DIVISION ________

Specification Section # ________________

GRIDLOCK™ BIO/ CR-2 WALL SYSTEM

PART 1 GENERAL
Furnish and install the GridLock™ Bio/CR-2 Wall System designed for biocontainment and clean room applications as described in this Section. Drawings and General Provisions of Contract, including General and Supplementary Conditions and Division 1 Specifications apply to work in this section.

1.1 RELATED WORK: (NOTE TO SPECIFIER: Include appropriate detail drawings and information pertinent to the specific project.)

1.2 SUBMITTALS
1.2.1 Submit #________ samples of the materials to be used to show joining details as well as final panel finish.
1.2.2 All parties wishing to have materials considered as equals for this project must submit such materials for evaluation to the design professional at least 10 (ten) days prior to bid date. Bidders not complying with this requirement will be considered non-responsive.

1.3 QUALITY ASSURANCE
1.3.1 Provide Single Source responsibility for the supply of all finish materials used in the installation.
1.3.2 A Contractor approved by Manufacturer must perform installation.

1.4 DELIVERY, HANDLING AND STORAGE
1.4.1 Deliver materials packaged so that materials are clearly marked and identifiable showing the following:
   A) Product Name
   B) Manufacturer’s Name
   C) Component Designation
1.4.2 Handle Materials by methods to prevent damage
1.4.3 Inspect direct job-site deliveries to assure that quantities are correct and that materials comply with specifications and are not damaged.
1.4.4 Replace, at no cost to owners, materials that are found defective either in manufacture, handling or storage.
1.4.5 Store materials on site at the final installation temperature for at least 24 hours prior to, during, and after installation.

1.5 WARRANTY
1.5.1 Provide a limited 10 year warranty for materials and installation against any defects in manufacturing and workmanship.
1.6 JOB CONDITIONS
1.6.1 A Representative of the Manufacturer shall visit the job-site with the Contractor prior to
installation to insure that field conditions are acceptable for installation.
1.6.2 For 24 hours before, during the installation, and for 72 hours after the installation, maintain
temperature and relative humidity at in-service conditions.

PART 2 PRODUCTS
For the purposes of this specification, GridLock™ Bio/CR-2 Wall System by Life Science Products,
Inc. (800-638-9874) is used as the standard.

2.1 MATERIALS
2.1.1 System Overview: The system as specified shall consist of composite panels manufactured
from materials having physical properties as specified in Section 2.1.3 below. Panels shall
have a consistent smooth high gloss finish.
2.1.2 Panels: The panels used in this system shall be GridLock™ Bio/CR-2 composite panels. The
panels shall be 6 mm thick and shall be of an aggregate of components made of polymer,
metal and polymer saturated fiber that form a durable composite wall panel. The exposed
face is composed of a polymer saturated fiber with a consistent smooth face (no fiberglass
print through). The composite surface finish is semi-gloss and the panel assembly is ASTM E
84 Class A for smoke and flame spread. The panel will be supplied in standard 48” x 8’ or
48” x 10’ sizes. The vertical edge shall be routed to form an edge recess that allows for
direct fastening to the substrate. The final recess shall be filled with a 100% solids LEED
compliant urethane adhesive which shall also provide a gloss finish consistent with the panel
face.

2.1.3 The panels shall have the following properties:

Fire Rating: Entire Assembly - Class 1 ASTM E 84 for flame spread of 25 or less
Light Reflectance @ 85: 94.3
Minimum Weight: 1.7 lbs. per square foot
Finish: Polyester gel coat smooth (no print through)
Panel thickness: 6 mm
Color: White
Finish: Semi-Gloss
Hardness: ASTM D-785 46 Barcol
Flexural Mod ASTM D-790-07: 557,693
Flexural Strength-ASTM D 790-07: 5325 psi
Water Vapor Transmission ASTM E-96: < 0.0001 perms
Air Permeance ASTM E-2178 (L/s/m²): 0.00001 @ 300 pa
Tensile Strength: ASTM D-638: 3272 psi
Tensile Mod ASTM D-638: 511,000
Coefficient of Linear Thermal Expansion CLTE (mm mm C) ASTM
D-696: 4.30 E -05
Compressive Strength ASTM D-695: 5364 psi
Modulus: ASTM D695: 49,873 psi
Chemical Resistance

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Resistance</th>
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<tbody>
<tr>
<td>20% Acetic Acid</td>
<td>Occasional Spill</td>
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<tr>
<td>50% Citric Acid</td>
<td>Good</td>
</tr>
<tr>
<td>20% Nitric Acid</td>
<td>Occasional Spill</td>
</tr>
<tr>
<td>30% Hydrochloric Acid</td>
<td>Occasional Spill</td>
</tr>
<tr>
<td>10% Hydrofluoric Acid</td>
<td>Occasional Spill</td>
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<tr>
<td>Hydrogen Peroxide</td>
<td>Good</td>
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<tr>
<td>40% Potassium Hydroxide</td>
<td>Good</td>
</tr>
<tr>
<td>40% Sodium Hydroxide</td>
<td>Good</td>
</tr>
<tr>
<td>50% Sulfuric Acid</td>
<td>Good</td>
</tr>
<tr>
<td>Urea</td>
<td>Good</td>
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</table>

2.1.4 The joint adhesive/sealant shall have the following properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Standard</th>
<th>Value</th>
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<tbody>
<tr>
<td>Hardness Shore D</td>
<td>ASTM D-1706</td>
<td>70 - 80</td>
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<tr>
<td>Tensile Strength</td>
<td>ASTM D-638</td>
<td>3,000 psi min.</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>ASTM D-790</td>
<td>4,000 psi min.</td>
</tr>
<tr>
<td>Thermal Shock</td>
<td>Mil F-52505</td>
<td>No cracking or loss of adhesion</td>
</tr>
<tr>
<td>Abrasion Resistance (Taber Abrader, CS-17 Wheels, 1000 gm. load, 1000 cycles)</td>
<td>ASTM D-4060</td>
<td>.035 gm loss</td>
</tr>
<tr>
<td>Ultimate Elongation</td>
<td>ASTM D-638</td>
<td>20% min.</td>
</tr>
</tbody>
</table>

PART 3 EXECUTION

3.0.1 Check with the panel manufacturer before installing the metal studs to determine the exact stud spacing. Install metal studs in accordance with local applicable zoning and building codes but also to match the sizing for the panels.

3.0.2 Apply adhesive of type recommended by Manufacturer to the entire back side of the panel, all the way to the edges, prior to applying the panel. Follow Manufacturers recommendations for application and “open times” of the adhesive.

3.0.3 Panels are designed to be mounted directly to a series of acceptable substrates. Put the panels in place against the substrate. Place fastening screws into the substrate at all sides of the panel to secure edges of the panels first. Secondly, attach the panels to the substrate by inserting mounting screws in the joining joint between the panels so as not to assure that the screw head remains below the face of the panel.

3.0.4 Apply pressure to the center of the panel using protective prop poles until adhesive cures.

3.0.5 Mask the panel edges for protection and fill the vertical seams between panels with urethane adhesive recommended by manufacturer. Fill to a plane that will fill the seam flush with the adjacent panel surface. Finish the adhesive/sealant and remove the masking before the adhesive has set.

3.0.6 Inside corners shall be formed of urethane sealant with a ½ inch radius. The outside corners shall be 304 stainless corner guards, #4 brush finish, adhesive mounted.