

**USG BILLO™**  
3-DIMENSIONAL PANELS

**SYSTEM GUIDE**



IT'S YOUR WORLD. BUILD IT.®

# SEE THE RHYTHM

Billo™ 3-Dimensional Ceiling Panels are luminous and lightweight with graceful curves that can flow up and down to punctuate flat ceiling planes with rhythm and depth. Made of sturdy Polycarbonate, these sleek panels fit into 9/16 narrow-profile suspension system to provide an easy, economical design option for creating eye-catching focal points within a space.

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**ENTERTAINMENT**

# USG BILLO™ 3-DIMENSIONAL CEILING PANELS

## SYSTEM GUIDE

Use this brochure to specify Billo™ 3-Dimensional Ceiling Panels, and create a signature touch that integrates easily with 9/16" acoustical ceiling systems. Inside, you'll find comprehensive information about system components, lighting and utility options, design ideas, and guide specifications.

## UNDERSTAND YOUR SYSTEM

- 5 System Overview
- 6 Components
- 8 Perimeter Options
- 9 Utility Options

## DESIGN YOUR SYSTEM

- 10 Design Concepts

## SPECIFY YOUR SYSTEM

- 15 Guide Specifications
- 18 Color Guide

## FOR MORE INFORMATION

### Technical Service

800 USG.4YOU (874-4968)

### Website

[usg.com](http://usg.com) or [cgcinc.com](http://cgcinc.com)

# USG BILLO™ 3-DIMENSIONAL CEILING PANELS

MADE OF POLYCARBONATE

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## PANELS

The 2 x 2 pre-formed Polycarbonate panels create myriad patterns with one simple shape. Panels feature a smooth surface and are available in many standard colors.

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## SUSPENSION SYSTEMS

The lightweight, lay-in panels install into 9/16 narrow-profile suspension systems and allow full ceiling accessibility.

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## PERIMETER DETAILS

Optional Compàsso™ Edge Trim may be added for a more finished appearance at exposed edges (See IC400 in the USG Specialty Ceilings binder for more information.)

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## LIGHTING AND UTILITY ACCESS

Billo™ 3-Dimensional Ceiling Panels may be backlit with fluorescent strip fixtures or integrated into a ceiling with standard lay-in fixtures. Panels may be field-cut with a hole saw or compass saw to accommodate pendant light fixtures and utilities wherever necessary.

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# SYSTEM OVERVIEW

## MATERIALS

### Product

Panels: Preformed Polycarbonate  
Suspension System: All 2' x 2' Donn® Brand 9/16 CENTRICITEE™ and FINELINE® profiles.

## SIZE AND WEIGHT

Panels: 2' x 2'  
Weight: 0.25 lbs./sf.

## CODE APPROVAL

### Fire rating

USG Billo™ panels meet the Class A acceptance criteria of 2021 IBC Section 803.1.1.1 for interior finishes as tested in accordance with NFPA 286.

USG Billo™ panels meet the Class B requirements for flame spread and smoke developed as tested in accordance with CAN/ULC S102 surface-burning characteristics.

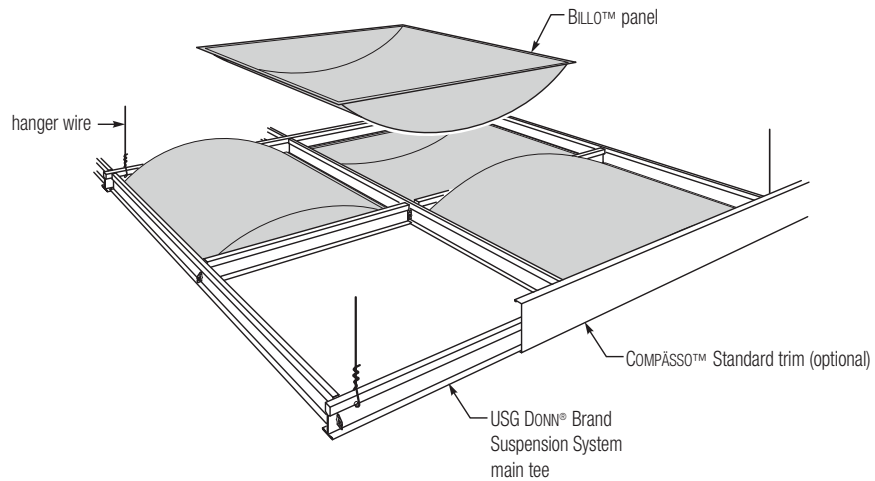
## FINISHES

Panel Color	Panel Light Transition	Suspension System Coordinating Colors
White Translucent	26%	Flat White
White Opaque	8%	Flat White

For color samples, see the inside back cover of this brochure.

## Assembly

## VIEW FROM ABOVE

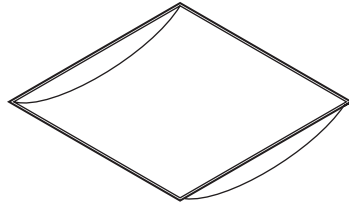


# SYSTEM COMPONENTS

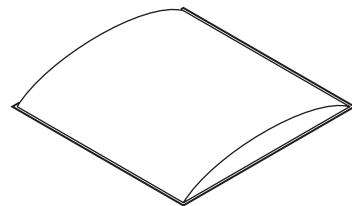
## SIZE AND WEIGHT

Billo™ panels are manufactured from Polycarbonate, a strong and lightweight material. Polycarbonate is easy to clean without marring, hazing or yellowing, ensuring that Billo™ panels will look new for years to come.

### Panel Down



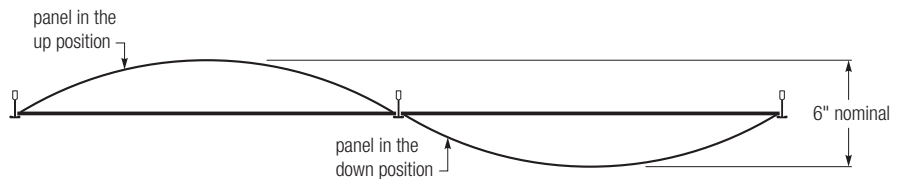
### Panel Up



### Panel Elevation

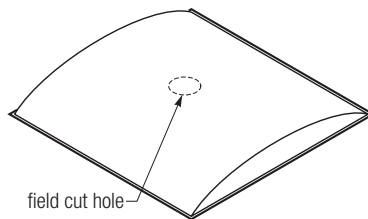


### Sample Assembly



## FIELD CUTOUTS

Panels may be field-cut with a hole saw or compass saw to accommodate utilities and light fixtures wherever necessary. For more information on cutting Billo™ panels, see literature item IC456.





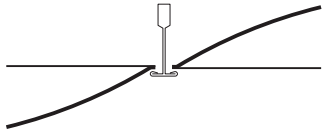
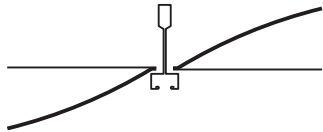
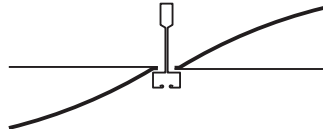
# SYSTEM COMPONENTS

## SUSPENSION SYSTEMS

Lightweight, durable Billo™ 3-Dimensional Ceiling Panels install quickly and easily into narrow-profile (9/16") CENTRICITEE™ (DXT™, GWDXT™), FINELINE® DXF™, FINELINE® 1/8" (DXFF™) suspension systems. The suspension system is offered in coordinated colors to match the panel finishes; it may also be custom painted.

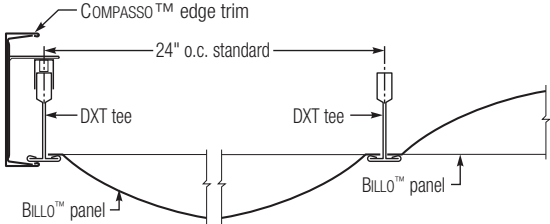
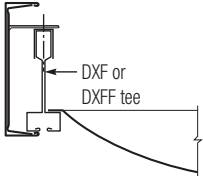
**Note:** GRIDWARE™ Suspension System (GWDXT) recommended with translucent Billo™ panels.

## EDGE DETAILS

Billo™ Panels with 9/16" Donn® Brand Centricitee™ (DXT™, GWDXT™) Suspension	Billo™ Panels with 9/16" FINELINE® (DXF) Suspension	Billo™ Panels with 9/16" FINELINE® 1/8 (DXFF™) Suspension
		

Optional edge trim in 2-1/4", 4", 6", 8", 10", and 12" heights may be added for a more finished appearance.

## COMPASSO STANDARD EDGE TRIM

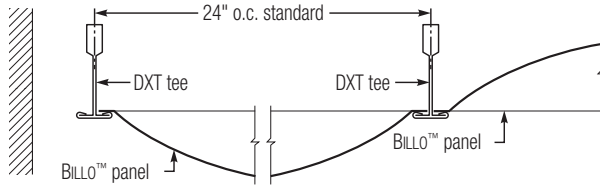
GWDXT™ Profile	DXF™ or DXFF™ Profile
	

# PERIMETER OPTIONS

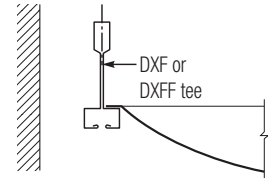
## Perimeter Details

NON-WALL OR  
"FLOATING" CONDITION

### GWDXT Profile

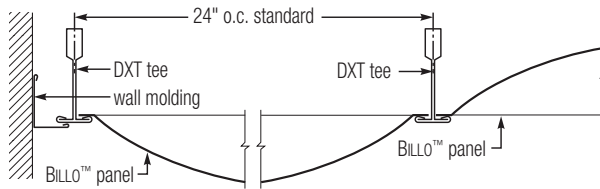


### DXF or DXFF Profile

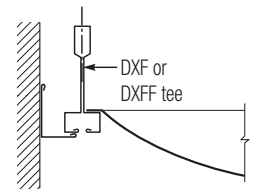


WALL CONDITION

### GWDXT Profile

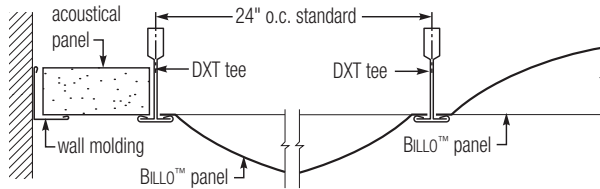


### DXF or DXFF Profile

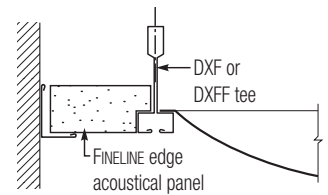


TRANSITION TO  
ACOUSTICAL CEILING  
PANELS AT WALL

### GWDXT Profile



### DXF or DXFF Profile





# UTILITY OPTIONS

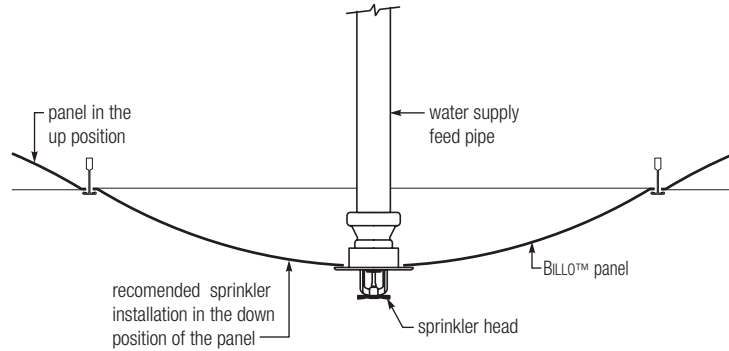
## HVAC DIFUSERS

Lay-in air diffusers that fit 9/16" narrow-profile suspension systems may be used with Billo™ 3-Dimensional Ceiling Panels.

## FIRE SPRINKLERS

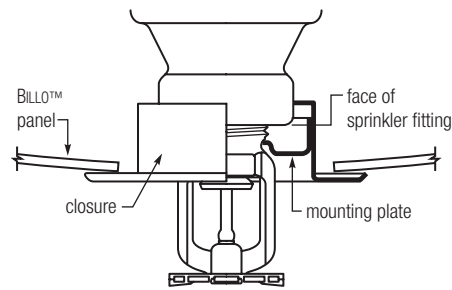
Utility holes may be field cut to accommodate exposed and concealed fire sprinklers.

### Installed in Panel

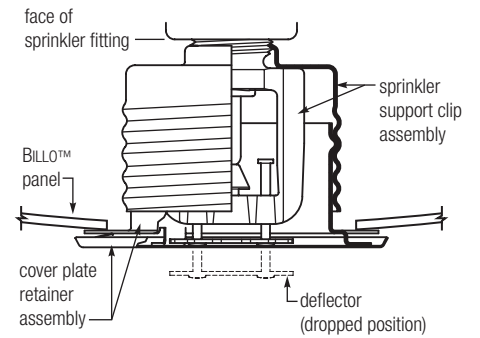


## DETAILS (Drawn to Scale)

### Recessed



### Concealed

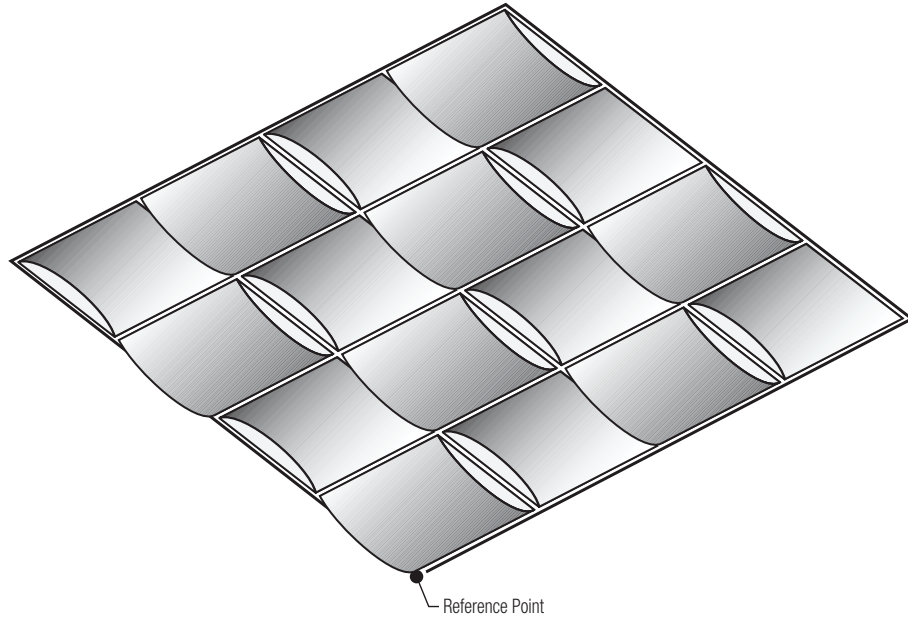


# DESIGN CONCEPTS

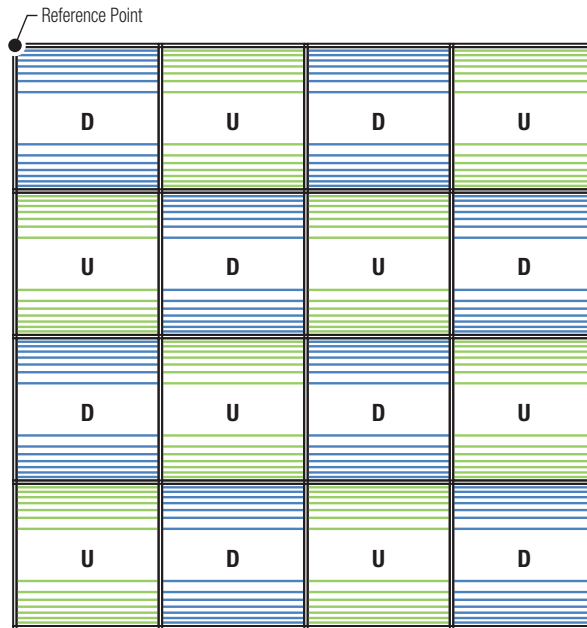
Billo™ 3-Dimensional Ceiling Panels can be configured in a wide range of patterns and random designs. The illustrations in this section show some basic design concepts. Of course, these are just a few ideas – you’re only limited by your imagination!

## PATTERN 1

### Perspective

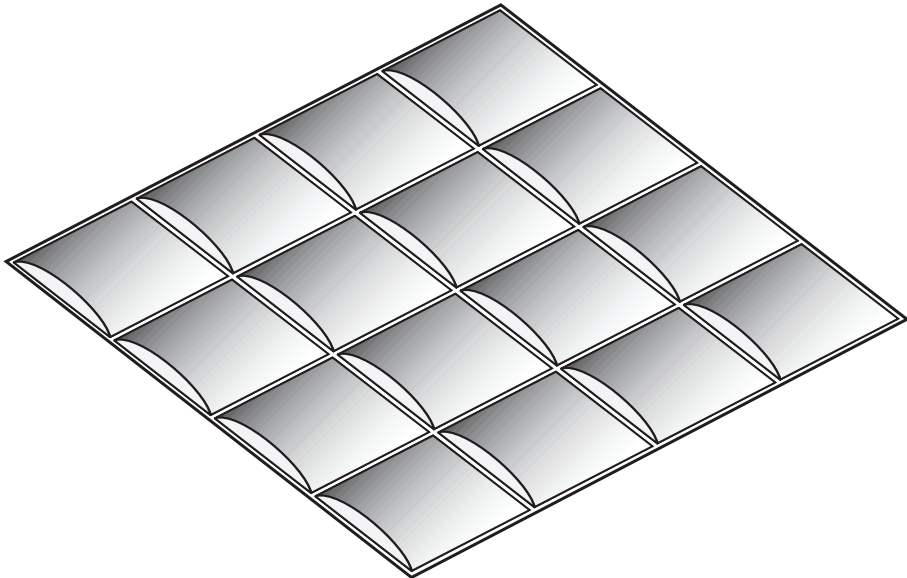


### Ceiling Plan

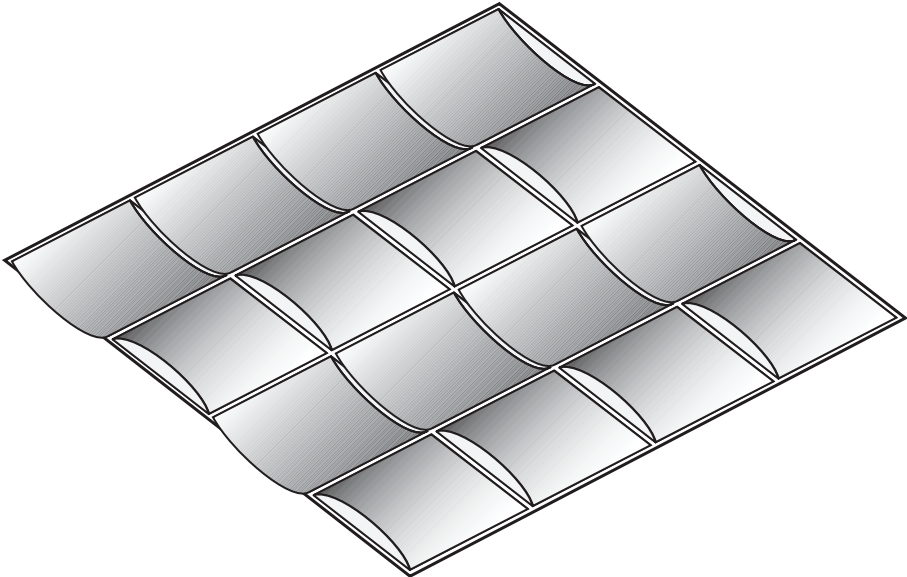


# DESIGN CONCEPTS

PATTERN 2



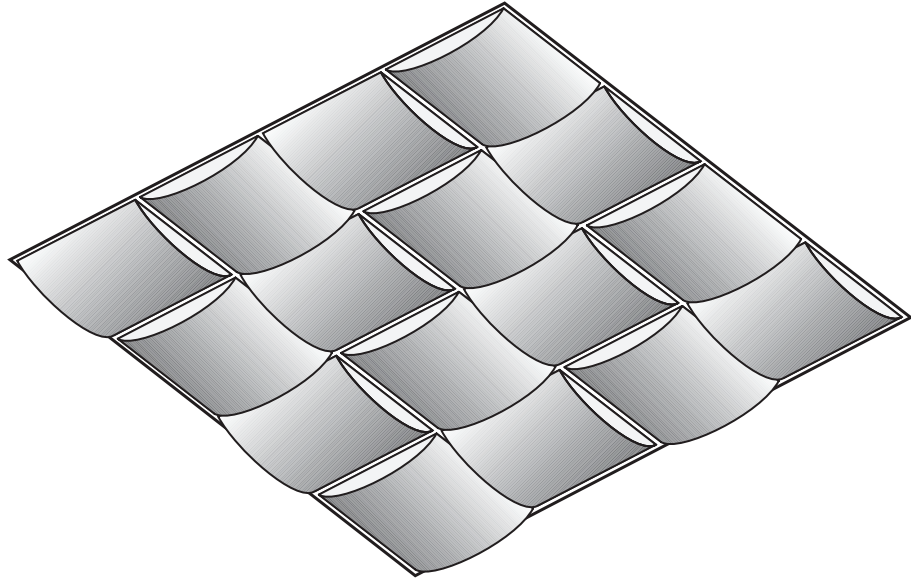
PATTERN 3



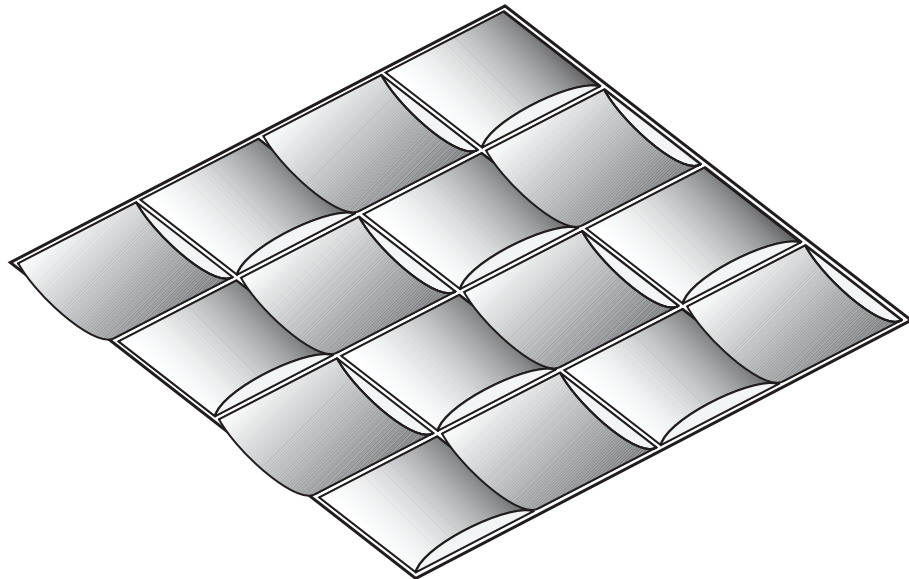
# DESIGN CONCEPTS

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PATTERN 4



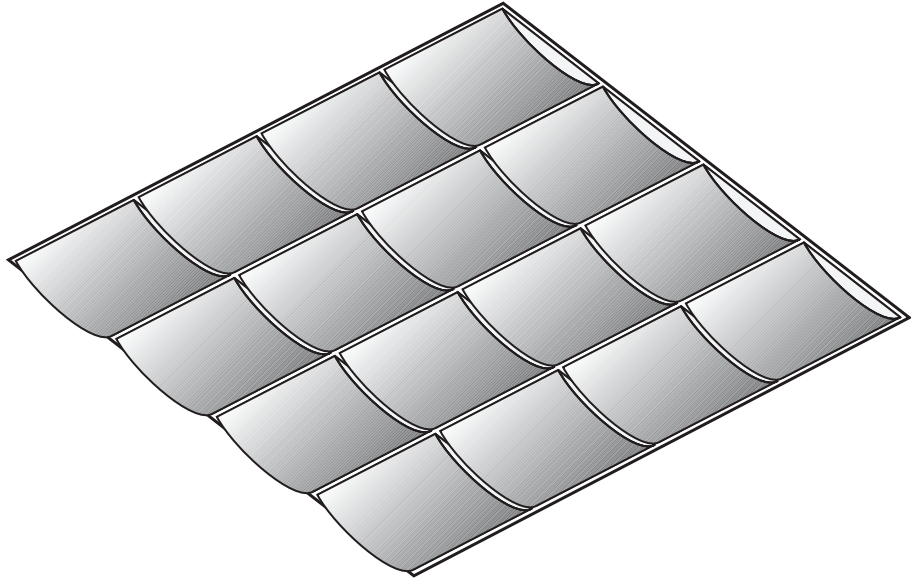
PATTERN 5



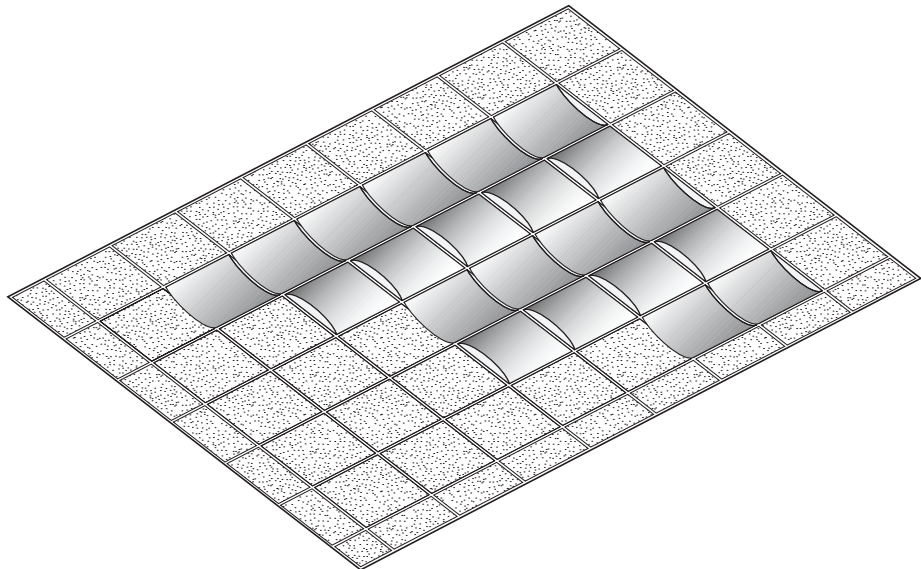
# DESIGN CONCEPTS

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PATTERN 6



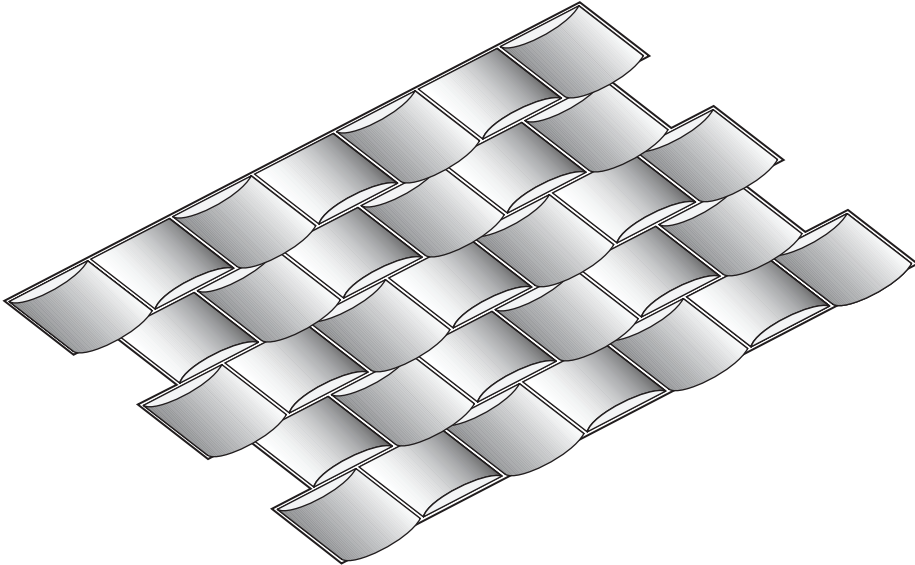
PATTERN 7



# DESIGN CONCEPTS

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PATTERN 8



# GUIDE SPECIFICATIONS

**PART 1:  
GENERAL**

<b>1.01 Related Work</b>	<p>A. Related work specified elsewhere:</p> <ol style="list-style-type: none"> <li>1. Air Handling: Section _____</li> <li>2. Lighting: Section _____</li> </ol> <p>B. Work installed but furnished under other sections:</p>
<b>1.02 System Description</b>	<p>A. Organic, 3-dimensional panels punctuate flat ceiling planes with rhythm, depth and sparkle to create eye-catching focal points. 2' x 2' pre-formed panels create many patterns with one simple panel shape. Panels install into narrow line suspension systems:</p>
<b>1.03 Quality Assurance</b>	<p>A. Subcontractor qualification: Installer shall have successful experience installing suspension and finish systems</p> <p>B. Requirements of regulatory agencies: Codes and regulations of authorities having jurisdiction.</p> <p>C. Source quality control: Manufacturer will provide test certification for suspension systems as required to meet performance standards specified by various agencies.</p>
<b>1.04 References</b>	<p>A. ASTM C635, Standard Specifications for Metal Suspension Systems</p> <p>B. ASTM C636, Recommended Practice for Installation of Metal Suspension Systems.</p> <p>C. CISCA Ceiling Systems Installation Handbook</p> <p>D. ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials</p> <p>E. ASTM E1264, Standard Classification for Acoustical Ceiling Products</p>
<b>1.05 Submittals</b>	<p>A. Samples: Submit actual samples and technical data for suspension system main tees and cross tees for review. Submit manufacturers standard literature for preformed ceiling panels</p> <p>B. Shop Drawings:</p> <ol style="list-style-type: none"> <li>1. Reflected ceiling plans: Submit ceiling suspension system layout indicating dimensions, lighting fixture locations, and related mechanical components.</li> <li>2. Assembly drawings: Indicate installation details, accessory attachments and installation of related lighting fixtures and related mechanical system components.</li> </ol> <p>C. Manufacturer's Data:</p> <ol style="list-style-type: none"> <li>1. System Details: Submit manufacturer's catalogue cuts or standard drawing showing details of system with project conditions clearly identified and manufacturer's recommended installation instructions.</li> </ol>
<b>1.06 Delivery, Storage and Handling</b>	<p>A. Delivery of Materials: Deliver materials in original, unopened packages clearly labeled with manufacturer's name, item description, part number, type and class as applicable.</p> <p>B. Inspection: Promptly inspect delivered materials, file freight claims for damage during shipment, and order replacement materials as required. Any damaged materials shall be promptly removed from the job site.</p> <p>C. Storage: Store in a manner that will prevent warpage, water damage, or damage of any kind. Prevent interference to/by other trades and any other adverse job conditions due to storage locations or methods.</p> <p>D. Handling: Handle in such a manner to insure against racking, distortion or physical damage of any kind.</p>
<b>1.07 Environmental Requirements</b>	<p>A. Building conditions: Building shall be enclosed with all windows and exterior doors in place and glazed, and the roof watertight before installation of suspension system.</p> <p>B. Interior temperature/humidity in building: Climatic conditions in areas to receive ceiling suspension systems shall range from 60° F (16° C) to 85° F (29° C) and relative humidity of not more than 80% shall be maintained before installation of components.</p>
<b>1.08 Coordination With Other Work</b>	<p>A. General: Coordinate with other work including mechanical and electrical work and partition systems. Installation of conduit and ductwork above suspension system shall be complete before installation of suspension system</p> <p>B. Protection: Follow good safety and industrial hygiene practices during handling and installing of all products and systems, with personnel to take necessary precautions and wear appropriate personal protective equipment as needed. Read Material Safety Data Sheets and related literature for important information on products before installation. Contractor to be solely responsible for all personal safety issues during and subsequent to installation; architect, specifier, owner and manufacturer will rely on contractor's performance in such regard</p>



# GUIDE SPECIFICATIONS

## PART 2: PRODUCTS

### 2.01

#### Manufacturer

- A. Donn® Brand suspension systems
- B. USG Brand Preformed Polycarbonate Panels

Manufactured or supplied by USG, Chicago, IL, USA, in compliance with applicable ASTM Standards.

### 2.02

#### Materials

- A. Donn® Brand Suspension Systems – Commercial quality, cold-rolled steel, hot-dipped galvanized steel body.  
Exposed surfaces color: coordinate with color of selected ceiling panels.  
Edge trim: Optional; COMPASSO™ (select height)
  - 1. Donn® CENTRICITEE DXT Acoustical Suspension System
    - a. Main Tees: Double-web design, Intermediate Duty classification, 1-1/2" high x (10') (12') long ; square bulb; 9/16" exposed double-hemmed bottom flange with roll-formed steel cap; cross tee holes and hanger wire holes at (6') (10') o.c.; integral reversible splices.
    - b. Cross tees: Double web design, 1-1/2" high x 24" and 48" long, rectangular bulb; exposed hemmed bottom flange with roll-formed steel cap; end clenched to web.
    - c. Main and cross tees shall be positively locked, yet removable without need for the use of tools.
    - d. Wall molding: Angle shape; with 15/16" mounting flange by 9/16" face flange; exposed surface prefinished to match suspension system components.
    - e. Hanger wire: galvanized carbon steel; soft temper; prestretched; yield stress load at least three times design load; not less than 12 gauge.
  - 2. Donn® FINELINE DXF Acoustical Suspension System
    - a. Main tees: Double-web design, Intermediate Duty classification; 1-25/32" high x (10') (12') long; rectangular bulb; 5/16" deep x 9/16" wide bottom face with center recessed section 1/4" wide. x Cross tee holes, hanger wire holes and mitered intersections 12' from each end and 24" o.c.; integral reversible splices.
    - b. Cross tees: Double web design, 1-25/32" high, rectangular top bulb; 5/16" deep x 9/16" wide bottom face with center recessed section 1/4" wide 24" and 48" in length.
    - c. Main and cross tees shall be positively locked, yet removable without need for the use of tools
    - d. Wall molding: Angle shape; 15/16" mounting flange x 9/16" face flange; exposed surface prefinished to match suspension system components.
    - e. Hanger wire: galvanized carbon steel; soft temper; prestretched; yield stress load at least three times design load; not less than 12 gauge.
  - 3. Donn® FINELINE 1/8 DXFF Acoustical Suspension System
    - a. Main tees: Double-web design, Intermediate Duty classification; 1-25/32" high x (10') (12') long; rectangular bulb; 5/16" deep x 9/16" wide bottom face with center recessed section 1/8" wide. Cross tee holes, hanger wire holes and mitered intersections 12 from each end and 24" o.c.; integral reversible splices.
    - b. Cross tees: Double-web design; 1-25/32" high, rectangular top bulb; 5/16" deep x 9/16" wide bottom face with center recessed section 1/8" wide 24" and 48" in length.
    - c. Main and cross tees shall be positively locked, yet removable without need for the use of tools
    - d. Wall molding: Angle shape; 15/16" mounting flange x 9/16" face flange; exposed surface prefinished to match suspension system components.
    - e. Hanger wire: Galvanized carbon

**Note:** Select 1, 2, or 3 above per design/appearance criteria; delete unused.  
Select coordinating suspension component colors per ceiling panel color.
- B. Ceiling Panels: 2 x 2 preformed Polycarbonate panels; weight 0.25 lbs/s.f.
  - 1. USG "Billo™" panels
    - a. Color: (White Translucent) (White Opaque) (Color Gallery)

# GUIDE SPECIFICATIONS

## PART 3: EXECUTION

- 
- 3.01 Inspection**
- A. Examine areas to receive materials for conditions which will adversely affect installation. Provide written report Execution Inspection of unacceptable surface.
  - B. Do not start work until unsatisfactory conditions are corrected.
  - C. Work to be concealed: Verify work above ceiling suspension system is complete and installed in manner which will not affect layout and installation of suspension system components.
  - D. Beginning of installation shall signify acceptance of conditions in areas to receive ceiling suspension system.
  - E. Field dimensions must be verified prior to installation.
- 

- 3.02 Installation**
- Ceiling Framing:
- A. Standard reference: Install grid members in accordance with ASTM C636, CISCA installation standards, and other applicable references.
  - B. Manufacturer's reference: Install in accordance with manufacturer's current printed recommendations.
- Select A or B above.
- C. Drawing reference: Install in accordance with approved shop drawings and locate ceiling in accordance with main tee dimensions relative to elevations.
  - D. Hanger Wire Installation: Secure hanger wires to upper structural elements and space hangers so that each hanger wire supports a maximum of 16 sq. ft.
  - E. Space main tee members a maximum span of 48" on center. Space cross tees to achieve a 2' x 2' suspension grid.
- Ceiling Panels:
- A. Preparation: (1) Remove dirt and debris from surrounding area; (2) Prior to installation wash Billo™ ceiling panels with mild soap and lukewarm water, rinse with clean water and dry thoroughly. Comply with manufacturer's written instructions.
  - B. Install ceiling panels in accordance with approved shop drawings
- 

- 3.03 Cleaning**
- A. Suspension: Remove infill material and perform any necessary cleaning maintenance with non-solvent based Cleaning commercial cleaner.
  - B. Touchup all minor scratches and spots, as acceptable, or replace damaged sections when touch up is not permitted.
  - C. Painting: Repainting of suspension member shall be with a high-quality solvent base paint and applied as recommended by paint manufacturer.
  - D. Removal of debris: Remove all debris resulting from work of this section.
- 

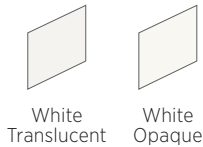
## PART 4: MAINTENANCE

- 4.01 Washing**
- A. During installation, use the USG Anti-Static Cleaning Kit. For ongoing cleaning and maintenance, wash panels with a mild soap or detergent (see Compatible Cleaners below) and lukewarm water, using a clean sponge or soft cloth. Rinse well with clean water. Dry thoroughly with a chamois or moist cellulose sponge to prevent water spots. Do not scrub or use brushes.
  - B. Compatible Cleaners: Do not use harsh solvents which can cause surface degradation and crazing. Use only the following mild cleaning agents: JOY®, PALMOLIVE® Dishwashing Liquid
-

# AVAILABLE COLORS

The color reproductions shown below are representations only. Please request a color sample by emailing our sample literature department at [samplit@usg.com](mailto:samplit@usg.com) or by calling 888 874.2450.

## WHITES



## COLOR GALLERY



**Technical Service**  
800 USG.4YOU

**Website**  
usg.com

**Samples/Literature E-mail**  
samplit@usg.com

**Customer Service**  
800 950.3839

**PRODUCT INFORMATION**

Data Page: IC473  
See usg.com or cgcinc.com for the most up-to-date product information.

**INSTALLATION**

Must be installed in compliance with ASTM C636, ASTM E580, CISCA and standard industry practices, within all applicable code requirements. Alternative assemblies and installation methods may be utilized when approved by the authority having jurisdiction. USG recommends checking with the authority having jurisdiction prior to designing and installing a suspended ceiling system.

**CODE COMPLIANCE**

The information presented is correct to the best of our knowledge at the date of issuance. Because codes continue to evolve, check with a local official prior to designing and installing a ceiling system. Other restrictions and exemptions may apply.

**NOTICE**

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

**COLOR VARIATIONS**

Some commercially acceptable color variation may occur between lots and between different size canopies of the same color.

**SEISMIC APPLICATIONS**

Refer to Seismic Technical Guide, Specialty Decorative Ceilings (SC2494) for more information on architectural components.

**SAFETY FIRST!**

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.

**WARRANTY**

One (1) year limited warranty. See USG Ceilings Commercial Application Warranty (SC2102) for additional details. For Canadian product needs, please contact your local sales representative.

**TRADEMARKS**

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