The intent of this document is to provide clarification and assist architects, designers, specifiers, and interior contractors in understanding the different levels of interior gypsum board finishes prior to final decoration, where these levels of finish should be used, and what their limitations are. The levels of finish can range from gypsum level 0 (no treatment) to board level 5 (multiple coats). Generally the higher the level (number), the better the concealment is. The architect/designer typically specifies the level(s) of finish for the project that may include different levels on the same project.

Additional reference standard for the finishing of gypsum board can be found in the GA-214 [Gypsum Association]. For judging the final decoration of a gypsum board surface, please refer to TSIB Technical Bulletin 30.101.

Because there are a number of primers, sealers, paints, methods of applications, job site conditions, adhesive tapes, etc., it is recommended that a mock-up panel (or room) be constructed, evaluated and accepted by all responsible parties for aesthetic appearance and durability before any production decorating is started (responsibility of the architect & general contractor). The mock-up should remain intact until the project is completed.

**GYPSUM BOARD LEVELS OF FINISH:**

**GYPSUM BOARD LEVEL 0**

**Recommended Locations**
- In temporary construction
- Whenever the final decoration has not been determined
- Where permanent surface structures (cabinets, mirrors, etc.) are specified over the gypsum board
- When permanent wall paneling is specified over the gypsum board

**Requirements**
- No taping, finishing, or accessories applied

**GYPSUM BOARD LEVEL 1**

**Recommended Locations**
- Typically specified for plenum areas above ceilings, attics, and other areas where the assembly would not normally be open to public view.

**Requirements**
- All flat joints and interior angles shall have tape embedded in joint compound. Excess joint compound, tool marks and ridges are acceptable.
- Fastener heads do not need to be covered with joint compound.

**General Information**
- The requirement for the embedment of joint tape for a Gypsum Board Level 1 Finish can be achieved a couple of ways.
  - Set or place joint tape into the joint compound.
  - Joint tape can be forced into the joint compound with the use of a hand, knife or object.
  - Joint tape and joint compound can be applied to the surface with a tool/machine that will apply both materials in a uniform method.
• Joint compound does not have to cover the face of the joint tape and does not need to be smooth for a Gypsum Board Level 1 Finish.

• Accessories are not required for a Gypsum Board Level 1 Finish. If accessories are required, they shall be specified in the project documents.

• A Gypsum Board Level 1 Finish should not be specified to receive a final decoration of paint or wallcovering.

Gypsum Board Level 2

Recommended Locations
Typically specified where gypsum panel products are used as a substrate for tile. Also specified where surface appearance is not a concern (e.g. garages, warehouse, storage or other similar areas).

Requirements
All joints and angles shall have tape embedded in joint compound and wiped smooth leaving a thin coating of joint compound over the joint tape. Fastener heads and accessories shall be covered with one (1) coat of joint compound. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable.

Flat joints ..................................1 coat
Interior angles .......................1 coat
Fastener heads .....................1 coat
Accessories .........................1 coat

General Information
• Smooth wall applications, light textures, non-continuous textures, or lightweight wallcoverings are not recommended over a Gypsum Board Level 2 Finish.

• For most gypsum-based textures, a material (pre-texture material, drywall completion coat, a product or application of joint compound) shall be applied to the surface prior to texture. This material shall be formulated to help provide a consistence in the porosity across the surface.

• The material shall be specified to be applied by the trade responsible for applying the texture.

• There is no mill thickness for this application.

Gypsum Board Level 3

Recommended Locations
Typically specified in areas which are to receive medium to heavy texture finishes (spray or hand applied), or where heavy-duty/commercial grade wallcoverings are to be applied as the final decoration.

Requirements
All joints and angles shall have tape embedded in joint compound and wiped. Two (2) additional coats of joint compound shall be applied over all joints and angles. Fastener heads and accessories shall be covered with two (2) separate coats of joint compound. The surface shall be smooth, while minor tool marks, sand marks and ridges may be visible.

Flat joints ..................................2 coats
Interior angles .......................2 coats
Fastener heads .....................2 coats
Accessories .........................2 coats

General Information
• Smooth wall applications, light textures, non-continuous textures, or lightweight wallcoverings are not recommended over a Gypsum Board Level 3 Finish.

• A Gypsum Board Level 3 Finish should not be specified for a smooth painted surface and the paint gloss and sheen should not be greater than a flat (max 5 units @ 60° and max 10 units @ 85°). When a Gypsum Board Level 3 Finish is followed by heavy texture finish, a flat (max 5 units @ 60° and max 10 units @ 85°), and/or non-flat paint finish may be applied.

Gypsum Board Level 4

Recommended Locations
Typically specified in areas where smooth wall designs are decorated with flat paint(s), light textures, non-continuous textures, or wallcoverings are to be applied as the final decoration.

Requirements
All joints and angles shall have tape embedded in joint compound and wiped. Two (2) additional coats of joint compound shall be applied over all flat joints and one (1) additional coat of joint compound shall be applied over interior angles.
Fastener heads and accessories shall be covered with three (3) separate coats of joint compound. The surface shall be smooth and free of tool marks and ridges.

- Flat joints ......................... 3 coats
- Interior angles .................... 2 coats
- Fastener heads .................... 3 coats
- Accessories ....................... 3 coats

General Information
• A Gypsum Board Level 4 Finish should not be specified for a paint gloss and sheen greater than flat (max 5 units @ 60° and max 10 units @ 85°). When a Gypsum Board Level 4 Finish is followed by heavy or medium texture finish, non-flat paints may be applied.
• Refer to the gypsum board manufacturer for specific finishing recommendations for panels made of non-paper face material.

GYPSUM BOARD LEVEL 5
Recommended Locations
Typically specified in areas where smooth wall designs are decorated with non-flat paints (i.e. gloss and sheen) or other glossy decorative finishes, dark/deep tone paints are applied, or critical lighting conditions occur.

Requirements
All joints and angles shall have tape embedded in joint compound and wiped. Two (2) additional coats of joint compound shall be applied over all flat joints and one (1) additional coat of joint compound shall be applied over interior angles. Fastener heads and accessories shall be covered with three (3) separate coats of joint compound. A skim coat shall be applied to the entire surface. The surface shall be smooth and free of tool marks and ridges.

- Flat joints .......................... 3 coats
- Interior angles ...................... 2 coats
- Fastener heads ..................... 3 coats
- Accessories ........................ 3 coats
- Skim coat ........................... 1 coat

General Information
• A Gypsum Board Level 5 Finish is the most effective method to provide a uniform surface and minimize the possibility of joint photographing and/or fasteners showing through the final decoration.
• The intent of the skim coat is to conceal minor surface differences, minimize fuzzed paper and texture differences while providing a more uniform surface to which the final decoration can be applied.
• Keep in mind, there is no specific mil thickness that constitutes a proper skim coat for a traditional application. A skim coat will not approximate a plastered surface. Once the skim coat dries and has been sanded, the gypsum panel surface may show through and the treated joints, filled voids, and spotted fastener heads will likely be visible and the porosity may still vary.
• Refer to the gypsum manufacturer for specific finishing recommendations for panels made of non-paper face material.

GENERAL NOTES:
1. Accessories: Metal or plastic beads, trim, moldings or control joints used to protect, conceal or allow movement in the gypsum board assembly.
2. Angles: Interior/internal angles (less than 180° from plane of surface) are commonly finished using paper tape. External angles (greater than 180° from plane of surface) are commonly finished with a metal or plastic trim edge.
3. Compound: Setting type joint compounds must “set” before additional coats are applied. Premix compounds must be fully “dried” before additional coats of compound are applied.
4. Critical Lighting: Strong side lighting from windows or surface-mounted light fixtures.
5. Drywall Primer: Drywall primer is typically a paint material that is formulated to be applied directly over newly treated gypsum board and joint compound. It should be understood that the application of any primer or priming material is
not a requirement or an application for Gypsum Board Levels 3, 4 and/or 5 Finishes. The type of drywall primer should be specified in the final decoration specifications (e.g. painting specification). There are different types of drywall primers on the market. The question is what are the expectations of the drywall primer?

If the expectation of the drywall primer is to enhance the following coat of paint and help seal the surface, then a PVA (poly vinyl acetate) type drywall primer is recommended to be specified. This type of drywall primer is designed to be applied as a thin film coating 4.0 mils WFT (no less than 2.0 mils DFT) and it does not help with the texture difference that occurs in Gypsum Board Levels 3 and 4 Finishes.

If the expectation of the drywall primer is to enhance the gypsum board surface, then a priming type of drywall primer (known as a drywall completion coat) is recommended to be specified. This type of drywall primer is designed to be applied from 6.0 to 12.0 mils WFT (4.0 to 9.0 mils DFT, or 2 separate coats at 5 mils WFT). It’s formulated not to seal the surface, but to create a film solid that helps minimize the texture differences that occur in Gypsum Board Levels 3 and 4 Finishes.

Note: Since the architect/designer knows what appearance or performance they are expecting from the final decoration, they shall specify which product is to be used and which workforce shall apply it. The first step is to determine which type of product is going to be used. This helps decide which trade may or can apply this material. Typically if a drywall primer is the material of choice, the painting contractor usually has the responsibility of application. However, if the priming material is a drywall completion coat of choice, the application responsibility can be either the painting contractor’s or the gypsum board contractor’s. The project specifications need to direct which trade will apply, and what product to be used.

Keep in mind, with certain final decoration systems, a drywall primer [sealer type] may need to be applied over a drywall completion coat to help with angular sheen porosity and even skim coats. The formulation of this primer should minimize the porosity difference between gypsum wallboard surface paper and the joint compound. Drywall primers are formulated to achieve different performance levels. The type of drywall primer used shall be determined by the performance level that is desired by the designer/architect and shall be specified in the painter’s scope of work.

6. **Environmental Control:** A minimum temperature of 50° F should be maintained prior, during, and after the application of the joint treatment is completed and the building is occupied (responsibility of the general contractor). Appropriate ventilation and air flow should be provided to allow effective drying of finishing materials. The potential for finishing and decorating problems is decreased when a suitable job site climate is maintained.

7. **Flatness:** Gypsum panels must first be applied over a substrate that is within specified flatness criteria. Because the joints and fasteners need to be concealed with fill and finish coats of joint compound, it is impossible to achieve a finished surface that is a flat plane. Instead, the joints and fasteners are finished with graduated arcs designed to prevent recesses or ridges that result in distinct shadows in critical light. Straight edges, squares and levels shall not be used to determine if a level of finish has been achieved.

8. **Fuzzed Paper:** The area of the gypsum board face paper that has been touched, scuffed, sanded or wiped with sandpaper or a trowel. Care shall always be exercised to ensure that the texture of the gypsum board face paper is not raised during sanding operations.

9. **Important Caveat:** When non-flat sheen paint is applied, satisfactory results cannot be guaranteed when applied over a gypsum board level 4 finish. Through no fault of the gypsum board or paint contractor, joint photographing is possible with non-flat sheens or deep tone colors.

10. **Inspection Criteria:** The normal viewing position shall be at a minimum distance of five feet from the surface and viewed at any angle. Inspection lighting conditions are described as those in place when the project is finished. This includes, but is not limited to; design lighting (e.g. wall washers, spots and floods, etc) and natural lighting. Consideration shall be given to window treatment and/ or any other decorative finishes that could affect lighting and viewing.

11. **Joint Photographing:** The shadowing, banding or “photographing” of the gypsum board joints through the final paint decoration is most readily visible when viewed at an angle under strong side lighting. This joint photographing is primarily caused from either slight texture variations between joint compound and the face paper or a porosity issue.
12. **Set**: The chemical and physical change in a setting type joint compound as it goes from a plastic, workable state to a rigid state.

13. **Skim Coat**: A thin coat of joint compound or a material manufactured especially for this purpose and applied in accordance with manufacturer’s recommendations shall be applied over the entire surface. A skim coat may be translucent, with joints and fastener heads visible. A skim coat will help smooth the texture of the gypsum board face paper and also aid in creating a more uniform surface in texture. There is no specific mil thickness that constitutes a proper skim coat.

14. **Surface**: The transition from compound to gypsum board and/or accessories can achieve a smooth surface by lightly sanding. Smooth surface in this document is describing the transition (feel/ appearance), not a flat or a machine finish/surface. Depending on the application of the material, the surface may have a slight texture finish.

15. **Texture**: A decorative treatment of joint compound or paint applied over a prepared surface.

16. **Texturing**: Regular or irregular patterns typically produced by applying joint compound or a proprietary texture material to a properly prepared surface.