footprint. Alternately sealed "cleanroom" type fixtures accessible from below with water tight electrical connections above may be used.

B – CEILING SUPPORTS and GRID

1. Check with the grid manufacturer for proper support design (hangar size, spacing, anchorage etc.) and be sure to install in strict accord with manufacturer and industry recommendations.

NOTE: The heavy duty grid must be rated for a minimum of 25 pounds per square foot allowable capacity. If this capacity is not confirmed then separate supports of each AquaTray® Drainage Panel will be needed [(1) at each corner with a fabricated wall angle used as a bracket) as defined in the Standard Grid Installation Instructions.

NOTE: Because some heavy duty grid has a wider cross-section it may need to be installed on wider centers (i.e. 24-1/2" x 48-1/2" etc.) to accept standard ceiling elements like the AquaTray® panels. Consider the required dimensions of ceiling grid elements when installing the heavy duty grid.

STEP-3 – INSTALL TRAYS

A – INSTALL AQUATRAY® PANELS

1. Use the project plan to progressively install trays (AquaTray® Drainage Panels and AquaTray® Raised Flat Panels) in the proper pattern with the appropriate bulkhead fitting layout.
2. Connect tray to tray with AquaTray® clear tubing and clamp tight with AquaTray® tube clamps.
3. Install (4) hold down clips for each AquaTray® Drainage Panel located in the center of each face.

B – INSTALL T-GRID FLASHING

1. Install All Weather Flashing Tape up and over the T-grid and firmly adhere the tape to the top of the AquaTray® panels. DO NOT STRETCH THE TAPE IN ANY WAY DURING INSTALLATION AS THIS REDUCES THE LONG TERM LEAK PROTECTION.

NOTE: Use 6" wide tape where AquaTray® panels are adjacent to each other. Use 4" wide tape where AquaTray® panels are adjacent to the remainder of the ceiling.

2. Install additional strips of flashing tape and seal the tape at the inside corners.

NOTE: It is VERY important to insure that there are no gaps in the flashing tape and that the edges of the tape are smooth and firmly adhered WITHOUT stretching, to provide leak integrity.

C – DRAINAGE PIPING

1. Install plumbing drainage piping between any trays separated by a distance greater than the clear tubing and for any AquaTray® Raised Flat Panels that also have drainage.
2. At the end of a section of trays run final drainage piping to a suitable floor drain or sink.

NOTE: Employ the services of a plumbing contractor for proper pipe materials, sizing and installation to comply with local codes.

NOTE: It is strongly recommended to provide a leak detection system into the trays or the tray drainage system to alert personnel in the event of an overhead leak.

NOTE: THE IMPROPER INSTALLATION OF ANY COMPONENT OF THE SYSTEM WILL VOID THE MANUFACTURER'S WARRANTY.

AquaTray® – 2x4 Leak Barrier Ceiling System (48 square feet) with PVC drain pipe to Janitor's Sink (in next room)

U.S. Patent No's 6,640,502 and 7,017,313, Canadian Patent No. 2,476,898

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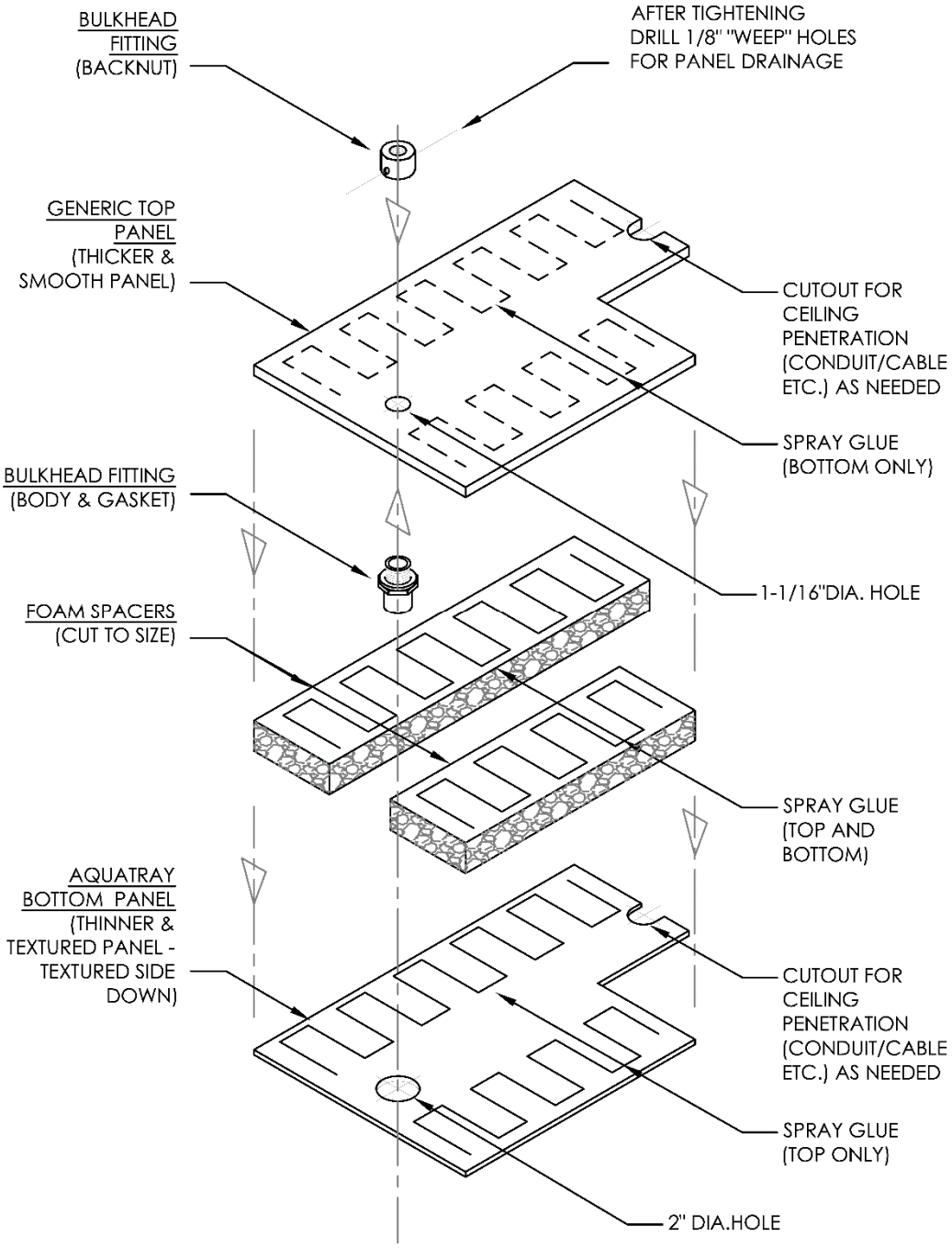
AquaTray®
Leak Barrier Ceiling System

RAISED FLAT PANEL ASSEMBLY INSTRUCTIONS



RAISED FLAT PANEL ASSEMBLY INSTRUCITONS

AquaTray® System

General

A – DESCRIPTION AND USE

1. The Raised Flat Panel is used in an area of leak protection instead of a formed AquaTray® drainage panel to allow for cut tiles or penetrations of pipes, conduit or other ceiling elements. They are used with or without drainage fittings depending on location. If the tile is at the borders of the leak protection area, drain fittings are recommended. If the tile is completely surrounded by drainage trays or trays and walls, then leak fluid will overflow into the drainage tray. Drain fittings are not needed in this situation. The raised section of the assembly allows for a minimal developed weight when flooded so individual Raised Flat Panels do not require separate supports within either a standard grid or heavy duty grid.

NOTE: The Raised Flat Panels are sealed to the ceiling grid/adjacent tiles or the wall with flashing tape just like the AquaTray® Drainage panels. See Installation Instruction – Standard Grid or Heavy Duty Grid for further information.

B – COMPONENTS

1. The individual raised flat panel consists of a 2ft x 4ft generic plastic upper panel, several foam strips and a 2ft x 4ft AquaTray® Flat Panels. Actual panel size is 23.75" x 43.75" (Standard U.S. ceiling tile dimensions). Spray adhesive is needed to adhere the top and bottom panels to the foam strips in a sandwich configuration with the AquaTray® flat panel texture facing out.

C – PACKAGING

The raised flat panel package consists of a (2) panel kit (assembly required). Each kit comes with (2) 2ft x 4ft generic plastic upper panels, (8) square feet of foam strips and (2) 2ft x 4ft AquaTray® Flat Panels. Two kits are placed in a shipping box. Purchased separately 3M #78 Spray Adhesive (17.9 oz.). One can is suitable for assembly of (2) raised flat panels.

D – PROJECT PLAN

1. A Project Plan Drawing or an Installation Shop Drawing are essential for the proper assembly and subsequent installation of Raised Flat Panels. Be sure to obtain, review and provide suitable location/identification markings on this drawing at the start of the assembly

STEP 1 – MEASURE AND CUT

A – MEASURE AFTER GRID INSTALLATION

1. As with any t-grid ceiling installation the partial/cut tiles dimensions are measured from the installed grid. Measure the actual opening then subtract a suitable clearance dimension from each measurement (usually ¼" – but the installer must gauge this dimension for proper installation). Be sure to check dimensions before cutting.
2. Mark areas where penetrations are required or where drain fittings are needed at this time. These are to be cut in a later step or as the assembled panel is installed.

NOTE: See STEP 3 for the optional installation of drainage fittings (if needed). Leave areas intended for drainage fittings or penetrations free of foam.

NOTE: Use the Project Plan Drawing or Installation Shop Drawing to identify where drain fittings or penetrations are needed in the Raised Flat Panels.

B – TRANSFER DIMENSIONS AND CUT

1. Transfer the dimensions to the AquaTray® flat panel. Be sure to orient the AquaTray® Flat Panel with the texture facing down, so it is visible when installed in the ceiling, before transferring the dimensions. Cut the panel to size. Perform a test fit after cutting.
2. After confirming that the AquaTray® panel is cut to size, use it as a template for the marking and cutting of a generic top panel.
3. Use no more than half of the foam strips provided per kit and place them in between the top panel and bottom panel (bottom panel should have the texture facing out). Cut the foam strips as needed to fit within the (2) panels.

RAISED FLAT PANEL ASSEMBLY INSTRUCITONS

AquaTray® System

NOTE: Leave areas intended for penetrations or drainage fittings free of foam. Cut the foam with a sharp thin knife blade or preferably with a hot knife specifically designed for foam cutting, to achieve a clean cut.

STEP 2 – ARRANGE AND GLUE

A – ARRANGE AND MARK

1. Arrange the cut bottom panel, cut foam strips and cut top panel on a flat surface and check the accuracy of cuts and the alignment.
2. Mark the location of foam panels on the mating surface of the top and bottom panel with a pencil or marker.

B – SPRAY AND JOIN

1. Take the top panel and set it aside.
2. Lift the foam strips and place aside then spray the bottom panel with spray adhesive between the markings. Spray the mating surface of the foam strips. Allow the spray adhesive time to set then join the mating surfaces of the foam strips to the bottom panel (non-textured side) making sure to preserve the original alignment.
3. Spray the top panel with spray adhesive between the markings. Spray the mating surface of the foam strips. Allow the spray adhesive time to set then join the mating surfaces of the foam strips to the top panel making sure to preserve the original alignment.
4. Allow the proper set time before installing in the grid. Provide a location marking keyed to the Project Plan Drawing or Installation Shop Drawing onto each assembled Raised Flat Panel so its position in the ceiling can be identified later during installation.

NOTE: Follow the instructions for the application and use of the spray foam according to the manufacturer's instructions on the side of the spray can. The workspace should be in a well-ventilated area.

STEP-3 – INSTALL DRAIN FITTING (OPTIONAL)

A – LOCATE AND DRILL BULKHEAD DRAIN FITTINGS

1. Use the Project Plan Drawing or Installation Shop Drawing to identify exact locations for drainage fittings in the Raised Flat Panels (where used). Mark locations on top and bottom panels of the assembled Raised Flat Panels. Drill a 1-1/16" hole in the top panel and a 2" dia. Hole in the bottom panel.

B – INSTALL DRAINAGE FITTINGS

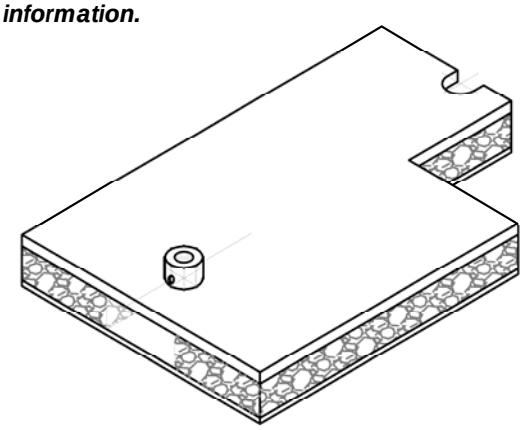
1. Install AquaTray® drainage fittings with the gasket under the top panel and the jamb nut over the top panel. Tighten snugly.
2. Drill through each installed AquaTray® drainage fitting with a ¼" horizontal hole just above the surface of the top panel. This provides a weep hole for more effective drainage of the raised flat panel.

C – PREPARE FOR PENETRATION OPENINGS

1. Either pre-cut openings for penetrations in the assembled Raised Flat Panel or mark and cut after initial installation in the ceiling grid.

NOTE: Use standard hand or power cutting tools, such as drills, arbors, snips or a sharp knife to cut the top and bottom panels for penetrations. A 1-1/16" hole saw and arbor bit is provided with each main order to facilitate cutting the correct hole size for AquaTray® drainage fittings.

NOTE: The assembled and prepared Raised Flat Panels are now ready to progressively install into the ceiling grid. See Installation Instruction – Standard Grid or Heavy Duty Grid for further information.



TYPICAL ASSEMBLED PANEL
(ACTUAL SIZE/CONFIGURATION VARIES)

NOTE: THE IMPROPER INSTALLATION OF ANY COMPONENT OF THE SYSTEM WILL VOID THE MANUFACTURER'S WARRANTY.

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AquaTray® – 2x4 Leak Barrier Ceiling System (48 square feet) with PVC drain pipe to Janitor's Sink (in next room)

U.S. Patent No's 6,640,502 and 7,017,313, Canadian Patent No. 2,476,898

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WARRANTY

AquaTray® System

At AquaTray LLC, our warranty is more than a statement; it's a firm commitment to our customers.

AquaTray Limited Warranty:

Unless otherwise noted, AquaTray LLC warrants its products to be made of first class materials, free from defects of material or workmanship under normal use and to perform the service for which they are intended in a thoroughly reliable and efficient manner when properly installed and serviced, for a period of one (1) year from the date of purchase.

During this period, AquaTray LLC will, at its option, replace any part or parts that prove to be thus defective if returned to AquaTray LLC, at customer's cost, and this shall be the sole remedy available under this warranty. No claims will be allowed for labor, transportation or other incidental costs.

There are no warranties that extend beyond the description on the face hereof. In no event is AquaTray LLC responsible for any consequential damages of any measure whatsoever.

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Your acceptance of the AquaTray® System products is an acknowledgement and acceptance of this warranty.

Contact: AquaTray LLC
info@aquatray.com
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AquaTray Return Policy:

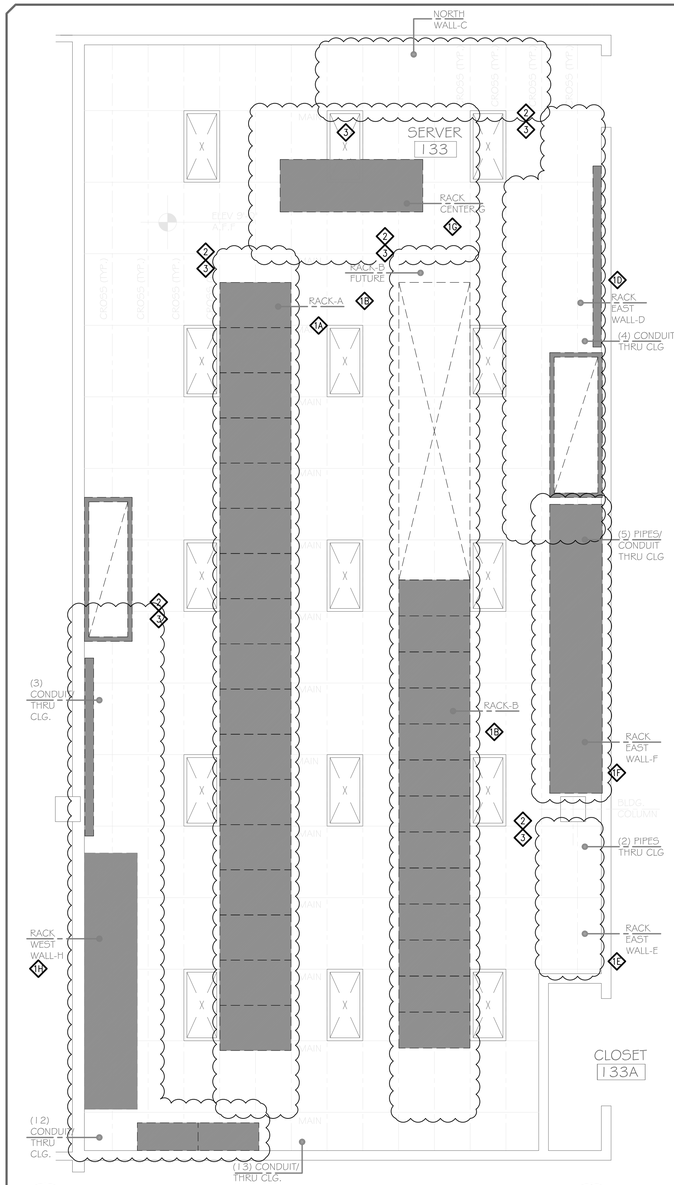
Products which are determined to be defective or shipped incorrectly by AquaTray LLC will be replaced or credited at invoice price, if a claim is submitted within thirty (30) days of purchase. Products returned for reasons other than defects or AquaTray shipping errors are subject to a 15% handling charge and must be returned within 30 days from the date of purchase; return freight is at customer's expense.

All returns must be authorized by the factory prior to returning. The factory will issue a return material authorization (RMA) number. The RMA number must be written on the shipping label, each load inspection and all related documentation. All returned material should be returned in the original, unopened shipping cartons, or suitably packed. The material is to be packaged such that it will not be damaged during the return. Deductions will be made for any material returned that is not in saleable condition. Material not in saleable condition will be returned to customer or scrapped at customer request. Materials over 30 days old will not be accepted.

RMA forms may be obtained by contacting Customer Service at 856-629-9278 or downloading from www.AquaTray.com - Warranty Tab – AquaTray RMA Form.

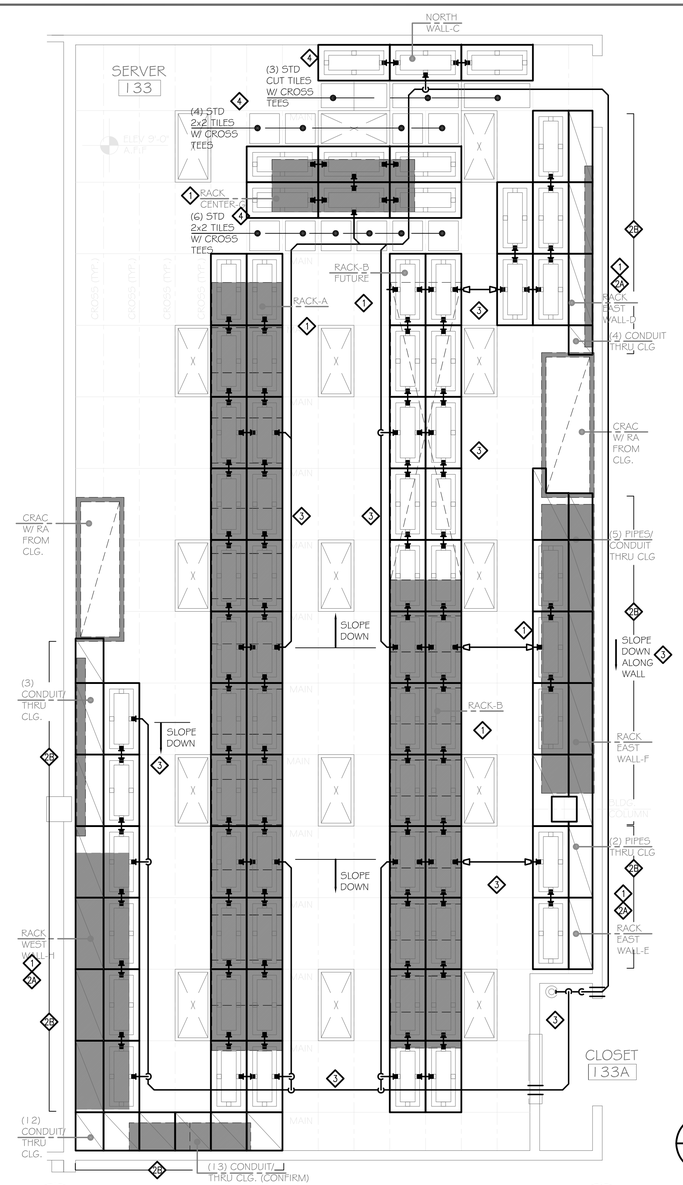
The following information will be necessary:

A. Invoice Number, PO Number or Estimate No.
B. Sale Date
C. Product Part Number and or Description
D. Quantity
E. Reason for return requests (be specific, "defective" is not a reason). Material returned as defective but, on inspection, is found to be serviceable will be subject to credit reduction.
F. All returns are to be freight prepaid. The RMA number must be on each load and each container.



1 AT-1 CEILING DEMOLITION PLAN

SCALE: 1/4" = 1'-0"



2 AT-1 LEAK TRAY INSTALLATION PLAN

SCALE: 1/4" = 1'-0"

LEAK TRAY DEMOLITION PLAN – (1/AT-1) – NOTES:

1. LEAK PROTECTION IS TO ENCOMPASS THE FOLLOWING (8) AREAS:
   - RACK-A (17 EXISTING RACK MODULES)
   - RACK-B (13 EXISTING RACK MODULES AND FUTURE MODULES)
   - NORTH WALL-C
   - EAST WALL-D
   - EAST WALL-E
   - CENTER-G
   - EAST WALL-F
   - WEST WALL-H
2. REMOVE 2x4 CEILING TILES, MAINTAIN EXISTING MAIN AND CROSS TEES (ASSUMED CONFIGURATION SHOWN – TO BE CONFIRMED) IN PREPARATION FOR INSTALLATION OF AQUATRAY PANELS TO PROTECT THE AREAS LISTED ABOVE.
3. REMOVE, TEMPORARILY SUPPORT (IF NEEDED) THEN RELOCATE ALL CEILING ELEMENTS (NOT ALL SHOWN) WITHIN THE AREA OF LEAK COVERAGE INCLUDING BUT NOT LIMITED TO: SPRINKLERS, FIRE SUPPRESSION NOZZLES, CEILING DIFFUSERS AND GRILLES, LIGHT FIXTURES, SMOKE DETECTORS, SPEAKERS, SECURITY CAMERAS ETC. INCLUDING BUT NOT LIMITED TO THE FOLLOWING TRADE WORK:

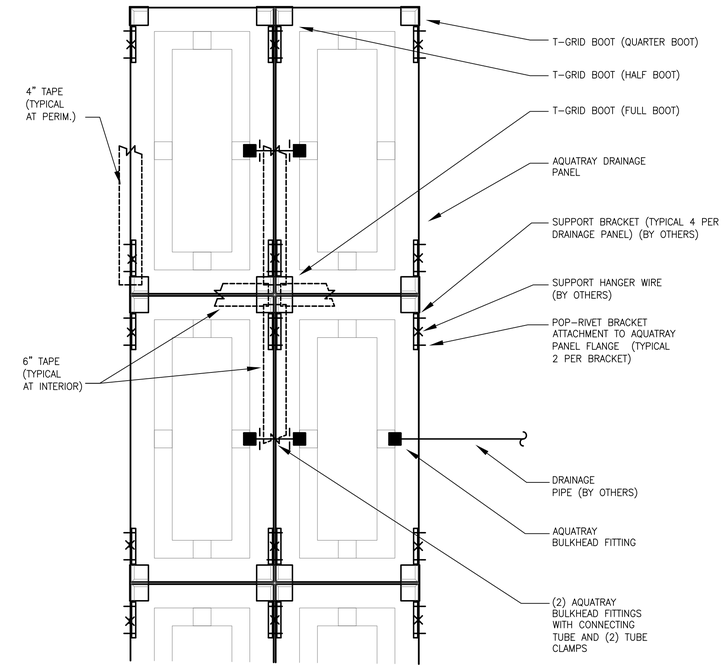
   SPRINKLER TRADE CONTRACTOR: DRAIN AND/OR SAFE THE EXISTING SPRINKLER SYSTEM THEN REMOVE HEADS AND ASSOCIATED PIPE AND SAVE FOR RELOCATION OR PROVIDE NEW AS NEEDED TO ADJACENT GRID LINE. PRESERVE CODE REQUIRED SPACING AND COVERAGE

   HVAC TRADE CONTRACTOR: REMOVE OR TIE–UP CEILING DIFFUSERS AND GRILLES WITH RELATED FLEX DUCT AND SAVE FOR RELOCATION TO ADJACENT GRID LINE. REUSE EXISTING SUPPLY, RETURN OR EXHAUST DUCT OR PROVIDE NEW AS NEEDED.

   ELECTRICAL/CONTROLS TRADE CONTRACTOR: REMOVE OR TIE–UP 2x4 RECESSED/LAY–IN LIGHT FIXTURES WITH RELATED FLEX CONDUIT POWER FEED AND SAVE FOR RELOCATION TO ADJACENT GRID LINE. REUSE EXISTING CIRCUIT OR PROVIDE NEW AS NEEDED. REMOVE OR TIE–UP OTHER ELECTRICAL CEILING ELEMENTS (SMOKE DETECTORS, SPEAKERS, SECURITY CAMERAS ETC.) AND SAVE FOR RELOCATION TO ADJACENT GRID LINE USING SAME OR NEW ELECTRICAL POWER AND SIGNAL CIRCUITS AS NEEDED.

LEAK TRAY INSTALLATION PLAN – (2/AT-1) – AQUATRAY PRODUCT INSTALLATION NOTES:

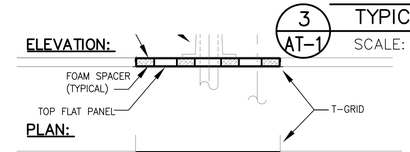
1. INSTALL AQUATRAY DRAINAGE PANELS, BULKHEAD FITTINGS, CONNECTING TUBES, TUBE CLAMPS, GRID FLASHING TAPE FOR A LEAK TIGHT INSTALLATION IN ACCORDANCE WITH AQUATRAY MANUFACTURERS INSTALLATION INSTRUCTIONS. ABOVE ITEMS PROVIDED BY AQUATRAY, ANCILLARY ITEMS (WALL TRACK CUT TO 6" BRACKETS, BRACKETS POP RIVETED TO TRAY PANEL FLANGES (2 POP–RIVETS EACH) IN ALL (4) CORNERS OF EACH TRAY, HANGER WIRE AND STRUCTURE ANCHORS) BY CEILING/INTERIORS TRADE CONTRACTOR. SEE DETAIL 3/AT–1.
2. INSTALL AQUATRAY FLAT PANELS:
   - 2A SMALLER PARTIAL PANELS: CUT TO SIZE, AND CUT FOR ANY PENETRATIONS AT PERIMETER WALL AND FOR ANY CONDUIT OR PIPE PENETRATIONS WITHIN THE AREA OF COVERAGE. PROVIDE FLASHING TAPE AROUND PENETRATIONS–TO PANEL, FOR WALL–TO PANEL AND FOR ALL ADJACENT CEILING EDGES–TO PANEL FOR A LEAK TIGHT INSTALLATION.
   - 2B LARGER PARTIAL PANELS: CUT TO SIZE, AND CUT FOR ANY PENETRATIONS AT PERIMETER WALL SEE DETAIL 4/AT–1.
3. PROVIDE DRAINAGE PIPE BELOW THE CEILING PLANE FROM SECTIONS OF LEAK TRAY (AT BULKHEAD FITTINGS) TO NEAREST SUITABLE DRAIN LOCATION (FLOOR DRAIN, STORM DRAIN LEADER, OR NEW SUMP PUMP – IN AREA SHOWN). SUPPORT PIPE BELOW EXISTING GRID WITH HANGERS THROUGH THE CEILING TO THE STRUCTURE. DO NOT SUPPORT PIPE FROM THE AQUATRAY BULKHEAD FITTINGS. PIPE, FITTINGS HANGERS AND SUMP PUMP (AS NEEDED) – SELECTION TO BE CONFIRMED BY CUSTOMER.
4. PROVIDE ADDITIONAL T–GRID CROSS TEES AND EITHER FULL OR CUT TYPICAL 2x2 CEILING TILES TO MATCH EXISTING CEILING.
5. RECOMMENDED: PROVIDE LEAK DETECTION DISTRIBUTED WIRE OR POINT SENSORS AT TRAY DRAINAGE TROUGHS. EXTEND SIGNAL CONNECTION TO EXISTING OR NEW MONITORING SYSTEM. DETECTOR SENSORS / SIGNAL WIRE AND PANEL SELECTION TO BE CONFIRMED, SELECTED AND LOCATED BY CUSTOMER– BY ELECTRICAL/CONTROLS TRADE CONTRACTOR.
   SUGGESTED VENDORS:
   - TRACETEK MODEL TT–1000 @ WWW.ETRACETEK.COM (CONTACT: DAVE HUMES AT FLUID DETECTION TECHNOLOGY, HOCKESSIN, DE (302) 234–1121).
   - PERMALERT MODEL PAL–AT @ WWW.PERMAPIPE.COM (CONTACT: DON BENDERY AT PERMA PIPE INC. NILES, IL (847) 929–1869



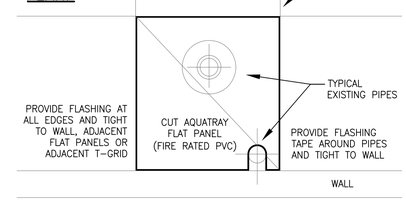
3 AT-1 CEILING LEAK TRAY TYPICAL INSTALLATION DETAILS

SCALE: 1" = 1'-0"

ELEVATION:



PLAN:



4 AT-1 LARGE PARTIAL PANEL TYPICAL INSTALLATION DETAILS

SCALE: 1" = 1'-0"

LARGE PARTIAL PANEL – (4/AT–1) – AQUATRAY PRODUCT INSTALLATION NOTES:

LARGER PARTIAL PANELS: CUT TO SIZE, AND CUT FOR ANY PENETRATIONS AT PERIMETER WALL AND FOR ANY CONDUIT OR PIPE PENETRATIONS WITHIN THE AREA OF COVERAGE. FOR ANY PARTIAL PANEL WITH BOTH SIDES GREATER IN LENGTH THAN 12 INCHES EACH OR GREATER IN AREA THAN 384 SQUARE INCHES PROVIDE CLOSED CELL FOAM SPACERS AND AN ADDITIONAL IDENTICALLY SHAPED AND CUT PANEL TO RAISE THE TOP SURFACE LEVEL TO THE ELEVATION OF THE T–GRID CROSS STRUCTURE. THIS WILL ELIMINATE THE POOLING AND WEIGHT DEVELOPMENT OF LEAK WATER. GLUE THE CLOSED CELL FOAM SPACER TOP AND BOTTOM TO FLAT PANELS AND PROVIDE FLASHING TAPE AROUND PENETRATIONS–TO–PANEL FOR WALL–TO–PANEL AND FOR ALL ADJACENT CEILING EDGES–TO–PANEL FOR A LEAK TIGHT INSTALLATION.

CEILING LEAK TRAY PLAN – TYPICAL INSTALLATION DETAILS – (3/AT–1) – CONSTRUCTION NOTES:

1. INSTALL STRICTLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

GENERAL NOTES:

1. WORK SHALL BE DONE WITH ROOM AND EQUIPMENT ENERGIZED AND OPERATING. CONTRACTOR SHALL REVIEW IN DETAIL WITH IT OPERATIONS MANAGER AT THE START OF WORK PRECAUTIONS AND MEASURES NEEDED TO PROTECT THE DATA CENTER EQUIPMENT AND TO MAINTAIN OPERATIONS DURING CONSTRUCTION.
2. CEILING TRAY INSTALLING CONTRACTOR SHALL LAYOUT AND INSTALL AQUATRAY PANELS TO FULLY COVER THE RACK AREAS LISTED. ADJUSTMENTS TO THE EXACT LOCATION OF MAIN AND CROSS TEES SHALL BE CONFIRMED IN THE FIELD TO PROVIDE THE INTENDED COVERAGE.
3. CEILING/INTERIORS TRADE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BUILDING ANCHORS AND HANGER WIRE IN ACCORDANCE WITH APPLICABLE ASTM AND ANSI STANDARDS TO RESIST A 2x4 AQUATRAY PANEL LOAD OF 100 LBS (12.5 LBS/SF). CEILING TRADE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES.
4. PLUMBING TRADE CONTRACTOR SHALL BE RESPONSIBLE FOR PIPING MATERIALS, PIPE SIZING, PIPE SUPPORTS AND PUMP SIZING/SELECTION (IF NEEDED) FOR A 20 GPM PEAK WATER FLOW FROM ANY PIPE DRAIN CONNECTION FROM A SERIES OF TRAYS AND A 20 GPM TOTAL PEAK WATER FLOW FOR ANY PUMP USED. PLUMBING TRADE CONTRACTOR SHALL COORDINATE THE LOCATION OF DRAIN PIPING WITH CEILING CONTRACTOR AND IT MANAGER SO AS NOT TO INTERFERE WITH CEILING ELEMENTS OR ROOM EQUIPMENT. PLUMBING TRADE CONTRACTOR SHALL DETERMINE FINAL DRAIN LOCATION IN COORDINATION WITH CUSTOMER. PLUMBING TRADE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PLUMBING CODES. PIPE SIZING CAN BE DETERMINED USING PLUMBING CODE OR PLUMBING INDUSTRY TABLES FOR FLOW CAPACITY (20 GPM SUGGESTED) BASED ON SLOPE AND PERCENT FULL (3/4 FULL SUGGESTED) FOR SIZE, SLOPE AND ROUGHNESS OF PIPE SELECTED PER THE MANNING FORMULA FOR GRAVITY FLOW. NOTE: SEE COVERAGE LIMITATION DISCLAIMER.
5. CONTRACTOR SHALL CLEAN–UP AND RESTORE ORIGINAL CONDITIONS IN THE DATA CENTER ROOM AT THE END OF CONSTRUCTION.

AQUATRAY – BILL OF MATERIALS

ITEM	PART NO.	DESCRIPTION	QUAN	NOTES
001	AT–001–240	AquaTray 2x4 Drainage Ceiling Panel (Kydex–115)	42	
002	AT–002–000	Bulkhead Fitting – 3/4"–IPT	102	
003	AT–003–001	Connecting Tube (1–1/4" ID x 9–3/4" Long)	37	
004	AT–004–000	Tube Clamp	74	
005	AT–005–475	Flashing Tape (3M–8067 – 4" WIDE x 75 Ft Long)	2	
006	AT–005–675	Flashing Tape (3M–8067 – 6" WIDE x 75 Ft Long)	8	
007	AT–006–000	AquaTray T–Grid Boot (Kydex–115)	103	
008	AT–007–000	AquaTray 2x4 Flat Panel (Kydex–115)	86	

MATERIALS NOTES:

BILL OF MATERIALS IS FOR PROPRIETARY AQUATRAY PRODUCTS ONLY AND DOES NOT INCLUDE:
- T–GRID MATERIALS
- TYPICAL CEILING TILES
- WALL ANGLE USED FOR TRAY SUPPORTS
- WALL ANGLES USED FOR FLAT PANEL SUPPORT
- CLOSED CELL FOAM SPACERS FOR LARGER FLAT PANELS
- HANGER WIRES
- PIPES
- PIPE SUPPORTS
- ANCHORS FOR HANGER WIRES AND PIPE SUPPORTS
- LIGHT FIXTURES
- ELECTRICAL SUPPLIES
- SUMP PUMP(S) IF NEEDED
- OTHER MISCELLANEOUS MATERIALS NEEDED FOR THE INSTALLATION

>>> NOT FOR CONSTRUCTION <<<

SAMPLE INSTALLATION

STANDARD GRID PARTIAL COVERAGE

AQUATRAY Leak Barrier Ceilings
541 RADIX RD.
WILLIAMSTOWN NJ, 08094
(856)629-9278 ph
(856)629-6743 fax
www.aquatray.com

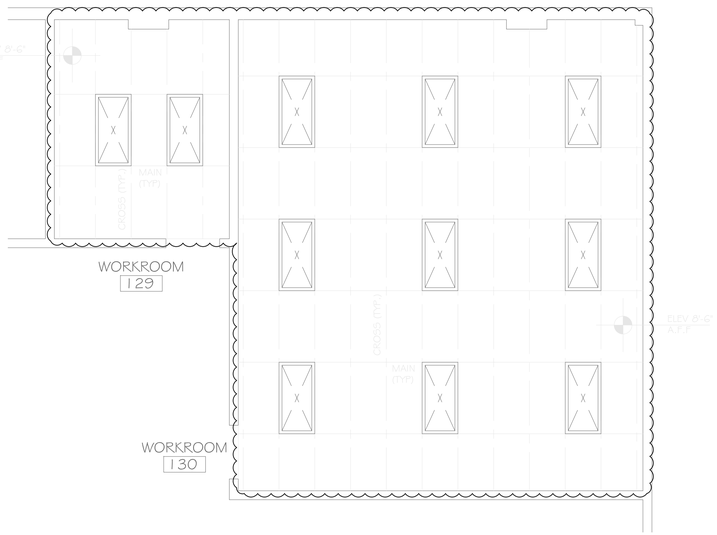
>>> NOT FOR CONSTRUCTION <<<

SERVER ROOM LEAK TRAY INSTALLATION

No.	Date	Issue or Revision	By
B	07.29.13	QUOTATION AND CLIENT REVIEW	SMM
A	07.19.13	QUOTATION AND CLIENT REVIEW	SMM

Drawing Title: CEILING LEAK TRAY SUGGESTED INSTALLATION

Scale: AS SHOWN	Project No.: V20–13–001
Datum Elev.	
Dwg. Date: 7.19.13	Drawing No.: AT–1
Drawn By: SMM	
Chkd. By: SMM	Sheet No. 1 of 1



1 AT-2 CEILING DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

N

CEILING DEMOLITION PLAN – (1/AT-2) – NOTES:

1. LEAK PROTECTION IS TO ENCOMPASS FULL CEILING COVERAGE FOR THE TWO ROOMS IDENTIFIED.

2. REMOVE 2x4 CEILING TILES, MAIN AND CROSS TEES (ASSUMED CONFIGURATION SHOWN – TO BE CONFIRMED) IN PREPARATION FOR INSTALLATION OF NEW HEAVY DUTY DATA CENTER GRID AND AQUATRAY PANELS TO PROTECT THE AREA LISTED ABOVE.

3. REMOVE ALL LIGHTING FIXTURES WITHIN THE AREA OF LEAK COVERAGE AND RETAIN CIRCUITS FOR POSSIBLE NEW FIXTURES:

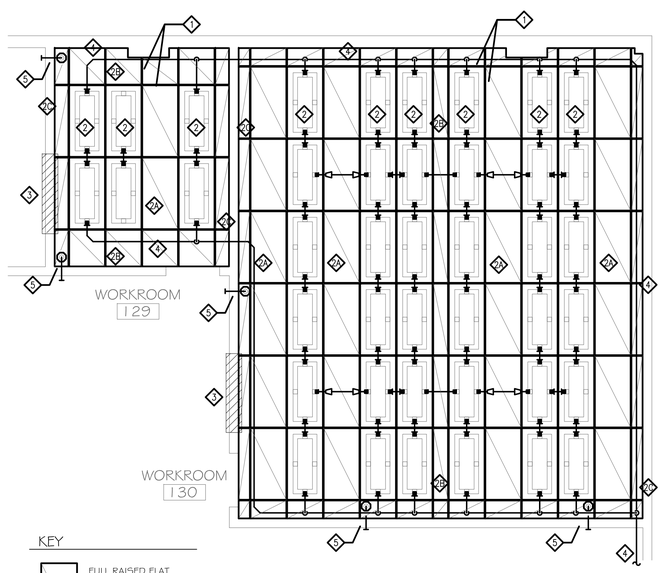
   ELECTRICAL TRADE CONTRACTOR: REMOVE 2x4 RECESSED/LAY-IN LIGHT FIXTURES WITH RELATED FLEX CONDUIT POWER FEED AND SAVE CIRCUIT FOR USE WITH NEW SURFACE MOUNTED LIGHT FIXTURES – EITHER SURFACE WALL MOUNTED OR SURFACE MOUNTED TO THE UNDERSIDE OF THE HEAVY DUTY T-GRID.

4. REMOVE, TEMPORARILY SUPPORT (IF NEEDED) THEN RELOCATE ALL CEILING ELEMENTS (NOT ALL SHOWN) WITHIN THE AREA OF LEAK COVERAGE INCLUDING BUT NOT LIMITED TO: SPRINKLERS, FIRE SUPPRESSION NOZZLES, CEILING DIFFUSERS AND GRILLES, SMOKE DETECTORS, SPEAKERS, SECURITY CAMERAS ETC. INCLUDING BUT NOT LIMITED TO THE FOLLOWING TRADE WORK:

   SPRINKLER TRADE CONTRACTOR: DRAIN AND/OR SAFE THE EXISTING SPRINKLER SYSTEM THEN REMOVE HEADS AND ASSOCIATED PIPE AND SAVE FOR RELOCATION OR PROVIDE NEW AS NEEDED TO ADJACENT GRID LINE. PRESERVE CODE REQUIRED SPACING AND COVERAGE

   HVAC TRADE CONTRACTOR: REMOVE EXISTING DIFFUSERS AND GRILLES WITH RELATED FLEX DUCT. IF SUITABLE REUSE EXISTING SUPPLY DIFFUSERS, RETURN OR EXHAUST GRILLES BUT WITH A "HARD-DUCTED" CONNECTION WHICH IS SEPARATELY SUPPORTED FROM THE BUILDING STRUCTURE. IF DIFFUSERS OR GRILLES ARE NOT SUITABLE PROVIDE NEW. THE PENETRATION SHALL BE POSITIONED WITHIN AQUATRAY FLAT PANELS AND THEN SEALED WITH AQUATRAY FLASHING TAPE BY THE AQUATRAY CEILING INSTALLING CONTRACTOR.

   ELECTRICAL/CONTROLS TRADE CONTRACTOR: REMOVE OR TIE-UP OTHER MISCELLANEOUS ELECTRICAL CEILING ELEMENTS (SMOKE DETECTORS, SPEAKERS, SECURITY CAMERAS ETC.) AND SAVE FOR RELOCATION TO ADJACENT GRID LINE USING SAME OR NEW ELECTRICAL POWER AND SIGNAL CIRCUITS AS NEEDED.



KEY

- FULL RAISED FLAT PANEL (W/ FOAM SPACERS) (SEE DETAIL 4 / AT2)
- LARGE PARTIAL RAISED FLAT PANEL (W/ FOAM SPACERS) (SEE DETAIL 4 / AT2)
- SMALL PARTIAL PANEL

2 AT-2 LEAK TRAY INSTALLATION PLAN

SCALE: 1/4" = 1'-0"

N

LEAK TRAY INSTALLATION PLAN – (2/AT-1) – AQUATRAY PRODUCT INSTALLATION NOTES:

1. INSTALL HEAVY DUTY DATA CENTER GRID (GORDON MODEL DG-1.5 OR EQUAL @ 48.5"x24.5" GRID SPACING). INSTALL PER MANUFACTURER'S RECOMMENDATIONS WITH SUITABLE ANCHORS TO EXISTING BUILDING STRUCTURE. SEE DETAILS 3/AT-3 AND 4/AT-3

2. INSTALL AQUATRAY DRAINAGE PANELS, BULKHEAD FITTINGS, CONNECTING TUBES, TUBE CLAMPS, GRID FLASHING TAPE FOR A LEAK TIGHT INSTALLATION IN ACCORDANCE WITH AQUATRAY MANUFACTURERS INSTALLATION INSTRUCTIONS. ABOVE ITEMS PROVIDED BY AQUATRAY, ANCILLARY ITEMS BY CEILING/INTERIORS TRADE CONTRACTOR. SEE DETAIL 3/AT-2.

   INSTALL AQUATRAY FLAT PANELS:

   2A FULL FLAT PANELS: CUT FOR ANY PENETRATIONS (SPRINKLER HEADS, CONDUIT PENETRATIONS ETC) WITHIN THE AREA OF COVERAGE. PROVIDE PIPE BOOTS FOR ANY PIPE OR CONDUIT PENETRATIONS. PROVIDE FLASHING TAPE FOR ALL ADJACENT CEILING EDGES-TO PANEL FOR A LEAK TIGHT INSTALLATION. PROVIDE FOAM SPACERS AND ADDITIONAL TOP PANEL SEE DETAIL 1/AT-3

   2B LARGER PARTIAL PANELS: CUT TO SIZE, AND CUT FOR ANY PENETRATIONS AT PERIMETER WALL. PROVIDE FOAM SPACERS AND ADDITIONAL TOP PANEL SEE DETAIL 1/AT-3

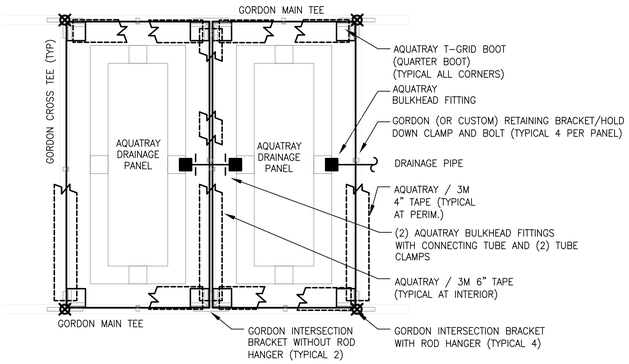
   2C SMALLER PARTIAL PANELS: CUT TO SIZE, AND CUT FOR ANY PENETRATIONS AT PERIMETER WALL AND FOR ANY CONDUIT OR PIPE PENETRATIONS WITHIN THE AREA OF COVERAGE. PROVIDE FLASHING TAPE AROUND PENETRATIONS-TO PANEL, FOR WALL-TO PANEL AND FOR ALL ADJACENT CEILING EDGES-TO PANEL FOR A LEAK TIGHT INSTALLATION.

3. PRIOR TO THE CEILING INSTALLATION WORK THE CONTRACTOR SHALL INSTALL AN ACCESS OPENING (IF NOT EXISTING) WITH THE WIDTH AND HEIGHT NEEDED TO ACCES ABOVE THE CEILING FROM THE ADJOINING ROOM (TWO LOCATION SHOWN). AQUATRAY CEILING PANEL INSTALLATION SHALL PROGRESS FROM THE EAST SIDE OF EACH ROOM WITH ABOVE CEILING AQUATRAY FLASHING BEING INSTALLED AS EACH ROW OF PANELS IS INSTALLED. WHEN THE INSTALLATION REACHES THE LAST FULL PANEL THE PARTIAL PANELS AGAINST THE WALL SHALL BE INSTALLED FIRST AND THEN THE PANELS NORTH AND SOUTH SHALL BE INSTALLED UNTIL THERE IS ONE FULL PANEL OPEN. AT THIS POINT THE INSTALLER SHALL ACCESS ABOVE THE CEILING FROM THE ADJOINING ROOM TO INSTALL THE FINAL AQUATRAY FLASHING.

4. PROVIDE DRAINAGE PIPE BELOW THE CEILING PLANE FROM SECTIONS OF LEAK TRAY (AT BULKHEAD FITTINGS) TO NEAREST SUITABLE DRAIN LOCATION (FLOOR DRAIN, STORM DRAIN LEADER, OR NEW SUMP PUMP). SUPPORT PIPE BELOW NEW GRID FROM GRID HANGERS AND FROM EXISTING GRID WITH HANGERS THROUGH THE CEILING TO THE STRUCTURE. DO NOT SUPPORT PIPE FROM THE AQUATRAY BULKHEAD FITTINGS. PIPE, FITTINGS HANGERS AND SUMP PUMP (AS NEEDED) – SELECTION TO BE CONFIRMED BY CUSTOMER.

5. PROVIDE 3"ø EMERGENCY DRAINS IN LOCATIONS OF CEILING SHOWN WITH SUPPORTS FROM THE HEAVY DUTY GRID AND WITH PIPING DOWN TO THE FLOOR (SUPPORTED BY THE WALL) TERMINATING IN A VISIBLE LOCATION TO ALERT BUILDING OCCUPANTS OF A LEAK EXCEEDING THE NORMAL DRAIN CAPACITY. PROVIDE THROUGH-WALL FITTING IN A SMALL PARTIAL PANEL WITH GASKET ABOVE THE PANEL. INSTALL A SECTION OF 3" PVC PIPE INTO THE FITTING SOCKET SO THAT THE TOP OF THE PIPE TERMINATES 2" ABOVE THE PANEL. SEE DETAIL 2/AT-3
   SUGGESTED VENDOR:
   - MCMASTER CARR MODEL 36895K836 – 3" CPVC, THROUGH-WALL FITTING (WITH BODY, NUT AND GASKET) FEMALE UNTHREADED SOCKET (ABOVE CEILING) AND FEMALE THREADED (BELOW CEILING).

6. RECOMMENDED: PROVIDE LEAK DETECTION DISTRIBUTED WIRE OR POINT SENSORS (NOT SHOWN) AT TRAY DRAINAGE TROUGHS. EXTEND SIGNAL CONNECTION TO EXISTING OR NEW MONITORING SYSTEM. DETECTOR SENSORS / SIGNAL WIRE AND PANEL SELECTION TO BE CONFIRMED, SELECTED AND LOCATED BY CUSTOMER- BY ELECTRICAL/CONTROLS TRADE CONTRACTOR.
   SUGGESTED VENDORS:
   - TRACETEK MODEL TT-1000 @ WWW.ETRACETEK.COM (CONTACT: DAVE HUMES AT FLUID DETECTION TECHNOLOGY, HOCKESSIN, DE (302) 234-1121).
   - PERMALERT MODEL PAL-AT @ WWW.PERMAPIPE.COM (CONTACT: DON BENDERY AT PERMA PIPE INC. NILES, IL (847) 929-1869



3 AT-2 CEILING LEAK TRAY TYPICAL INSTALLATION DETAILS

SCALE: 1" = 1'-0"

CEILING LEAK TRAY PLAN – TYPICAL INSTALLATION DETAILS – (3/AT-1) – CONSTRUCTION NOTES:

1. INSTALL STRICTLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

GENERAL NOTES:

1. WORK SHALL BE DONE WITH ROOM AND EQUIPMENT ENERGIZED AND OPERATING. CONTRACTOR SHALL REVIEW IN DETAIL WITH IT OPERATIONS MANAGER AT THE START OF WORK PRECAUTIONS AND MEASURES NEEDED TO PROTECT THE DATA CENTER EQUIPMENT AND TO MAINTAIN OPERATIONS DURING CONSTRUCTION.

2. CEILING TRAY INSTALLING CONTRACTOR SHALL LAYOUT AND INSTALL AQUATRAY PANELS TO FULLY COVER THE AREAS LISTED. ADJUSTMENTS TO THE EXACT LOCATION OF MAIN AND CROSS TEES SHALL BE CONFIRMED IN THE FIELD TO PROVIDE THE INTENDED COVERAGE.

3. CEILING/INTERIORS TRADE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BUILDING ANCHORS AND HANGERS IN ACCORDANCE WITH APPLICABLE ASTM AND ANSI STANDARDS TO RESIST A 2x4 AQUATRAY PANEL LOAD OF 100 LBS (12.5 LBS/SF). CEILING TRADE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES.

4. PLUMBING TRADE CONTRACTOR SHALL BE RESPONSIBLE FOR PIPING MATERIALS, PIPE SIZING, PIPE SUPPORTS AND PUMP SIZING/SELECTION (IF NEEDED) FOR A NORMAL DRAIN FLOW OF 20 GPM FROM ANY PIPE DRAIN CONNECTION FROM A SERIES OF TRAYS AND A 20 GPM TOTAL PEAK WATER FLOW FOR ANY PUMP USED. PLUMBING TRADE CONTRACTOR SHALL COORDINATE THE LOCATION OF DRAIN PIPING WITH CEILING CONTRACTOR AND OWNEL/PROJECT MANAGER SO AS NOT TO INTERFERE WITH CEILING ELEMENTS OR ROOM EQUIPMENT. PLUMBING TRADE CONTRACTOR SHALL DETERMINE FINAL DRAIN LOCATION IN COORDINATION WITH CUSTOMER. PLUMBING TRADE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PLUMBING CODES. PIPE SIZING CAN BE DETERMINED USING PLUMBING CODE OR PLUMBING INDUSTRY TABLES FOR FLOW CAPACITY (20 GPM SUGGESTED) BASED ON SLOPE AND PERCENT FULL (3/4 FULL SUGGESTED) FOR SIZE, SLOPE AND ROUGHNESS OF PIPE SELECTED PER THE MANNING FORMULA FOR GRAVITY FLOW. NOTE: SEE COVERAGE LIMITATION DISCLAIMER.

5. PLUMBING TRADE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PIPING MATERIALS AND PIPE SUPPORTS FOR THE EMERGENCY DRAINS INDICATED. EMERGENCY DRAINS ARE NEEDED TO RELIEVE WATER BUILD-UP AND ASSOCIATED WEIGHT DUE TO A LARGE WATER LEAK IN EXCESS OF THE FLOW CAPACITY OF THE NORMAL DRAINS. LOCATION OF THE OUTLETS OF THE EMERGENCY DRAINS SHALL BE COORDINATED WITH AN APPROVED BY THE OWNER/PROJECT MANAGER.

6. HVAC TRADE CONTRACTOR: SHALL BE RESPONSIBLE FOR THE REMOVAL, RELOCATION AND PROVISION OF NEW CEILING DIFFUSERS AND GRILLES INCLUDING SIZING OF NEW DEVICES AND PROPER AIR BALANCING TO RESTORE HVAC TO THE ROOM AS IT EXISTED PRIOR TO CONSTRUCTION.

7. CONTRACTOR SHALL CLEAN-UP AND RESTORE ORIGINAL CONDITIONS IN THE DATA CENTER ROOM AT THE END OF CONSTRUCTION.

AQUATRAY – BILL OF MATERIALS

ITEM	PART NO.	DESCRIPTION	QUAN	NOTES
001	AT-001-240	AquaTray 2x4 Drainage Ceiling Panel (Kydex-115)	42	
002	AT-002-000	Bulkhead Fitting – 3/4"-IPT	102	
003	AT-003-001	Connecting Tube (1-1/4" ID x 9-3/4" Long)	37	
004	AT-004-000	Tube Clamp	74	
005	AT-005-475	Flashing Tape (3M-8067 – 4" WIDE x 75 Ft Long)	2	
006	AT-005-675	Flashing Tape (3M-8067 – 6" WIDE x 75 Ft Long)	8	
007	AT-006-000	AquaTray T-Grid Boot (Kydex-115)	103	
008	AT-007-000	AquaTray 2x4 Flat Panel (Kydex-115)	86	

MATERIALS NOTES:

BILL OF MATERIALS IS FOR PROPRIETARY AQUATRAY PRODUCTS ONLY AND DOES NOT INCLUDE:
- T-GRID MATERIALS
- CLOSED CELL FOAM SPACERS FOR LARGER FLAT PANELS
- HANGER RODS
- PIPES
- PIPE SUPPORTS
- ANCHORS FOR HANGER RODS AND PIPE SUPPORTS
- LIGHT FIXTURES
- ELECTRICAL SUPPLIES
- SUMP PUMP(S) IF NEEDED
- OTHER MISCELLANEOUS MATERIALS NEEDED FOR THE INSTALLATION

>>> NOT FOR CONSTRUCTION <<<

SAMPLE INSTALLATION

HEAVY DUTY GRID
FULL COVERAGE

AQUATRAY
Leak Barrier Ceilings

541 RADIX RD.
WILLIAMSTOWN NJ, 08094
(856)629-9278 ph
(856)629-6743 fax
www.aquatray.com

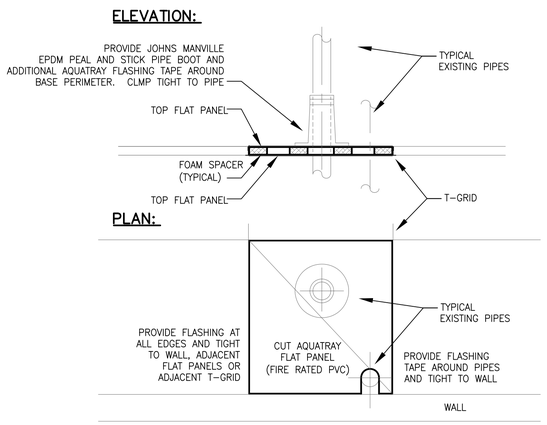
>>> NOT FOR CONSTRUCTION <<<

WORKROOM LEAK TRAY INSTALLATION

No.	Date	Issue or Revision	By

Drawing Title: CEILING LEAK TRAY SUGGESTED INSTALLATION

Scale: AS SHOWN	Project No.: V20-13-001
Datum Elev.	
Dwg. Date: 8.6.13	Drawing No.: AT-2
Drawn By: SMM	
Chkd. By: SMM	Sheet No. 1 of 2

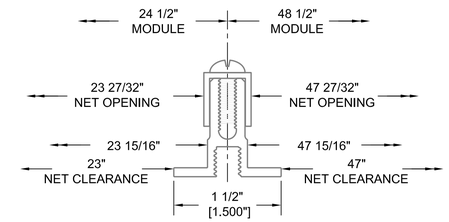


1 / AT-3 FULL PANEL AND LARGE PARTIAL PANEL TYPICAL INSTALLATION DETAILS

SCALE: 1" = 1'-0"

LARGE PARTIAL PANEL – (4/AT-1) – AQUATRAY PRODUCT INSTALLATION NOTES:

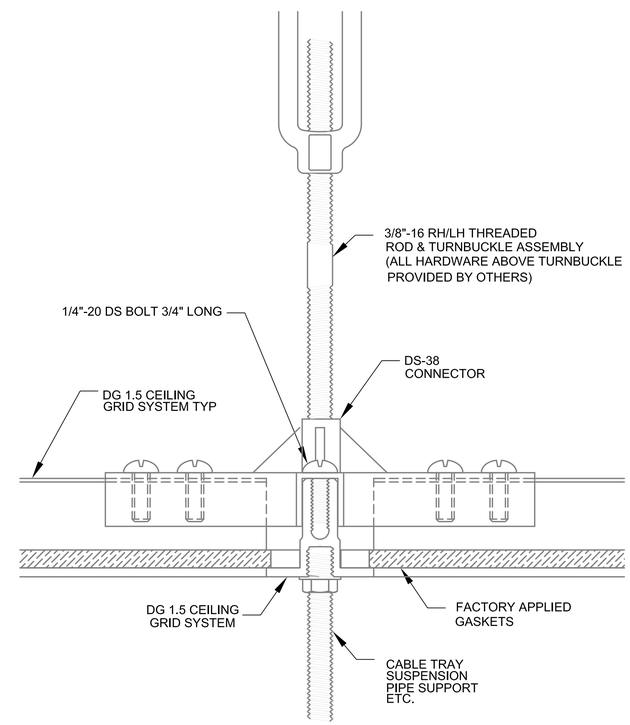
LARGER PARTIAL PANELS: CUT TO SIZE, AND CUT FOR ANY PENETRATIONS AT PERIMETER WALL AND FOR ANY CONDUIT OR PIPE PENETRATIONS WITHIN THE AREA OF COVERAGE. FOR ANY PARTIAL PANEL WITH BOTH SIDES GREATER IN LENGTH THAN 12 INCHES EACH OR GREATER IN AREA THAN 384 SQUARE INCHES PROVIDE CLOSED CELL FOAM SPACERS AND AN ADDITIONAL IDENTICALLY SHAPED AND CUT PANEL TO RAISE THE TOP SURFACE LEVEL TO THE ELEVATION OF THE T-GRID CROSS STRUCTURE. THIS WILL ELIMINATE THE PODLING AND WEIGHT DEVELOPMENT OF LEAK WATER. GLUE THE CLOSED CELL FOAM SPACER TOP AND BOTTOM TO FLAT PANELS AND PROVIDE FLASHING TAPE AROUND PENETRATIONS-TO-PANEL FOR WALL-TO-PANEL AND FOR ALL ADJACENT CEILING EDGES-TO-PANEL FOR A LEAK TIGHT INSTALLATION.



FIXTURES DIMENSIONS
ARE TYPICALLY MODULE SIZE LESS 7/8"

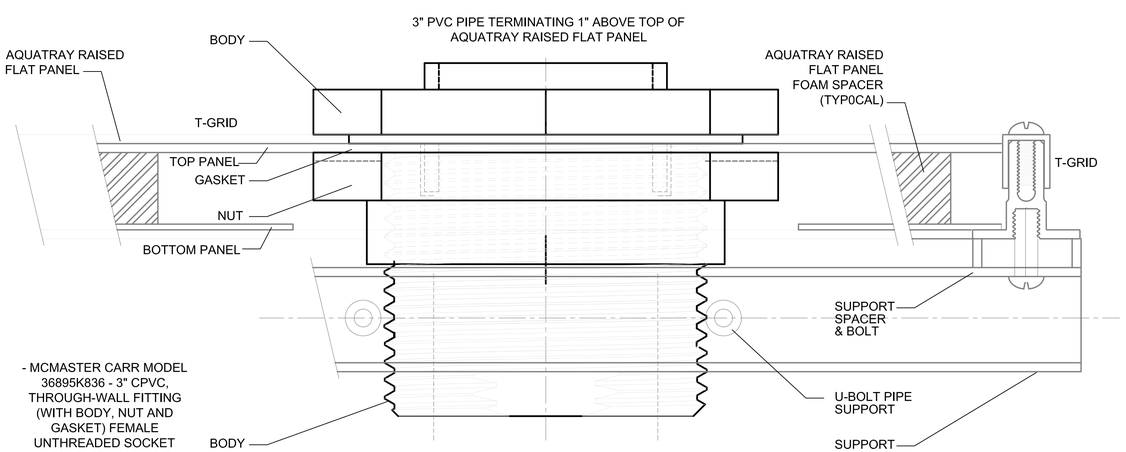
3 / AT-3 GORDON DG 1.5 24-1/2 X 48-1/2 MODULE-CEILING GRID

SCALE: 1'-0" = 1'-0"



4 / AT-3 GORDON DG 1.5 INTERSECTION AND HANGER DETAL

SCALE: 1'-0" = 1'-0"



- MCMASTER CARR MODEL 36895K836 - 3" CPVC, THROUGH-WALL FITTING (WITH BODY, NUT AND GASKET) FEMALE UNTHREADED SOCKET (ABOVE CEILING) AND FEMALE THREADED (BELOW CEILING).

4-1/2" DIAMETER HOLE SIZE IN TOP PANEL
7-1/2" DIAMETER HOLE SIZE IN BOTTOM PANEL

CEILING INSTALLER SHALL PROVIDE:
- PROVIDE AND INSTALL FITTING IN CEILING PANEL
- 3" SOCKET WELDED PIPE RISER ABOVE FITTING TO ELEVATION INDICATED

PLUMBING CONTRACTOR SHALL PROVIDE:
- 3" THREADED PIPE EMERGENCY DRAIN TO VISIBLE LOCATION
- PIPE SUPPORT FROM CEILING (SHOWN) OR WALL (NOT SHOWN)

2 / AT-3 EMERGENCY DRAIN DETAL

SCALE: 1'-0" = 1'-0"

>>> NOT FOR CONSTRUCTION <<<

SAMPLE INSTALLATION

HEAVY DUTY GRID

AQUATRAY Leak Barrier Ceilings

541 RADIX RD.
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>>> NOT FOR CONSTRUCTION <<<

WORKROOM LEAK TRAY INSTALLATION

No.	Date	Issue or Revision	By

Drawing Title: CEILING LEAK TRAY SUGGESTED INSTALLATION DETAILS

Scale: AS SHOWN	Project No.: V20-13-001
Datum Elev.	
Dwg. Date: 8.6.13	Drawing No.: AT-3
Drawn By: SMM	
Chkd. By: SMM	Sheet No. 2 of 2