



**Armor-Tile<sup>®</sup>**  
Tactile Systems

**SURFACE APPLIED**  
**Tactile Warning Surface Panels**





# Armor-Tile®

## Tactile Systems

### SURFACE APPLIED

#### *High Durability*

Armor-Tile® Surface Applied is the world leader in tactile walking surface indicators systems. Manufactured of a high-strength polymer composite, Armor-Tile truncated dome is the industry leader for durability, weather, and wear resistance. Armor-Tile also is available as a replaceable cast-in-place (Herculite Series), modular paver, cast-in-place, and directional bars.

Tactile Walking Surface Indicators (TWSI) products for the following and many more applications:

- Curb Ramps
- Pedestrian Crossings
- Vehicular Passage Ways
- Escalator Approaches
- Parking Areas
- Transit Platforms
- Top of Stair Landings / Wheelchair Ramps
- Multi-Modal Transit Stations

### PRODUCT FEATURES

- The most cost-effective method for compliant curb ramps
- A smooth transition that meets Accessibility Codes
- Lightweight and easy to handle
- Easily cut to conform to various sizes and radius ramps
- Available in seven (7) different sizes to meet your needs
- Comes in ten (10) standard colors
- 5-year manufacturer's warranty



**ARMOR-TILE**  
RADIUS CALCULATOR  
go to <https://new.armor-tile.com>

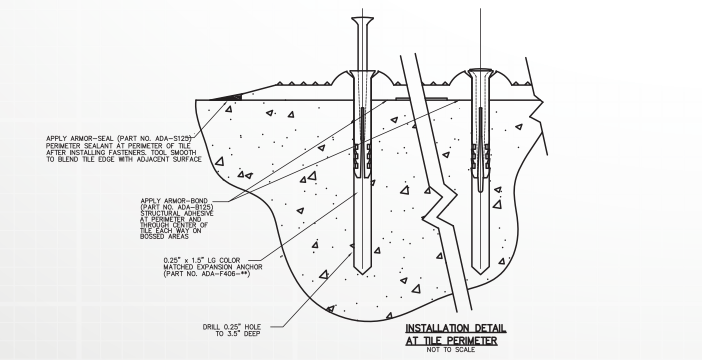
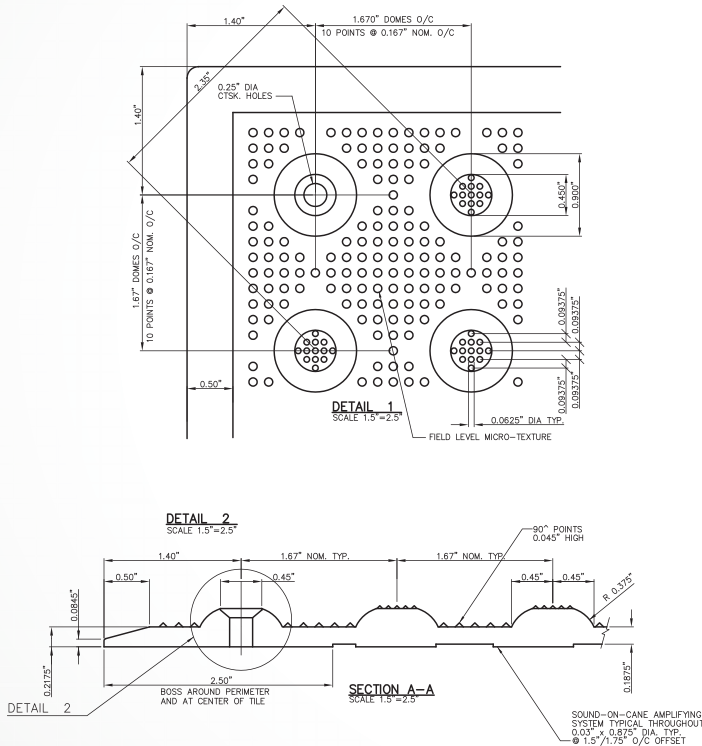


# Armor-Tile®

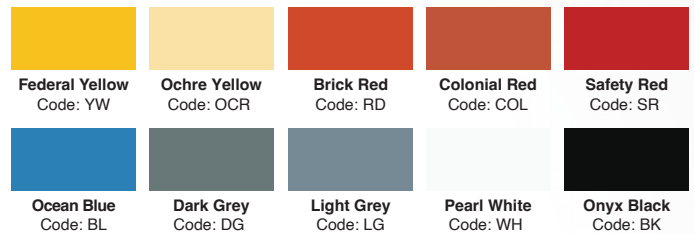
## Tactile Systems



### TACTILE WALKING SURFACE INDICATOR (TWSI) WITH TRUNCATED DOMES



### STANDARD COLORS



### CUSTOM COLORS

Large variety available. Let us know how we can help.

### STANDARD SURFACE APPLIED SIZES

SIZE	PRODUCT CODE
24" x 24" (615 x 625 mm)	ADA-S-2424
24" x 36" (625 x 915 mm)	ADA-S-2436
24" x 48" (625 x 1220 mm)	ADA-S-2448
24" x 60" (625 x 1524 mm)	ADA-S-2460
36" x 48" (915x 1220 mm)	ADA-S-3648
36" x 60" (915 x 1524 mm)	ADA-S-3660

### APPLICATIONS

#### TWSI Truncated Domes

- Curb ramps and blended transitions at pedestrian street crossings
- Pedestrian refuge islands
- Pedestrian at-grade rail crossings not located within a street or highway
- Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding platform are not protected by screens or guards
- Boarding and alighting areas at sidewalk or street level transit stops for rail vehicles where the side of the boarding and alighting areas facing the rail vehicles is not protected by screens or guards.



**SECTION 32 17 26 - TACTILE WARNING SURFACE  
DETECTABLE WARNING SURFACE PANELS  
SURFACE APPLIED**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A Drawings and general provisions of Contract, including General and Special Conditions and Division 1 Specifications Section, apply to this Section.

**1.2 DESCRIPTION**

- A This Section specifies furnishing and installing Surface Applied Detectable Warning Surface Panels where indicated. Not recommended for asphalt applications.

**1.3 SUBMITTALS**

- A Product Data: Submit manufacturer's literature describing products, installation procedures, and routine maintenance.
- B Samples for Verification Purposes: Submit two (2) samples minimum 12" x 12" (305 x 305 mm) of the kind proposed for use.
- C Shop drawings are required for products specified showing fabrication details, panel surface profile, fastener locations, plans of panel placement including joints, and material to be used as well as outlining installation materials and procedure.
- D Material Test Reports: Submit complete test reports from qualified accredited independent testing laboratories to qualify that materials proposed for use are in compliance with requirements and meet or exceed the properties indicated on the specifications.
- E Maintenance Instructions: Submit copies of manufacturer's specified installation and maintenance practices for each type of detectable warning surface panel.

**1.4 QUALITY ASSURANCE**

- A Provide Surface Applied Detectable Warning Surface Panels and accessories as produced by a single manufacturer with a minimum of three (3) years experience in the manufacturing of tactile walking surface products.
- B Installer's Qualifications: Engage an experienced installer who has successfully completed installations similar in material, design, and extent to that indicated for Project.
- C Surface Applied Detectable Warning Surface Panels shall be compliant with the following guidelines and requirements (applicability may be dependent on project location):

**1. APPLICABLE TO UNITED STATES**

- a. American Barriers Act (ABA) Accessibility Standards
- b. ADA Accessibility Guidelines (ADAAG)

- c. Department of Transportation ADA Standards for Transportation Facilities (2006)
- d. Department of Justice ADA Standards (2010)
- e. Public Rights-of-Way Accessibility Guidelines (PROWAG)
- f. California Building Standards Code, Title 24, California Code of Regulations
- g. Texas Accessibility Standards (TAS) 2012
- h. AASHTO M 333 Standard Specification for Detectable Warning Surfaces
- i. International Code Council (ICC) A117.1 Accessible and Usable Buildings and Facilities

**2. APPLICABLE TO CANADA**

- a. ISO 23599:2012(E): Assistive Products for Blind & Vision Impaired Persons – Tactile Walking Surf. Indicators
- b. CSA B651-18: Accessible Design for the Built Environment Standard – Section 4.3.5
- c. Integrated Accessibility Standards Regulation 191/11 – Sections 80.25 to 80.29
- d. Ontario Building Code 3.8.3.18. Tactile Attention Indicators
- e. National Building Code of Canada: Section 3.3.1.19 Tactile Walking Surface Indicators

D Surface Applied Detectable Warning Surface Panels shall be manufactured from fiberglass reinforced polymer composite. Panels shall incorporate the following design elements:

- 1. In-line pattern of truncated domes oriented parallel to panel edges
- 2. Dome height of 0.20" (5 mm)
- 3. Dome base diameter of 0.9" (23 mm)
- 4. Dome top diameter of 0.45" (12 mm)
- 5. Dome spacing of 1.67" (60 mm) to 2.40" (61 mm) center to center
- 6. Traction elements on top of domes and in the field between dome bases shall consist of a micro texture of raised points 0.05" high (1.2 mm)

E Surface Applied Detectable Warning Surface Panels shall meet or exceed the following test criteria using the most current test methods:

Test Method	Test Description	Value
ASTM D 695	Compressive Strength	≥ 28,900 psi
ASTM D 790	Flexural Strength	≥ 21,000 psi
ASTM D 638	Tensile Strength	≥ 11,000 psi
ASTM D 570	Water Absorption	≤ 0.05%
ASTM C 1028	Slip Resistance	≥ 0.80 wet/dry
ASTM E 84	Flame Spread Index	≤ 25
ASTM B 117	Salt Spray	No Effect
ASTM 1308	Chemical Stain	No Effect
ASTM C 501	Abrasion Resistance (lw)	> 500
ASTM G 155	Accelerated Weathering (2000hrs)	ΔE < 5
AASHTO-H20	Load Bearing at 10,410 lbs.	No Effect
ASTM C 1026	Freeze/Thaw/Heat	No Effect
ASTM D 1037	Accelerated Aging	No Effect

**1.5 DELIVERY, STORAGE AND HANDLING**

- A Surface Applied Detectable Warning Surface Panels shall be packaged to prevent damage in shipment or handling. Finished surfaces shall be protected by sturdy wrappings and products shall be identified by part number.
- B Surface Applied Detectable Warning Surface Panels shall be delivered to a location at the building site for storage before installation. Store panels in an area that is within an acceptable temperature range 40°F - 90°F (4°C - 32°C) and maintain the storage facility in a clean, dry condition to prevent contamination or damage to the panels.

## 1.6 SITE CONDITIONS

- A Environmental Conditions and Protection: Maintain minimum temperature of 40°F (4°C) in spaces to receive Surface Applied Detectable Warning Surface Panels for at least 24 hours prior to installation, during installation, and for not less than 24 hours after installation.

## 1.7 WARRANTY

- A Surface Applied Detectable Warning Surface Panels shall be warranted by the manufacturer in writing for a period of five (5) years from date of final completion. The guarantee includes manufacturing defects, breakage, and deformation.
- B Surface Applied Detectable Warning Surface Panel installation shall be warranted in writing for two (2) years by the installer. Products must be guaranteed from defective work and loosening of panels.

## PART 2 – PRODUCTS

### 2.1 MANUFACTURERS

- A. **Armor-Tile** Surface Applied Detectable Warning Surface Panels as manufactured by **SureWerx**, 325 Corporate Drive, Elgin, Illinois 60123. Phone 844-697-2920, [orders.ci.usa@surewerx.com](mailto:orders.ci.usa@surewerx.com), [www.armor-tile.com/](http://www.armor-tile.com/)
  - 1. Panel Sizes (nominal):
    - a. 12" x 12" (305 x 305 mm)
    - b. 24" x 24" (610 x 610 mm)
    - c. 24" x 36" (610 x 915 mm)
    - d. 24" x 48" (610 x 1220 mm)
    - e. 24" x 60" (610 x 1524 mm)
    - f. 36" x 48" (915 x 1220 mm)
    - g. 36" x 60" (915 x 1524 mm)
  - 2. Color: Color shall be single, homogeneous color throughout panel and be close approximation of the following AMS-STD-595 color numbers:
    - a. Federal Yellow (YW), Color No. 33538
    - b. Brick Red (RD), Color No. 22144
    - c. Colonial Red (COL) Color No. 20109
    - d. Safety Red (SR) No. 31350
    - e. Onyx Black (BK) No. 17038
    - f. Dark Gray (G) No. 36118

### 2.2 MATERIALS

- A. Panel Composition: Surface Applied Detectable Warning Surface Panels shall be manufactured using an exterior grade homogeneous (uniform color throughout thickness of product) fiberglass reinforced polyester based composite material. Truncated domes must contain fiberglass reinforcement within the truncated dome for superior structural integrity and impact resistance. Use of tactile warning surface products employing colored coatings is expressly prohibited.
- B. Fasteners: Nylon sleeve stainless-steel low-profile expansion anchors 1/4 inch diameter by minimum 1-1/2 inch long as supplied by SureWerx with panels.

C. Adhesive: Heavy duty elastomeric polyurethane adhesive by the following:

1. Bostik Ultra-Set Advanced
2. ChemLink M-1 Structural Adhesive/Sealant
3. or approved equal

## **PART 3 - EXECUTION**

### **3.1 PREPARATION**

A. The concrete shall be poured and finished, true and smooth to the required dimensions and slope prior to Surface Applied Detectable Warning Surface Panel placement.

### **3.2 EQUIPMENT**

A. Contractor shall provide all tools, equipment, and services required for satisfactory installation per manufacturer's instruction as Incidental Work. Equipment which may be required include typical mason's tools, a 4-foot level with electronic slope readout, 25 lb. (11.4 kg) weights, and tools for cutting the Detectable Warning Surface Panels.

### **3.3 INSTALLATION**

- A. Contractor will not be allowed to install panels until all submittals have been reviewed and approved by the Engineer. Panels shall be installed per manufacturer's instructions.
- B. To the maximum extent possible, the panels shall be oriented such that the rows of in-line truncated domes are parallel with the direction of the ramp. When multiple panels regardless of size are used, the truncated domes shall be aligned between the panels and throughout the entire tactile warning surface installation.
- C. In accordance with the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Rights of Way 2011, panels shall be located relative to the curb line as shown within Sections 304 and 305 of the Guidelines.
- D. Cutting of panels may be required to accommodate specific site conditions. All possible attempts shall be made to minimize cutting of the panels. Minimum acceptable width of the cut panel shall be 9".
- E. For proper curing of adhesive and sealant, air and substrate temperatures must maintain a minimum temperature of 40°F (4°C) for at least 8 hours after installation of panels.
- F. Verify that substrate is flat across application area of panel. Field grinding of concrete may be required to remove high spots and assure a flat substrate is achieved prior to panel installation.
- G. Prior to application of adhesive to concrete substrate, remove any residual contamination by mechanical abrasion, sand blasting, or power washing. On green concrete, remove all release agents, friable and loose concrete. Dry all visible and standing water prior to applying adhesive.
- H. Clean the bottom side of the panel with acetone on a clean rag. Wipe around the perimeter and along the internal cross pattern to remove any dirt or dust particles from the area to receive the adhesive.
- I. Apply minimum 3/8" (9.5 mm) bead of adhesive on the backside of panel continuous along both perimeter and interior flat frame surface.
- J. For superior adhesion and panel support in high traffic areas, a full coverage of adhesive may be desired



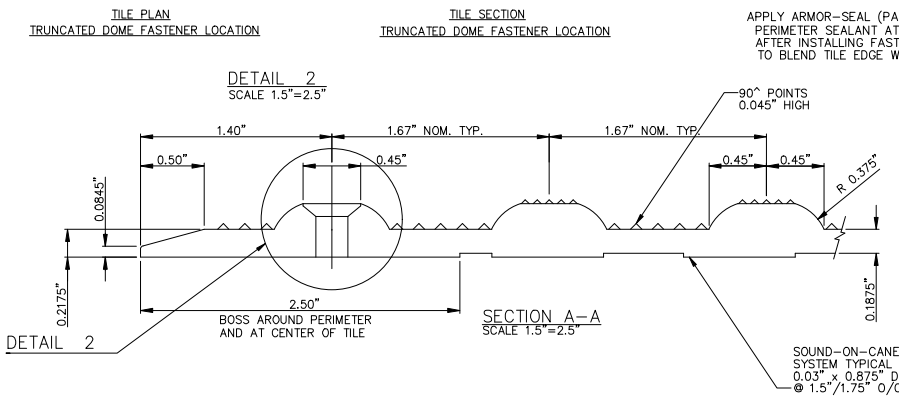
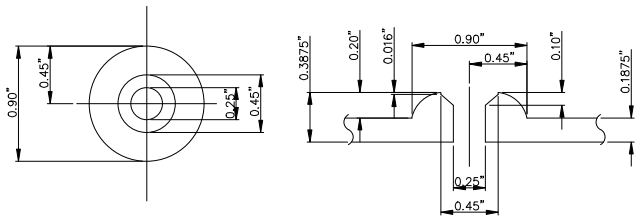
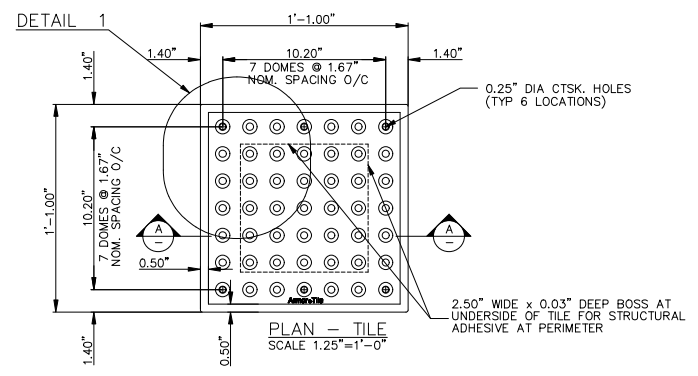
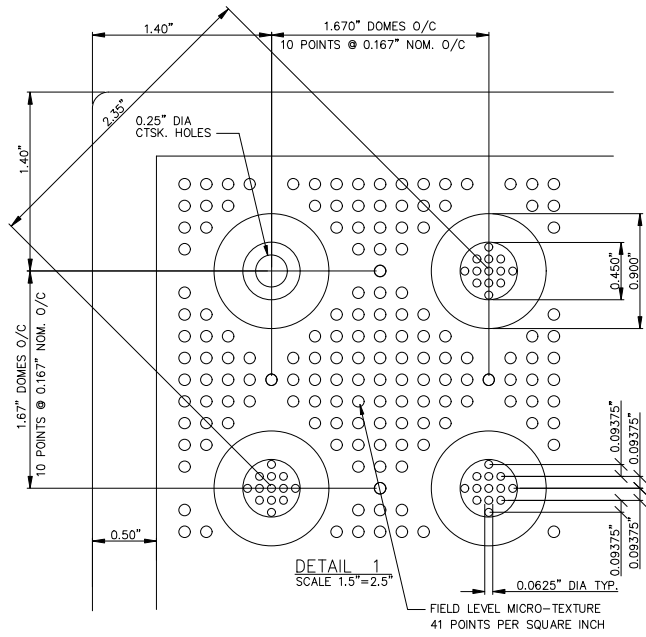
- K. Set the panel(s) true and square to the curb ramp areas as detailed in the Drawings. Allow 1/8" separation between successive panels for expansion/contraction.
- L. Drill 1/4" (6.35 mm) holes to a depth of 2" (50.8 mm) at all fastener locations provided in top of panel. Additional attachment locations may be required at the perimeter of cut panels or as needed to properly secure panel to substrate. Locate new holes through center of truncated domes using a 5 point 1/2" (12.7 mm) x 82 degree countersink drill bit.
- M. Mechanically fasten panels to the concrete substrate using manufacturer supplied composite sleeve anchors with stainless steel drive pins. Ensure that the fastener has been set to full depth, straight and true. Care should be taken when setting the fastener to avoid striking the surface of the panel.
- N. Apply a continuous bead of sealant around the perimeter edge the installed panel.
- O. Do not allow foot traffic on installed panel until the perimeter edge sealant has fully cured.

### **3.4 CLEANING AND PROTECTING**

- A. Protect panels against damage during construction period to comply with panel manufacturer's Specifications.
- B. Remove strippable protective film from panel within 24 hours of installation of the panel. Note that hot temperatures and excess exposure to sunlight can cause protective film to permanently adhere to panels surface.
- C. If requested by the Project Manager, clean panels not more than four (4) days prior to date scheduled for inspection intended to establish date of substantial completion in each area of project. Clean panel by method specified by Detectable Warning Surface panel manufacturer.

### **END OF SECTION**



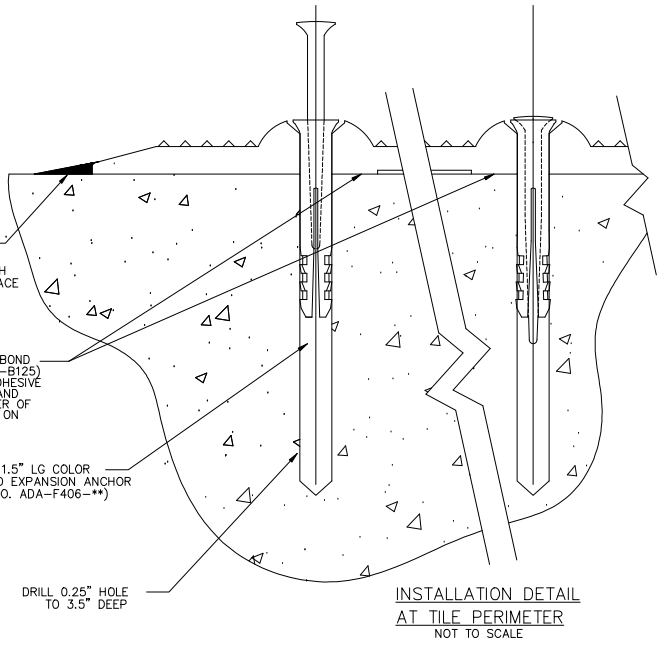


APPLY ARMOR-SEAL (PART NO. ADA-S125)  
PERIMETER SEALANT AT PERIMETER OF TILE  
AFTER INSTALLING FASTENERS. TOOL SMOOTH  
TO BLEND TILE EDGE WITH ADJACENT SURFACE

APPLY ARMOR-BOND  
(PART NO. ADA-B125)  
STRUCTURAL ADHESIVE  
AT PERIMETER AND  
THROUGH CENTER OF  
TILE EACH WAY ON  
BOSSSED AREAS

0.25" x 1.5" LG COLOR  
MATCHED EXPANSION ANCHOR  
(PART NO. ADA-F406-\*\*)

SOUND-ON-CANE AMPLIFYING  
SYSTEM TYPICAL THROUGHOUT  
0.03" x 0.875" DIA. TYP.  
@ 1.5"/1.75" O/C OFFSET



MATERIAL LIST			
#	DESCRIPTION	PART No:	QTY
1	ARMOR-TILE	ADA-S-1212-**	1
2	EXPANSION ANCHOR	ADA-FAST	6
3	TACTILE BOND AND SEAL	TBS-010	1

\*\* COLOR CODE  
YELLOW (YW), RED (RD), BLACK (BK),  
DARK GRAY (DG), LIGHT GRAY (LG),  
WHITE (WH), OCHRE YELLOW (OC),  
BLUE (BL), COLONIAL RED (CR)  
CUSTOM COLORS AVAILABLE

No:	DATE	REVISION	APPR.

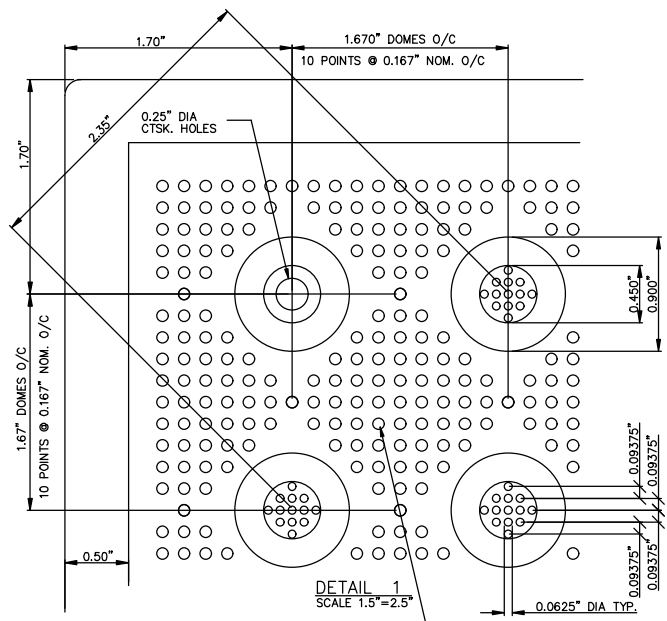
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DESIGNED	BY	DATE
DRAWN		2/22/2006
CHECKED		
PROJECT MANAGER		
TRADE	PART No:	
DETECTABLE WARNING SURFACE	ADA-S-1212-**	
MATERIAL		
POLYMER COMPOSITE		
SUBJECT		

**Armor-Tile™ ADA**  
SOUND AMPLIFYING DETECTABLE/TACTILE  
WARNING SURFACE TILE

PROJECT

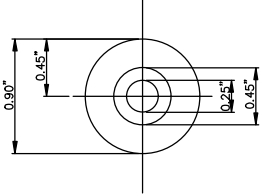
**Armor-Tile™**  
DETECTABLE/TACTILE  
WARNING SURFACE TILE  
12" x 12" SURFACE APPLIED  
INLINE DOME TACTILE TILE  
PLANS AND DETAILS

DRAWING No:	REV. No:
ADA-S-1212	0

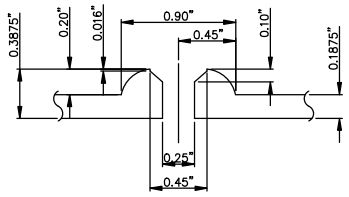


DETAIL 1  
SCALE 1.5"=2.5"

FIELD LEVEL MICRO-TEXTURE  
41 POINTS PER SQUARE INCH

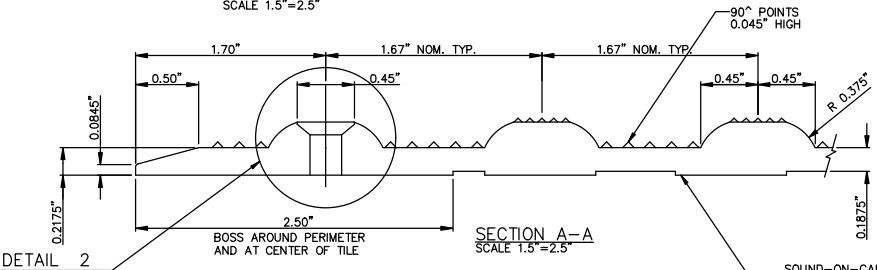


TILE PLAN  
TRUNCATED DOME FASTENER LOCATION



TILE SECTION  
TRUNCATED DOME FASTENER LOCATION

DETAIL 2  
SCALE 1.5"=2.5"



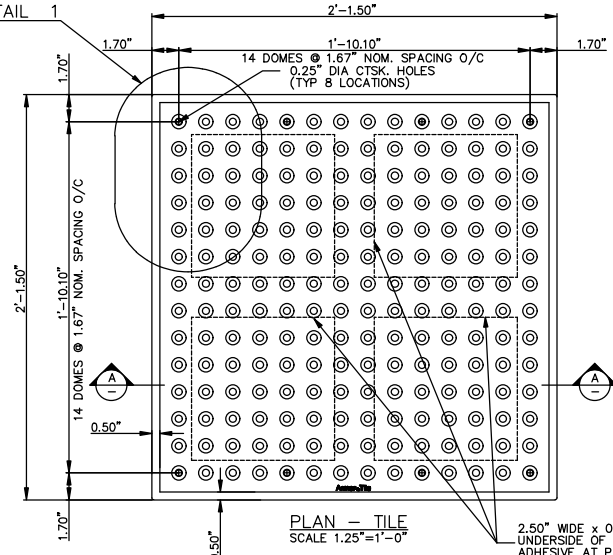
DETAIL 2

BOSS AROUND PERIMETER  
AND AT CENTER OF TILE

SECTION A-A  
SCALE 1.5"=2.5"

SOUND-ON-CANE AMPLIFYING  
SYSTEM TYPICAL THROUGHOUT  
0.03" x 0.875" DIA. TYP.  
@ 1.5"/1.75" O/C OFFSET

DETAIL 1



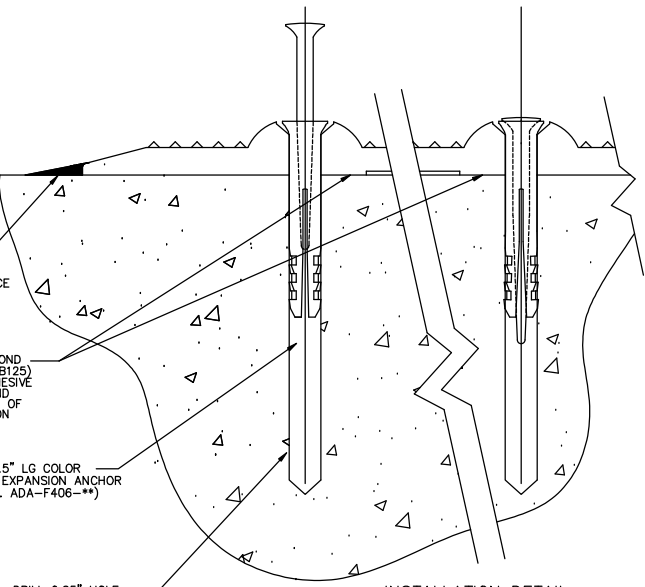
PLAN - TILE  
SCALE 1.25"=1'-0"

2.50" WIDE x 0.03" DEEP BOSS AT  
UNDERSIDE OF TILE FOR STRUCTURAL  
ADHESIVE AT PERIMETER AND  
THROUGH CENTER OF TILE

APPLY ARMOR-SEAL (PART NO. ADA-S125)  
PERIMETER SEALANT AT PERIMETER OF TILE  
AFTER INSTALLING FASTENERS. TOOL SMOOTH  
TO BLEND TILE EDGE WITH ADJACENT SURFACE

APPLY ARMOR-BOND  
(PART NO. ADA-B125)  
STRUCTURAL ADHESIVE  
AT PERIMETER AND  
THROUGH CENTER OF  
TILE EACH WAY ON  
BOSSED AREAS

0.25" x 1.5" LG COLOR  
MATCHED EXPANSION ANCHOR  
(PART NO. ADA-F406-\*\*)



DRILL 0.25" HOLE  
TO 3.5" DEEP

INSTALLATION DETAIL  
AT TILE PERIMETER  
NOT TO SCALE



MATERIAL LIST

#	DESCRIPTION	PART No:	QTY
1	ARMOR-TILE	ADA-S-2424-**	1
2	EXPANSION ANCHOR	ADA-FAST	8
3	ARMOR-BOND	ADA-ADHE-EA	1
4	ARMOR-SEAL	ADA-SEAL-EA	1

\*\* COLOR CODE  
YELLOW (YW), RED (RD), BLACK (BK),  
DARK GRAY (DG), LIGHT GRAY (LG),  
WHITE (WH), OCHRE YELLOW (OC),  
BLUE (BL), COLONIAL RED (CR)  
CUSTOM COLORS AVAILABLE

No:	DATE	REVISION	APPR.

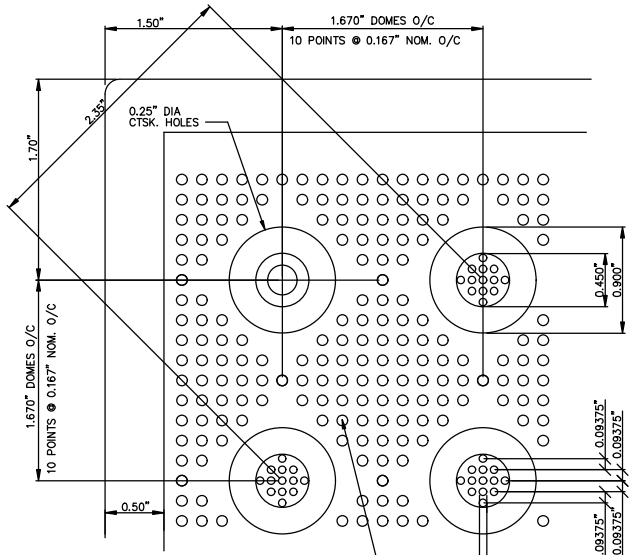
DESIGNED	BY	DATE
	K.S.	
DRAWN		
	D.G.	07/15/2024
CHECKED		
PROJECT MANAGER		

TRADE	PART No:
DETECTABLE WARNING SURFACE	ADA-S-2424-**
MATERIAL	
FIBERGLASS REINFORCED POLYMER COMPOSITE	
SUBJECT	

**Armor-Tile™ ADA**  
SOUND AMPLIFYING DETECTABLE/TACTILE  
WARNING SURFACE TILE

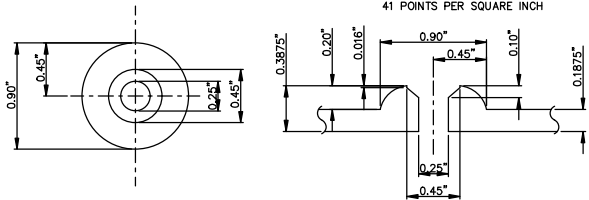
**Armor-Tile™**  
DETECTABLE/TACTILE  
WARNING SURFACE TILE  
24" x 24" SURFACE APPLIED  
INLINE DOME TACTILE TILE  
PLANS AND DETAILS

DRAWING No:	REV. No:
ADA-S-2424	0



DETAIL 1  
SCALE 1.5"=2.5"

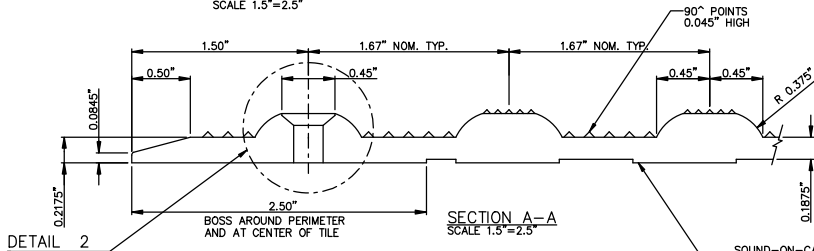
FIELD LEVEL MICRO-TEXTURE  
41 POINTS PER SQUARE INCH



TILE PLAN  
TRUNCATED DOME FASTENER LOCATION

TILE SECTION  
TRUNCATED DOME FASTENER LOCATION

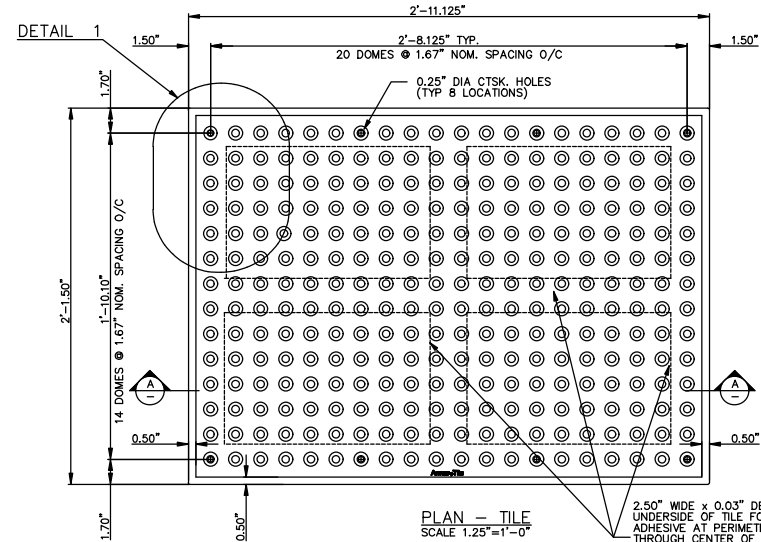
DETAIL 2  
SCALE 1.5"=2.5"



DETAIL 2

BOSS AROUND PERIMETER  
AND AT CENTER OF TILE

SECTION A-A  
SCALE 1.5"=2.5"



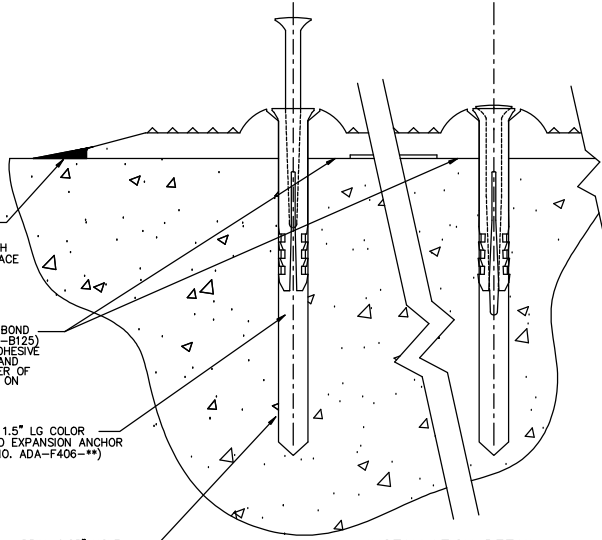
PLAN - TILE  
SCALE 1.25"=1'-0"

APPLY ARMOR-SEAL (PART NO. ADA-S125)  
PERIMETER SEALANT AT PERIMETER OF TILE  
AFTER INSTALLING FASTENERS. TOOL SMOOTH  
TO BLEND TILE EDGE WITH ADJACENT SURFACE

APPLY ARMOR-BOND (PART NO. ADA-B125)  
STRUCTURAL ADHESIVE  
AT PERIMETER AND  
THROUGH CENTER OF  
TILE EACH WAY ON  
BOSSED AREAS

0.25" x 1.5" LG COLOR  
MATCHED EXPANSION ANCHOR  
(PART NO. ADA-F406-\*\*)

SOUND-ON-CANE AMPLIFYING  
SYSTEM TYPICAL THROUGHOUT  
0.03" x 0.875" DIA. TYP.  
1.5/1.75" O/C OFFSET



INSTALLATION DETAIL  
AT TILE PERIMETER  
NOT TO SCALE



MATERIAL LIST

#	DESCRIPTION	PART No:	QTY
1	ARMOR-TILE	ADA-S-2436-**	1
2	EXPANSION ANCHOR	ADA-FAST	8
3	ARMOR-BOND	ADA-ADHE-EA	1
4	ARMOR-SEAL	ADA-SEAL-EA	1

\*\* COLOR CODE  
YELLOW (YW), RED (RD), BLACK (BK),  
DARK GRAY (DG), LIGHT GRAY (LG),  
WHITE (WH), OCHRE YELLOW (OC),  
BLUE (BL), COLONIAL RED (CR)  
CUSTOM COLORS AVAILABLE

No:	DATE	REVISION	APPR.

DESIGNED	BY	DATE
	K.S.	
DRAWN	D.G.	07/15/2024
CHECKED		

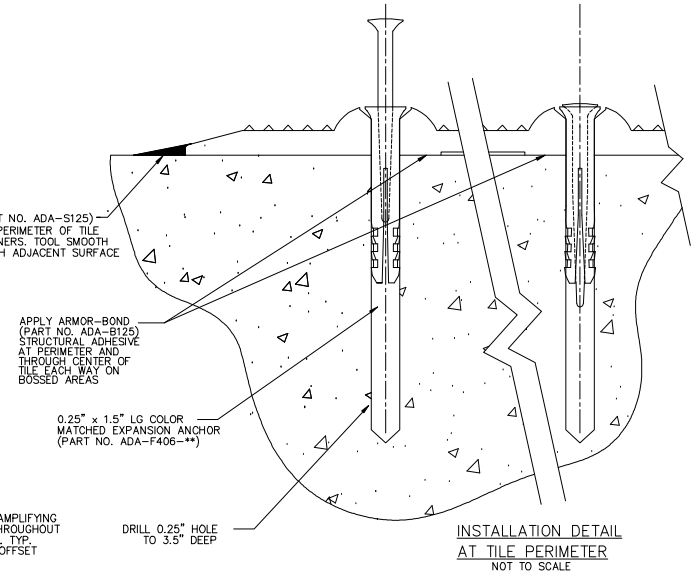
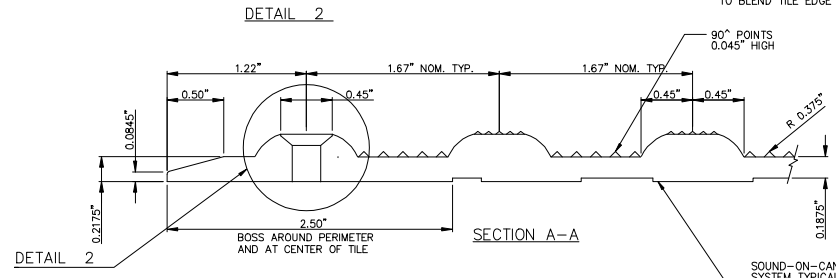
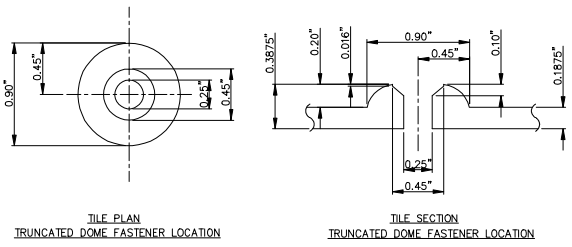
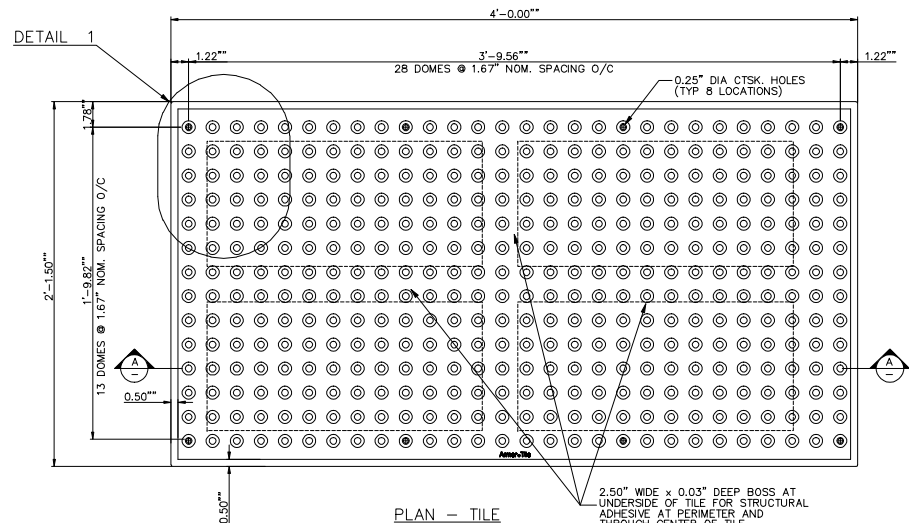
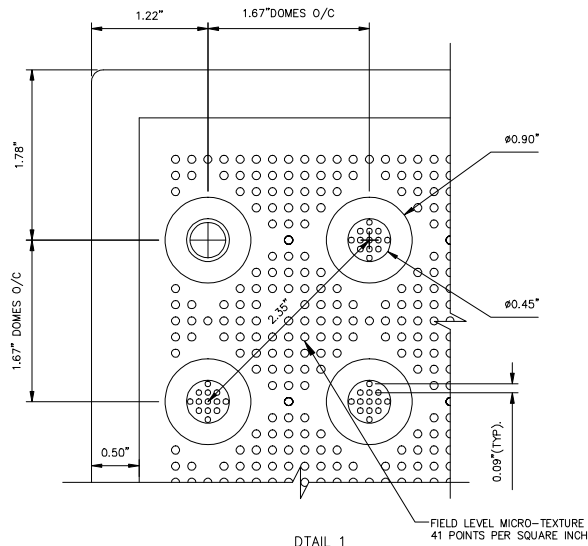
TRADE	PART No:
DETECTABLE WARNING SURFACE	ADA-S-2436-**

MATERIAL  
FIBERGLASS REINFORCED POLYMER COMPOSITE  
SUBJECT

**Armor-Tile™ ADA**  
SOUND AMPLIFYING DETECTABLE/TACTILE  
WARNING SURFACE TILE

PRODUCT  
**Armor-Tile™**  
DETECTABLE/TACTILE  
WARNING SURFACE TILE  
24" x 36" SURFACE APPLIED  
INLINE DOME TACTILE TILE  
PLANS AND DETAILS

DRAWING No:	REV. No:
ADA-S-2436	0



MATERIAL LIST

#	DESCRIPTION	PART No:	QTY
1	ARMOR-TILE	ADA-S-2448-**	1
2	EXPANSION ANCHOR	ADA-FAST	8
3	ARMOR-BOND	ADA-ADHE-EA	1
4	ARMOR-SEAL	ADA-SEAL-EA	1

\*\* COLOR CODE  
 YELLOW (YW), RED (RD), BLACK (BK),  
 DARK GRAY (DG), LIGHT GRAY (LG),  
 WHITE (WH), OCHRE YELLOW (OG),  
 BLUE (BL), COLONIAL RED (CR)  
 CUSTOM COLORS AVAILABLE

No:	DATE	REVISION	APPR.

SCALE

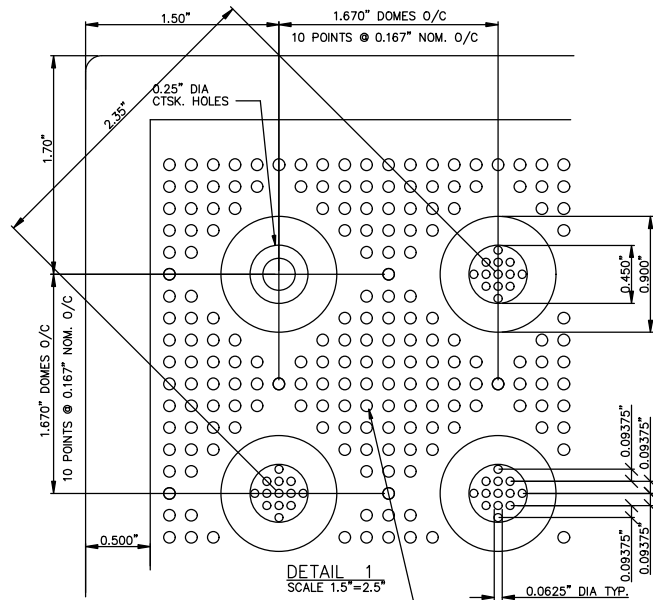
DESIGNED	BY	DATE
		08/02/2007

CHECKED	PROJECT MANAGER
TRADE DETECTABLE WARNING SURFACE	PART No: ADA-S-2448-**
MATERIAL POLYMER COMPOSITE	SUBJECT <b>Armor-Tile™ ADA</b> SOUND AMPLIFYING DETECTABLE/TACTILE WARNING SURFACE TILE

PROJECT  
**Armor-Tile™**  
 DETECTABLE/TACTILE  
 WARNING SURFACE TILE  
 24" x 48" SURFACE APPLIED  
 INLINE DOME TACTILE TILE  
 PLANS AND DETAILS

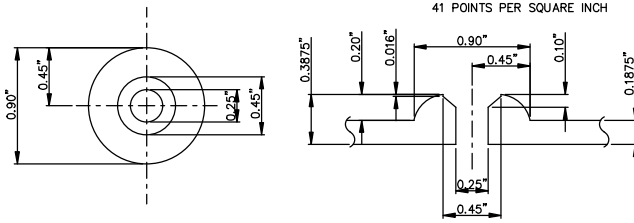
DRAWING No: ADA-S-2448	REV. No: 1
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DETAIL 1  
SCALE 1.5"=2.5"

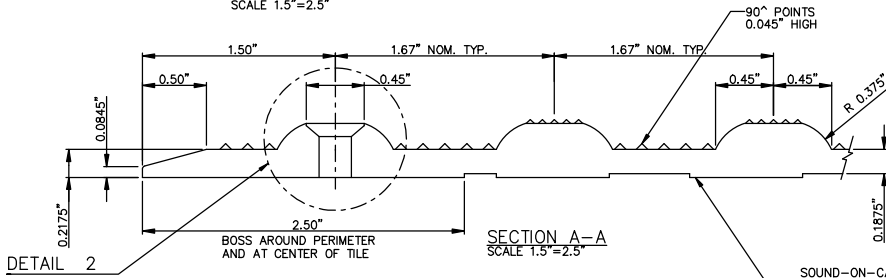
FIELD LEVEL MICRO-TEXTURE  
41 POINTS PER SQUARE INCH



TILE PLAN  
TRUNCATED DOME FASTENER LOCATION

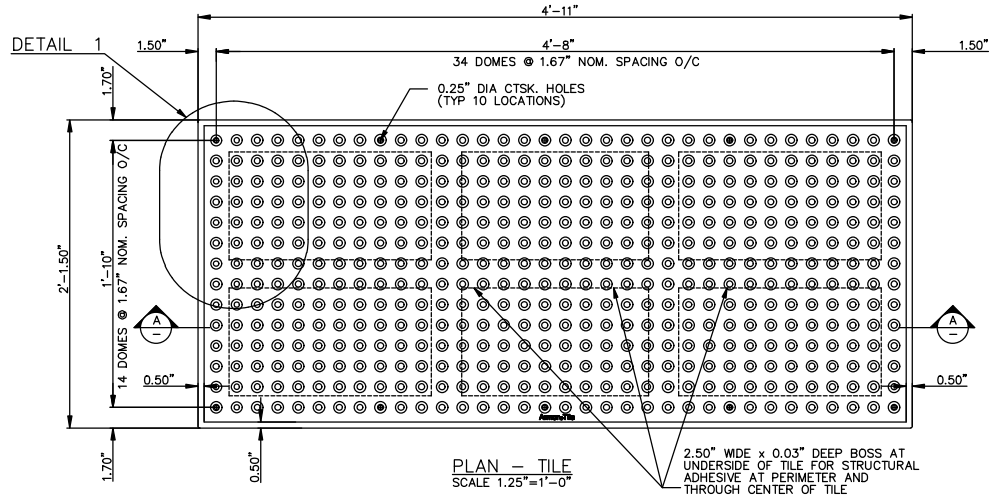
TILE SECTION  
TRUNCATED DOME FASTENER LOCATION

DETAIL 2  
SCALE 1.5"=2.5"



DETAIL 2

SECTION A-A  
SCALE 1.5"=2.5"



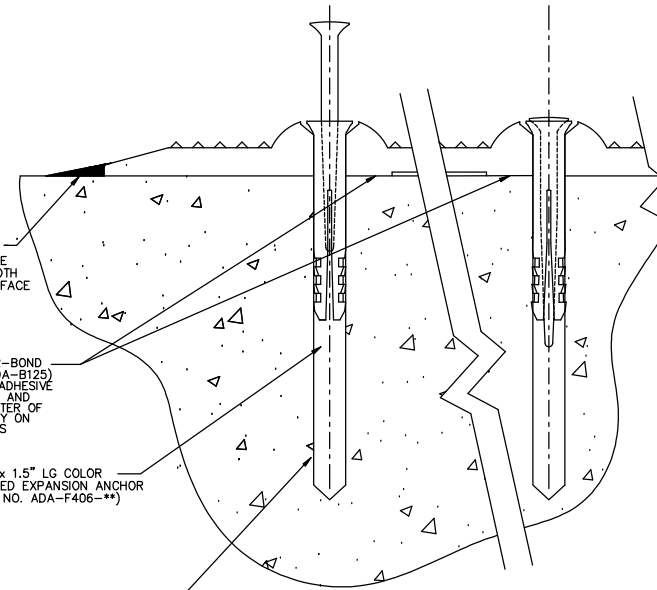
PLAN - TILE  
SCALE 1.25"=1'-0"

APPLY ARMOR-SEAL (PART NO. ADA-S125)  
PERIMETER SEALANT AT PERIMETER OF TILE  
AFTER INSTALLING FASTENERS. TOOL SMOOTH  
TO BLEND TILE EDGE WITH ADJACENT SURFACE

APPLY ARMOR-BOND  
(PART NO. ADA-B125)  
STRUCTURAL ADHESIVE  
AT PERIMETER AND  
THROUGH CENTER OF  
TILE EACH WAY ON  
BOSSSED AREAS

0.25" x 1.5" LG COLOR  
MATCHED EXPANSION ANCHOR  
(PART NO. ADA-F406-\*\*) DRILL 0.25" HOLE  
TO 3.5" DEEP

SOUND-ON-CANE AMPLIFYING  
SYSTEM TYPICAL THROUGHOUT  
0.03" x 0.875" DIA. TYP.  
@ 1.5"/1.75" O/C OFFSET



INSTALLATION DETAIL  
AT TILE PERIMETER  
NOT TO SCALE

MATERIAL LIST

#	DESCRIPTION	PART No:	QTY
1	ARMOR-TILE	ADA-S-2460	1
2	EXPANSION ANCHOR	ADA-FAST	10
3	ARMOR-BOND	ADA-ADHE-EA	1
4	ARMOR-SEAL	ADA-SEAL-EA	1

\*\* COLOR CODE  
YELLOW (YW), RED (RD), BLACK (BK),  
DARK GRAY (DC), LIGHT GRAY (LG),  
WHITE (WH), OCHRE YELLOW (OC),  
BLUE (BL), COLONIAL RED (CR)  
CUSTOM COLORS AVAILABLE

No:	DATE	REVISION	APPR.

SCALE

DESIGNED	BY	DATE
	K.S.	
DRAWN		
	D.G.	07/15/2024
CHECKED		

PROJECT MANAGER

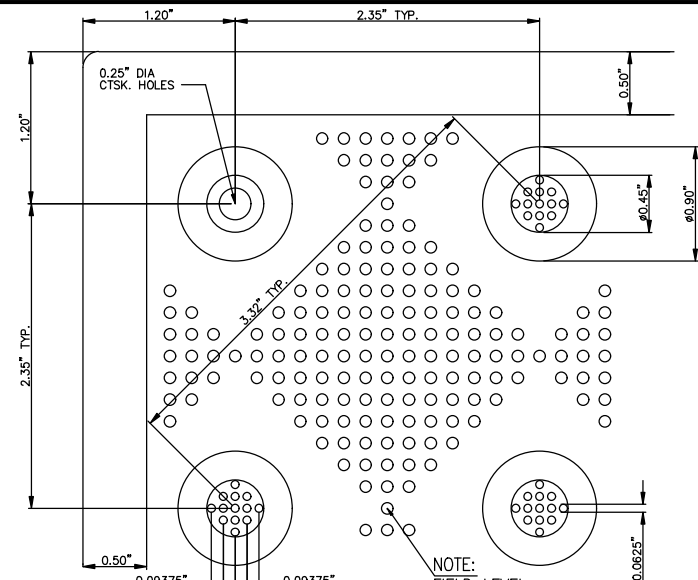
TRADE	PART No:
DETECTABLE WARNING SURFACE	ADA-S-2460-**

MATERIAL  
FIBERGLASS REINFORCED POLYMER COMPOSITE

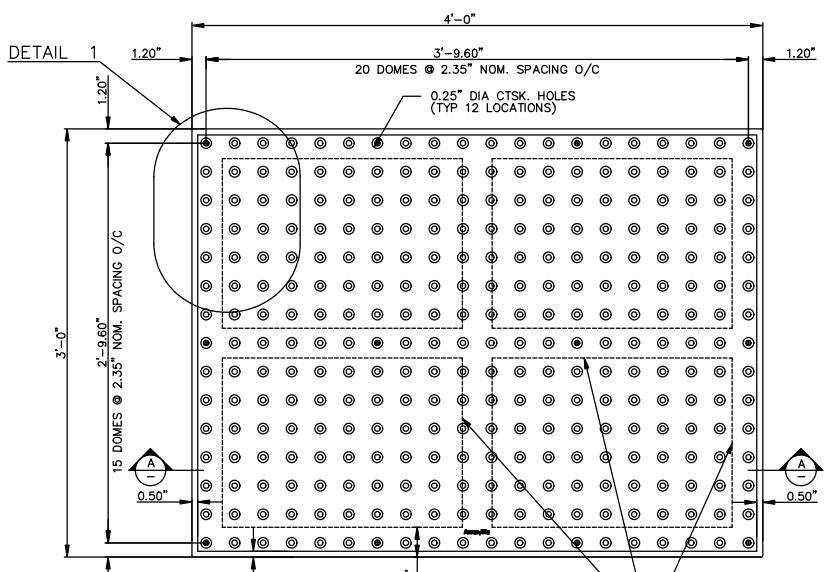
SUBJECT  
**Armor-Tile™ ADA**  
SOUND AMPLIFYING DETECTABLE/TACTILE  
WARNING SURFACE TILE

PROJECT  
**Armor-Tile™**  
DETECTABLE/TACTILE  
WARNING SURFACE TILE  
24" x 60" SURFACE APPLIED  
INLINE DOME TACTILE TILE  
PLANS AND DETAILS

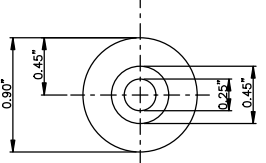
DRAWING No:	REV. No:
ADA-S-2460	0



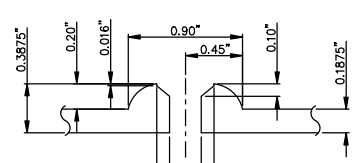
DETAIL 1  
NOT TO SCALE



PLAN - TILE  
NOT TO SCALE

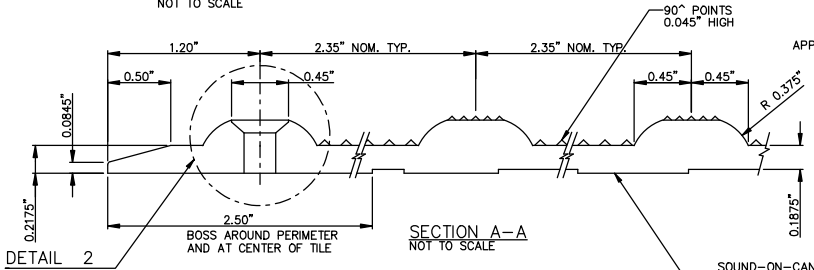


TILE PLAN  
TRUNCATED DOME FASTENER LOCATION



TILE SECTION  
TRUNCATED DOME FASTENER LOCATION

DETAIL 2  
NOT TO SCALE



DETAIL 2

SECTION A-A  
NOT TO SCALE

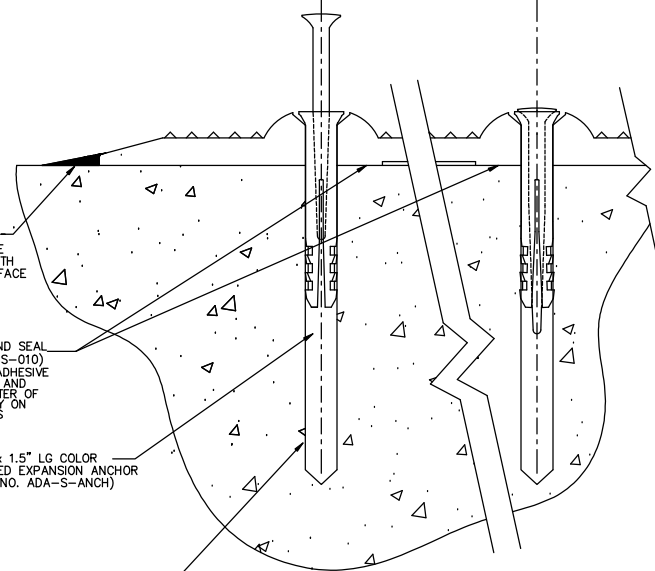
APPLY TACTILE BOND AND SEAL (PART NO. TBS-010) PERIMETER SEALANT AT PERIMETER OF TILE AFTER INSTALLING FASTENERS. TOOL SMOOTH TO BLEND TILE EDGE WITH ADJACENT SURFACE

APPLY TACTILE BOND AND SEAL (PART NO. TBS-010) STRUCTURAL ADHESIVE AT PERIMETER AND THROUGH CENTER OF TILE EACH WAY ON BOSSED AREAS

0.25" x 1.5" LG COLOR MATCHED EXPANSION ANCHOR (PART NO. ADA-S-ANCH)

SOUND-ON-CANE AMPLIFYING SYSTEM TYPICAL THROUGHOUT 0.03" x 0.875" DIA. TYP. @ 1.5"/1.75" O/C OFFSET

DRILL 0.25" HOLE TO 3.5" DEEP



INSTALLATION DETAIL  
AT TILE PERIMETER  
NOT TO SCALE

MATERIAL LIST

#	DESCRIPTION	PART No:	QTY
1	ARMOR-TILE	ADA-S-3648-W	1
2	EXPANSION ANCHOR	ADA-S-ANCH	12
3	TACTILE BOND AND SEAL	TBS-010	2

\*\* COLOR CODE  
YELLOW (YW), RED (RD), BLACK (BK),  
DARK GRAY (DC), LIGHT GRAY (LG),  
WHITE (WH), OCHRE YELLOW (OC),  
BLUE (BL), COLONIAL RED (CR)  
CUSTOM COLORS AVAILABLE

No:	DATE	REVISION	APPR.

SCALE

DESIGNED	BY K.S.	DATE
DRAWN	D.G.	07/15/2024
CHECKED		

PROJECT MANAGER

TRADE DETECTABLE WARNING SURFACE	PART No: ADA-S-3648-W
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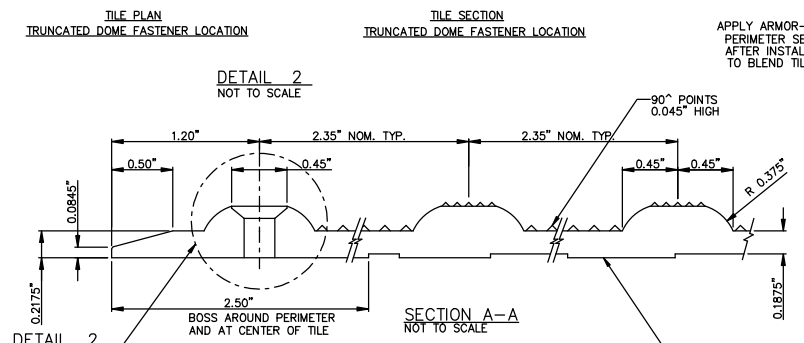
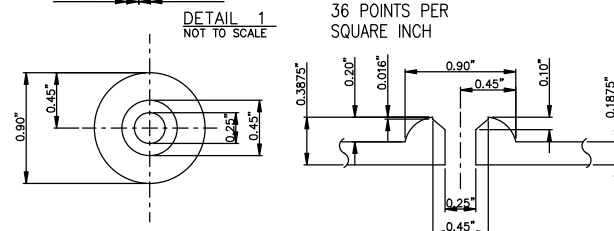
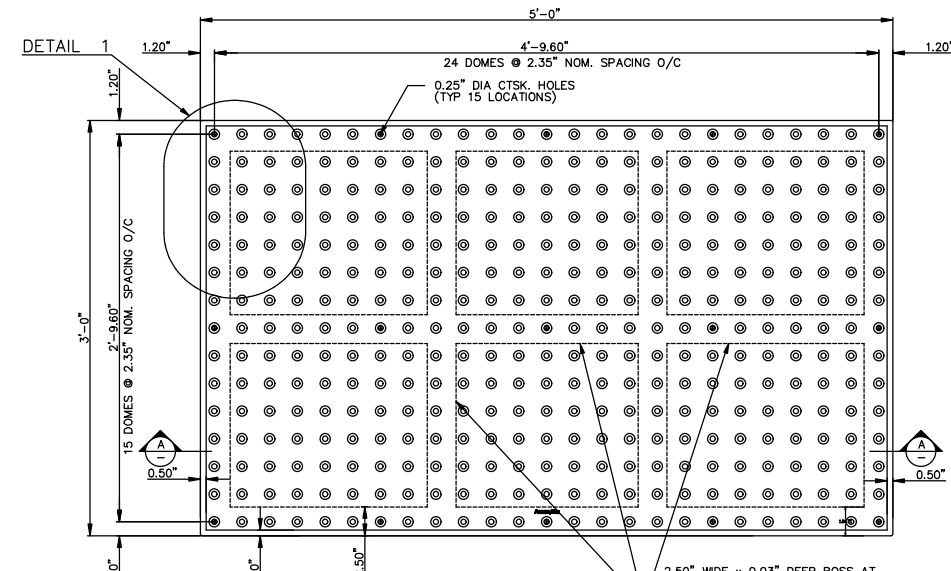
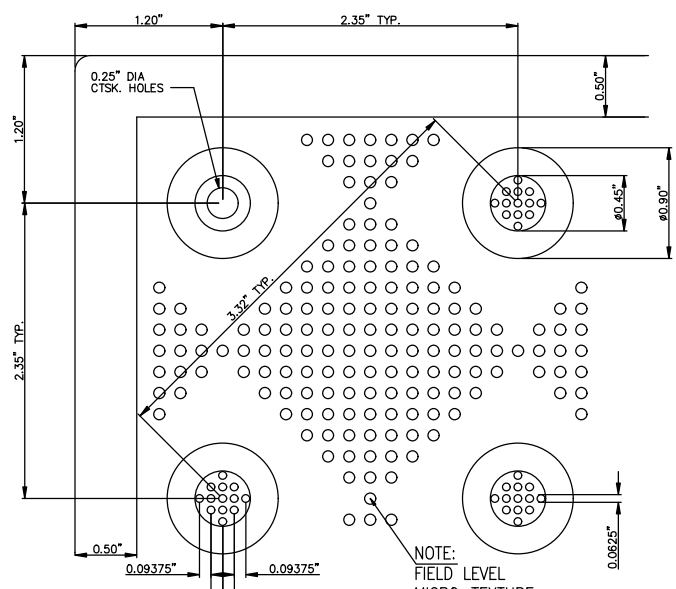
MATERIAL  
FIBERGLASS REINFORCED POLYMER COMPOSITE

SUBJECT  
**Armor-Tile™ ADA**  
SOUND AMPLIFYING DETECTABLE/TACTILE  
WARNING SURFACE TILE

PROJECT

**Armor-Tile™**  
DETECTABLE/TACTILE  
WARNING SURFACE TILE  
36" x 48" SURFACE APPLIED  
INLINE DOME TACTILE TILE  
PLANS AND DETAILS

DRAWING No: ADA-S-3648W	REV. No: 0
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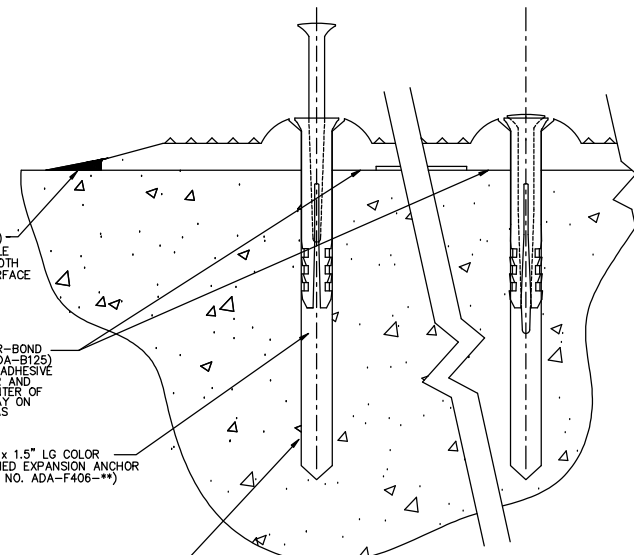


APPLY ARMOR-SEAL (PART NO. ADA-S125) PERIMETER SEALANT AT PERIMETER OF TILE AFTER INSTALLING FASTENERS. TOOL SMOOTH TO BLEND TILE EDGE WITH ADJACENT SURFACE

APPLY ARMOR-BOND (PART NO. ADA-B125) STRUCTURAL ADHESIVE AT PERIMETER AND THROUGH CENTER OF TILE EACH WAY ON BOSSSED AREAS

0.25" x 1.5" LG COLOR MATCHED EXPANSION ANCHOR (PART NO. ADA-F406-\*\*) DRILL 0.25" HOLE TO 3.5" DEEP

SOUND-ON-CANE AMPLIFYING SYSTEM TYPICAL THROUGHOUT 0.03" x 0.875" DIA. TYP. @ 1.5" / 1.75" O/C OFFSET



MATERIAL LIST

#	DESCRIPTION	PART No:	QTY
1	ARMOR-TILE	ADA-S-3660-W	1
2	EXPANSION ANCHOR	ADA-S-ANCH	15
3	TACTILE BOND AND SEAL	TBS-010	2

\*\* COLOR CODE  
 YELLOW (YW), RED (RD), BLACK (BK),  
 DARK GRAY (DC), LIGHT GRAY (LG),  
 WHITE (WH), OCHRE YELLOW (OC),  
 BLUE (BL), COLONIAL RED (CR)  
 CUSTOM COLORS AVAILABLE

No:	DATE	REVISION	APPR.

SCALE

DESIGNED	BY	DATE
	K.S.	
DRAWN		
	D.G.	07/15/2024
CHECKED		

PROJECT MANAGER	
TRADE	PART No:
DETECTABLE WARNING SURFACE	ADA-S-3660-W
MATERIAL	
FIBERGLASS REINFORCED POLYMER COMPOSITE	
SUBJECT	

**Armor-Tile ADA**  
 SOUND AMPLIFYING DETECTABLE/TACTILE WARNING SURFACE TILE

PROJECT

**Armor-Tile™**  
 DETECTABLE/TACTILE WARNING SURFACE TILE  
 36" x 60" SURFACE APPLIED INLINE DOME TACTILE TILE  
 PLANS AND DETAILS

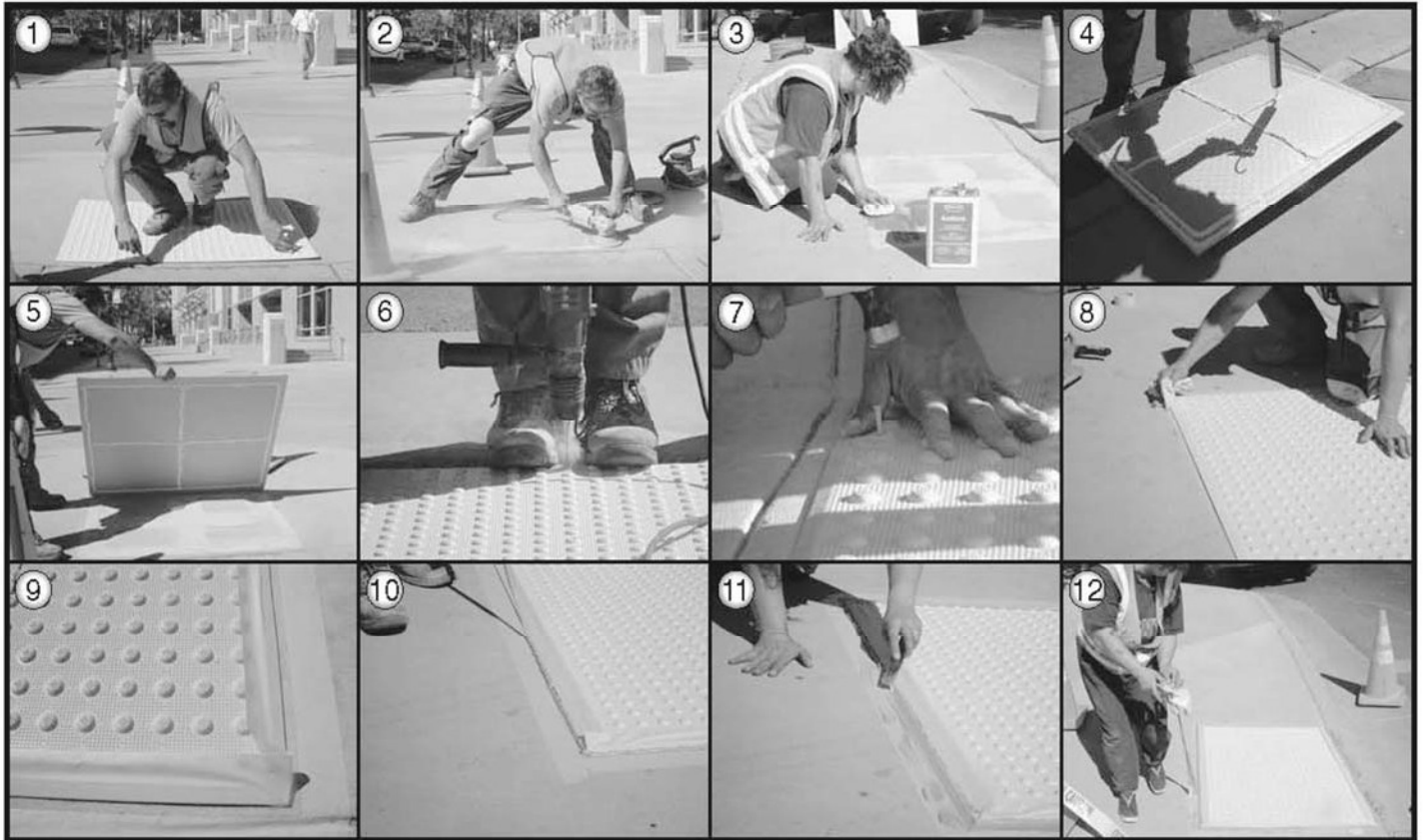
DRAWING No:	REV. No:
ADA-S-3660W	0



# Installation Instructions

## Surface Applied Inline Dome Tile

View installation slide show, drawings and specifications on our website – <https://armor-tile.com/>  
**Call 1-844-697-2920 if you have any questions**



1. Place the tile on the designated location and trace the perimeter with a thin permanent marker.
2. Set the tile aside and using a 4" diamond cup grinder, scour the concrete within the marked location and on a cross pattern corresponding with the boss on the backside of the tile to remove any dirt or foreign material. (Not recommended for asphalt surfaces).
3. Clear away the dust with a leaf blower then clean the back of the tile and the concrete with rag soaked in Acetone.
4. Apply the entire tube of adhesive (Tactile Bond & Seal) to the back of the tile following the perimeter and cross pattern. The first bead should be applied thin, 3/4" from the perimeter edge and a second bead applied 1" inside of the first. Extra adhesive can be applied to each corner should extra adhesive (Tactile Bond & Seal) be available.
5. Set the tile true and square to the curb ramp and press down firmly.
6. Keeping weight on either side of the pilot hole, drill down 3 1/2" into the concrete using a hammer drill and the recommend diameter drill bit. Drill through the tile without the hammer option until the tile has been penetrated, then with the hammer option drill into the concrete.
7. While still applying pressure, remove the dust and any adhesive that surfaces and carefully set the mechanical fastener with a hammer. To prevent damage to the tile, a plastic dead blow or leather hammer is recommended. Repeat 6 & 7.
8. Clean the perimeter of the tile and the immediate surrounding concrete with Acetone making sure to remove any adhesive that has escaped from beneath the tile.
9. Mask the edge of the tile and the concrete leaving a 1/2" gap back from the tile's perimeter edge.
10. Apply the perimeter sealant (Tactile Bond & Seal).
11. Using a plastic applicator or spatula smooth out the sealant (Tactile Bond & Seal) in a cove profile between the tile and adjacent concrete.
12. Carefully remove the masking tape immediately after tooling the perimeter sealant.



# Armor-Tile

## Tactile Systems

A SureWerx Brand

### 5 YEAR PRODUCT WARRANTY Fiberglass Reinforced Polymer Composite Products

**SureWerx warrants to the Project Owner that the Armor-Tile Tactile Walking Surface Indicator products supplied by SureWerx are free from defects in material including deformation, breakage, and delamination for a period of Five (05) years from the date of substantial completion of the project.**

*EXCLUSIVE REMEDIES: SureWerx, at its cost, will repair or replace defective material promptly reported to SureWerx during the warranty period. This warranty includes labor costs and cost of removal of the product. Repair or replacement will be done on site.*

*WARRANTY LIMITATIONS: The warranty of Armor-Tile products does not apply to conditions resulting from improper installation, improper use, external causes, intentional misuse, or abuse, neglected or improper annual maintenance, vandalism, modifications to the Armor-Tile products or installation procedures with the exception of the Owner's right to immediately eliminate an unsafe condition.*

*DISCLAIMER OF WARRANTY: The above warranties are the Owner's exclusive warranties. No other warranty, express or implied, shall apply. SureWerx specifically makes no warranty of merchantability and/or fitness for a particular purpose. In no event shall SureWerx be liable for any damages, lost profits, direct, consequential, or economic damages.*

Issued Date: 00/00/2024

Effective Date: 00/00/2024

Project: Name/Identifier

Issued to: Contractor Name  
Address  
City, ST 00000

Owner: Owner Name  
Address  
City, ST 00000

Manufacturer: **SureWerx (Armor-Tile, a SureWerx Brand)**  
Product: Detectable Warning Panels, Brick Red Fiberglass  
Description: reinforced polymer composite material

Issued by:

John Stieby

Name

Director of End User Sales

Title

00/00/2024

Date

# **Armor-Tile**

## **Tactile Systems**

### **CLEANING AND MAINTENANCE MANUAL**

The Armor-Tile Detectable Tile is unique in its visual and tactile properties and requires a slight variation in cleaning procedures. Due to the undulation and texture of the tile surface, it is necessary to reach the grime that rests on the low parts of the tile. Standard wet mopping will not be completely effective in cleaning these textured surfaces. A major benefit of the vitrified polymer composite tile is that the composition is virtually non-porous, and prevents liquids, dust and grime seeping into the body of the tile. The unique, non-porous nature of the tile therefore lends itself to regular and frequent cleaning in order to maintain and enhance the visual contrast that the bright yellow tile provides. Visual contrast is an essential safety feature of the tactile tiles, and this contrast must be rigorously maintained with regular cleaning in order to provide the contrast that the visually impaired rely on for their safety. The use of general purpose commercial floor cleaners or machine bristle scrubbing will not harm Armor-Tile. However, as these cleaning practices may weaken or dissolve the adjacent floor finish, careful attention must be paid to the selection and application of the cleaning solution. It is advisable to check with the manufacturer of the cleaning solution in order to be certain that the product intended to be used will not harm the Armor-Tile, grout, or the adjacent floor finish in any way.

#### **Regular Maintenance**

Many neutral general purpose cleaners are effective for the regular maintenance and cleaning of Armor-Tile. It is important that the cleaner to be used has a non-oil, non-animal fat, non-soap base. Cleaners with these bases may cause problems due to oil-residues which tend to trap dirt in the cleaning process.

Please remember to treat any cleaning product you wish to use on a small, out of the way test area of the tactile surface and adjacent floor area before applying it to the entire Armor-Tile surface. This will ensure that it performs as desired, not only on the Armor-Tile surface but also on the adjacent floor finish, thus avoiding unexpected problems.

#### **Avoid Surface Coatings**

Armor-Tile does not require the use of sealants or waxes. Adding surface coatings increases the number of unnecessary steps in maintenance procedures without improving either the appearance of the tile, or the resistance to dirt build-up. In fact, using a surface coating turns a low maintenance vitrified polymer composite finish into a high maintenance tile.

In addition, surface coatings will actually diminish the unique performance characteristics that make Armor-Tile exceptional among tactile tiles. Such surface coatings create a thin barrier that may modify the skid resistance and visibility properties, thereby reducing an important safety feature of the flooring.





325 Corporate Drive  
Elgin, IL 60123  
USA

**US Customer Service**  
Tel: 1-844-697-2920 | Fax: 1-833-652-1547  
Email: [orders.ci.usa@surewerx.com](mailto:orders.ci.usa@surewerx.com)

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